



REQUEST FOR PROPOSALS (RFP)

for

**Operation and Maintenance of Elevators, Escalators and Provision of
Allied Services in Peshawar BRT System**

Tender No. TPC/Operations/Maintenance-04/2020

Date: 05.09.2020

Operation and Maintenance of Elevators, Escalators and Provision of Allied Services in Peshawar BRT System

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Operation and Maintenance of Elevators, Escalators and Provision of Allied Services in Peshawar BRT System

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SECTION 1 - DEFINITIONS

1.1.1 The following words or terms shall have the following meanings in this Request for Proposals:

Affiliate means a corporation or entity effectively under the Control of, or in Control of, a Service provider or associated with a Service provider under common ownership and Control.

Service provider means a legal entity which includes company, corporation, Consortium, Sole Proprietorship, Firms or joint venture which participates in the Bidding Process.

Bid Bond has the meaning given to it in paragraph 6.5.4.

Bidding Process or **Bidding** means the process beginning from the publication of the Invitation to Bid until the signing of the Service Agreement.

BRT means a flexible, rubber-tired rapid transit mode that combines stations, bus stops, vehicles, services, running ways, and technological elements into an integrated system.

Coercion, Collusion, Corrupt Practices, Fraud, Restrictive Practices and Undesirable Practices have the meanings given to them in paragraph 8.4.2.

Consortium means an unincorporated association of juridical persons bound by contract or law, solidarily undertaking by mutual written agreement a common enterprise which is to participate in the Bidding Process.

Consortium Member means any of the juridical persons comprising a Consortium, each having a definite interest in the common undertaking, solidarily liable in the Bid and whose interest may be converted into an equivalent equity participation in the corporation that will become a service provider if the Consortium is awarded and accepts the obligation to provide the Required Services.

Control means, for purposes of defining an Affiliate, the power to direct or cause the direction of the management policies of a body corporate whether through: (i) ownership of at least fifty per cent (50%) plus one share of the outstanding voting shares or (ii) ownership of at least twenty per cent (20%) of the outstanding voting shares and (a) possession of at least fifty per cent (50%) plus one share of the voting rights through voting trust or other voting agreements entered into at least one year before the Proposal Submission Date or (b) the ability to elect a majority of the members of the Affiliate's board of directors. In determining ownership by a corporation of the shares of another corporation, shares held both directly and indirectly will be counted. If the Service provider or Consortium Member was incorporated only within the last six (6) months, then the requirement herein that the voting trust or other voting agreement should have been entered into at least one (1) year before the Proposal Submission Date, will not be applicable.

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Financial Proposal has the meaning given to it in paragraph 6.4.1.

Winning Service provider means the Lowest Evaluated Service provider as determined by TransPeshawar Company after having declared responsive and qualified technically.

KPPRA means the Khyber Pakhtunkhwa Public Procurement Regulatory Authority.

Net Worth means total assets minus total liabilities.

Procurement Rules means the Khyber Pakhtunkhwa Public Procurement of Goods, Works and Services Rules of 2014.

Proposal means the bid submitted by a Service provider for the provision of the Required Services.

Proposal Submission Date means the date specified as such in paragraph 5.1.1.

Required Services has the meaning given to it in the Service Agreement.

Service Agreement means the service contract to be entered into between TransPeshawar Company and a Winning Service provider.

Technical Proposal has the meaning given to it in paragraph 6.4.1.

Monthly Charges shall mean the amount payable by TPC to the Service Provider for one month of Services.

TransPeshawar (The Urban Mobility Company) or "TransPeshawar Company" or "TPC" means the entity responsible for BRT project design, procurement, implementation and ongoing BRT operations and management of service contracts, a public Company (Section 42 Company) registered on February 09, 2017 with Security Exchange Commission of Pakistan with address: - TransPeshawar (The Urban Mobility Company), KPUMA Building, Chamkani, GT Road, Peshawar, Khyber Pakhtunkhwa, Pakistan.

SECTION 2 – NOTICE

2.1 Introduction

2.1.1 This RFP is provided to the recipient solely for use in preparing and submitting a Proposal in a competitive tender to procure the Required Services.

2.1.2 This RFP is being issued to the Service providers by TransPeshawar Company, a public agency under the Government of Khyber Pakhtunkhwa.

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2.2 Disclaimer

2.2.1 No employees or consultants of TransPeshawar Company:

(a) make any representation (express or implied) or warranties as to the accuracy or completeness of the information contained in this RFP or other document made available to a person in connection with the tender process for the Required Services and shall have no liability for this RFP or for any other written or oral communication transmitted to the recipient in the course of the recipient's evaluation of the service provider for **Operation and Maintenance of Elevators, Escalators and Provision of Allied Services in Peshawar BRT System**; or

(b) will be liable to reimburse or compensate a recipient for any costs or expenses incurred by the recipient in evaluating or acting upon this RFP or otherwise in connection with Peshawar Sustainable BRT Corridor System.

2.2.2 The RFP does not constitute a solicitation to invest or otherwise participate in the assignment.

2.2.3 The Bidding Process is conducted through the procedures specified in this RFP, in line with the principles of the Khyber Pakhtunkhwa Public Procurement Regulatory Authority Act and the Procurement Rules of 2014.

2.2.4 The issuance of this RFP does not imply that TransPeshawar Company is bound to appoint a Winning Service provider or enter into a Service Agreement. TransPeshawar Company reserves the right to reject all or any of the Proposals received or otherwise discontinue the Bidding Process at any time.

SECTION 3 - PESHAWAR SUSTAINABLE BRT CORRIDOR SYSTEM DETAILS

3.1 Background

The Peshawar BRT system is an important part of the public transport system in Peshawar.

3.1.1 The total length of the proposed BRT corridor is approximately 28.0 kilometres, with an at-grade section of approximately 12 kilometres and elevated section of approximately 13 kilometres.

3.1.2 BRT services are following the "Direct-Service" concept. According to this concept, routes will start outside the BRT corridor, join and then pass along the BRT corridor and leave the corridor at different stations according to their existing route. When running on the corridor, the BRT vehicles will pick up passengers from BRT stations, and when running outside BRT corridor, passengers will board from curbside BRT vehicle stops.

3.1.3 The system is expected to be an "open" BRT system, meaning that passengers need to validate and pay for their journey using their fare

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medium (e.g. a contactless smart card) via validators at the BRT vehicle doors.

3.1.4 The Peshawar Sustainable BRT Corridor System involves among others the following roles:

- (a) BRT Vehicle Service Providers (VSPs);
- (b) System Control Service Provider (SCSP); and
- (c) Generator Service Provider

3.2 Infrastructure

3.2.1 The approximately 28.0-kilometre-long corridor for the Peshawar BRT planned is expected to consist of:

- (a) BRT infrastructure (stations, dedicated lanes, depot) designed and built following international best practices and quality standards;
- (b) sidewalks, mixed-traffic lanes and non-motorized transport lane along the BRT;
- (c) improvement of access roads and surrounding areas in favour of non-motorized transport and potential feeder services.

3.2.2 Thirty (30) BRT stations constructed, with an average distance of approximately 900 meters between stations.

3.3 Operations

3.3.1 It is intended that the BRT System shall be operated so that:

- (a) BRT vehicles shall provide a combination of stopping and express services on the trunk routes;
- (b) most stations shall have passing lanes in order to allow express BRT vehicles to overtake stopping BRT vehicles;
- (c) passengers shall board onto and alight from BRT vehicles on the right-hand side from stations located in the median of the roadway that is part of the BRT infrastructure, or on the left-hand side from the pavement or comparable when off the BRT infrastructure;

3.3.2 The estimated maximum capacity of the system is approximately twenty thousand (20,000) passengers per direction per hour.

3.3.3 The estimated maximal load during the morning peak hour is approximately five thousand (5,000) passengers per direction per hour.

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SECTION 4 – SERVICE PROVIDER REQUIREMENTS FOR OPERATION AND MAINTENANCE OF ELEVATORS, ESCALATORS AND PROVISION OF ALLIED SERVICES IN PESHAWAR BRT SYSTEM

4.1 Required Services

This RFP specify the operation and maintenance obligations of Equipment in jurisdiction of TransPeshawar / Peshawar BRT which includes 30 number of Bus rapid transit stations, BRT Corridor and KPUMA Building (From outer boundary of depot and railway track). The Service Provider shall be responsible for all costs associated with the services required and for complete assembly. The operation and maintenance of Equipment and allied Services are: -

- a) Elevator includes complete assembly of control units, software's, sensors, doors, internal camera, ropes, cables, supports, pits, protection wall of drainage at grade level, approach to Elevator (two meter around elevator) etc. allied components which are required for its intended use;
- b) Escalators includes complete assembly of control units, software's, sensors, approaches to escalators (two meter from escalator), supports, side railing, pits, signs for escalators, pits, protection wall for drainage, allied components etc. and allied components which are required for its intended use and operation; and

Detailed scope for Escalators, Elevators, and allied services is explained in Operation Specification Schedule.

SECTION 5 - BIDDING PROCESS

5.1 Planning

- 5.1.1 This Request for Proposals introduces the Bidding Process for the procurement of Required Services. The indicative overall planning for the Bidding Process is presented below:

Milestone	Party Responsible	Target Date
Issuance of Request for Proposal (RFP)	TransPeshawar Company	05.09.2020
Pre-Bid Meeting	TransPeshawar Company	10.09.2020 02:00 Pm (PST)
Queries by the Bidder	Service providers	10.09.2020

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Milestone	Party Responsible	Target Date
Upload of Pre-Bid Minutes along with clarifications	TransPeshawar Company	11.09.2020
Proposal Submission Date	Service providers	21.09.2020 11:00 AM (PST)
Notification of the Results of the Evaluation and Appointment of Winning Service provider	TransPeshawar Company	Tentatively in September, 2020
Signing Date of Service Agreement and Compliance with other Requirements	Winning Service provider and TransPeshawar Company	Tentatively in October, 2020

5.2 Information Sources

5.2.1 The primary sources of information provided to Service providers in relation to this Request for Proposals are:

- (a) Request for Proposals (the present document);
- (b) Service Agreement including Annexures (attached to the present document).
- (c) Pre-Bid Meeting as organised by TransPeshawar Company (cf. Section 5.3);

5.2.2 Service providers relying on information from other sources or the public domain do so at their own risk.

5.3 Pre-Bid Meeting

5.3.1 A Pre-Bid Meeting shall be organised by TransPeshawar Company to:

- (a) Explain the project, the Bidding Process and the Request for Proposals;
- (b) Receive questions on the Request for Proposals; and

5.3.2 The pre-bid meeting shall be organised at a date specified in Article 5.1.1. Furthermore, those who wants to join the pre-bid conference through video may send such request via email mentioned in Article 5.4.1.

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5.4 Questions and Answers on the Request for Proposals

- 5.4.1 The Service providers shall have the opportunity to ask questions concerning the Request for Proposals by the date specified in Article 5.1.1. Questions can only be addressed by email to the following address:

Attention: Mr. Fayyaz Khan

Chief Executive Officer, TransPeshawar Company.

Email: fayyazak@yahoo.co.uk, khalil.ahmed@transpeshawar.pk, with cc to charbagh@hotmail.com, ashfaq.rauf@gmail.com

- 5.4.2 The Service provider's questions shall be treated anonymously.
- 5.4.3 TransPeshawar Company shall endeavour to respond to all clarification or information requests, however requests received later than date specified in Article 5.1.1 would be left unanswered. Every such clarification delivered to Service providers shall be made in the form of an appendix to the Request for Proposals and shall, upon being issued, be sent in the shortest possible time to all Service providers. All such appendices shall automatically become an integral part of the Request for Proposals.
- 5.4.4 All Service providers shall therefore be provided with the same information simultaneously. TransPeshawar Company does not assume any responsibility for emails not received or delivered late.

5.5 Submission of Comments on the RFP/ Service Agreement

- 5.5.1 The Service providers shall have the opportunity to submit comments concerning the RFP/Service Agreement before the Comment Submission Date specified in paragraph 5.1.1. Comments shall be submitted in conformity with Schedule 9 and shall be sent by email to the address specified in paragraph 5.4.1. The Service providers' comments shall be treated anonymously.
- 5.5.2 TransPeshawar Company shall endeavour to respond to all comments and may decide to issue a revised RFP / Service Agreement taking some or all of the comments into consideration. Every such response and, if applicable, the revised RFP / Service Agreement shall, upon being issued, be sent in the shortest possible time to all Service providers.
- 5.5.3 All Service providers shall therefore be provided with the same information simultaneously. TransPeshawar Company does not assume any responsibility for emails not received or delivered late.

5.6 Formation and Modification in the Composition of a Consortium

- 5.6.1 Service providers can make Joint Venture / Consortium to meet requirements of the Request for Proposal.

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- 5.6.2 TransPeshawar Company will not accept any modification in the composition of a Consortium / JV after Bid Submission. The joint venture shall clearly mention the lead partner.

5.7 Rejection of Proposals

- 5.7.1 TransPeshawar Company has a discretionary right to reject a Proposal. Reasons for rejecting a Proposal include, but are not limited to, the following:

- (a) The Proposal does not contain all elements defined in the instructions;
- (b) The Proposal is not submitted before the Submission Deadline;
- (c) The Service provider or the bank which has issued the Bid Bond are insolvent or in the process of liquidation or bankruptcy;
- (d) The amount, format or issuer of the Bid Bond does not meet the requirements; or
- (e) TransPeshawar Company becomes aware of facts which can influence the free will of contractual parties.

- 5.7.2 The Proposal may also be rejected up until signing of the Service Agreement, in case TransPeshawar Company concludes, in its discretionary right, that one of the following applies:

- (a) The Proposal does not comply with the objectives of the tender or is not in line with the applicable laws (especially in case the Proposal proposed is not acceptable to TransPeshawar Company in terms of conditions offered or their alignment with applicable laws and existing practice in the Islamic Republic of Pakistan;
- (b) There is evidence of collusion/joint agreement between Service providers;
- (c) There is reason to believe that tender rules have been violated (for example, failure to keep confidential information);
- (d) There is evidence that the Service provider is trying to gain advantage over other Service providers in an incorrect manner; or
- (e) The Financial Offer varies significantly from the estimate of TransPeshawar Company.

- 5.7.3 In the event of the rejection of a Proposal, TransPeshawar Company shall inform the relevant Service provider in a written form, in accordance with the applicable laws.

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5.8 Cancellation of the Bidding Process and Proclamation of the Bidding Process as Unsuccessful

- 5.8.1 TransPeshawar Company reserves the right to unilaterally cancel or suspend the Bidding Process at all times. In case of cancellation, TransPeshawar Company will inform the Service providers.
- 5.8.2 The tender may be cancelled at any time prior to the Submission Deadline at no cost to, if TransPeshawar Company determines that this action is in its best interest or that of the Government of Pakistan/Khyber Pakhtunkhwa. Reasons for cancellation include, but are not limited to:
- (a) Changes in the legislative framework in the Islamic Republic of Pakistan, causing the Bidding Process or the Required Services to become impossible, illegal or economically unviable; or
 - (b) Proposed amendments to the instructions or procedure would be of such magnitude and substance that a new Bidding Process would be desirable.
- 5.8.3 The Bidding Process may be proclaimed unsuccessful at any time after the Submission Deadline, at no cost to TransPeshawar Company, if:
- (a) No Proposals have been submitted;
 - (b) The Proposals which have been submitted, in the opinion of TransPeshawar Company, do not meet the criteria, goals and requirements of the Bidding Process; or
 - (c) The Winning Service provider refuses to sign the Service Agreement in the form offered by TransPeshawar Company.
- 5.8.4 In the event of such rejection of a Proposal, or cancellation or proclamation of the Bidding Process as unsuccessful, no Service provider shall be entitled to any claim whatsoever against TransPeshawar Company or the Government of Pakistan/Khyber Pakhtunkhwa for any costs, expenses or damages resulting directly or indirectly from such cancellation of the Bidding Process or rejection of Proposal.

5.9 Opening and Evaluation of Proposals

- 5.9.1 The opening of the Technical Proposals shall occur fifteen minutes after the Proposal Submission Date at the address indicated in paragraph 6.3.1. The Service providers may be represented, by not more than two (2) persons, at the opening of the Technical Proposals. Proposals for which a notice of withdrawal request has been submitted shall not be opened.
- 5.9.2 TransPeshawar Company shall evaluate the Technical Proposals in accordance with the provisions of SECTION 7. TransPeshawar Company shall then inform all Service providers of the results in writing.

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- 5.9.3 The opening of the Financial Proposals shall be during a public session at a time notified later on. The Service providers who have been qualified for the evaluation of their Financial Proposal may be represented, by not more than two (2) persons, at the opening of the Financial Proposals. After the conclusion of the public opening, TransPeshawar Company shall evaluate the Financial Proposals.
- 5.9.4 TransPeshawar Company shall evaluate the Financial Proposals in accordance with the provisions of SECTION 7. TransPeshawar Company shall then inform all Service providers who have been qualified for the evaluation of their Financial Proposal of the results in writing.
- 5.10 **Signing of the Service Agreement**
- 5.10.1 The Winning Service provider shall receive an invitation in form of Letter of Award from TransPeshawar Company with the aim to sign a Service Agreement for Required Services as defined in the Service Agreement. The Winner Service provider shall, within **Fourteen days (14)** days of receipt of Letter of Award, furnish Performance Security in favour of TransPeshawar on prescribed format. The successful service provider shall immediately sign the agreement with TransPeshawar in the form and manner as prescribed in the RFP but not later than seven (07) days after submission of performance security.
- 5.10.2 In the event of a withdrawal by a Winning Service provider, TransPeshawar Company may invite the next Service provider to conclude a Service Agreement for the Required Services.
- 5.10.3 If a Service provider which was invited by TransPeshawar Company to sign a Service Agreement withdraws from the Bidding Process, the Bid Bond of the said Service provider shall be called by TransPeshawar Company.

SECTION 6 – INSTRUCTIONS TO SERVICE PROVIDERS/ BIDDING PROCESS

6.1 General Terms that the Proposal Must Fulfil

- 6.1.1 All elements of the Proposal containing monetary values, whether they apply to business activities in the Islamic Republic of Pakistan or abroad, must be expressed in Pakistani Rupees (PKR).
- 6.1.2 All documents forming part of the Proposal must be written in the English language; copies of legal or similar supporting documents in other languages must be accompanied with a notarised translation.

6.2 Proposal Package

- 6.2.1 The Proposal must be submitted in a master envelope containing two inner envelopes, i.e. the Technical Proposal envelope and the Financial Proposal envelope.

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- 6.2.2 The master envelope must be properly sealed and must be marked with:
- (a) The name and the address of the Service provider;
 - (b) The address of TransPeshawar Company as indicated in paragraph 6.3.1;
 - (c) The warning: "Do not open before *<insert Proposal Submission Deadline>*";
 - (d) The wording: "Master envelope – Proposal for **Operation and Maintenance of Elevators, Escalators and Provision of Allied Services in Peshawar BRT System**".
- 6.2.3 The Technical Proposal envelope must be marked as "Technical Proposal" and must contain:
- (a) One (1) complete original set of the Technical Proposal, clearly marked as "**ORIGINAL**";
 - (b) One (1) certified true copy of the Technical Proposal, clearly marked as "**COPY NO. ____**"; and
 - (c) One (1) readable flash drive containing an electronic copy of Technical Proposal document, in either Microsoft Word (.doc) or Portable Document Format (.pdf) format.
- 6.2.4 The Financial Proposal envelope must be marked as "Financial Proposal" and must contain:
- (a) One (1) complete original set of the Financial Proposal, clearly marked as "**ORIGINAL**"; and
 - (b) One (1) certified true copy of the Financial Proposal, clearly marked as "**COPY NO. ____**".
- 6.2.5 In the event of any discrepancy between an original and the copies, the original shall prevail.

6.3 Submission of Proposal

- 6.3.1 The Proposal must be delivered to TransPeshawar Company on or before the submission Date and time (**Proposal Submission Deadline**) at the following address:

Attention: Mr. Fayyaz Khan

Chief Executive Officer, TransPeshawar Company.

Address: TransPeshawar (The Urban Mobility Company), 1st Floor KPUMA Building, Main BRT Depot, Near Northern By-Pass, Chamkani, Peshawar, KPK, Pakistan.

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- 6.3.2 The Proposal must be submitted in person or via registered post mail or via courier, in closed envelopes. The Proposal shall be considered submitted upon physical receipt by TransPeshawar Company of the master envelope. TransPeshawar Company shall issue a Proposal receipt confirmation, which shall clearly indicate the date and time at which the Proposal was received. Late submission, for whatsoever reason, will not be acceptable.

6.4 Content of Proposal

- 6.4.1 The Proposal shall contain all components listed in the table below. The Proposal shall be considered only on the basis of information provided in accordance with this predefined format.

Item	Schedule
Technical Proposal	
Business Structure	Schedule 1 or Schedule 2
Technical Proposal Submission Letter	Schedule 3
Authority to Bid and Designation of Authorized Representative	Schedule 4 or Schedule 5
Bid Bond	Schedule 6
Affidavit of Integrity Pact	Schedule 8
Financial Offer	Schedule 7

6.5 Technical Proposal

- 6.5.1 The Service provider must submit a **Business Structure** in conformity with Schedule 1 (or, in case the Service provider is a Consortium, Schedule 2).
- (a) The Business Structure must be signed and dated by the Authorised Representative.
 - (b) In the case of a Consortium or JV, each Consortium Member shall appoint one, and only one, of their number to be the lead member (**Lead Member**) who shall be authorised by each Consortium Member to represent and irrevocably bind all members of that Consortium in all matters relating to the procurement process for the provision of the Required Services, including, but not limited to, the submission of the Bid on behalf of the Consortium. All members shall be jointly and severally liable for the execution of the Service Agreement.
- 6.5.2 The Service provider must submit a **Technical Proposal Submission Letter** in conformity with Schedule 3.

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- (a) The Technical Proposal Submission Letter must be signed and dated by the Authorised Representative.
- 6.5.3 The Service provider (or, in case the Service provider is a Consortium, each Consortium Member) must submit an **Authority to Bid and Designation of Authorized Representative** in conformity with Schedule 4 (or, in case the Service provider is a Consortium, Schedule 5).
- (a) The Authority to Bid and Designation of Authorized Representative must be signed and dated by the Corporate Secretary or equivalent officer of the Service provider (or, in case the Service provider is a Consortium, of the Consortium Member).
- 6.5.4 The Service provider must submit a **Bid Bond** of Four Million Pakistani Rupees (PKR 4,000,000) in conformity with Schedule 6 or in Shape of Call Deposit Receipt (CDR) or Demand Draft. Call Deposit Receipt (CDR) or Demand Draft shall be in the name of Chief Executive Officer, TransPeshawar (The Urban Mobility Company).
- (a) The Bid Bond must be provided by the Service provider from Schedule Bank in Pakistan. In case of Joint Venture / Consortium submitting Bid Bond through Bank guarantee, the Bid Bond must be on the name of all members of JV / Consortium. In case of Joint Venture / Consortium submitting Bid Bond in the Shape of Demand Draft or Call Deposit Receipt (CDR), the Bid Bond may be on the name of any one member of JV / Consortium.
 - (b) The Bid Bond can be claimed by TransPeshawar Company in case of:
 - (i) Withdrawal from the Bidding Process during Bid Validity Period;
 - (ii) Failed to submit Performance Security within prescribed time;
 - (iii) Exclusion from the Bidding Process by TransPeshawar Company in case of any wilful misconduct such as Corrupt Practice, Collusion, Coercion, Fraud, Fraudulent Practice, Undesirable Practice or Restrictive Practice.
 - (c) Within seven (7) days after the submission of Performance Security by Winner Service provider, TransPeshawar Company shall release the Bid Bond to all Service providers. The Bid Bond of the Winning Service provider shall be released on the submission of Performance Security.
 - (d) In case of annulment, Bid Bond shall be returned to the bidder.
 - (e) The Bid Bond must be signed and dated by the Corporate Secretary or equivalent officer of the bank providing the Bid Bond.
- 6.5.5 The Service provider must submit a **Technical Proposal** in conformity with paragraph 7.1.1. of the RFP.

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- (a) The Technical Offer must be signed and dated by the Authorised Representative.

6.6 Financial Proposal

6.6.1 The Service provider must submit a **Financial Offer** in conformity with Schedule 7.

- (a) The Financial Offer must be signed and dated by the Authorised Representative.

SECTION 7 - EVALUATION

7.1 Responsiveness Criteria

7.1.1 Prior to evaluation of Proposals, TransPeshawar Company shall determine whether each Proposal is responsive to the requirements of the RFP. A Proposal shall be considered responsive only if:

- (a) the Proposal is received by the Proposal Submission Deadline;
- (b) the Proposal contains all the information (complete in all respects) as requested pursuant to this RFP; and
- (c) the Proposal does not contain any condition or qualification(s).

7.1.2 TransPeshawar Company reserves the right to reject any Proposal which is non-responsive and no request for alteration, modification, substitution or withdrawal shall be entertained by TransPeshawar Company in respect of such Proposal.

7.2 Evaluation Criteria

7.2.1 TransPeshawar Company shall evaluate the Technical Offers in accordance with the following criteria:

Technical Offer	Maximum Points	How each item is scored	Data to be provided by the Service provider
Organisational structure	05	Current Organizational structure if the bidder has a well-defined departmental structure, such as Accounts, operations, HR/Admin, Quality Management etc No Organization Chart/Hierarchy: 0 Organization Chart/Hierarchy: 5	Organization Chart (In case of JV/Consortium, apply to all members)

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Total number of human resource managed by the company	05	Less than 50= 0 Points 50 or more =5 Points	List of Human Resources Employed Stating Designation and Contact numbers (Duly attested). (In case of JV, any one member of the JV/Consortium can fulfil this criteria or both members collectively)
Escalator Experience			
Number of years of experience in operation and maintenance of Escalators.	15	More than 5 years = 15 Points 4.1 to 5 years = 12 Points 3.1 to 4 years = 09 Points 2.1 to 3 years = 05 Points Less than 2 years = 00 Points	Contract document OR Letter of Award OR Any other valid document for evidence (In case of JV/consortium, applies to any one single member with relevant experience or both members collectively)
Total number of escalators operated and maintained by the bidder in various projects so far or installed by bidder	15	More than 30 = 15 Points 21 to 30= 12 Points 11 to 20 = 10 Points 05 to 10 = 05 Points Less than 05 = 00 Points	Contract document OR Letter of Award OR Any other valid document for evidence (In case of JV/consortium, applies to any one single member with relative experience or both members collectively)
Elevator Experience			
Number of years of experience in operation and maintenance of Elevators	15	More than 5 years = 15 Points 4.1 to 5 years = 12 Points 3.1 to 4 years = 09 Points 2.1 to 3 years = 05 Points Less than 2 years = 00 Points	Contract document OR Letter of Award OR Any other valid document for evidence (In case of JV, applies to any one single member with relevant experience or both members collectively)
Total number of Elevators operated and maintained by the bidder in various	15	More than 30 = 15 Points 21 to 30= 12 Points 11 to 20 = 10 Points 05 to 10 = 05 Points	Contract document OR Letter of Award OR Any other valid document for

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projects so far or installed by bidder		Less than 05 = 00 Points	evidence (In case of JV, applies to any one single member with relative experience or both members collectively)
Financial Capability			
Average Annual Turnover in last three years in Millions	15	More than 100 = 15 Points 76 to 100= 10 Points 51 to 75= 5 Points Less than 50 = 0 Points	Financial Statements/audited statements for the last three Fiscal years OR Calendar Years whichever is applicable in the country origin of operations. (In case of JV, any one member of the JV/Consortium can fulfil this criteria or both members collectively)
Net Worth in Last three Year in Millions (Total Assets - Total Liabilities)	15	More than 50 = 15 Points 36 to 50 = 10 Points 26 to 35 = 5 Points Less than 25 = 0 Points	Financial Statements/audited statements for the last three Fiscal years OR Calendar Years whichever is applicable in the country origin of operations. (In case of JV, any one member of the JV/Consortium can fulfil this criteria or both members collectively)
Total Technical Offer Score	100		

7.2.2 All Service providers having submitted:

- (a) a non-responsive Technical Proposal and/or having obtained a total Technical Offer score of less than seventy (70) points shall be disqualified and their Financial Proposals shall be returned unopened; and
- (b) a responsive Technical Proposal and having obtained a total Technical Offer score of seventy (70) points or more shall be qualified for the evaluation of their Financial Proposal.
- (c) Following documents shall be submitted as part of Technical Proposal: -

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- i. Copy of its company registration with the Securities and Exchange Commission of Pakistan **(SECP)**, or Registrar of Firms or Sole Proprietorship (applicable to all members in case of JV)
- ii. Audited Financial Statements of last three years (In case of JV/consortium apply to all) or Financial Statements as applicable in the country origin of operations.
- iii. Valid Registration Certificate for Income Tax from Government of Pakistan (FBR) and Sales Tax from Khyber Pakhtunkhwa Provincial Revenue Authority (KPRA). In case of JV, applicable to all members.
- iv. is on Active Tax Payer list with FBR and KPRA.
- v. MOU or Agreement Deed or JV Agreement, in case of JV;
- vi. Company is not blacklisted (Provide undertaking on Judicial Paper)
- vii. Supporting documents mentioned in Article 7.2.1
- viii. Initials on RFP, Operator agreements and all its attachments as token of acceptance of terms and conditions.

(Notes: All documents must be supported by English translation, if in another language)

- 7.2.3 Among the Service providers having qualified for the evaluation of their Financial Proposal and having submitted a compliant Financial Proposal, the Service provider offering the lowest price shall be appointed as the First Winning Service provider/ best evaluated bid.

7.3 Information

- 7.3.1 Any information contained in the Application shall not in any way be construed as binding on TransPeshawar Company, its agents, successors or assigns, but shall be binding against the Service provider if any contract is subsequently awarded to it under the Bidding Process on the basis of such information.

7.4 Clarification

- 7.4.1 TransPeshawar Company may, at its sole discretion, seek clarifications and ask for supporting documents from any Service provider regarding its Proposal. Such clarification(s) must be provided within the time specified by TransPeshawar Company for this purpose. Any request for clarification(s) and all clarification(s) must be sent by email, at the address specified in paragraph 5.4.1.

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- 7.4.2 If a Service provider does not provide clarifications sought under paragraph 7.4.1. within the prescribed time, its Proposal may be rejected. In case the Proposal is not rejected, TransPeshawar Company may proceed to evaluate the Proposal by construing the particulars requiring clarification to the best of its understanding, and the Service provider shall be barred from subsequently questioning such interpretation of TransPeshawar Company.

SECTION 8 - GENERAL MATTERS

8.1 Responsibility of Service providers

- 8.1.1 Notwithstanding any information given in the RFP and any additional communication from TransPeshawar Company, including supplemental notices and bid bulletins, it is the sole responsibility of any Service provider to:
- (a) be fully acquainted with the laws, requirements, terms, and conditions of the Bidding Process;
 - (b) examine all the bidding documentation, including all instructions, annexes, forms, schedules, terms, specifications, and drawings; and
 - (c) familiarize itself with all existing laws, decrees, acts, rules, and ordinances of Islamic Republic of Pakistan, whether national or local, which may affect the provision of the Required Services.

8.2 Confidentiality

- 8.2.1 Information relating to the examination, clarification, evaluation and recommendation for the Service providers shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional advisor advising TransPeshawar Company in relation to or matters arising out of, or concerning the Bidding Process.
- 8.2.2 TransPeshawar Company shall treat all information submitted as part of the Proposal in confidence and shall require all those who have access to such material to treat the same in confidence.
- 8.2.3 TransPeshawar Company shall not divulge any such information, unless it is directed to do so by any statutory body that has the power under law to require its disclosure or to enforce or assert any right or privilege of the statutory body and/or TransPeshawar Company.

8.3 Proprietary Data

- 8.3.1 All documents and other information supplied by TransPeshawar Company or submitted by a Service provider to TransPeshawar Company shall remain or become the property of TransPeshawar Company.
- 8.3.2 Service providers must treat all information related to the Bidding Process as strictly confidential and must not use it for any purpose other than for preparation and submission of a Proposal.

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- 8.3.3 TransPeshawar Company will not return any Proposal or any information provided along therewith except copy of Proposal and unopened Financial Proposal.

8.4 Fraud and Corruption

- 8.4.1 It is TransPeshawar Company policy to require that procuring entities and employers (including beneficiaries of public funds), as well as Service providers, suppliers and contractors under PPP or Public-funded contract, observe the highest standard of ethics during the procurement and execution of such contracts.

- 8.4.2 In pursuit of this policy, TransPeshawar Company:

- (a) defines, for the purposes of this provision, the terms set forth below as follows:

Coercion means harming or threatening to harm, directly or indirectly, persons, or their property to influence their involvement in the Bidding Process, or affect the execution of the Service Agreement.

Collusion means a scheme or arrangement between two or more Service providers, with or without the knowledge of the government, designed to establish financial offers or prices at artificial, non-competitive levels.

Corrupt Practice means the offering, giving, receiving, or soliciting, of anything of value to influence the action of a public official in the Bidding Process or in contract execution and includes inter alia bribery, extortion or coercion, which involves threats of injury to person, property or reputation.

Fraudulent Practice means a misrepresentation of facts in order to influence the Bidding Process or the execution of a contract to the detriment of the procuring entity, and includes collusive practices among Service providers (prior to or after the submission of Proposals) designed to establish bid prices at artificial, non- competitive levels and to deprive the procuring entity of the benefits of free and open competition.

Restrictive Practice means any act, scheme, plan or agreement such as forming a group, clique, cartel, trust, syndicate, combine, pool and the like or arriving at any understanding or arrangement among Service providers, Consortium Members, Subcontractors, or the Affiliates of any of these entities, with the objective of restricting, subverting or manipulating a full and fair competition in the Bidding Process.

Undesirable Practice means (i) establishing contact with any person connected with or employed or engaged by TransPeshawar Company with the objective of canvassing or lobbying or (ii) in any manner influencing or attempting to influence the Bidding Process.

- (b) will exclude from the Bidding Process any Service provider found to be engaging or having engaged in any Corrupt Practice, Collusion, Coercion, Fraud, Fraudulent Practice, Undesirable Practice or

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Restrictive Practice in competing for the provision of the Required Services; and

- (c) will denounce to relevant authorities any Service provider found to be engaging or having engaged in any Corrupt Practice, Collusion, Coercion, Fraud, Fraudulent Practice, Undesirable Practice or Restrictive Practice in competing for the provision of the Required Service, which may result in the Service Agreement being cancelled and/or such Service provider incurring civil and criminal liability under the applicable laws and regulations and being declared ineligible, for a period of ten (10) years, to be awarded any public-funded contract in the Islamic Republic of Pakistan.

8.5 Governing Law and Rules

- 8.5.1 The provisions of Islamic Republic of Pakistan shall govern all matters relating to this RFP.

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Schedule 1 Business Structure (Firm/ Sole / Company/corporation)

To be submitted by a Service provider which is a partnership or corporation

Name of Service provider:

Contact Information of Service provider:

Address	
Website	
Contact Person	
Telephone	
Fax	
Email	

Entity which fulfils the **Financial Capability** requirement:

Name of Entity	
Relationship to Applicant	
Address	
Website	
Contact Person	
Telephone	
Fax	
E-mail	

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Entity which fulfils the **Required Services Experience** requirement:

Name of Entity	
Relationship to Applicant	
Address	
Website	
Contact Person	
Telephone	
Fax	
E-mail	

For and on behalf of (*name of Service provider*)

(*signature of Authorized Representative*)

(*name, title and date*)

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Schedule 2 Business Structure (consortium)

To be submitted by a Service provider which is a Consortium

Name of Consortium:

Consortium Members

	Member	Other member	Other member
Name			
Percentage Interest in the Consortium			
Type of Legal Entity (corporation/ partnership)			

Notes: 1) *Insert columns as necessary to table above*

2) *Attach supporting attested documents*

Contact Information of Consortium Members

Consortium Member	
Address	
Website	
Contact Person	
Telephone	
Fax	
Email	

Consortium Member	
Address	
Website	
Contact Person	
Telephone	

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Fax	
Email	

Consortium Member	
Address	
Website	
Contact Person	
Telephone	
Fax	
Email	

(Insert tables as necessary)

Entity which fulfils the **Financial Capability** requirement:

Name of Entity	
Relationship to Applicant	
Address	
Website	
Contact Person	
Telephone	
Fax	
E-mail	

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Entity which fulfils the **Required Services Experience** requirement:

Name of Entity	
Relationship to Applicant	
Address	
Website	
Contact Person	
Telephone	
Fax	
E-mail	

For and on behalf of (name of Service provider)

(signature of Authorized Representative)

(name, title and date)

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Schedule 3 Technical Proposal Submission Letter

To be submitted by the Service provider on the letterhead of the firm/company

I, (name), (citizenship), of legal age, with office address at (address), as the Authorized Representative of (name of Service provider), hereby certify for and on behalf of (name of Service provider) that:

1. (name of Service provider) is bidding for the provision of the Required Services for **Operation and Maintenance of Elevators, Escalators and Provision of Allied Services in Peshawar BRT System** and hereby submitting its Proposal, which shall remain valid and binding upon (name of Service provider) for a period of one hundred eighty (180) days from the Proposal Submission Date;
2. (name of Service provider) confirms that all statements made and the information and documents provided in its Proposal, including statements made by all Consortium Members, their Affiliates and proposed Subcontractors, are true and correct, and any misrepresentation or false statement made therein shall be a ground for its disqualification;
3. (name of Service provider) authorizes TransPeshawar Company to conduct any inquiries or investigations to verify the statements, documents, and information submitted in its Proposal, and to seek clarification from its clients and bankers regarding any technical and financial aspects; (name of Service provider) also permits third parties to supply information required to verify statements and information submitted in its Proposal;
4. (name of Service provider) acknowledges the right of TransPeshawar Company to reject its Proposal and to cancel the Bidding Process at any time, without incurring any liability, and accepts all the terms and conditions of the Request for Proposals;
5. (name of Service provider), including all Consortium Members, their Affiliates and proposed Subcontractors, have not at any time during the Bidding Process engaged in any Corrupt, Fraudulent, Coercive, Undesirable, or Restrictive Practices, nor have a Conflict of Interest;
6. (name of Service provider) waives any right to and shall not seek or obtain any restraining order, writ of injunction or prohibition or any other form of coercive judicial, quasi-judicial or administrative writ, process or issuance against TransPeshawar Company inconvenient the Bidding Process; and
7. (name of Service provider) acknowledges that TransPeshawar Company is undertaking this Bidding Process in the performance of its functions to ensure the provision of a critical basic necessity and that, therefore, the provision of the Required Services is of paramount public interest and importance and that TransPeshawar Company will suffer serious and irreparable damage on account of any breach by (name of Service provider) of these undertakings, and agree that the breach of these undertakings shall result in (name of Service provider)'s automatic disqualification from the Bidding Process.

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For and on behalf of (*name of Service provider*)

(*signature of Authorized Representative*)

(*name, title and date*)

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Schedule 4 Authority to Bid and Designation of Authorized Representative (Company/corporation)

To be submitted by a Service provider which is a partnership or corporation

I, (Corporate Secretary or equivalent officer), hereby depose and state that:

I am a citizen of the (Islamic Republic of Pakistan), of legal age and a resident of (Pakistan);

I am the duly elected (Corporate Secretary or equivalent officer) of (name of Service provider), a (corporation/partnership) organized and existing under and by virtue of the laws of (Pakistan);

At a regular/special meeting of the Board of Directors/Partners of the Firm, held on (date) at (place), in which meeting a quorum was present and acting throughout, the following resolutions were unanimously passed and approved:

1. That (name of Service provider) be, and is, authorized to participate in the Bidding Process and to bid for the provision of the Required Services for TransPeshawar Company;
2. That (name of Representative) be and is hereby appointed as the authorized representative of the Service provider during the Bidding Process, authorized to execute, sign, and receive documents for, and otherwise act in the name of, the Service provider; and
3. That any and all acts done and/or performed by (name of Representative) under and by virtue of this resolution be, as they are hereby, confirmed and ratified.

These resolutions have not been revoked, amended or modified and remain valid and binding on the Service provider;

That the above resolutions are in accordance with the records of the Service provider.

For and on behalf of (name of Service provider)

(signature of Corporate Secretary or equivalent officer)

(name, title and date)

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Schedule 5 Authority to Bid and Designation of Authorized Representative (Consortium)

For a Service provider which is a Consortium, to be submitted by each Consortium Member

I, (Corporate Secretary or equivalent officer), hereby depose and state that:

I am a citizen of the (Islamic Republic of Pakistan), of legal age and a resident of (Pakistan);

I am the duly elected (Corporate Secretary or equivalent officer) of (name of Consortium Member), a (corporation/partnership) organized and existing under and by virtue of the laws of (Pakistan);

At a regular/special meeting of the Board of Directors/Partners of the Firm, held on (date) at (place), in which meeting a quorum was present and acting throughout, the following Resolutions were unanimously passed and approved:

1. That the Firm be, and is, through a Consortium consisting of the following Members and their respective nationalities and percentage interests in the Consortium, authorized to participate in the Bidding Process and bid for the provision of the Required Services for TransPeshawar Company;

Name of Consortium Member	Nationality	% Interest

(Insert rows as necessary)

2. That (name of Authorized Representative) be and is hereby appointed as the authorized representative of the Firm, authorized to execute, sign, and receive documents for, and otherwise act in the name of, the Firm;
3. That the Firm in the exercise of its interest in the Consortium hereby authorizes (name of Authorized Representative) as representative of the Consortium during the Bidding Process for the provision of the Required Services, and for such purpose shall have the authority to execute, sign and receive documents for, and otherwise act in the name of the Consortium; and
4. That any and all acts done and/or performed by (name of Authorized Representative) under and by virtue of this resolution be, as they are hereby, confirmed and ratified.

