



NOTICE INVITING TENDER

(Document No PS:MSX:NIT)

Bharat Heavy Electricals Limited



NOTICE INVITING TENDER (NIT)

NOTE: BIDDER MAY DOWNLOAD FROM WEB SITES

To

Dear Sir/Madam

Sub : NOTICE INVITING TENDER

Sealed offers in two part bid system (National competitive bidding (NCB) are invited from reputed & experienced bidders (meeting PRE QUALIFICATION CRITERIA as mentioned in Annexure-1) for the subject job by the undersigned on the behalf of BHARAT HEAVY ELECTRICALS LIMITED as per the tender document. Following points relevant to the tender may please be noted and complied with.

1.0 Salient Features of NIT

SL NO	ISSUE	DESCRIPTION	
i	TENDER NUMBER	BHEL/NR/SCT/ADMIN/ELEVATOR AMC/1252	
ii	Broad Scope of job	“Comprehensive Annual Maintenance Contract for both the elevators installed at BHEL PSNR and CLD offices for 1 year”.	
iii	DETAILS OF TENDER DOCUMENT		
a	Volume-IA	<i>Tender Terms & Conditions consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc</i>	<i>Applicable</i>
b	Volume-IB	<i>Special Conditions of Contract (SCC)</i>	<i>Not Applicable</i>
c	Volume-IC	<i>General Conditions of Contract (GCC)</i>	<i>Not Applicable</i>
d	Volume-ID	<i>Forms and Procedures</i>	
e	Volume-II	<i>Price Schedule (Absolute value).</i>	<i>Applicable</i>
iv	Issue of Tender Documents	Tender documents will be available for downloading from BHEL website (www.bhel.com) till due date of submission: Start : 09/02/2022, Time : 09:00 hrs Closes: 01/03/2022, Time : 10:00 hrs	<i>Applicable</i>
v	DUE DATE & TIME OF OFFER SUBMISSION	Date : 01/03/2022, Time : 10:00 hrs Place : Noida	<i>Applicable</i>

vi	OPENING OF TENDER	Date : 01/03/2022, Time : 15:30 hrs Notes: (1) In case the due date of opening of tender becomes a non-working day, then the due date & time of offer submission and opening of tenders get extended to the next working day. (2) Bidder may depute representative to witness the opening of tender.	Applicable
vii	EMD AMOUNT	Nil	
viii	COST OF TENDER	Free	
ix	LAST DATE FOR SEEKING CLARIFICATION	Five days before bid submission due date Along with soft version also, addressing to undersigned & to others as per contact address given below: 1) Name: Rashmi Sahu Designation: Addl. Engineer Deptt: SCT Address: BHEL-PSNR, PLOT NO. 25, SECTOR – 16A, NOIDA - 201301 Phone: (Landline/Mobile) 0120 - 2416449 Email : rsahu@bhel.in 2) Name: G.V.RAJASEKHAR Designation: Sr. Manager Deptt: SCT Address: BHEL-PSNR, PLOT NO. 25, SECTOR – 16A, NOIDA - 201301 Phone: (Landline/Mobile) 0120-2416232 Email : gvr@bhel.in	Applicable
x	SCHEDULE OF Pre Bid Discussion (PBD)		Not applicable.
xi	INTEGRITY PACT & DETAILS OF INDEPENDENT EXTERNAL MONITOR (IEM)		Not Applicable
xii	Latest updates	Latest updates on the important dates, Amendments, Correspondences, Corrigenda, Clarifications, Changes, Errata, Modifications, Revisions, etc. to Tender Specifications will be hosted in BHEL webpage (www.bhel.com -->Tender Notifications →View Corrigendums), & and not in the newspapers . Bidders to keep themselves updated with all such information.	

- 2.0 The offer shall be submitted as per the instructions of tender document and as detailed in this NIT. Bidders to note specifically that all pages of tender document, including these NIT pages of this particular tender together with subsequent correspondences shall be submitted by them, duly signed & stamped on each page, as part of offer. **Rates/Price including discounts/rebates, if any, mentioned anywhere/in any form in the techno-commercial offer other than the Price Bid, shall not be entertained.**

3.0 **Not used.**

4.0 Not used.

5.0 **Procedure for Submission of Tenders:** The Tenderers must submit their Tenders to Officer inviting Tender, as detailed below:

- PART-I consisting of 'PART-I A (Techno Commercial Bid)' & 'PART-I B (EMD)' in two separate sealed and superscribed envelopes (ENVELOPE-I & ENVELOPE-II)
- PART-II (Price Bid) – in sealed and superscribed envelope (ENVELOPE-III)
- One set of tender documents shall be retained by the bidder for their reference

6.0 The contents for ENVELOPES and the superscription for each sealed cover/Envelope are as given below.
(All pages to be signed and stamped):

Sl. no.	Description	Remarks
	Part-I A	
	ENVELOPE – I superscribed as: PART-I (TECHNO COMMERCIAL BID) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION: CONTAINING THE FOLLOWING:-	
i.	Covering letter/Offer forwarding letter of Tenderer.	
ii.	Duly filled-in 'No Deviation Certificate' as per prescribed format to be placed after document under sl no (i) above. Note: a. In case of any deviation, the same should be submitted separately for technical & commercial parts, indicating respective clauses of tender against which deviation is taken by bidder. The list of such deviation shall be placed after document under sl no (i) above. It shall be specifically noted that deviation recorded elsewhere shall not be entertained. b. BHEL reserves the right to accept/reject the deviations without assigning any reasons, and BHEL decision is final and binding. i). In case of acceptance of the deviations, appropriate loading shall be done by BHEL ii). In case of unacceptable deviations, BHEL reserves the right to reject the tender	
iii.	Supporting documents/ annexure/ schedules/ drawing etc. as required in line with Pre-Qualification criteria. It shall be specifically noted that all documents as per above shall be indexed properly and credential certificates issued by clients shall distinctly bear the name of organization, contact ph. no, FAX no, etc.	
iv.	All Amendments/Correspondences/Corrigenda/Clarifications/Changes/ Errata etc. pertinent to this NIT.	
v.	Integrity Pact Agreement (Duly signed by the authorized signatory)	If applicable
vi.	Duly filled-in annexures, formats etc. as required under this Tender Specification/NIT	
vii.	Notice inviting Tender (NIT)	
viii.	Volume – I A : <u>Technical</u> Conditions of Contract (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc.	
ix.	Volume – I B : Special Conditions of Contract (SCC)	
x.	Volume – I C : General Conditions of Contract (GCC)	

xi.	Volume – I D : Forms & Procedures	
xii.	Volume – II (UNPRICED – without disclosing rates/price, but mentioning only 'QUOTED' or 'UNQUOTED' against each item	
xiii.	Any other details preferred by bidder with proper indexing.	

	PART-I B	
	ENVELOPE – II superscribed as: PART-I (EMD) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION: CONTAINING THE FOLLOWING:-	
	Earnest Money Deposit (EMD) in the form as indicated in this Tender	

	PART-II	
	PRICE BID consisting of the following shall be enclosed	
	ENVELOPE-III superscribed as: PART-II (PRICE BID) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION: CONTAINING THE FOLLOWING	
i	Covering letter/Offer forwarding letter of Tenderer enclosed in Part-I	
ii	Volume II – PRICE BID (Duly Filled in Schedule of Rates – rate/price to be entered in words as well as figures)	

	OUTER COVER	
	ENVELOPE-IV (MAIN ENVELOPE / OUTER ENVELOPE) superscribed as: TECHNO-COMMERCIAL BID, PRICE BID & EMD TENDER NO: NAME OF WORK: PROJECT: DUE DATE OF SUBMISSION: CONTAINING THE FOLLOWING:	
i	<ul style="list-style-type: none"> ○ Envelopes I ○ Envelopes II ○ Envelopes III 	

SPECIAL NOTE: All documents/ annexures submitted with the offer shall be properly annexed and placed in respective places of the offer as per enclosure list mentioned in the covering letter. BHEL shall not be responsible for any missing documents.

- 7.0 Deviation with respect to tender clauses and additional clauses/suggestions in Techno-commercial bid / Price bid shall NOT be considered by BHEL. Bidders are requested to positively comply with the same.
- 8.0 BHEL reserves the right to accept or reject any or all Offers without assigning any reasons thereof. BHEL also reserves the right to cancel the Tender wholly or partly without assigning any reason thereof. Also BHEL shall not entertain any correspondence from bidders in this matter (except for the refund of EMD).
- 9.0 **Assessment of Capacity of Bidders: Not applicable**
- 10.0 Since the job shall be executed at site, bidders must visit site/ work area and study the job content, facilities available, availability of materials, prevailing site conditions including law & order situation, applicable wage structure, wage rules, etc. before quoting for this tender. They may also consult this office before submitting their offers, for any clarifications regarding scope of work, facilities available at sites or on terms and conditions.
- 11.0 For any clarification on the tender document, the bidder may seek the same in writing or through e-mail and/or through e-procurement portal, as per specified format, within the scheduled date for seeking clarification, from the office of the undersigned. BHEL shall not be responsible for receipt of queries after due date of seeking clarification due to postal delay or any other delays. Any clarification / query received after last date for seeking clarification may not be normally entertained by BHEL and no time extension will be given.
- 12.0 BHEL may decide holding of pre-bid discussion [PBD] with all intending bidders as per date indicated in the NIT. The bidder shall ensure participation for the same at the appointed time, date and place as may be decided by BHEL. Bidders shall plan their visit accordingly. The outcome of pre-bid discussion (PBD) shall also form part of tender.
- 13.0 In the event of any conflict between requirement of any clause of this specification/ documents/drawings/data sheets etc. or requirements of different codes/standards specified, the same to be brought to the knowledge of BHEL in writing for clarification before due date of seeking clarification (whichever is applicable), otherwise, interpretation by BHEL shall prevail. Any typing error/missing pages/ other clerical errors in the tender documents, noticed must be pointed out before pre-bid meeting/submission of offer, else BHEL's interpretation shall prevail.
- 14.0 Unless specifically mentioned otherwise, bidder's quoted price shall deemed to be in compliance with tender including PBD.
- 15.0 Not applicable
- 16.0 The Bidder has to satisfy the Pre-Qualifying Requirements stipulated for this Tender in order to be qualified. The Price Bids of only those bidders will be opened who will be qualified for the subject job on the basis of satisfying the Pre-Qualification Criteria specified in this NIT as per Annexure-I (as applicable), past performance etc. and date of opening of price bids shall be intimated to only such bidders. BHEL reserves the right not to consider offers of parties under HOLD.
- 17.0 In case BHEL decides on a 'Public Opening', the date & time of opening of the sealed PRICE BID shall be intimated to the qualified bidders and in such a case, bidder may depute one authorized representative to witness the price bid opening. BHEL reserves the right to open 'in-camera' the 'PRICE BID' of any or all Unsuccessful/Disqualified bidders under intimation to the respective bidders.
- 18.0 Validity of the offer shall be for **six months** from the latest due date of offer submission (including extension, if any) unless specified otherwise.
- 19.0 **Not used.**
- 20.0 On submission of offer, further consideration will be subject to compliance to tender & qualifying requirement and customer's acceptance, as applicable.
- 21.0 In case the bidder is an "Indian Agent of Foreign Principals", 'Agency agreement has to be submitted along with

Bid, detailing the role of the agent along with the terms of payment for agency commission in INR, along with supporting documents.

- 22.0 The bidders shall not enter into any undisclosed M.O.U. or any understanding amongst themselves with respect to tender.
- 23.0 Consortium Bidding (or Technical Tie up) – Not applicable
- 24.0 The bidder shall submit documents in support of possession of 'Qualifying Requirements' duly self-certified and stamped by the authorized signatory, indexed and properly linked in the format for PQR. In case BHEL requires any other documents/proofs, these shall be submitted immediately.
- 25.0 The bidder may have to produce original document for verification if so decided by BHEL.
- 26.0 The consultant / firm (and any of its affiliates) shall not be eligible to participate in tender(s) for the related works or services for the same project, if they were engaged for the consultancy services.
- 27.0 Guidelines/rules in respect of Suspension of Business dealings, Vendor evaluation format, Quality, Safety & HSE guidelines, Experience Certificate, etc. may undergo change from time to time and the latest one shall be followed. The abridged version of extant 'Guidelines for suspension of business dealings with suppliers/ contractors' is available on www.bhel.com on "**supplier registration page**".
- 28.0 The offers of the bidders who are on the banned/ hold list and also the offer of the bidders, who engage the services of the banned/ hold firms, shall be rejected. The list of **banned/ hold firms** is available on BHEL web site www.bhel.com.

28.1 Integrity commitment, performance of the contract and punitive action thereof:

28.1.1 Commitment by BHEL:

BHEL commits to take all measures necessary to prevent corruption in connection with the tender Process and execution of the contract. BHEL will during the tender process treat all Bidder(s) in a transparent and fair manner, and with equity.

28.1.2 Commitment by Bidder/ Supplier/ Contractor:

- (i) The bidder/ supplier/ contractor commit to take all measures to prevent corruption and will not directly or indirectly influence any decision or benefit which he is not legally entitled to nor will act or omit in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India.
- (ii) The bidder/ supplier/ contractor will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and shall adhere to relevant guidelines issued from time to time by Govt. of India/ BHEL.
- (iii) The bidder/ supplier/ contractor will perform/ execute the contract as per the contract terms & conditions and will not default without any reasonable cause, which causes loss of business/ money/ reputation, to BHEL.

If any bidder/ supplier/ contractor during pre-tendering/ tendering/ post tendering/ award/ execution/ post-execution stage indulges in mal-practices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the prices or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India, then, action may be taken against such bidder/ supplier/ contractor as per extent guidelines of the company available on www.bhel.com and / or under applicable legal provisions.

29.0 Micro and Small Enterprises (MSE)

Any Bidder falling under MSE category, shall furnish the following details & submit documentary evidence/ Govt. Certificate etc. in support of the same along with their techno-commercial offer.

Type under MSE	SC/ST owned	Women owned	Others (excluding SC/ ST & Women Owned)
Micro			
Small			

Note: - If the bidder does not furnish the above, offer shall be processed construing that the bidder is not falling under MSE category.

- a) MSE suppliers can avail the intended benefits in respect of the procurements related to the Goods and Services only (Definition of Goods and Services as enumerated by Govt. of India vide Office Memorandum F. No. 21(8)/2011-MA dtd. 09/11/2016 office of AS & DC, MSME) only if they submit along with the offer, attested copies of either Udyam Registration Certificate or EM-II certificate having deemed validity (five years from the date of issue of acknowledgement in EM-II) or valid NSIC certificate or Udyog Aadhar Memorandum (UAM) & Acknowledgement or EM-II Certificate along with attested copy of a CA certificate (format enclosed as Annexure – 3) where deemed validity of EM-II certificate of five years has expired applicable for the relevant financial year (latest audited). Date to be reckoned for determining the deemed validity will be the last date of Technical Bid submission. Non submission of such documents will lead to consideration of their bids at par with other bidders. No benefits shall be applicable for this enquiry if the above required documents are not submitted before price bid opening. If the tender is to be submitted through e-procurement portal, then the above required documents are to be uploaded on the portal. Documents should be notarized or attested by a Gazetted officer. Documents submitted by the bidder may be verified by BHEL for rendering the applicable benefits.

30.0 The Bidder along with its associate/ collaborators/ sub-contractors/ sub-vendors/ consultants/ service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice.

31.0 PREFERENCE TO MAKE IN INDIA:

For this procurement, the local content to categorize a supplier as a Class I local supplier/ Class II local Supplier/Non-Local Supplier and purchase preferences to Class I local supplier, is as defined I Public Procurement (Preference to Make in India), Order 2017 dated 04.06.2020 issued by DPIIT. In case of subsequent orders issued by the nodal ministry, changing the definition of local content for the items of the NIT, the same shall be applicable even if issued after issue of this NIT, but before opening of Part-II bids against this NIT.

31.1 Compliance to Restrictions under Rule 144 (xi) of GFR 2017

- I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. The Competent Authority for the purpose of this Clause shall be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT).
- II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- III. "Bidder from a country which shares a land border with India" for the purpose of this Clause means:-
 - a. An entity incorporated established or registered in such a country; or
 - b. A subsidiary of an entity incorporated established or registered in such a country; or
 - c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
 - d. An entity whose *beneficial owner* is situated in such a country; or
 - e. An Indian (or other) agent of such an entity; or
 - f. A natural person who is a citizen of such a country; or

- g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.
- IV. The *beneficial owner* for the purpose of (III) above will be as under:
1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.
Explanation
 - a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent of shares or capital or profits of the company.
 - b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements.
 2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership.
 3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person has ownership of or entitlement to more than fifteen percent of the property or capital or profits of the such association or body of individuals.
 4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
 5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.
- VI. The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

Note:

- (i) The bidder shall provide undertaking for their compliance to this Clause, in the format provided in Annexure-11.
- (ii) Registration of the bidder with Competent Authority should be valid at the time of submission of bids and at the time of acceptance of the bids.

- 32.0 Bid should be free from correction, overwriting, using corrective fluid, etc. Any interlineation, cutting, erasure or overwriting shall be valid only if they are attested under full signature(s) of person(s) signing the bid else bid shall be liable for rejection. All overwriting/cutting, etc. will be numbered by bid opening officials and announced during bid opening.
- 33.0 In the course of evaluation, if more than one bidder happens to occupy L-1 status, effective L-1 will be decided by soliciting discounts from the respective L-1 bidders.

In case more than one bidder happens to occupy the L-1 status even after soliciting discounts, the L-1 bidder shall be decided by a toss/ draw of lots, in the presence of the respective L-1 bidder(s) or their representative(s).

Ranking will be done accordingly. BHEL's decision in such situations shall be final and binding.

- 34.0 The Bidder declares that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s). This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

In case, the bidder is found having indulged in above activities, suitable action shall be taken by BHEL as per extant policies/ guidelines.

- 35.0 **Not used**

36.0 Order of Precedence:

In the event of any ambiguity or conflict between the Tender Documents, the order of precedence shall be in the order below:

- a. Amendments/Clarifications/Corrigenda/Errata etc. issued in respect of the tender documents by BHEL
- b. Notice Inviting Tender (NIT)
- c. Price Bid
- d. Tender Terms & Conditions
- e. Forms and Procedures

It may please be noted that guidelines/ circulars/ amendments/ govt. directives issued from time to time shall also be applicable.

for BHARAT HEAVY ELECTRICALS LTD
(SCT)

Enclosure:

- (i) Annexure-1: Pre Qualifying Requirements.
- (ii) Annexure-2: Check List.
- (iii) Annexure-3: Certificate by Chartered Accountant
- (iv) Annexure-4: Undertaking as per D-4 of Annexure-1 i.e. PQR
- (v) Annexure-5: Declaration reg. Related Firms & their areas of Activities
- (vi) Annexure-6: Declaration reg. minimum local content in line with revised public procurement
- (vii) Annexure-7: Declaration by the Contractor
- (viii) Other Tender documents as per this NIT.

ANNEXURE - 1**PRE QUALIFYING REQUIREMENTS (PQR)**

JOB	Comprehensive Annual Maintenance Contract for both the elevators installed at BHEL PSNR and CLD offices for 1 year.
TENDER NO.	BHEL/NR/SCT/ADMIN/ELEVATOR AMC/1252

SL. NO.	NAME AND DESCRIPTION OF PRE QUALIFICATION CRITERIA	Bidder's claim in respect of fulfilling the PQR criteria
A	Submission of Integrity Pact	Not applicable
B	Assessment of Capacity of bidder to execute the work as per clause 9.0 of NIT	Not applicable
C-1	<p><u>Technical</u> <u>Bidder who wish to participate should have experience as follows:</u> Bidder should have executed similar work for any one of the following in last seven years from latest date of bid submission.</p> <p>C-1.1 One (01) work of value not less than Rs. 1.25 Lakh. OR C-1.2 Two (02) works each of value not less than Rs. 0.78 Lakh. OR C-1.3 Three (03) works each of value not less than Rs. 0.63 Lakh.</p> <p>Note:- "Similar Work" means providing services of AMC of OTIS/KONE/Schindler or equivalent make Passenger elevators in Govt. Sector offices/ Private Sector offices/ residential society buildings.</p>	Applicable
D D-1	<p><u>FINANCIAL TURNOVER</u> Bidders must have achieved an average annual financial turnover (Audited) of Rs. 0.47 Lakh or more over last three Financial Years (FY) i.e. (2017-18, 2018-19 & 2019-20 OR 2018-19, 2019-20 & 2020-21). Bidder shall submit audited accounts (balance sheets and profit & loss account) in support of this.</p> <p>In case audited financial statements have not been submitted for all the three years as indicated above, then the applicable audited statements submitted by the bidders against the requisite three years, will be averaged for three years i.e. total divided by three.</p>	Applicable

D-2	<p>If financial statements are not required to be audited statutorily, then instead of audited financial statements, financial statements are required to be certified by Chartered Accountant.</p> <p>Net worth: Net Worth (Only in case of companies) of the Bidder should be positive.</p> <p>Note: Net worth shall be calculated based on the latest Audited Accounts as furnished for 'D-1' above. Net worth = Paid up share capital + Reserves</p>	
D-3	<p>Profit: Bidder must have earned profit in any one of the three financial years as applicable in the last three financial years as furnished for 'D-1' above.</p> <p>Note: PROFIT shall be PBT earned during any one year of last three financial years as in 'D-1' above.</p>	
D-4	<p>Bidder must not be under Bankruptcy Code Proceedings (IBC) by NCLT or under Liquidation / BIFR, which will render him ineligible for participation in this tender, and shall submit undertaking to this effect. (ANNEXURE – 4)</p>	
E	Approval of Customer	Not Applicable
F	Consortium Criteria	Not Applicable

Explanatory Notes for QR 'C':

- For sl. no. 'C' above, "**Similar Work**" means providing services of AMC of OTIS/KONE/Schindler or equivalent make Passenger elevators in Govt. Sector offices/ Private Sector offices/ residential society buildings.

Bidder has to submit the declaration form (mentioned in Tender Terms & Conditions "as Form 1": **Annexure-A**) confirming the knowledge about both the OTIS elevators installed at BHEL PSNR & CLD office.

- For evaluation of PQR, in case Bidder alone does not meet the pre-qualifying technical criteria C above, bidder may utilize the experience of its Parent/ Subsidiary Company along with its own experience, subject to following:
 - The parent company shall have a controlling stake of $\geq 50\%$ in the subsidiary company (as per Format-1).
 - The Parent Company/ Subsidiary Company of which experience is being utilized for bidding shall submit Security Deposit (SD) equivalent to 1% of the total contract value.
 - The parent/ subsidiary company and bidder shall provide an undertaking that they are jointly or severally responsible for successful performance of the contract (as per Format-2).
- For sl. no. 'C' above, actual executed value shall be considered.
- Completion date for achievement of the technical criteria should be in the last 7 years ending on the 'latest date of Bid Submission' of Tender irrespective of date of the start of work. Completion date shall be reckoned from the "FY quarter of bid submission".

5. "Executed" means the bidder should have achieved the specified technical criteria even if the Contract has not been completed or closed.
6. For QR 'C' above, Value of work is to be updated with indices for "All India Avg. Consumer Price index for industrial workers" and "Monthly Whole Sale Price Index for All Commodities" with base month as per last month of work execution and indexed up to three (3) months prior to the month of latest due date of bid submission as per following formula-

$$P = \left\{ R + 0.425 \times R \times \frac{(X_N - X_0)}{X_0} + 0.425 \times R \times \frac{(Y_N - Y_0)}{Y_0} \right\}$$

Where

P = Updated value of work

R = Value of executed work

X_N = All India Avg. Consumer Price index for industrial workers for three months prior to the month of latest due date of bid submission (e.g. If latest bid submission date is 02-Mar-17, then bid submission month shall be reckoned as March'17 and index for Dec'2016 shall be considered).

X₀ = All India Avg. Consumer Price index for industrial workers for last month of work execution.

Y_N = Monthly Whole Sale Price Index for All Commodities for three months prior to the month of latest due date of bid submission (e.g. If latest bid submission date is 02-Mar-17, then bid submission month shall be reckoned as March'17 and index for Dec'2016 shall be considered).

Y₀ = Monthly Whole Sale Price Index for All Commodities for last month of work execution.

7. Relevant documents, meeting above requirements at C & D, shall be submitted by bidders.

BIDDER SHALL SUBMIT ABOVE PRE-QUALIFICATION CRITERIA FORMAT, DULY FILLED-IN, SPECIFYING RESPECTIVE ANNEXURE NUMBER AGAINST EACH CRITERIA AND FURNISH RELEVANT DOCUMENT INCLUSIVE OF WORK ORDER AND WORK COMPLETION CERTIFICATE ETC IN THE RESPECTIVE ANNEXURES IN THEIR OFFER.

Credentials submitted by the bidder against "PRE QUALIFYING CRITERIAS" shall be verified for its authenticity. In case, any credential (s) is/are found unauthentic, offer of the bidder is liable to the rejection. BHEL reserves the right to initiate any further action as per extant guidelines for Suspension of Business Dealings.