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These resolutions have not been revoked, amended or modified and remain valid and binding on the Firm;

That the above resolutions are in accordance with the records of the Firm.

For and on behalf of (*name of the Firm*)

(*signature of Corporate Secretary or equivalent officer*)

(*name, date and title*)

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Schedule 6 Bid Bond

To be submitted by the Bank providing the Bid Bond

Whereas (name of Service provider, in case of JV insert all names) has submitted a Proposal for the Tender: **Operation and Maintenance of Elevators, Escalators and Provision of Allied Services in Peshawar BRT System** for TransPeshawar Company.

I, (name), (citizenship), of legal age, with office address at (address), hereby declare for and on behalf of (name of Bank) that (name of Bank) is bound to TransPeshawar Company in the sum of ----- Pakistani Rupees (PKR -----) for payment to TransPeshawar Company.

(name of Bank) undertakes to pay to TransPeshawar Company up to the above amount upon receipt of its first written demand, without TransPeshawar Company having to substantiate its demand, provided that in its demand TransPeshawar Company will note that the amount claimed by it is due because (name of Service provider) has violated one of the conditions stated in the Request for Proposals.

This Bid Bond will expire, (a) if the Service provider is a Winning Service provider, upon signing of Agreement, or (b) if the Service provider is not a Winning Service provider, upon the earlier of (i) seven (7) days after signing of Agreement by successful service providers and (ii) thirty (30) days after the expiry date of the Service provider's Proposal.

Any demand for payment under this guarantee must be received by (name of Bank) on or before the date of expiry of the Bid Bond.

For and on behalf of (name of Bank)

(signature of Corporate Secretary or equivalent officer)

(name, title and date)

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Schedule 7 Financial Offer

To be submitted by the Service provider

I, (name), (citizenship), of legal age, with office address at (address), as the Authorized Representative of (name of Service provider), hereby declare for and on behalf of (name of Service provider) that:

1. (name of Service provider) has examined the information provided in the Request for Proposals (including annexures) and the Service Agreement;
1. (name of Service provider) has examined the specifications of Equipment and made all due diligence in estimation of all operation and maintenance costs of the Equipment and allied services under the Agreement;
2. (name of Service provider) hereby submits its Financial Proposal, which includes cost of all services mentioned in RFP, Service Agreement, Operation Specification Schedule and its attachment (Annexures), which shall remain valid and binding upon (name of Service provider) for a period of one hundred eighty (180) days from the Proposal Submission Date; and
3. The Monthly Service charge offered by (name of Service provider) is of an amount of (integer amount in words) Pakistani Rupees (PKR (integer amount in numbers)).

S. No	Financial Quote	Unit	Quantity (A)	Price/ Unit (PKR) (B)	Total Price = A x B (PKR)
1.	Monthly Service charge offered by the service provider to TransPeshawar including cost of all taxes for provision of all services mentioned in RFP/ Contract including its attachments. (The price shall be quoted exclusive of sales tax on services)	Months	60		
Amount in Pakistani Rupees in words (Amount in integer)					

For and on behalf of (name of Service provider)

(signature of Authorized Representative)

(name, title and date)

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Schedule 8 Affidavit of Integrity Pact

DECLARATION OF FEES, COMMISSIONS AND BROKERAGE ETC. PAYABLE BY THE SUPPLIERS/CONTRACTORS OF GOODS, SERVICES & WORKS

[Name of service provider/operator] hereby declares its intention not to obtain or induce the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of KPK (GoKPK) or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GoKPK) through any corrupt business practice.

Without limiting the generality of the foregoing, [Name of service provider/operator] represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or including the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoKPK, except that which has been expressly declared pursuant hereto.

[Name of service provider/operator] certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoKPK and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

[Name of service provider/operator] accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to GoKPK under any law, contract or other instrument, be voidable at the option of GoKPK.

Notwithstanding any rights and remedies exercised by GoKPK in this regard, [Name of service provider/operator] agrees to indemnify GoKPK for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoKPK in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by [Name of service provider/operator] as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoKPK.

Signature & Stamp

Subscribed and sworn to me this _____ day of _____ 2020

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Schedule 9 Comment Form

Name of Service provider:

Individual Clarification Meeting requested : Yes / No

Comment 1

Subject	
Location in RFP (clause and page number)	
Original wording in RFP	
Comment / motivation for amendment	
Suggested amended wording	

Comment 2

Subject	
Location in RFP (clause and page number)	
Original wording in RFP	
Comment / motivation for amendment	
Suggested amended wording	

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Comment 3

Subject	
Location in Service Agreement (clause and page number)	
Original wording in Service Agreement	
Comment / motivation for amendment	
Suggested amended wording	

Comment 4

Subject	
Location in Service Agreement (clause and page number)	
Original wording in Service Agreement	
Comment / motivation for amendment	
Suggested amended wording	

Comment 5

Subject	
Location in Service Agreement (clause and page number)	
Original wording in Service Agreement	
Comment / motivation for amendment	

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Suggested amended wording	
---------------------------	--

Comment 6

Subject	
Location in Service Agreement (clause and page number)	
Original wording in Service Agreement	
Comment / motivation for amendment	
Suggested amended wording	

Comment 7

Subject	
Location in Service Agreement (clause and page number)	
Original wording in Service Agreement	
Comment / motivation for amendment	
Suggested amended wording	

Comment 8

Subject	
Location in Service Agreement (clause and page number)	

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Original wording in Service Agreement	
Comment / motivation for amendment	
Suggested amended wording	

Comment 9

Subject	
Location in RFP (clause and page number)	
Original wording in Sub-Concession Agreement	
Comment / motivation for amendment	
Suggested amended wording	

Comment 10

Subject	
Location in RFP (clause and page number)	
Original wording in Sub-Concession Agreement	
Comment / motivation for amendment	
Suggested amended wording	

For and on behalf of (*name of Service provider*)

(*signature of Authorized Representative*)

(*name, title and date*)

Agreement for Operation and Maintenance of Elevators, Escalators and Provision of Allied Services in Peshawar BRT System

between

TransPeshawar Company

and

[SERVICE PROVIDER]

Date: XX.XX. 2020

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THIS OPERATION AND MAINTENANCE OF ELEVATORS, ESCALATORS AND PROVISION OF ALLIED SERVICES IN PESHAWAR BRT SYSTEM AGREEMENT (the “**Agreement**”) is made on [.....] 2020

BETWEEN

1. **TRANSPESHAWAR (THE URBAN MOBILITY COMPANY)**, a company incorporated with Security Exchange Commission of Pakistan on February 09, 2017 with company registration no.0105691 and whose registered address is at KPUMA Building, Near Main BRT Depot, Northern Bypass, GT Road, Peshawar, KPK, Pakistan (“**TPC**”); and
2. **<Insert name of the Service Provider>**, a company incorporated in [.....], with company registration no. [.....] and whose registered address is at [.....] (the “**Service Provider**”).

TPC and the Service Provider are individually referred to herein as a “**Party**” and collectively as the “**Parties**”.

WHEREAS:

- A. TPC is a corporate entity established by the Government of Khyber Pakhtunkhwa, Pakistan responsible for design, procurement, implementation and ongoing BRT operations in the Peshawar BRT System.
- B. TPC intends to enter into long-term agreements based on output based or performance based parameter with suitable Service Provider (selected through a competitive bidding process) who will provide operation and maintenance of Elevator, Escalator and Allied Services as part of the Project.
- C. The Service Provider is a company/ Joint Venture entering into and performing this Agreement.
- D. TPC wishes to appoint the Service Provider on a non-exclusive basis to provide the Services and the Service Provider wishes to accept such appointment and carry out the Services, in accordance with the terms and conditions of this Agreement.

NOW THE AGREEMENT PROVIDES:

PART A - GENERAL

1. Preliminary Matters

1.1 Definitions and Interpretation

- 1.1.1 The defined words and expressions set out in Clause 1 of Annex A [*Definitions and Interpretation*] hereof and the provisions relating to the construction and interpretation of the Agreement set out in Clause 2 of Annex A [*Definitions and Interpretation*] hereof shall apply to the Agreement.
- 1.1.2 In the event of any inconsistency between the provisions of the body of this Agreement and the Annexes, or between any of the Annexes, the conflict shall be resolved according to the following descending order of priority:
 - (a) the body of this Agreement, including Annex A;
 - (b) Annex B [Operational Specifications Schedule];
 - (c) Annex C [Payment Calculation Schedule];
 - (d) Annex D [Performance Guarantee],
 - (e) Annex E [Request for Proposal and Proposal of Service Provider]
 - (f) Annex F [EOP List to be provided after signing of the Agreement]
 - (g) Annex G [Integrity Pact]
 - (h) Annex H to M

- 1.2 Effect of this Agreement
 - 1.2.1 The Parties hereby agree that this Agreement shall immediately be binding on them as of the Effective Date.
- 1.3 Conditions Precedent
 - 1.3.1 TPC shall issue a Service Notice to Service Provider indicating the date upon which the Services are to commence subject to conditions precedent are met.
- 2. Appointment of Service Provider**
- 2.1 Appointment
 - 2.1.1 TPC's signing this Agreement shall indicate its appointment of the Service Provider to provide the Services. Such appointment shall only be effective as of the Effective Date.
 - 2.1.2 The Service Provider hereby accepts the appointment by TPC and agrees to provide the Services in accordance with the terms and conditions of this Agreement.
- 2.2 Commencement of the Services and Term
 - 2.2.1 The Service Provider shall provide the Services from the Commencement Date until the Termination Date.
 - 2.2.2 Unless this Agreement is earlier terminated, the Service Provider shall continuously provide the Services contemplated under this Agreement (as may be amended pursuant to its terms) for a term of five (05) years commencing from the Commencement Date. After five years, Agreement may be extended year-on-year basis subject to satisfactory performance and approval of TPC.
- 3. Performance Guarantee**
- 3.1 The Service Provider shall ensure that it maintains with TPC a valid and enforceable Performance Guarantee until the Service Provider has fulfilled all its obligations under the Agreement. The Service Provider shall have delivered to TPC as a Condition Precedent the duly executed Performance Guarantee in the form attached hereto as Annex D and in the amount of PKR 20,000,000 (Twenty Million). The Performance Guarantee shall have a term of one (01) years and shall be renewed or replaced and delivered to TPC no later than thirty (30) days before its expiry. TPC shall return the previously provided Performance Guarantee to the Service Provider within fourteen (14) days of the receipt of the replacement of Performance Guarantee.
- 3.2 Subsequent to the delivery of the initial Performance Guarantee, the Service Provider shall thereafter ensure that the amount of the renewed or replacement Performance Guarantee is of PKR 20,000,000 (Twenty Million).
- 3.3 The Performance Guaranteed shall be issued by the Scheduled Bank of Pakistan having minimum Credit Rating of AA in long run.
- 3.4 If the Service Provider fails to provide TPC with a replacement Performance Guarantee as required under this Agreement, TPC may (without prejudice to its other remedies) immediately liquidate all or part of the Performance Guarantee.
- 3.5 If the Performance Guarantee is partially liquidated, the Service Provider is obliged to replenish the Performance Guarantee in full within seven (7) days of the date of any liquidation thereof. If the Service Provider fails to replenish the Performance Guarantee in accordance with this clause, this shall constitute a material breach of this Agreement and TPC shall be entitled to liquidate the remainder of the Performance Guarantee and terminate this Agreement pursuant to clause 31.1.

- 3.6 Subject to the fulfilment by the Service Provider of all of its obligations under this Agreement, the Performance Guarantee shall be released by TPC within thirty (30) days after expiration of contract.
- 3.7 All fees, taxes and expenses associated with preparing, providing, issuing, extending, replacing, replenishing or stamping (if applicable) of the Performance Guarantee shall be borne by the Service Provider.
- 4. Payment for Services**
- 4.1 Payment to the Service Provider for the provision of the Services shall be made in accordance with the Payment Calculation Schedule and to Lead Partner, in case of JV/consortium or among partner authorized by all members.
- 4.2 TPC shall be entitled to set off against any amounts payable to the Service Provider, any amount which may be due by the Service Provider to TPC.
- 4.3 Any payment to the Service Provider shall not constitute a waiver of any right held by TPC in respect of a breach of this Agreement by the Service Provider.
- 5. Tax**
- 5.1 To the extent that the Services or any additional activities and/or services offered by the Service Provider pursuant to this Agreement are taxable, the Service Provider agrees to bear all Applicable taxes, charges, duties and/or tariffs by itself (Except Sales Tax on Services) and, upon request from TPC, provide proof that such obligations have been satisfied in full. Sales Tax on Services, if any, shall be paid by TPC.
- 5.2 Withholding of all taxes will be made as per applicable law. Services exempt from withholding of taxes, the Service Provider shall at all times be in possession of a valid tax exemption certificate and shall provide the same to TPC along with each invoice / bill for payment. In case the services are exempt from sales tax, the service provider shall furnish a valid reference of exemption from the applicable tax law.
- 5.3 TPC may cease all payments to the Service Provider in respect of any period during which the Service Provider is not in compliance with the provisions of clauses 5.1 and 5.2 above. Upon such compliance by the Service Provider, TPC shall effect payment of all amounts that had been withheld pursuant to this clause.

PART B - THE EQUIPMENTS

6. The Equipment

- 6.1 Elevators and Escalators
- 6.1.1 Peshawar Development Authority (PDA) design, procured and commissioned Elevator and Escalator System for Peshawar BRT System and handed over to TPC for Operation and Maintenance with details given in Operation Specification Schedule. Equipment(s) is defined in Operation Specification Schedule.
- 6.1.2 The Equipment shall be handed over to the Service Provider at BRT Stations, Depot, BRT Corridor, Buildings with details given in Operation Specification Schedule within one (01) week of Commencement.
- 6.1.3 For the duration of this Agreement, unless agreed otherwise in writing by the Parties, the Service Provider shall use the Equipment solely for the provision of the Services in accordance with this Agreement.
- 6.1.4 Legal title to and ownership of the Equipment (including all associated tools and equipment) shall remain with TPC.
- 6.1.5 The Service Provider shall not create or allow the creation of any Encumbrance in any manner of any or all of the Equipment without the prior written consent of TPC.

- 6.1.6 TPC shall not hold Service Provider responsible to provide services outside the capability of the Equipment furnished, installed and commissioned under the PDA Contracts.

7. Delivery, Care and Ownership of the Equipment

- 7.1 TPC shall handover the Equipment allocated to the Service Provider on the relevant Equipment Handover Date(s) (tentatively) and the Service Provider shall be obliged to accept such handover in accordance with this Agreement.
- 7.2 The Equipment shall be properly maintained by the Service Provider in accordance with the manufacturer's standards and/or requirements.
- 7.3 TPC shall be entitled to conduct unscheduled inspections of each Equipment to ensure that it continues to be in compliance with the Operational Specifications Schedule and in satisfactory operational condition (fair wear and tear excluded). If any Equipment is found not to be in compliance with the Operational Specifications Schedule or in unsatisfactory condition, TPC shall immediately inform the Service Provider and the Service Provider shall, within a reasonable time or a time determined by TPC, effect the required repairs/replacement at its own cost.
- 7.4 If an Equipment requires repair/replacement and is not so repaired/replaced by the Service Provider within a reasonable time or the time determined by TPC, TPC shall be entitled to either liquidate a part or all of the Performance Guarantee for purposes of effecting such repairs/replacement and/or access the Reserve Fund for purposes of effecting such repairs/replacement. Any usage of the Reserve Fund by TPC shall obligate the Service Provider to replenish the Reserve Fund to the required and/or agreed levels.

PART C - SERVICE PROVIDER RESPONSIBILITIES

8. General Obligations – Equipment and Operations

- 8.1 The Service Provider shall abide by all the terms, rules and regulations in accordance with this Agreement (including the Operational Specifications Schedule) and the Applicable Law.
- 8.2 The Service Provider shall employ and engage trained and skilled staff (within 07 days of the award of contract) reasonably required to complete the duties of this contract to the satisfaction of TPC.
- 8.3 The Service Provider shall provide the list of Service provider's personnel working on stations/TPC office, along with their basic information, to TPC for security clearance and issuance of permit to the BRT Corridor with sufficient details. The list to be shared on monthly basis or at time when changes occurs. Furthermore, the Service provider shall provide registration details of vehicles, used for delivery and otherwise essential for the execution of services, requiring access to BRT corridor for maintenance of Equipment.
- 8.4 The Service Provider shall provide and cater for any kind of transportation needs for execution of Services. The vehicles entered into the corridor must be in good working condition. The Service provider shall be responsible for the prompt removal of any vehicles broken down inside the BRT corridor.
- 8.5 The Service provider shall maintain vigilant supervision over its staff at all times. Dress code is to be applied with their service I.D for their distinct recognition. Apart from generally applied moral code the personnel of the service provide shall avoid to use any kind of toxic and narcotics, even BRT premises is a smoke free zone.
- 8.6 The Service Provider be responsible, at all times, for the conduct of its personnel and take prompt and strict disciplinary action against any conduct not in compliance with TPC's rules, regulations and instructions issued from time to time.
- 8.7 The Service Provider staff shall communicate with passengers and members of public in a customer friendly, professional and helpful manner.

- 8.8 The Service Provider shall ensure presence of its authorized representative(s) at any BRT site or TPC office at short but reasonable notice when so required by TPC and respond to queries of TPC in a timely manner.
- 8.9 The Service Provider shall be responsible for the medical and accidental insurance of its staff, payment of all dues like Social Security, EOBI. The Service Provider shall not engage staff below minimum wage as notified under Applicable Law. TPC shall not accept any responsibility of the designated personnel in the event of death, injury, disability or illness that may take place while performing/executing services required under the scope of this contract. Any compensation or expenditure towards the treatment of such injury/disability or loss of life shall be the sole responsibility of the Service provider.
- 8.10 The Service Provider shall be responsible that it does not engage or continue to engage any person having a criminal record/ conviction or otherwise undesirable persons.
- 8.11 TPC requires all Employees who are required to fulfil their duties in view of the public to wear uniforms at all relevant times during the rendering of the Services. The Service Provider shall ensure that its Employees are appropriately attired in the prescribed Uniforms duly approved by TPC. The Service Provider shall comply with the specification and/or design approved by TPC from time to time.
- 8.12 The Service Provider shall take prompt and reasonable action for resolution of each complaint and maintain a Log book, containing details regarding Turnaround Time (TAT), parts repaired/replaced, Service person etc., of each complaint received and resolved. TPC may prescribe a format of the Log book or established an electronic system, which shall be mandatory for the Service Provider to adopt. This includes resolution of complaints received from passengers as well as technical nature from TPC.
- 8.13 Agree to remove from the site, whenever required to do so by the TPC, any personnel considered by TPC to be unsatisfactory or undesirable.
- 8.14 Be liable to the penalty and Liquidated Damages for any loss incurred or suffered/any damage caused to movable or immovable property of TPC, on account of delayed, deficient or inadequate Services, or any actions adversely affecting warranty of the Equipment, or supply of substandard lubes, or interruption in the smooth operations of BRT Bus Service for reasons directly and solely attributable to the Service provider.
- 8.15 Report immediately to TPC any kind of material incident (to the extent of scope of Service Provider required as per this Contract) including but not limited to theft, damage to TPC property and provide photographs of the incident.
- 8.16 Ensure their personnel do not enter into the BRT territory without valid entry cards/permit issued by the TPC.
- 8.17 The Service Provider shall ensure that the Equipment at all times are in compliance with the Operational Specifications Schedule, the requirements of any applicable specifications and the Applicable Law.
- 8.18 The Service Provider shall maintain detailed Equipment maintenance and repair records for the duration of this Agreement. TPC shall be entitled to audit such records upon giving the Service Provider no less than twenty-four (24) hours' notice. The Service Provider shall also provide these records (or any portions thereof) as may be reasonably requested by TPC.
- 8.19 Unless expressly specified in this Agreement, the Service Provider shall solely be responsible for all cost and/or expenses associated with the fit-out, furnishing, administration, office space and/or any and all operational costs associated with its operations until the Termination Date.

9. Operations and Maintenance of the Equipment

- 9.1.1 The Service Provider shall provide the Services strictly in accordance with the Operational Specifications Schedule and any further instructions of TPC given pursuant to this Agreement.
 - 9.1.2 The Service Provider shall be obliged to log a report with TPC within fifteen (15) minutes of the occurrence (or as soon as practicable thereafter) of any incident/accident, detailing the nature and location of the incident and where applicable, details of the parties involved. Service Provide shall report any incident to TPC at station or in corridor which are even not related to Service Provider scope of work.
 - 9.1.3 From the Commencement Date and for the duration of the Agreement, the Service Provider shall be entitled to operate the Equipment and provide services in accordance with Operation Specification Schedule.
- 9.2 Temporary interruptions, delays or deviation from Services
- 9.2.1 The cancellation of Services by the Service Provider shall only be permitted if such cancellation is due to:
 - (a) weather conditions (subject to prior agreement with TPC), or any Event of Force Majeure; or
 - (b) immediate danger to life and/or personal injury and/or serious damage to property,in which event, TPC and the Service Provider shall meet in good faith on an urgent basis, to agree upon the deviation from the Services to be allowed and the expected date and/or time of recommencement of the Services, or if the Parties fail to reach agreement within one (1) hour after having met for the first time, TPC's decision shall be final and binding on the Parties.
 - 9.2.2 Where the Service Provider is of the opinion that Services should be cancelled due to boycott action, intimidation, violence, strike action or any threats of the foregoing, either against the Service Provider or generally, the Service Provider shall refer the matter to TPC for its decision, which shall be final and binding and not be subject to the provisions of clause 32. Should TPC decide that such cancellation is justified, no Liquidated Damages shall apply. However, should TPC decide that such cancellation is not justified and the Service Provider nevertheless fails to render the Services for any period of time whilst the action or threats contemplated above continue, the Service Provider shall be penalised in accordance with clause 27 and the Operational Specifications Schedule and no payment shall be made in respect of such cancelled Services.
 - 9.2.3 The Service Provider shall inform TPC immediately of any proposed cancellation of any Services pursuant to clause 9.2.1(a) and/or clause 9.2.1(b) and the Parties shall meet on an urgent basis to agree upon the deviation to be allowed and the recommencement of the Services, or if they fail to reach agreement within a reasonable time as determined by TPC, TPC's decision shall be final and binding on the Parties and clause 32 shall not apply in relation to TPC's decision.
- 9.3 Skill and care in rendering uninterrupted Services
- 9.3.1 The Service Provider shall exercise the highest degree of skill, care and diligence in the provision of the Services to the reasonable satisfaction of TPC.
 - 9.3.2 Without limiting the generality of the foregoing, the Service Provider shall provide the Services at a standard which would reasonably avoid the incurring of Liquidated Damages as contemplated in the Operational Specifications Schedule.

- 9.3.3 The Service Provider acknowledges and accepts that it is imperative for the success of the BRT System that the Services are rendered without interruption or delay and undertakes to do all things reasonably necessary to ensure such uninterrupted, prompt and efficient service.
- 9.4 Compliance with standard operating and control procedures and requirements
- 9.4.1 The Service Provider shall at all times comply with any standard operating and control procedures and requirements for the day to day administration, monitoring, control and performance of this Agreement as may be reasonably determined by TPC from time to time and the specific circumstances under which the BRT System operates from time to time, which shall include the Operational Specifications Schedule.
- 10. Operating Licenses**
- 10.1 The Service Provider shall maintain the validity of all Operating Licences, if required under Applicable Law, for the duration of this Agreement and shall ensure that the terms or conditions of such Operating Licenses are not contravened.
- 11. Technical Staff**
- 11.1 No later than 30 days before the Commencement Date, the Service Provider shall employ one or more Project Manager for coordination with TPC and dealing of day to day matters. They shall be fluent in the language for day to day communications. His name, duty, authority and any changes therein shall be communicated in writing to TPC.
- 11.2 The Service Provider shall hire Technical Staff who are suitably qualified and shall ensure that all Technical Staff for duration of the Services remain suitably qualified, trained and meet the requirements set out in the Operational Specifications Schedule and any Applicable Laws. TPC may implement their attendance system in their biometric system for monitoring.
- 11.3 Notwithstanding any Liquidated Damages that may be applied pursuant to this Agreement, in relation hereto, where a Technical Staff operates an Equipment in contravention of any Applicable Law and/or the requirements of the Operational Specifications Schedule, TPC shall be entitled to demand (and the Service Provider shall be obliged to promptly comply with such demand) that such Technical Staff is immediately removed from the BRT System and replaced with another Technical Staff who is suitably qualified.
- 12. Co-operation with Other Contractors**
- 12.1 Where interaction between the Service Provider and any Other Contractors/Service Providers is required in accordance with this Agreement, in practice or in accordance with a Service Notice or Protocol, for the efficient and effective operation of the BRT system, the Service Provider shall co-operate with Other Contractors/Service Providers and shall take such reasonable steps as may be required to formulate the necessary operating procedures and practices by agreement with Other Contractors, in accordance with the Service Notice or Protocol, as the case may be.
- 12.2 Should the Service Provider and Other Contractors fail to reach an agreement as contemplated in clause 12.1, TPC shall be entitled to issue a Protocol to regulate their interaction or make a final determination in the event of a dispute between them, as the case may be.
- 12.3 In any event, notwithstanding the provisions above, TPC shall at all times be entitled to issue Protocols regulating the interaction between the Service Provider and Other Contractors/Service Providers.
- 12.4 The Service Provider shall be obliged to follow such Protocols, which, in the event of a conflict, shall supersede any agreement between the Service Provider and Other Contractors in accordance with clause 12.1 above.

13. Employment

- 13.1 The Service Provider shall recruit and employ all Employees necessary to provide the Services, including Operators, security, washer/cleaner, inspectors and all other administrative and management staff.
- 13.2 The Service Provider shall, in recruiting staff to comply with its obligations in accordance with this Agreement, and shall where appropriate, provide any training required (including but not limited to operating equipment, janitorial services, customer service, emergency management and services) to render such persons suitable to provide the Services required under this Agreement.
- 13.3 The Service Provider shall, for a period of no less than three (03) years from the Commencement Date, ensure that at least thirty percent (30%) of its Employees shall be employed from the EOP List. The Service Provider shall screen the potential staff on the EOP List and provide any training required in order to achieve and maintain the thirty percent (30%) threshold.
- 13.4 Should the percentage of Employees employed from the EOP List at any time fall below the threshold referred to in clause 13.3, TPC shall be entitled to request that the Service Provider provide TPC with a brief statement setting out:
 - 13.4.1 the reasons for failing to maintain any of these thresholds;
 - 13.4.2 all steps the Service Provider has taken to meet and maintain these thresholds (including providing applicable training to available but unqualified potential staff); and
 - 13.4.3 any other factors which the Service Provider considers relevant in assisting TPC to exercise its discretion under clause 13.5.
- 13.5 After consideration of the Service Provider's statement and such further information as TPC may request, TPC shall be entitled, in its sole discretion, to waive all or part of any applicable Liquidated Damages under the Operational Specifications Schedule.
- 13.6 **Gender Action Plan**
 - 13.6.1 The Service Provider shall ensure that at least twenty percent (20%) of its Employees are female. Service Provider shall also develop internal policies to promote working environment for women, and person with disabilities which should be in line with national regulations.
 - 13.6.2 Offices hired/ used by the Service Provider shall be universally accessible for women, children, and person with disabilities. Service Provider shall provide employment opportunities to person with disabilities in accordance with the relevant laws and provide equal employment opportunities irrespective of Gender preference.
 - 13.6.3 Should the percentage of Employees employed from at any time fall below the threshold referred above, TPC shall be entitled to request that the Service Provider to provide TPC with a brief statement setting out:
 - a) the reasons for failing to maintain any of these thresholds;
 - b) all steps the Service Provider has taken to meet and maintain these thresholds (including providing applicable training to available but unqualified potential staff); and
 - c) any other factors which the Service Provider considers relevant in assisting TPC to exercise its discretion under clause below.

- 13.6.4 After consideration of the Service Provider's statement and such further information as TPC may request, TPC shall be entitled, in its sole discretion, to waive all or part of any applicable Penalty under the Key Performance Indicators/ Operational Specification Schedule.

14. Uniforms

- 14.1 The Service Provider shall ensure that its Employees are appropriately attired in the Uniforms prescribed in the Operational Specifications Schedule or as approved by TPC (as may be amended from time to time).

15. Image and Marketing

- 15.1 The Service Provider shall not use any image, brand name, company name or his parent company name, markings, graphics and/or signage of TPC for any purpose except with the written approval of TPC.
- 15.2 The Service Provider shall comply with instructions from TPC from time to time regarding branding in terms of the use of graphics, brand name, company name, information, signage, information, advertising and Equipment livery and will co-operate with and participate in agreed marketing programmes as directed by TPC.

16. Monitoring of the Services

- 16.1 TPC shall be entitled to require regular written reports by the Service Provider in such reasonable form, detail and frequency as may be determined by TPC or to call meetings with the Authorised Representative of the Service Provider on reasonable notice, for any purposes regarding the performance of the Services and/or the implementation of this Agreement.
- 16.2 An Authorised Representative of TPC shall at all reasonable times be given access to the Equipment, Employees and any place where the Services (or any portion thereof) are being performed to satisfy itself as to the Service Provider's compliance with its obligations under this Agreement and for purposes of assessing the Service Provider's performance against agreed KPIs. TPC shall be entitled to conduct random or schedule inspections of any Equipment, its component or its subsystems.

17. Provision of Financial Information

- 17.1 For the duration of this Agreement, the Service Provider shall deliver to TPC:
- 17.1.1 Audited annual financial statements of the Service Provider within ninety (90) days after each relevant Financial Year-end; and
- 17.1.2 Unaudited management accounts of the Service Provider (comprising a profit and loss account, balance sheet and cash flow statement), copies of which shall be delivered to TPC within thirty (30) days after the end of each Quarter of a Financial Year. Without detracting from TPC's rights under this Agreement, and in order to assist the Service Provider in taking proactive steps to ensure the sustainability of its operations and identify any negative trends which may likely impact the Services, TPC may provide the Service Provider with such feedback as it may consider appropriate from time to time arising from its consideration of the Service Provider's management accounts submitted in accordance with this clause 17.1.2.
- 17.2 The Service Provider shall provide TPC with all information as TPC may be required to provide to any Regulatory Bodies, from time to time.
- 17.3 The Service Provider's financial statements shall be prepared in accordance with IFRS (international financial reporting standards within the meaning of Companies Act 2017 as applicable in Pakistan) and fairly reflect the financial position of the Service Provider as at the date and for the period for which such statements are prepared.

- 17.4 The Service Provider shall furnish to TPC, within three (03) Business Days of receipt by it of written demand from TPC, all such additional information as may be reasonably required by TPC from time to time.
- 17.5 The Service Provider shall notify TPC in writing, immediately (but in all events within seven (7) days) upon the occurrence of any of the following events:
- 17.5.1 if at any time the Service Provider becomes Financially Distressed; or
- 17.5.2 if the Service Provider considers or resolves to seek any insolvency, bankruptcy or similar protection under Applicable Law.
- 17.6 If the Service Provider notifies TPC pursuant to clause 17.5, such notice shall set out the full details of the Financial Distress or the actual or proposed action, and TPC shall be entitled, without derogating from and/or diminishing any rights and/or entitlements it may have under this Agreement, under Applicable Law or otherwise, to do all things it deems necessary in order prevent any potential disruption to the Services.
- 18. Incident Reporting**
- 18.1 Should the Service Provider become aware of events or circumstances which have prevented, are preventing or will prevent the Service Provider from providing the Services, the Service Provider shall immediately after becoming so aware, advise TPC of such events or circumstances and also indicate the manner in which the provision of the Services were, are or are going to be impacted.
- 18.2 In addition to any obligations under Applicable Law, the Service Provider shall immediately after its occurrence notify TPC or its Authorised Representative of any accident relating to the Services (whether or not a Equipment has been involved) in which persons have been injured or killed.
- 18.3 The Service Provider shall be required to report all other incidents as may be further defined by a Protocol, excluding such incidents as described in clause 18.2 above, to TPC in writing within two (2) Business Days of the Service Provider becoming aware or where a prudent Service Provider should have reasonably become aware of the incident.
- 18.4 The Service Provider shall report any acts of vandalism or damage to Equipment to TPC within one (1) days of becoming aware of their occurrence.
- 19. Other responsibilities**
- 19.1 The Service Provider shall be responsible for the safe disposal of waste, oil, lubricant or water containing any variation of such lubricant in accordance with the Applicable Law.
- 19.2 The Service Provider shall at its own cost comply with all labor, employment, occupational health and safety regulations and standards applicable to the Services.
- 19.3 The Service Provider shall depute at least one person in Control Centre during Operation Hours (16 hours) for effective co-ordination with TPC.
- 19.4 The Service Provider shall be liable to compensate, replace, repair (whatever the case may be) as per original specification or as per work order issued by TPC for any damage caused to the property of TPC.
- 19.5 The Service Provider shall do all facilitation of TPC in the awareness of BRT System regarding its use and shall bear the cost of any incident or misuse of BRT Equipment (handed over to Service Provider) by passengers, public or any other third party and must recoup all missing equipment's and do necessary repair, if required. In addition, the Service Provider shall print 10,000 pamphlets of A4 size for as part of awareness campaign of passengers. The contents shall be approved by TPC.

PART D - MAINTENANCE OF EQUIPMENT

20. General Obligations

- 20.1 The Service Provider shall, at all times during the term of this Agreement, ensure that all Equipment utilised in rendering of the Services are kept in a state of good repair and maintained in accordance with the Equipment Supplier requirements and/or recommendations and the provisions of this Agreement. Notwithstanding anything to the contrary contained in this Agreement, the Service Provider shall:
- 20.1.1 be liable for any damage caused to the Equipment in accordance with its obligations under this Agreement; and
- 20.1.2 at all times, unless expressly stated otherwise in this Agreement, be responsible for the service, maintenance and upkeep of the Equipment, including during the Defect Liability Period.

21. Maintenance

- 21.1 The Service Provider shall at all times be required to service, maintain and repair the Equipment at its own cost and in strict accordance with the specifications, requirement and/or recommendations of the Equipment Supplier as notified to the Service Provider from time to time. The Service Provider shall not do anything which has the effect of voiding any warranty provided by an Equipment Supplier in respect of any of the Equipment. The Service Provider shall do all things required to ensure that TPC does not in any way breach its obligations under the Equipment Sale Agreement.
- 21.2 The Service Provider shall, at its own cost, ensure that each Equipment undergoes an Equipment Inspection Test according to Applicable Law and the results and other records relating to such tests shall be maintained and made available to TPC at its request. TPC may, in its discretion, request that the results of each such test be forwarded to TPC within seven (7) days of the completion of each such test.
- 21.3 If at any time Equipment is in need of service, maintenance and/or repair and the Service Provider fails to make such repair within a reasonable time, TPC shall notify the Service Provider of such failure and shall indicate in that notice the type of service, maintenance and/or repair that is required and the period within which such service, maintenance and/or repair must be completed. If such service, maintenance and/or repair is not completed within the time specified in TPC's notice, TPC shall be entitled to effect such service, maintenance and/or repair at the cost and expense of the Service Provider in which case TPC may, in its discretion, liquidate partially or fully the Performance Guarantee or pursue its reimbursement of costs and expenses by accessing the Reserve Fund.
- 21.4 The Service Provider shall maintain a complete and detailed record of all service, maintenance and/or repairs (including the cost of any such service) for each Equipment and shall, upon reasonable notice, make such records available to TPC for audit and/or inspection.

22. Reserve Fund

- 22.1 The Service Provider shall establish the Reserve Fund which shall be maintained by TPC as security against amounts which may become due and payable to TPC during the term of this Agreement.
- 22.2 The Reserve Fund shall be built up from amounts retained by TPC from payments to be made to the Service Provider. TPC shall retain no more than three percent (3%) of each payment due to the Service Provider, up to PKR 10,000,000 (Ten million). The Service Provider shall not withdraw from the account/ Reserve Fund without written permission of TPC.
- 22.3 Subject to clause 22.4, TPC shall be entitled to, in accordance with the express terms of this Agreement, make withdrawals from the Reserve Fund at any time after the Commencement Date.

- 22.4 The Service Provider shall name TPC as a co-beneficiary on the Reserve Fund account and execute all documents and do all things necessary to ensure that the bank or other financial institution with whom the Reserve Fund is established is authorized and empowered to, upon first written demand from TPC, immediately withdraw and/or transfer the demanded amounts to TPC with or without objection from the Service Provider.
- 22.5 Prior to making any withdrawal from the Reserve Fund, TPC shall have notified the Service Provider of the Service Provider's breach of a specific obligation under the Agreement, and shall also provide relevant details in respect of the breach (including the details of the Service Provider's failure to remedy the breach within the time agreed and/or specified by TPC).
- 22.6 TPC shall, prior to making a withdrawal or as soon as practicable following a withdrawal from the Reserve Fund, provide details of the amount to be withdrawn or the amount that has been withdrawn, and purpose of use. Following a withdrawal, the Service Provider shall, within the period specified by TPC or agreed between the Parties, replenish the Reserve Fund in a manner prescribed in clause 22.2. Failure of the Service Provider to replenish the Reserve Fund following a withdrawal pursuant to this clause shall constitute a material breach of this Agreement. TPC has the right to withdraw from Reserve Fund, if the Equipment are not made operational by Service Provider in a time specified by TPC or in case of loss of passenger revenue.
- 22.7 If, upon the expiry of the term of the Agreement or its earlier termination or the termination of the Service Provider's employment under the Agreement, no amounts are due and/or payable to TPC under this Agreement, then the Service Provider shall (within fourteen (14) days of such expiry or termination), be entitled to liquidate the Reserve Fund and retain any and all amounts remaining therein.

23. Spare Parts

- 23.1 The Service Provider is required to stock and secure spare parts store (at his own cost) as well as provide suitably qualified staff members to manage such store in accordance with the Operational Specifications Schedule.
- 23.2 Unless expressly agreed otherwise, the Service Provider shall be responsible for the provision of all spare parts required for the performance of the Services.
- 23.3 To the extent any spare part is required for the performance of the Services, the Service Provider shall be responsible for providing the same at its own cost and expense.

24. Tools and equipment

- 24.1 The Service Provider is required to provide the required tools and equipment to maintain the Equipment and/or otherwise to provide the Services in accordance with the Operational Specifications Schedule.

PART E - AUTHORISED REPRESENTATIVES, PROTOCOLS AND SERVICES NOTICES

25. Authorised Representative

- 25.1 TPC and the Service Provider shall notify each other, by no later than five (5) days after the Effective Date, of the identity and contact details of their Authorised Representatives. Each Party shall be entitled to replace such Authorized Representative by notice to the other Party.
- 25.2 In addition to TPC's Authorized Representative, TPC shall, by written notice to the Service Provider, be entitled to engage a System Controls Service Provider and/or otherwise delegate from time to time certain of its obligations under this Agreement. TPC shall clearly specify the responsibility(ies) and/or authority(ies) of such delegate in the notice to the Service Provider. The Service Provider agrees to cooperate fully with any such delegate as a representative of TPC.
- 25.3 Unless it is stated otherwise in the notice of a Party, a Party's Authorized Representative shall be entitled to bind such Party for any and all purposes connected with this Agreement.

- 25.4 All Service Notices and other notices required under or pursuant to this Agreement, unless expressly stated otherwise in this Agreement (or instructed in writing by the Party to whom notice is to be given) shall be directed to the Authorised Representative of such Party.
- 25.5 Without derogating from the generality of this clause 25, TPC and the Service Provider, as the case may be, shall be entitled to appoint further Authorised Representatives for specific matters as detailed in its notification of such Authorized Representative.

26. Service Notices, Protocols and Amendments

- 26.1 TPC shall be entitled to issue Protocols under this Agreement or for interaction with other Services Provider/Contractors or use of common facilities within BRT system or use of corridor etc.
- 26.2 In the event that TPC wishes to amend the items listed in clause 26.1 above, it shall do so by delivery of a Service Notice to the Service Provider.
- 26.3 Notwithstanding clause 26.2:
- 26.3.1 where amendments due to an emergency are required by TPC in circumstances where the requisite notice periods cannot be adhered to, TPC shall be entitled to issue such instructions as it may deem necessary without complying with the provisions of clause 26.2; or
- 26.3.2 where amendments due to urgent operational requirements are required by TPC, the provisions of clause 26.3.1 shall apply *mutatis mutandis*, save that TPC shall provide at least seven (7) days' notice of such amendment; or
- 26.3.3 in cases where the urgent operational requirements demand less than seven (7) days' notice, TPC shall first consult with the Service Provider, and
- the Service Provider shall be obliged to comply with such notice.
- 26.4 TPC shall be entitled to issue reasonable Protocols or amend previously issued Protocols on twenty-four (24) hours' notice to the Service Provider in the case of urgent matters and on seven (7) days' notice in respect of all other matters.
- 26.5 Should TPC issue a Service Notice or Protocol in accordance with this Agreement and the implementation of such Service Notice or Protocol is likely to result in a material increase or decrease in the Service Provider's costs and/or expenses (which are not already remunerated through the payments made or to be made to the Service Provider):
- 26.5.1 the Service Provider shall be obliged to implement the Service Notice or Protocol, as the case may be, irrespective of the materiality of the expense; and
- 26.5.2 the Parties shall negotiate with each other in good faith in order to agree an acceptable adjustment to the relevant category of payment in respect of the Service Provider's costs and/or expenses,
- provided that, if either Party alleges that the Service Notice or Protocol materially increases or decreases the Service Provider's costs and/or expenses (which are not in Required Services/scope of work and not already remunerated through the payments made or to be made to the Service Provider), such Party shall be obliged to submit to the other, reasonable proof of such material increase or decrease in the Service Provider's expenses, as the case may be and such material increase or decrease shall be dealt with in accordance with the provisions of clauses 26.5.2 and 26.6. Parties are required to indicate such material increase or decrease ahead of execution/implementation.
- 26.6 If the Parties are unable to reach agreement through negotiations contemplated in clause 26.5.2 within seven (7) days of request by either Party to commence such negotiations, the matter shall be referred for dispute resolution in accordance with the provisions in clause 32.

- 26.7 For purposes of clause 26.5 above, a “material” increase or decrease in the Service Provider’s expenses shall mean an aggregate of all increases and decreases per year (calculated from the Commencement Date and for each ensuing year thereafter) exceeding two percent (2%) of the average Monthly payments to the Service Provider. The average Monthly payments to the Service Provider shall be calculated over the preceding twelve (12)-Month period or if within the first twelve (12)-Month period, then the average Monthly payments to the Service Provider shall be calculated based on the number of months from the Commencement Date until the date of calculation.

PART F – LIQUIDATED DAMAGES

27. Liquidated Damages

- 27.1 TPC shall be entitled to impose Liquidated Damages on the Service Provider in accordance with the provisions of this clause 27 and the Operational Specifications Schedule for the Service Provider’s failure to achieve certain KPIs as indicated in the Operational Specifications Schedule.
- 27.2 The Parties agree that the amounts specified in this clause 27.2 and the Operational Specifications Schedule for the Service Provider’s failure to achieve certain KPIs represent the likely loss to TPC as a result of any failure of the Service Provider to meet the KPIs and are reasonable and constitute liquidated damages and not a penalty. The Service Provider further waives, to the extent permitted by Applicable Law, any defence as to the validity and quantum of Liquidated Damages set out in this Agreement on the grounds that such Liquidated Damages are void as penalties or otherwise.
- 27.3 TPC shall be entitled to conduct audits of the Service Provider’s operations at any time without notice in order to ensure the continued compliance with this Agreement and that the Service Provider continues to achieve the various indicated KPIs. Such audits may be conducted in relation to the Equipment, the Services, Service Provider’s staff, Service Provider’s offices (including service and performance records) and any other place where any element of the Service is being performed.
- 27.4 To the extent that TPC discovered an instance of the Service Provider’s failure to achieve a particular KPI, TPC shall notify the Service Provider with details of the particular KPI, the details of the failure and the applicable Liquidated Damages as indicated in the Operational Specification Schedule. TPC may at its discretion specify period and type of certain failure which should be cured/rectified in specific period.
- 27.5 If Liquidated Damages are imposed, then TPC shall be entitled to withhold and/or deduct the imposed amounts from the Service Provider’s next payable invoice, any subsequent invoice or in increments from several subsequent invoices.
- 27.6 The maximum amount of Liquidated Damages that may be imposed on the Service Provider in any given month is as indicated in the Operational Specification Schedule.

PART G – WARRANTIES AND CHANGE IN OWNERSHIP

28. Warranties, Undertakings and Indemnities

28.1 Service Provider Warranties

- 28.1.1 The Service Provider acknowledges that TPC has entered into this Agreement relying on the strength of the warranties given to TPC by the Service Provider and that the warranties are given with the intention of inducing TPC (which has been so induced) to enter into this Agreement on the basis that such warranties are and shall be correct for the duration of this Agreement.
- 28.1.2 Each Service Provider Warranty shall be a separate Warranty and in no way limited or restricted by any reference to, or inference from, the terms of any other Warranty or by any other provision in this Agreement.

28.1.3 The Service Provider accordingly warrants and undertakes that:

- (a) it is properly constituted and incorporated in accordance with the Applicable Law;
- (b) it has thorough knowledge of the Equipment, brand, model, performance and its quality and have did site inspection of all Equipment;
- (c) It has examined the specification of Equipment and made all due diligence in estimation of all operation and maintenance costs of Equipment and services under the Agreement;
- (d) Satisfied himself with all the economic, financial and legal variables including but not limited to foreign exchange rates, inflation rates, minimum wage rates, customs and tax rates (i.e. all taxes exclusive of sales tax on services are to be borne by the Service Provider) and all related labor and legal obligations;
- (e) Satisfied himself of the operation conditions for Escalator and Elevators;
- (f) Satisfied himself of all conditions and circumstances affecting Contract price;
- (g) it has the power, authority and legal capacity to enter into and exercise its rights and perform its obligations under this Agreement;
- (h) it has taken all necessary action to authorise the execution, delivery and performance of this Agreement;
- (i) the obligations expressed to be assumed by the Service Provider under this Agreement are legal, valid, binding and enforceable to the extent permitted by Applicable Law;
- (j) it will on operation date hold, in cash, an amount equivalent to the acquisition cost of all required tools, equipment, furniture and other basic business materials required for the operating of its business, plus the necessary working capital required during the pre-operational and initial operational period;
- (k) it is and will be in compliance with all Applicable Laws;
- (l) the Service Provider and its shareholders, are not subject to any obligation, non-compliance with which is likely to cause a material breach of this Agreement;
- (m) no claim is presently being assessed and no litigation, arbitration or administrative proceedings are presently in progress or, to the best of the knowledge of the Service Provider, pending or threatened against it (including its shareholders) or any of its assets which will or might have a material adverse effect on the ability of the Service Provider to perform its obligations under this Agreement;
- (n) it is not the subject of any other obligation, compliance with which will or is likely to have a material adverse effect on the ability of the Service Provider to perform its obligations under this Agreement;
- (o) no proceedings or other steps have been taken and not discharged (nor threatened) for its winding-up or dissolution or for the appointment of a receiver, administrative receiver, administrator, liquidator, trustee or similar officer in relation to any of its assets or revenues;

- (p) all information disclosed by or on behalf of the Service Provider to TPC is true, complete and accurate in all material respects and the Service Provider is not aware of any material facts or circumstances not disclosed to TPC which would, if disclosed, be likely to have an adverse effect on TPC's decision (acting reasonably) to award this Agreement to the Service Provider;
- (q) it is not in breach of the provisions relating to Restricted Companies as set out in this Agreement; and
- (r) all insurance premiums in respect of insurance obligations placed on the Service Provider in accordance with this Agreement have been timely paid and none are in arrears.

28.2 Service Provider Undertakings

The Service Provider undertakes with TPC that:

- 28.2.1 it will give TPC immediate notice upon becoming aware that any judicial or court proceedings, mediation, litigation, arbitration, administrative or adjudication by or against the Service Provider before any court or Regulatory Authority may be threatened or pending;
- 28.2.2 it will not without the prior written consent of TPC (and whether by a single transaction or by a series of transactions whether related or not) sell, transfer, lend, encumber or otherwise dispose of the whole or any part of its business;
- 28.2.3 it will not cease to be lawfully registered in Islamic Republic of Pakistan or transfer in whole or in part its undertaking, business or trade outside the country;
- 28.2.4 it shall not without the written consent of TPC incorporate any company or purchase or acquire or subscribe for any shares in any company save where such company is involved in the provision of the Services and/or Services;
- 28.2.5 it shall not without the prior written consent of TPC make any loans or grant any credit or give any guarantee or indemnity to or for the benefit of any person or otherwise voluntarily or for consideration assume any liability (whether actual or contingent) in respect of any obligation of any other person except as contemplated by this Agreement;
- 28.2.6 it shall not change or cease its business or start any other business which is materially different from that to be carried on by it under this Agreement;
- 28.2.7 it shall immediately notify TPC of any discussions and/or negotiations that may result in a change in the ownership structure of the Service Provider or its ultimate parent company (if applicable).

28.3 TPC and Service Provider Indemnities

- 28.3.1 The Service Provider shall take steps to ensure the safety of property and all persons while they are being conveyed on the BRT System or while they are in, entering or leaving premises under the control of the Service Provider. In particular, the Service Provider shall be responsible for Passengers whilst they are on an Equipment and for Passengers whilst they are embarking on or disembarking off such Equipment.
- 28.3.2 The Service Provider shall be liable for any loss or damages resulting from damage to property including TPC property, or the death of or injury to any person which is caused directly or indirectly by an intentional or negligent act or omission of the Service Provider, its agents, Employees or sub-contractors.

- 28.3.3 The Service Provider indemnifies and agrees to hold TPC harmless against all claims, demands, suits, proceedings, judgments, damages, loss, costs, charges, fines, penalties, taxes and expenses, of whatsoever nature incurred by either of the Parties, or by any third party, in consequence of a failure by the Service Provider to comply with the terms of this Agreement or any Applicable Law.
- 28.3.4 Nothing contained in this clause 28.3 shall be deemed to render the Service Provider liable for, or require it to indemnify TPC against, any compensation or damages with respect to injuries or damage to persons or property resulting from any negligent act or omission of TPC or its agents or employees in respect of any claims, demands, lawsuits, damages, costs, charges and expenses in respect thereof or pertaining thereto and each Party hereby indemnifies the other against any claims, demands, lawsuits, damages, costs, charges and expenses incurred by such other Party in consequence of the negligent acts or omissions of the other Party's agents or employees.
- 28.4 All warranties, representations, undertakings, indemnities and other obligations made, given or undertaken by the Service Provider in this Agreement are cumulative and none shall be given a limited construction by reference to any other.

PART H - FORCE MAJEURE, NECESSARY ACTION, BREACH, TERMINATION AND DISPUTE RESOLUTION

29. Force Majeure

- 29.1 If either Party is prevented in whole or in part from discharging its obligations pursuant to this Agreement as a result of an Event of Force Majeure, such Party shall, as soon as reasonably practicable, notify the other Party accordingly. The aforementioned notice shall contain the following information:
- 29.1.1 the obligations which are affected and the extent to which the relevant Party cannot perform those obligations;
 - 29.1.2 a detailed description of the Event of Force Majeure;
 - 29.1.3 an estimate of the time period which the Event of Force Majeure is envisaged to continue; and
 - 29.1.4 the measures proposed to be adopted to remedy or minimise the effects of and costs arising from the Event of Force Majeure. If the Service Provider is the Party prevented from discharging its obligations as a result of the Event of Force Majeure and TPC is of the opinion that the measures proposed are not adequate, it shall advise the Service Provider by Service Notice. Such Service Notice may propose alternate or additional measures which in the opinion of TPC may curtail the Event of Force Majeure and/or the costs arising therefrom. Notwithstanding the provisions of this clause 29.1.4, the Service Provider shall be obliged to take all proactive steps as may be reasonably possible in anticipation of Events of Force Majeure so as to enable the Service Provider to mitigate the financial effects thereof, including but not limited to, the entering into of appropriate contractual arrangements with its Employees.
- 29.2 The Party prevented from discharging its obligations pursuant to this Agreement as a result of an Event of Force Majeure shall:
- 29.2.1 use all reasonable endeavours to remedy or minimise the effects of the Event of Force Majeure; and
 - 29.2.2 take all reasonable and necessary steps available to it as contemplated in clause 29.1.4 to mitigate any loss suffered by such Party or the other Party or any passengers as a result of that Party's failure to discharge its obligations pursuant to this Agreement.

- 29.3 In the event that an Event of Force Majeure affects the Service Provider's ability to perform any of its obligations under this Agreement and to the extent that the Services, or any part thereof, are suspended, the Service Provider shall not be entitled to claim payment from TPC for such suspended Services, or any additional costs incurred by the Service Provider as a result of the Event of Force Majeure or in relation to any steps taken by the Service Provider in mitigating the effects of the Event of Force Majeure.
- 29.4 In the event that the Service Provider is the Party affected by an Event of Force Majeure, TPC may, in response to the notice issued by the Service Provider in accordance with clause 29.1, issue a Service Notice to the Service Provider indicating any part of the Services which should nonetheless be performed by the Service Provider for the period during which the Event of Force Majeure subsists. TPC shall in such event make payment to the Service Provider for such Services in accordance with the Payment Calculation Schedule.
- 29.5 If an Event of Force Majeure no longer prevents the Service Provider from performing its obligations under this Agreement, the Service Provider shall be entitled to a reasonable period, taking into account the extent to which it has wound down its operations during the period of Force Majeure, to re-establish the Services in compliance with its obligations under this Agreement.
- 29.6 If an Event of Force Majeure continues uninterrupted for more than one hundred eighty (180) days and continues to prevent a Party from performing all of its obligations under this Agreement, either Party shall be entitled to terminate this Agreement upon fourteen (14) days' notice to the other Party, provided that before doing so the Parties shall first have met to find a mutually satisfactory solution for remedying such Event of Force Majeure and no Party shall terminate this Agreement unless the Parties are unable to agree on a solution.
- 29.7 Neither Party shall have any liability to the other in respect of the termination of this Agreement as a consequence of an Event of Force Majeure or as a result of any failure to carry out any of its obligations hereunder resulting from an Event of Force Majeure.

30. Step-in and Necessary Action

- 30.1 If the Service Provider commits a material breach of this Agreement to such an extent that TPC is compelled to step in in order to ensure that the Services or any part thereof are continued seamlessly or if TPC reasonably believes that the Service Provider is unable to perform the Services or a substantial part thereof in the manner contemplated in this Agreement, TPC shall be entitled to give the Service Provider a notice.
- 30.2 The notice pursuant to clause 30.1 shall set out:
- 30.2.1 details of the material breach or reasons for TPC's belief (and shall refer to previous relevant notifications, if any) that the Service Provider is or will be unable to provide the Services or any part thereof;
 - 30.2.2 the remedial action which the Service Provider should take within the period specified by TPC; and
 - 30.2.3 the date upon which TPC intends to commence the Necessary Action in the event that the Service Provider fails to take remedial action.
- 30.3 In the event that the Service Provider fails to take such remedial action within the period specified in TPC's notice, TPC shall be entitled to proceed to take the Necessary Action at the Service Provider's cost and expense, and may, in its discretion, liquidate partially or fully the Performance Guarantee or pursue its reimbursement of costs and expenses by accessing the Reserve Fund.
- 30.4 The Service Provider hereby agrees that TPC, in taking the Necessary Action, shall be entitled unrestricted access to the Equipment and any other places where the Services (or any part of it) are being performed and the Service Provider undertakes to co-operate and do all such things as may be necessary to provide such access to TPC or any third party appointed by TPC and to ensure the seamless operation of the Services or any part thereof.

- 30.5 If TPC takes the Necessary Action, then without prejudice to any of TPC's remedies under the Agreement or the Applicable Law, for so long as and to the extent that such Necessary Action is taken and prevents the Service Provider from performing any of its obligations under this Agreement:
- 30.5.1 the Service Provider shall be relieved from such obligations for the duration of the period in which TPC is taking the Necessary Action; and
 - 30.5.2 without prejudice to TPC's rights to claim damages, the payments due and payable by TPC to the Service Provider shall equal the amount the Service Provider would have received if it were performing the obligations affected by the Necessary Action in full over such period, less:
 - (a) any outstanding Liquidated Damages imposed, but not yet deducted as calculated in accordance with the provisions of this Agreement; and
 - (b) an amount equal to TPC's unrecovered costs and/or expenses incurred pursuant to taking such Necessary Action.

31. Breach and Termination

- 31.1 If the Service Provider commits a material breach of this Agreement and fails to remedy the breach within ten (10) Business Days after receipt from TPC of a notice calling upon it to do so or such other time as specified by TPC then TPC shall be entitled, in addition to and without prejudice to any other right it may have under Applicable Law or in accordance with this Agreement, to seek specific performance of this Agreement or to terminate this Agreement forthwith on notice to the Service Provider and in either event, to recover such damages as it may have sustained.
- 31.2 For purposes of this Agreement, a material breach shall include but not be limited to the foregoing if the Service Provider:
- 31.2.1 fails to provide or maintain the Performance Guarantee; or
 - 31.2.2 fails to provide or maintain the Reserve Fund; or
 - 31.2.3 at any time, is Financially Distressed; or
 - 31.2.4 in the opinion of TPC, commits a Prohibited Act; or
 - 31.2.5 makes a compromise with its creditors or an assignment in favour of its creditors; or
 - 31.2.6 agrees to carry out this Agreement under the supervision of a committee representing its creditors; or
 - 31.2.7 goes into liquidation, whether provisionally or finally (other than a voluntary liquidation for the purpose of amalgamation or reconstruction to which TPC has given its prior written consent); or
 - 31.2.8 sells, transfers or otherwise disposes of all or a substantial portion of its shares, assets or business, without the prior written consent of TPC; or
 - 31.2.9 has judgment of a material nature taken against it likely to affect the Service Provider's status as a going concern and fails to satisfy or apply to have the same set aside within seven (7) days of becoming aware thereof; or
 - 31.2.10 delegates, cedes or sub-contracts this Agreement or part thereof in contravention of the provisions hereof without having obtained TPC's prior written consent; or
 - 31.2.11 contravenes the provisions of Operational Specifications Schedule; or
 - 31.2.12 fails to obtain or maintain as required any of the necessary Operating Licences/permits to be used in the rendering of the Services or has such necessary Operating Licences withdrawn, cancelled, suspended or revoked; or

- 31.2.13 acts or attempts to act in a fraudulent or otherwise illegal manner in obtaining or executing a contract with any government department, provincial administration, municipality, public body, company or person; or
 - 31.2.14 violates or attempts to violate any Applicable Law or otherwise commits any criminal act; or
 - 31.2.15 enters into any agreement or arrangement, whether legally binding or not, with any other person, firm or company to refrain from formally responding to TPC's calls for proposals or the entering into of any negotiations with TPC in relation to this Agreement; or
 - 31.2.16 Abandons, suspend services or otherwise repudiates the Services or any of its obligations under this Agreement; or
 - 31.2.17 consistently fails to observe any provision of this Agreement or the Operational Specifications Schedule (despite being given notice in relation thereto), whether or not Liquidated Damages have been imposed, with the result that the Services may be regarded by TPC as being materially defective; or
 - 31.2.18 incurs Liquidated Damages equal to or exceeding the maximum amount of Liquidated Damages as indicated in the Operational Specifications Schedule consecutively for few months.
- 31.3 If TPC:
- 31.3.1 commits a material breach of this Agreement (other than a breach of payment obligations) and fails to remedy the breach within ten (10) Business Days after receipt from the Service Provider calling upon it to do so; or
 - 31.3.2 commits a breach of any payment obligation in accordance with this Agreement and fails without justification to make payment within thirty (30) Business Days after receipt from the Service Provider of a notice calling upon it to do so,
- then the Service Provider shall be entitled, in addition to and without prejudice to any other right it may have under Applicable Law or under the terms of this Agreement, to seek specific performance of the terms of this Agreement or to terminate this Agreement upon sixty (60) days' notice to TPC and in either event, to recover such costs, losses and damages as it may have sustained.
- 31.4 In the event of termination of this Agreement:
- 31.4.1 TPC shall be entitled to immediately take possession of all Equipment and Service Provider shall transfer other assets required for the performance of the Services to TPC; and
 - 31.4.2 TPC may immediately appoint auditors to check and verify all relevant books, records and other data of the Service Provider and the Service Provider shall give full cooperation in that regard and make all such information available to TPC on request.

32. Dispute resolution

32.1 Disputes

- 32.1.1 For the purposes of this clause 32, the term "dispute" shall be interpreted in its widest sense and shall include any dispute or difference in connection with or in respect of the conclusion or existence of this Agreement, the carrying into effect of this Agreement, the interpretation or application of the provisions of this Agreement, the Parties' respective rights and obligations in accordance with and arising out of this Agreement or the validity, enforceability, rectification, termination or cancellation, whether in whole or in part, of this Agreement.

- 32.1.2 Save as otherwise provided for in this Agreement, any dispute between the Parties arising in connection with this Agreement shall be resolved in accordance with the provisions of this clause 32.
- 32.2 Resolution by Chief Executives
- 32.2.1 Any dispute arising in connection with this Agreement may be referred by either Party to the Chief Executive of the Service Provider and the Chief Executive of TPC (or such other senior executives as the relevant Parties may determine) who shall attempt to resolve the matter within ten (10) Business Days of the dispute being so referred to them or within such other time as may be agreed between the Parties.
- 32.3 Arbitration
- 32.3.1 If the Parties are unable to resolve the dispute pursuant to clause 32.2, either Party shall be entitled to refer a dispute to arbitration in accordance with this clause 32 by notifying the other Party in writing of its intention to do so.
- 32.3.2 The arbitration proceedings shall be carried out under the procedures, rules and regulations of Arbitration Act, 1940 and its successors, and such procedures, rules and regulations shall be deemed to be incorporated into this clause 32.3 by reference. Any such arbitration shall be subject to the Applicable Law.
- 32.3.3 The seat of the arbitration shall be Pakistan and all arbitration hearings shall be held in Peshawar unless otherwise agreed in writing by the Parties.
- 32.3.4 Unless otherwise required by TPC, such arbitration shall be conducted in the English language and the award of any arbitrator or arbitral panel, together with the reasons for the determination, shall be written in the English language.
- 32.3.5 Unless otherwise required by TPC, all evidence, submissions or documents presented at the arbitration in a language other than in the English language shall be accompanied by a simultaneous English language translation thereof, if oral, or if written, a certified English language translation.
- 32.3.6 The arbitrator or arbitral panel shall have full power to open up, review and revise any determinations, decisions or findings in relation to the dispute.
- 32.3.7 The obligations of the Parties shall not be altered by reason of the arbitration being conducted during the term of the Agreement.
- 32.3.8 Any monetary award in any arbitration shall be denominated and payable in PKR.
- 32.3.9 The Parties agree that all interim or final decisions and/or awards of the arbitrator or arbitral panel shall:
- (a) be binding on the Parties and shall be given effect and implemented forthwith by them; and
 - (b) be subject to the confidentiality restrictions in this Agreement and except as provided by agreement between the Parties, may not be publicised or otherwise disclosed provided always that nothing in this clause shall prevent either Party from applying to any court of competent jurisdiction to enforce the award.
- 32.3.10 The Parties hereby expressly agree irrevocably to waive all rights and recourse to appeal or challenge, and neither Party shall request the local courts to open up, revise or review, the final award of the arbitrator or arbitral panel save and except in the specific instances set out in Arbitration Act, 1940.

- 32.3.11 Reference of a dispute to arbitration shall not in any way vitiate nor invalidate the Agreement neither shall it be grounds for the Service Provider to cease performing its obligations nor for TPC to terminate the engagement of the Service Provider under the Agreement and the Service Provider shall proceed with its obligations with all due diligence.

PART I - MISCELLANEOUS MATTERS

33. Transfer of employees

- 33.1 Where TPC terminates this Agreement pursuant to clauses 29 or 31 or takes the Necessary Action contemplated by clause 30.2, TPC shall be entitled to have any and/or all contracts of employment held by the Service Provider for performance of the Services and the Service Provider hereby undertakes to do all things required and provide all such information in relation to such employees as may be required in order to operate the system subject to compliance with the Applicable Law.
- 33.2 The Service Provider shall be liable for any costs incurred by TPC in effecting the employee transfers contemplated in this clause 33, to the extent applicable and hereby indemnifies TPC in respect of such retrenchment costs.

34. Hazardous Substances

- 34.1 The Service Provider shall ensure that any hazardous materials or equipment used or intended to be used in the provision of the Services are stored safely and in safe keeping in accordance with all Applicable Law, ensure that all such materials are properly and clearly labelled on their containers, promptly inform TPC of all such materials being used or stored and comply with any other reasonable requirement of TPC in respect of such materials and equipment.

35. Intellectual Property

- 35.1 The Service Provider acknowledges that it shall not acquire any right, title or interest in or to the Intellectual Property of TPC and that all Intellectual Property developed pursuant to this Agreement (other than Intellectual Property belonging to the Service Provider or any third party) shall vest exclusively in TPC, save to the extent that the Parties otherwise agree in writing.
- 35.2 Should the Service Provider acquire title to any Intellectual Property of TPC or which is developed pursuant to this Agreement by operation of law (thus, where TPC in effect pays for its development) such Intellectual Property (other than Intellectual Property belonging to the Service Provider or any third party) shall be deemed to have been assigned by the Service Provider to TPC.

36. Insurance

- 36.1 The Service Provider agree to, at their own costs, establish and maintain no less than the minimum types and levels of insurances that are required by Applicable Law. It is mandatory that the insurance with respect to public properties shall be effected only through the National Insurance Company Limited (NICL) of Pakistan.
- 36.2 The Service Provider shall arrange for all kinds of insurance of Spare Parts/E&M Equipment/Maintenance Equipment/Monitoring Tools according to this Contract. Any amounts related to Spare Parts/E&M Equipment/Maintenance Equipment/Monitoring not insured or not recovered from the insurers shall be borne by the Service Provider.

- 36.3 The Service Provider shall also effect and maintain passenger and public liability insurance in relation to the operation of the Equipment. Such insurance shall, among other things, provide cover in respect of loss or damage suffered by reason of damage to property or death of or injury to any person resulting from any act or omission by Service Provider, the Drivers or their agents or Employees in connection with the operation of the Equipment in the provision of the Services. The TPC shall be a co-insured party under such insurance and the Service Provider shall be liable for and payment of all premiums in respect of such insurance.
- 36.4 The Service Provider shall effect and maintain full comprehensive Equipment insurance (including passenger and public liability) in respect of the Equipment from insurance company having a minimum rating of AA in long term (Public property shall be through NICL) on behalf of TPC within 30 days from acceptance of Equipment, on terms and conditions to TPC's reasonable satisfaction. The Service Provider shall be liable for and pay all premiums in respect of such insurance which includes theft, damage, faults, burglary etc. The Service Provider shall ensure that TPC is registered as co-insured under such insurance policy and provide proof of the insurance to TPC on demand.
- 36.5 The Service Provider shall procure and submit evidence of insurance cover within twenty-eight (28) days from the effectiveness of the Contract. The effective date of the coverage shall be the Commencement Date of this Contract. Failure to procure Insurance for Equipment from NICL, TPC shall procure shall insurance from NICL at the cost and risk of Service Provider.
- 36.6 The Service Provider shall be liable for any claims for passenger liability or public liability which are repudiated by TPC's insurer's due to any act or omission of the Service Provider, its directors, agents or Employees in providing the Services.
- 37. Publication of compliance or non-compliance with required KPIs**
- 37.1 Notwithstanding anything to the contrary in this Agreement, particularly the provisions of clause 44 below, in order to ensure that the Services are rendered at a consistent and sustainably high level and to increase public awareness of the Services being rendered in accordance with this Agreement, TPC shall, for the duration of this Agreement, be entitled to:
- 37.1.1 conduct and publish customer satisfaction surveys as it, in its sole discretion, may deem appropriate which may include but not be limited to issues pertaining to availability and Equipment quality, safety and security and general customer satisfaction levels regarding performance of the Service Provider and its Employees; and
- 37.1.2 publish any statistics relating to the overachievement or material underachievement of KPIs by the Service Provider which may include but not be limited to financial and operational performance, compliance with health and safety obligations and the Service Provider's compliance with Employee training and/or labor law requirements.
- 37.2 TPC shall be entitled to formulate its own conclusion regarding the results of the customer satisfaction surveys and the interpretation of TPC's statistics relating to the Service Provider's performance and shall make such results available to the Service Provider upon request.
- 37.3 TPC shall be entitled to publish the results of the customer satisfaction surveys and the above-mentioned statistics together with such additional marketing information as it may deem necessary, in media campaigns designed, among other things, to encourage compliance with expected KPIs and to discourage non-compliance therewith.
- 37.4 The aforesaid media campaign may include but not be limited to campaigns in traditional print media and/or electronic/social media and may highlight any overachievement or material underachievement of expected KPIs by the Service Provider from time to time.

38. Periodic review of the Agreement

38.1 In view of the long-term nature of this Agreement and in order to provide a continuous means for the assessment of:

38.1.1 TPC's contract management systems;

38.1.2 opportunities to improve the performance of the Service Provider in rendering the Services to the benefit of all stakeholders (including passengers utilising the Services); and

38.1.3 various aspects of the relationship between the Parties which would allow for inter alia an improvement in conflict resolution and the sharing of information between the Parties,

the Service Provider acknowledges that TPC will review the provisions of this Agreement every three (3) years for the duration of this Agreement.

38.2 To the extent that TPC wishes to propose any amendment to this Agreement pursuant to such review, such proposal shall be discussed and considered in good faith, but shall not be of any force or effect unless reduced to writing and signed by or on behalf of both Parties. For the avoidance of doubt, should the Parties fail to reach agreement as provided for in this clause 38, such failure shall not constitute a dispute as contemplated in clause 32 (Dispute Resolution).

39. Restricted Companies

39.1 Restricted Companies and/or their shareholders shall not:

39.1.1 be a shareholder in the Service Provider; or

39.1.2 be subcontractors of the Service Provider, or

39.1.3 be a party to a partnership, company, joint venture, consortium, arrangement with the Service Provider regarding any other work relating to services provided by the System Control Service Provider.

40. System stability

40.1 The Parties hereby agree to establish a joint task team comprising TPC, the Service Provider and the Other Service Providers to develop proposals for combatting piracy.

PART J - FINAL PROVISIONS

41. Addresses and notices

41.1 The Parties choose for the purposes of this Agreement the following addresses:

41.1.1 TPC: TransPeshawar (The Urban Mobility Company), KPUMA Building, Chamkani, GT Road Peshawar, Pakistan.

41.1.2 The Service Provider: [REDACTED]

41.2 Any legal process to be served on any of the Parties may be served on it at the physical address specified for it in clause 41.1 and it chooses that address for all purposes under this Agreement.

41.3 Any notice required by this Agreement to be given in writing shall, if given by telefax, email or cell phone-based short message service ("sms"), be regarded as having been given in writing for purposes of this Agreement, provided that the Parties may only utilise sms notification for operational authorisations in circumstances where operational action is required immediately and other changes to operations contemplated in this Agreement due to an emergency or such similar urgent operational matters.

41.4 Where operational authorisations are required, TPC will issue and log an authorisation number and any relevant notice in accordance with this clause 41 shall quote such authorisation number.

- 41.5 A notice to any of the Parties which is sent by registered post in a correctly addressed envelope to the address specified for it in clause 41.1 shall be deemed to have been received (unless the contrary is proved) within fourteen (14) days from the date it was posted, or which is delivered to the Party by hand at the physical address specified for it in clause 41.1, shall be deemed to have been received on the day of delivery, provided it was delivered to a responsible person during ordinary business hours.
- 41.6 Each notice by telefax to a Party at the telefax number specified for it in accordance with clause 41.1 shall be deemed to have been received (unless the contrary is proved) within four (4) hours of transmission if it is transmitted during normal business hours of the receiving Party or within four (4) hours of the beginning of the next Business Day after it is transmitted, if it is transmitted outside those business hours.
- 41.7 Any notice by email to a Party at the email addresses of its Authorised Representatives shall be deemed to have been received (unless the contrary is proved) within twenty (20) minutes of transmission if transmitted at any time during which the Services are ordinarily rendered and if transmitted outside such time, within ten (10) minutes of recommencement of the rendering of the Services.
- 41.8 Any notice by sms to a Party at the mobile numbers of its Authorised Representatives shall be deemed to have been received (unless the contrary is proved) within twenty (20) minutes of transmission if transmitted at any time during which the Services are ordinarily rendered and if transmitted outside such time, within twenty (20) minutes of recommencement of the rendering of the Services.
- 41.9 Any notice in accordance with this clause 41 given by sms shall be followed by a telefax or email confirming the contents and date of transmission of such sms.
- 41.10 Notwithstanding anything to the contrary in this clause 41, a notice or other communication actually received by any of the Parties (and for which written receipt has been obtained) shall be adequate notice or communication to it notwithstanding that the notice was not sent to or delivered at its chosen address.
- 41.11 Any Party may by a notice to the other Parties change its physical or postal address, telefax number, email address or mobile number for the purposes of this clause 41 to any other physical or postal address, telefax number, email address or mobile number provided that the change shall become effective on the seventh (7th) day after the receipt of the notice.

42. Change in Law

- 42.1 The Service Provider acknowledges and agrees that it shall take full risk and responsibility for a Change in Law occurring. Notwithstanding the foregoing, if a Change in Law occurs or is imminent that affects the rights and obligations of the Service Provider under this Agreement, the Service Provider shall notify TPC within fourteen (14) days of the date of such Change in Law occurring or (if earlier) coming to the attention of the Service Provider and the Parties shall discuss the effects of the Change in Law and endeavour to arrive at a resolution.
- 42.2 Any resolution reached between the Parties shall be recorded in writing and such record shall be signed by both Parties. The Service Provider acknowledges and agrees that any decision to change the financial accordance with the Agreement or vary the scope of Services as a result of the Change in Law shall be adjusted with mutual consent of the parties.

43. Remedies

- 43.1 No remedy conferred by this Agreement is intended to be exclusive of any other remedy which is otherwise available at law, by statute or otherwise. Each remedy shall be cumulative and in addition to every other remedy given hereunder or now or hereafter existing at law, by statute or otherwise. The election of any one or more remedy by any of the Parties shall not constitute a waiver by such Party of the right to pursue any other remedy.

44. Confidentiality

- 44.1 Each Party shall at all times keep in confidence the Confidential Information of the other Party which it may acquire for the purposes of or in connection with this Agreement (whether prior to or after the Commencement Date) and shall not use or permit the use of such Confidential Information and shall procure that its employees shall not use the Confidential Information, for any other purpose and shall not disclose such Confidential Information to any third party.
- 44.2 Notwithstanding clause 44.1, a Party may disclose the Confidential Information of the other Party to such former Party's employees or Authorised Representatives to the extent that such employees or Authorised Representatives need to know the Confidential Information and shall ensure that such employees or Authorised Representatives are aware of and comply with, the confidentiality obligations contained in this clause 44.2.
- 44.3 Each Party shall take all such steps as may be reasonably necessary to prevent the Confidential Information of the other Party from falling into the hands of an unauthorised third party.
- 44.4 The Service Provider shall not make any comments to the media relating to this Agreement and any related matter nor shall it respond to any queries from the media without the prior written approval of TPC.

45. Severance

- 45.1 In the event that any provision of the Agreement is held by any judicial or other competent authority to be illegal, invalid or unenforceable that provision shall be severed to the extent necessary to make the Agreement enforceable, and it shall not affect or impair the validity, legality or enforceability of any of the other provisions of the Agreement.

46. No agency

- 46.1 No provision of this Agreement shall be construed as constituting an agency, partnership, or joint venture between the Parties and neither Party shall have any express or implied TPC to bind the other Party in any way or to represent the other Party unless specifically provided to the contrary in this Agreement, and, for the avoidance of doubt, this clause 44.1 shall not affect or otherwise derogate from the obligations and powers of the Service Provider in relation to handing over of the Equipment to other authorised parties as contemplated in this Agreement.
- 46.2 The Service Provider is an independent contractor performing the Agreement. The Service Provider is not an employee or agent of TPC.

47. Corruption and Fraud

- 47.1 The Service Provider warrants that in entering into the Agreement it has not committed any Prohibited Act.
- 47.2 In the event that the Service Provider is contacted by a Public Official requesting or suggesting that the Service Provider act in a manner which would constitute a Prohibited Act, the Service Provider shall immediately provide TPC in writing with full details of the request (including the identity of the Public Official making the request).
- 47.3 Without prejudice to clause 47.2, the Service Provider shall ensure that its staff undertaking activities in connection with the Agreement are subject to similar obligations to those set out in this clause 47 and the Service Provider shall enforce such obligations.
- 47.4 In the event that the Service Provider fails to comply with the requirements of this clause 47 TPC shall be entitled to terminate the Agreement pursuant to clause 31.1.
- 47.5 The Service Provider shall sign affidavit of Integrity Pact attached as Schedule 8 in Request for Proposal.

48. Entire Agreement

- 48.1 This Agreement constitutes the entire agreement between the Parties in relation to all matters contained herein, including all understandings, rights, responsibilities, duties and obligations and supersedes all prior arrangements, representations, communications, negotiations, agreements and contracts (whether written or oral) made between or entered into by the Parties with respect thereto prior to the Effective Date. None of the Parties shall have any claim or right of action arising from any undertaking, representation or warranty not included in this Agreement.

49. No stipulation for the benefit of a third person

- 49.1 Save as is expressly provided for in this Agreement, no provision of this Agreement constitutes a stipulation for the benefit of a third person which, if accepted by the person, would bind any Party in favour of that person.

50. No representations

- 50.1 A Party may not rely on any representation which allegedly induced that Party to enter into this Agreement, unless the representation is provided in this Agreement.

51. Amendment

- 51.1 Except as set out elsewhere in this Agreement, no modification, amendment, addendum or variation to the Agreement shall be effective or binding, unless it:
- 51.1.1 is made in writing; and
 - 51.1.2 expressly sets out the modification, amendment, addendum or variation to the accordance with the Agreement; and
 - 51.1.3 refers to the Agreement; and
 - 51.1.4 is signed and dated by a representative of each Party.

52. Indulgences

- 52.1 The grant of any indulgence, extension of time or relaxation of any provision by a Party under this Agreement shall not constitute a waiver of any right by the grantor or prevent or adversely affect the exercise by the grantor of any existing or future right of the grantor.

53. General co-operation

- 53.1 The Parties shall co-operate with each other and shall each execute and deliver to the other Party such other instruments and documents and take such other actions as may be reasonably requested from time to time in order to carry out, evidence and confirm their rights and the intended purpose of this Agreement.
- 53.2 Each of the Parties undertake at all times to do all such things, perform all such acts and take all such steps within its power and control, as may be necessary for and incidental to the putting into effect or maintenance of the terms, conditions and import of this Agreement and ensuring that the Services are rendered consistently at the highest possible standard expected by TPC.
- 53.3 Each Party agrees to provide all information reasonably requested by the other in the exercise of their respective rights and performance of their obligations under this Agreement, subject to the confidentiality provisions of clause 44 of this Agreement.

54. Governing law

- 54.1 This Agreement is to be governed, interpreted and construed in accordance with the laws of the Islamic Republic of Pakistan.

55. Language

- 55.1 Unless expressly notified in advance by TPC, the primary language of the Agreement shall be English. All documents and communications issued between the Parties shall be in English. Unless expressly notified in advance by TPC, all minutes of meetings shall be issued in English.

56. Independent advice

- 56.1 Each of the Parties hereby respectively agrees and acknowledges that:
- 56.1.1 it has been free to secure independent legal advice as to the nature and effect of each provision of this Agreement and that it has either taken such independent legal advice or has dispensed with the necessity of doing so; and
 - 56.1.2 each provision of this Agreement (and each provision of the Annexes) is fair and reasonable in all the circumstances and is part of the overall intention of the Parties in connection with this Agreement.

57. Good faith

- 57.1 The Parties shall, at all times, act in good faith towards each other and shall not bring the other Party into disrepute.

58. Survival of rights, duties and obligations

- 58.1 The Surviving Provisions will survive termination or completion of the Agreement.
- 58.2 In the event that the Agreement is terminated or completed, neither Party shall be liable to the other Party except:
- 58.2.1 under the Surviving Provisions; or
 - 58.2.2 in respect of any breach of the Agreement occurring before such termination or completion; or
 - 58.2.3 any rights or liabilities between the Parties that were pre-existing as at the date of termination or completion.

59. Assignment

- 59.1 The Service Provider shall not cede, assign, delegate or transfer any of its rights or obligations under the Agreement, or any part of it, or any benefit or interest therein, to any third party or Entity without the prior written consent of TPC.
- 59.2 Notwithstanding anything to the contrary stated in this Agreement, TPC shall be entitled, without requiring the consent of the Service Provider, to cede, assign, delegate or transfer any rights and/or obligations under this Agreement to any third party.