Certificate for relationship between Parent Company / Subsidiary Company and the bidder

To,

Dear Sir,

Sub: Bid for NIT Nodated..... for “.....” (name of the tender).

We hereby certify that M/s..... is Parent Company/ Subsidiary Company of M/s(the bidder) and details of equity holding of the Parent Company in Subsidiary Company as on(not earlier than seven days prior to the Bid Submission Date) are given as below:

Name of Parent Company	Name of Subsidiary Company	Percentage of Equity Holding of Parent Company in Subsidiary Company

(Insert Name and Signature of Statutory Auditor or practicing Company Secretary of the Bidder)

Format-2

Undertaking from the Parent Company/ Subsidiary Company of the bidder
(On the Letter Head of Parent Company/ Subsidiary Company, as applicable)

From,
Name:
Full Address:

Telephone No.:
E-mail address:
Fax/No.:

To,
.....
.....

Dear Sir,

We refer to the NIT Nodated..... for “.....” (name of the Tender).

“We have carefully read and examined in detail the NIT/Tender Terms and Conditions, including in particular, Clause of the NIT/Tender, regarding submission of an Undertaking, as per the prescribed Format 1 of the NIT/ Tender.

We confirm that M/s..... (the Bidder) has been authorized by us to use our Technical capability for meeting the Technical Criteria as specified in Clause.....of the PQR of the NIT/Tender referred above.

We agree to submit the Security Deposit equivalent to 1% of the total contract value in addition to Security Deposit to be submitted by Bidder as per Clause.....of the NIT/Tender for fulfilment of all obligations in terms of provisions of the contract, in the event of(the Bidder) being selected as the Successful Bidder.

We confirm that we along with M/s.....(the bidder), are jointly or severally responsible for successful performance of the contract.

We confirm that our company shall not participate in the above tender as a ‘Standalone Bidder’ or as a ‘Consortium bidder’ and also shall not authorize any other bidder to use our Technical capability for the above tender.

All the terms used herein but not defined, shall have the meaning as ascribed to the said terms under the referred NIT/Tender.

Signature of Managing Director/Authorized signatory of Parent/ Subsidiary Company

ANNEXURE - 2**CHECK LIST****NOTE:- Tenderers are required to fill in the following details and no column should be left blank**

1	Name of the Tenderer		
2	Address of the Tenderer		
3	Type of the Firm/ Company		
(i)	In case of Individual Tenderer	His / her full name, address and place & nature of business shall be furnished along with the offer.	
(ii)	In case of Partnership Firm	The names of all the partners and their addresses, A copy of the partnership deed/instrument of partnership duly certified by the Notary Public shall be furnished along with the offer..	
(iii)	In case of Companies	a) Date and place of registration including date of commencement certificate in case of Public Companies (certified copies of Memorandum and articles of Association are also to be furnished). b) Nature of business carried on by the Company and the provisions of the Memorandum relating thereof.	
4.a	Details of Contact person for this Tender	Name : Mr/ Ms Designation: Telephone No: Mobile No: Email ID: Fax No:	
4.b	Details of alternate Contact person for this Tender	Name : Mr/ Ms Designation: Telephone No: Mobile No: Email ID: Fax No:	
5	EMD DETAILS	Mode of payment: Demand Draft/ NEFT/ RTGS/ OTHER Details of Transaction:	
6	Validity of Offer	TO BE VALID FOR SIX MONTHS FROM DUE DATE	
	DESCRIPTION	APPLICABILITY (BY BHEL)	ENCLOSED BY BIDDER
7	Whether all pages of the Tender documents including annexures, appendices etc are read and understood	Applicable/ Not Applicable	YES / NO
8	Whether the format for compliance with PRE QUALIFICATION CRITERIA (ANNEXURE – 1) is understood and filled with proper supporting documents referenced in the specified format	Applicable/ Not Applicable	YES / NO
9	Audited Balance Sheet and profit & Loss Account for the last three years	Applicable/ Not Applicable	YES / NO
10	Copy of PAN Card	Applicable/ Not Applicable	YES / NO
11	Copy of GST registration	Applicable/ Not Applicable	YES / NO

SL. NO.	DESCRIPTION	APPLICABILITY (BY BHEL)	ENCLOSED BY BIDDER
12	Organization Chart of the tenderer's organization, including the names, addresses and contact information of the Directors/Partners shall be furnished along with the offer.	Applicable/ Not Applicable	YES / NO
13	Integrity Pact	Applicable/ Not Applicable	YES / NO
14	Offer forwarding letter / tender submission letter [Form No. F-01 (Rev 00)]	Applicable/ Not Applicable	YES / NO
15	Declaration by Authorised Signatory [Form No: F-02 (Rev 00)]	Applicable/ Not Applicable	YES / NO
16	Declaration by Authorised Signatory regarding Authenticity of submitted documents [Form No: F-02A (Rev 00)]	Applicable/ Not Applicable	YES / NO
17	No Deviation Certificate [Form No: F-03 (Rev 00)]	Applicable/ Not Applicable	YES / NO
18	Declaration confirming knowledge about Site Conditions [Form No: F-04 (Rev 00)]	Applicable/ Not Applicable	YES / NO
19	Declaration for relation in BHEL [Form No: F-05 (Rev 00)]	Applicable/ Not Applicable	YES / NO
20	Non-Disclosure Certificate [Form No: F-06 (Rev 00)]	Applicable/ Not Applicable	YES / NO
21	Bank Account Details for E-Payment [Form No: F-07 (Rev 00)]	Applicable/ Not Applicable	YES / NO
22	Format for seeking clarification [Form No: F-08 (Rev 00)]	Applicable/ Not Applicable	YES / NO
23	Capacity Evaluation of Bidder for current Tender [Form No: F-09 (Rev 00)]	Applicable/ Not Applicable	YES / NO
24	Power of Attorney for Submission of Tender/Signing Contract Agreement [Form No: F-25 (Rev 00)]	Applicable/ Not Applicable	YES / NO
25	Analysis of Unit rates [Form No: F-26 (Rev 00)]	Applicable/ Not Applicable	YES / NO
26	Tie Ups/Consortium Agreement are submitted as per format [Form No: F-22 (Rev 00)]	Applicable/ Not Applicable	YES / NO

NOTE : STRIKE OFF 'YES' OR 'NO', AS APPLICABLE. TENDER NOT ACCOMPANIED BY THE PRESCRIBED ABOVE APPLICABLE DOCUMENTS ARE LIABLE TO BE SUMMARILY REJECTED.

DATE :

Sign. of the AUTHORISED SIGNATORY
(With Name, Designation and Company seal)

ANNEXURE – 3**Certificate by Chartered Accountant on letter head**(applicable upto 31st March'2021 in line with MSME notification no. S.O. 2119 (E), dated 26th June'2020)

This is to Certify that M/S ,
 (hereinafter referred to as 'company') having its registered office at
 is registered under MSMED Act 2006, (Entrepreneur
 Memorandum No (Part—II)/ Udyam Registration Certificate No.
 dtd:
 Category: (Micro/Small/Medium). (Copy enclosed).

Further verified from the Books of Accounts that the investment of the company as per the latest audited financial year..... as per MSMED Act 2006 is as follows:

1. **For Manufacturing Enterprises:** Investment in plant and machinery (i.e. original cost excluding land and building and the items specified by the Ministry of Small Scale Industries vide its notification No. S.O.1722(E) dated October 5, 2006:
 RsLacs
2. **For Service Enterprises:** Investment in equipment (original cost excluding land and building and furniture, fittings and other items not directly related to the service rendered or as may be notified under the **MSMED** Act, 2006:
 RsLacs
3. **For Enterprises** (having EM-II Certificate/ valid NSIC Certificate or Udyog Aadhar Memorandum): Investment in plant and machinery or equipment is Rs..... Lacs and turnover is Rs. Lacs (as notified in MSME notification no. S.O. 2119 (E) dated 26.06.2020)
4. **For Enterprises** (having EM-II Certificate/ valid NSIC Certificate or Udyog Aadhar Memorandum): Investment in plant and machinery or equipment is Rs..... Lacs and turnover is Rs. Lacs (as notified in MSME notification no. S.O. 2119 (E) dated 26.06.2020)

(Strike off whichever is not applicable)

The above investment of RsLacs is within permissible limit of Rs..... Lacs forMicro / Small/ Medium (*Strike off which is not applicable*) Category under MSMED Act 2006.

Or

The enterprise has been graduated upward from its original category (micro/small/medium) (*strike off which is not applicable*), the enterprise shall maintain its prevailing status till expiry of one year from the close of year of registration, as notified vide S.O. No. 2119 (E) dated 26.06.2020 published in the gazette notification dated 26.06.2020 by Ministry of MSME.

Or

The enterprise has been reverse-graduated from its original category (micro/small/medium) (*strike off which is not applicable*), the enterprise will continue in its present category till the closure of the financial year and it will be given the benefit of the changed status only with effect from 1st April of the financial year following the year in which such change took place, as notified vide S.O. No. 2119 (E) dated 26.06.2020 published in the gazette notification dated 26.06.2020 by Ministry of MSME.

Date:

(Signature)

Name:

Membership Number:

Seal of the Chartered Accountant

ANNEXURE – 4

UNDERTAKING

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir/Madam,

Sub: DECLARATION REGARDING INSOLVENCY/ LIQUIDATION/ BANKRUPTCY PROCEEDINGS

Ref: NIT/Tender Specification No:

I/We, _____

declare that, I/We am/are not under insolvency resolution process or liquidation or Bankruptcy Code Proceedings (IBC) as on date, by NCLT or any adjudicating authority/authorities, which will render us ineligible for participation in this tender.

**Sign. of the AUTHORISED SIGNATORY
(With Name, Designation and Company seal)**

Place:

Date:

ANNEXURE-5

DECLARATION

Date: _____

To: _____
 Address: BHEL, _____

Email: _____

Sub: **Details of related firms and their area of activities**

Dear Sir/ Madam,

Please find below details of firms owned by our family members that are doing business/ registered for same item with BHEL, _____ (NA, if not applicable)

1	Material Category/ Work Description	
	Name of Firm	
	Address of Firm	
	Nature of Business	
	Name of Family Member	
	Relationship	
2	Material Category/ Work Description	
	Name of Firm	
	Address of Firm	
	Nature of Business	
	Name of Family Member	
	Relationship	
...		

Note: I certify that the above information is true and I agree for penal action from BHEL in case any of the above information furnished is found to be false.

Regards,

(_____)

From: M/s _____
 Supplier Code: _____
 Address: _____

Annexure-6

**DECLARATION REGARDING MINIMUM LOCAL CONTENT IN LINE WITH
REVISED PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA), ORDER 2017 DATED 04TH
JUNE, 2020 AND SUBSEQUENT ORDER(S)**

(To be typed and submitted in the Letter Head of the Entity/Firm providing certificate as applicable)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub: Declaration reg. minimum local content in line with Public Procurement (Preference to Make in India), Order 2017-Revision, dated 04th June, 2020 and subsequent order(s).

Ref : 1) NIT/Tender Specification No:,
2) All other pertinent issues till date

We hereby certify that the items/works/services offered by..... *(specify the name of the organization here)* has a local content of _____ % and this meets the local content requirement for '**Class-I local supplier**' / '**Class II local supplier**' ** as defined in Public Procurement (Preference to Make in India), Order 2017-Revision dated 04.06.2020 issued by DPIIT and subsequent order(s).

The details of the location(s) at which the local value addition is made are as follows:

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- ...
- ...
- ...

Thanking you,
Yours faithfully,

**(Signature, Date & Seal of
Authorized Signatory of the Bidder)**

** - *Strike out whichever is not applicable.*

Note:

- 1. Bidders to note that above format Duly filled & signed by authorized signatory, shall be submitted along with the techno-commercial offer.
- 2. In case the bidder's quoted value is in excess of Rs. 10 crores, the authorized signatory for this declaration shall necessarily be the statutory auditor or cost auditor of the company (in the case of companies) or a practising cost accountant or practicing chartered accountant (in respect of suppliers other than companies).
- 3. In the event of false declaration, actions as per the above order and as per BHEL Guidelines shall be initiated against the bidder.

ANNEXURE-7

DECLARATION REGARDING COMPLIANCE TO RESTRICTIONS UNDER RULE 144 (xi) OF GFR 2017
(To be typed and submitted in the Letter Head of the Entity/ Firm providing certificate as applicable)

To,
(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub: Declaration regarding compliance to Restrictions under Rule 144 (xi) of GFR 2017

Ref : 1) NIT/Tender Specification No:,
2) All other pertinent issues till date

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries. I certify that _____ **(SPECIFY THE NAME OF THE ORGANIZATION HERE)**, is not from such a country/ has been registered with the Competent Authority *(attach valid registration by the Competent Authority, i.e., the Registration Committee constituted by the Dept. for Promotion of Industry and Internal Trade (DPIIT); and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. (attach relevant valid registration, if applicable)*

I hereby certify that we fulfil all requirements in this regard and is eligible to be considered.

Thanking you,
Yours faithfully,

**(Signature, Date & Seal of
Authorized Signatory of the Bidder)**

Note: Bidders to note that in case above certification given by a bidder, whose bid is accepted, is found to be false, then this would be a ground for immediate termination and for taking further action in accordance with law and as per BHEL guidelines.

(i)



TENDER TERMS & CONDITIONS

Job: “Comprehensive Annual Maintenance Contract for both the elevators installed at BHEL PSNR and CLD offices for 1 year”.

Bharat Heavy Electricals
Limited





Bharat Heavy Electricals Limited
Power Sector-Northern Region, Noida

TENDER FOR: "COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT FOR BOTH THE ELEVATORS INSTALLED AT BHEL PSNR AND CLD OFFICES FOR 1 YEAR".

(TENDER TERMS & CONDITIONS)

BHEL PSNR is having 02 nos. of OTIS passenger elevators installed in BHEL PSNR & CLD office building. The details of the machines are as follows:

1. 01. No. OTIS elevator M/c No- G005390 installed at PSNR side having passenger capacity of 8 persons & 544 Kg,
2. 01. No. OTIS elevator M/c No- G008146 installed at CLD side having passenger capacity of 8 persons & 544 Kg.

The CAMC for both the elevators (as mentioned above) is required for 01 year for which the scope of work is as mentioned below:

1. SCOPE OF WORK:

A. General Instruction:

- i. The Comprehensive AMC covers both the elevators and its equipment. Contractor has to keep elevators in healthy & sound working condition throughout the contract period.
- ii. Minor & Major Breakdown Maintenance of Elevators has to attend throughout the Contract period. Any break-down calls shall be attended within 24 hours from the time of intimation without any extra charge and elevator shall be made operational. Contractor shall ensure to rectify Minor breakdown within 1 day and Major breakdown in maximum of 3 days from the time of intimation.
- iii. Log book shall be maintained for each Elevator and submitted to BHEL. Log books shall contain the list of parts replaced during monthly maintenance.
- iv. Both the elevators have to be load tested for rated capacity as per relevant standards in the presence of BHEL.
- v. Contractor is advised to have a site visit, inspect the Elevator before submitting the tender to have complete details of Elevators (as per Annexure-A).
- vi. Maintenance shall be carried out according to the instructions of BHEL.
- vii. Faulty parts that need replacement are to be replaced with the same specification and same make of OTIS; if the part of same specification and make is not available it is to be replaced with spars/parts of higher specifications/ configuration and/or make/brand agreed by BHEL. The replaced spare parts should be new and at par with the faulty parts.
- viii. The replacement of the following components is outside the scope of this contract
 - a) Elevator car enclosure.
 - b) Bulbs (including fluorescent tubes)
 - c) Incoming electrical wiring up to main switches in the machine room

- d) Main switches in the machine room
- e) Dry cells, batteries & LCD
- f) Decorative items including mirror and hand rail

B. Contractor Responsibilities:

Contractor will deploy trained and skilled technician/ personnel. The technician should be qualified to keep the elevators in efficient, reliable and safe operating condition.

C. Planned Maintenance:

Contractor will monthly examine, lubricate and adjust the equipment and carry out planned maintenance as per Annexure-B in systematic and controlled manner.

D. Repair or replace parts:

The contractor has to repair /replace the defective parts with original OTIS manufactured spare parts or higher specification. No payment shall be made to contractor for repairing/replacing of defective parts {Except parts mentioned at clause no. viii of 1 (A), scope of work}. The details of the parts/components/equipment covered under CAMC are as below:

- i. All wire ropes and chains (where fitted) as often as required to maintain adequate factor of safety, to equalize the tension on all hoisting ropes, repair or replace conductor cables and hoist way and machine room elevator wiring.
- ii. Machine, worm gear, thrust bearing, drive sheave, drive sheave bearing, break contact, linings and components.
- iii. Motor, Motor Generator, Motor winding, rotating elements, commutator, Brushed, brush holder, bearing, coils, resistance for operating and motor circuits, magnet frames and other mechanical parts.
- iv. Controller, Selector, Levelling Devices, Cams, Relays, Solid State Components e.g. PCBs, Transducers, Resistors, Condensers, Power Amplifiers, Transformers, Contacts, Leads, Dashpots, Timing Devices, Steel Selector Tapes and Mechanical and Electrical Driving Equipment.
- v. Governor, Governor Sheave, Shaft Assembly, Bearings, Contacts and Governor Jaws.
- vi. Car and Hall Mechanical Buttons, Car and Hall Position Indicators, Hall Lanterns, Car Direction Indicators and all other Car and Landing Signal Fixtures, as installed by contractor.
- vii. Deflector or Secondary Sheave, Bearings, Car and Counterweight Guide Rails and Buffers, Top and Bottom Limit Switches, Governor Tension Sheave Assembly, Compensating Sheave Assembly, Car, Counterweight and Counterweight Guide Shoes including Rollers or Gibs.
- viii. Interlocks on Hoistway Door, Hoistway Door Hangers, Guides, Automatic Power Operated Door Operator, Car Door Hanger, Car Door Contact, Safety Shoe, Load Weighing Equipment, Car Frame, Car Safety Mechanism and Platform.
- ix. Furnish lubricants compounded to contractor's stringent specifications.
- x. Examine periodically all safety devices and governors and make all custom for any safety tests.

E. Spare part inventory:

Contractor will maintain supply of frequently used spare parts and lubricants to meet the specific requirements of elevator.

F. Quality control:

Contractor will perform monthly, quarterly and half yearly survey of the elevators and its equipment for verification (as per Annexure-B) to keep them in healthy & sound working condition throughout the contract period. Contractor will also conduct periodic field audits of its personnel to maintain quality standards. Contractor field engineers will provide technical assistance & technical information.

G. Safety Measures:

- Contractor will periodically examine safety devices and governor of the equipment to ensure safety. In addition, contractor will conduct safety test of the equipment.
- The contractor shall insure him and all his staff against accidents for the duration of the contract period at his cost. They shall follow necessary safety practices for working at elevated height, inside elevator, etc. The contractor shall produce proof of insurance cover before starting the work in BHEL.
- BHEL will not be responsible for any type of injury including death caused to the contractor's personal during the work.

H. Time of response:

Any break-down calls shall be attended within 24 hours from the time of intimation without any extra charge and elevator shall be made operational. Contractor shall ensure to rectify Minor breakdown in within 1 day and Major breakdown in maximum of 3 days from the time of intimation

I. Wiring:

Contractor will maintain current OTIS engineering wiring diagram during the execution of the contract and the same will be used exclusively by examiners or authorised contractor representatives. Current OTIS engineering wiring diagram is attached in the contract.

J. Customer service:

Contractor will assign a representative to BHEL who will periodically visit our building and will be available for consultation in any matter relating to the maintenance of the elevators.

2. RIGHTS OF BHEL

BHEL reserves the following rights in respect of this contract during the original contract period or its extensions if any, as per the provisions of the contract, without entitling the contractor for any compensation.

- 2.01** To withdraw any portion of work and/or to restrict/alter quantum of work as indicated in the contract during the progress of work and get it done through other agencies to suit BHEL's commitment to its customer or in case BHEL decides to advance the date of completion due to other emergent reasons/ BHEL's obligation to its customer.
In case of inadequate service staff/engineer deployed by the contractor, BHEL reserves the right to deploy service staff/engineer through any other contractor for expediting

activities in the interest of the project. Supplied manpower shall be put on job by the contractor and payments and other statutory compliances related to manpower shall be the contractor's responsibility. In case of contractor's failure to fulfill his obligations in respect of such manpower, BHEL reserves the right to take necessary action as per contract conditions.

2.02 To terminate the contract or withdraw portion of work and get it done through other contractor, at the risk and cost of the contractor after due notice of a period of 14 days' (this period can be reduced in case of urgency or increased otherwise) by BHEL in any of the following cases:

- i). Contractor's poor progress of the work vis-à-vis execution timeline as stipulated in the Contract, backlog attributable to contractor including unexecuted portion of work does not appear to be executable within balance available period considering its performance of execution.
- ii). Withdrawal from or abandonment of the work by contractor before completion of the work as per contract.
- iii). Non-completion of work by the Contractor within scheduled completion period as per Contract or as extended from time to time, for the reasons attributable to the contractor.
- iv). Termination of Contract on account of any other reason (s) attributable to Contractor.
- v). Assignment, transfer, subletting of Contract without BHEL's written permission.
- vi). Non-compliance to any contractual condition or any other default attributable to Contractor.

Risk & Cost Amount against Balance Work:

Risk & Cost amount against balance work shall be calculated as follows:

$$\text{Risk \& Cost Amount} = [(A-B) + (A \times H/100)]$$

Where,

A= Value of Balance scope of Work (*) as per rates of new contract

B= Value of Balance scope of Work (*) as per rates of old contract being paid to the contractor at the time of termination of contract

H = Overhead Factor to be taken as 5

In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero).

* Balance scope of work (in case of termination of contract):

Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for 'Termination of Contract', shall be taken as balance scope of Work for calculating risk & cost amount.

Contract quantities are the quantities as per original contract. If, Contract has been amended, quantities as per amended Contract shall be considered as Contract Quantities.

Items for which total quantities to be executed have exceeded the Contract Quantities based on drawings issued to contractor from time to time till issue of Termination letter, then for these items total Quantities as per issued drawings would be deemed to be contract quantities.

Substitute/ extra items whose rates have already been approved would form part of contract quantities for this purpose. Substitute/ extra items which have been executed

but rates have not been approved, would also form part of contract quantities for this purpose and rates of such items shall be determined in line with contractual provisions.

However, increase in quantities on account of additional scope in new tender shall not be considered for this purpose.

NOTE: In case portion of work is being withdrawn at risk & cost of contractor instead of termination of contract, contract quantities pertaining to portion of work withdrawn shall be considered as 'Balance scope of work' for calculating Risk & Cost amount.

2.02.1 In case Contractor fails to deploy the resources as per requirement, BHEL can deploy own/hired/otherwise arranged resources at the risk and cost of the contractor and recover the expenses incurred from the dues payable to contractor.

2.03 Recoveries arising out of Risk & Cost and LD or any other recoveries due from Contractor

Following sequence shall be applicable for recoveries from contractor:

- a) If recovery cannot be made out of dues payable to the contractor as above, balance amount to be recovered, shall be informed to other Regions/Units for making recovery from the Unpaid Bills/Running Bills/SD/BGs/Final Bills of contractor.
- b) In-case recoveries are not possible with any of the above available options; Legal action shall be initiated for recovery against contractor.

2.04 To terminate the contract or to restrict the quantum of work and pay for the portion of work executed in case BHEL's contract with their customer are terminated for any reason, as per mutual agreement.

2.05 To effect recovery from any amounts due to the contractor under this or any other contract or in any other form, the moneys BHEL is statutorily forced to pay to anybody, due to contractor's failure to fulfill any of his obligations. BHEL shall levy overheads of 5% on all such payments along with interest.

2.06 While every endeavor will be made by BHEL to this end, they (BHEL) cannot guarantee uninterrupted work due to conditions beyond their control. The Contractor will not be normally entitled for any compensation/extra payment on this account unless otherwise specified elsewhere in the contract.

2.07 In the unforeseen event of inordinate delay in receipt of materials etc. due to which inordinate discontinuity of work is anticipated, BHEL on its own or contractor's request at its discretion may consider to short close the contract.