60. Waiver

- 60.1 Subject to clause 60.2, no relaxation, forbearance or delay by a Party in enforcing the Agreement will prejudice, affect or restrict the rights, responsibilities, obligations, powers or remedies of that Party nor shall any waiver by either Party of any such rights, responsibilities, obligations, powers or remedies, or of any breach of the Agreement, be deemed to be a waiver of any other right, responsibility, obligation, power or remedy, or of any later or continuing breach of, the Agreement.
- 60.2 Any waiver of a Party's rights, responsibilities, obligations, power or remedies arising out of, under or in connection with the Agreement shall be in writing, dated and signed by the representative of the Party granting such waiver, and shall specify the right, responsibility, obligation, power or remedy and the extent to which it is being waived. No waiver of a breach of a term of the Agreement operates as a waiver of any other breach of that term, or of a breach of any other term, of the Agreement.

61. Costs

61.1 Any costs, including all legal costs of an attorney and own client basis and taxes, incurred by a Party arising out of or in connection with a breach by another Party shall be borne by the Party in breach.

Signed on 2020

Witnesses

.....

for TransPeshawar (The Urban Mobility
Company)

.....
duly authorised and warranting such TPC

Name:

Position: _____

Signed on 2020

Witnesses

.....

for [Service Provider Company]

.....
duly authorised and warranting such []

Name:

Position: _____

ANNEX A
DEFINITIONS AND INTERPRETATION

1. Definitions

1.1 In the Agreement, the following words and expressions shall have the meanings set out below:

- 1.1.1 **“Abandon”** means wholly or substantially cease to carry out the Services for ten (10) consecutive days or during thirty (30) days (whether consecutive or not) in any year, except when relieved of the obligation to do so by the express provisions of this Agreement;
- 1.1.2 **“Agreement”** means this agreement as amended from time to time and including the Annexes;
- 1.1.3 **“Annexes”** means the annexes attached to this Agreement;
- 1.1.4 **“Applicable Law”** means any constitution, statute, ordinance, treaty, decree, proclamation, rules, regulations or subordinated legislation or other legislative measure, as amended from time to time, including all national and provincial statutes and legislation and all municipal by-laws, as well as the common law and customary law and any judgment, decision, order or rule of any court or tribunal with relevant jurisdiction and any decision made by judicial or administrative bodies in accordance with any of the foregoing;
- 1.1.5 **“Authorised Representatives”** means persons authorised in writing by TPC and the Service Provider respectively, as contemplated in accordance with clause 25;
- 1.1.6 **“BRT System”** means the bus rapid transit system in Peshawar known as Peshawar Sustainable BRT Corridor System or any other name that should be assigned to the Peshawar bus/transit system;
- 1.1.7 **“Business Day”** means any day other than weekend or public holiday in Pakistan as notified by Government of KPK;
- 1.1.8 **“Change in Law”** means:
 - (c) the adoption of a new Law; or
 - (d) a change in or repeal of a existing Law,which after the Effective Date results in:
 - (a) a change in the taxes, duties or levies payable by the Service Provider in respect of the Services; or
 - (b) a change in or the repeal of any other requirement for the performance of the Services;
- 1.1.9 **“Commencement Date”** means the date on which the Services shall commence as notified by TPC by way of a Service Notice referred to in clause 1.3.1;
- 1.1.10 **“Confidential Information”** means all information, without limitation, of whatsoever nature:
 - (a) relating to the Disclosing Party’s business, operations, processes, drawings, sketches, plans, models, product information, know-how, market opportunities, customers and business affairs;

- (b) relating to the relationship of the Disclosing Party with its customers and suppliers; or
- (c) relating to the contents of this Agreement and any other information received pursuant to this Agreement,

but excludes information which:

- (a) constitutes an Operational Data; or
- (b) is required to be disclosed under any law or regulation, or by any Regulatory Body, including any stock exchange on which a Receiving Party may be listed, provided that the Receiving Party in question shall first consult with the Disclosing Party before making any such disclosure, statement or announcement; or
- (c) is in the public domain or enters into the public domain in any way, provided that the entry of such information into the public domain did not entail a breach of this Agreement by the Receiving Party; or
- (d) the Receiving Party can show it was within its possession or knowledge, such information being in its use or having been recorded in its files, computers or other recording media, prior to receipt thereof from the Disclosing Party and which information was not previously acquired by the Receiving Party under any obligations of confidence or unlawfully; or
- (e) is disclosed by the Receiving Party with the prior written approval of the Disclosing Party; or
- (f) was disclosed by the Disclosing Party to a third party without restriction on disclosure or use, including without limitation, by way of a patent specification; or
- (g) is hereafter disclosed or made available in good faith to the Receiving Party from a source other than the Disclosing Party, without breach by the Receiving Party of any obligation of confidentiality or non-use owed to the Disclosing Party or without breach by such other source who, to the knowledge of the Disclosing Party, is not subject to an obligation of confidentiality or non-use owed to the Disclosing Party; or
- (h) is developed independently by the Receiving Party without reference to the Confidential Information;

- 1.1.11 **“Corridor”** means dedicated lane from Chamkani Station to Karkhano station which includes stations, roads turning points, terminals, feeder route ramp etc.;
- 1.1.12 **“Disclosing Party”** means the Party disclosing Confidential Information to the Receiving Party;
- 1.1.13 **“Technical Staff”** means those Employees who maintain and operate the Equipment;
- 1.1.14 **“Effective Date”** means when this Agreement has been signed by each Party, the latest of the dates upon which this Agreement was signed by any Party;

- 1.1.15 **“Employees”** means the employees of the Service Provider, or of any subcontractor contracted by the Service Provider to perform a part of the Service;
- 1.1.16 **“Encumbrance”** means:
- (i) any mortgage, pledge, lien, assignment or cession conferring security, hypothecation, security interest, preferential right or trust arrangement or other encumbrance securing any obligation of any person or any other charge (whether equitable or otherwise) of whatsoever nature or howsoever described; or
 - (j) any arrangement under which money or claims to, or for the benefit of, a bank or other account may be applied, set off or made subject to a combination of accounts so as to effect discharge of any sum owed or payable to any person; or
 - (k) any other type of preferential agreement or arrangement (including any title transfer and retention arrangement), the effect of which is the creation of a security interest;
- 1.1.17 **“Entity”** means association, business, close corporation, company, concern, enterprise, joint venture, trust, undertaking, voluntary association, body corporate and any similar entity;
- 1.1.18 **“EOP List”** means the list of employees allocated to be employed by the Service Provider under the Employment Opportunity Program led by TPC annexed hereto as Annex F (to be provided at agreement stage);
- 1.1.19 **“Event of Force Majeure”** means an act of God or public enemy, fire, explosion, earthquake, perils of the sea, flood, storm or other adverse weather conditions, war declared or undeclared, act of terrorism, civil war, revolution, civil commotion or other civil disorder, sabotage, riot, blockade, embargo, strikes (excluding strikes by Service Provider staff), lock-outs or other labour disputes, sanctions, epidemics, act of any Government, compliance with law, regulations or lawful demands of any Government or Governmental agency;
- 1.1.20 **“Equipment Handover Date”** means a date not less than seven (07) days prior to the “projected start-date of roll-out” of each Milestone as specified in clause 1.1.33 on which the Service Provider takes the Equipment, or such other date as may be agreed between the Parties;
- 1.1.21 **“Equipment Sale Agreement”** means the agreement of sale and/or supply entered into, or to be entered into, between Peshawar Development Authority, on the one hand, and an Equipment Supplier/manufacturer/Civil Work Contractor, on the other hand, in relation to Equipment;
- 1.1.22 **“Equipment Supplier”** means such entity which sells or otherwise supplies Equipment to TPC or supplied to Peshawar Development Authority (PDA) in accordance with an Equipment Sale Agreement;

- 1.1.23 **“Equipment”** means the Equipment purchased by Peshawar Development (machinery, apparatus, materials and all things procured, furnished, installed and commissioned) in accordance with the Equipment Sale Agreement(s), for purposes of rendering the Services and specified in the Operational Specifications Schedule; and Equipment includes all equipment and allied services required to provide the Services as contemplated in this Agreement (and for the avoidance of doubt shall include the Elevator and Escalator,);
- 1.1.24 **“Elevator”** means complete assembly which includes control units, software’s, sensors, doors, signs for elevator, internal camera, ropes, cables, wires, supports, pits, protection wall of drainage at grade level, approach to Elevator etc. and allied components which are required for its intended use and operation;
- 1.1.25 **“Escalators”** means complete assembly which includes control units, software’s, sensors, cables, wires, conduits, approaches to escalators, supports, side railing, pits, signs for escalators, pits, protection wall for drainage, allied components etc. and allied components which are required for its intended use and operation;
- 1.1.26 **“Financially Distressed”** means that:
- (l) it appears to be reasonably unlikely that the Service Provider will be able to pay all of its debts as they become due and payable within the immediately ensuing 6 Months; or
 - (m) the Service Provider’s liabilities exceed its assets by more than fifteen percent (15%) at any time,
- and **“Financial Distress”** shall have a corresponding meaning;
- 1.1.27 **“Financial Year”** means, at any time, the financial year of the Service Provider starting on January and ending on 31 December;
- 1.1.28 **“Intellectual Property”** means any and all intellectual property rights of any nature anywhere in the world whether registered, registerable or otherwise, including patents, utility models, trademarks, registered designs and domain names, applications for any of the foregoing, trade or business names, goodwill, copyright and rights in the nature of copyright, design rights, rights in databases, moral rights, know-how, trade secrets and any other intellectual property rights which subsist in computer software, computer programs, websites, documents, information, techniques, business methods, drawings, logos, instruction manuals, lists and procedures and particulars of customers, marketing methods and procedures and advertising literature, including the “look and feel” of any websites;
- 1.1.29 **“Invoice”** means a valid tax invoice as contemplated in clause 4;
- 1.1.30 **“KPI”** means the key performance indicator;
- 1.1.31 **“Liquidated Damages”** means the amounts to be deducted from the monthly payments for the Service Provider pursuant to particular service level failures as set out in the Operational Specifications Schedule and in accordance with clause 27 or otherwise paid by the Service Provider to TPC;
- 1.1.32 **“Lock-in Period”** means a period of six (6) years commencing from the Effective Date;

- 1.1.33 **“Milestone”** means each step envisaged for the roll-out of the Services during the term of this Agreement as described more fully in the Operational Specifications Schedule and execution of services with seven days of signing of Agreement;
- 1.1.34 **“Month”** or **“Monthly”** means a calendar month;
- 1.1.35 **“Necessary Action”** means any action that TPC deem necessary and appropriate in the event that the Service Provider failed to take remedial action pursuant to clause 30;
- 1.1.36 **“Operating Licence”** means any licence, consent or permit required by the Service Provider to enable it to provide the Services under this Agreement;
- 1.1.37 **“Operational Data”** means any operational data defined as such in the Operational Specifications Schedule or identified as “Operational Data” by TPC, which shall include, among others, location of Equipment, running hours, and which will be available to the Service Provider, Other Service Providers and the System Control Service Provider;
- 1.1.38 **“Operational Specifications Schedule”** means the schedule annexed hereto as Annex B;
- 1.1.39 **“Other Contractors”** means collectively, the System Control Service Provider or any subcontractor of the System Control Service Provider (or any member of the consortium making up the System Control Service Provider) (excluding Other Service Providers) appointed by TPC in connection with the BRT System;
- 1.1.40 **“Other Service Provider”** means any other Equipment Service Provider appointed by PDA to install Equipment or appointed by TPC to operate public transport services as a part of the BRT System or Service Provider of TPC;
- 1.1.41 **“Party”** means a party to this Agreement;
- 1.1.42 **“Payment Calculation Schedule”** means the payment calculation schedule attached hereto as Annex C;
- 1.1.43 **“Performance Guarantee”** means the unconditional, irrevocable on-demand performance guarantee in the specimen form attached hereto as Annex D provided to TPC by the Service Provider pursuant to clause 3;
- 1.1.44 **“PKR”** means Pakistani rupee;
- 1.1.45 **“Prohibited Act”** means:
- (a) offering, giving or agreeing to give to a Public Official a gift or consideration of any kind as an inducement or reward for:
 - (i) doing or not doing (or for having done or not having done) any act; or
 - (ii) showing or not showing (or for having shown or not shown) favour or disfavour to any person,
- in relation to the award or performance of the Agreement or any other agreement with TPC; or

- (b) entering into an agreement for which commission has been paid or has been agreed to be paid by the Service Provider or on its behalf, or to its knowledge, unless before the relevant agreement is entered into, particulars of any such commission and of the terms of any such agreement for the payment thereof have been disclosed in writing to TPC; or
 - (c) committing any offence under the Applicable Law creating offences in respect of fraudulent acts; or
 - (d) defrauding, attempting to defraud or conspiring to defraud TPC;
- 1.1.46 **“Project”** means the Peshawar Sustainable BRT Corridor System project carried out by TPC;
- 1.1.47 **“Protocol”** means a protocol and/or a standard operating procedure issued from time to time by TPC indicating how, among other things, Services are to be rendered, the manner in which the Service Provider and Other Service Providers should work together, the exact procedures to be followed in order to comply with service level requirements set out in the Operational Specifications Schedule and any other ancillary matters;
- 1.1.48 **“Public Official”** means an official or employee of a government owned or controlled enterprise or any Regulatory Body and shall include any individual defined as a public official in an Applicable Law;
- 1.1.49 **“Quarter”** or **“Quarterly”** means a consecutive period of three (3) Months commencing from the start of a Financial Year or calendar year, as the case may be;
- 1.1.50 **“Receiving Party”** means the Party receiving Confidential Information from the Disclosing Party;
- 1.1.51 **“Regulatory Body”** means any governmental, semi-governmental, administrative, fiscal or judicial ministry, department, commission, authority, tribunal, agency, municipality or body, and shall include the provider of electricity, gas, water, wastewater, telecoms and other such public services, and anybody with a regulatory function under the Applicable Law;
- 1.1.52 **“Reserve Fund”** means the fund to be established as a security in accordance with clause 22;
- 1.1.53 **“Restricted Companies”** means Other Contractors;
- 1.1.54 **“Service Notice”** means a notice given to the Service Provider by TPC in accordance with this Agreement;
- 1.1.55 **“Stations”** means the stations described in the Operational Specifications Schedule; and which are intended as passenger embarkation and disembarkation points and Station means any one of them;
- 1.1.56 **“Surviving Provisions”** means clauses 1 (Preliminary Matters); 31 (*Breach and Termination*); 32 (*Dispute resolution*); 35 (*Intellectual Property*); 41 - 61 (*Part J - Final Provisions*) and this Annex A;
- 1.1.57 **“Termination Date”** means the fifth (5th) anniversary of the Commencement Date or the date on which an earlier termination pursuant to the terms of the Agreement takes effect;

- 1.1.58 **“Uniform”** means the uniform to be worn by those Employees of the Service Provider required to fulfil their duties in view of members of the public, as prescribed in the Operational Specifications Schedule and includes the name tag issued to each Employee by Service Provider;
- 1.1.59 **“Warranty”** means the warranties and undertakings given to TPC by the Service Provider, set out in clause 28;
- 1.1.60 **“Week”** or **“Weekly”** means the period commencing at 00h00 on Monday and ending at 24h00 on Sunday each calendar week.

2. Interpretation

2.1 In the Agreement:

- 2.1.1 in the event of conflict between the Annexes and the provisions of this Agreement (excluding the Annexes), the provisions of the Agreement shall prevail;
- 2.1.2 any definition in this Agreement, shall bear the same meaning and apply throughout this Agreement including Annexes hereto, unless otherwise stated or inconsistent with the context in which it appears;
- 2.1.3 the singular includes the plural and vice versa;
- 2.1.4 a reference to a statutory provision includes any subordinate legislation made from time to time under that provision and includes those provisions as amended, consolidated, re-enacted or replaced from time to time;
- 2.1.5 a reference to a document includes the document as modified from time to time and any document replacing it, in each case in the manner permitted by the Agreement;
- 2.1.6 a reference to a gender includes the other genders;
- 2.1.7 a reference to any government agency or body, if that agency or body ceases to exist or is reconstituted, renamed or replaced or has its powers or functions removed (“defunct body”), means the agency or body that performs most closely the functions of the defunct body;
- 2.1.8 a reference to an “agent” shall mean any person with a contractual relationship with a Party and carrying out activities or obligations on behalf of that Party;
- 2.1.9 a reference to a “subsidiary” shall be a reference to a subsidiary as defined in the Companies Act, 2017;
- 2.1.10 references in this Agreement to “clauses” or to “Annexes”, are to clauses of and Annexes to this Agreement;
- 2.1.11 references to notices or requests made or received by any of the Parties shall, unless expressly provided otherwise in this Agreement, refer to notices or requests in writing;
- 2.1.12 references to “agree” or “agreed” shall require the agreement to be recorded in writing and signed by the authorised representatives of the Parties;
- 2.1.13 no rule of construction shall be applied to the disadvantage of a Party to this Agreement because that Party was responsible for or participated in the preparation of this Agreement or any part of it;

- 2.1.14 unless otherwise provided, any number of days prescribed shall be determined by excluding the first and including the last day or, where the last day falls on a day that is not a Business Day, the next succeeding Business Day;
- 2.1.15 references to day/s, month/s or year/s shall be construed as Gregorian calendar day/s, month/s or year/s, as the case may be;
- 2.1.16 if a definition imposes substantive rights and obligations on a Party, such rights and obligations shall be given effect to and shall be enforceable, notwithstanding that they are contained in a definition;
- 2.1.17 a reference to a Party includes that Party's successors and permitted assigns;
- 2.1.18 the use of the word "including" followed by a specific example/s shall not be construed as limiting the meaning of the general wording preceding it and it shall be construed as if it were followed by "without being limited to".

Annex B

OPERATIONAL SPECIFICATIONS SCHEDULE

1. OPERATOR/SERVICE PROVIDER RESPONSIBILITIES FOR OPERATION AND MAINTENANCE OF ESCALATORS, ELEVATORS, AND PROVISION OF ALLIED SERVICES IN PESHAWAR BUS RAPID TRANSIT SYSTEM

This Operational Specification Schedules specify the operation and maintenance obligations of Equipment in jurisdiction of TransPeshawar / Peshawar BRT which includes 30 number of Bus rapid transit stations, BRT Corridor and KPUMA Building (From outer boundary of depot and railway track). The Service Provider shall be responsible for all costs of required services mentioned in RFP, Agreement, Operational Specifications Schedule and their annexures/ attachments. The operation and maintenance services are required for following Equipment:

- a) Elevator includes but not limited to complete assembly of control units, software's, sensors, doors, signs for elevator, internal camera, ropes, cables, supports, pits, submersible pumps, protection wall of drainage at grade level, approach to Elevator (two meters around elevator) etc. and allied components which are required for its intended use/operation;
- b) Escalators includes but not limited to complete assembly of control units, software's, sensors, approaches to escalators (two meters around escalator), supports, side railing, pits, submersible pumps, signs for escalators, pits, protection wall for drainage, allied components etc. and allied components which are required for its intended use and operation; and

Detailed scope for Escalators, Elevators, and allied services are explained in following sections. The details of these Equipment are provided in following Annexures: -

- a) Details of Escalators showing location and number (Annex-H)
- b) Details of Elevators showing location and number (Annex-I)
- c) Specification of Escalators (Annex-J)
- d) Specification of Elevators (Annex-K)
- e) Operation and Maintenance Manual of Escalators (Annex-L)
- f) Operation and Maintenance Manual of Elevators (Annex-M)

1.1 Handing Over of Equipment for Operation and maintenance

- 1.1.1 The Equipment as mentioned in Section 1 of this document will be handed over to Service Provider in the state handed over by Peshawar Development Authority and Service provider will take-over these for required operation and maintenance in accordance with scope of this Contract/Agreement. The Equipment includes Elevators, and Escalators (hereafter called "**Equipment**"). The Functional Specification of these Equipment is attached, however, these Functional specifications are descriptive and not restrictive in nature and deviations by TPC from these specifications shall not be considered as violation of the Agreement.
- 1.1.2 Provided that both parties do not agree to extend the Contract, the Service Provider shall seek in writing a Handing Back Certificate (HBC) from the TPC at least 60 days before the expiry of the Contract. The TPC will issue such a certificate within 45 days

provided that the equipment handed back is in good condition. Upon obtaining the HBC, the Service Provider shall be deemed clear of all obligations. However, until issuance of HBC which does not affect liability of Service Provider to keep System in fully operational condition even after expiry of contract, the Service Provider shall be bound to continue rendering O&M services, and the TPC shall continue to pay for such additional O&M Services. In addition, during this period, TPC and the Service Provider shall work jointly to solve any pending issues (if any). The final Invoice from the Service Provider shall include any such period of Services, which in any case shall not exceed 45 days.

1.2 General Maintenance Obligations of Equipment

The Service Provider shall: -

- 1.2.1 Ensure that all Equipment are in satisfactory operational condition (fair wear and tear excluded) so that they conform to the operational standards of first class bus rapid transit system and/or building/ stations requirements. This means, in particular, that all Equipment should be clean, tidy, well-maintained, in running conditions and meeting all health and safety requirements;
- 1.2.2 Take responsibility for provision of all replacement parts and supplies for all maintenance issues of Equipment. The Service Provider shall procure any future spare parts and supplies (lubricants, wires etc.) pursuant to documentation provided by the manufacturer, their agent, supplier or required for maintenance and / or operation of Equipment. The spare parts shall be genuine, brand new, non-refurbished, un-altered and imported through proper channel and incorporate all recent improvements in design and material. Service Provider shall provide proof of genuine and/or imported item/spare parts to TPC on demand;
- 1.2.3 Be responsible for all material and associated costs for repair actions of Equipment caused by theft or other scheduled / unscheduled incidents;
- 1.2.4 Keep record of each spare part used, reason for replacement, total spare used, remaining spare parts etc. and follow Protocol issued by TPC for use, record and inventory of the same. The Service Provider shall provide to TPC such record in prescribed time;
- 1.2.5 Arrange maintenance workshops/labs which must be fully functional within the vicinity of BRT system containing all necessary tools/equipment's required for proper testing, troubleshooting, repair & maintenance of all items described in para 1.
- 1.2.6 Arrange spare parts store within the vicinity of BRT containing all necessary items / parts required for the maintenance of the said system. Besides this, service provider shall maintain the inventory of critical spare parts for each month which should be at least 10 % of the installed items (covers in the scope of work) and other items separately in order to avoid any system failure in future. These critical inventory list need be prepared on monthly basis.
- 1.2.7 Ensure that the critical spare part which may hinder the operation for prolonged duration are in stock in sufficient quantity to ensure the smooth operations. TPC may

notify such spare parts and their quantity to be always available in stock during period of the Contract.

- 1.2.8 Procure, transport and maintain any tools, software and diagnostic equipment, lifting equipment, machinery (boom buckets, lifters & cranes), calibrated test equipment, which it deems necessary to carry out the Services in accordance with the Agreement;
- 1.2.9 Coordinate with authorized agent of Equipment and /or Original Equipment Manufacturer (OEM) on behalf of TPC for defects / software issues, items in claims under Defect Liability Period (If any) or any other purpose to perform the required services at its own cost and risk. Service Provider shall bear the cost of such coordination;
- 1.2.10 Follow direction / Protocol of TPC regarding cleaning of Equipment, and submission of weekly, monthly and half-year maintenance schedule regarding Equipment;
- 1.2.11 Maintain and provide tags to all electrical and mechanical equipment including tags on cables;
- 1.2.12 Maintain all conduits /pipes relevant to the scope of work;
- 1.2.13 Maintain, protect and provide replacement (where required) for all types of wires and cables (both data and power cables) connecting to Equipment;
- 1.2.14 Maintain Asset register having details of all Equipment in his custody with asset number;
- 1.2.15 Prepare code of conduct for its staff and obtain approval of TPC;
- 1.2.16 Get additional information or missing information at its own cost about equipment, or its maintenance and operations requirements, if required; and
- 1.2.17 Ensure and maintain protective devices and earthing systems are operated and maintained to reduce the risk of passengers and operations/maintenance personnel from hazardous voltages or currents. Maintenance for each earth pit consists of checking of earth connection / continuity from equipment's end to earth pit end, fixing of earth plate and measuring of earth resistance with the help of standard earth resistance test meter. Proper cleaning of earth pit. Maintain standard earth resistance by providing standard moisture level deep inside earth pit. Detail earthing maintenance activity are required for Elevator and Escalators.

1.3 Operation and Control Obligations of Equipment

The Service Provider shall: -

- 1.3.1 Operate reliably Equipment to meet the operational requirements of bus operations, stations and buildings. The Equipment operational hours are 24 hours/day, 7 days a week and 365 days a year;

- 1.3.2 Engage suitable, skilled and appropriate number of human resource to carry out all services and for safety of public, security of Equipment, and operation and maintenance of Equipment;
- 1.3.3 Be responsible for all costs including human resource regarding operation and maintenance of Equipment which includes replacement of parts for preventive, corrective, and operational maintenance and /or defective/damaged goods/Equipment due to whatever reason. These includes costs of all services mentioned in the Operational Specification Schedule and Agreement/Contract;
- 1.3.4 Ensure that the spare parts supplied under this contract are authorized by manufacturer, and are genuine, brand new, non- refurbished, un-altered in any way, of the most recent or current model, imported through proper channel, and incorporate all recent improvements in design and materials, unless provided otherwise in the Agreement/ Contract;
- 1.3.5 Ensure safety tool in working condition and checked periodically as recommended by manufacturer. Provide safety equipment, personal protection equipment and other necessary materials as required for the execution of services under the contract;
- 1.3.6 Follow instructions / Protocol of TPC regarding procedure of operation, duration of operation of all Equipment, Energy plan and schedule for operation of such Equipment; and
- 1.3.7 Coordinate all hardware and software maintenance activities as well as routine maintenance activities in advance with TPC. Maintenance activities shall be conducted at night time during non-operational hours of buses.

1.4 Detailed Maintenance Obligations Regarding Software / SCADA System

SCADA system / software is provisioned in the Equipment for Escalators and Elevators. The Service Provider shall maintain SCADA/ Remote Monitoring System, and integrate all equipment which has the compatibility with the system. The Service Provider shall: -

- 1.4.1 Be responsible for transmission of data from Equipment to Ticket office established at BRT stations through communication cable or other communication mechanism for building and stations duly approved by TransPeshawar. The cost of wired or wireless communication shall be the responsibility of Service Provider.
- 1.4.2 The Service Provider shall provide all facilities, material, cable, hub, support or any software which are required at ticket office for integration with other systems.
- 1.4.3 Provide live display of SCADA to the TPC for monitoring of the system and generating reports in the Control Centre. Service Provider shall generate real time reports/raw data from SCADA. SCADA shall include reports but not limited to the following: -
 - a. Operational Status (ON/OFF)
 - b. Alarms
 - c. Duration of running/day or hour

d. Error Numbers

1.4.4 TPC may require additional reports based on his requirements. In case of partial or complete failure of SCADA, TPC shall decide alternate procedure or evidence available from the Service Provider for estimating running time of Equipment in hours for the purpose of processing the monthly invoices of the Service Provider, which shall be acceptable to Service Provider.

1.4.5 Provide mechanism to download report directly from the Equipment.

1.5 Detailed Maintenance Obligations of Equipment

The Service Provider maintenance and repair obligations shall include but not be limited to: -

- a) Supply and top-up of lubricants, supplies (wires, cables, switches, electronic/mechanical gadgets, electronic/mechanical material, etc.), spare parts, filters, consumables (e.g. oil, grease, coolant, filter, relays, batteries, switches, breaker, detergents, lubricants, cleaners, preservative, cotton waster etc.), safety facilities/jackets, personal protection equipment and other necessary materials as required for the execution of duties as required by this contract/Agreement and replace/provide new upon completion of useful life of any equipment/spare parts, batteries etc.;
- b) Preventive, corrective and operational maintenance including minor and major overhaul in accordance with the manufacturer's maintenance / operational manual;
- c) Rectify all faults occurred in relevant Equipment i.e. short circuit, open circuit, phase sequence, change, under / over voltage, phase missing, leakage current and earth faults etc.
- d) Any repair or replacement required, necessitated or caused as a result of, or generally resulting from, or in connection with, the following;
 - i) Accidental or intentional damage to Equipment;
 - ii) Labour disturbances attributed to the Service Provider's employee;
 - iii) Improper or negligent use of the Equipment;
 - iv) Use of Equipment in breach of the terms and conditions of the Agreement;
 - v) Incompetence's of the Service Provider or the employees, subcontractors or any third party in operating, handling, working, or otherwise dealing with the Equipment;
 - vi) Servicing, maintenance or repairs to the Equipment by any third party other than in accordance with the OEM recommendations;
 - vii) Minor repairs strictly necessary and carried out in an emergency situation or breakdown;
 - viii) Theft of Equipment or their components;
 - ix) Failure to comply with the manuals applicable to Equipment,

- x) Failure or malfunction of any component or equipment which is not provided by a OEM or TPC;
 - xi) Use of contaminated or non-OEM approved lubricants, additives or spare parts;
 - xii) Maintenance, repair or replacement, as the case may be, of or to the paintwork, side railing, approaches to Equipment, structure, stone damage, accident damage, etc. where Equipment are installed and handed over for operation and maintenance;
 - xiii) Attending to breakdowns and generally delivery to or collection or transportation from the point of service, salvage or breakdown;
 - xiv) Non- compliance by the Service Provider with any other obligations under the maintenance provisions specified in the Agreement;
 - xv) Tempering with the Equipment or its parts, controls and any specialised Equipment;
 - xvi) Operating the Equipment in a manner that may harm the Equipment, electrical and other components;
 - xvii) Equipment component damage due to Service Provider negligence during maintenance and in checking and maintaining oil, lubricants and fluid levels as applicable in the applicable OEM operating manual.
- e) In addition to above, the Service Provider shall, among other things:
- i) Protect the work area to ensure passengers/general public safety prior to start of any Equipment maintenance work;
 - ii) Perform the required regular checks, in accordance with the manuals and including the checking of coolant levels, lubricant levels, alignment etc.;
 - iii) Replace lost parts, and safety tool of Equipment or components of Equipment;
 - iv) Keep reserve parts, material etc. available in enough number to keep system operational during claim period under Defect Liability Period, if any. The Service Provider shall make good the Defects or damage as soon as practicable and at his own cost during Defect Liability Period;
 - v) Protection and removal of accumulated water in pits of Elevator, Escalator.
 - vi) Attend to the fitment, service or repair of any parts or equipment necessary pursuant to any applicable law which may come into force after the Signature Date;
 - vii) Carry out maintenance and repairs of the Equipment in accordance with industry best practices to maintain Technical Specification and meet functional Specifications;
 - viii) Keep and use the Equipment in a proper and prudent manner and ensure that only duly qualified and competent persons are allowed to operate the Equipment;
 - ix) Ensure that the OEM running-in instructions and proper responses to systems warnings are fully understood and properly observed;

- x) Not use Equipment for any purpose for which it is not designed or its use is specified;
- xi) Ensure that no components of the Equipment are removed or exchanged except where defective and in the course of normal service, repair or replacement and generally ensure that the Equipment are operated in complete condition;
- xii) Take all reasonable steps and precautions to minimise damage to the Equipment and in particular, but without limitation, in the event of any defect or failure occurring in the Equipment.
- xiii) Service the Equipment at relevant intervals in accordance with the relevant Equipment manual, best industry practices and/ or TPC's instructions;
- xiv) Promptly repair the Equipment in accordance with the relevant Equipment Manual and instructions. The service provider shall provide feasible solution for repeatedly occurring faults resulting operational loss;
- xv) Ensure that only lube and additive as prescribed by the OEM/TPC are used. In the event that the Service Provider proposes to use any alternative to the additive as prescribed by the OEM, first obtain authorisation from TPC and reasonable conditions may be imposed;
- xvi) Be responsible for maintenance and repair of all subsystems and equipment and recoup missing or theft items;
- xvii) Allow TPC's Authorised Representative to inspect the Equipment, have access to and be entitled to, download, all information available from the Equipment (whether directly or indirectly);
- xviii) Execute required improvements (holes, piping, welding, cutting, replacement, railing etc.), clear the site from all debris and restore the structure to original condition during the performance of his duties; and
- xix) Responsible for all daily checks.

1.6 Special Obligation Regarding Escalators & Elevators

The Service Provider Shall: -

- 1.6.1 Ensure more than 98 % availability (for passenger services) of Elevators and Escalators system measure/evaluated in a month;
- 1.6.2 Promptly alert the Control Centre in case of malfunctioning issues pertaining to Equipment (Escalator and Elevator and allied component) and progress of troubleshooting;
- 1.6.3 Responsible for security of Equipment (Elevator and Escalator assembly) which includes sensors, doors, pits, approaches, control units, inside elevator, and its allied component;
- 1.6.4 Assist Janitorial Staff of TPC contractor staff in cleaning of exterior of Escalators and Elevators and its allied equipment. Cleaning of pits and internal parts of Elevator and Escalator is responsibility under this Contract;

- 1.6.5 Make all arrangements for removal of accumulated water in Escalator & Elevator pits so as to avoid spread of dengue and for protection of Elevator and Escalator. Protect the work area to ensure passengers/general public safety prior to start of any Escalator and Elevator maintenance work.
- 1.6.6 Maintain and ensure the remote restart function/control of Escalators & Elevators is available from the Control Centre in case of power shutdown or other similar situations and adequate staff is available for such purpose;
- 1.6.7 Ensure, in case of power breakdown, that system can be restarted manually by the Service Provider staff after power is restored and that manual restart system is always functional/available;
- 1.6.8 Handle the emergency calls of passengers and station staff that pertains to Elevators and Escalators and paste such numbers in Elevators to rescue passengers;
- 1.6.9 Depute at least one person per elevator in stations and buildings elevators during operation hours (for station from 6 AM to 11 PM and for Building from 6 AM to 11:59 PM) to guide public / passengers. The staff shall perform such duties and functions other than elevator as assigned by TPC; and
- 1.6.10 Connection and integration (wired or wireless) of internal camera of Elevators with local data centre at ticket office or local control room in case of buildings.

1.7 Monthly Operation Report

No later than 17:00 PM on the 3rd Business Day of each month, starting on the last Business Day of the first Calendar month after the Commencement Date, the Service Provider shall submit to TPC a report on the Performance of its obligations under the Agreement during the previous month, covering at a minimum:

- a) Report on regarding spare parts usage & balance in warehouse;
- b) Details of issues during Defect Liability Period (if any), feedback and status;
- c) Detail record of all service, repair and maintenance;
- d) List of tools, software, diagnostic equipment etc. maintained;
- e) Full details on any Severe Defect maintenance / operations on Equipment;
- f) List of Staff /Operator working and updated on monthly basis for the duration of the Agreement by the way of an exception report indicating the incoming and exiting staff/Operator for implementation in attendance system of TPC;
- g) Performance on KPIs;
- h) Items required by TPC for monitoring and performance evaluations; and
- i) Other indicator as agreed between the Service Provider and TPC.

1.8 KEY PERFORMANCE INDICATORS

- i. The Service Provider's performance of operation, maintenance and services shall be evaluated by means of key performance indicators ("**KPIs**"). Failure to comply with KPIs ("**Failure Events**") shall lead to the application of performance deduction as per the below table ("**Performance Deduction**"):
- ii. The Service Provider shall, pay the Liquidated Damages depending on its performance in achieving the agreed performance regime as measure during course of the Contract.
- iii. The Liquidated Damages for failure to achieve Key Performance Indicators (KPI) parameters will be implemented in accordance with Key Performance Indicators.
- iv. Except for information available through SCADA system /Software, Network Monitoring System or complaint management system, or other system generated reports known to the Service Provider; any other information, if any, used by the TP to evaluate KPI will be transferred to the Service Provide once a week on request. The Service Provide will have the right to justify through concrete evidence the outcome of the aforesaid systems, on as-and-when basis, that are subject to Liquidated Damages as per KPI, prior to settlement of monthly payments, but in any case no later than one week from the submission of the Invoice.
- v. The Liquidated Damages is the final and full remedy of the TPC for the Service Provider failure to achieve the KPI targets, and such Liquidated Damages shall be deemed to have offset any breach whatsoever due to the lapses/deficiencies in performance.
- vi. Any breach of defined service levels will entail Liquidated Damages which shall not exceed 10% of the monthly payments to be paid under the Agreement/Contract to Service Provider.
- vii. Escalator and Elevators which are non-operated for more than 10 days in a month period will be considered as non-service. This will not constitute as Liquidated Damages and deduction per month will be made as per following details:

Non-Service deduction per month= PKR: 90,000 per Elevator or per Escalator

1.8.1 General Violations and Their Liquidated Damages applicable to the Agreement

Sr.No	KPI	Failure Event	Performance Deduction Percentage
1	Prevention of Severe Accidents	Accident involving Equipment and software due to the Service Provider fault or malfunctioning of equipment resulting in death or severe physical injury of a passenger or other person (Severe Accident)	10% per occurrence
2	Prevention of Material Accidents	Accident involving Equipment and software due to the Service Provider fault or malfunctioning of equipment resulting in minor physical injury of a passenger or other person or material damage to the TPC assets (Material Accident)	5% per occurrence
3	Prevention of strikes	Number of operating minutes in which the Service Provider or its staff did strike and shutdown system partially or fully	5 % per incident which continue for more than 20 minutes plus loss of passenger revenue (if any)
4	Safeguarding of operational data	Some operational data irrecoverably lost	1% per occurrence
5	Repetition of issues	Occurrence of same issues by more than 10 times in the same month in same or multiple equipment	3 % per occurrence
6	Transparent self-reporting	False or misreporting of monthly operations report	2 % per occurrence
7	Dragnet clause	Any act/instance that is non-conforming or a violation of Contract , Operation Specification Schedule, Rules or Regulations of TPC, Instructions given by the TPC or violation of Protocol unless covered by another KPI	1 % per occurrence
8	Frequently occurred violations	Occurrence per violation listed in table below (Failure Event), unless covered by another KPI Note: This Liquidated Damages will be only applicable, if any other Liquidated Damages is not applicable under the Agreement/Contract	0.5% per occurrence

a) Frequently occurred violations. The table below defines the frequently occurred violations that are covered in the KPIs.

Sr.No	Failure Event
1	Late arrival of staff at stations/ control centre as defined by TPC (calculated per person)
2	Live video of specific camera is not available (calculated per camera)
3	Late opening or early closing of Equipment
4	Staff not available in the Control Centre (Per person per day)
5	Lazy work by staff/smoking at stations (per occurrence per person)
6	Staff seen spitting (per occurrence)
7	Not attending/responding complaints received on complaint management system or share through other mechanism devised by TPC (calculated per day)
8	Reports in required format are not provided (calculated per month per report)
9	Late or non-submission of required report at start of the month (calculated per day) or date specified by TPC
10	Absence of the staff at designated points for more than 20 minutes (calculated per occurrence)
11	Failed to inform malfunctioning Equipment (per occurrence)
12	Failed to facilitate physically disabled person (calculated per instance)
13	Lack of policies that promote environment for female employee (calculated per instance)
14	Service Provider office in location that is not accessible by specially challenged persons (calculated per month)
15	Delay of repair to TPC property in TPC prescribed time caused by Service Provider (In addition to cost recovery of asset) (calculated per day)
16	Misuse of TPC infrastructure (per instance). LD may be multiplied by factor 1 to 5 upon discretion of TPC based on severity
17	Allowing passengers to BRT without security check or fare (per instance)
18	Non-availability of online attendance of staff assigned to stations (calculated per day)
19	Non-availability of insurance or late renewal of insurances (calculated per day)
20	Failure of any equipment or subsystem or fail to maintain system accordance with standards and specification (calculated per day per equipment)
21	Failure to carry personal or vehicle identification by staff per day
22	Refusal or failing to provide information prescribed in the Agreement (per instance)

Sr.No	Failure Event
23	To refuse to accept the visits of the TPC inspectors to station, to hide information or to provide partial or erroneous information(per instance).
24	Disruption of, or negative impacts on, the BRT Vehicle Services due to any conduct of the Service Provider such as sitting in stairs, on floor, or obstructing passage way (per instance)
25	Accumulation of water in any Equipment pits or any other location where there is a likelihood of damage to any equipment, or likelihood of mosquito infestation. (per instance)
26	Misuse of Utility Connections or their wastage (In addition to cost recovery from Service Provider)
27	Emergency not reported to TPC within 15 (fifteen) minutes of its occurrence
28	Parts/equipment installed are of inferior quality/ noncompliant to technical specifications of those under specification per instance. The LD may be multiplied from factor 1 to 5 based on discretion of TPC and severity of violation.
29	Failure to disclose or inform the TPC about operational issues and/or safety incidents that have subsequent impact on operation and such information is not available through information systems, such as SCADA etc. (per instance)
30	Personnel does not adhere to code of conduct or misbehaves with TPC staff, other Service Provider Staff, its own staff or passengers (TPC can suggest the Service Provider to take punitive actions or terminate the employment of such responsible employees in addition to Liquidated Damages)
31	Execute works without precautionary measures for passengers/general public safety or without permission of TPC (per instance)
32	Non-compliance to Gender Action Plan and / or Employment Opportunity Program (per instance)
33	The Asset Register is not maintained, not up-to-date or incomplete or RFID tags missing (per instance)
34	Failure to remove broken-down of service/maintenance staff vehicle duly approved by TPC from the BRT corridor within one hour.