3. RESPONSIBILITIES OF THE CONTRACTOR IN RESPECT OF LOCAL LAWS, EMPLOYMENT OF WORKERS ETC.

The following are the responsibilities of the contractor in respect of observance of local laws, employment of personnel, payment of taxes etc. The subcontractor shall fully indemnify BHEL against any claims of whatsoever nature arising due to the failure of the contractor in discharging any of his responsibilities hereunder:

- 3.1** The contractor shall comply with all applicable State and Central Laws, Statutory Rules, Regulations, Notifications, etc. such as Payment of Wages Act, Minimum Wages Act, Workmen Compensation Act, Employer's Liability Act, Industrial Disputes Act, Employers Provident Act, Employees State Insurance Scheme, Contract Labour (Regulation and Abolition) Act, 1970, Payment of Bonus & Gratuity Act, Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996, The Building and Other Construction Workers' Welfare Cess Act, 1996 and other Acts, Rules, and Regulations for labour/workers as applicable and as may be enacted by the State Government and Central Govt. during the tenure of the Contract and having force or jurisdiction at Site. The Contractor shall also comply with provisions of and give all such notices to the local Governing Body, Police and other relevant Authorities as may be required by the Law.
- 3.2** The contractor shall pay and bear all taxes, fees, license charges, Cess, duties, deposits, tolls, royalties, commission or other charges which may be leviable on account of his operations in executing the contract.
- 3.3** The contractor shall be responsible for proper accommodation including adequate medical facilities for personnel employed by him.
- 3.4** The contractor shall be responsible for the proper behavior and observance of all regulations by the staff employed by him.
- 3.5** The contractor shall ensure that no damage is caused to any person/property of other parties working at site. If any such damage is caused, it is responsibility of the contractor to make good the losses or compensate for the same.
- 3.6** In case the contractor is required to undertake any work outside the scope of this contract, the rates payable shall be those mutually agreed upon if the item rates are not mentioned in existing contract.
- 3.7** BHEL shall recover the amount of compensation paid to victim(s) by BHEL towards loss of life/ permanent disability due to an accident which is attributable to the negligence of contractor, contractor or firm or any of its employees as detailed below.
- A) Victim: Any person who suffers permanent disablement or dies in an accident as defined below.
- B) Accident: Any death or permanent disability resulting solely and directly from any unintended and unforeseen injurious occurrence caused during the manufacturing/ operation and works incidental thereto at BHEL factories/ offices and precincts thereof, project execution, erection and commissioning, services, repairs and maintenance, trouble shooting, serving, overhaul, renovation and retrofitting, trial operation, performance guarantee testing undertaken by the company or during any works/ during working at BHEL Units/ Offices/ townships and premises/ Project Sites.
- C) Compensation in respect of each of the victims:
- i) In the event of death or permanent disability resulting from Loss of both limbs: Rs.10,00,000/- (Rs. Ten Lakh). ii) In the event of other permanent disability: Rs.7,00,000/- (Rs. Seven Lakh)

iii)Permanent Disablement: A disablement that is classified as a permanent total disablement under the proviso to section 2 (I) of the Employee's Compensation Act, 1923.

D) The contractor shall not stop the work or abandon the site for whatsoever reason of dispute, excepting force majeure conditions. All such problems/disputes shall be separately discussed and settled without affecting the progress of work. Such stoppage or abandonment shall be treated as breach of contract and dealt with accordingly.

4. VALIDITY OF OFFERS

The rates shall be kept open for acceptance for a minimum period of **SIX MONTHS** from latest due date of offer submission (including extension, if any). In case BHEL (Bharat Heavy Electricals Ltd) calls for negotiations, such negotiations shall not amount to cancellation or withdrawal of the original offer which shall be binding on the tenderers. Further, BHEL reserves the right to reject the offer of bidder (s) without assigning any reason.

5. VALIDITY OF CONTRACT

The contract will be valid for a period of **ONE Year**. The same may however be extended further for three months with mutual agreement, in writing, and on the same Rates / Service Charges, Terms and Conditions.

6. TERMINATION & FORECLOSURE OF CONTRACT

BHEL reserves the right to terminate or foreclose the contract at its own discretion by giving 30 days' notice in writing.

7. PAYMENT TERMS:

- The bills along with supporting documents shall be accepted on quarterly basis after the submission of GST invoice and the payment shall be made within 15 days from the date of submission of the bills, complete in all respects after due verification subject to other terms & conditions mentioned in Taxes & Duties Clause. No interest shall be payable for delay in making the payment.
- BHEL has the right to ask the monthly performance report of elevators as & when required.

8. TAXES & DUTIES

8.1 The contractor shall pay all (save the specific exclusions as enumerated in this clause) taxes, fees, license, charges, deposits, duties, tools, royalty, commissions, other charges, etc. which may be levied on the input goods & services consumed and output goods & services delivered in course of his operations in executing the contract. In case BHEL is forced to pay any of such taxes/duties, BHEL shall have the right to recover the same from his bills or otherwise as deemed fit.

However, provisions regarding GST on output supply (goods/service) and TDS/TCS as per Income Tax Act shall be as per following clauses.

8.2 GST (Goods and Services Tax)

- 8.2.1 GST as applicable on output supply (goods/services) are excluded from contractor's scope; therefore, contractor's price/rates shall be exclusive of GST. Reimbursement of GST is subject to compliance of following terms and conditions. BHEL shall have the right to deny payment of GST and to recover any loss to BHEL on account of tax, interest, penalty etc. for non-compliance of any of the following condition.
- 8.2.2 The admissibility of GST, taxes and duties referred in this chapter or elsewhere in the contract shall be limited to direct transactions between BHEL & its Contractor. BHEL shall not consider GST on any transaction other than the direct transaction between BHEL & its Contractor.
- 8.2.3 Contractor shall obtain prior written consent of BHEL before billing the amount towards such taxes. Where the GST laws permit more than one option or methodology for discharging the liability of tax/levy/duty, BHEL shall have the right to adopt the appropriate one considering the amount of tax liability on BHEL/Client as well as procedural simplicity with regard to assessment of the liability. The option chosen by BHEL shall be binding on the Contractor for discharging the obligation of BHEL in respect of the tax liability to the Contractor.
- 8.2.4 Contractor has to submit GST registration certificate of the concerned state. Contractor also needs to ensure that the submitted GST registration certificate should be in active status during the entire contract period.
- 8.2.5 Contractor/Vendor has to issue invoice indicating HSN/SAC code, Description, Value, Rate, applicable tax and other particulars in compliance with the provisions of relevant GST Act and Rules made thereunder.
- 8.2.6 Vendor has to submit GST compliant invoice within seven days from the due date of invoice as per GST Law. In case of delay, BHEL reserves the right of denial of GST payment if there occurs any hardship to BHEL in claiming the input thereof. In case of goods, vendor has to provide scan copy of invoice & GR/LR/RR to BHEL before movement of goods starts. Special care should be taken in case of month end transactions.
- 8.2.7 Vendor has to ensure that invoice in respect of such services which have been provided/completed on or before end of the month should not bear the date later than last working day of the month in which services are performed.
- 8.2.8 Subject to other provisions of the contract, GST amount claimed in the invoice shall be released on fulfilment of all the following conditions by the Contractor: -
- a. Supply of goods and/or services have been received by BHEL.
 - b. Original Tax Invoice has been submitted to BHEL.
 - c. Contractor/ Vendor has submitted all the documents required for processing of bill as per contract/ purchase order/ work order.
 - d. In cases where e-invoicing provision is applicable, vendor/contractor is required to submit invoice in compliance with e-invoicing provisions of GST Act and Rules made thereunder.
 - e. Contractor has filed all the relevant GST return (e.g. GSTR-1, GSTR-3B, etc.) pertaining

to the invoice submitted and submit the proof of such return along with immediate subsequent invoice. In case of final invoice/ bill, contractor has to submit proof of such return within fifteen days from the due date of relevant return.

- f. Respective invoice has appeared in BHEL's GSTR - 2A for the month corresponding to the month of invoice. Alternatively, BG of appropriate value may be furnished which shall be valid at least one month beyond the due date of confirmation of relevant payment of GST on GSTN portal or sufficient security is available to adjust the financial impact in case of any default by the contractor.
 - g. Contractor has to submit an undertaking confirming the payment of all due GST in respect of invoices pertaining to BHEL.
- 8.2.9 Any financial loss arises to BHEL on account of failure or delay in submission of any document as per contract/purchase order/work order at the time of submission of Tax invoice to BHEL, shall be deducted from contractor's bill or otherwise as deemed fit.
- 8.2.10 TDS as applicable under GST law shall be deducted from contractor's bill.
- 8.2.11 Contractor shall comply with the provisions of e-way bill wherever applicable. Further wherever provisions of GST Act permits, all the e-way bills , road permits etc. required for transportation of goods needs to be arranged by the contractor.
- 8.2.12 Contractor shall be solely responsible for discharging his GST liability according to the provisions of GST Law and BHEL will not entertain any claim of GST/interest/penalty or any other liability on account of failure of contractor in complying the provisions of GST Law or discharging the GST liability in a manner laid down thereunder.
- 8.2.13 In case declaration of any invoice is delayed by the vendor in his GST return or any invoice is subsequently amended/alterd/deleted on GSTN portal which results in any adverse financial implication on BHEL, the financial impact thereof including interest/penalty shall be recovered from the Contactor's due payment.
- 8.2.14 Any denial of input credit to BHEL or arising of any tax liability on BHEL due to non-compliance of GST Law by the Contractor in any manner, will be recovered along with liability on account of interest and penalty (if any) from the payments due to the Contactor.
- 8.2.15 In the event of any ambiguity in GST law with respect to availability of input credit of GST charged on the invoice raised by the contractor or with respect to any other matter having impact on BHEL, BHEL's decision shall be final and binding on the contractor.
- 8.2.16 **Variation in Taxes & Duties:**
Any upward variation in GST shall be considered for reimbursement provided supply of goods and services are made within schedule date stipulated in the contract or approved extended schedule for the reason solely attributable to BHEL. However downward variation shall be subject to adjustment as per actual GST applicability. In case the Government imposes any new levy/tax on the output service/goods after price bid opening, the same shall be reimbursed by BHEL at actual. The reimbursement under this clause is restricted to the direct transaction between BHEL and its contactor only and within the contractual delivery period only.

In case any new tax/levy/duty etc. becomes applicable after the date of Bidder's offer but before opening of the price Bid, the Bidder/Contractor must convey its impact on his price duly substantiated by documentary evidence in support of the same before opening of price bid. Claim for any such impact after opening the price bid will not be considered by BHEL for reimbursement of tax or reassessment of offer.

8.3 INCOME TAX:

TDS/TCS as applicable under Income Tax Act, 1961 or rules made thereunder shall be deducted/collected from contractor's bill.

9 SUB-CONTRACT:

The vendor shall not sublet any portion of the contract without the prior written approval of BHEL.

10 PENALTY/LIQUIDATED DAMAGES

Breakdown / Emergency service calls should be attended within 24 hrs. of receipt of breakdown information at contractor's office through phone / fax / email complaint. Minor breakdown calls shall be attended and lift must be brought into operation within 1 days from the date of lodging of complaint. Major breakdown calls case of attended and lift shall be brought into operation within 3 days from the date of lodging of complaint. Failing which, BHEL shall have the right to impose penalty/liquidated damages @ 0.5% of contract value, per week of delay or part thereof subject to maximum of 10% of Contract value.

Penalty of Rs. 100/- per incidence can also be imposed on any lapses of contractor/his agent/ like misbehaving, consumption of liquor/chewing or smoking tobacco on duty etc. Total Penalty shall be limited to 10 % of total contract value.

11. DEFENCE SUITS

If any action in court is brought by third party against BHEL or an officer or agent of BHEL for the failure or neglect on the part of Service Provider to perform any acts, matter, covenants or things under the contract or for any damage or injury caused by the alleged omission' or negligence on the part of Service Provider, his agent/representative or his sub Service Providers, the Service Provider shall in all such case be responsible and indemnify and keep BHEL and/or its representative harmless from all losses, damages, expenses or decrees arising out of such action.

12. ARBITRATION & CONCILIATION

12.1.1 ARBITRATION:

12.1.1.1 Except as provided elsewhere in this Contract, in case Parties are unable to reach amicable settlement (whether by Conciliation to be conducted as provided in Clause 12.1.2 herein below or otherwise) in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the Contract; or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract; or, in any manner touching upon the Contract (hereinafter referred to as the 'Dispute'), then, either Party may, commence

arbitration in respect of such Dispute by issuance of a notice in terms of section 21 of the Arbitration & Conciliation Act, 1996 (hereinafter referred to as the 'Notice'). The Notice shall contain the particulars of all claims to be referred to arbitration in sufficient detail and shall also indicate the monetary amount of such claim. The arbitration shall be conducted by a sole arbitrator to be appointed by the Head of the BHEL Power Sector Region issuing the Contract within 60 days of receipt of the complete Notice. The language of arbitration shall be English.

The Arbitrator shall pass a reasoned award.

Subject as aforesaid, the provisions of Arbitration and Conciliation Act 1996 (India) or statutory modifications or re-enactments thereof and the rules made thereunder as in force from time to time shall apply to the arbitration proceedings under this clause. The seat of arbitration shall be Courts at Noida (Gautam Budh Nagar). The Contract shall be governed by and be construed as per provisions of the laws of India. Subject to this provision 12.1.1.1 regarding ARBITRATION, the principal civil court exercising ordinary civil jurisdiction over the area where the seat of arbitration is located shall have exclusive jurisdiction over any DISPUTE to the exclusion of any other court.

12.1.1.2 In case of Contract with Public Sector Enterprise (PSE) or a Government Department, the following shall be applicable:

In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs)/ Port Trusts inter se and also between CPSEs and Government Departments/Organizations (excluding disputes concerning Railways, Income Tax, Customs & Excise Departments), such dispute or difference shall be taken up by either party for resolution through AMRCD (Administrative Mechanism for Resolution of CPSEs Disputes) as mentioned in DPE OM No. 4(1)/2013-DPE(GM)/FTS-1835 dated 22-05-2018 as amended from time to time.

12.1.1.3 The cost of arbitration shall initially be borne equally by the Parties subject to the final allocation thereof as per the award/order passed by the Arbitrator.

12.1.1.4 Notwithstanding the existence of any dispute or differences and/or reference for the arbitration, the Contractor shall proceed with and continue without hindrance the performance of its obligations under this Contract with due diligence and expedition in a professional manner unless the dispute inter-alia relates to cancellation, termination or short-closure of the Contract by BHEL.

12.1.2 CONCILIATION:

If at any time (whether before, during or after the arbitral or judicial proceedings), any Disputes (which term shall mean and include any dispute, difference, question or disagreement arising in connection with construction, meaning, operation, effect, interpretation or breach of the agreement, contract), which the Parties are unable to settle mutually, arise inter-se the Parties, the same may, be referred by either party to Conciliation to be conducted through Independent Experts Committee (IEC) to be appointed by competent authority of BHEL from the BHEL Panel of Conciliators.

Notes:

1. No serving or a retired employee of BHEL/Administrative Ministry of BHEL shall be included in the BHEL Panel of Conciliators.
2. Any other person(s) can be appointed as Conciliator(s) who is/are mutually agreeable to both the parties from outside the BHEL Panel of Conciliators.

The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided in Procedure 2.3. The Procedure 2.3 together with its Formats will be treated as if the same is part and parcel hereof and shall be as effectual as if set out herein.

The Contractor hereby agrees that BHEL may make any amendments or modifications to the provisions stipulated in the Procedure 2.3 from time to time and confirms that it shall be bound by such amended or modified provisions of the Procedure 2.3 with effect from the date as intimated by BHEL to it.

12.1.3 No Interest payable to Contractor

Notwithstanding anything to the contrary contained in any other document comprising in the Contract, no interest shall be payable by BHEL to Contractor on any moneys or balances including but not limited to the Security Deposit, EMD, Retention Money, RA Bills or the Final Bill, or any amount withheld and/or appropriated by BHEL etc., which becomes or as the case may be, is adjudged to be due from BHEL to Contractor whether under the Contract or otherwise

13. JURISDICTION OF COURT:

Courts at Noida (Gautam Budh Nagar) shall have exclusive jurisdiction to decide the dispute, if any, arising out of or in respect of the contract(s) to which these conditions are applicable.

14. FORCE MAJEURE:

- 14.1.1 "Force Majeure" shall mean circumstance which is: a) beyond a party's control, b) The party could not reasonably have provided against before entering into the contract, c) Having arisen, such party could not reasonably have avoided or overcome, and d) Is not substantially attributable to the other party. Such circumstances include but not limited to
- i) Exceptionally adverse climatic conditions at the site which are unforeseeable having regard to climate data available or published in the country for the geographical location of the site.
 - ii) War, hostilities (whether war be declared or not), invasion, act of foreign enemies.
 - iii) Rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war.
 - iv) Riot, commotion or disorder by persons other than the contractor's personnel and other employees of the contractor and sub-contractors.
 - v) Strike or lockout not solely involving the contractor's personnel and other employees of the contractor and sub-contractors.
 - vi) Encountering munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the contractor's use of such munitions, explosives, radiation or radio- activity.

- vii) Natural catastrophes such as earthquake, tsunami, volcanic activity, hurricane or typhoon, flood, fire, cyclones etc.
- 14.1.2 The following events are explicitly excluded from Force Majeure and are solely the responsibilities of the non-performing party: a) any strike, work-to-rule action, go-slow or similar labour difficulty (b) late delivery of equipment or material (unless caused by Force Majeure event) and (c) economic hardship.
- 14.1.3 If either party is prevented, hindered or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances thereof within 15 (fifteen) days after the occurrence of such event.
- 14.1.4 The party who has given such notice shall be excused from the performance or punctual performance of its obligations under the Contract for so long as the relevant event of Force Majeure continues and to the extent that such party's performance is prevented, hindered or delayed. The Time for Completion shall be extended by a period of time equal to period of delay caused due to such Force Majeure event.
- 14.1.5 Delay or non-performance by either party hereto caused by the occurrence of any event of Force Majeure shall not
 - i) Constitute a default or breach of the Contract.
 - ii) Give rise to any claim for damages or additional cost expense occasioned thereby, if and to the extent that such delay or non-performance is caused by the occurrence of an event of Force Majeure.
- 14.1.6 BHEL at its discretion may consider short closure of contract after 1 year of imposition of Force Majeure in line with extant guidelines. In any case, Contractor cannot consider deemed short-closure after 1 year of imposition of Force Majeure.

14.2 SUSPENSION OF BUSINESS DEALINGS

BHEL reserves the right to take action against Contractors who either fail to perform or Tenderers/Contractor who indulge in malpractices, by suspending business dealings with them in line with BHEL guidelines issued from time to time.

15. SECURITY DEPOSIT

- 15.1 (i) Upon acceptance of Tender, the successful Tenderer should deposit the 3% of the contract value as Security Deposit towards fulfilment of any obligations in terms of the provisions of the contract.
- 15.1 (ii) Bidder agrees to submit performance security required for execution of the contract within the time period mentioned in clause 1.10.2. In case of delay in submission of Security Deposit, interest (SBI rate + 6%) for the delayed period on the amount of SD due for submission, shall be submitted by the bidder. Further, if performance security is not submitted till such time the first bill becomes due, the amount of performance security due shall be recovered as per terms defined in NIT / contract, from the bills along with due interest as mentioned herein above.
- 15.1(iii) Bidder agrees to submit the Security Deposit as above for execution of the contract within the time period.
- 15.2 (i) For contracts exceeding Rs 20 lakhs, the security Deposit should be furnished before start of the work by the contractor. If requested by the contractor, cash recovery of initial 50% of the specified Security Deposit can be made from bills submitted by contractor. For such delay in submission of initial 50% of the required Security Deposit for execution of the contract, interest shall be levied for the delayed period of submission at (SBI rate +

6%) on the security required to be submitted. Balance 50% Security deposit shall be recovered at the rate of 10% of the gross amount progressively from each of the running bills of the contractor till the total amount of the required security deposit is collected.

15.2 (ii) In case of small value contracts not exceeding Rs. 20 lakhs, work can be started before the required Security Deposit is collected.

15.2 (iii) Payment can be released only after collection/ recovery of initial 50% Security Deposit.

15.3 The balance amount to make up the required Security Deposit of 3% of the contract value may be accepted in the following forms.

- i) Cash (as permissible under the extant Income Tax Act).
- ii) Local cheques of Scheduled Banks (subject to realization)/ Pay Order/ Demand Draft/ Electronic Fund Transfer in favour of BHEL.
- iii) Securities available from Indian Post offices such as National Savings Certificates, Kisan Vikas Patras etc. (held in the name of Contractor furnishing the security and duly endorsed/ hypothecated/ pledged, as applicable, in favour of BHEL).
- iv) Bank Guarantee from Scheduled Banks/ Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format for Security Deposit shall be in the prescribed formats.
- v) Fixed Deposit Receipt issued by Scheduled Banks/ Public Financial Institutions as defined in the Companies Act (FDR should be in the name of the Contractor, a/c BHEL).
- vi) Security deposit can also be recovered at the rate of 10% of the gross amount progressively from each of the running bills of the contractor till the total amount of the required security deposit is collected. However, in such cases at least 50% of the required Security Deposit, including the EMD, should be deposited in any form as prescribed before start of the work and the balance 50% may be recovered from the running bills as described above.

Note: BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith.

15.4 The Security Deposit shall not carry any interest.

15.5 In case the value of work exceeds the awarded / accepted value, the Security Deposit shall be correspondingly enhanced as given below:

- i) The enhanced part of the Security Deposit shall be immediately deposited by the Contractor or adjusted against payments due to the Contractor.
- ii) Contract value for the purpose of operating the increased value of Security Deposit due to Quantity Variation, shall be exclusive of Price Variation Clause, Over Run Compensation and Extra works done on manday rates.
- iii) The recoveries made from running bills (cash deduction towards balance SD amount) can be released against submission of equivalent Bank Guarantee in acceptable form, but only once, before completion of work, with the approval of competent authority of BHEL.

15.6 The validity of Bank Guarantees towards Security Deposit shall be initially up to the completion period as stipulated in the Letter of Intent/ Award + Guarantee Period + 3 months, and the same shall be kept valid by proper renewal by the contractor till the acceptance of Final Bills of the Contractor by BHEL.

15.7 BHEL reserves the right of forfeiture of Security Deposit in addition to other claims and penalties in the event of the Contractor's failure to fulfill any of the contractual obligations or in the event of termination of contract as per terms and conditions of contract. BHEL reserves the right to set off the Security Deposit against any claims of other contracts with BHEL.

15.8 **RETURN OF SECURITY DEPOSIT**

Security Deposit shall be released to the contractor upon fulfillment of contractual obligations as per terms of the contract including completion of Guarantee Period after deducting all expenses / other amounts due to BHEL under the contract / other contracts entered into with them by BHEL.

15.9 **BANK GUARANTEES**

Where ever Bank Guarantees are to be furnished/submitted by the contractor, the following shall be complied with

- i) Bank Guarantees shall be from Scheduled Banks / Public Financial Institutions as defined in the Companies Act. Bank Guarantees issued by Co-Operative Banks/ Financial Institutions shall not be accepted.
- ii) The Bank Guarantees shall be as per prescribed formats.
- iii) It is the responsibility of the bidder to get the Bank Guarantees revalidated/extended for the required period as per the advice of BHEL Site Engineer / Construction Manager. BHEL shall not be liable for issue of any reminders regarding expiry of the Bank Guarantees.
- iv) In case extension/further extensions of any Bank Guarantees are not required, the bidders shall ensure that the same is explicitly endorsed by the Construction Manager and submitted to the Regional HQ issuing the LOI/LOA.
- v) In case the Bank Guarantees are not extended before the expiry date, BHEL reserves the right to invoke the same by informing the concerned Bank in writing, without any advance notice/communication to the concerned bidder.
- vi) Bidders to note that any corrections to Bank Guarantees shall be done by the issuing Bank, only through an amendment in an appropriate non judicial stamp paper.
- vii) The Original Bank Guarantee shall be submitted to Subcontracting Department of the respective Region of BHEL.

Form 1: Annexure-A

**DECLARATION CONFIRMING KNOWLEDGE ABOUT BOTH THE OTIS ELEVATORS
INSTALLED IN BHEL PSNR & CLD OFFICE BUILDING FOR AMC WORKS**

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,
(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,
Sub: Declaration confirming knowledge about both the OTIS elevators installed in BHEL PSNR & CLD office building for AMC work.

Ref: 1) NIT/Tender Specification No:,
2) All other pertinent issues till date

I/We, _____ hereby declare and confirm that we have visited the BHEL Office (PSNR, CLD) as referred in BHEL Tender Specifications and acquired full knowledge and information about the conditions including location for providing AMC of 02 nos. elevators which is installed in BHEL PSNR & CLD office Building, Noida Sector 16 A. We further confirm that the above information is true and correct and we shall not raise any claim of any nature due to lack of knowledge of OTIS elevators installed in BHEL PSR & CLD office building. I/We, hereby offer to carry out AMC work as detailed in above mentioned Tender Specification, in accordance with Terms & Conditions thereof.

Yours faithfully,

(Signature, Date & Seal of
Authorized Representative of Bidder)

Date:

Place:

MAINTENANCE CHECK LIST

Monthly Maintenance

1. Check any unusual sound in the geared motor assembly
2. Check the operation of all the doors, and door locks.
3. Check the brake and adjust it.
4. Check the operation of the limit switches.
5. Clean machine and associated equipment.
6. Check the main switch, fuses, etc. (for loose connection, oxidation and ratings, etc.,)
7. Clean main switch contacts and each connections/ continuity
8. Check the general condition of the motor
9. Control panel
 - a) Check over load relays operation
 - b) Check the interlocks for its proper functioning
 - c) Clean the relay contacts and ensure their operation
10. Check the Electrical connections
11. Check the foundation bolts of the motor for any unusual noise, vitiation etc.,
12. Check levelling switches, and limit switches, etc. for proper operation.
13. Check the floor indications
14. Check the control panel for its proper functioning.