1.8.2 Escalators and Elevators KPI's

Sr.NO	KPI-1: Elevator and Escalator System Fault Rectification (FR)
	<p>Fault shall be considered based on number of units effected: -</p> <p>1. Critical Category Fault (CCF): Complete shutdown of elevator/escalator during bus operations hours at station /building leading to service loss. OR There is a situation in which operations of elevator/escalator may lead to safety issues for passengers. Resolution time is 2 hours in case no parts are required; 4 hours in case parts are required and available, and damage/fault are arisen under normal use. In case of damage/fault out of normal use, timelines to rectify are to be justified, conveyed in writing in 90 minutes and shall be adhered to.</p>

	<p>2. High Category Fault (HCF): The elevator/escalator can operate but not as per designed and intended functional use or within acceptable limits specified and there is likelihood of service loss. Resolution time is 12 hours.</p> <p>3. Low Category Fault (LCF): The elevator/escalator can operate but not as per designed and intended functional use or within acceptable limits specified. There is no likelihood of service loss or safety issue and a possible workaround exists. Resolution time is 24 hours.</p> <p>TF = Total Faults Considered for KPI-1: = A + B x (C/ D) A = No of Faults Responded above the assigned resolution time but within 2 times the Assigned Resolution Time for a Particular Category; B = No of Faults Responded in more than 2 times the Assigned Resolution Time for a Particular Category C = Average Actual Resolution Time of 'B' expressed in units of Assigned Resolution Time of the Category under Consideration D = Assigned Resolution Time of the Category under Consideration</p>		
	FR	Threshold of FR	Performance Deduction Percentage (PDP)
1	CCF= (Critical Fault solved within assigned resolution time) / (Critical Fault solved within assigned resolution time +TF Critical) x 100	More than 98 %	1 x TF _{Critical}
2	HCF= (High Fault solved within assigned resolution time) / (High Fault solved within assigned resolution time +TF High) x 100	More than 95 %	0.5 x TF _{High}
3	LCF= (Low Faults solved within assigned resolution time) / (Low faults solved within assigned resolution time +TF Low) x 100	More than 90 %	0.2 x TF _{Low}

FAULT CATEGORY IDENTIFICATION FOR KPI-1 AND OPERATIONAL PENALTY ON OCCURANCE		
Sr. No	INCIDENT	FAULT CATEGORY
1	Improper door operations of elevator or door sensors not working or dead door closing buttons.	Critical
2	Jerks in Elevator/escalators, service is interrupted.	Critical
3	Elevator/escalators generating Mechanical rubbing sound	High
4	Camera inside the Elevators/escalators are malfunctioned	High

5	i. Incorrect / delayed response of sensors disengaging power saving feature. ii. Escalator/elevator did not respond to emergency and safety handling features such as brakes etc.	Critical
6	Elevator/escalator is Operational but damaged / with missing parts / in dilapidated condition.	Critical
7	Others.	Category to be decided by the TPC under fault categories defined

ANNEXURE-C. PAYMENT CALCULATION SCHEDULE

The TPC shall pay the Service Provider according to the manner specified below.

For each Month (m) following Services Commencement Notice, the Service Provider shall be entitled to a payment (**Monthly Payment**) calculated in accordance with the following formula:

$$\text{Monthly Payment}_m = (\text{Stations}_m / \text{Stations}_{\text{Total}}) \times \text{Fixed Fee} \times (\text{CPI}_y / \text{CPI}_{2021}) (1 - \text{Performance Payout Percentage} \times \text{Performance Deduction Percentage}_m) - \text{RF}$$

Where:

Stations_m means the number of Stations at which Services were provided on the first day of Month (m).

Stations_{Total} means the total number of Stations where equipment are installed.

Fixed Fee means the monthly fee/bid value as updated from time to time.

CPI_y means the Consumer Price Index applicable for the specific year, which shall be the average general Consumer Price Index for the month of January (year-on-year basis) of the preceding year as published by the Pakistan Bureau of Statistics, or in case it ceases to be published any equivalent index as agreed by the Parties. For the first adjustment, **CPI_y** will be accounted for January 01, 2022. Base value for adjustment will be that of **CPI₂₀₂₁** i.e. January 01, 2021 and **CPI_y** will be **CPI₂₀₂₂**.

CPI₂₀₂₁ means the Consumer Price Index applicable for the year 2021, which shall be the average general Consumer Price Index for the month of January 2021 as published by the Pakistan Bureau of Statistics. For subsequent years, **CPI_y** and **CPI₂₀₂₁** will change accordingly i.e. **CPI₂₀₂₁** will change to **CPI₂₀₂₂** for next year and so on. Subject to above, adjustment will be made only once in a year in month of January.

Performance Payout Percentage means ten percent (10%).

Performance Deduction Percentage_m means the Performance Deduction Percentage applicable to the Service Provider for Month (m).

RF means any amount to be retained in relation to the provisioning of the Reserve Fund.

Adjustment in monthly fee will be calculated once in a year and first adjustment will be effected in January 2022 to be paid in February based on year-on-year basis.

The Service Provider shall raise an invoice to the TPC for an amount equivalent to the Monthly Payment for Month (m) (plus any applicable Sales Tax on Services). The Monthly Payment for Month (m) shall be made by the TPC within twenty (20) Business Days of receiving such copy. TPC will notify Performance Deduction Percentage for Month (m) in accordance with the provisions of Operation Specification Schedule to the Service Provider for deduction from the Monthly payment in first 10 Business days of the Month. Service Provider will have right to defend the Performance Deduction Percentage to TPC. Monthly payment will be paid in local currency only.

The adjustments in the monthly fee will be in accordance with General Consumer Price Index variation and procedures laid down in above sections. The parameters established for calculating the cost basket are estimates and therefore, failure to actually meet the same will not entitle any party to request adjustments in the calculation procedure of monthly fee nor in the economic compensation of any kind.

Annex D
PERFORMANCE GUARANTEE

[TO BE ISSUED ON JUDICIAL PAPER OF PRESCRIBED FEE BY BANK LICENSED TO CONDUCT BUSINESS IN THE ISLAMIC REPUBLIC OF PAKISTAN]

This **Performance Guarantee No.** <Insert No.> is made on <Insert date> 2020 (the “**Guarantee**”)

Ref: Letter of Award for **Operation and Maintenance of Elevators, Escalators and Provision of Allied Services in Peshawar BRT System** dated <Insert date> 2020 (the “**Agreement**”)

Beneficiary: TRANSPESHAWAR (THE URBAN MOBILITY COMPANY), a Public Limited Company incorporated with Security Exchange Commission of Pakistan in February 09, 2017, with company registration No.0105691 and whose registered address is at Ali Tower, Second Floor, University Road, Peshawar, KPK. (“**employer**”)

1. GUARANTEE

We <Insert name of Bank> Bank (the “**Guarantor**”) have been informed that <Insert name of the Company> (the “**Service Provider**”) has been awarded the Agreement relating to **Operation and Maintenance of Elevators, Escalators and Provision of Allied Services in Peshawar BRT System** (the “**Project**”).

- 1.1 The Guarantor hereby irrevocably and unconditionally undertakes to pay to employer on its first demand for payment, without regard to any objections or defences to employer’s demand from the Service Provider or any other person, an amount or amounts not exceeding in total **PKR ----- (in words)**.

2 TIME FOR PAYMENT

- 2.1 Any amount demanded by employer shall be paid by Guarantor to employer within seven (07) days of receipt of the employer’s demand for payment stating that the Service Provider is in breach of its obligations arising under, out of or in connection with the Agreement and the Guarantor shall have neither the right nor the duty or obligation to challenge the accuracy or sufficiency of such statement or the amount specified in the demand.

3 VALIDITY OF GUARANTEE

- 3.1 This Guarantee shall come into force on the date hereof and shall remain valid until <insert date> whereupon this Guarantee shall expire and be returned to the Guarantor.

4 PAYMENT FREE OF DEDUCTIONS AND WITHHOLDINGS

- 4.1 Any payment under this Guarantee shall be made free and clear of, and without deduction for or on account of, any present or future taxes, levies, imposts, duties, charges, fees, deductions or withholdings of any nature whatsoever and by whomsoever imposed.

5 Notices and Demands for Payment

- 5.1 Any demand for payment made under this Guarantee shall be delivered by hand or registered courier and be deemed to be duly made at the time of, and on the date of, delivery.
- 5.2 Any notice given under this Guarantee shall be deemed to be duly given:
- A. in the case of facsimile transmission, on the date and at the time shown on the transmission report by the machine from which the facsimile was sent, subject to the machine producing a report that the facsimile was sent in its entirety to the contact details of the addressee stated in Schedule 1 (the “**Contact Details**”); and
 - B. in the case of email:
 - (A) at the time of receipt by the sender of an email acknowledgement from the intended addressee’s information system showing that the email has been delivered to the email address of that addressee; or
 - (B) if no email acknowledgement is received, then at the time the email enters an information system which is under the control of the intended addressee (and the addressee shall make available at the request of the sender, evidence of such time); and
 - C. in the case of delivery by hand or registered courier, at the time of and on the date of delivery.
- 5.3 Any notice or demand given or made by employer or the Guarantor relating to this Guarantee shall be in English.

6 ASSIGNMENT

- 6.1 Employer shall have the right to assign the rights and benefits under this Guarantee.

7 DISPUTE RESOLUTION

- 7.1 This Guarantee shall be governed by, interpreted and construed in accordance with the laws of the Islamic Republic of Pakistan. Each Party consents to the jurisdiction of the courts in the Islamic Republic of Pakistan.

EXECUTED for and on behalf of
[**GUARANTOR**]

.....

(signed)

.....

Name

Witnesses:

SCHEDULE TO THE PERFORMANCE GUARANTEE

For employer:

Transpeshawar Company

<Address line1>

<Address line2>

<Address line3>

Tel: <Insert employer's telephone number>

Fax: <Insert employer's fax number>

Email: <Insert employer's email address>

For the Attention of <_____>

For the Guarantor:

<Insert Guarantor's Name>

<Address line1>

<Address line2>

<Address line3>

Tel: <Insert Guarantor's telephone number>

Fax: <Insert Guarantor's fax number>

Email: <Insert Guarantor's email address>

For the Attention of <_____>

Details of Escalators showing location and number						
Sr. No	Station	Station Names	Quantity	Location within the Station		
				Left	Middle	Right
1	BS-01	Sardar Ghari	1	-	✓	-
2	BS-02	Chughal Pura	1	-	✓	-
3	BS-03	Faisal Colony	1	-	✓	-
4	BS-04	Old Haji Camp	1	-	✓	-
5	BS-05	Lahore Adda	1	-	✓	-
6	BS-06	Gulbahar Chowk	1	-	✓	-
7	BS-08	Malak Saad Shaheed	1	-	-	✓
8	BS-10	Khyber Bazar	2	-	✓	-
9	BS-11	Shoba Bazar	2	-	✓	-
10	BS-12	Dabgari Gardens	2	-	✓	-
11	BS-13	Railway Station	2	-	✓	-
12	BS-14	FC Chowk	2	-	✓	-
13	BS-15	Saddar Bazar	2	-	✓	-
14	BS-16	Mall Road	2	-	✓	-
15	BS-19	Tehkal Payyan	2	-	✓	-
16	BS-22	University Town	1	-	✓	-
17	BS-23	Peshawar University	1	-	✓	-
18	BS-24	Islamia College	1	-	✓	-
19	BS-25	Board Bazar	1	-	✓	-
20	BS-26	Mall of Hayatabad	2	-	✓	-
21	BS-32	Karkhano Market	2	-	✓	-
Total Number of Escalator			31	0	30	1

Details of Elevators showing location and number						
Sr. No	Station	Station Names	Quantity	Location within the Station		
				Left	Middle	Right
1	KPUMA	KPUMA Building	2	Inside Building		
2	BS-06	Gulbahar chowk	1	✓	-	-
3	BS-08	Malak Saad Shaheed	3	✓	✓	✓
4	BS-10	Khyber Bazar	2	-	✓	-
5	BS-11	Shoba Bazar	2	-	✓	-
6	BS-12	Dabgari Gardens	2	-	✓	-
7	BS-13	Railway Station	1	-	✓	-
8	BS-14	FC Chowk	1	-	✓	-
9	BS-15	Sadar Bazar	1	-	✓	-
10	BS-16	Mall Road	1	-	✓	-
11	BS-19	Tahkal Payyan	3	✓	✓	✓
12	BS-20	Takal Bala	2	✓	-	✓
13	BS-21	Abdara Road	2	✓	-	✓
14	BS-22	University Town	2	✓	-	✓
15	BS-25	Board Bazar	2	✓	-	✓
16	BS-28	Hayatabad Phase-3	1	✓	-	-
17	BS-31	Hospital Chowk	1	✓	-	-
Total No of Elevator			29	9	13	6

Inclined Unit (Escalator) Specifications & Compliance

Technical Data	Required Specifiactions	Compliance	Deviation (If Any)	Remarks
Step width	800 mm-1000 mm (As per drawign designed by manufacturer)			
Total width of escalator	1400 mm-1600 mm (Designed as per drawing)			
Total length of escalator	As per Drawings			
Inclination(Angle)	30-35 deg(As per Drawing)			
ASME Standards	ASME- 17.1			
Speed	0.5 m/s Standard (Variable Speed Adjustable)			
Capacity	6000-7000 pers/hour			
Escalator Weight	Standard			
Control	Key Switch & micro processor based			
GADS	Provision of GADS to owner			
SCADA connections/Cables & accessories for remote monitoring	To observe unit operational condition remotely			
Breakdown display Board	On Outer Skirts on both ends(top & bottom sides)			
Floor Plate	Stainless Steel /Alloy Steel (Standard)			
Hand Rail Drive	HR Belt & Steps Synch			
Hand Rail	C Type in black color with illumination			
Steps	SS or Alluminum Alloy Die-cast (with Anti-skidding treatment) with demarcation Line			
Step Color	Black with yellow skirt lining			
Horizontal Steps	TWO steps flat combined			
Step Rollers	Polyurethane			
Step Chain	Roller inside Based			
Step Chain Hinge Pin Pressure	≤23N/mm square			
Skirt Safety Brushes	Incorporated			
Newel Skirting Type & Material	Stainless Steel (NWBT STD)			
Comb with lighting facility	Alluminum Alloy			
Blustrade	Stainless Steel Hairline Standard			
Truss (Main Structure)	Stringly Welded (Certified by EN1090) with deflection of 1/750			
Traffic Flow Light Display	In both direction automatically			
Movement in Both Directions with display signals	Upward & Downward both			
Pit Stop Switch	Stop switch in top machine room and bottom in pit			
Emergency Stop Button with fault display	Both Upper & Lower Ends			
Movement sensor/Radars	Both Upper & Lower Ends			
SS Cladding	With LED lights beneath			
Fault Finder Display	Incorporated			
Moving Control Box for Maintenance Activities	Incorporated			
Remote monitoring software interface with SCADA	Incorporated			
Handrail Antistatic brush	Incorporated			
Auto Lubrication System	Incorporated			
Oil Collection Tray	Incorporated			
Motor Specifications	Required Specifiactions	Compliance	Deviation (If Any)	Remarks
Motor Power Supply	230/400.50HZ			
Motor Power	7.5 KW-8 KW			
Motor Speed Control	VVFD			
Motor break	Lather Type /disc type			
Motor Auxiliary break	Mechanical lever connected with drive wheel assembly			
Standard Safety Configuration/ Protections	Required Specifiactions	Compliance	Deviation (If Any)	Remarks
Handrail Entry Protection	Handrail Entry Protection for any foreign element			
Handrail Protection	Handrail Protection Sensor			
Comb Plate Protection	In case of any foreign element			
Reversal Protection	Un-intentional reversal safety device			
Comb Plate Protection	Comb plate protection			
Motor overload & overheat Protection	Motor overload & overheat protection device			
Step Chain Loosen/Broken Protection	Step Chain Loosen/Broken Protection Device			
Skirt Panel Protection	MUST incorporated			
Ground Protection	Ground protective device			
Step Antistatic Brush	MUST incorporated			
Step Collapse & Roller Broken Protection	Step Collapse & Roller Broken Protection Device/ Sensor			

2-1/2

Step Broken/Step Missing Protection	Incorporated			
Machine Room Protection	Machine Room Protective Device			
Auto Lubrication	Auto lubes system/device			
Emergency Stop Button on both device	Emergency Stop Button with fault display			
Skirt Panel Brush	MUST incorporated			
Main Drive Chain Tension/Broken	Main Drive Chain Tension & Broken Control Device			
Floor Plate Open Protection	Floor Plate Open Protection Device/Switch			
Lock UP/DOWN Protection	Lock UP/DOWN Protection when under maintenance			
Energy Saving Mode	Movement Sensor/Radars on both ends			
Escalator Decorations	Required Specifiactions	Compliance	Deviation (If Any)	Remarks
Handrail Colour	Black			
Skirt Lights LED Strip Type	As per customer requirement			
Spot Lights beneath the escalator on cladding	As per customer requirement			
Clading on both sides and bottom	Hairline Stainless Steel			
Blustrade	Hairline Stainless Steel			
Operation & Maintenance	Specifications	Compliance	Deviation (If Any)	Remarks
18 Hours/Day, 7 Days/Week, 365 Days/Year Maintenance during defect liability period of TWO (02) years, Full time operation staff included, Extendable upto 5 Years	The detail of Operational Staff/Maintenance Staff & their duty roster would be shared by the contractor. Moreover the maintenancae schedule & maintenance activities (step-wise) would also be shared by the contractor (O&M TORs Enclosed)			

7/11/2018
NQ

Salman
06/01/2018
CRE-PSBRTC Project
Younas Salman Abedin.

Elevator's Specifications & Compliance

Elevator Information	Specifications	Compliance	Deviation (If Any)	Remarks
Type of elevator	Passengers			
Rated Load	600 KG-650 KG			
Capacity	4-6 passengers			
SPEED	Range 0.75m/s to 1.5 m/s(Exact Requirement 1 m/s)			
ELECTRICAL SUPPLY/POWER SYSTEM	400 V 50Hz In 22A			
ELECTRICAL SUPPLY/LIGHTING	230V 50Hz In 6A			
Lights in Car Cabin	LEDs OR Flourescent lights			
Sufficient LEDs/ Flourescent lights in Car Cab	Appropriate Illumination			
TYPE OF CAR/ Cabin GUIDES	T89 /T75			
TYPE OF COUNTERWEIGHT GUIDES	T 70			
Car Cabin Inside	Hairline Stainless Steel			
Hand Rail Inside Car	Appropriate One			
Car Cabin doors	Centre Opening			
Car cabin doors opening size	As per drawing			
Landing doors opening	Centre opening			
Local Indication/ Hall Indication Panel	Display panel (LOP & HI in same Panel)			
Local Operating Panel(Call Panel with Aeros)	Push buttons with Blue LED/ White LEDs			
Car Cabin Height(Including Ceiling & Top Mounted Equipments/ Componants)	As per drawing			
Car Cabin W X D X H	As per drawing			
Lift Type	Simplex			
Number Of Floors	TWO(02)			
Floor& Direction Indication Inside Car	Floor& Direction Indicator Inside car with voice announcement			
Cabin Operating Panels (COP)	Push buttons with Blue LED /White LEDs & floor description embossed			
Installation of CCTV Camera inside car with complete cable & accessories for remote monitroing	Interface with SCADA			
Remote Monitoring System: All Cables terminations from Cabin to JB for remote monitoring system/SCADA (Control Work from incl gateway/converter & inter connecting cables, accessories from elevators to gateway and to network switch, monitoring software for PC(Complete from all respect)	Contractor's Scope			
Civil & Allied Works(Claddings +Sill Work+Door Jambes)) mandatory for finishing	Contractor's Scope			
All other allied works arrangements in the Hoistway	Contractor's Scope			
Machine Information	Specifications	Compliance	Deviation (If Any)	Remarks
MACHINE Type	Appropriate as per Requirement			
Machine speed control for smooth & sound landing & start by VVFD	VVVF Drive			
TRACTION SHEAVE	240 mm			
ROPES NUMBER	7-10 Ropes			
Machine Room Less(MRL)	MRL			
ROPES DIAMETER	6mm to 8mm			
MAXIMUM MACHINE POWER/	8 kW-11 kW			
MAXIMUM APPARENT POWER ABSORBED	8KVA to 10 kVA OR per motor rated power			
Pit Acss Ladder	Must be provided with each elevator			
Speed Governor	Must be provided with each elevator			
Speed Governor Ropes	Must be provided with each elevator			
Travelling Cable with supports	Must be provided with each elevator			
Provision of GADs	Must be provided with each elevator			
Counter Weight Buffers with Pads	Contractor's Scope			
UNDER CAR BUFERS with stands	49kN			
Under counter weight Buffers	77.42 KN			
Car Buffers with Pads	Contractor's Scope			
Set of Emergency Door Openeing Keys	Must provided 03keys set with each elevator			
EN Standards	EN 81 Standard			
Safety Functions	Specifications	Compliance	Deviation (If Any)	Remarks
Over Speed Protection	Through speed governer			
Over Travel (Down-Ward & Up-Ward) Protection	Final Limit Switches on both ends(Top & Bottom)			
Photocell Protection	With Infrared light activation (during door open & shut period) covering whole height of the door			
Over Travel Protection	With Audible Alarms at remote end			
Pit Stop Switches (Manual)	Stop Button During Maintenance			
Lift stop safty switches	It gives protection to maintenance team during maintenance activities			
Motor Over Temperature Protection	Temperature sensors required			
PCB Temperature Protection	Temperature sensors with indications & audible alarm			
Over Load Protection	Over load Holding Stop with Buzzer			
Control panel with built-in lock & set of key	At top floor+C21			
Inspection Running Protection	When lift is on inspection MUST run in slow(Inching Mode)			
Inter comm	(Rescue Call Device) inside the cabin connected with SCADA			
SCADA interface module built-in	For remote monitoring			
Automatic Rescue Device	ARD with UPS(along with the batteries) for Safe Landing			
Emergency Light	In case of power failure			
Door Interlock Protection	Provision of door interlock to prevent the door opening prior to land at floor			
UPS built-in	UPS built-in with batteries			
Alarm Button inside car cabin	In case of emergency, passenger will push this button to get help from outside			
Fireman Operation Panel	Must be provided at ground floor/main floor			
Energy Saving Mode	Specifications	Compliance	Deviation (If Any)	Remarks
Car Ventilation & Lights shut-off automatically	Car Ventilation & Lights shut-off automatically when not in used or no command in the stiplated time			
Remote Shut-off	Lift can be called to main landing after finishing the service			
Emergency Function	Specifications	Compliance	Deviation (If Any)	Remarks

Emergency Car Lighting	Emergency Car Lighting automatically activated once power failure			
Inching Running	When lift enters into emergency electric operation, the car travel at slow in inching running mode			
Emergency Bell	If button pressed continuously on COP, electric bell must ring on the car top			
Cabin Interior	Specifications	Compliance	Deviation (If Any)	Remarks
Cabin Walls	Fire proof wooden sheets covered with SS plates 3 mm thick			
Cabin Roof	SS frame with cantered glass			
Cabin floor	Tiles / Marble			
Cabin door	MS doors covered with SS sheets 3mm thick			
Cabin Operating Pannel	SS frame			
Signange Display	Specifications	Compliance	Deviation (If Any)	Remarks
Hazard Signage	All appropriate hazard signage MUST be displayed inside the car, on the floor & in the shaft			
Max Load Capacity	It should be display inside the car & out side at each floor			
Each Cable Tagged	All cables either of controls or power MUST be Tagged properly			
Operation & Maintenance	Specifications	Compliance	Deviation (If Any)	Remarks
18 Hours/Day, 7 Days/Week, 365 Days/Year Maintenance during defect liability period of TWO (02) years. Full time operation staff included. Extendable upto 5 Years	The detail of Operational Staff/Maintenance Staff & their duty roster would be shared by the contractor. Moreover the maintenancae schedule & maintenance activities (step-wise) would also be shared by the contractor (O&M TORs enclosed)			

7/11/18
NQ

Salman
06/01/2018
CRE-PSBRTC Project
Younes Salman Abedin

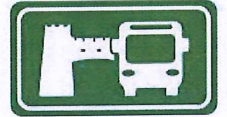
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Annex-A-2

Annex-L



DEMS PVT LIMITED
DESIGNING OF ELECTRICAL AND MECHANICAL SYSTEMS



TransPeshawar

**SUPPLY, INSTALLATION, TESTING COMMISSIONING AND
MAINTAINENCE OF BRAUN ESCALATOR FOR BRT
PESHAWAR**

SITE ACCEPTANCE/TEST REPORT

10th JUNE,2019



DATE OF INSPECTION: _____
DATE OF CHECK REQUEST: __/__/__

Project NAME: BRT PESHAWAR

LOCATION:

SITE ACCEPTANCE REPORT

ESCALATOR TYPE: BR800
ELECTRICAL CHECKS & TESTS

Commission No:

CHECKS	CHECK FUNCTION/VALUE	RESULT
RATING	VALUE (KW)	
Current	VALUE (A)	
Voltage	VALUE (V)	
KEY FUNCTION	FUNCTION	
DOWN Direction Indicator	FUNCTION	
UP Direction Indicator	FUNCTION	

SAFETY CHECKS & TESTS:

CHECKS	CHECK FUNCTION/VALUE	RESULT
Up Emergency Stop Button Test	FUNCTION	
Emergency Alarm Test	FUNCTION	
Floor Plate Safety Test	FUNCTION	
Stop & Go Sensor	FUNCTION	
HAND RAIL SAFETY	FUNCTION	
Maintenance Mode Test	FUNCTION	
Down Emergency Stop Button Test	FUNCTION	
Remote Monitoring	FUNCTION	
Skirt Brushes	INSTALLED	
Comb Plates	INSTALLED	

Mech. Checks:

INSTALLATION CHECKS	RESULT
HAND RAIL	
BALUSTRADE	
DIRECTION INDICATOR	
MAINTENANCE STEPS HAND	
RAIL ENTRY BRUSHES	
MAIN CONTROLLER	
EMERGENCY BRAKE	
MDKE REMOTE PANNEL	
COMB PLATES	
SAFETY MONITORING DEVICE	
TRACTION MACHINE ASSEMBLY	
OUTER DECKING	
INNER DECKING	
MOTOR	
Skirt Brushes	

CONFIRMED BY:
COMMISSIONING ENGINEER
SIGNATURES:

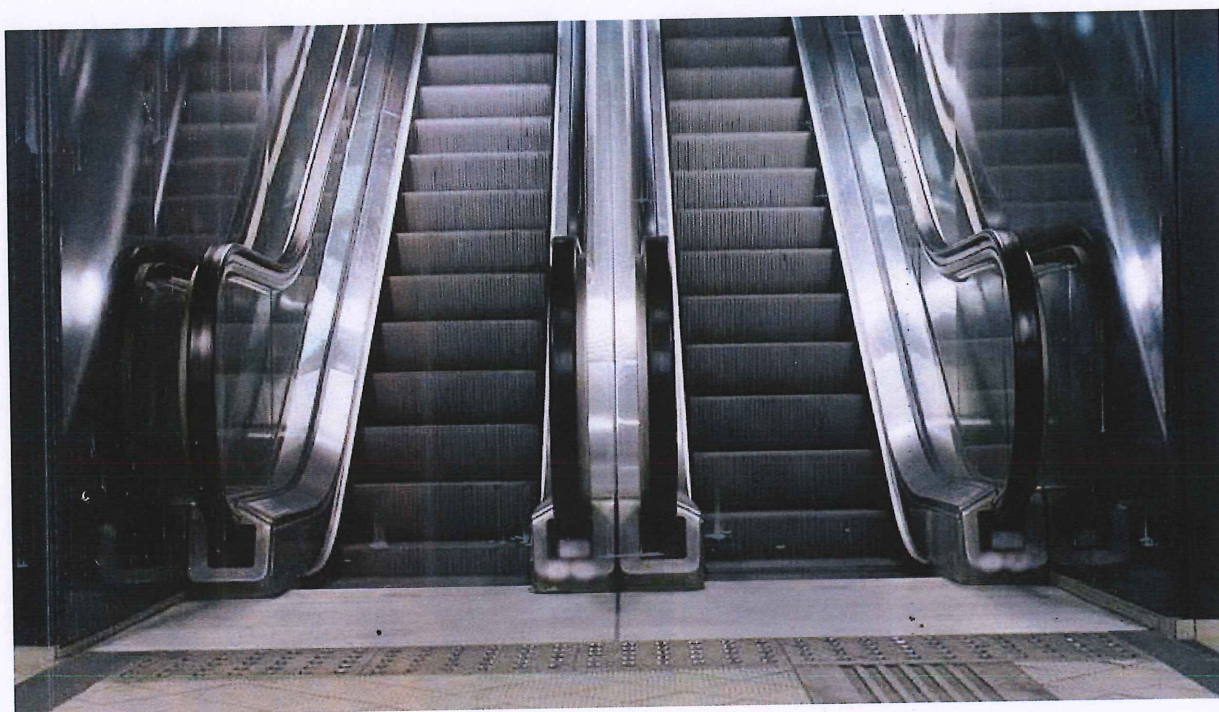
WITNESSED BY:
CLIENT/CONSULTANT
REPRESENTATIVE
SIGNATURES:

Note: Any open points not related to the safe function of Escalator should be noted on the attached comment sheet, and will be rectified on intimation and will not hinder the handing over and the operations of Escalator and start of maintenance period.

[illegible]

WITNESSED BY:
CLIENT/CONSULTANT
REPRESENTATIVE
SIGNATURES:

Operation & Maintenance Manual Of BRAUN Escalators



BRAUN Elevator Co. Ltd

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1. Escalator safety use

1.1 Normal operation

The escalator described in this manual is only applicable for the personal transportation, not for the goods or other purposes. It is prohibited to put the inappropriate goods on the static or movable step or handrail in order to prevent the accident during operation.

1.2 Safety

This manual can assist you to operate the escalator safely. Please operate the escalator as per safety requirements listed herewith; please restrain to use the escalator for other purpose.

The trained professional staffs shall operate the escalator only, and the owner shall be responsible for the follow up of the operation rules.

During the maintenance, inspection and testing, the escalators should be provided with suitable protection devices to avoid the accident. Without the permission of staff in charge, the escalator should not be started.

- If any mechanical or electrical defects were found in the escalator, it should not be used, specially when there is a failure in the traffic light (if any), warning and safety protection devices.
- Before the connection with the power supply, carefully checks should be made to the covering plate, comb plate, comb block, step, skirt, handrail and the balustrade against any defects, and to make sure the warning and protection devices is in good condition.
- If the owner intend to operate this escalator combined with other equipments, parts together, prior consulting should be made towards manufacturer or specialist, to make sure that such combination has no impact on the safety of the passengers or surrounding environment.
- If maintenance or modification are needed, BRAUN ELEVATOR CO., LTD will be responsible for the safety of the products if relevant action are taken by the staffs from BRAUN ELEVATOR CO., LTD or the staffs authorized by BRAUN ELEVATOR CO., LTD. Periodical and proper maintenance are the guidance for the long term and good operation of the escalator only.
- The escalator should be operated properly and maintained periodically as per requirements.
- BRAUN ELEVATOR CO., LTD will not take the responsibility of the failure, damage or people hurting from the incorrect use of escalator, or the incorrect manner of maintenance by the user.

- Safety electric circuit or safety switch should not be dismantled or modified without right guidance.

- No dismantle of any parts or step and keep them in open to operate escalator.

1.3 Electric Safety

Only qualified maintenance staff is allowed to dismantle or maintain the electric components; any modification and/or maintaining to the signal or control circuit should be approved by the manufacturer or by the qualified people.

1.4 Mechanical Safety

Before and during the escalator powered, all goods should be moved from the moving area of the escalator.

1.5 Safety Devices

Various advanced escalators made by BRAUN ELEVATOR CO., LTD meet the updated safety specification for safety and environment protection. There is safety circuit in the escalator, once it is initiated, the power of the escalator will be cut off. Only the failure has been recovered or the function returns to normal, the escalator can be put into operation again.

If the user cannot recover the failure or abnormal function, BRAUN ELEVATOR CO., LTD maintenance station should be informed to make the maintenance or recover. If necessary, the power of escalator should be cut off to prevent any mis-operation.

2. General Introduction of Escalator

Escalator is power-driven, inclined, continuous moving stairway used for transportation of passengers in different floor of the buildings.

The main characteristics are as follows:

- 1) Evenly and continually transportation equipment for passenger with big capacity.
- 2) Can be operated upwards or downwards.
- 3) Can be used as stairs when it stops due to power off (if local regulation allowed).

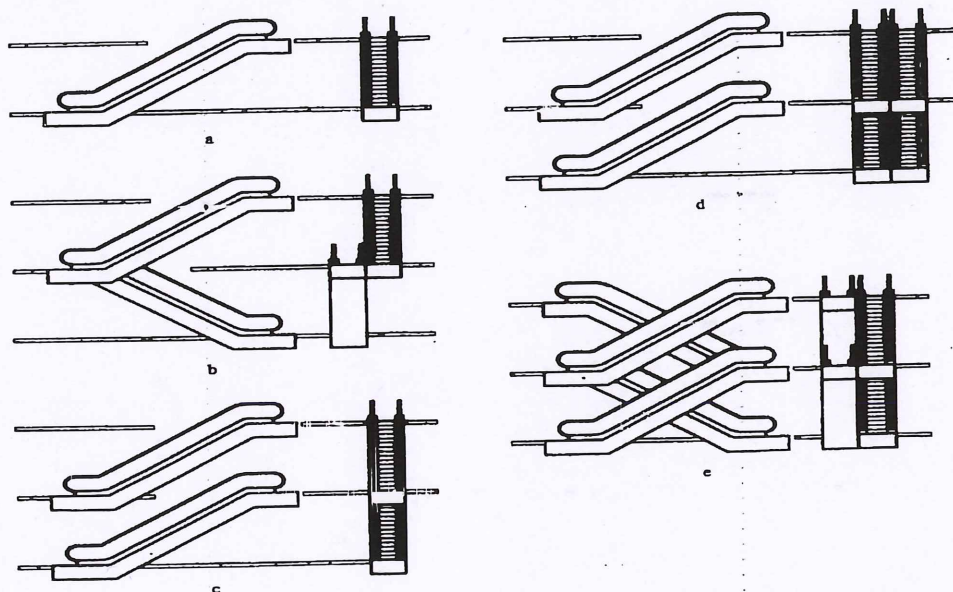
4) Beautiful in shape with decoration function.

5) Compact structure, less occupied area, easy for use and maintenance. Widely used in public area such as department store, supermarket, port, airport, shopping center etc.

2.1 Basic layout of Escalator (5 types) are as follows figure 1:

- a. Single unit layout,
- b. Single unit in continuity
- c. Single unit in overlap,
- d. Parallel layout
- e. Cross layout

Figure I Escalator Layout



2.1.1 Single unit arrangement (a):

To be used as the transportation tool between two floors.

2.1.2 Single unit in continuity (b):

This kind of layout is only used for one-way transport as the connection of 3 floors.

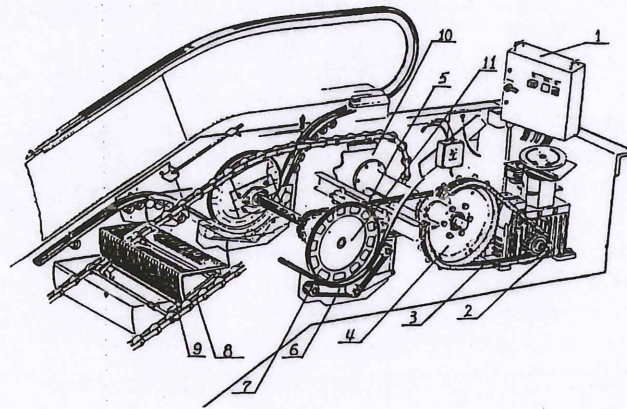
People can directly enter the second escalator from the first one.

2.1.3 Single unit in overlap(c):

People cannot directly enter the second escalator from the first one.

2.1.4 Parallel layout (d):

Can be arranged in either same direction or opposite direction for the two units,



- | | | | |
|-------------------------|--------------------------|------------------|-------------------------|
| 1. Controller | 2. Drive unit | 3. Driving chain | 4. Main shaft |
| 5. Handrail drive chain | 6. Handrail drive system | 7. Handrail | |
| 8. Step chain | 9. Step | 10. Step roller | 11 Handrail drive wheel |

Figure 2

Upper part is the main structure of the escalator, the controller is installed in the upper pit of the escalator connected with flexible cable, and it can be lift out of the pit during maintenance.

The main shaft is driven by main drive system via driving chain. The main shaft equipped with step chain wheels, which drive the step chain, then makes the step moves along the step guide rail system.

The handrail drive chain wheel is located on the main shaft too. This chain wheel drives the handrail drive shaft via drive chain. The handrail drive shaft is equipped with handrail drive wheel with rubber rim, which drive the handrail move when rotate.

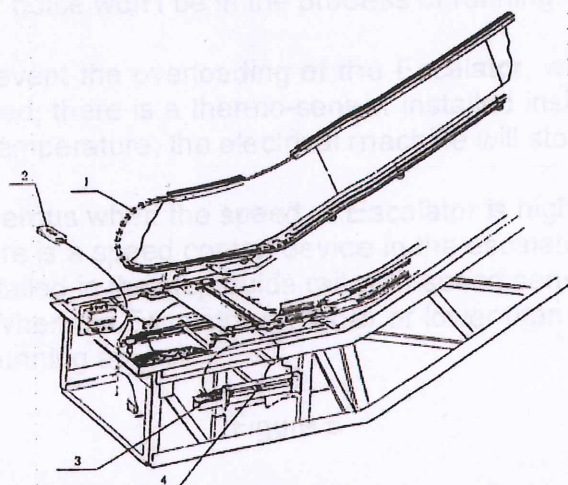
3.2 Lower parts of Escalator refer to figure 3

3.2.1 The lower part of the escalator including the tension station which forms the reversal and tensioning of the step and step chain. The handrail guide rail return curve (position no 1) equipped with anti-friction chain in order to reduce the handrail friction in the position. Position no.2 is maintenance control box, which is used during the maintenance. This box has the function of interlock with main operation key device, the other operation device will be function off whenever this control box connected to the socket in order to avoid operation accident and then guarantee the safety during the maintenance. Position no.4 is the tension station, and can be adjusted via tension spring to ensure the tension state.

3.3 Driving device see fig.4

3.3.1 Driving device is consisted of motor, speed reducer and brake etc. When it is on power, the brake motor (position no. 1) start first, then drive the braking gear, pushing the braking spring, loose the brake belt. Main driving motor starts and drives the small chain via speed reducer. The small chain transfers the power to

the main shaft.

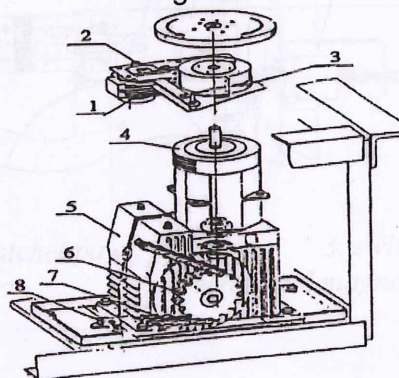


1. Handrail guide rail 2. Maintenance control box
3. Spring 4. Tension station
Figure 3 Lower configuration

As the whole device is highly compact designed, so it can be installed in the up machine room and occupied less space and convenient for maintenance.

3.3.2 The main motor is squirrel cage type with 6 poles, which has the property of smooth running, durable and lower running noise. The speed reducer is the precision worm gear type manufactured by advanced processing technology; the main drive has much advantage such as compact structure, big load bearing capacity, smoothly in working and low noise. The speed reducer and motor are independent structure and connected with each other with elastic coupling. This structure is convenient for the assembling and maintenance.

Figure 4



1.brake motor 2. breaking gear 3.brake belt 4.motor
5.speed reducer 6.chain wheel 7.driving chain 8.adjust block

3.3.3. Escalator, which usually installed indoor, has high requirement to noise. The maximum value should be lower than 65dB-A. The driving device is the main source of noise, which should be controlled strictly to ensure the accurate of operation and eliminate all of the factors, which may cause noise, in order to

step should be meshed with comb block properly, and without contact and friction.

3.6.4 In order to prevent step to be destroyed during the running while objects to be caught in between step and comb plate, also ensure passenger's safety, the comb safety device is equipped. Whenever some objects such as the heel of the shoes, the tip of the umbrella and etc is caught in between, the comb plate will be pushed backward, and safety switch will be actuated to stop the escalator.

3.6.5 Steps are the key part for carrying passengers. It would be very dangerous if the step break or deform too much. Hence, there installed a protection device at the two ends of the Escalator. If the step deforms in downward severely or breaks, the vertical lever of the safety device can contact the such happening then safety switch will be actuated the stop the escalator.

3.7 Balustrade

3.7.1 Balustrade is installed on both sides of the escalator for the passenger safety and also has the decoration purpose. The balustrade board is normally made by safety glass or metal.

3.7.2 The handrail is consisted of rubber, nylon sliding layer and steel rope core. The nylon-sliding layer, which touches the handrail guide rail, makes the function of guiding. The steel rope inside the handrail bears the load. There is different color to be chosen, but standard configuration is black.

3.7.3 The handrail guide rail and decking are made of stainless steel normally.

3.7.4 The skirt made of stainless steel. The safety devices are also installed inside the skirt system to prevent objects to be caught in between the skirt and step.

3.7.5 The handrails are driven by the fraction pulley. Pressure roller group via tension spring adjusts the tensioning state of the handrail.

3.7.6 There are handrail inlet which installed at both two balustrade end for protection children's hand or other things been clipped.

3.7.7 Usually, the handrail should run as the same speed as the step during the running, the synchronization deviation should be less than 0 - +2%. At the bottom of the balustrade, there also installed handrail break protection safety switch. If the handrail is broken, it will touch switch and the effectively stop the escalator.

4. Safety use and operation of the escalator

4.1 Switch on of the escalator power

Note: before switch on the escalator, please make sure there are no passenger or goods on the escalator.

Before put the escalator in operation, please ensure each part of the escalator is

in right order.

On the upside and downside of escalator, there is one marked upwards and downwards key button and one emergency red stop button with red stamped word "STOP" respectively. When the key inserted, turn the key along up or down direction as per the operation direction. The key will rebound to its original position.

When the escalator start operation,

- Take the key out and put it in a safety place
- Observe the step running for one circle
- No damage should be found on the step and the handrail.

The handrail should be operated synchronal with step, no jumpiness should be occurred.

If the traffic light and lighting device is provided, then

- The indication signs of the moving direction of the traffic light should be consistence with the operation direction of escalator (if equipped).
- The light in the gap of comb plate should be on.
- The light for the comb plate should be on (if equipped).

4.2 Shut down of escalator power

The power of escalator can only be shut down when it is sure that no body is on the escalator.

4.3 Changing moving direction

When it is necessary to change the direction of movement of escalator, it can be switched off from previous direction to another one only when the escalator completely stopped without passenger. Before the switching off, the power supply of escalator should be cut off to make the escalator at rest.

* Insert the key; turn the key along up or down direction as per the operation direction.

*The key will rebound to its original position.

When the escalator start operation,

- Take the key out and put it in a safety place
- Observe the step running for one circle

4.4 The escalator must be operated by the driver who has been trained. When the escalator is starting, it must be in empty load state.

4.5 While standing on the running escalator, the passengers should be faced with the running direction and standing inside the yellow edge of the tread, with hands on the handrail.

4.6 When children are taking in the escalator, they must hold on by adults.

4.7 If passengers carrying a pet when taking the escalator, pets should be hold on.

4.8 Passengers should not take the escalator with bare feet. Escalator also cannot use for heavy cargo.

4.9 After starting the escalator with the key and escalator can't run, the operation staff should inform the maintenance staff in duty to inspect whether the general power switch is on and main switch in the controller cabinet is on, maintenance control switch is on.

4.10 If it still couldn't start at this time, we should inspect whether the four switches of handrail inlet or other safety equipment is open.

4.11 If there is a need to change the running direction of the escalator, please make sure that there are passengers on the escalator and escalator stop completely, then use key to change the running direction.

4.12 If in the urgent situation, push down the emergency switch to stop the Escalator running.

5. Use and manage of the escalator

5.1 Both of the up and down machine rooms of the escalator could only be managed by the qualified maintenance people, other persons don't allow to enter.

5.2 The machine room should be ensured that water is impossible to invade (Indoor).

5.3 The machine room should be kept clean, dry, no mist or corroded gas and not allowed for the storage use.

5.4 When the escalator has been out of use for a long time, the general switch in the machine room should be taken off.

5.5 After being checked and accepted by the related local authorities and has been certified, then there is also a qualified company in charge of the maintenance, so escalator could operated safely.

6. Urgent situations

6.1 In the case that heavy quality problems occurred and effect normal running,

6.2 If earthquake happened, even the escalator won't be destroyed much by the slight shake or tremor or moved horizontally or inclined, or some electric wire will be broken off, at this time, if you start the escalator, the unexpected accidents

may happen. So the escalator should be checked and maintenance before using.

6.3 When the conflagration is happened, the electric power should be cut down at once to stop the escalator running. Meanwhile, the passengers on board should be guided to the safe place.

6.4 When flood happened or driving room is soaked,

If one of the above four cases are happened, the escalator could be in work only after the strict inspection and maintenance has been made by the related staff.

7. Standard maintenance of escalator

Table 2

No.	Items	Maintenance Time	Remarks
1	Running quality	once a fortnight	Execute by the professional maintenance staff Report to owner
2	Noise or vibration abnormal	once a fortnight	Execute by the professional maintenance staff Report to owner
3	The inspection of each fuse and air switch	once a fortnight	Execute by the professional maintenance staff Report to owner
4	The inspection of controller components	once a fortnight	Execute by the professional maintenance staff Report to owner
5	The inspection of the handrail inlet switch	once a fortnight	Execute by the professional maintenance staff Report to owner
6	The inspection of the comb of the comb plate up and down.	once a fortnight	Execute by the professional maintenance staff Report to owner
7	The inspection of step meshing.	once a fortnight	Execute by the professional maintenance staff Report to owner
8	Clean groove of the step.	once a fortnight	Execute by the professional maintenance staff Report to owner
9	The handrail and the step running synchronal	once a fortnight	Execute by the professional maintenance staff Report to owner
10	Working brake inspection	once a fortnight	Execute by the professional maintenance staff Report to owner
11	The inspection of the lubricating of the drive chain and the step chain	once a fortnight	Execute by the professional maintenance staff Report to owner
12	The clean controller and the driving machine	once a fortnight	Execute by the professional maintenance staff Report to owner
13	The inspection of the gap between the step and the skirt	once a fortnight	Execute by the professional maintenance staff Report to owner
14	The clean of the surrounding of the escalator	once a fortnight	Execute by the professional maintenance staff Report to owner

15	The inspect of each electric power and the voltage	once every two months	Execute by the professional maintenance staff Report to owner
16	The inspection of the brake distance.	once every two months	Execute by the professional maintenance staff Report to owner
17	The inspection of speed govermer.	once every two months	Execute by the professional maintenance staff Report to owner
18	The inspection of the action of each switch.	once every two months	Execute by the professional maintenance staff Report to owner
19	The inspection of the brake of the driving machine	once every two months	Execute by the professional maintenance staff Report to owner
20	The inspection of the motor and gearbox	once every two months	Execute by the professional maintenance staff Report to owner
21	The inspection of the output shaft chain sprocket of the driving machine	once every two months	Execute by the professional maintenance staff Report to owner
22	The inspection of the tension station tensioning state.	once every two months	Execute by the professional maintenance staff Report to owner
23	The inspection of the fixing state of the step fixing	once every two months	Execute by the professional maintenance staff Report to owner
24	The inspection of handrail	once a month	Execute by the professional maintenance staff Report to owner

Notes:

If the ASAP maintenance work is executed by the user appointed person, this person should be the qualified person with special work certification.

8. Essential requirements of maintenance

8.1 Notes of maintenance

Those who are not professional maintenance staff are not allowed to do the maintenance task without permission. As the escalator use PLC controlling system, it must be carefully while maintaining.

8.1.1 While maintain the escalator, following rules should be obeyed:

8.1.1.1 It is not allowed to take passengers or goods, there are should be a warning sign " Maintenance, stop use" and so on.

8.1.1.2 Break off the operating switch. The operation is only be allowed by inspecting box.

8.1.1.3 The general power switch should be put off while working in the machine room up and down.

8.1.1.4 The maintenance lamp used must be with protection cover and use the

safety voltage under 36V. (The socket of low voltage is installed in the machine room up and down)

8.1.1.5 During the period of maintenance operation, the main member must work together with the assistant. Maintenance by only one person is prohibited.

8.1.1.6 If the person is asked to operate the escalator during maintenance, the person must be with full attention and obey the instruction of the maintenance staff.

8.1.1.7 while dismantle some of the steps, if the general power switch isn't cut off; the maintenance staff is not allowed to enter the region.

8.1.1.8 When finish the maintenance in the machine room up and down, the covering plate should be put back in time.

8.1.2 During the maintenance, there are some notes while using the instruments:

8.1.2.1 The internal resistance of multiple meters is over 200 K Ω :

8.1.2.2 The AC current meter is bigger than Ac 100 A

8.1.2.3 The AC voltage meter should have working range of Ac460V. If finger type used, the impedance is below 300K Ω

8.1.2.4 High voltage meter should use the 600V with battery type, the internal resistance of which is over 200K Ω .

8.1.2.5 The rotation tachometer is 0 - 6000r/min

8.2 Noted points of maintenance

Table 3.

No.	Item	Content
1	Running state	Stand on the escalator, feel the stability of steps.
2	Noise or vibration abnormal	Check if there are friction between step and skirt, step and comb block. Step turning is smooth, step and step chain roller broken or not.
3	The inspection of each fuse of the air switch	Check the fuse and air switch in controller to see if they are fit the standard demand.
4	The inspection of controller	Check the connection if there is loose, action of the components is correct.
5	The inspection of the handrail inlet safety switch	Check the reliability of four switches and the reset action is normal.
6	The inspection of the comb of the comb plate up and down.	Check the perfection of comb plate. See if comb teeth are in the center of the tooth space, also check if the comb block broken or not.
7	The inspection of meshing states of the step and comb.	See if step can successfully get through the comb plate. The meshing depth no less than 6mm. The gap between step and comb plate no higher than 4mm.
8	Clean step groove.	Check the groove if there exist any garbage or impurity.
9	The synchronous status between the handrail and the step.	See if the sync rate between handrail and the step is in 0~2%.
10	The inspection of working brake	Check the reliability of brake. The gap between the liners and brake wheel no higher than 0.7 to 1.2 mm while declutching.
11	The inspection of the lubricating of the drive chain and the step chain	Lubricant state.
12	The clean work of the controller and the driving machine	Cleaning the surface of controller and the driving machine.
13	The inspection of the gap between the step and the skirt	Check the gap of the step and the skirt. The gap should not bigger than 4mm(one side). And the sum of the gaps in both side should not bigger than 7mm.
14	The clean of the out surface of the escalator	Cleaning the surface of covering plate, comb plate, interior and exterior skirt decking profile, handrail, safety glasses etc.
15	The inspect of each electric power and the voltage	Confirm the voltage of each power supply fits the electric schematic diagram.
16	The inspection of the brake distance	Check the braking distance (0.2~0.6m) while the escalator descending no-load. Check the friction between the brake strap and the brake wheel. Check the reliability of operation and abnormal noise.
17	The inspection of the speed governor	Check the speed of driving machine and the step running speed.
18	The inspection of the driving chain and the step chain	Check the operation status of the driving chain and the step chain.
19	The inspection of the action of each safety switch.	Check the action and reliability of each switch of the escalator.
20	The inspection of the main drive and gear box	Check the lubricating oil state in the gearbox and change the lubricant oil if necessary. Check the wearing status of the tooth and working situation of bearing.
21	The inspection of the motor	Check the temperature rising of motor during work, operation state, any abnormal vibration and noise. Check if the electric connection and insulation state.
22	The inspection of the output shaft of the driving machine	Check the wearing status of output shaft chain wheel. See if there exists loose status of the chain wheel.
23	The inspection of the tension device of the step chain	Adjust the tension force of the step chains via spring. Check if the tension state is proper and haven't impact about step running.
24	The inspection of the fixing device for the step axle	Check the center position of the step; check the axle bush and clamp fixing state of each step. No loose in the clamp ring.

25	The inspection of the handrail wearing state	Check the operation status and wearing status of two handrails. See if there exist any worn on the surface, or any worn-out part of the handrail. Change the handrail if it cannot adjust to synchronized with the step.
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8.3 Noted points for maintenance

8.3.1 Abnormal running and the vibration

8.3.1.1 During the normal operation, the working brake can't be released completely or even released but the brake belt or liner deviate from the right position then still contact the brake wheel and may cause the friction, so may generate the strike while start and run.

8.3.1.2 Step chain extended or deform too much, may generate deviation of the chain pitch, and cause the step running deviation, may generate friction with skirt.

8.3.1.3 Over wear of the step roller or chain roller or roller bearing damaged.

8.3.1.4 Step cannot pass the returning position or the gap between the rollers and return curve guide rail is too big,

All these points should be checked and adjust or repair carefully in case there are abnormal running or vibration.

8.3.2 Driving machine inspection

8.3.2.1 Gearbox

8.3.2.1.1 After a long period of operation, the teeth of worm gear may wearing too much and enlarge the gap in between, or the bearing wear too much, then may cause the box generate strike or big noise or temperature of the gear box rise too much, so the suitable adjustment or replacement should be executed accordingly.

8.3.2.1.2 Keep clear and the good performance of the lubrication in the gear box. The lubricating oil should be changed in case necessary. The oil level should be checked carefully keep in level range in order to keep good lubricating property. Recommended lubrication oil please refers to the lubricating table.

8.3.2.1.3 The bearing cover and the box should link tightly and no oil leakage.

8.3.2.1.4 The lubrication oil in the gearbox should be changed according to the lubricating table recommended on normal condition. For the new installed escalator, lubricant should be checked frequently. The oil changing should be taken in case the oil finds impurity.

8.3.2.1.5 The machine and the bearing temperature should be no higher than 80K under normal working condition.

8.3.2.1.6 Changing the bearing when non-uniform noise or collision noise generated.

8.3.2.1.7 The anti-vibration rubber pad inside the coupling should be checked every half year, changing should be taken in case broken.

8.3.2.2 Brake

8.3.2.2.1 The brake belt should contact surface of braked wheel tightly while braking. And it should be leave the braked wheel surface after braking. The gap between them should be between 0.7-1.2mm and evenly contact while working.

8.3.2.2.2 The brake action should be flexible and reliable. The temperature rise of braking electric motor coil should be no higher than 60K.

8.3.2.2.3 No loose in the wire connection of braking electric motor and in good insulation.

8.3.2.2.4 Connection pin should be flexible and can be lubricated.

8.3.2.2.5 Keep the working surface of the brake belt clean and out of oil and paint. The screw for fixing brake belt should be submerged to the brake belt and not allow to contact with the braked wheel surface. The brake belt should be changed in time when it was worn too much to make the screw emerged or the wearing capacity reach one quarter of the total thickness of brake belt.

8.3.2.2.6 At the premise of safety and reliability, adjust the force of brake spring to meet the need of braking distance of escalator.

8.3.2.3 Motor

8.3.2.3.1 The motor is connected to gearbox via flange. The connection should be tight and the coaxial of worm shaft and the motor should be guaranteed.

8.3.2.3.2 The temperature rise of motor bearing should no higher than 80K.

8.3.2.3.3 The bearing should be changed while the noise is generated because that wearing makes the air gap interval non-uniform between the stator and the rotor.

8.3.3 Driving system Inspection (structure of escalator upper and lower part)

8.3.3.1 Drive shaft is driven by main drive via duplex chain, if chain extended too much then generates running noise; cam in the drive machine bottom can be adjusted for the china tensioning. The tensioning should be proper, not complete tight and sag length should be smaller than 16 mm.

8.3.3.2 The lithium-based grease should be add to the bearing of main shaft by every two-month.

8.3.3.3 There should be enough lubrication between the step chain plate and the big chain wheel.

8.3.3.4 The step chain pitch may extended too much after long time operation and will generate deviation then affect the step move smoothly and may also makes the step contact the skirt while running. So please check the pitch length, and change the step chain in case the extension is over required dimension.

8.3.3.5 The lithium-based grease should be added to the rolling bearing of the tensioning sprocket by every two-month (in case sprocket type used).

8.3.4 Step guide rail

8.3.4.1 The middle step guide rail is cold rolled hollow type, upper and lower, return curve rail is welded on the vertical supporting plate. The step roller and chain roller are run on the guide rail. So the working surface of the guide rail should be checked carefully to ensure the roller could contact the rail surface properly.

8.3.5 Step

8.3.5.1 Step is the circular running parts along the guide rail system and meshing with comb plate before turning. It may easily damaged in case objects are caught between the step and comb, if step deform or broken, then should be changed in time.

8.3.5.2 The nylon guide block in each side of step is may contact with skirt while guide the step running, The guide block should be changed while the wearing capacity reach 1.2mm.

8.3.5.3 When the step is running on the guide rail, the four rollers on the step should to contact the surface of the guide tightly. After a long period of operation, when the step is deformed and one of the four wheels cannot contact the surface and step permanent deformation reaches 4mm, then the step should be changed.

8.3.6 Handrail

8.3.6.1 Handrail is drive by the friction wheel. And there are many supporting rollers in the link that can easily worn and the residual rubber chip will impact the normal working of other parts, so cleaning should be taken during the maintenance.

8.3.6.2 If the handrail is overextended and cannot adjust to 0~2% sync speed with the step, and then it should be changed.

8.3.7 Every safety device switch should be safe and effective. All the switches

should be checked thoroughly yearly to make sure that all the switches are in the normal effective status.

8.3.8 Auto-lubrication system

8.3.8.1 The lubricant auto-lubrication device can be installed according to customer's order.

8.3.8.2 Auto-lubrication device is a spring piston pump type driven by a micro motor, and distribute the oil via quantifier. Its filling capacity can be adjusted in the 0.2~5 ml range.

8.3.8.3 The filling capacity can be adjust as demand. The method can be found in the instruction book of the device.

8.3.8.4 The auto-lubrication device should use the suitable lubricant oil (refer to the lubrication table)

8.3.8.5 The oil tank should be cleaned every half a year, and the oil filter should be cleaned or changed. If any containment was found in oil, then the oil pump should be cleaned and the oil should be recharged.

8.3.8.6 Checking the lubrication system periodically to make sure it is running well. If any accessory is damaged, it should be changed in time.

8.3.8.7 Keep the oil pump outlet pipes fluently. Keep the oil brush clean and use kerosene to wash the oil brush if it was dry.

9. Lubrication of Escalator

9.1 The lubricating location refers to the escalator lubricating drawing attached.

9.2 The lubricating cycle and the oil (grease) of each location refer to the list in below:

List of lubrication oil (grease)

No.	Components Name	Lubricating Location	Time	Oil (Grease) Code	Oil Name	Oil (Grease) standard	Oil capacity
1	Drive machine	Worm gear, box I	12 month	VG460	Mineral oil ($\leq 11\text{kw}$) Synthetic oil ($> 11\text{kw}$)		1 st filling of oil at 1500 hours, normally at 10000 hours.
2	Drive machine	Brake pin	1 month	No.30	Mechanical lubricating oil	SY1608	Little add once
3	Auto-lubricating device	Chains	1 month	No.30	Mechanical lubricating oil	SY1608	Refer to instruction manual
4	Main shaft bearing	Bearing	2 month	No. 3	lithium-based grease	SH/T0380-1992	Add every two-month.
5	Tension shaft	Bearing	2	No. 3	Lithium-based	SH/T0380-1992	Add every two

	bearing		month		lubricant		month
6	Handrail drive shaft bearing	Bearing	2 month	No. 3	Lithium-based lubricant	SH/T0380-1992	Add every two month

10. Spare parts

10.1 The spare parts listed below are normal easy break parts. Alternative parts can be ordered according to customers ' requirement:

Spare part list

No.	Part name	Location	Replacement cycle (month)	Remark
1	Comb block	Comb plate	According to the status of wearing and broken	Polysaccharide or aluminum alloy
2	Step yellow stripe	Step	According to the status of wearing and broken	Polysaccharide
3	Left & right yellow stripe	Step	According to the status of wearing and broken	Polysaccharide
4	Pressing roller group for handrail	Driving device of handrail	According to the status of wearing and broken	Assembly
5	Handrail	The handrail system device	According to the status of wearing and broken	
6	Steps	Step	According to the status of wearing and broken	In according to width of step and type
7	Step chain roller	Steps chain	According to the status of wearing and broken	Changed with chain Polyethylene
8	Step roller	Steps	According to the status of wearing and broken	Polyethylene
9	Step guide block	Step	Wearing about 1.2mm	
10	Braking belt	Brake	According to the status of wearing	
11	LXW5-IIQ1	Safety switch	broken	
12	ZR231	Safety switch	broken	
13	TR231	Safety switch	broken	

11. Frequent Failure Analysing & Eliminating

Table 6

No.	Failure phenomenon	Analyzing main reason	Excluded failure
1	The Escalator can't start when use key switch to start	<ol style="list-style-type: none"> Whether the power is on Voltage of power supply is too low. The phase of power supply is connected incorrectly The key switch is break off because of loosen wires 	<ol style="list-style-type: none"> Inspecting whether the power supply is on Stop and out of use when the voltage is too low. Check the phase relay Adjusting and connect
2	Stop suddenly when in operating.	<ol style="list-style-type: none"> Lost power supply One of safety switch is off The emergency button is pressed 	<ol style="list-style-type: none"> Resume the power supply Check the safety switch Restart the key switch.
3	Impulsion phenomenon is found when it's started	<ol style="list-style-type: none"> The brake is not released completely, or the brake belt is on the defective position, there is friction between brake belt and brake wheel. The brake time delay 	<ol style="list-style-type: none"> Check and adjust Adjust the open time of the brake
4	Obvious shake and jumpiness are found while running	<ol style="list-style-type: none"> The pitch deviate too much Step chain roller defective Step roller defective 	<ol style="list-style-type: none"> Inspect the step chain. Replace Replace
5	Faction noise found between skirts and steps while running.	<ol style="list-style-type: none"> Step deviate from the center line Step guide block over wearing Gap between the step and skirt need to be adjusted. 	<ol style="list-style-type: none"> Check and calibrate to the centerline. Adjust the gap between steps and skirts Change guide block
6	Bad synchronization between the handrail and the steps	<ol style="list-style-type: none"> The pressing roller group need tightening Handrail need tensioned properly Handrail is too long to be adjusted. 	<ol style="list-style-type: none"> Adjust the driving device of handrail. Adjust the handrail tension. Replace the handrail
7	Brake wheel in high temperature, and there is abnormal smell and nick on the brake wheel.	<ol style="list-style-type: none"> The gap between brake belt and brake wheel is too small. The brake spring is too tight; the force for loosing brake is not enough. The working voltage of brake is too low to loose the brake in time. The brake mechanism is blocked. Burning of brake motor There is wear on the brake belt seriously, or the rivet pin is found on the surface of brake belt. 	<ol style="list-style-type: none"> Adjust the gap to 0.5~0.7mm Adjust the spring force Measure and adjust voltage Adjust and add the lubrication oil. Replace the brake motor. Replace brake belt.
8	There is abnormal noise or vibration or the bearing in high temperature during the driving motor in operation	<ol style="list-style-type: none"> The worm teeth gap is too large The bearing is worn. There is loosening between fasteners. The lubricating failure. 	<ol style="list-style-type: none"> Adjust worm and gear Replace the bearing. Inspect the fastener Replace the lubrication oil.
9	Abnormal smell and heat found in the main driving unit.	<ol style="list-style-type: none"> Working environment is in high temperature. Long time over load Failure of thermal protective relay 	<ol style="list-style-type: none"> Keep normal room temperature Check if there are any mechanical fault Replack the thermal protective relay
10	Action of Phase relay in the controller	<ol style="list-style-type: none"> Wrong connection of power supply phase Miss power supply phase 	<ol style="list-style-type: none"> Adjust the power supply phase Check and replace.

12. Maintenance notice

12.1. Maintenance should follow the requirement in the shipment documents of escalator as per type & control manner.

12.2. Refer to the electric circuit diagram attached, working principle and elements symbol figure, cabling.

12.3. Eliminate the fault and resume the escalator according to the relevant instruction.

12.4. Contact the technical department of our company in emergency cases.

13. Cleaning

In order to ensure the good operation of escalator, the periodical cleaning should be done.

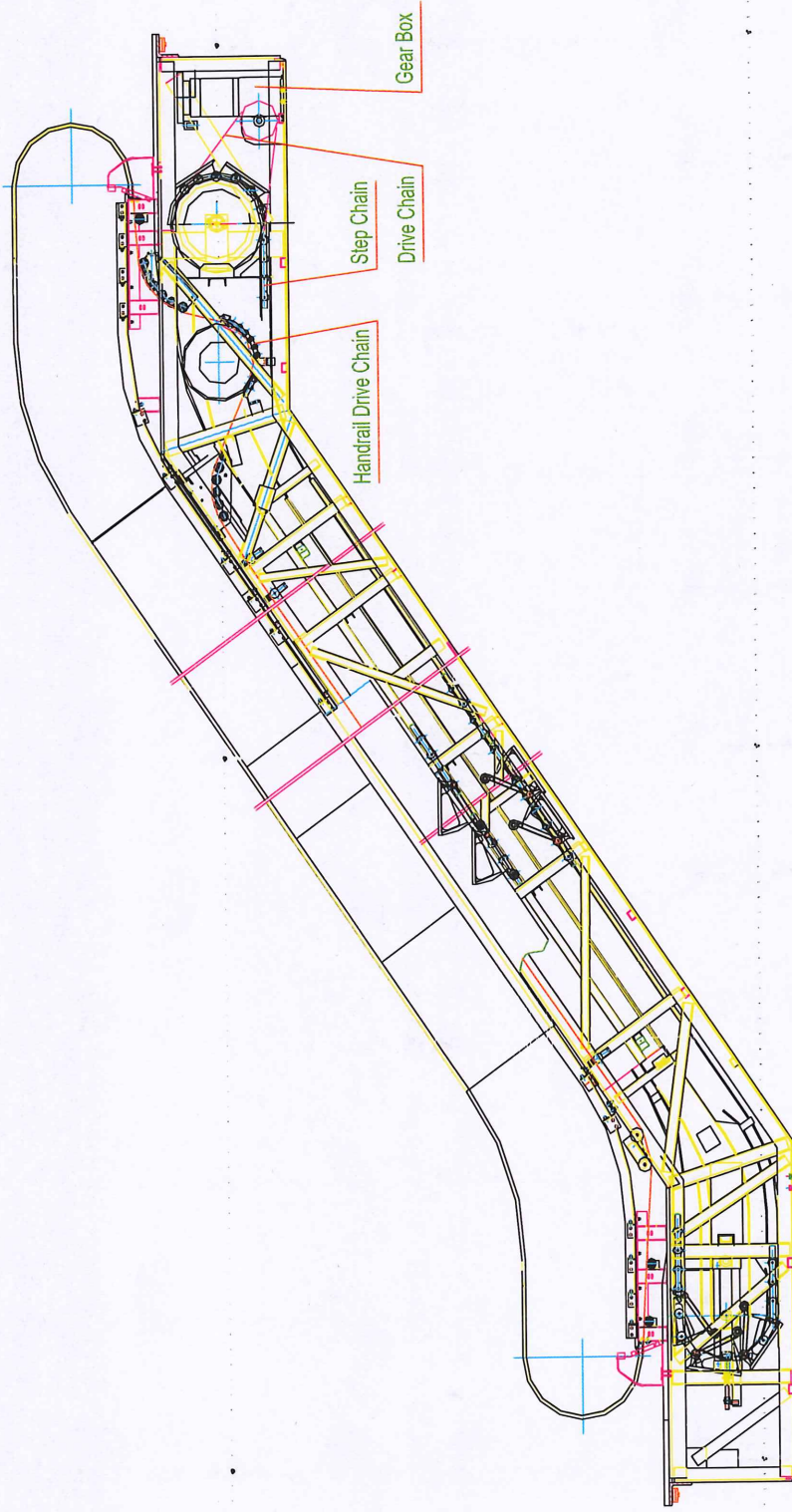
In selection of detergent, please notice that the surface of plastic & rubber, only the neutral liquid such as soap can be applied. If other cleaning detergent (such as high concentration of alcohol) to be used, the plastic will lose its polish and become fragile.

No corrosive, solvent type or abrasive detergent or polishing liquid to be used, and following requirements to be followed during cleaning:

- Shut down the power of escalator before make any cleaning.
- To make sure that no water or other liquid flow into escalator to prevent the corrosion of parts inside the escalator.
- For the surface of painting surface of aluminum surface, the wet cotton cloth can be used for cleaning.

14. Suggestion:

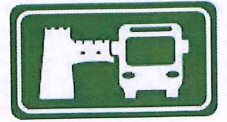
To sign a Maintenance Contract with BRAUN ELEVATOR CO, LTD, you will be ensured all your value and safety of your escalator, such service includes all maintenance operation as well as preventive safety inspection and the necessary technical service in time. BRAUN ELEVATOR CO, LTD will strictly follow the China national standards and related codes, specifications for the maintenance with our professional staffs and experiences.



Escalator Lubricating Drawing



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TransPeshawar

Annex-M

**SUPPLY, INSTALLATION, TESTING COMMISSIONING AND
MAINTAINENCE OF BRAUN ELEVATOR FOR BRT
PESHAWAR**

SITE ACCEPTANCE/TEST REPORT

10th JUNE,2019

DATE OF INSPECTION: _____
 DATE OF CHECK REQUEST: __/__/__

Project NAME: BRT PESHAWAR

LOCATION:

SITE ACCEPTANCE REPORT

ELEVATOR TYPE: PASSENGER
 ELECTRICAL CHECKS & TESTS

Commission No:

CHECKS	CHECK FUNCTION/VALUE	RESULT
RATING	VALUE (KW)	
Current	VALUE (A)	
Voltage	VALUE (V)	
LOP	FUNCTION	
COP	FUNCTION	
Floor & Direction Indicator	FUNCTION	

SAFETY CHECKS & TESTS

CHECKS	CHECK FUNCTION/VALUE	RESULT
Landing Door Contact Test	FUNCTION	
Emergency/Pit Stop Test	FUNCTION	
Door Photo Cell Test	FUNCTION	
Door Nudging Reversal	FUNCTION	
Emergency Alarm Test	FUNCTION	
Maintenance Mode Test	FUNCTION	
Over Travel Test	FUNCTION	
Power Breakdown Test	FUNCTION	
Car Buffer	INSTALLED	
CWT Buffer	INSTALLED	

Mech. Checks:

INSTALLATION CHECKS	RESULT
Landing Door	
DOOR LOCK	
Door Drive coupling	
Door Drive Belt	
Cabin Lights	
OVER SPEED GOVERNOR	
EMERGENCY BRAKE	
CAR OPERATING PANNEL	
GUIDE RAIL BRACKETS	
COUNTER WEIGHT ASSEMBLY	
TRACTION MACHINE ASSEMBLY	
Main controller Cabins	
GUIDE RAILS	
MOTOR	
Remote Monitoring System	

CONFIRMED BY:
 COMMISSIONING ENGINEER
 SIGNATURES:

WITNESSED BY:
 CLIENT/CONSULTANT
 REPRESENTATIVE
 SIGNATURES:

DATE OF INSPECTION: _____
DATE OF CHECK REQUEST: / /

Note: Any open points not related to the safe function of Elevator should be noted on the attached comment sheet, and will be rectified on intimation and will not hinder the handing over and the operations of Elevator and start of maintenance period.

Comments:

This image shows a single sheet of white paper with horizontal blue ruling lines. A vertical red line runs down the left side, creating a margin. The paper appears to be from a notebook or a standard ruled sheet. There are no markings, text, or drawings on the page.

CONFIRMED BY:
COMMISSIONING ENGINEER
SIGNATURES:

WITNESSED BY:
CLIENT/CONSULTANT
REPRESENTATIVE
SIGNATURES:

BRAUN ELEVATOR

Owner's Manual



DEMS PVT LIMITED
DESIGNING OF ELECTRICAL AND MECHANICAL SYSTEMS

1 About This Document

Safety Symbols and Definitions

1 - 1

Responsibilities of the Owner

1 - 2

Suggestions to the Owner

1 - 3

Safety Symbols and Definitions

Danger



This symbol indicates the information that must be obeyed for safety; otherwise, it may result into injury.

Warning



This symbol indicates the information that shall be paid attention to; otherwise, it may result into injury or extensive damage to property.

Caution



This symbol indicates the information that includes important hint instructions. Failure to observe the instructions can lead to errors or damages.

Installation

This installation consists of one or more elevators, including car, hoist way and machine room areas, and the entrances to them.

Notified body

An independent body with elevator experiences, professional integrity and technical competence, appointed by the government.

Owner of the Installation

The natural or legal person, who has the power of disposal of the installation, and in addition, is responsible for its intended operation, use and maintenance.

Competent Persons

Designated person, suitably trained, qualified by knowledge and practical experience, provided with the necessary instructions within their maintenance organization to enable the required maintenance operations to be safely carried out.

Malfunction

A state of operation, in which, the safe operation of the elevator for its intended purpose is restricted or impossible.

Trained Personnel

Persons authorized by the owner of the installation and trained by the maintenance company to perform specific tasks assigned to them.

Handover of the Installation

The installer makes the installed and operable elevator available to the user for the first time.

OEM

Original Equipment Manufacturer (of elevator and accessories)

Maintenance Operations

All work necessary for preventative maintenance, corrective maintenance and repairs.

Manufacturer

Common legal unit, which takes responsibility for design, manufacture, assembly and commissioning of the installation (including the safety components).

Emergency

A situation in which passengers are trapped in the car.

Repairs

The replacement or repair of defective and/or damaged components.

Safety Components

Components that are defined as safety components by the Bureau of Quality and Technical Supervision.

Maintenance Company

A company that is responsibility for carrying out maintenance work, and that has competent persons at its disposal.

Regular Maintenance

All measures necessary to ensure safe and correct operation of the elevator.



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Responsibilities of the Owner

Intended use

The owner of the installation is responsible for ensuring the installation is used as intended (transport of passengers). He is also responsible for ensuring that the installation is maintained in a safe operating condition.

Availability of the Instruction Manual

It is the responsibility of the owner of the installation to ensure that this manual is available at all times and freely accessible to competent and trained persons.

Periodic Inspection



Periodic inspection must be carried out according to the national regulations. The owner of the installation must ask a competent person for periodic inspection.

Return to Normal Operation

If the elevator has been commissioned, but used as a building elevator, or if it has been taken out of service for an extended period of time, a certified professional must take the following steps before the elevator should be allowed to return to normal operation:

- Clean and lubricate the installation;
- Replace the damaged components;
- Check the safety elements.

Maintenance Duties

The installation described here conforms to Braun quality standards. It was built according to the recognized national safety regulations.

In order to ensure safe operation after handover, the installation must be maintained regularly by competent persons.

The weight of the elevator car is closely related to the safety of the installation. The weight of temporary protective measures within the car should be considered as the load of the elevator.

Braun prohibits the clients (e.g. buyers or owners of Braun elevators) from decorating the elevator car by themselves without assistance.

Notice to Maintenance Company



If abnormalities (e.g. leveling inaccuracy, noises, vibrations, defective car lighting, etc.) in the installation are observed, the maintenance company must be notified immediately. The owner of the installation must notify the maintenance company of any changes that are imminent in the area of installation, and whenever an emergency has occurred.

Elevator Emergency Exits

For emergencies and to carry out maintenance operations, the safe access to the building and to the installation must be guaranteed at all times. The access to the control and the drive must be locked. The keys may only be made available to persons authorized by the owner.

Maintenance Operations

The owner of the installation has to comply with, and is responsible for the fulfillment of the requirements as laid down in the chapter "Maintenance Operations - Prerequisites".

Notification to Manufacturer



According to product responsibility regulations, the manufacturer must keep track of its installation(s) after commissioning and handover. Therefore, the owner of the installation must report to the manufacturer any damage to the installation or possible dangerous conditions in the installation.

Handling of Emergencies



When the handling of alarms is the responsibility of the owner of the installation, the following has to be considered:

- In the case of an emergency where there is no response from the lift car, it must be assumed that the person in the car pressing the alarm button has impaired speech or hearing. This requires immediate intervention by a trained person.



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Suggestions to the Owner

Reduce the owner's responsibilities by increasing usage safety and equipment reliability.

Scope of Responsibilities

The owner (of elevator or escalator) has a duty to care for the safety of users of the equipment (including riders and maintenance personnel) and the reliability of the equipment itself as well. These responsibilities are based upon guidelines set forth by national laws and local regulations.

Selection Criteria

The completion of all necessary maintenance tasks is required to guarantee the post-installation safety and function of the elevator and all elevator parts in their service life.

The safety and function of the elevator can only be guaranteed by certified maintenance teams conducting regular maintenance work in accordance with maintenance guidelines.

All assigned maintenance personnel should be certified and professionally trained, and have not only technical knowledge but also actual operational experiences. The professional organization that supports all maintenance personnel must supply instruction manuals and special tools (i.e. ISO 9000 certified) to guarantee the safe operation of maintenance tasks.

It is recommended to the equipment owners that they only cooperate with maintenance companies that are appropriately insured.

The elevator must be maintained exactly in accordance with the guidelines specified by the manufacturer in the user manual. The routine maintenance is required to guarantee the safety and reliability of the elevator.

Maintenance teams must conduct regular inspections when an elevator has either been put into operation recently, or before it is to be returned to operation after a long period of disuse.

If the elevator is changed in any way, the owner should supply the maintenance team with relevant maintenance instructions.

The maintenance company should deeply consider the followings when determining maintenance cycles:

- Times of use per year, operating/non-operating periods;
- The service life of the elevator;
- Installation place of the elevator, type of the elevator, demands of user, and category of freight transported;
- Local and external environmental factors, such as; weather conditions (rainfall, high or low temperatures, etc.) or vandalism.

According to these standards, the maintenance team should prepare a maintenance plan to guarantee that all preventative maintenances are conducted in accordance with elevator requirements in an optimal amount of time, without compromising the passengers' safety or increasing non-working hours.

The maintenance company must supply all necessary spare parts.

Should an upgrade to an elevator become available, the maintenance company shall be responsible to notify the owner.

2 Basic User Information

User Manual Confirmation	2 - 1
Elevator Log	2 - 2
Basic characteristics of the installation	2 - 3
Notification to Installation Team	2 - 4
Declaration of Conformity	2 - 5



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User Manual Confirmation

Elevator Information

Contract Number: _____

Installation location: _____

Manufacturing Date: _____

Owner

Name: _____

Address: _____

City: _____

Zip: _____

Signature

Address/Date: _____

Owner's Signature: _____

Manufacturer's Signature: _____



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Elevator Log

Elevator Description

Gearless Electric Drive

Installation

Type:

Contract Number:

Installation Position:

Address: Owner:

Handover Date

• Installation Date:

Handover Date:

Maintenance Company

Name:

Address:

City:



Start date for maintenance:

**Major Repairs/
Important Modifications**

Description	Responsible Person	Date	Signature



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Basic characteristics of the installation

Identification of the lift

Traction lift with traction machine in well or in separate space overhead the well directly

Owner data

Owner:

Address:

Installer

Name:

Installation

Installation no:

Address:

Layout drawing ref. no.:

Characteristics of the installation

Number of levels served:

Car entrances:

Rated load:

Number of persons:

Kind of users: Passengers

Max. starts per hour:

Travel: mm

Rated speed: m/sec

Voltage: V

Power supply: Number of phases

Power supply: Number of wires:

Frequency: Hz

Power: Kw

Type of control: BIONIC microprocessor

Suspension:

Number of traction media:

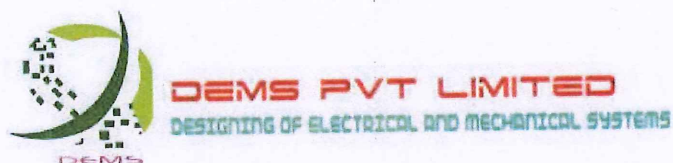
Car safety gear type:

Motor situation

Motor located inside the hoistway fixed on guide rail.
Motor located in a separated space overhead the hoistway directly

Type of drive

Gearless machine driven in closed loop



Notification to the Installation Team

Purpose

In accordance with law, Braun as manufacturer must keep track of its installation(s) even after commissioning and handover. Therefore Braun has to be informed about all major damages to the installation as well as any change in building ownership.