Quarterly Maintenance

1. Lubricate the rope pulley bearings in the machine room
2. Check tightness of counter weight, fixing, clean bolts etc.,
3. Check all the cable for broken insulation and loose bindings etc.,
4. Check the condition, clean the gear top and clean the gate channels.
5. The wire rope should be cleaned.
6. Check the rope for broken strands and general condition
7. Check the foundation bolts of the motor for any vibration.
8. Check and clean guide rails
9. Check the condition of bearings for any wear & tear.
10. Check the control panel for its proper functioning.

Half Yearly Maintenance

1. Overhaul the motor and change the bearings if required and also the alignment of the motor with lift maintenance.
2. All the limit switches, ERD/ARD and Power contacts, Relays, PCBs to be overhauled and adjusted. Electrical Panels/ LOPCB, COP shall be overhauled.
3. All the interlocking arrangements to be overhauled and checked for proper functioning.
4. Load test of both the Elevators

UNPRICED RATE SCHEDULE

JOB:- “COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT FOR BOTH THE ELEVATORS INSTALLED AT BHEL PSNR AND CLD OFFICES FOR 1 YEAR”.

Sr. No.	Work Description	Price in figures & words (in Rs.)
1	Comprehensive AMC for one no. machine at PSNR (M/c No- G005390), OTIS make elevators installed at BHEL, Sector 16-A Noida	
2	Comprehensive AMC for one no. machine at CLD (M/c No- G008146), OTIS make elevators installed at BHEL, Sector 16-A Noida	
Total Price (in Rs.) for both the Elevators. Sr. No. (1 + 2) as above.		
Prices in words:		

Note:-

1. The above quoted rates shall remain firm throughout the contract period.
2. The rate shall be entered in figures as well as in words. In case of difference in rates between words and figures, the lesser of the two will be treated as valid rate.
3. GST as applicable will be payable extra.

Signature:

Name:

Designation:

Company Seal:

Date:

O'IS INDIA B.W		INSTALLATION PARAMETERS LCB-II WITH YASKAWA L7 DRIVE CONTROLLER UP TO 24 STOPS, FOR MODELS ONLY			Prep By: Madhu Rev0. Date : 16-02-2007 Rev1. Date : 05-01-2008	
SYSTEM PARAMETERS (SVT Key Sequence M-1-3-1-1-GO ON)						
No.	SVT DISPLAY	UNITS	RANGE	DEFAULT	ACTUAL (TO BE ENTERED BY ADJESTER)	REMARKS
0	TOP		0-24	3		= No of stops-1
1	LOBBY		0-24	0		=1 if -1 floor is there
2	BOTTOM		0-24	0	0	
3	CFT-P		0-24/255	255	255	
4	OPERAT		0-5	0	0	=1 if down collective
5	EN-BSM		0/1	0	0	
6	CONFIG		0-2	0	0	
7	PI		0-6	0	0	
8	PI-POS		0-3	0	0	
9	PI-OPT		0-15	0	0	
10	ELD-fOPG	100ms	0-100	20	20	
11	ELD-fCLG	100ms	0-100	20	20	
12	ELD-rOPG	100ms	0-100	20	20	
13	ELD-rCLG	100ms	0-100	20	20	
14	ELD-LNG		0-26	5	5	
15	ELD-Sym1		0/1	0	0	
16	ELD-DOOR		0/1	0	0	
17	ELD-MSG		0/1	0	0	
18	EN-SFR		0/1	0	0	
19	LR-T	1s	0-255	20	20	
20	LR-MODE		0/1	0	0	
21	EN-HLC		0-3	0	0	
22	HDL-TY		0/1	0	0	
23	HL-SET		0-2	0	0	
24	CR-DIR		0/1	0	0	
25	CR-DO		0-3	0	0	
26	EN-RR		0/1	0	0	
27	DZCNT		0/1	1	0	
28	EN-DZI		0/1	0	0	
29	ERO-TYP		0-2	0	1	
30	C-CHK		0/1	0	0	
31	MD/AES		0-2	0	0	
32	REM-TYP		0-2	0	0	
33	CPC-TYP		0-3	0	0	
34	N+2 WIRE		0-3	0	0	

OCCS PARAMETERS (SVT Key Sequence M-1-3-1-2-GO ON)						
No.	SVT DISPLAY	UNITS	RANGE	DEFAULT	ACTUAL	REMARKS
0	CPR-T	100ms	0-255	20	20	
1	ARD-P		0-24/255	255	255	= AUTO RETURN POSITION
2	ARD-T	10s	0-255	0	0	
3	ARBL-T	10s	0-255	0	0	
4	ARBL-PRK		0/1	0	0	
5	CTL/PKS		0/1	0	0	=1 IF PKS
6	PKS-P		0-24/255	255	0	= PRK FLOOR IF PKS
7	PKS-TY		0-2	0	0	
8	PKS-T	1s	0-255	0	0	
9	PKS-DO	1s	0-2	0	0	
10	EN-SHB		0/1	0	0	

OTIS INDIA B.W		INSTALLATION PARAMETERS LCB-II WITH YASKAWA L7 DRIVE CONTROLLER UP TO 24 STOPS, FOR MODELS ONLY				Prep By: Madhu Rev0. Date : 16-02-2007 Rev1. Date : 05-01-2008
11	DCP-T	1s	25-255	50	50	
12	CTL-DO		0-2	0	0	
13	CTL-P		0-24/255	255	255	
14	ANS		0-255	0	4	
15	OLD-TYP		0-1	0	0	
16	AIT		0-2	0	0	
17	ISC		0-4	0	1	
18	ISPS-TY		0/1	0	0	
19	ISC-T	1s	0-30	0	0	
20	CTL-TY		0/1	0	0	
21	SPEECH		0/1	0	0	
22	CPMT-D	100ms	0-255	0	0	
23	DCMT-A	100ms	0-255	0	0	
24	DCMT-O		0/1	0	0	
25	DOC		0-255	0	0	
26	DS-CCB		0/1	0	0	
27	DS-DOB		0-3	0	0	
28	EN-RB		0-15	0	0	
29	DHB-TYP		0/1	0	0	
30	SHO-POS		0-32/255	0	0	
31	SHO-PI		0-1	0	0	
32	SHO-Mask		0-1	0	0	

GROUP PARAMETERS (SVT Key Sequence M-1-3-1-3-GO ON)					
No.	SVT DISPLAY	RANGE	DEFAULT	ACTUAL	REMARKS
0	GRP-NO	1-3	1	1	= CAR IDENTIFIER IN GROUP
1	GROUP	1-3	1	2	= NO OF CARS IN GROUP
2	CNL	1-3	1	1	
3	KSR-RSP	0	0	0	
4	NO-PASS	0-1	0	0	
5	MIT-ST	1s 0-255	0	0	
6	MIT-T	1s 0-255	0	0	
7	MIT-VD	1s 0-255	0	0	
8	MIT-DOOR	0/1	0	0	
9	MIT-NLB	0/1	0	0	
10	DUPK-P	0-24/255	255	255	
11	DUPK-G	0/1	0	0	
12	MOT-T	1s 0-255	0	0	
13	EN-UCB	0/1	0	0	
14	TES-P	1-24/255	255	255	
15	PARK-1	1-24/255	255	255	
16	PARK-2	1-24/255	255	255	
17	PARK-3	1-24/255	255	255	
18	PARK-4	1-24/255	255	255	
19	PARK-5	1-24/255	255	255	
20	PARK-6	1-24/255	255	255	
21	PARK-7	1-24/255	255	255	
22	PARK-8	1-24/255	255	255	
23	EN-2BS	0/1	0	0	
24	SEL-COMP	0-2	0	0	
25	L-PARK	0/1	0	0	
26	PKDST	0-31	0	0	
27	EN-GSS	0-2	0	0	
28	MS-DEL	1s 0-255	0	0	

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DRIVE PARAMETERS (SVT Key Sequence M-1-3-1-4-GO ON)						
No.	SVT DISPLAY	UNITS	RANGE	DEFAULT	ACTUAL	REMARKS
0	DRIVE		0-18	1	15	
1	C-TYPE		0-3	2	2	
2	1AT	100ms	0-255	5	5	
3	2AT	100ms	0-255	5	5	
4	DDP	1s	0-255	32	20	
5	EN-DDP		0-1	1	1	
6	3P	1s	0-255	32	32	
7	SPEED	cm/s	25-250	100	150	70 W/ 0.7MPS, 100 W/1.0 MPS.
8	EN-MPD		0/1	0	0	
9	MPD-T	s	0-255	10	10	
10	HY-TYP		0-3	0	0	
11	L-T	100ms	0-255	10	10	
12	UX-D	4ms	15-50	20	20	
13	UXT-D	100ms	0-10	0	0	
14	EN-PLS		0/1	1	0	
15	EN-OTS		0-2	1	0	
16	ACD/UXT		0-2	0	0	
17	LW-TYP		0-2	0	0	
18	P-OFF-D	1s	0-255	0	0	
19	P-ON-D	1s	5-255	10	10	
20	EN-J		0/1	1	1	
21	J-T		0-4	1	1	
22	EN-BCD		0/1	1	1	
23	BON-D	100ms	0-100	10	15	
24	BFLT-T	100ms	0-100	15	30	
25	BOFF-D	100ms	0-100	15	15	

DOOR PARAMETERS (SVT Key Sequence M-1-3-1-5-GO ON)						
No.	SVT-DISPLAY	UNITS	RANGE	DEFAULT	ACTUAL	REMARKS
0	DOOR		0-12	2	11	12=DCSS5,10=MRDS,11=GENERIC
1	REAR		0-11	2	11	12=DCSS5,10=MRDS,11=GENERIC
2	MIXDOR		0/1	0	0	
3	EN-DDO		0/1	0	0	
4	EN-ADM		0-2	0	0	
5	F:DO-TYP		0-11	0	11	11 FOR GENERIC
6	F:DC-TYP		0-11	0	11	11 FOR GENERIC
7	F:EN-ACG		0/1	0	0	
8	F:EN-DCL		0/1	0	0	
9	F:DOL-D	100ms	0-255	0	0	
10	R:DO-TYP		0-11	0	0	
11	R:DC-TYP		0-11	0	0	
12	R:EN-ACG		0/1	0	0	
13	R:EN-DCL		0/1	0	0	
14	R:DOL-D	100ms	0-255	0	0	
15	CM-TYP		0-21	0	0	
16	CM-PROT	100ms	0-255	0	0	
17	DO-D	100ms	0-255	0	0	
18	CM-D	100ms	0-255	0	0	
19	CM-OP-D	100ms	0-255	0	0	
20	TRO-TYP		0-3	0	0	
21	SEL-CMR		0/1	0	0	
22	CMR-ES		0/1	0	0	

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23	TCL-TYP		0/1	0	0	
24	DBP-TY		0/1	1	1	
25	LDR		0/1	0	0	
26	EN-PMO		0/1	0	1	
27	EN-NDG		0/1	0	0	
28	NDG-T	1s	0-255	20	20	
29	EN-CK	1s	0/1	0	1	
30	DW-DLY	100ms	0-255	10	10	

DOOR PARAMETERS (SVT Key Sequence M-1-3-1-5-GO ON)						
No.	SVT DISPLAY	UNITS	RANGE	DEFAULT	ACTUAL	REMARKS
31	IL-DW-D	100ms	0-20	0	0	
32	DO-REL	100ms	0-255	0	0	
33	MIN-C	100ms	0-255	20	20	
34	MAX-C	100ms	0-255	40	40	
35	MIN-H	100ms	0-255	40	40	
36	MAX-H	100ms	0-255	60	60	
37	CCR-T	4ms	0-255	0	0	
38	ADOR-T	4ms	0-255	0	0	
39	OTC-T	1s	10-255	20	40	
40	OTO-T	1s	10-255	20	40	
41	LOC-INT	100ms	0-255	40	40	
42	OFF-INT	100ms	0-255	40	40	
43	SPD-INT	100ms	0-255	0	0	
44	UPB-T	1s	0-255	120	120	
45	WCON	100ms	0-255	0	0	
46	WDT	100ms	0-255	0	0	
47	WDLT	100ms	0-255	0	0	
48	WART	1s	0-255	60	60	
49	WAT-T	100ms	0-255	0	0	
50	WDT-TYP		0	0	0	

PCS. REF PARAMETERS (SVT Key Sequence M-1-3-1-6-GO ON)						
No.	SVT DISPLAY	UNITS	RANGE	DEFAULT	ACTUAL	REMARKS
0	LV-MOD		0-4	2	2	
1	LV-TYP		0-2	0	0	
2	FRS-TYP		0-1	0	0	
3	DE-DLY	4ms	0-255	0	0	
4	LV-U-D		0-255	12	250	
5	LV-D-D		0-255	12	250	
6	T-BASE		0/1	0	0	
7	FRU-D	T-Base	0-255	0	0	
8	FRD-D	T-Base	0-255	0	0	
9	FLS-D	T-Base	0-255	0	0	
10	FLS-D	T-Base	0-255	0	0	
11	FR-PLV		0/1	0	0	
12	FR-PLV		0/1	0	0	
13	FR-PLV		0/1	3	0	
14	FR-PLV	100ms	0-255	255	255	
15	FR-PLV	4/100ms	0-255	255	255	
16	FR-PLV	4ms	0-255	0	0	
17	FR-PLV	4ms	0-255	0	0	

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CARGO PARAMETERS (SVT Key Sequence M-1-3-1-7-GO ON)						
No.	SVT DISPLAY		RANGE	DEFAULT	ACTUAL	REMARKS
0	CA-MOD		0-1	0	0	

EMERGENCY PARAMETERS (SVT Key Sequence M-1-3-1-8-GO ON)						
No.	SVT DISPLAY	UNITS	RANGE	DEFAULT	ACTUAL	REMARKS
0	ES-TYP		0-3	0	1	
1	ES-LRCU	100ms	0-255	0	0	
2	ES-SLOW		0-1	0	1	
3	EFO-P		0-24/255	255	0	= EFO RETURN POSITION IF W/EFO
4	EFO-NC		0/1	0	0	
5	EFO-DC	1s	0-255	0	0	
6	EFO-DO		0-2	0	0	
7	EFO-OP		0-3	0	0	
8	EFONDG		0/1	0	0	
9	EFO-REV		0-2	0	0	
10	EFO-MP		0-7	0	0	
11	EFO-MP-T	1s	0-60	0	30	
12	EFO-SD		0-3	0	0	
13	EFO-BUZ		0/1-120	0	0	
14	ASL-P		0-24/255	255	255	
15	EFS-TY		0-10	0	1	
16	EFS-DO		0-2	0	0	
17	EFSINI		0-24	0	0	
18	EFS-CALL		0-2	0	0	
19	EFSCLD		0-63	0	0	
20	EFSOPD		0-15	0	0	
21	EFS-EX		0-3	0	0	
22	EFS-RT	100ms	0-255	0	0	
23	EFS-RC		0-63	0	0	
24	EF-I-LT		0-15	0	0	
25	EN-BAK		0/1	0	1	0 with UPS ARD
26	HDWPOS		0-3	0	3	0 with UPS ARD
27	EPO-P		0-24/255	255	255	= EPO RETURN POSITION IF W/EPO
28	EPO-DC	1s	0-255	0	0	
29	EPO-DO		0-2	0	0	
30	EPO-PR		0/1	0	0	
31	EEO		0/1	0	0	
32	EPS-TYP		0-255	0	0	
33	EHS-T	1s	0-255	0	0	

SECURITY PARAMETERS (SVT Key Sequence M-1-3-1-9-GO ON)						
No.	SVT DISPLAY	UNITS	RANGE	DEFAULT	ACTUAL	REMARKS
0	EN-FPD		0/1	0	0	

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1	EN-IST		0-6	0	0
2	IST-P		0-23/255	255	255
3	EN-CRO		0-4	0	0
4	CRO-TTL		0-1	0	0
5	EN-HCRO		0-7	0	0
6	EMS-SEC		0-4	0	0
7	GCBTYP		0-2	0	0
8	RIOT-P		0-23/255	255	255
9	SACTYP		0-1	0	0
10	SAC-D1		0-6/255	255	255
11	SAC-D2		0-6/255	255	255
12	SAC-D3		0-6/255	255	255
TEST PARAMETERS (SVT Key Sequence M-1-3-1-10-GO ON)					
0	TPOS 1		0-23/255	255	255
1	TPOS 2		0-23/255	255	255
2	TDELAY	1s	0-255	255	255
3	NoAdrChk		0/1	0	0
4	NoDW_Chk		0/1	0	1
5	DEBUG		0-255	0	0
6	DEBUG1		0-255	0	0
7	EN-1CL		0/1	0	0
8	EN-EVT		0/1	0	0
9	EN-CRT		0/1	0	0
10	DISP-ALL		0/1	0	0

Allowed ENABLE Masks(SVT Key Sequence M-1-3-3-1-GO ON)			
	FLOOR LEVEL	CUDE	CUDE P R
	0	1100	0000 11
	1	1110	0000 11
	2	1110	0000 11
	3	1110	0000 11
	4	1110	0000 11
	5	1110	0000 11
	6	1110	0000 11
	7	1110	0000 11
	8	1110	0000 11
	9	1110	0000 11
	10	1110	0000 11
	11	1110	0000 11
	12	1110	0000 11
	13	1110	0000 11
	14	1110	0000 11
	15	1110	0000 11
	16	1110	0000 11
	17	1110	0000 11
	18	1110	0000 11
	19	1110	0000 11
	20	1110	0000 11
	21	1110	0000 11
	22	1110	0000 11
	23	1010	0000 11

NOTE : ENSURE "R" BIT = 1

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Allowed CUT CALL Masks(SVT Key Sequence M-1-3-3-2-GO ON)		
	FLOOR LEVEL	CUDE CUDE O p
	0	0000 0000 00
	1	0000 0000 00
	2	0000 0000 00
	3	0000 0000 00
	4	0000 0000 00
	5	0000 0000 00
	6	0000 0000 00
	7	0000 0000 00
	8	0000 0000 00
	9	0000 0000 00
	10	0000 0000 00
	11	0000 0000 00
	12	0000 0000 00
	13	0000 0000 00
	14	0000 0000 00
	15	0000 0000 00
	16	0000 0000 00
	17	0000 0000 00
	18	0000 0000 00
	19	0000 0000 00
	20	0000 0000 00
	21	0000 0000 00
	22	0000 0000 00
	23	0000 0000 00

Allowed CARD READER Masks(SVT Key Sequence M-1-3-3-3-GO ON)		
	FLOOR LEVEL	CUDE CUDE Sb
	0	0000 0000 0
	1	0000 0000 0
	2	0000 0000 0
	3	0000 0000 0
	4	0000 0000 0
	5	0000 0000 0
	6	0000 0000 0
	7	0000 0000 0
	8	0000 0000 0
	9	0000 0000 0
	10	0000 0000 0
	11	0000 0000 0
	12	0000 0000 0
	13	0000 0000 0
	14	0000 0000 0
	15	0000 0000 0
	16	0000 0000 0
	17	0000 0000 0
	18	0000 0000 0

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		19 0000 0000 0 20 0000 0000 0 21 0000 0000 0 22 0000 0000 0 23 0000 0000 0	

POSITION INDICATOR (SVT Key Sequence M-1-3-4)				
Floor Level		PI Display	Left	Right
0		0	00	00
1		1	00	01
2		2	00	02
3		3	00	03
4		4	00	04
5		5	00	05
6		6	00	06
7		7	00	07
8		8	00	08
9		9	00	09
10		10	01	00
11		11	01	01
12		12	01	02
13		13	01	03
14		14	01	04
15		15	01	05
16		16	01	06
17		17	01	07
18		18	01	08
19		19	01	09
20		20	02	00
21		21	02	01
22		22	02	02
23		23	02	03

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I/O No	SYMBOL	DESCRIPTION	ACTUAL	DEF	TYPE
0	DOL	Door Open Limit	12-4	1/0	in
1	DOB	Door Open Button	08-3	0/0	in
2	EDP	Electronic Door Protection	00-0	0/0	in
3	DCB	Door Close Button	08-4	0/0	in
4	ISS	Independent Service Switch	09-3	0/0	in
5	LWO	Load Weighting Overload	13-3	0/0	in
6	LNS / DIS1	Load Non Stop / Delayed Releveling	14-3	0/0	in
7	LWX / ACS	ANS Load Weight / Anti Creeping Switch	12-3	1/0	in
8	UIS	Start/stop relevel down	01-0	1/0	in
9	DIS	Start/stop relevel up	01-0	1/0	in
10	CTL / PKS	Car To Landing/Parking Switch	00-0	0/0	in
11	PKS	Parking Switch	21-4	0/0	in
12	-	-	-	0/0	-
13	CCTL	Car Call to Top Landing	00-0	0/0	in
14	CCBL	Car Call to Bottom Landing	00-0	0/0	in
15	-	-	-	-	-
16	EFK	Emergency Fireman Keyswitch	21-3	0/0	in
17	NU	Emergency power	01-0	1/0	in
18	NUSD / NUSD-1	Enable rescue operation	01-0	1/0	i/o
19	NUG / NUG-1	Enable normal operation	01-0	1/0	i/o
20	CUDL	Car Up Direction Light	10-3	0/0	out
21	CDDL	Car Down Direction Light	11-3	0/0	out
22	OLS	Over Load Signal -- ADDRESS = 55-1 WITH LOCAL SERIAL DOT MATRIX DISPLAY	12-3	0/0	out
23	BUZ	Buzzer --ADDRESS = 12-3 WITH LOCAL SERIAL DOT MATRIX DISPLAY	13-3	0/0	out
24	FSL	Fireman Service Light -- ADDRESS = 55-2 WITH LOCAL SERIAL DOT MATRIX DISPLAY	09-3	0/0	out
25	HEL	Hospital Emergency Light	00-0	0/0	out
26	LR	Light Relay.	15-3	0/0	out
27	NDG	Nudging	00-0	0/0	out
28	-	-	-	0/0	-
29	SHH	Stop Signal Hall	57-1	0/0	out
30	SIC	Stop Signal Car	57-1	0/0	out
31	DMD	Demand	00-0	0/0	out
32	CB / CTTL 0	Car Button / Tell Tale Light 0	08-1	0/0	i/o
33	CB / CTTL 1	Car Button / Tell Tale Light 1	09-1	0/0	i/o
34	CB / CTTL 2	Car Button / Tell Tale Light 2	10-1	0/0	i/o
35	CB / CTTL 3	Car Button / Tell Tale Light 3	11-1	0/0	i/o
36	CB / CTTL 4	Car Button / Tell Tale Light 4	12-1	0/0	i/o
37	CB / CTTL 5	Car Button / Tell Tale Light 5	13-1	0/0	i/o
38	CB / CTTL 6	Car Button / Tell Tale Light 6	14-1	0/0	i/o
39	CB / CTTL 7	Car Button / Tell Tale Light 7	15-1	0/0	i/o
40	CB / CTTL 8	Car Button / Tell Tale Light 8	08-2	0/0	i/o
41	CB / CTTL 9	Car Button / Tell Tale Light 9	09-2	0/0	i/o
42	CB / CTTL 10	Car Button / Tell Tale Light 10	10-2	0/0	i/o
43	CB / CTTL 11	Car Button / Tell Tale Light 11	11-2	0/0	i/o
44	CB / CTTL 12	Car Button / Tell Tale Light 12	12-2	0/0	i/o
45	CB / CTTL 13	Car Button / Tell Tale Light 13	13-2	0/0	i/o
46	CB / CTTL 14	Car Button / Tell Tale Light 14	14-2	0/0	i/o
47	CB / CTTL 15	Car Button / Tell Tale Light 15	15-2	0/0	i/o
48	CB / CTTL 16	Car Button / Tell Tale Light 16	04-1	0/0	i/o
49	CB / CTTL 17	Car Button / Tell Tale Light 17	04-2	0/0	i/o
50	CB / CTTL 18	Car Button / Tell Tale Light 18	04-3	0/0	i/o

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I/O No	SYMBOL	DESCRIPTION	ACTUAL	DEF	TYPE
51	CB / CTTL 19	Car Button / Tell Tale Light 19	04-4	0/0	i/o
52	CB / CTTL 20	Car Button / Tell Tale Light 20	05-1	0/0	i/o
53	CB / CTTL 21	Car Button / Tell Tale Light 21	05-2	0/0	i/o
54	CB / CTTL 22	Car Button / Tell Tale Light 22	05-3	0/0	i/o
55	CB / CTTL 23	Car Button / Tell Tale Light 23	05-4	0/0	i/o
56	CB / CTTL 24	Car Button / Tell Tale Light 24	00-0	0/0	i/o
64	UHB / UHTTL 0	Up Hall Button / Tell Tale Light 0. ALWAYS TO ADDRESSED IN I/O LOCATION "96".	00-0	0/0	i/o
65	UHB / UHTTL 1	Up Hall Button / Tell Tale Light 1	22-1	0/0	i/o
66	UHB / UHTTL 2	Up Hall Button / Tell Tale Light 2	23-1	0/0	i/o
67	UHB / UHTTL 3	Up Hall Button / Tell Tale Light 3	24-1	0/0	i/o
68	UHB / UHTTL 4	Up Hall Button / Tell Tale Light 4	25-1	0/0	i/o
69	UHB / UHTTL 5	Up Hall Button / Tell Tale Light 5	26-1	0/0	i/o
70	UHB / UHTTL 6	Up Hall Button / Tell Tale Light 6	27-1	0/0	i/o
71	UHB / UHTTL 7	Up Hall Button / Tell Tale Light 7	28-1	0/0	i/o
72	UHB / UHTTL 8	Up Hall Button / Tell Tale Light 8	29-1	0/0	i/o
73	UHB / UHTTL 9	Up Hall Button / Tell Tale Light 9	30-1	0/0	i/o
74	UHB / UHTTL 10	Up Hall Button / Tell Tale Light 10	31-1	0/0	i/o
75	UHB / UHTTL 11	Up Hall Button / Tell Tale Light 11	32-1	0/0	i/o
76	UHB / UHTTL 12	Up Hall Button / Tell Tale Light 12	33-1	0/0	i/o
77	UHB / UHTTL 13	Up Hall Button / Tell Tale Light 13	34-1	0/0	i/o
78	UHB / UHTTL 14	Up Hall Button / Tell Tale Light 14	35-1	0/0	i/o
79	UHB / UHTTL 15	Up Hall Button / Tell Tale Light 15	36-1	0/0	i/o
80	UHB / UHTTL 16	Up Hall Button / Tell Tale Light 16	37-1	0/0	i/o
81	UHB / UHTTL 17	Up Hall Button / Tell Tale Light 17	38-1	0/0	i/o
82	UHB / UHTTL 18	Up Hall Button / Tell Tale Light 18	39-1	0/0	i/o
83	UHB / UHTTL 19	Up Hall Button / Tell Tale Light 19	40-1	0/0	i/o
84	UHB / UHTTL 20	Up Hall Button / Tell Tale Light 20	41-1	0/0	i/o
85	UHB / UHTTL 21	Up Hall Button / Tell Tale Light 21	42-1	0/0	i/o
86	UHB / UHTTL 22	Up Hall Button / Tell Tale Light 22	43-1	0/0	i/o
87	UHB / UHTTL 23	Up Hall Button / Tell Tale Light 23	00-0	0/0	i/o
96	HB / HBTTL 0	Up Hall Button / Tell Tale Light 0	21-1	0/0	i/o
97	DHB / HBTTL 1	Hall Button / Tell Tale Light 1	22-2	0/0	i/o
98	DHB / HBTTL 2	Hall Button / Tell Tale Light 2	23-2	0/0	i/o
99	DHB / HBTTL 3	Hall Button / Tell Tale Light 3	24-2	0/0	i/o
100	DHB / HBTTL 4	Hall Button / Tell Tale Light 4	25-2	0/0	i/o
101	DHB / HBTTL 5	Hall Button / Tell Tale Light 5	26-2	0/0	i/o
102	DHB / HBTTL 6	Hall Button / Tell Tale Light 6	27-2	0/0	i/o
103	DHB / HBTTL 7	Hall Button / Tell Tale Light 7	28-2	0/0	i/o
104	DHB / HBTTL 8	Hall Button / Tell Tale Light 8	29-2	0/0	i/o
105	DHB / HBTTL 9	Hall Button / Tell Tale Light 9	30-2	0/0	i/o
106	DHB / HBTTL 10	Hall Button / Tell Tale Light 10	31-2	0/0	i/o
107	DHB / HBTTL 11	Hall Button / Tell Tale Light 11	32-2	0/0	i/o
108	DHB / HBTTL 12	Hall Button / Tell Tale Light 12	33-2	0/0	i/o
109	DHB / HBTTL 13	Hall Button / Tell Tale Light 13	34-2	0/0	i/o
110	DHB / HBTTL 14	Hall Button / Tell Tale Light 14	35-2	0/0	i/o
111	DHB / HBTTL 15	Hall Button / Tell Tale Light 15	36-2	0/0	i/o
112	DHB / HBTTL 16	Hall Button / Tell Tale Light 16	37-2	0/0	i/o
113	DHB / HBTTL 17	Hall Button / Tell Tale Light 17	38-2	0/0	i/o
114	DHB / HBTTL 18	Hall Button / Tell Tale Light 18	39-2	0/0	i/o
115	DHB / HBTTL 19	Hall Button / Tell Tale Light 19	40-2	0/0	i/o
116	DHB / HBTTL 20	Hall Button / Tell Tale Light 20	41-2	0/0	i/o
117	DHB / HBTTL 21	Hall Button / Tell Tale Light 21	42-2	0/0	i/o
118	DHB / HBTTL 22	Hall Button / Tell Tale Light 22	43-2	0/0	i/o
119	DHB / HBTTL 23	Hall Button / Tell Tale Light 23	44-2	0/0	i/o
120	DHB / HBTTL 24	Hall Button / Tell Tale Light 24	00-0	0/0	i/o

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I/O No	SYMBOL	DESCRIPTION	ACTUAL	DEF	TYPE
128	UHL 0	Up Hall Lantern 0	21-4	0/0	out
129	UHL 1	Up Hall Lantern 1	22-4	0/0	out
130	UHL 2	Up Hall Lantern 2	24-4	0/0	out
131	UHL 3	Up Hall Lantern 3	25-4	0/0	out
132	UHL 4	Up Hall Lantern 4	26-4	0/0	out
133	UHL 5	Up Hall Lantern 5	27-4	0/0	out
134	UHL 6	Up Hall Lantern 6	28-4	0/0	out
135	UHL 7	Up Hall Lantern 7	29-4	0/0	out
136	UHL 8	Up Hall Lantern 8	30-4	0/0	out
137	UHL 9	Up Hall Lantern 9	31-4	0/0	out
138	UHL 10	Up Hall Lantern 10	32-4	0/0	out
139	UHL 11	Up Hall Lantern 11	33-4	0/0	out
140	UHL 12	Up Hall Lantern 12	34-4	0/0	out
141	UHL 13	Up Hall Lantern 13	35-4	0/0	out
142	UHL 14	Up Hall Lantern 14	36-4	0/0	out
143	UHL 15	Up Hall Lantern 15	37-4	0/0	out
144	UHL 16	Up Hall Lantern 16	38-4	0/0	out
145	UHL 17	Up Hall Lantern 17	39-4	0/0	out
146	UHL 18	Up Hall Lantern 18	40-4	0/0	out
147	UHL 19	Up Hall Lantern 19	41-4	0/0	out
148	UHL 20	Up Hall Lantern 20	42-4	0/0	out
149	UHL 21	Up Hall Lantern 21	43-4	0/0	out
150	UHL 22	Up Hall Lantern 22	44-4	0/0	out
151	UHL 23	Up Hall Lantern 23	00-0	0/0	out
160	DHL 0	Down Hall Lantern 0	00-0	0/0	out
161	DHL 1	Down Hall Lantern 1	22-3	0/0	out
162	DHL 2	Down Hall Lantern 2	24-3	0/0	out
163	DHL 3	Down Hall Lantern 3	25-3	0/0	out
164	DHL 4	Down Hall Lantern 4	26-3	0/0	out
165	DHL 5	Down Hall Lantern 5	27-3	0/0	out
166	DHL 6	Down Hall Lantern 6	28-3	0/0	out
167	DHL 7	Down Hall Lantern 7	29-3	0/0	out
168	DHL 8	Down Hall Lantern 8	30-3	0/0	out
169	DHL 9	Down Hall Lantern 9	31-3	0/0	out
170	DHL 10	Down Hall Lantern 10	32-3	0/0	out
171	DHL 11	Down Hall Lantern 11	33-3	0/0	out
172	DHL 12	Down Hall Lantern 12	34-3	0/0	out
173	DHL 13	Down Hall Lantern 13	35-3	0/0	out
174	DHL 14	Down Hall Lantern 14	36-3	0/0	out
175	DHL 15	Down Hall Lantern 15	37-3	0/0	out
176	DHL 16	Down Hall Lantern 16	38-3	0/0	out
177	DHL 17	Down Hall Lantern 17	39-3	0/0	out
178	DHL 18	Down Hall Lantern 18	40-3	0/0	out
179	DHL 19	Down Hall Lantern 19	41-3	0/0	out
180	DHL 20	Down Hall Lantern 20	42-3	0/0	out
181	DHL 21	Down Hall Lantern 21	43-3	0/0	out
182	DHL 22	Down Hall Lantern 22	44-3	0/0	out
183	DHL 23	Down Hall Lantern 23	45-3	0/0	out
192	EHC / E TTL 0 - 24	Emerg. Hosp. Call 0 - 24	00-0	0/0	i/o
224	FPD 0 - 24	Fire Proof Door 0 - 24	01-0	1/0	in
256	CPC 0 - 24	Car Position Contact 0 - 24	00-0	0/0	out
288	RCB / RCTTL 0-24	Rear Car Button / Tell Tale Light 0-24	00-0	0/0	i/o
320	RUHB / RUTTL 0-24	Rear Up Hall Button / Tell Tale Light 0-24	00-0	0/0	i/o
352	RDHB / RD TTL 0-24	Rear Down Hall Button / Tell Tale Light 0-24	00-0	0/0	i/o
384	RUHL 0-24	Rear Up Hall Lantern 0-24	00-0	0/0	out
448	REHC / RETTL 0-24	Rear Emerg. Hosp. Call / Tell Tale Light 0-24	00-0	0/0	i/o

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I/O No	SYMBOL	DESCRIPTION	ACTUAL	DEF	TYPE
480	CRS 0-24	Card Reader Security (Car) 0-24	01-0	1/0	in
512	SEC 0-24	Card Reader Security (Hall) 0-24	00-0	0/0	in
544	RDOL	Rear Door Open Limit	01-0	1/0	in
545	RDOB	Rear Door Open Button	00-0	0/0	in
546	REDP	Rear Electronic Door Protection	00-0	0/0	in
547	RDCB	Rear Door Close Button	00-0	0/0	in
548	ATK	Attendant Key Switch	11-3	0/0	in
549	HUDL (UDL)	Hall Up Direction Light	56-3	0/0	out
550	HDDL (DDL)	Hall Down Direction Light	56-4	0/0	out
551	GCB	Up General Control Button	00-0	0/0	in
552	DDP	Car Motion Control Signal	00-0	0/0	out
553	PKL	Parking Light	56-1	0/0	out
554	DCP	Delayed Car Signal	00-0	0/0	out
555	DTP	Door Time Protection	00-0	0/0	out
556	EPR	Emergency Power Rescue	00-0	0/0	out
557	OOS1B	Out of Service Break1	00-0	0/0	out
558	OOS1M	Out of Service Make1	00-0	0/0	out
559	OOS2B	Out of Service Break 2	00-0	0/0	out
560	OOS2M	Out of Service Make 2	00-0	0/0	out
561	ROLS	Rear Over Load Signal	00-0	0/0	out
562	RHEL	Rear Hospital Emergency Light	00-0	0/0	out
563	RFSL	Rear Fireman Service Light	00-0	0/0	out
564	RCUDL	Rear Car Up Direction Lantern	00-0	0/0	out
565	RCDDL	Rear Car Down Direction Lantern	00-0	0/0	out
566	RHUDL	Rear Hall Up Direction Lantern	00-0	0/0	out
567	RHDDL	Rear Hall Down Direction Lantern	00-0	0/0	out
568	RIOTS	Riot Operation Switch	00-0	0/0	in
569	SR1	Gamma160 s Speed1	00-0	0/0	out
570	SR2	Gamma160 s Speed 2	00-0	0/0	out
571	SR3	Gamma160 s Speed 3	00-0	0/0	out
572	RSTH	Rear Stop Signal Hall	00-0	0/0	out
573	RSTC	Rear Stop Signal Car	00-0	0/0	out
574	MDD	Passenger Move Detector	00-0	0/0	in
575	RMDD	Rear Passenger Move Detector	00-0	0/0	in
576	UP	Car Direction Memory Up	00-0	0/0	out
577	DN	Car Direction Memory Down	00-0	0/0	out
578	CDLU	Car Direction Lantern Up	00-0	0/0	out
579	CDLD	Car Direction Lantern Down	00-0	0/0	out
580	CDGU (GNCUP)	Car Direction Gong Up	12-4	0/0	out
581	CDGD (GNCDN)	Car Direction Gong Down	13-4	0/0	out
582	RCDLU	Rear Car Direction Lantern Up	00-0	0/0	out
583	RCDLD	Rear Car Direction Lantern Down	00-0	0/0	out
584	RCDGU	Rear Car Direction Gong Up	00-0	0/0	out
585	RCDGD	Rear Car Direction Gong Down	00-0	0/0	out
586	ASL	Alternate Service Landing	00-0	0/0	in
587	FLT	Drive Fault Contact	00-0	0/0	in
588	MTC	Motor Temperature Contact	01-0	1/0	in
589	OVH	Drive Overheat Contact	00-0	0/0	in
590	ATTU	Attendant Up Start Switch	09-4	0/0	in
591	ATTD	Attendant Down Start Switch	10-4	0/0	in
592	FDLU	Further Demand Up Lantern	00-0	0/0	out
593	FDLD	Further Demand Down Lantern	00-0	0/0	out
594	NSB	Non Stop Button	11-4	0/0	in
595	NSL	Non Stop Lantern	00-0	0/0	out
596	INLC	Independent Light Car	00-0	0/0	out
597	INLH	Independent Light Hall	00-0	0/0	out

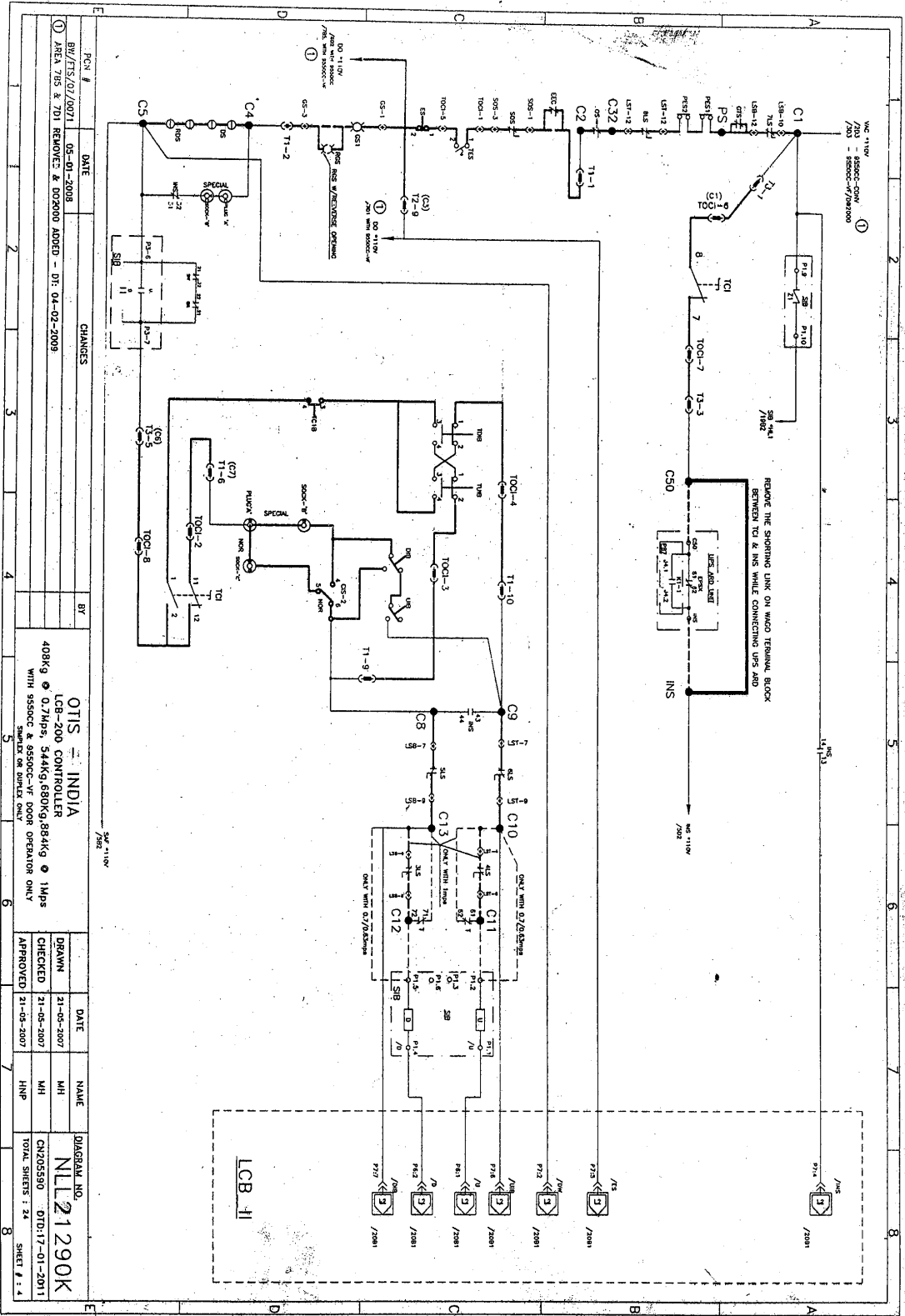
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I/O No	SYMBOL	DESCRIPTION	ACTUAL	DEF	TYPE
598	CHCSC	Cut Hall Call Signal Car	00-0	0/0	out
599	CHCSH	Cut Hall Call Signal Hall	00-0	0/0	out
600	PFL	Power Fail Light	00-0	0/0	out
601	EPW	Emergency Power Wait	00-0	0/0	out
602	INS	Car Inspection Signal	00-0	0/0	out
603	FSR	Fireman Service Relay	00-0	0/0	out
604	EHS	Emergency Hospital Service	00-0	0/0	out
605	DOS	Door Open Signal	13-4	0/0	in
606	RDOS / RSGS	Rear Door Open Signal / Rear SGS	00-0	0/0	in
607	LRD/SGS	Light Ray Device	14-4	0/0	in
608	RLRD	Rear Light Ray Device	01-0	0/0	in
609	XEPR	Not able to rescue	00-0	0/0	out
610	CCOC	Cut Car Calls for car link	01-0	1/0	in
611	CCOH	Cut Car Calls for hall link	01-0	1/0	in
612	HCCO	Hall Call Cut Off	01-0	1/0	in
613	GCCO	Group Call Cut Off	01-0	1/0	in
614	CTLC	Car to Landing / Car	00-0	0/0	out
615	CTLH	Car to Landing / Hall	00-0	0/0	out
616	ACSC	Anti Crime Switch Car	00-0	0/0	in
617	ACSH	Anti Crime Switch Hall	00-0	0/0	in
618	CHCC	Cut Hall Call Car	00-0	0/0	in
619	DFD	Disable Front Doors	00-0	0/0	in
620	DHB	Door Hold Button	15-4	0/0	in
621	DRD	Disable Rear Doors	00-0	0/0	in
622	EFKB	Emergency Fireman Key Bypass	00-0	0/0	in
623	EQS	Earth Quake Switch	00-0	0/0	in
624	EFO	Emergency Fireman Operation	01-0	1/0	in
625	ESH	Emergency Service Hold	01-0	0/0	in
626	ESK	Emergency Service Keyswitch	00-0	0/0	in
627	RB	Reset Button	00-0	0/0	in
628	RDHB	Rear Door Hold Button	00-0	0/0	in
629	AMCLK	AM Clock Input	00-0	0/0	in
630	LPT	Landing passing Tone	07-4	0/0	out
631	WCOS	Wild Car Operation Switch	00-0	0/0	in
632	1MOTIM	One more time signal	00-0	0/0	in
633	ESSR	Emergency Stop Switch Reset	00-0	0/0	out
634	CRV	Cancel Releveling	00-0	0/0	out
635	ZR	Front door Zone Relay	00-0	0/0	out
636	RZR	Rear ZR	00-0	0/0	out
637	RNDG	Rear Nudging Relay	00-0	0/0	out
638	ISPS	Independent Service Parking Switch	00-0	0/0	in
639	CRC	Card Reader Contact	00-0	0/0	in
640	SDB	Special Door Open Button	00-0	0/0	in
641	RSDB	Rear SDB	00-0	0/0	in
642	GRIOT	Group RIOT	00-0	0/0	in
643	FPDL	Fire Proof Door Light	00-0	0/0	out
644	AEPS	Available for EPS L	00-0	0/0	out
645	EQCW	Earthquake Counterweight Switch	00-0	0/0	in
646	EQRS	Earthquake Reset Signal	00-0	0/0	in
647	SSM1	Speech Synth. Cmd 1	00-0	0/0	out
648	SSM2	Speech Synth. Cmd 2	00-0	0/0	out
649	SSM3	Speech Synth. Cmd 3	00-0	0/0	out
650	SSM4	Speech Synth. Cmd 4	00-0	0/0	out
651	SSM5	Speech Synth. Cmd 5	00-0	0/0	out
652	SSM6	Speech Synth. Cmd 6	00-0	0/0	out
653	SSM7	Speech Synth. Cmd 7	00-0	0/0	out

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I/O No	SYMBOL	DESCRIPTION	ACTUAL	DEF	TYPE
654	SSMB	Speech Synth. Busy	00-0	0/0	in
655	SSMR	Speech Synth. Reset	00-0	0/0	out
656	SSMS	Speech Synth. Start	00-0	0/0	out
657	LPTB	Landg. pass. Tone B.	07-3	0/0	in
658	CTLPC	CTL park close door	00-0	0/0	in
659	CTLPO	CTL park open door	00-0	0/0	in
660	ULV	Gamma L speed dict.	00-0	0/0	out
661	RDZ	Rear Door Zone	00-0	0/0	in
662	CFSON	Car Fire. Serv. On	00-0	0/0	in
663	CFSST	Car Fire. Serv. Start	00-0	0/0	in
664	LHL	Not used in this version	00-0	0/0	in
665	BOS	Boss Cardreader override	00-0	0/0	out
666	SHAC	Shabat Operation Switch	00-0	0/0	in
667	SHAT	Shabat Operation Timer	00-0	0/0	in
668	SHLC	Shabat Operation Light Car	00-0	0/0	out
669	NDGL	Nudging Light	00-0	0/0	out
670	SSMRL	Speech Synthesizer Audio relay	00-0	0/0	out
671	CBT	Car Button Tone	00-0	0/0	out
672	HCLR	Handicap Call Light relay	00-0	0/0	out
673	BUT	Button Signal for REM	00-0	0/0	out
674	DO	Door Opening for REM	00-0	0/0	out
675	CPR	Car Park Recog. REM	00-0	0/0	out
676	NORM	Normal Operation for REM	00-0	0/0	out
677	LDO	Limited Door Open.	00-0	0/0	out
678	RLDO	Rear LDO	00-0	0/0	out
679	8LS2	Limit Switch 8LS2 for Hydro	00-0	0/0	in
680	LDT_5	50 % of full load	00-0	0/0	in
681	C2_1IN	C2: bolt1 position in	00-0	0/0	in
682	C2_2IN	C2: bolt 2 position in	00-0	0/0	in
683	C2_1OUT	C2: bolt1 position out	00-0	0/0	in
684	C2_2OUT	C2: bolt 2 position out	00-0	0/0	in
685	C2_DO_1IN	C2: move bolt1 in	00-0	0/0	out
686	C2_DO_2IN	C2: move bolt 2 in	00-0	0/0	out
687	C2_DO_1OUT	C2: move bolt1 out	00-0	0/0	out
688	C2_DO_2OUT	C2: move bolt 2 out	00-0	0/0	out
689	UP_IN	Up Inspection Button	00-0	0/0	in
690	DN_IN	Down Inspection Button	00-0	0/0	in
691	TCI	Top of car Inspection Switch	10-3	0/0	in
692	1LS	Limit switch 1LS	00-0	0/0	in
693	2LS	Limit switch 2LS	00-0	0/0	in
694	DCL	Door Close Limit Switch (13-4 FOR MRDS CONTRACTS)	01-0	0/0	in
695	RDCL	Rear Door Close Limit Switch	00-0	0/0	in
696	DO_BEL	Door Open Bell Sig.	00-0	0/0	out
697	MCLS	Machine Room Car Light Switch (SKL-3)	01-0	1/0	in
698	IPU	Impuls UP	00-0	0/0	in
699	IPD	Impuls Down	00-0	0/0	in
700	SLU	Short Landing Up	00-0	0/0	in
701	SLD	Short Landing Down	00-0	0/0	in
702	OFF	input Off	00-0	0/0	in
703	ON	input On	01-0	1/0	in
704	C-CHK	C-Circuit check Sig.	00-0	0/0	in
705	TDOB	Top of car Door Open Button	00-0	0/0	in
706	TDCB	Top of car Door Close Button	00-0	0/0	in
707	RTDOB	Rear Top of car DOB	00-0	0/0	in
708	RTDCB	Rear Top of car DCB	00-0	0/0	in
709	EML	Evacuation Message Light	09-3	0/0	out