Installation Team

: Address: Zip: City:



Elevator Identification

Contract Number:

Address:

Installation Site:

Installation Date:

Owner

Name:

Address:

Zip:

City:



Change of Ownership

Date

New Owner of the Installation

Name:

Address:

Zip:

City:



Description of Malfunctions or Damages

Signature of the Owner

Date

Signature

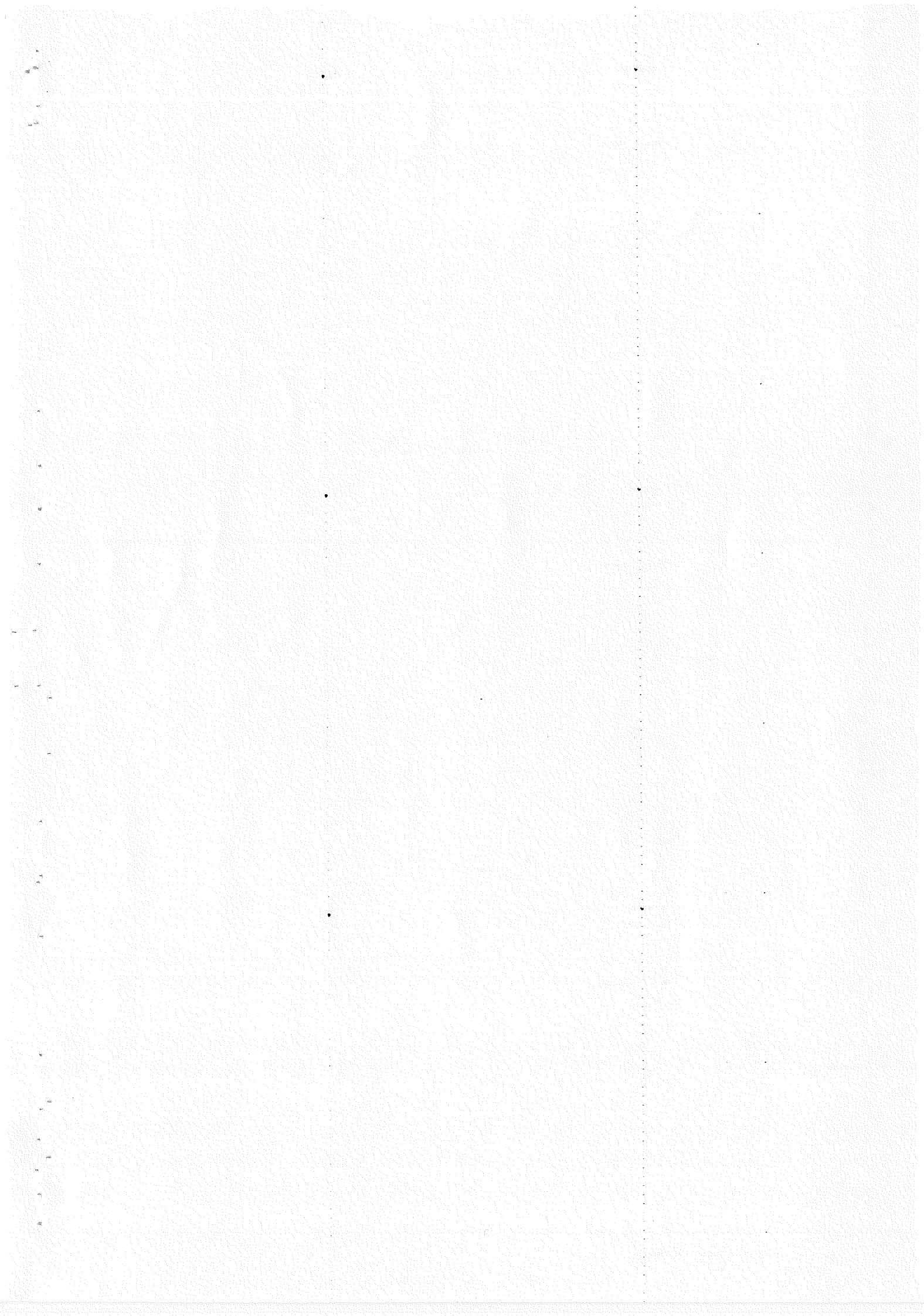

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DESIGNING OF ELECTRICAL AND MECHANICAL SYSTEMS

3 Installation Instructions

Safety and Environment	3 - 1
Installation Tools	3 - 1
Elevator Installation Methods	3 - 3
Elevator Installation Procedures	3 - 4
Storage and Transport of On-Site Materials	3 - 4
Elevator Installation and Relevant Requirements	3 - 5
Finished Product Protection	3 - 8
Handover of Equipment and Materials	3 - 8



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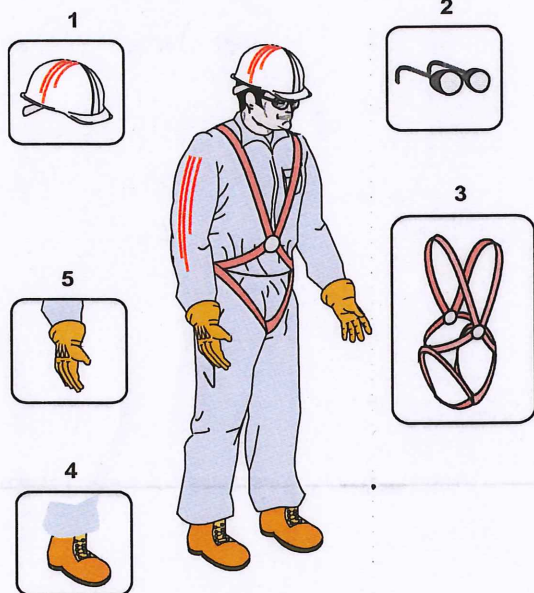
Safety and Environment

Safety



Please obey the following safety rules:

Wear required personal protective equipment and clothing: safety helmet, safety shoes, protective gloves, full body safety harness, and safety goggles.



1. Safety helmet
2. Safety Goggles
3. Full body Safety Harness
4. Safety shoes
5. Protective Gloves



The area around the elevator installation must be kept clean, and proper protective measures must be in place for all floor level entrances;

All safety equipment and safety symbols in the work area must be maintained;

The work place should have sufficient illumination;

User instructions for all equipment and tools should be strictly obeyed; tools and equipment should be kept in good conditions from start to finish;

Dangerous situations can only be prevented by strictly obeying all safety rules;

The door to the machine room should remain locked at all time;

Users must obey all elevator operation instructions;


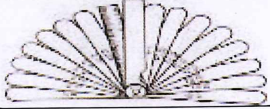







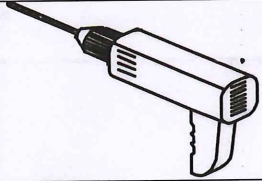


Only trained personnel should have access to the elevator's triangle key, and should only use it when authorized.

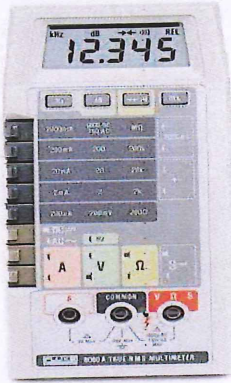

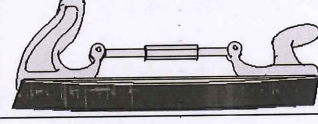



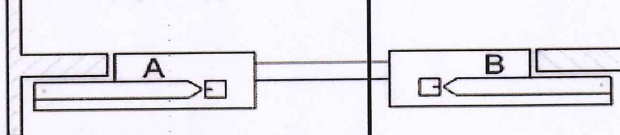

Environment

Attention should be paid to limiting environmental impacts; effective measures should be in place to protect against any waste gases, waste water, waste oil, waste materials, dust, noise, vibration, electromagnetic radiation, etc. generated during elevator installation, maintenance, or other activities. The local environment should be protected and improved so as to eliminate any pollutants that could cause public hazard or bodily injury.

Installation Tools

Tool	Description
8-24mm Open-Ended Wrenches	
8-24mm Socket Wrenches	
100-375mm Crescent Wrenches	
Allen Wrenches	
30-100N Torsion Wrenches	
Flathead Screwdrivers Phillips Screwdrivers	
Hammer	
5m Measuring Tape	
Level	
Square	

Tool	Description
Straight Ruler	
Feeler Gauge	
Handheld Grinder	
Needle-nosed Pliers	
Steel Pliers	
Wire Cutters	
Clamp Pliers	
5T Hoist	
Crowbar	
Electric Drill Impact Drill	
Braun Company Triangle Key	
File	

Tool	Description
Multimeter	
Grease Gun	
Guide Rail File	
Steel Saw	
Flashlight	
Tool Bag	
Plumb	
Guide Rail Installation Tool	
Suction Cups	

Elevator Installation Methods

Preparation and Civil Surveys



After being notified by the constructing party, the installation team will send personnel to the construction site before the elevator arrives to conduct civil engineering tests. The constructing party should make the following preparations, and notify the installation team in writing:

The construction site should meet all necessary construction requirements, and the hoist-line should be clear of obstructions;

The installation team should be supplied with clean elevator hoistways in certified dimensions and with operational electrical connections and sufficient illumination;

In accordance with agreement, the constructing party is responsible for scaffolding within the hoistway and its handover to the installation team;

All final hoistway axis and floor level measurements should be confirmed and supplied to the installation team in writing;

Relevant personnel will conduct site modification work in accordance with the results of the civil engineering tests;

In accordance with agreement, a temporary indoor on-site storage area will be provided to the installation team for the temporary storage of materials and tools; the dimensions of this area will depend on the agreement between both parties and the location shall facilitate convenient and safe construction.

Delivery, Inspection, and Lifting

The installation team will notify the constructing party once delivery has been made to the location designated by the constructing party; the constructing party will then send relevant personnel to confirm with members of the installation team and delivery personnel that everything has arrived in undamaged conditions.

Once the elevator installation kit has arrived, the constructing party will be responsible for protecting it. The constructing party will then work with the installation team in inventorying and confirming the shipped items.

Once the shipment has been inventoried, the responsible party will then lift all machinery, controller cabinets, and car platform into its appropriate position.

Construction Approval

Before the installation of the elevator begins, the installation team must assist the constructing party in applying for construction approval from the government.

Installation, Commissioning and Inspection

Once all engineering modifications of the installation site have been completed and the construction approvals have been granted, the elevator installation team will officially start installation.

The installation team will complete elevator installation, commissioning and internal inspection in strict accordance with national and company standards within the time period agreed in the contract.

Government Acceptance

Once the internal testing report has been received from the elevator installation team, the constructing party will report the results to the appropriate government department. The elevator installation team will then modify and correct any aspect of the installation that does not reach acceptable standards.

Equipment Handover

Once government inspection approval has been received, the elevator installation team will officially hand over the equipment to the constructing party.

4 Instructions for use

Instructions for use	4 - 1
Purpose and scope	4 - 2
Description of the installation	4 - 3
Operation of the installation	4 - 4
Guide to safe operation of the installation	4 - 8
Maintenance	4 - 9
Emergency	4 - 10
Emergency procedure	4 - 10
Rescue of trapped passengers	4 - 10
Instruction to release trapped passengers	4 - 11
Special rescue procedure	4 - 12
Additional remarks and procedures in case of traction media failure	4 - 12

Instructions for use

Intended readers

The instruction manual is intended for:

- The owner of the installation,
- Competent persons,
- Trained persons.

Safekeeping

The owner of the installation is responsible for ensuring that this manual is available at all times and freely accessible to competent persons and trained persons whenever the need arises.

Identification of the lift installation

Comm. No.:

Lift No.:

Address:

Installation location:

Country:

Year of installation:

Conformity

This lift conforms to all relevant local codes as well as EU directives and standards.

Installer

Name:

Address:

City / Country:



Maintenance Company

Name:

Address:

City / Country:



Your partner for Modernization

Braun Lift Ltd.

Name:

Address:

City / Country:



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Purpose and scope

Scope

The EU Lifts Directive (95/16/CE) and other related country specific codes describe the basic requirement relating to safety and health with which lifts and their safety components must comply without reservation. These include the requirement that the installer must deliver an instruction manual with every lift he installs.

Safety symbols and definitions

To ensure correct understanding of the instruction manual, the safety symbols and definitions described in the section "Safety Symbols and Definitions" must be observed.

Purpose of the instruction manual

The instruction manual gives the owner of the installation, the maintenance company and trained person's important instructions for normal safe operation of the lift, lift maintenance and for taking appropriate measures if emergencies occur.

Binding nature

This instruction manual relates to the lift specified on the first page. At the handover of the installation the instruction manual becomes binding.

Intended use

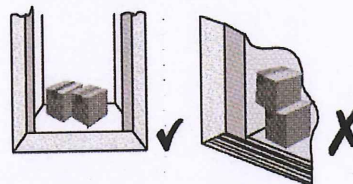


The lift described here is intended for the transport of passengers. Signs displayed on the installation must be observed.

If the installation is used for the transport of goods, the following points must be taken into consideration.



- **Load Distribution:** The load must be evenly distributed over the car floor. A single heavy load being brought into the car all at once can cause damage to the car.



The installation has been designed according to the use of the building specified at the time of purchase. The corresponding number of trips per hour is shown in the sales specification of the installation. If the installation is used more than this, excessive heat can cause the lift to become blocked. If this happens frequently, the installation must be inspected and, if necessary, modified. In this case, the installer must be contacted.

If the lift is used outside the scope of the foregoing definitions, it is no longer being used for its intended purpose. Neither the manufacturer nor the installer accepts liability for damage resulting from such use. Use of the lift as intended includes complying with the conditions for maintenance specified by the manufacturer or the installer.

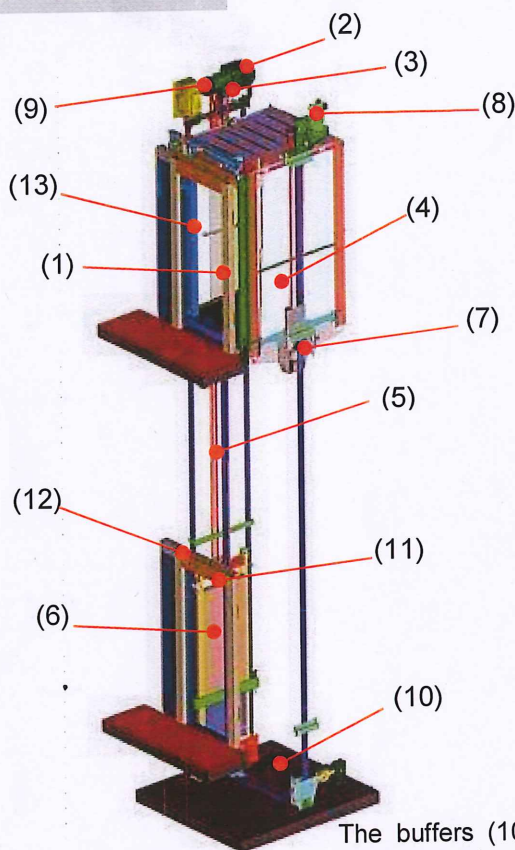
If the lift was ordered with naked car, the customer decoration weight (total decoration weight, floor decoration weight, car wall decoration weight) must not exceed the limitation in the purchasing order.

It is not allowed to change the car design without written approval by the supplier!



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Description of the installation



Control cabinet

The control cabinet (1) located at the closing - side door jamb of the top floor contains the controller and the emergency device, as well as the rescue instructions.

Power transmission

Monitored by the controller, (1) the motor (2) drives the traction sheave (3), which transmits the force to the car (4) by the suspension media (5) and counterweight (6).

Safety components

The safety gear (7) on the car stops the car (4) if it travels downward at excessive speed. The safety gear (7) is tripped by the overspeed governor (8).

The brake (9) on the motor stops the car if it travels upwards at excessive speed. The brake (9) is triggered by the overspeed governor (8).

The overspeed governor (8) monitors the speed of the car (4) and it triggers the safety gear (7) at excessive speed.

The buffers (10) stop the car (4) or the counterweight (6) in the event of over travel into the hoistway pit.

The door interlock (11) prevents the landing doors (12) from opening during travel and when outside the interlock zone. The car door (13) protects the car entrance during travel and when outside the floors.

Safety chain

The safety chain monitors all electrical safety elements. Whenever an electrical safety element doesn't work correctly, the start of a trip will be prevented or the trip will be immediately stopped.

Operation of the installation

Mode of operation

Standard control functions

- **Down collective control**

At any time the control registers calls from the landings and calls from the car. As the car travels down, it serves the calls in their natural sequence. The landing calls are only served in downward direction (upward for basement).

- **Collective selective control**

At any time the control registers up and down calls from the landings, and calls from the car. As the car travels either downwards or upwards it serves car calls in their natural sequence and landing calls of same direction.

- **Group control duplex**

Group control duplex combines two lifts into a single control system. This optimizes the distribution of the landing calls between the lifts.

- **Overload control**

The overload control prevents travel with an overloaded car. The car remains at the landing with the door open. An acoustic and optical signal draws the passenger's attention.

- **Full load control** (only for collective)

When the car is full, it will only serve car calls; landing calls are ignored or allocated to the other lift for duplex.

Control options

Depending on configuration of the specific installation, additional control options may be present. These are detailed in characteristics and sales specifications of the installation.

- **Fireman's control**
(according to national regulations)



Fire emergency controls available are
BR1, BR CN, BR1 KOR, BR 2, BR 2 CN, BR 2 SGP, BR 3, BR3 TW and BR 3 KOR

The fire emergency control immediately brings the car (two cars if duplex) to the

recall floor, where the car(s) remain(s) blocked with open door.

The fireman's control is turned-on or off either:

- by the fire emergency key switch, located on main floor
- by the fire emergency key switch, located on main floor or fire detection contact
- by the fire emergency key switch, located on main floor with alternative key on defined floor in case of fire in main floor

Fire emergency controls BR2 / BR3

BR2/BR3 control allows the lift (or one of the lifts if duplex) to be used by the fire brigade to make trips for fire fighting purposes. When the fire fighting switch is activated, the lift travels immediately to the fire recall floor, and opens its doors. Then use of the car is reserved for the firemen. In the case of a duplex and BR2 the other lift remains in normal service. In the case of duplex and BR3, the other lift remains at the fire recall floor. Fire fighting service can only be deactivated when car is at fire recall floor with doors fully open.

- Fire emergency key switch, located on main floor
- Fire emergency key switch, located in the car
- **Independent control** (car reservation)
When the car reservation key is turned on, the car is reserved for exclusive use such as car interior cleaning. Landing calls are ignored (allocated to the other lift if duplex).
- **Out of service function**

The out-of service switch is used to take one lift out of service. Currently registered car calls are served before the car returns to a specified recall floor, where it's blocked after the doors have opened and closed. Further travel indicator for collective controls and car position indicators on the landings are de-activated.

- **Pre-opening doors**

The door opens just before the car comes to a stop at landing in order to save time.

- **Pre-announcing arrows with / without acoustic signal**
(Collective control)

The indication to the passengers for the direction in which a car will travel next, using up or down arrows.

- **Automatic car light**

When the car is not used for a longer time with door closed, the light of the car is switched off.

- **Automatic return to main floor from all floors**

The car is automatically sent to the main floor after a time of inactivity (default 2 min.). There it remains with door closed.

- **Automatic return to main floor when car stands below the main floor**

The car is automatically sent to the main floor after 5 s. of inactivity below the main floor. There it remains with door closed.

- **Voice announcement** (selected languages)

The specific device located on the car generates audible synthetic messages.

- **Automatic evacuation to the nearest floor**

In case of power failure, an evacuation travel is initiated in up or down direction, depending on the load in the car. When the car arrives at the nearest floor, the doors open and remain open

Guide to safe operation of the installation

Work on the installation

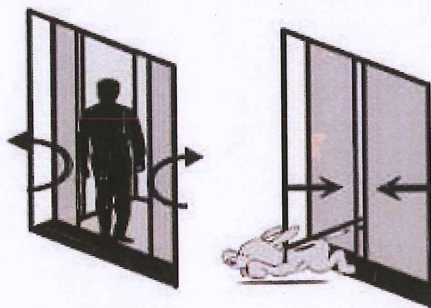


Only competent persons may carry out work on the installation.

Safety in door area

Automatic doors have safety equipment such as closing-force limiters and light curtains, which ensure that passengers or objects do not become trapped. However, detection of small objects such as dog leashes and walking sticks cannot be guaranteed.

For this reason, the door area must be cleared immediately after entering or leaving the car.

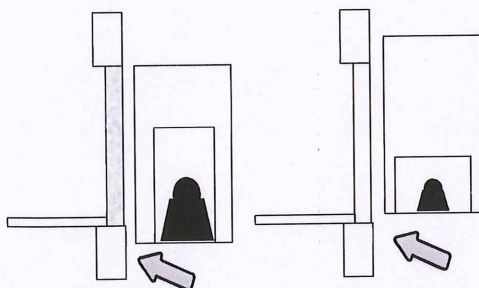


Door sill and car floor

The rollers of forklifts and similar equipment can damage the door sill and/or the car floor.

Differences in level

Depending on the load, the car can stop above or below the level of the landing floor. Care must be taken entering and leaving the car so passengers do not trip.



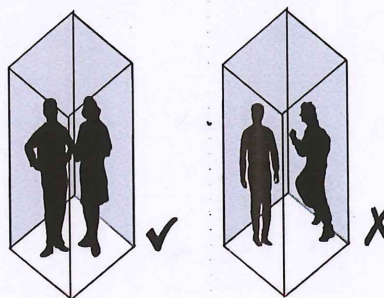
Attention must also be paid to the gap between the car and the landing door sill, when entering and leaving the car.

Assistance

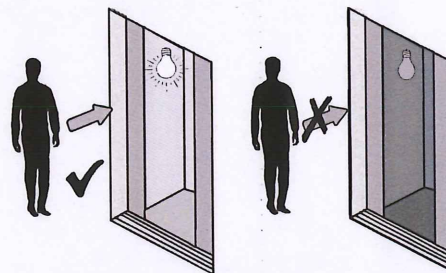
Persons who are unable to use the controls in the car may only use the lift if accompanied by a person able to assist.

Behavior of user

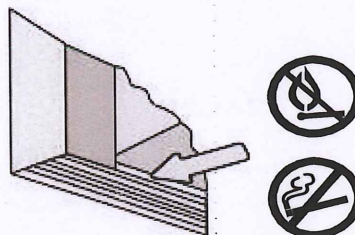
Passengers must stand still while the car is moving. Jumping or rocking is not allowed. Instructions in the car must be followed.



The lift may only be used if the car lighting is on.

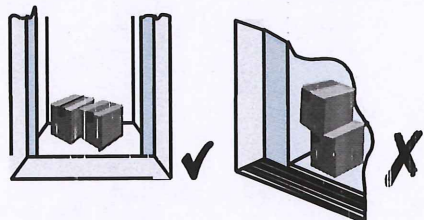


Do not throw any objects, especially burning matches or cigarettes, through the gap between the door and the landing sill into the hoistway pit.



Positioning of goods

Goods being transported in the car must be positioned in such a way that they cannot move about. Care must be taken to evenly distribute the load.



Exceptional situations



In case of fire, smoke, water etc. in the building, it is strictly forbidden to use the lift.



In case of fire the car could come to a stop, due to power failure or other fire damage, in a position where it becomes impossible for passengers to leave the car so that danger of burns and/or suffocation could occur.

Handover of emergency keys



The installer must hand over the emergency unlocking keys for landing doors and control cabinet to the owner of the installation. The handover must be accompanied by written instructions detailing the essential precautions to be taken in order to avoid possible accidents, resulting from unlocking, or access to cabinet.

Caring for the disabled



If disabled persons predominantly use an installation, the installer or the maintenance company must be contacted to provide adequate modifications to the installation.



The following measures must be taken to serve disabled persons:

- Door opening and closing times are to be adjusted.
- Special operating panels must be installed in the car on a landing side where applicable

Maintenance

See chapter Maintenance

Use of emergency keys



The use of emergency unlocking key for landing doors and control cabinet key is strictly limited to competent and trained persons.



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Emergency

Communication system

The car is equipped with a voice communication system, which can be used in an emergency to set up an immediate link to an emergency service.

Emergency service

The emergency service must be available as per requirements set in country specific codes. For contact at all times and its personnel have been appropriately trained so as to be able to take competent action. The functioning of the communication facility with the emergency service must be guaranteed during the entire lifetime of the installation. A trained person must always be within easy reach in case of emergencies with passengers trapped in the lift.



Emergency procedure

Emergency situation

If for any reason the car stops, and it is not possible to leave the car in the normal way, there is no danger to users in the car. The car is secured against uncontrolled movements. Ventilation slits allow air into the car. If the power supply fails, emergency lighting will immediately provide light inside the car.

Use of alarm

The alarm button in the car should only be pressed in an emergency. When the alarm button is pressed, the alarm is passed on automatically. After a short time, the person on duty at the responsible service center replies. The person gives instructions to the user, and organizes whatever action is necessary.

Rescue of trapped passengers

Responsibility

Only competent or trained persons are allowed to rescue trapped passengers.

Procedure



When rescuing trapped passengers, the procedure displayed in the control cabinet must be followed.

If, for any reason, the instruction notice in the control cabinet is missing, the maintenance company must be contacted immediately to allow rescuing the passengers. The maintenance notice must be replaced immediately.

Handover of emergency device



The use of the emergency device located in the control cabinet (see description of the installation) is strictly limited to competent or trained persons.

Instruction to release trapped passengers

VERY IMPORTANT!

Only properly trained and authorized staff is allowed to use these instructions!

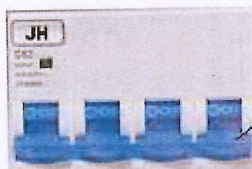
Except in EMERGENCY situations, do not attempt to move the elevator, call the maintenance and repair service.

Before leaving the control cabinet area, make sure the elevator is turned off & the control cabinet door is closed and safely locked!

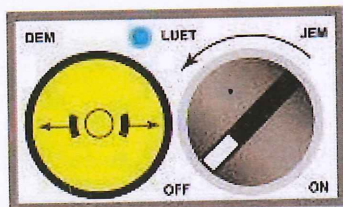
- Reassure the passengers. You should inform them that the elevator car will move and that they should hold on to hand rail or car wall before the evacuation starts. The car door must be closed to prevent any risk to the passengers.



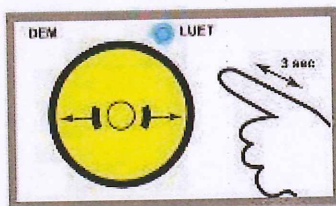
- Turn off the Main Power Switch, **JH**.



- Turn **ON** the Manual Evacuation Switch, **JEM**.



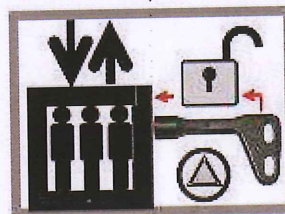
- Press with 3-second intervals the Manual Evacuation Button, **DEM**.



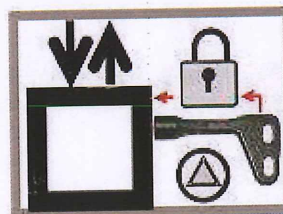
- When the blue floor indication LED, **LUET**, lights up, turn **OFF** the Manual Evacuation Switch, **JEM**.



- Lock the control cabinet door. Go to the landing entrance adjacent to the car level. Manually open the landing door with the special triangular key: the passengers can exit the car.



- Close the landing door and ensure it is locked.

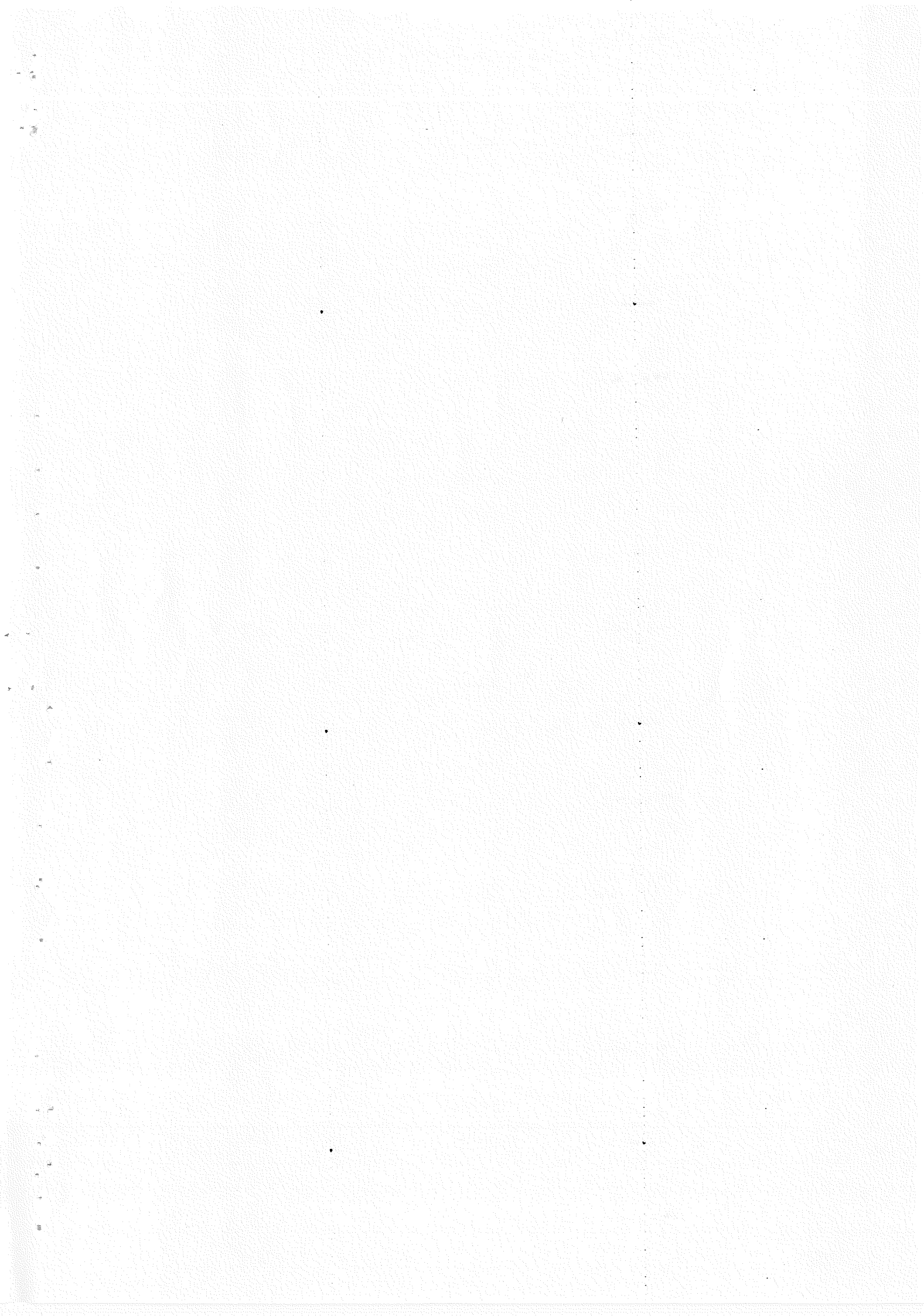


Call the repair service!
Ensure the landing door is locked again!
Ensure the main power switch is turned off!

5 Maintenance Instructions

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Prerequisites

Basic Rules

The safe and effective operation and maintenance and rapid emergency responsiveness can only be guaranteed if the owner of the elevator is responsible and pays close attention to the followings:

Access Restrictions

Only technical support/trained personnel may access the elevator hoistway. The hoistway maintenance and/or cleaning work must only be carried out by the trained maintenance personnel according to the owner installation manual; otherwise, they must be done with the presence of the professionals. All safety preparation measures must be completed prior to this work.

Safety Measures



All doors that allow access to either the elevator control areas or hoistway must be locked at all times.

There must be a safe access to the hoistway pit.

All access to either the drive and control machinery or hoistway must be kept clear and safe at all times. The installation work must be suspended immediately should any blockage exist within the emergency access passage ways.

Illumination

The hoistway and all access passageways should be properly illuminated.

Temperature and Ventilation

The elevator owners must guarantee that the temperature of the hoistway will remain between +5°C and +40°C. The hoistway must also be properly ventilated. The hoistway cannot be used if it is not connected to the car ventilation area.

Cleaning



Scope

The inside of the elevator car, landing doors, the landing floor door frame, all buttons and indicator lights, and the door sills of both the landing floor and elevator car should be cleaned on a regular basis.

Responsibilities



Only trained and qualified personnel can conduct cleaning of the elevator.



A trained professional must be present on-site when the cleaning of the hoistway or glass fencing is being performed! This person must be trained and qualified for the operation of the elevator and all safety measures. In addition, this person is responsible for taking all pertinent safety measures prior to any such cleaning work.

Safety Measures



When the electrical cleaning equipment is used inside the car, it must be guaranteed that the car doors cannot be closed unexpectedly. It is recommended to shut off the elevator's master power source!



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Cleaning (Cont.)



Instructions

The following rules must be obeyed during the cleaning operations:

- At no time should cleaning solutions containing strong solvents or abrasives be used.
- All materials can be cleaned with a solution of soap and clean water.
- When cleaning the surfaces composed of different materials, the cleaning solution should be safe for the most sensitive surface.



Water is allowed to flow into the elevator car, hoistway, or hoistway pit.

A vacuum cleaner should be used to clean out the landing door sill and grooved surfaces in the landing door area. A slow-evaporating solvent such as petroleum solvent or kerosene should be used to clean hard-to-remove dirt and stains. Once cleaned, the solvent itself should be wiped clean. If necessary, dirt may be gently scraped clean.



Clean the elevator car floor, car doors, and landing doors according to their relevant materials.

For the structural surfaces or polished surfaces (brushed light), the cleaning work should be conducted based on the surface characteristics of the polished materials. Cleaning in a direction different from that of polishing may damage the surfaces.

Stainless Steel

Recommended Cleaning Solution: Typical stainless steel cleaner (with or without solvent) available in the market, such as isopropanol, petroleum-based or hydrocarbon-based solvents, such as kerosene or benzene.

Polished stainless steel has a very sensitive surface. Therefore, it is important to obey the following instructions:

Only with the prepared stainless steel polishing agent, lightly spray on the stainless steel surface and clean with a clean white cloth. For the soft leather with cleanser, use white cloth for further polishing treatment.

Stainless steel surfaces with graphics or etchings should not be damaged by cleaning; therefore, the following instructions should be followed:

Use the warm cloth with soapy water (without any solvent) to gently clean the surface. Then, polish the surface with a clean damp cloth. Once it is dry, the surface should then be gently polished again with a clean white cloth.

Colored stainless steel requires extra care. It should be cleaned with the cleaning procedures for graphical or etched stainless steel.

Aluminum

Recommended Cleaning Agent: Liquid cleaning agent or degreaser. Use a soft cloth or sponge to polish and dry.

Copper, Brass, and Bronze

Recommended Cleaning Agent: Liquid aluminium or brass cleaning solution. Use a soft cloth or sponge to polish and dry.

Wood and Plywood

Recommended Cleaning Agent: Liquid cleaning agent or degreaser. Use a soft cloth or sponge to polish and dry.

Glass and Glass Products

Recommended Cleaning Agent: General glass cleaning agent available in the market. Watered petroleum-based solvents. Use a soft cloth or sponge to polish and dry.

Resin-Based Materials

Recommended Cleaning Agent: General resin cleaning agent (alcohol or hydrocarbon-based) available in the market. Clean with a soft cloth. Use cleaning solution sparingly. Clean, polish and dry.

Colored polished surfaces

Recommended Cleaning Agent: Gentle, liquid alcohol or hydrocarbon-based degreasers such as kerosene or benzene. It is recommended that a non-visible test surface be cleaned first so as to observe any potential reaction with the cleaning solution. Clean with a damp, soft cloth.

Plastic Fasteners

Recommended Cleaning Agent: General plastic cleaning agent available in the market. Alcohol or hydrocarbon-based cleaners

such as kerosene, benzene, etc. It is recommended that a non-visible test surface be cleaned first so as to observe any potential reaction with the cleaning solution. Clean with a damp, soft cloth.

Carpets

Recommended Cleaning Agent: General carpet cleaning products or chlorinated hydrocarbon or alcohol-based solvents available in the market. Clean with vacuum cleaner, apply carpet shampoo, and then scrub with sponge. Use a sponge containing chlorinated hydrocarbon or alcohol-based solvents to scrub away dirt and stains, and then allow the carpet to dry.

Synthetic/Glued Flooring Materials

Recommended Cleaning Agent: General liquid cleaning products or degreasers, or alcohol or hydrocarbon-based cleaners such as isopropyl alcohol and kerosene. Clean with a damp cloth.

Cleaning (Cont.)



Marble or Tile Flooring

Recommended Cleaning Agent: Soapy water. Household cleaning procedures will work well when cleaning this kind of material.

Landing Door Sill and Footplate

Recommended Cleaning Agent: Warm soapy water (not cleaning agent). Use a cloth to brush away all dirt and dust from the landing door area. Use a vacuum cleaner to clean certain areas. Clean the surface using a sponge and hot soapy water. Rinse the area with clean water and a clean cloth, and dry the area by baking.

Lights

Recommended Cleaning Agent: Soapy water (not cleaning agent). After turning off electrical power, remove the light from its fixture and clean it. After drying, re-install the light in its original location! Clean the surface area using a sponge and hot soapy water. Rinse the area with clean water and a clean cloth.

Buttons, Indicator Lights and Paneling

Clean according to the materials used.

Regular Inspection and Maintenance

Content

The regular inspection and maintenance includes the regular safety inspection of all of the elevator's electrical and mechanical components, the installation and adjustment of all elevator components, lubrication, and cleaning. The regular inspection and maintenance does not typically include replacements of parts or equipment.

Regular Inspection and Maintenance Plan

The regular inspection and maintenance plan should be conducted in accordance with the technical maintenance plan. The inspection and maintenance depends on many different factors concerning elevator and environment. All specified requirements must be met at all times. These standards indicate the absolute minimum requirements.

Responsibilities



As a general rule, only the qualified persons should be allowed to perform the inspection and maintenance tasks. The simple cleaning tasks are excluded, which is described in details in the "*Inspection and Maintenance – Cleaning*" section. The names of the maintenance company must be displayed on the side of the elevator.

Safety Measures



Prior to conducting inspection and maintenance, the safety measures must be put in place to reduce any risk of personnel injury or property damage. Details are as follows:



- In order to protect the safety of personnel performing inspection and maintenance operations, the rules explained in the chapter "*Maintenance – Prerequisites*" must be strictly obeyed.
- The signs must be placed in visible locations to indicate that the elevator is currently out of service.
- Should any type of safety issue appear during inspection and maintenance (such as hoistway illumination problems, ladder damage or missing, etc.), they

must be reported to the owner of the elevator immediately.

Inspection and Maintenance Control Box

The inspection and maintenance control box allows personnel to conduct operations on top of the elevator car. The inspection and maintenance control box can be turned on and off by inspection procedure switch that is located on the inspection and maintenance control box on top of the roof of the elevator car. Once this switch has been activated, the car will no longer respond to floor call commands. The elevator car then can only be moved by the command buttons on the control panel of the inspection and maintenance control box.

Lubricants and Lubricating Oil



Only the lubricants and lubricating oils mentioned in the inspection and maintenance manual may be used. Other lubricants may impact safety and/or cause damage requiring very high expense to repair.

*Please see pages 5-6 for a list of appropriate lubricants.

Disposal



All used lubricants and lubricating oils must be recycled and disposed by the maintenance company in accordance with regulations. Engine lubricants and hydraulic oils can result into severe pollution to water sources!

Repairs

Content

The repairs typically include the repair or replacement of used or damaged safety devices or other devices.

Responsibilities



Only professionals can conduct maintenance work.

Safety Measures



Before conducting inspection and maintenance, the safety measures must be put in place to reduce any risk of personnel injury or property damage. Details are as follows:



- In order to protect the safety of personnel performing inspection and maintenance operations, the rules explained in the chapter "Maintenance – Prerequisites" must be strictly obeyed.
- The signs must be placed in visible locations to indicate that the elevator is currently out of service.
- Should any type of safety issue appear during inspection and maintenance (such as hoistway illumination problems, ladder damage or missing, etc.), they must be reported to the owner of the elevator immediately.

Replacing Safety Devices



Should a safety device require replacing, only the spare parts of OEM that meet the corresponding statement can be used. The copied, upgraded, or re-used parts may cause operational danger to the elevator, reduce elevator service life, or result into a dangerous situation.

Replacing Other Devices

All devices and accessories have been specially designed for usage with this particular elevator. Special attention should be paid to the devices or parts supplied by the third party, especially those not go through certified production processes. Installation or use of these parts (or installation of used parts) may negatively impact the designed features

(for example, service life, operational safety, and comfort), or result into dangerous situations.

Spare Part Guarantee

BRAUN guarantees that the OEM spare parts have a service life of twenty years.

Lubricants and Lubricating Oils

Only the lubricants and lubricating oils mentioned in the inspection and maintenance manual may be used. Other lubricants may impact safety and/or result into damage requiring very high expense to repair.

*Please see pages 5-6 for the list of lubricants.

Disposal



All used lubricants and lubricating oils must be recycled and disposed by the maintenance company in accordance with regulations. Engine lubricants and hydraulic oils can result into severe pollution to water sources!

Elevator Log

All major maintenance must be recorded in the elevator log.

Unauthorized Adjustments

Unauthorized adjustment or operation of the elevator may cause damage or accident.

Responsibilities

The manufacturer and installation company are responsible for the possible damages due to utilization of altered, used, or uncertified parts in the elevator.

***List of Lubricants**

Part	Type of Lubricant	Instructions
Gearless Hoist Motor		No lubrication required
Car and Counterweight Guide Rails	HLP68, 68A	
Hoist Media (STM)	----	No lubrication allowed!
Speed Governor Wire Rope	----	No lubrication allowed!
Door System (Car Doors and Landing Doors)	----	No lubrication required
Car and Counterweight Pulleys	----	No lubrication required

Regular Inspections and Tests Following Major Repairs or Alterations

Content

The regular inspection includes elevator safety inspections. The objective of regular inspections after major repairs or malfunctions is to confirm that the elevator remains safe to use.

Responsibilities



The owner of the elevator must send the results of all safety inspections to the State Bureau of Technical Supervision for approval.

Safety Measures



Before conducting regular or special inspection, the safety measures must be put in place to reduce any risk of personnel injury or property damage. Details are as follows:

- In order to protect the safety of personnel performing regular inspections, the rules explained in the chapter "*Maintenance – Prerequisites*" must be strictly obeyed.
- The signs must be placed in visible locations to indicate that the elevator is currently out of service.
- Should any type of safety issue appear during inspection and maintenance (such as hoistway illumination problems, ladder damage or missing, etc.), they must be reported to the owner of the elevator immediately.



Daily Log

The results of any regular inspection or test conducted after any important modification or malfunctions must be recorded in the elevator logs and attached with an inspection report.



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General Elevator Maintenance Instructions

Prerequisites

All maintenance and inspection work must be conducted only by professional members of the maintenance company.

Therefore, the maintenance work described here may limit some work operations.

Content

The purpose of the maintenance instructions is to provide the elevator owners, users, and maintenance personnel with standard information regarding maintenance procedures. This requires specified control and inspection. After these parts have been adjusted, they must be cleaned, lubricated, further adjusted, and replaced if necessary.

Responsibilities

The maintenance company is responsible to follow the operation instruction of this manual as well as the specific instructions for each part when conducting maintenance. National standards, regulations, and laws must also be considered.

Safety Measures

The maintenance company is responsible to conduct all maintenance work safely and accurately. It is the maintenance company's responsibility to conduct maintenance exactly as instructed so as to guarantee the safety of the elevator. In addition to this, the maintenance instruction instructions take into consideration of all maintenance instructions in use. For information on lubricants, please see the list of lubricants.

Landing Doors

- Inspect the car doors.
- Inspect the landing doors.
- Inspect all locking mechanisms.
- Inspect all landing door functions and status.

- Inspect the safety functions of the doors opened.

Car Doors

All necessary cleaning and adjustments

- Inspect the door lock, door position, panel arrangement and movement.

Car Onboard Control Panel

Necessary cleaning and replacement

- Inspect the functions and status of all buttons and indicators.
- Inspect the lighting.
- Inspect the functions of alarm system and emergency light.

Car Internals

- Check the indicator panels, accessories, fasteners, etc.

Car Internals/Machine Room Security System

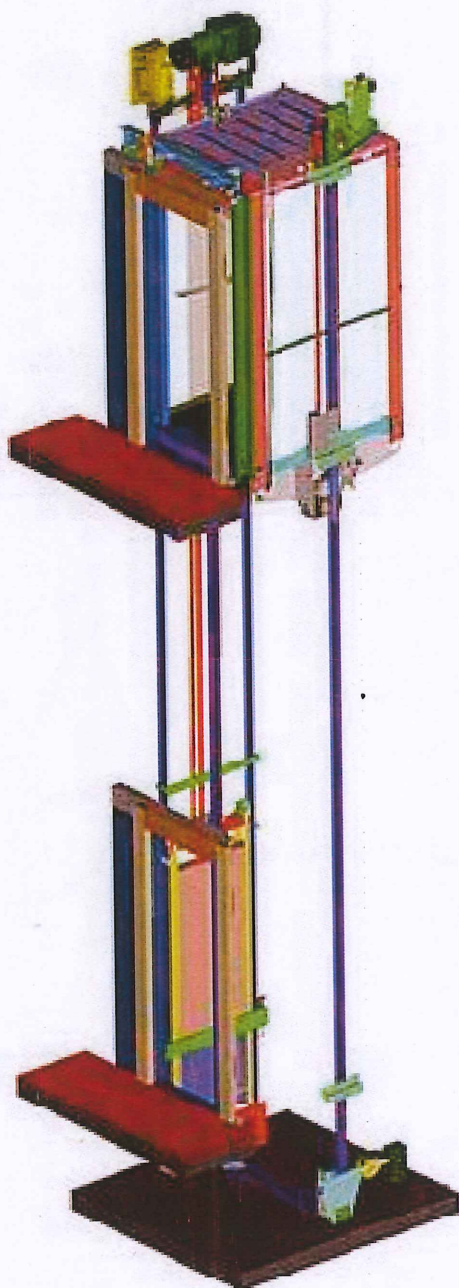
Necessary cleaning and replacement

- Inspect the emergency stop function.
- Inspect the connections on the top of the car and interlocking function.
- Inspect the controller function.

Hoistway Pit

- Inspect the car blocking equipment.
- Inspect the state and function of safety switch.
- Inspect the pit equipment (buffers, tensioners, etc.).

**General Elevator Maintenance
Instructions (Cont.)**



Hoist Motor

**Adjusting as per instructions:
Dismantling/adjusting and cleaning**

- Inspect the states and functions of mechanical brakes.
- Inspect the grooves and covers of traction axis.
- Inspect the states of all fixed elevators.
- Inspect the elevator speed controls.

Control Box and Power Switch Box

- Test RCD (Residual Current Device/Switch) functions at least once every six months.
- Inspect the states of all parts and connections.
- Inspect the emergency stop function.
- Confirm that the controller box is locked.
- Inspect the state of rescue indicator.
- Inspect the protections for all electrical and mechanical parts.

Hoistway

- Inspect the switch functions.
- Test the travel limit distance.
- Test the guide rail fixation.
- Inspect all safety circuits.
- Inspect the lighting.
- Inspect the travelling cables.

Car/Counterweight

Necessary cleaning and lubrication

- Inspect the number of counterweight plates.
- Inspect the fastening bolts and nuts.
- Inspect the lubrication oil for guide rail and fill as needed.
- Inspect the guide shoes for wear.
- Inspect the status of CDD (if installed).
- Inspect the status of safety clamps.

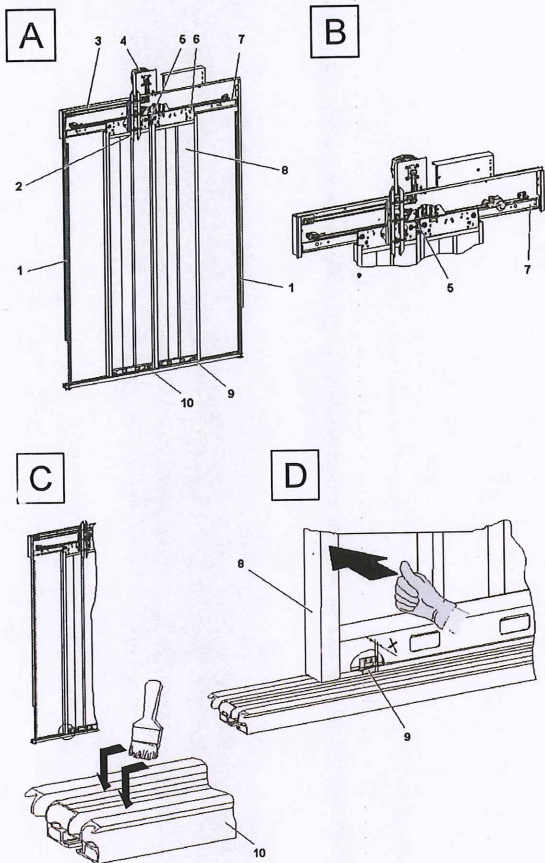
Information System

- Inspect the hoistway information.



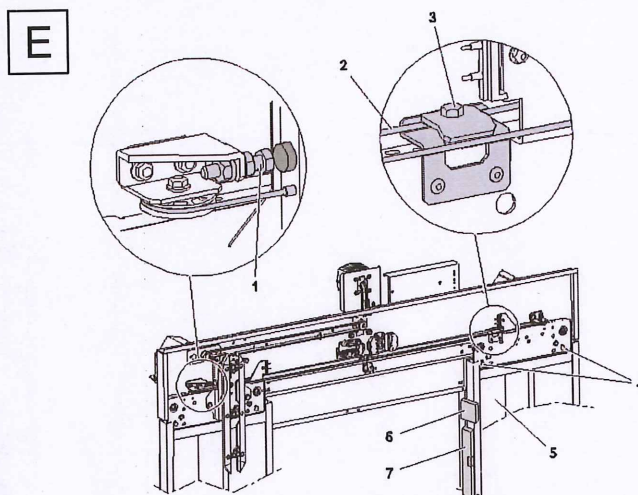
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Detailed Maintenance Instructions for car doors



1	Light curtain	6	Door roller
2	Door clutch	7	Guide rail
3	Toothed drive belt	8	Door panel
4	Door drive	9	Door guide shoes
5	Central rubber stop	10	Car door sill

Pos.	Damage Checks and Cleaning
B	Clean the guide rail (7) with a dry cloth. Do not oil!
	Check the condition of the central rubber stop (5). If damaged, worn or cracked, replace.
	Clean the complete door system with a dry cloth.
	Check all parts for damage or corrosion.
C	Clean the car door sills (10) of debris. Make sure that the sill holes are not blocked by debris.
D	Check for wear on the door guide shoes (9) by pushing the door panel (8). If the distance X is > 1 mm, replace the door guide shoe (9).

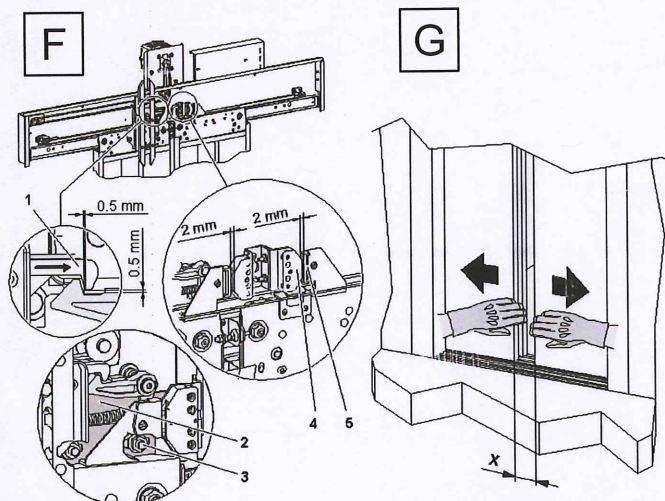


1	M6 set screw	5	Door panel
2	Synchronization cable	6	Straight edge
3	M6x16 bolt	7	Spirit level
4	M8x16 RIP bolt		

Pos.	Alignment Checks
E	With the door opened, check both door panels (5) for alignment with a straight edge (6).
	If the door panels (5) are not aligned, adjust them by M6 set screw (1) and by loosening M6x16 mm bolt (3) to slacken the synchronization cable (2).
	Use a spirit level (7) to check the vertical alignment of the door panels (5).
	If the door panels (5) are not aligned vertically, loosen the M8x16 RIP bolts (4) and adjust the door panels vertically to the door jamb.

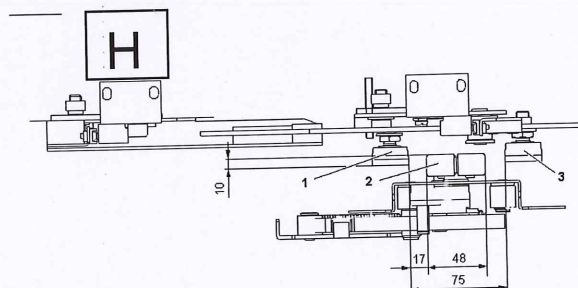


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1	Car door lock	4	KTC housing
2	Trigger support	5	KTC bridge
3	M8 nuts		

Pos.	Door Contacts and Door Locking Checks
F	Close the car doors fully by the VVVF-4 control. Clean the contacts and ensure that all electrical moving contacts are centrally aligned in the fixed contact block.
	Check if the KTC bridge (5) fits properly into the KTC housing (4). If not, loosen the two nuts and move the KTC housing (4) to the correct position (2 mm gap).
	Check that the horizontal and vertical gap on the car door lock (1) is approximately 0.5 mm. If necessary, adjust the gap by loosening the M8 nuts (3) and move the trigger support (2).
G	Push both panels in the opening direction at the bottom as far as possible. Measure the gap that has been created. The maximum allowed distance (x) is 45 mm for center doors.



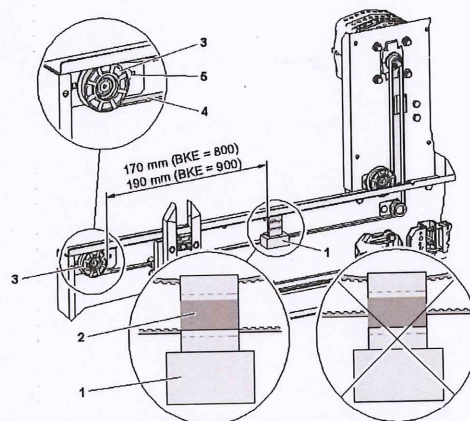
- | | | | |
|---|-------------------------------|---|---------------------------|
| 1 | Landing door unlocking roller | 3 | Landing door fixed roller |
| 2 | Car door clutch | | |

Pos.	Clutch Alignment Checks
H	Close the car doors completely. Check that the distance on the car door clutch (2) is 42 mm. If required, adjust the unlocking mechanism accordingly.
	Once the clutch measurement is correct, move the car to floor level from the car top. Ensure that the clutch is aligned with the landing door rollers (1, 3) with 10 mm of roller penetration on the clutch (see K 43401975 Maintenance Card).
	Check that the distance between the clutch and the unlocking roller is 17 mm. Check that the distance between both rollers (1, 3) is 75 mm. If necessary, adjust the lock assembly as described in the maintenance card of the landing door.



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I



1	Belt tension tool	4	Belt
2	Correct setting area	5	Fastening screw
3	Pulley		

Pos.	Door Drive Belt Checks
I	Close the door and visually check the condition of the teeth on the belt. Replace the belt (4) if necessary.
	Place the belt tension tool (1) onto the belt (4). Measure the distance between the belt tension tool (1) and the pulley (3).
	Check the belt tension and adjust it if necessary by moving the pulley (3), using the fastening screw (5). The belt tension is correctly adjusted when the belt (4) is positioned in the correct setting area (2).



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Safety Device Maintenance
Instructions

As per Safety Device Maintenance Instructions

All work on safety device should only be conducted by professional staff of Maintenance Company in accordance with the maintenance instructions in the user manual supplied by the manufacturer (In accordance with GB7588-2003 16.3.2).

The instructions supply necessary information for the effective execution of safety device maintenance.



Read This First

Document Objective

This document supplies installation personnel, owners, and professionals with the following instructions:

- Installation (Assembly and Connections)
- Maintenance
- Safety Functions

Intentioned Usage



The safety devices described are only to be used for their designed purpose. Safety devices must be connected to an activation system.

Responsibilities



If safety devices are used for other than their designed purposes, they can no longer be used for that purpose. The maintenance company is not responsible for the damage due to use of these devices. The usage of all safety devices must satisfy all requirements, including those in this manual and maintenance instructions.

Professional Personnel

- Trained to execute all relevant operations listed within the user manual
- Possessing proper tools and capable of operating auxiliary equipment
- Understanding of the potential danger that may cause to themselves and others

Safety Device Installation Personnel

Typically responsible for the following:

- The correct installation of all of the elevator's associated safety devices
- Elevator components and/or subsystems
- Installing and/or replacing the elevator safety devices and operating them

Elevator Owner

A legal entity responsible for the operation, usage, and maintenance of an elevator

Danger

This symbol is used to bring attention to potential dangers or dangers. It must be obeyed at all times.

Warning

This symbol means that attention should be paid. If ignored, it may cause damage to property or persons. It must be obeyed at all times.

ATTENTION:

This symbol means important information. If not obeyed, it may cause danger or malfunction.



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Responsibilities

Only professional personnel are allowed to do the following work on the safety devices:



- Assemble
- Connect
- Adjust
- All cleaning and lubrication, inspections, maintenance, and post-activation planning.

Permitted Work



Only the operations specified in this document may be performed. Only professional personnel may conduct any kind of work on safety devices!

Regular Maintenance of Safety Devices

The objective of regular maintenance is to utilize a system of control nodes, adjustment, cleaning, and replacing of worn parts so as to maximally guarantee the safe operation of the elevator.

Hoist Motor Brake Maintenance Instructions

1-Maintenance

These brakes do not need to be maintained because:

- They do not need lubrication.
- They do not need to be adjusted.

2- Operation

Always use the rescue procedure to free trapped passengers (see 3.11).

3- Repairs

Repairs are not allowed. If necessary, new OEM parts must be used for replacement.

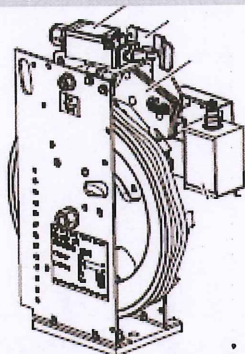
4- Periodical check intervals (*task description, refer to maintenance documentation*)

Interval [months]	Description
12	Visual check
12	Air gap check
12	Dynamic full brake test
12	Dynamic single brake test
12	Check of the motor fans (in case of a motor temperature error only)



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Governor Maintenance
Instructions



Adjustment

Forbidden Action



Safety devices are adjusted by the OEM. Unless described in the guide manual, further adjustment is not allowed.

Pre-Handover Usage and Safety Inspection Testing

Testing

- Once installation and adjustment of safety devices have been completed in accordance with instructions, testing of the elevator should be carried out in accordance with GB7588-2003.

Safety Testing

Periodic testing is required according to federal laws and regulations; the testing and function tests outlined in the guide manual must be strictly obeyed.

Maintenance

Prevention



If needed, confirm the safety of all electrical and mechanical equipment before the elevator starts any kind of operation.

regulations and local conditions (such as actual usage, usage rates, local environmental factors, etc.)

- Normal visual inspections of elevator components and the governor:
Time Period Once Annually
- Inspection of safety switches and their normal operation within safety circuits:
Time Period Once Annually
- Visual inspection of governor cable:
Time Period Once Annually
- Friction inspection
Time Period Twice Annually

Cleaning and Lubrication

Cleaning

Subsystems should be cleaned at an appropriate time anywhere and anytime necessary for the safe operation of the elevator.

Lubrication



Only the lubricants and lubricating oils mentioned in the inspection and maintenance manual may be used. Other lubricants may cause malfunction of safety devices.

Usage of other kind of lubricants is strictly forbidden.

Instructions

Safety devices do not require any lubrication. The governor cable does not require lubrication either.

Maintenance

Replacements



Old or worn safety devices must only be replaced by OEM parts.

Spare Parts

Use OEM Parts At All Times.

The manufacturer must pay close attention to whether all parts supplied by third-parties have been tested and approved. Installing used or worn devices may be dangerous.

Non-OEM parts may affect operational safety and service life, and may decrease comfort for those who use the elevator.

caused by the usage of non-OEM, altered, or used parts.

Usability of Parts

BRAUN guarantees that all OEM parts have a service life time of 20 years.

Elevator Logs

Each replacement of a safety device must be recorded in the elevator logs.

Materials Processing

Lubricants, Lubricating Oils, and Other Materials



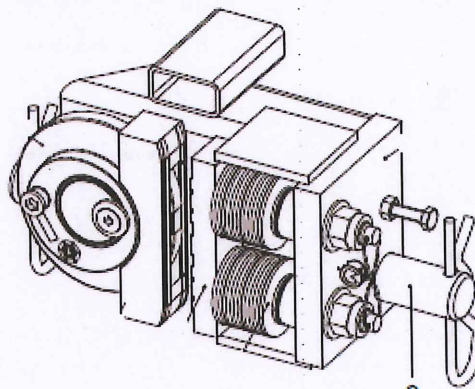
Lubricants, lubricating oils, and other dangerous materials which may cause damage to the environment must be processed in strict accordance with relevant regulations.

Parts, Components, and Subsystems



Repairing or replacing parts, components, or subsystems must be done in strict accordance with the contract signed between the elevator owner and the company conducting the work.

Safety Gear Maintenance Instructions



Connections

Confirmation



Confirm that the governor safety switch is correctly connected to the safety circuit.

Adjustment

Forbidden



Safety devices are adjusted by the OEM. Only appropriate personnel may confirm or adjust these devices during the certification testing process.

Pre-Usage Testing and Security Inspections

Certification Testing

- "Downward" engagement of gearing
- "Upwards" braking
- Sealing
- Final Inspection



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When required, confirm the safety of all electrical and mechanical components before any operation starts.

Cleaning

To maintain safe operation, all subsystems and components must be cleaned when needed.

Lubrication



Safety Clamps

This equipment does not need to be lubricated.

Only HLP68 (or 68A) lubricated guide rails may be used.



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Maintenance Proposal



This manual illustrates the minimum requirements on safety devices. The maintenance recommendations are based on normal elevator operation. Maintenance schedule can be adjusted by each maintenance company based on individual situations (including actual usage conditions, usage rates, environmental factors, national laws, etc.)

Service Schedule

This manual does not include requirements of national standards or contractual specifications.

Maintenance/Testing/Inspection	Schedule (Weeks)
Normal Inspection	52
Cleaning	104
Function Inspection	104

Inspection

Normal Inspection

Procedures

1. Seals
2. Sturdiness
3. Smooth Operation
4. Safety Switches
5. Interfaces

Damaged Safety Clamps



Damaged or defective safety clamps must not be operated.

Cleaning

Procedures

1. Clean both safety clamps.
2. Confirm all moving components in smooth operation.

Only regulation components may be used for safety clamp replacement. Other types of maintenance are forbidden.

Replacements



Damaged or defective safety devices must be replaced by original parts.

Spare Parts

Use only OEM parts. The manufacturer must be sure that the components from the third party have been tested and certified. It is extremely dangerous to install used or altered components.

The use of **non-OEM parts** may negatively affect the operational safety and usage life due to possible differences in design.

Responsibilities



The equipment manufacturer and installation team are not responsible for any damage that occurs due to the installation of non-OEM, used, or altered components.

Usability of Parts

BRAUN guarantees that OEM parts will be available for the next twenty years.

Daily Logs

Each replacement of a safety device must be recorded in the elevator logs.

Post-Activation Setup

Safety clamps must be set to their closed positions.

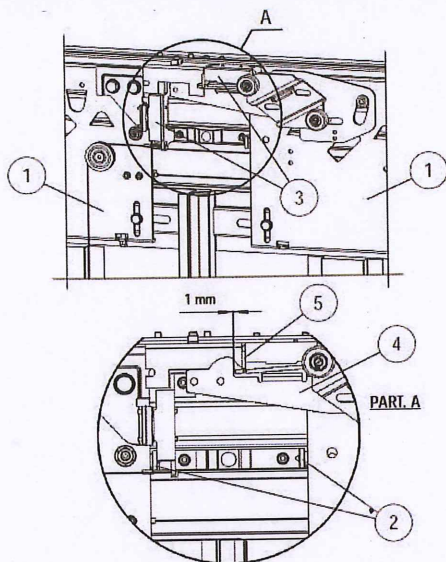
Materials Processing

Lubricants, Oils, and Other Materials



Lubricants, lubricating oils, and other dangerous materials which may cause damage to the environment must be processed in strict accordance with relevant regulations.

Landing Door Lock Installation Manual



Confirm that the locking element engages at least 7mm before contacts are engaged.
(GB7588 §7.7.3.1.1)



Do not disconnect the door safety circuit under all circumstances: This may lead to an extremely

		door roller for signs of over-usage. <ul style="list-style-type: none"> Inspect adjustment of door lock system: Locking hooks should engage at least 7mm, while lock and hook should be separated by 1 to 2mm; inspect wire loop adjustment and door roller position.
Re-place ments	12 years	<ul style="list-style-type: none"> Replace the door lock contacts
	15 years	<ul style="list-style-type: none"> Replace the rubber buffer padding if needed.

Cleaning

Use a soft cloth or brush to clean if necessary to ensure safe operation.

The safety contacts cannot be filed with a filing tool, as this will accelerate the creation of waste particles and decrease dependability. When it is no longer possible to clean the contact with a soft cotton cloth, it should be replaced with OEM parts.

Lubrication

Lubrication is not required.

Maintenance

The damaged or defective safety **devices must be replaced by OEM parts**

Responsibilities

The equipment manufacturer and installation team are not responsible for any damage that results from the installation of non-OEM, used, or altered components.



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Setup for Halting Elevator Service

Basic Rules

When maintaining or inspecting the elevator (See chapters: "Malfunction Maintenance-Regular Inspection and Repairs" and "Regular Inspections and Tests Following Major Malfunctions"), the maintenance company may discover some elevator operation safety issues. Should any issue not be corrected in a timely manner (during maintenance operations), the elevator must be compensated.

Compensation Responsibilities

The maintenance company must halt the service of the elevator should any of the situations below occurs:

- Safety devices are not capable of full operation or cannot be activated at all (See "Elevator Description")
- If the safe operation of the elevator can no longer be guaranteed.

Daily Log

All major maintenance must be recorded in the elevator log.

Troubleshooting

Content

Troubleshooting includes identifying and clearing malfunctions and releasing trapped passengers. Malfunctions do not typically require that components be replaced.

Simple Malfunction Clearing Operations for Trained Personnel

Clearing "Simple Malfunctions" includes the following operations:

- Inspect elevator car landing floor door sill and conduct necessary cleaning.
- Inspect elevator car landing floor door light curtain and conduct necessary cleaning.
- Inspect, clean, and adjust all car and landing floor control components.
- Confirm that all landing doors are closed and locked. Should a landing floor door be unlocked, the doors must be closed; **the elevator must be taken out of service and the maintenance team must be contacted.**
- Emergencies: Releasing trapped passengers (please see the "Rescuing Trapped Passengers" chapter and the "Rescuing/Evacuating Passengers" notice inside the controller cabinet).

If a malfunction cannot be cleared by following these instructions, contact the maintenance company. If required, follow the safety measures below.

Safety and Prevention



Before clearing a malfunction, certify that there is no possible threat of property damage or danger.

Details:

- It must be clear that the elevator has been removed from service.

Lubrication

Please see the warnings in the chapter, "Maintenance – Regular Inspection and Repairs"



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6 Technical Documents

Safety Component List

Elevator Certification

Hoistway Layout Diagram

Electrical Schematic Diagrams

Safety Component Type Test Report

Packing List

6 - 1

Appendix 1

Appendix 2

Appendix 3

Appendix 4

Appendix 5



7 Miscellaneous

Disposal of material

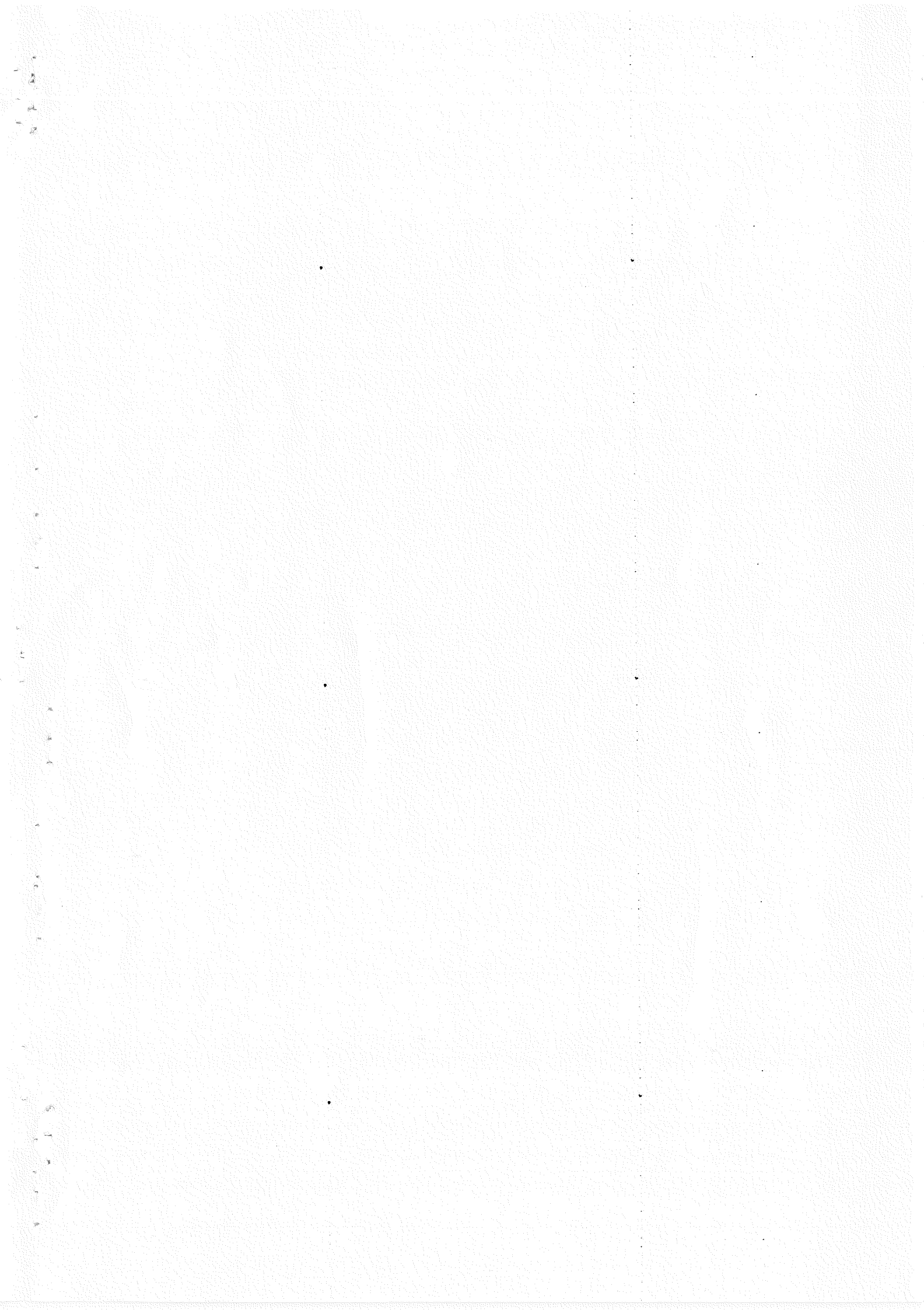
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Modernization

7 - 5



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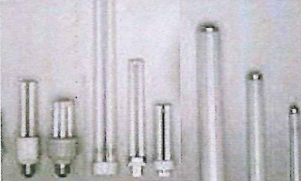
Disposal of material

Legislation and regulations	The legislation and regulations concerning the disposal of elevators, components and agents have to be observed. The disposal instructions describe an ideal situation, which can not be fulfilled in every case because of the special national situations.
Responsibilities	The owner of the installation is also owner of the material (substances, parts, components, subsystems and agent) which is released by the maintenance, modernization and replacement of the installation and therefore the owner is responsible for an environmentally and legally compatible disposal.
Maintenance and modernization	The disposal of replaced parts, components and subsystems should be settled between the owner and the maintenance or modernization company. In those cases where BRAUN performs maintenance and modernization, BRAUN looks for an appropriate solution for the disposal together with the operator of the installation.
Hazardous substances	Hazardous substances and material should be taken back and properly disposed by the maintenance company. If the owner of the installation takes responsibility for the disposal, he must carry it out in accordance with the legal requirements, and he must also follow the instructions of the maintenance company.
Dismantling of the installation	When an installation is completely replaced, the disposal of the old installation must be arranged between the owner of the installation and the installer. In those cases where the new installation is delivered by BRAUN, the company will arrange the disposal of the old installation by consulting the owner of the installation.
General disposal instructions	
Hazardous waste	Hazardous waste e.g. oils, batteries, accumulators or luminescent tubes and other hazardous substances has to be removed before the dismantling of the installation and properly disposed.
Separation of material	<p>An optimal separation of materials allows high-quality recycling into different raw materials. A practical allocation of tasks between dismantling companies (separation on the building site) and the recycling company (scrap dealers) is to be anticipated. A rough separation of the removed material into hazardous substances, and into valuable and other secondary raw material should be performed during the dismantling according the following categories:</p> <ul style="list-style-type: none"> • Hazardous waste • Electrical and electronic equipment waste • Aluminum scrap • Non-magnetic steel scrap (Chrome-nickel and chrome steel) • Magnetic steel and iron scrap (non-alloy, low-alloy, and galvanized steel, cast iron) • Scrap containing copper (wires, electric motors, brass scrap) • Lead scrap (counterweight fillings) • Mineral waste • Waste for incineration
Counterweights	Counterweights filled with lead, gussolith or concrete must be delivered separately to the scrap dealer. If not, there is high risk that they cannot be longer distinguished from other scrap metal (large quantities of lead damage the oven).
Metal scrap	Metal scrap should be released as far as possible from impurities (rubber, oils and greases, wood, glass, rubbish, cleaning rags), which cause an increase of slag, dust and energy consumption and finally an increase of costs and environmental impact during re-smelt.
Hollow bodies in metal scrap	Hollow bodies in metal scrap should be cut (resp. the scrap dealer should be advised) and should be discharged from liquid i.e water and oil, which can cause explosions during melting down and injure personnel and installations.



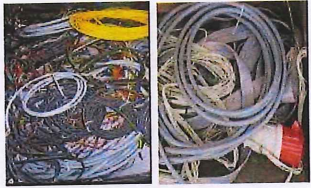


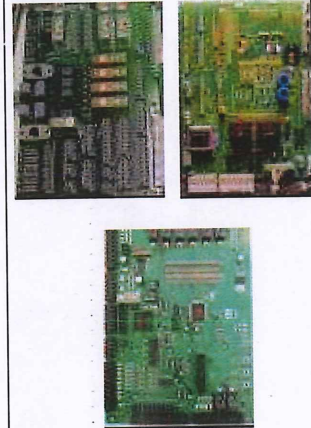
Specific Disposal Instructions

Category: REU = reuse, RC = recyclable, NRC = non-recyclable, HZ = hazardous waste

Subsystem; Components; parts; Material; substances	Category:	Disposal instructions	Type of disposal	Reasons (others than resource conserva- tion) / impacts	Picture
Batteries and accumulators containing heavy metals, e.g. from: • emergency power device (NSG) • Printed circuit boards (Prints)	HZ	<ul style="list-style-type: none"> Collect separately Return to collecting station, manufacturer or specialized disposer Do not dispose off with garbage. Do not dispose on landfill. 	Recycling by authorized specialist firm	Danger of health and environment because of heavy metal and caustic liquid e.g. cadmium, lead, mercury, acid and alkali if improperly disposed.	
Oils and greases	HZ	<ul style="list-style-type: none"> Collect separately Return to collecting station, manufacturer or specialized disposer Not allowed to get into water and soil 	Regeneration Incineration by industrial firing or HWIP ¹	Ecologically harmful 1 barrel oil (150 l) contaminates 30 m ³ soil. Elder hydraulic oils (before 1980) may contain toxic polychlorinated biphenyls	
Luminescent tubes and energy saving lamps	HZ	<ul style="list-style-type: none"> Collect separately may not be damaged during collection and transport Return to collecting station, manufacturer or specialist disposer Do not dispose with garbage. Do not dispose on landfill. 	Recycling by authorized specialist firm	Danger of health and environment because of heavy metal e.g. cadmium, mercury, if lamps are broken or improperly disposed.	





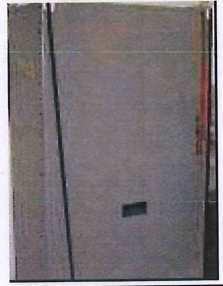


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Subsystem; Components; parts; Material; substances	Category:	Disposal instructions	Type of disposal	Reasons (others than resource conserva- tion) / impacts	Picture
Copper and its alloys (bronze, brass, nickelsil- ver) e.g. in <ul style="list-style-type: none"> • Electro-motors (winding) • Wires and cables) • Travelling cable • Switch • Ring snail wheel (worm gear) 	RC	<ul style="list-style-type: none"> • Collect and recycle sepa- rated scrap iron. 	Recycling in separating melting plant, bronze and copper foundries	Copper is harmful to the mechanical properties of steel and thus absolute- ly not desired in scrap iron. Valuable secondary raw material	
Aluminum <ul style="list-style-type: none"> • Door sills • Various parts 	RC	<ul style="list-style-type: none"> • Collect and recycle sepa- rated from scrap iron. 	Recycling in aluminum foundries	Valuable secondary raw material	
Electrical and electronic scrap, like switches, transformers, relays, electromagnetic switches, capaci- tors to be found in: <ul style="list-style-type: none"> • Control • Frequency converter • Landing oper- ating panels • Car operating panels 	RC	<ul style="list-style-type: none"> • Collect sepa- rately • Return to collecting station, man- ufacturer or specialized disposer • Do not dis- pose with garbage. • Do not dis- pose on landfill. 	Recycling and disposal by authorized specialist firm	Complex mixture of parts containing harm- ful material, e.g. plastics stabilized by heavy metals, halogenated flame retardants in boxes and printed circuit boards. Elder capacitors (before 1980) may contain toxic polychlorinated bi- phenyl's	
Printed circuit boards (prints, PCB's), to be found in: <ul style="list-style-type: none"> • Control • Frequency converter • Landing oper- ating panels • Car operating panels 	RC	<ul style="list-style-type: none"> • Collect sepa- rately • Return to collecting station, man- ufacturer or specialized disposer • Do not dis- pose with garbage. • Do not dis- pose on land- fill. 	Recycling and disposal by authorized specialist firm Recycling by LOC free of charge Send back to BRAUN Electronics Ltd.6600 Locarno Switzerland Please indi- cate on the box "Dispos- al Material"	Complex mixture of parts containing harm- ful material, e.g. plastics stabilized by heavy metals, halogenated flame retardants in boxes and printed circuit boards. Elder capacitors (before 1980) may contain toxic polychlorinated bi- phenyl's	



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Subsystem; Components; parts; Material; substances	Category:	Disposal instructions	Type of disposal	Reasons (others than resource con- servation) / impacts	Picture
High-alloy steel (stainless steel): • Interior trim and accesso- ries of cars made of chrome steel • Car and hoist- way doors	RC	• Collect and recycle sepa- rated from non-or low- alloy scrap iron.	Recycling in steel plant for high alloyed steels	If non-alloy steel scrap is used for the produc- tion of non-alloy steel, the non-alloy steel scrap should be free of chrome, nickel and mo- lybdenum. Valuable secondary raw material	
Non-alloy and low-alloy steel, e.g.: • Guide rails • Ropes • Profile steel (e.g. machine frame) • Car and door panels • Permanent magnets (Cau- tion mag- netism!) • Panels, boxes, frames Cast iron, e.g.: • Speed gover- nor • Hub snail wheel • Traction sheave • Deflection pulley • Brake drum	RC	• Collect and recycle sepa- rated from high alloy scrap iron.	Recycling in steel plant with filter	If non-alloy steel scrap is used for the produc- tion of non-alloy steel, the non-alloy steel scrap should be free of chrome, nickel and mo- lybdenum. During incineration of old plastics, containing chlorine or painted coats, dioxins and fu- rans are produced when gases cool down. Zinc from galvanized steel scrap gets toge- ther with discharge gas in the filter of the steel plant.	 
Guide rails Counterweight filling	REU	• If possible recuperate or reuse • Check the possibility for taking back by BRAUN.			
	RC	• Counterweight filling made of lead and concrete to be separated and collected sort by sort (never mix with scrap iron).	Recycling in lead melting plant and concrete recycling plant	Lead is harmful to scrap iron recycling and there- fore definitely not de- sired in scrap iron. In the same way for concrete.	
	RC	• Counterweight filling made of Gussoloth to be separated and collected sort by sort (do not mix it with steel-or cast iron scrap). • Inform the scrap dealer.	Recycling in steel plant	Heavy smoke gas emis- sions and toxic air emis- sions (e.g. PAH ³) due to binding agent tar.	

¹HWIP: Hazardous waste incineration plant

²EFGT: Enhanced flue gas treatment

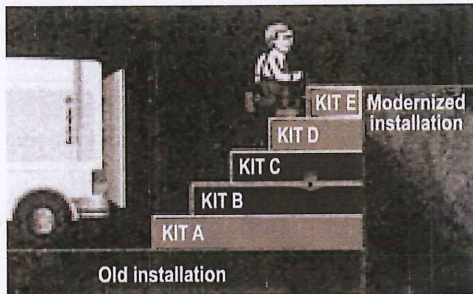
³PAH: Polycyclic aromatic hydrocarbons. Some of these substances e.g. Benzopyren are cancerogenic.

Modernization

Modernization

Even if your lift is new today, the time will come when it needs to be modernized. By modernizing your lift, you protect your investment and preserve the value of your installation.

The intensity and type of use of the lift affect the expected life of the components and systems used in it.



Conformity with legal requirements

Changes to regulations can make it necessary to replace or modify specific components of the installation.

Step-by-step modernization

The modular concept of the lift installation makes step-by-step modernization possible. Step-by-step modernization will preserve the value of the installation or even increase it. At the same time, the installation will be continuously adapted to the most recent safety regulations and technology. Timely replacement of worn parts will avoid faults and the availability level is kept high and the installation retains its new appearance.

Cooperation with the installer

Modernization of any type always makes heavy demands on all concerned, and requires a high degree of cooperation. To keep lift downtime to a minimum, and to fulfill customers' expectations, it is strongly recommended that the modernization be prepared and carried out by the original manufacturing company or installer with whom the contract was first placed.

Updating the installation documentation

When a modernization has been carried out that changes the way the installation functions, the installation documentation must be brought up-to-date for example, if the control system is modified, the schematic wiring diagrams must be brought up-to-date.

Your partner for modernization



Based on many years of experience, BRAUN the original manufacturer of this installation, can guarantee speedy, professional modernization at an attractive price.



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