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I/O No	SYMBOL	DESCRIPTION	ACTUAL	DEF	TYPE
710	REML	Rear Evacuation Message Light	00-0	0/0	out
711	MF	Master Floor for REM	00-0	0/0	out
712	LND	Landing for REM	00-0	0/0	out
713	OOS	Out Of Service for REM	00-0	0/0	out
714	RISS	Rear Independent Service Switch	00-0	0/0	out
715	RGCB	Rear GCB	00-0	0/0	in
716	EFL	Emergency Fireman Light	00-0	0/0	in
717	GOOL	Group Out of Service Light	09-3	0/0	out
718	DHDI	Down Hall Direction Indicator	00-0	0/0	out
719	UHDI	Up Hall Direction Indicator	00-0	0/0	out
720	FR	Fireman Operation Relay	00-0	0/0	out
721	LNS-M	LNS in machine room	00-0	0/0	out
722	LWO-M	LWO in machine room	00-0	0/0	in
723	FCDGU	Front Car Direction Gong Up	00-0	0/0	in
724	FCDGD	Front Car Direction Gong Down	00-0	0/0	out
725	RRB	Rear Reset Button	00-0	0/0	out
726	XDSR	Delayed Start Relay for LSCH-2	00-0	0/0	in
727	AT20LRD	Light Ray Device for AT20	00-0	0/0	out
728	AT20RLRD	Rear Light Ray Device for AT20	00-0	0/0	out
729	ITLH	Incoming Traffic Light Hall	00-0	0/0	out
730	OTLH	Outgoing Traffic Light Hall	00-0	0/0	out
731	ITLC	Incoming Traffic Light Car	00-0	0/0	out
732	OTLC	Outgoing Traffic Light Car	00-0	0/0	out
733	DPC	Down Peak Clock	00-0	0/0	out
734	UPC	Up Peak Clock	00-0	0/0	in
735	DUPC	Dual Up Peak Clock	00-0	0/0	in
736	DUPL	Dual Up Peak Light	00-0	0/0	in
737	OOL	Out Of Order Light	00-0	0/0	out
738	EQL	Earthquake Light	00-0	0/0	out
739	ERL	Express Running Light	00-0	0/0	out
740	FDL	Further Demand Light	00-0	0/0	out
741	NSLH	Non Stop Light Hall	00-0	0/0	out
742	ARL	Auto Running Light	00-0	0/0	out
743	IL	In Use Light (for SAPB)	00-0	0/0	out
744	SROS	Seperate Riser Operation Switch	00-0	0/0	out
745	ISTS	Intermittent Sop Switch	00-0	0/0	in
746	HCOC	Hall Call Cutoff from Car	00-0	0/0	in
747	DHBL	Door Hold Button Light	01-0	1/0	in
748	RDHBL	Rear Door Hold Button Light	00-0	0/0	out
749	CHMI	Chime Board Initiate	00-0	0/0	out
750	CHMU	Chime Board Up Direction	00-0	0/0	out
751	SHBUZ	Shabbat Operation Door Buzzer	00-0	0/0	out
752	SHLH	Shabbat Operation Light Hall	00-0	0/0	out
753	PCLK 1	Park Car Clock 1	00-0	0/0	in
754	PCLK 2	Park Car Clock 2	00-0	0/0	in
755	PCLK 3	Park Car Clock 3	00-0	0/0	in
756	PCLK 4	Park Car Clock 4	00-0	0/0	in
757	PCLK 5	Park Car Clock 5	00-0	0/0	in
758	PCLK 6	Park Car Clock 6	00-0	0/0	in
759	PCLK 7	Park Car Clock 7	00-0	0/0	in
760	PCLK 8	Park Car Clock 8	00-0	0/0	in
761	CSA1	Car Secure Access Button 1	00-0	0/0	in
762	CSA2	Car Secure Access Button 2	SET	0/0	in
763	CSA3	Car Secure Access Button 3	BUTTON	0/0	in
764	CSA4	Car Secure Access Button 4	ADDRESS	0/0	in
765	CSA5	Car Secure Access Button 5	S TO BE	0/0	in
			CONF	0/0	in

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I/O No	SYMBOL	DESCRIPTION	ACTUAL	DEF	TYPE
766	CSA6	Car Secure Access Button 6	00-0	0/0	in
767	CSAC	Car Secure Access Clear Switch	07-2	0/0	in
768	CSAK	Car Secure Access Keyswitch	07-1	0/0	in
769	CSAL	Car Secure Access Light	00-0	0/0	out
770	GSAK	Group Secure Access Keyswitch	00-0	0/0	in
771	GSAL	Group Secure Access Light	00-0	0/0	out
772	AEFO	Alternative EFO	01-0	1/0	in
773	ASLDOB	Alternative Service Landing DOB	00-0	0/0	in
774	EFODOB	Emergency Fireman Operation DOB	00-0	0/0	in
775	XEFO	Override EFO	01-0	1/0	in
776	APC 0	Absolute Position Contact 0	00-0	0/0	in
777	APC 1	Absolute Position Contact 1	00-0	0/0	in
778	APC 2	Absolute Position Contact 2	00-0	0/0	in
779	APC 3	Absolute Position Contact 3	00-0	0/0	in
780	APC 4	Absolute Position Contact 4	00-0	0/0	in
781	APC 5	Absolute Position Contact 5	00-0	0/0	in
782	APC 6	Absolute Position Contact 6	00-0	0/0	in
783	TCIB	Top Of Car Inspection Button	15-3	1/0	in
784	PDS	Partition Door Switch	01-0	1/0	in
785	CMR	CAM Relay	00-0	0/0	out
786	DCDS	Disable-Call-And-Door-Switch	00-0	0/0	in
787	DCM	Door Closing Management	00-0	0/0	out
788	RDCM	Rear Door Closing Management	00-0	0/0	out
789	STOP	Stop Signal	00-0	0/0	out
790	OLDL	Overload Light	00-0	0/0	out
791	NDG_M	Nudging Signal in Machine Room	00-0	0/0	out
792	RNDG_M	Rear Nudging Signal in Machine Room	00-0	0/0	out
793	LEV	Level Signal for REM	00-0	0/0	in
794	-	-	00-0	0/0	-
795	PI7S-RA	CPI-3 / HPI-3	00-0	0/0	out
796	PI7S-RB	CPI-3 / HPI-3	00-0	0/0	out
797	PI7S-RC	CPI-3 / HPI-3	00-0	0/0	out
798	PI7S-RD	CPI-3 / HPI-3	00-0	0/0	out
799	PI7S-RE	CPI-3 / HPI-3	00-0	0/0	out
800	PI7S-RF	CPI-3 / HPI-3	00-0	0/0	out
801	PI7S-RG	CPI-3 / HPI-3	00-0	0/0	out
802	PI7S-LB	CPI-3 / HPI-3	00-0	0/0	out
803	PI7S-LC	CPI-3 / HPI-3	00-0	0/0	out
804	PI7S-LG	CPI-3 / HPI-3	00-0	0/0	out
805	UD	DOC-X: Up/Down	00-0	0/0	out
806	REV	DOC-X: Reversal	00-0	0/0	out
807	TI	Trouble Indicator for french SSM	00-0	0/0	out
808	RREV	DOC-X: Rear Reversal	00-0	0/0	out
809	LWDE	Load Weighing Device Electronical	00-0	0/0	out
810	DESB	Disable ESB Relay (Generic Firemen Service)	00-0	0/0	out
811	DDSR1	Disable DS Relay (Generic Firemen Service)	00-0	0/0	out
812	DEECR	Disable FEC Relay (Generic Firemen Service)	00-0	0/0	out
813	DSGSR	Disable SGS Relay (Generic Firemen Service)	00-0	0/0	out
814	UHDL 0-24	Up Hall Direction Lantern 0-24	00-0	0/0	out
846	DHDL 0-24	Down Hall Direction Lantern 0-24	00-0	0/0	out
878	OOL 0-24	Out Of Order Light 0-24	00-0	0/0	out
910	DOC 0-24	Door Open Contact 0 -24	00-0	0/0	in
942	BCP1	Binary Coded Position	00-0	0/0	out
943	BCP2	Binary Coded Position	00-0	0/0	out
944	BCP4	Binary Coded Position	00-0	0/0	out
945	BCP8	Binary Coded Position	00-0	0/0	out

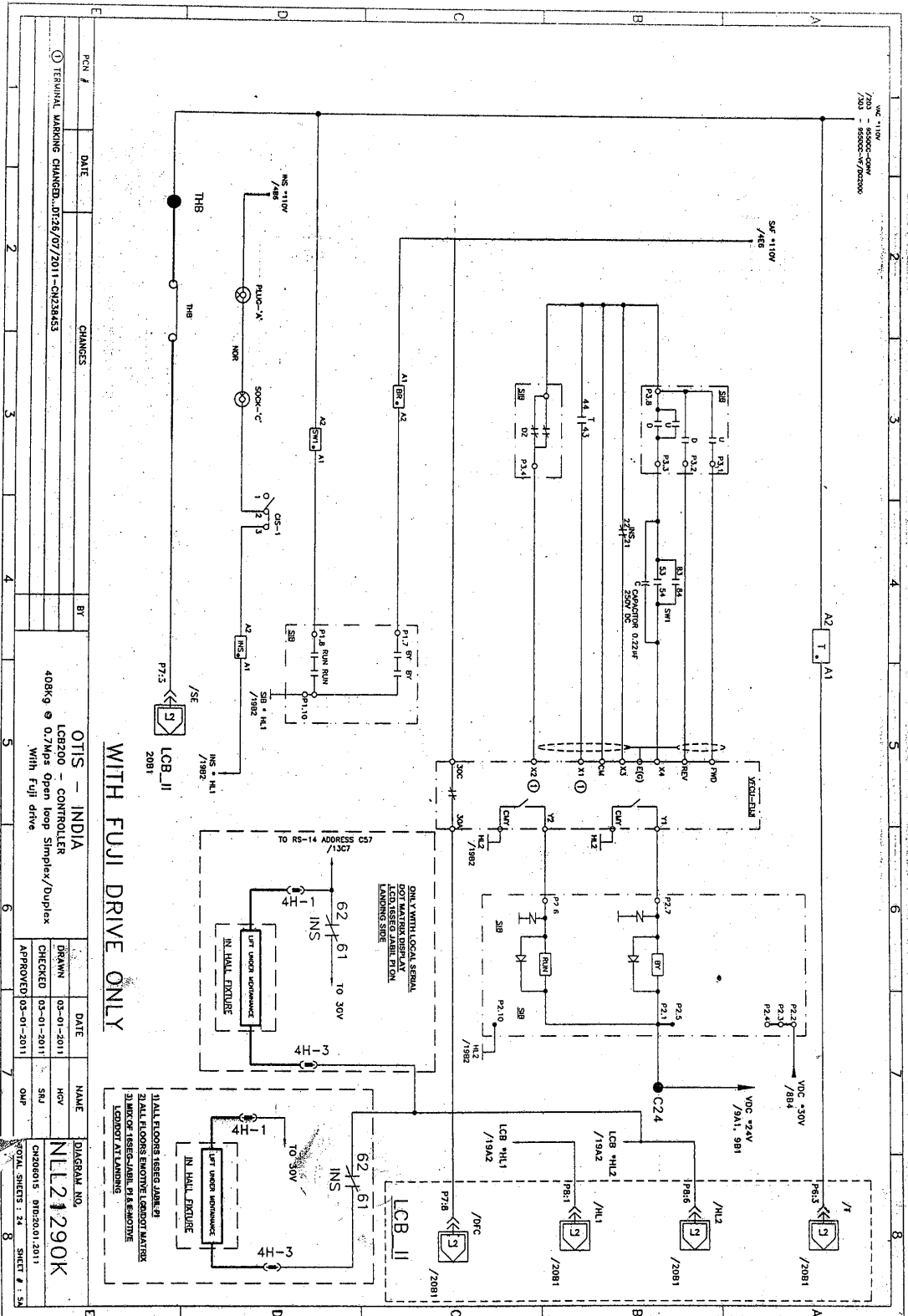
OTIS INDIA B.W		I - O LIST LCB-II WITH YASKAA L7 DRIVE CONTROLLER UP TO 24 STOPS. FOR MODELS ONLY	Prep By:Madhu Rev0. Date : 16-02-2007 Rev1. Date : 05-01-2008		
I/O No	SYMBOL	DESCRIPTION	ACTUAL	DEF	TYPE
946	BCP16	Binary Coded Position	00-0	0/0	out
947	CPMT	Car Position Message Trigger	00-0	0/0	out
948	DCMT	Door Close Message Trigger	00-0	0/0	out
949	DOMT	Door Open Message Trigger	00-0	0/0	out
950	EMMT	Emergency Message Trigger	00-0	0/0	out
951	OLMT	Overload Message Trigger	00-0	0/0	out
952	DDMT	Down Direction Message Trigger	00-0	0/0	out
953	UDMT	Up Direction Message Trigger	00-0	0/0	out
954	DNMT	Door Nudging Message Trigger	00-0	0/0	out
955	1EFS	1st Emergency Fire Service Car	00-0	0/0	in
956	2EFS	2nd Emergency Fire Service Car	00-0	0/0	in
957	EFOL	Emergency Fire Operation Light	00-0	0/0	out
958	CRFL	Car Returning to Floor Light	00-0	0/0	out
959	EFLM	Emergency Fire Light Machine Room	00-0	0/0	out
960	EFLTC	Emergency Fire Light Top of Car	00-0	0/0	out
961	CSABUZ	Buzzer for Car Secure Access	00-0	0/0	out
962	AT20NDG	Nudging for AT20	00-0	0/0	out
963	AT20RNDG	Rear Nudging for AT20	00-0	0/0	out
964	LRTS (OKR)	Light Ray Test Start	00-0	0/0	out
965	LRRCR	Light Ray Check Relay	00-0	0/0	in
966	RLRCR	Rear Light Ray Check Relay	00-0	0/0	in
967	LBG	Light Beam Gate	00-0	0/0	in
968	RLBG	Rear Light Beam Gate	00-0	0/0	in
969	ESBUZ	Emergency Stop Buzzer	00-0	0/0	in
970	DDSRC	Disable DS relay contact (Korean Fire Service)	00-0	0/0	out
971	DEMERC	Disable Emergency relay contact (Korea)	00-0	0/0	in
972	GSSI	Group Successive Starting In	00-0	0/0	in
973	GSSO	Group Successive Starting Out	00-0	0/0	in
974	DDSR2	Disable DS relay 2 (Korea)	00-0	0/0	out
975	DMOOS	Dot Matrix OOS (PI=5,6)	00-0	0/0	out
976	DMOLD	Dot Matrix OLD (PI=5,6)	00-0	0/0	in
977	GPIN1	General Purpose input 1.REV3. NEWLY ADDED	00-0	0/0	in
978	GPOUT1	General Purpose output 1.REV3. NEWLY ADDED	00-0	0/0	out
979	GPIN2	General Purpose input 2	00-0	0/0	in
980	GPOUT2	General Purpose output 2	00-0	0/0	in
981	GPIN3	General Purpose input 3	00-0	0/0	out
982	GPOUT3	General Purpose output 3	00-0	0/0	in
983	GPIN4	General Purpose input 4	00-0	0/0	out
984	GPOUT4	General Purpose output 4	00-0	0/0	in
985	GPIN5	General Purpose input 5	00-0	0/0	out
986	GPOUT5	General Purpose output 5	00-0	0/0	in
987	1LV	1LV for CSP-5	00-0	0/0	out
988	2LV	2LV for CSP-5	00-0	0/0	out
989	TARGET	enable DZ for CSP-5	00-0	0/0	out
990	LBGCHK	Light Beam Gate Check for CSP-5	00-0	0/0	out
991	DOOR_ST1	ST1 for front DO1000 (DCSS5)	09-2	0/0	out
992	DOOR_ST2	ST2 for front DO1000 (DCSS5)	10-2	0/0	out
993	DOOR_ST3	ST3 for front+rear DO1000 (DCSS5)	11-2	0/0	out
994	DOOR_ST1R	ST1 for rear DO1000 (DCSS5)	00-0	0/0	out
995	DOOR_ST2R	ST2 for rear DO1000 (DCSS5)	00-0	0/0	out
996	DOOR_ST3R	ST3 for rear DO1000 (DCSS5)	00-0	0/0	out
997	DDM	Deenergize Door Motor	00-0	0/0	out
998	RDDM	Deenergize Rear Door Motor	00-0	0/0	out
999	EFSL	Emergency Fire Service Light	09-3	0/0	out
1024	LNSL	Full light	56-2	0/0	out
1053	ATB	Attendant Buzzer.	14-4	0/0	out



PCN #	DATE	CHANGES
BY/TJS/02/0071	05-01-2008	
① AREA 705 & 701 REMOVE & DISCARD	ADDED - DT: 04-02-2009	

OTIS - INDIA
 LCB-200 CONTROLLER
 408V @ 0.75hp, 544KG, 680KG, 884KG @ 1hp
 WITH 5550C & 6550C-LV D099 OPERATOR ONLY
 SAMPLE OR DUPLICATE ONLY

DATE	NAME	DIAGRAM NO.
21-05-2007	MH	NLL21290K
21-05-2007	MH	CN205590 (DTD:17-01-2011)
21-05-2007	HNP	TOTAL SHEETS : 24 SHEET # : 4



PCN /	DATE	CHANGES	BY
①		TERMINAL MARKING CHANGED..07/26/07/2011-CH28453	

OTIS - INDIA
 LCB200 - CONTROLLER
 408kg @ 0.7Mps Open Loop Simplex/Duplex
 With Fuji drive

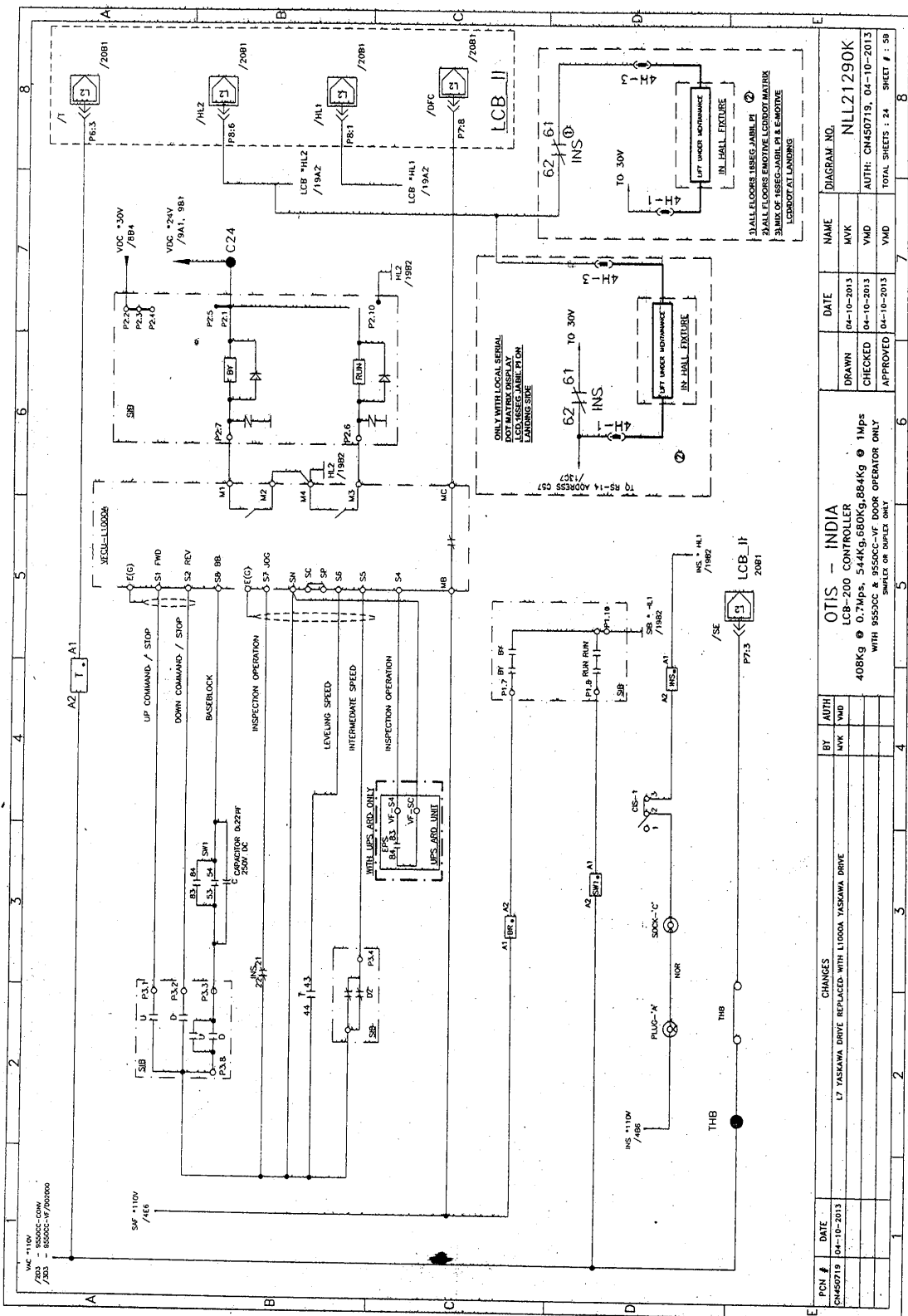
DATE	NAME	DRAWING NO.
03-01-2011	HCV	NLL21290K
03-01-2011	SK	
03-01-2011	OMP	

APPROVED: 03-01-2011

TOTAL SHEETS : 24 SHEET # : 5A

WITH FUJI DRIVE ONLY

- 1) ALL FLOORS, ISSUED JAN, 07
- 2) ALL FLOORS, EMOTIVE LIFTOT MATTER
- 3) ALL OF ISSUES, LABEL PIA & EMOTIVE LIFTOT AT LANDING



VMC 110V
 700 = 8050CC-VF/20000

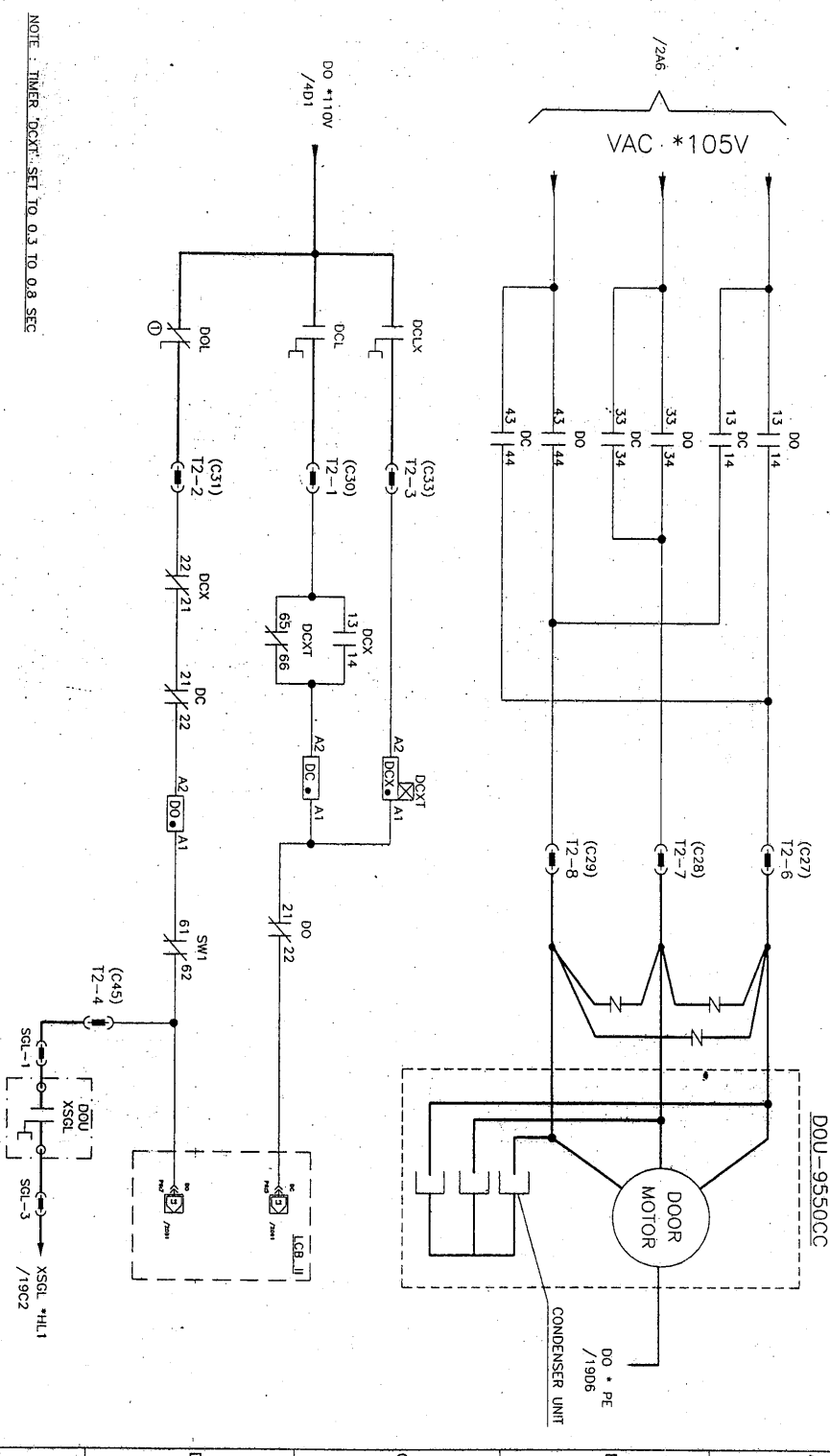
PCN #	DATE	CHANGES	BY	AUTH
CH450719	04-10-2013	L7 YASKAWA DRIVE REPLACED WITH L1000A YASKAWA DRIVE	MYK	YMD

PCN #	DATE	NAME	DIAGRAM NO.
	04-10-2013	MYK	CH450719, 04-10-2013
	04-10-2013	YMD	CH450719, 04-10-2013
	04-10-2013	YMD	CH450719, 04-10-2013

OTIS - INDIA LCB-200 CONTROLLER 408Kg @ 0.7Mps, 544Kg, 660Kg, 884Kg @ 1Mps WITH 9550CC # 9550CC-VF DOOR OPERATOR ONLY SELECT ON SWITCH ONLY	
1) ALL FLOORS USEG JAMBIL PI 2) ALL FLOORS EMOTIVE LCD DOT MATRIX 3) MIX OF USEG-JAMBIL PI & EMOTIVE LCB DOT AT LANDINGS	

TOTAL SHEETS : 24 SHEET # : 59

W/9550CC CONVENTIONAL DOOR OPERATOR



PCN #	DATE	CHANGES	BY
DW/ATS/07/0071	05-01-2008		
① CORRECTION ADDED -	DT:05-02-2009		

DATE	NAME	DIAGRAM NO.
21-05-2007	MH	NLL21290K
21-05-2007	MH	CN205590
21-05-2007	HNP	DTD:17-01-2011

DATE	NAME	DIAGRAM NO.
21-05-2007	MH	NLL21290K
21-05-2007	MH	CN205590
21-05-2007	HNP	DTD:17-01-2011

DATE	NAME	DIAGRAM NO.
21-05-2007	MH	NLL21290K
21-05-2007	MH	CN205590
21-05-2007	HNP	DTD:17-01-2011

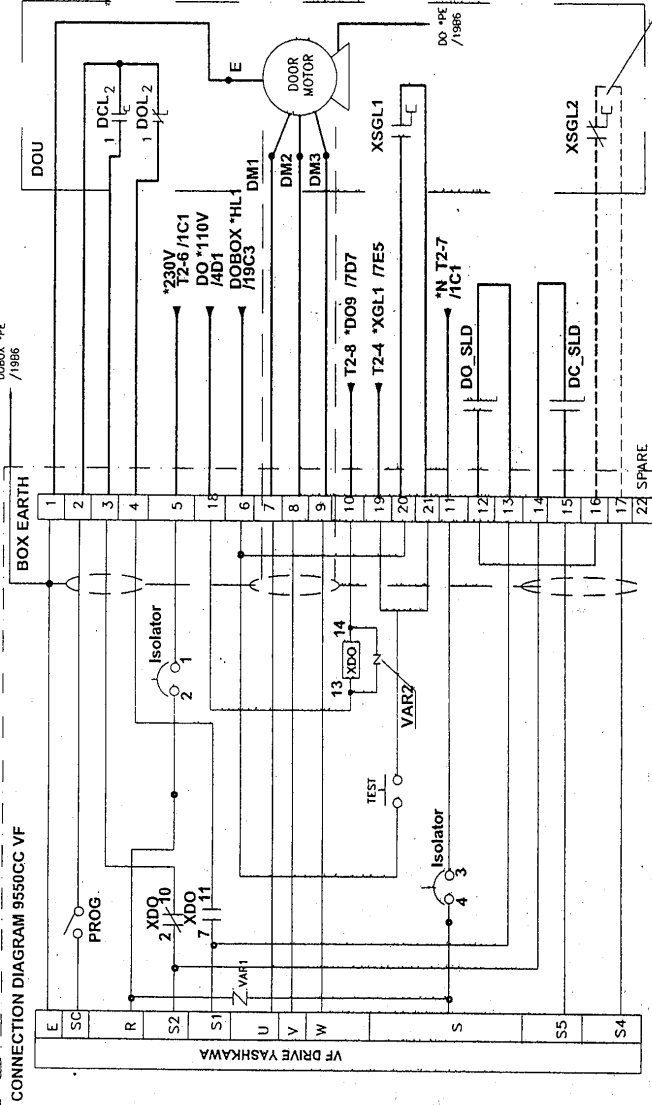
OTIS - INDIA
 LGB-200 CONTROLLER
 408KG @ 0.7Mps, 544KG, 680KG, 884KG @ 1Mps
 WITH 9550CC & 9550CC-VF DOOR OPERATOR ONLY
 SIMILAR OR DIFFER ONLY

APPROVED: [Signature] /1902

TOTAL SHEETS : 24
 SHEET # : 8

W/9550CC-VF DOOR OPERATOR w/ Yaskawa Drive

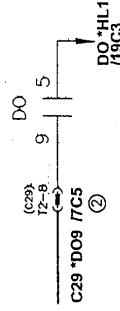
CONNECTION DIAGRAM 9550CC-VF



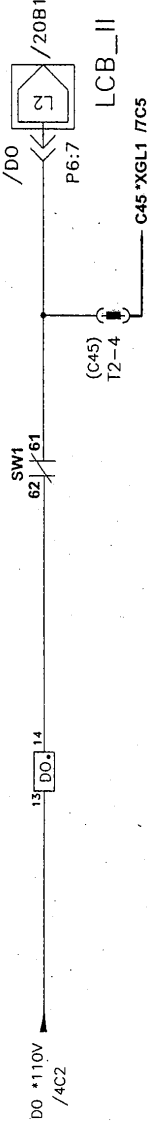
Parameter List 9550CC-VF
w/ J7 Yaskawa_door_drive

No.	Setting	DESCRIPTION	ADJUSTMENT
01	1	Run Command selection	0, 1, 12
02	1	Run Command selection	0, 1, 12
03	1	Stopping Method	1, 2
04	1	Stopping Method	1, 2
16	0.8	Accel 1	0.5 - 1
17	0.8	Accel 2	0.5 - 1
21	40	Freq Ref 1	15-25
22	20	Freq Ref 2	10-15
23	50	Freq Ref 3	10-20
24	15	Mag Frequency	10-15
29	20	Mag Frequency	10-20
32	1	Motor floated current	10-20
33	1	Thermal Protection	10-20
39	10	V/F Input 4	10-20
40	2	Power Loss	10-20
59	4	Overcurrent del function	0.1 - 0.5
60	100	Overvoltage del level	0.1 - 0.5
61	3	Overvoltage del time	0.1 - 0.5
62	0.1	Door Inverse delay	0.1 - 0.5
79	152	SOFTWARE VERSION NO	0.1 - 0.5

Note: 1. All other parameter as per default.
2. For going to Default Parameter - Enter '12' in NO1
3. To Lock parameter - Enter '0' in NO3



IF THE SWITCH IS NOT AVAILABLE ON THE UNIT
①
TERMINAL 16 & 17 ARE SHORTED

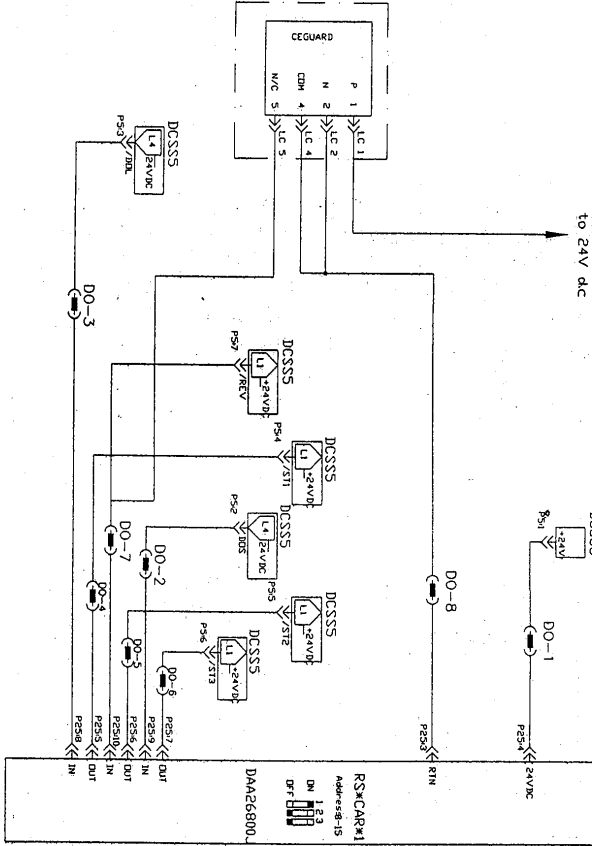
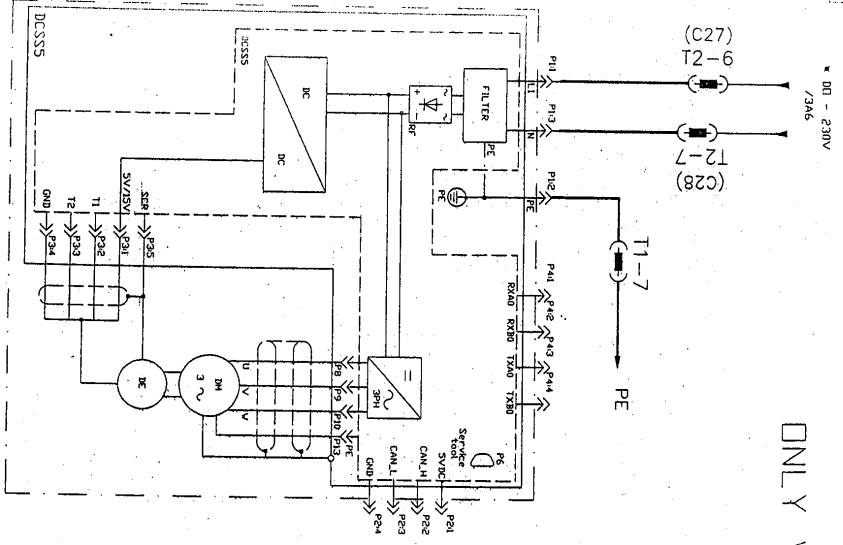


PCN #	DATE	CHANGES	BY
BW/FTS/07/0071	05-01-2008		
① W/9550CC-VF	25-04-2008		
② AREA CHANGED TO 752 FROM 755 - 0104-02-2009			

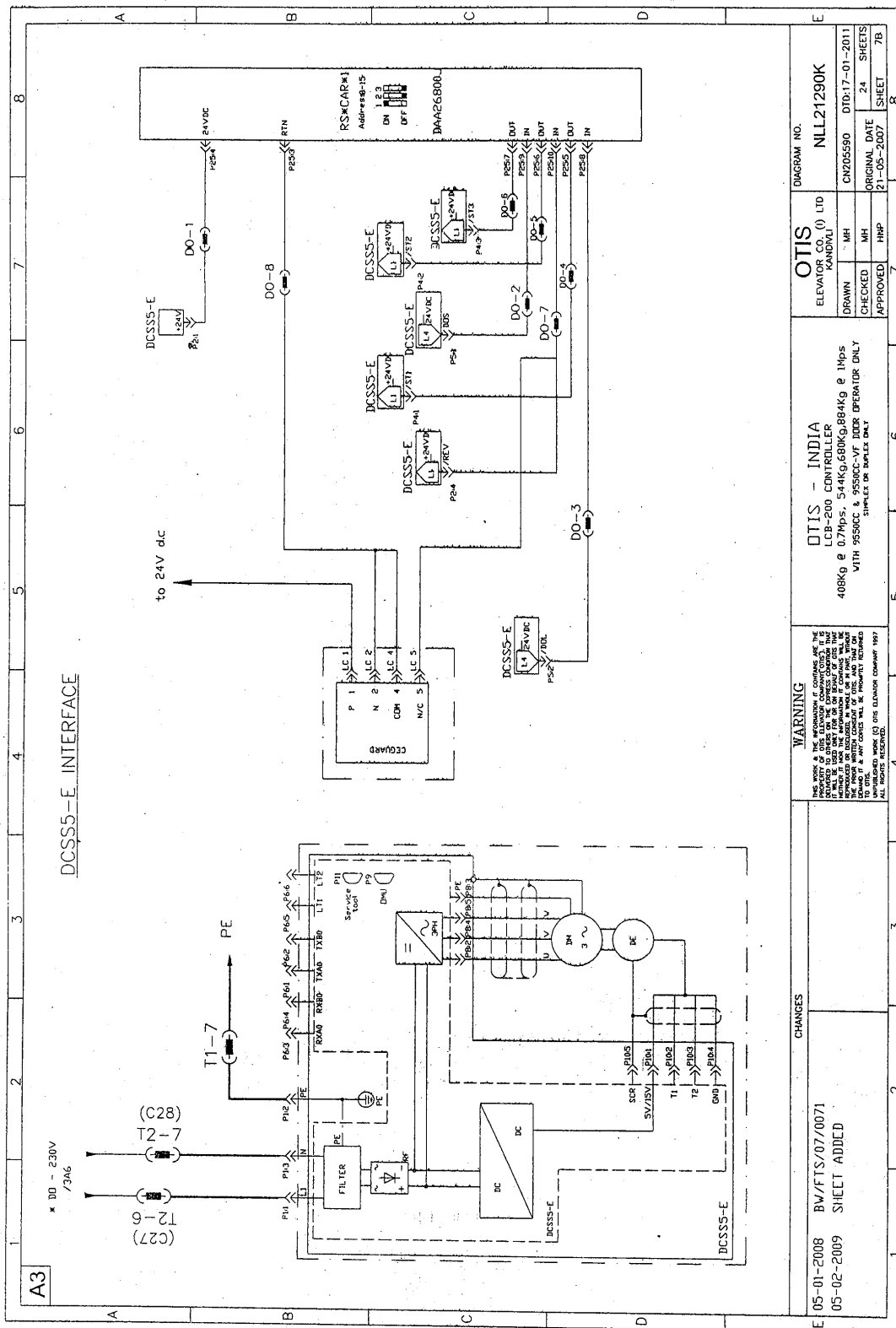
DIAGRAM NO.	NAME	DATE
NLL21290K	MH	21-05-2007
CN2055500	MH	21-05-2007
TOTAL SHEETS : 24	HNP	21-05-2007
SHEET # : 7		

OTIS - INDIA	LCB-200 CONTROLLER
408Kg @ 0.7Mps, 544Kg, 680Kg, 884Kg @ 1Mps	WITH 9550CC & 9550CC-VF DOOR OPERATOR ONLY
SIMPLEX OR DUPLEX ONLY	

ONLY W/DCSSS ①

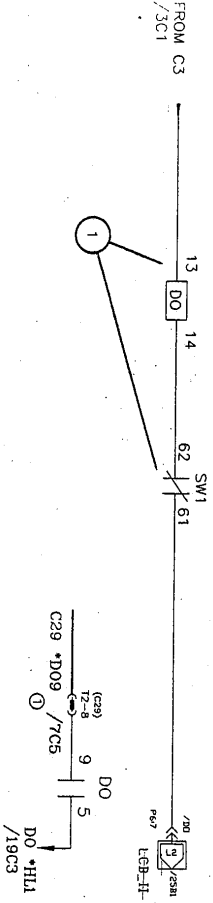
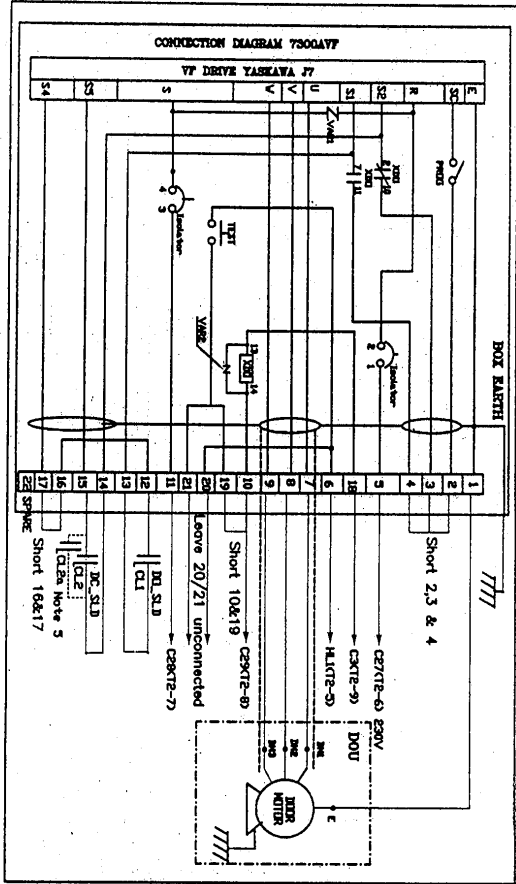


05-01-2008	BV/TS/07/0071	CHANGES	<p>WARNING</p> <p>THIS WORK IS THE PROPERTY OF OTIS AND IS TO BE KEPT IN THE POSSESSION OF THE CONTRACTOR. IT IS TO BE USED ONLY FOR THE PROJECT SPECIFICALLY IDENTIFIED IN THE CONTRACT DOCUMENTS. IT IS TO BE RETURNED TO OTIS AT THE END OF THE PROJECT. NO PARTS OR MATERIALS ARE TO BE REUSED OR REPAIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THIS WORK FROM DAMAGE AND THEFT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THIS WORK FROM DAMAGE AND THEFT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THIS WORK FROM DAMAGE AND THEFT.</p>
05-02-2009	① ADDED		
<p>DTIS - INDIA LCH-200 CONTROLLER 408KG @ 027m/s; 544KG @ 60KG @ 8.1m/s WITH 9590C-1, 9590C-1V, 100R OPERATOR ONLY SHOWN ON SHEETS ONLY</p>			<p>OTIS ELEVATOR CO. (I) LTD KANDIVALI DIAGRAM NO. NLT21290K</p>
DRAWN	MH	CN205590	
CHECKED	MH		24 SHEETS
APPROVED	HNP		21-05-2007
			SHEET 7A



DCSS5-E INTERFACE

A3		CHANGES		WARNING		OTIS - INDIA		ELEVATOR CO. (I) LID		DIAGRAM NO.	
05-01-2008		BW/FTS/07/0071		FOR WORK ON THIS ELEVATOR COMPARTMENT THE PROXIMITY OF THIS ELEVATOR COMPARTMENT TO THE MAIN ELECTRICAL PANEL IS TO BE KEPT IN MIND. IT WILL BE THE USER'S RESPONSIBILITY TO ENSURE THAT THE ELEVATOR IS SAFELY STOPPED AND THE MAIN ELECTRICAL PANEL IS LOCKED OUT AND GROUNDED BEFORE ANY WORK IS PERFORMED ON THE ELEVATOR. IF ANY WORK IS PERFORMED ON THE ELEVATOR, THE USER SHALL BE RESPONSIBLE FOR THE SAFETY OF THE ELEVATOR. ALL RIGHTS RESERVED.		LCB-200 CONTROLLER 408Kg e 0.7Mps, 544Kg, 680Kg, 864Kg e 1Mps WITH 9550CC & 9550CC-VF DIDER OPERATOR DAILY CHECKER OR SUPERVISOR		KANDIVI		NLL21290K	
05-02-2009		SHEET ADDED				WITH 9550CC & 9550CC-VF DIDER OPERATOR DAILY CHECKER OR SUPERVISOR		DRAWN		CN205590	
								CHECKED		DTD:17-01-2011	
								APPROVED		ORIGINAL DATE	
								HHP		24	
								SHEET		SHEET	
								21-05-2007		7B	



- DRG. nrt. 88550cc. v. 7300A.
 For 7300A:
 1. Short terminals 2,3 & 4 (Continuous power is required)
 2. Short 10 & 19
 3. Short 20 & 21
 4. Short 16&17
 5. C12a is required for doors => 1000mm

Parameter List 7300AVF
 w/ J7 Yaskawa door drive.

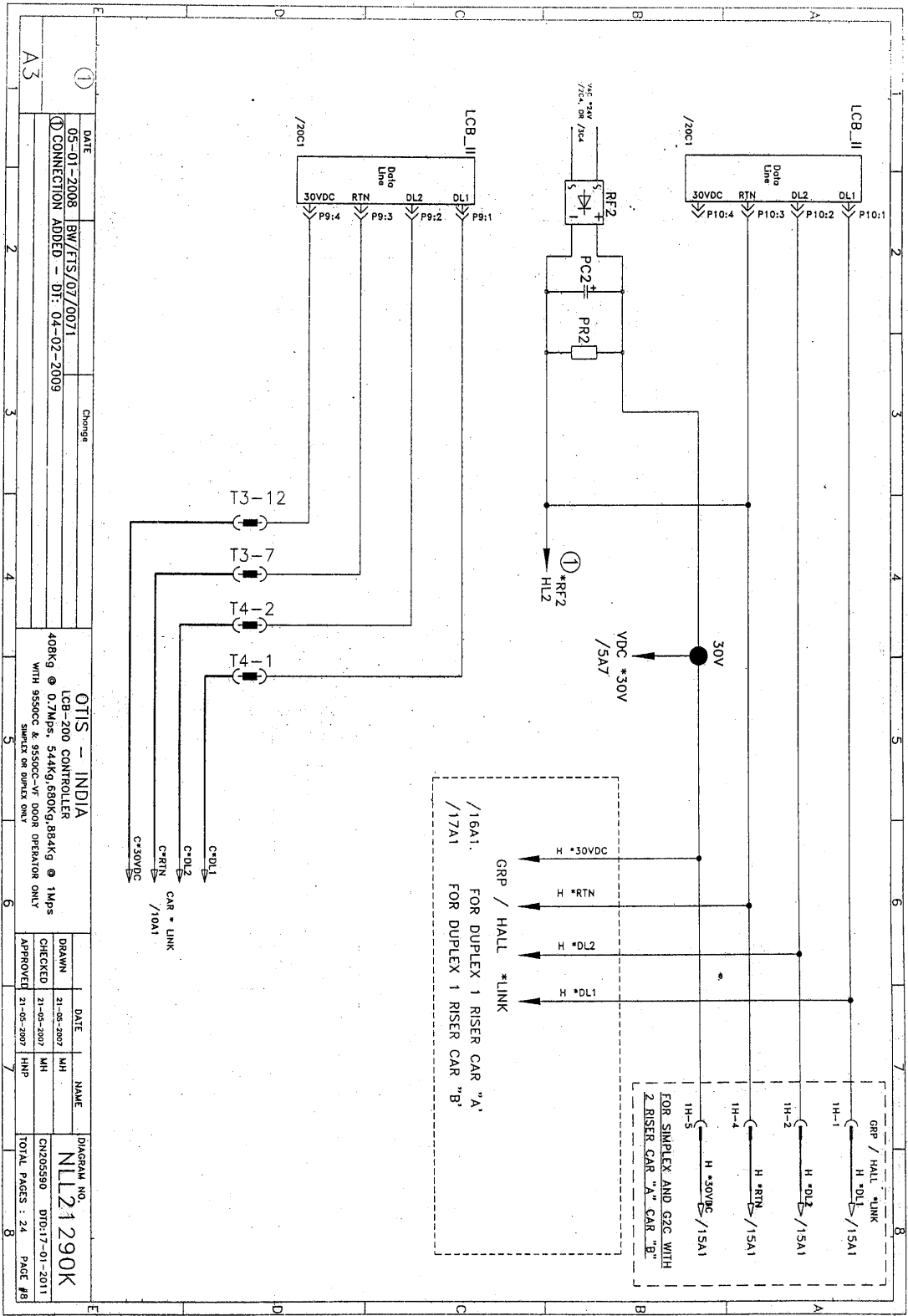
No.	Setting	DESCRIPTION	PARAMETER
01	1	Password	D. 1. 22
02	1	Run Command selection	
03	1	Free Reference	
04	1	Stalling method	10-138
10	1	Max. O/P voltage	1 - 2
16	1	Accel. 1	0.5 - 1
17	0.5	Decel. 1	
21	50	Freq Ref 1	10-25
22	20	Freq Ref 2	10-25
23	50	Freq Ref 3	10-25
24	15	Freq Ref 4	10-25
27	10	Freq Ref 7	10-25
28	20	Acc. Frequency	10-20
30	1.8	Motor Rated current	
32	1	Thermal Protection	
33	1	MF Inhibit 4	
34	1	Motor Start Inhibit	
35	2	Motor Start Inhibit	
36	100	Overcurrent det. level	
37	3	Overvoltage det. time	
38	1.1	Door Sensing delay	0.1 - 0.6
73	132	SOFTWARE VERSION	67

- Notes:
 1. All other parameters as per default.
 2. For getting to default Parameter - Enter '12' in N01
 3. To Lock parameter - Enter '0' in N01

PCN #	DATE	CHANGES	BY
		REV01 - CONDUCTOR TERMINAL IS CHANGED TO 131&14&15. METHOD OF A1A2122 AND MADE DO CONDUCTOR 33..... /09/2009	
2			
3			
4			
5			
6			
7			
8			

DTIS - INDIA
 LCB-II WITH YASKAWA - L7 DRIVE CONTROLLER

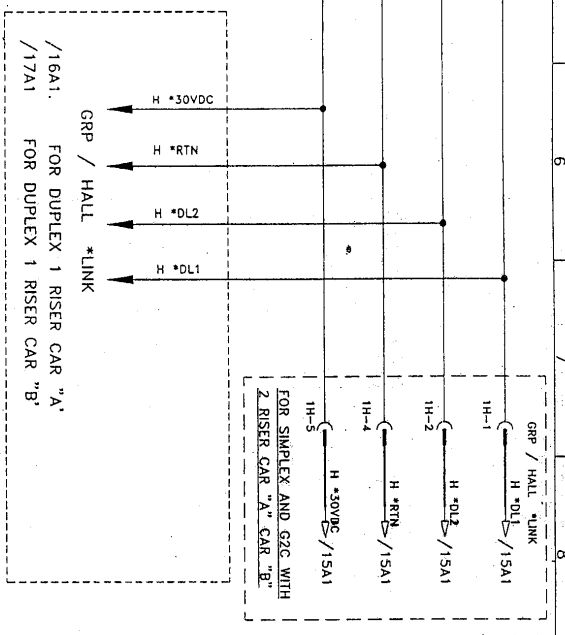
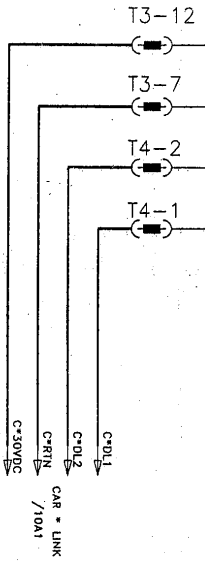
DATE	NAME	DIAGRAM NO.
12-06-2006	MH	NLE21290K
12-06-2006	MH	CH205590 DT117-01-2011
12-06-2006	MHP	TOTAL SHEETS : 29 SHEET # : 75

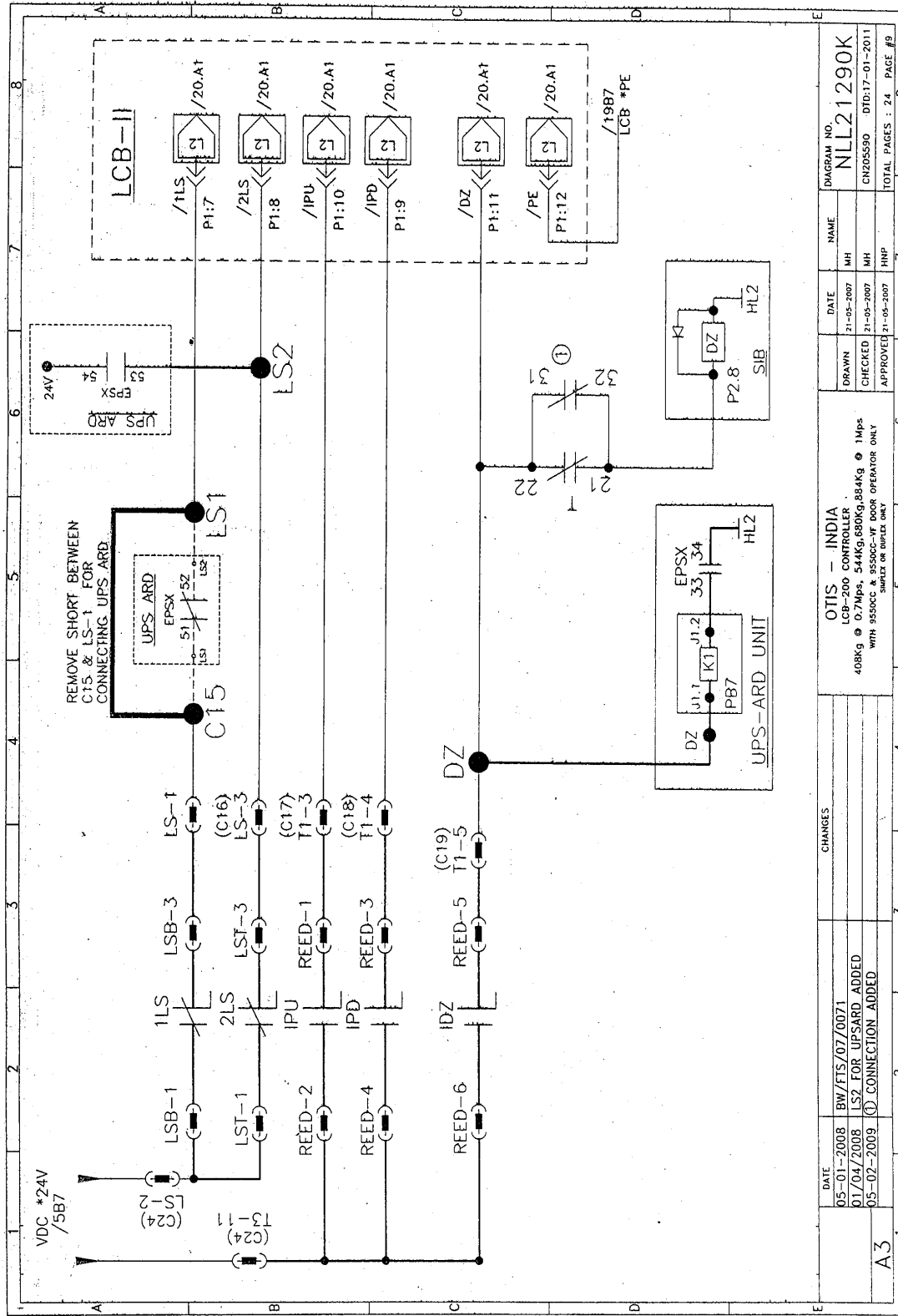


①	DATE	05-01-2008	BW/FTS/07/00071	Change
	① CONNECTION ADDED - DT: 04-02-2009			

OTIS - INDIA
 LCB-200 CONTROLLER
 408Kg @ 0.7Mps, 544Kg, 680Kg, 884Kg @ 1Mps
 WITH 9550CC & 9550CC-VF DOOR OPERATOR ONLY
 SIMPLEX OR DUPLEX ONLY

DRAWN	DATE	NAME	DWG/PRJ. NO.
21-05-2007	MH		NLL21290K
CHECKED	DATE	NAME	
21-05-2007	MH		CN205580 DTG:17-01-2011
APPROVED	DATE	NAME	
21-05-2007	HNP		TOTAL PAGES : 24 PAGE #8

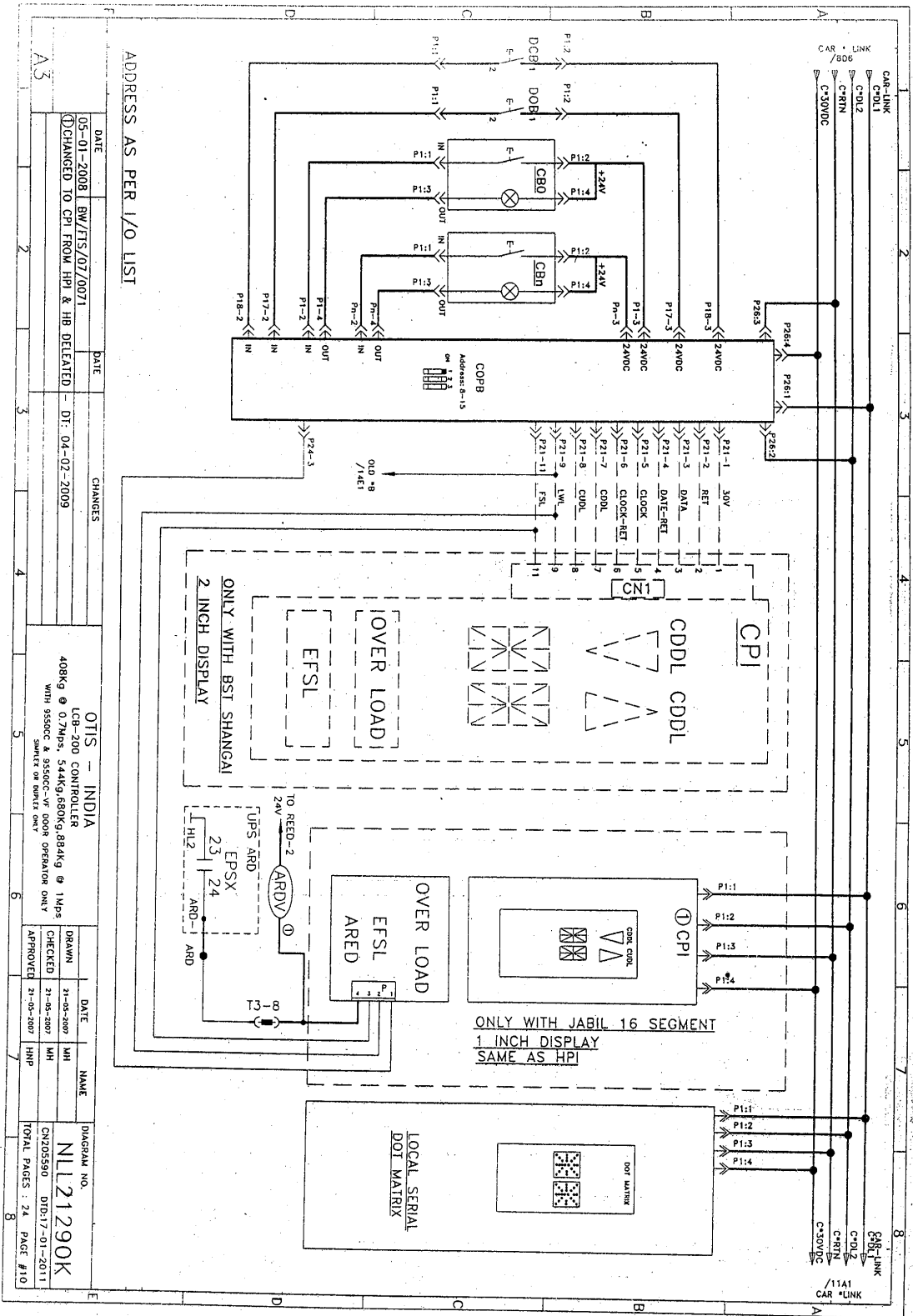




DATE	CHANGES	DIAGRAM NO.	NAME	DATE	DATE
05-01-2008	BW/FTS/07/0071	NLL21290K	MH	21-05-2007	21-05-2007
01/04/2008	LS2 FOR UPSARD ADDED		MH	21-05-2007	21-05-2007
05-07-2009	① CONNECTION ADDED		MH		
			HNP		

OTIS - INDIA
LCB-200 CONTROLLER
408kg @ 0.7Mps, 544kg, 680kg, 884kg @ 1Mps
WITH 9550CC-VF DOOR OPERATOR ONLY
SUBJECT TO PURCHASE ONLY

TOTAL PAGES : 24 PAGE #8



ADDRESS AS PER I/O LIST

DATE	BY/T/S	DATE	CHANGES
05-01-2008	BW/T/S/07/0071		
CHANGED TO CP FROM HPI & HB DELETED			
		04-02-2009	

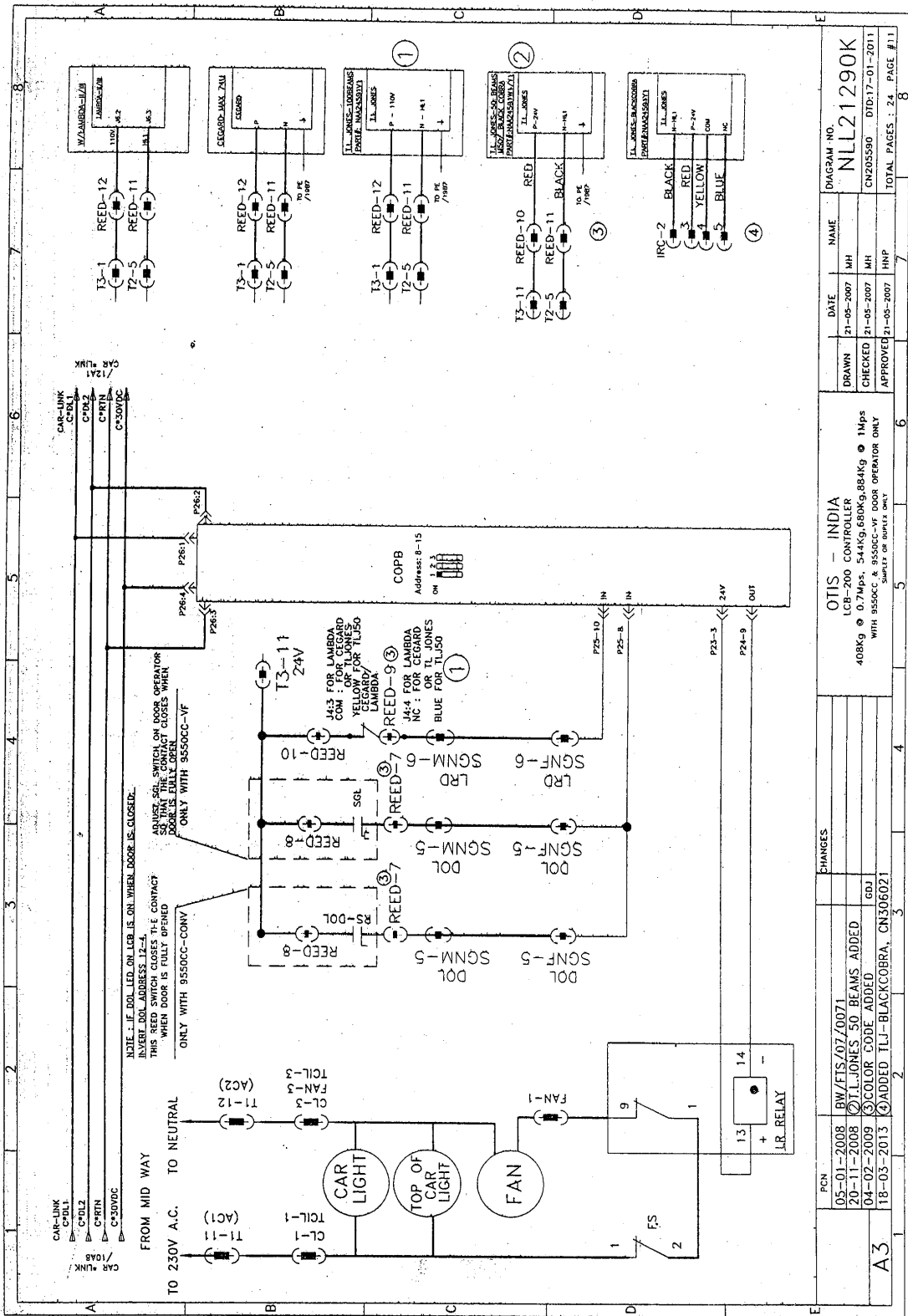
DATE	NAME	DIAGRAM NO.
21-05-2007	MH	NLL21290K
21-05-2007	MH	CN205590
21-05-2007	MHP	DIR:17-01-2011

DATE	NAME	DIAGRAM NO.
21-05-2007	MH	NLL21290K
21-05-2007	MH	CN205590
21-05-2007	MHP	DIR:17-01-2011

OTIS - INDIA
 LCB-200 CONTROLLER
 408Kg @ 0.7MPS, 544Kg-680Kg, 884Kg @ 1MPS
 WITH 9550CC & 9550CC-VF DOOR OPERATOR ONLY
 SUPPLY OR DIRECT ONLY

DRAWN: 21-05-2007
 CHECKED: 21-05-2007
 APPROVED: 21-05-2007

TOTAL PAGES : 24 PAGE #10



NOTE: IF DOL LED ON LCB IS ON WHEN DOOR IS CLOSED.
 INVERT DOL ADDRESS 12-4.
 THIS REED SWITCH CLOSING THE CONTACT
 WHEN DOOR IS FULLY OPENED
 ONLY WITH 9550CC-CONV

ADJUST SET SWITCH ON DOOR OPERATOR
 CONTACT CLOSING WHEN
 DOOR IS FULLY OPENED
 ONLY WITH 9550CC-VF

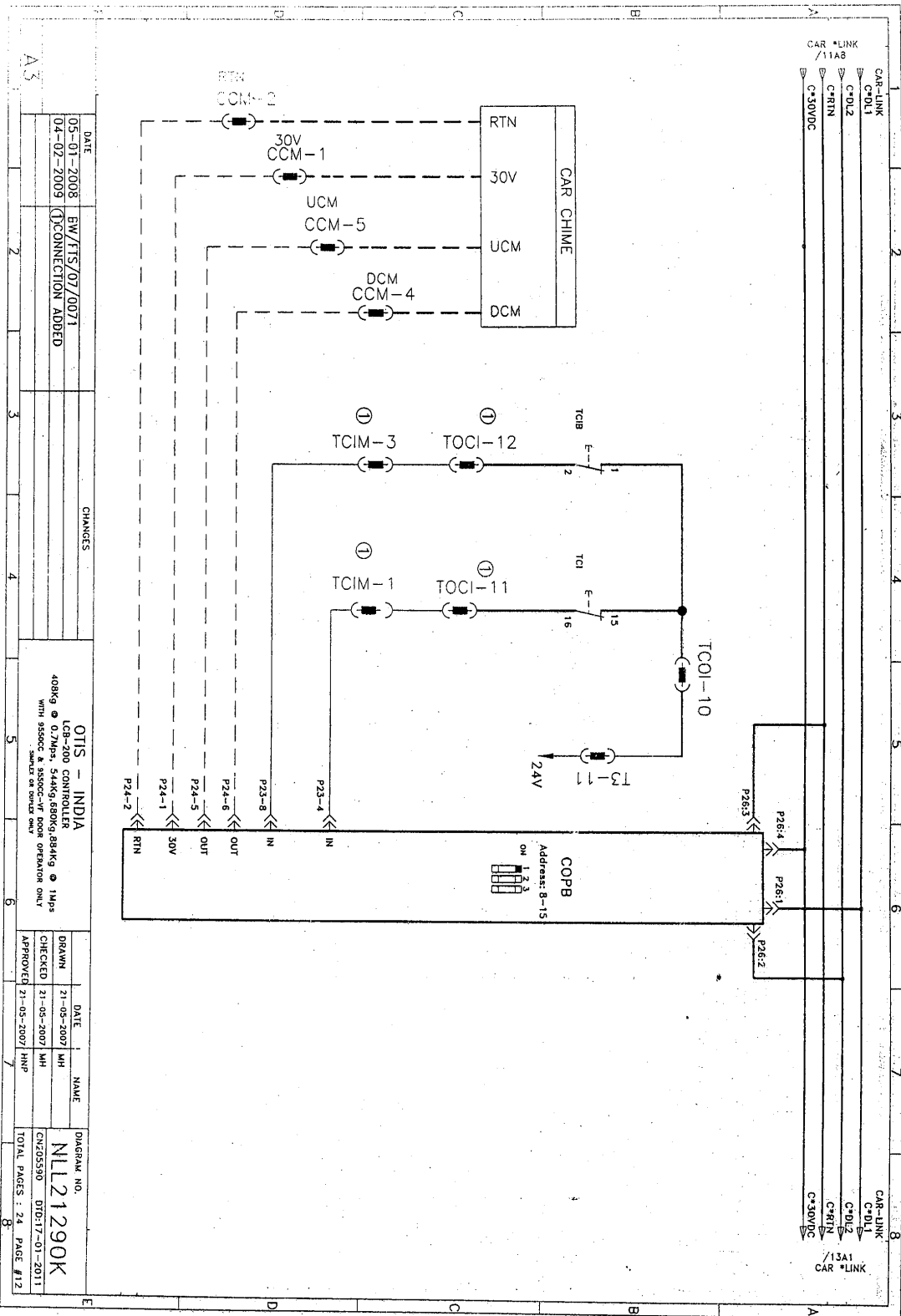
J4-3 FOR LAMBDA
 COM: OR TL JONES
 YELLOW FOR TLJ50
 LAMBDA

J4-4 FOR LAMBDA
 COM: OR TL JONES
 BLUE FOR TLJ50
 LAMBDA

IRC-2 BLACK
 3 RED
 4 YELLOW
 5 BLUE

PCN		CHANGES		DATE		NAME		DIAGRAM NO.	
05-01-2008		BW/FIS/07/0071		21-05-2007		MH		NLL21290K	
20-11-2008		OT.L.JONES 50 BEAMS ADDED		21-05-2007		MH		CN205590	
04-02-2009		3) COLOR CODE ADDED		21-05-2007		HHP		01D:17-01-2011	
18-03-2013		4) ADDED TLJ-BLACK COBRA, CN306021		21-05-2007		HHP		TOTAL PAGES: 24 PAGE #11	

A3



DATE	DESCRIPTION
05-01-2008	EW/ETS/07/0071
04-02-2009	① CONNECTION ADDED

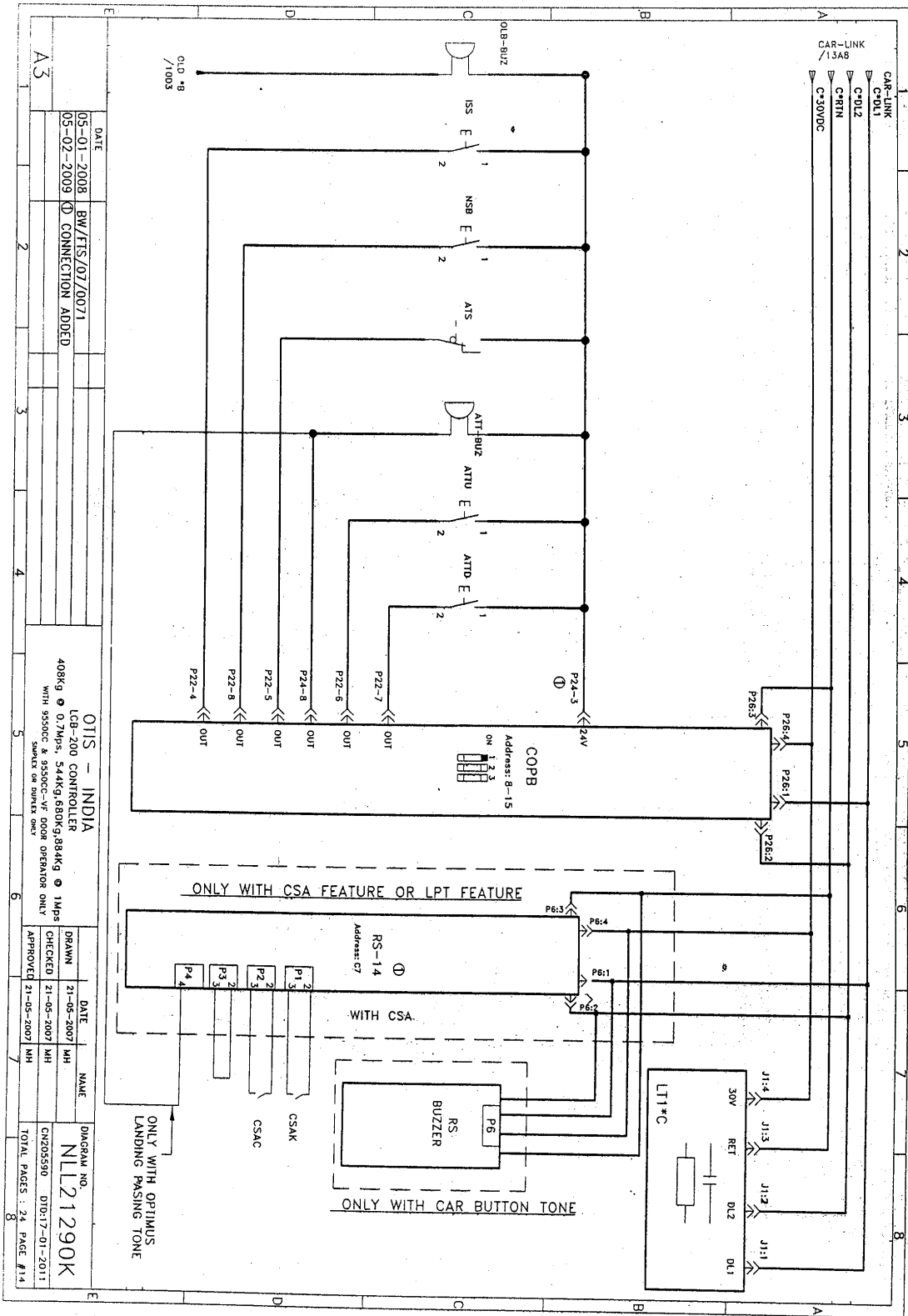
CHANGES
1
2
3
4

OTIS - INDIA
 LCB-200 CONTROLLER
 408Kg @ 0.7Mps 544Kg @ 0.84Kg @ 1Mps
 WITH 950DC & 850DC-VP DOOR OPERATION ONLY
 MODEL NO. 1500-200

DATE	NAME
21-05-2007	MH
21-05-2007	MH
21-05-2007	HNP

DRAWN
 CHECKED
 APPROVED

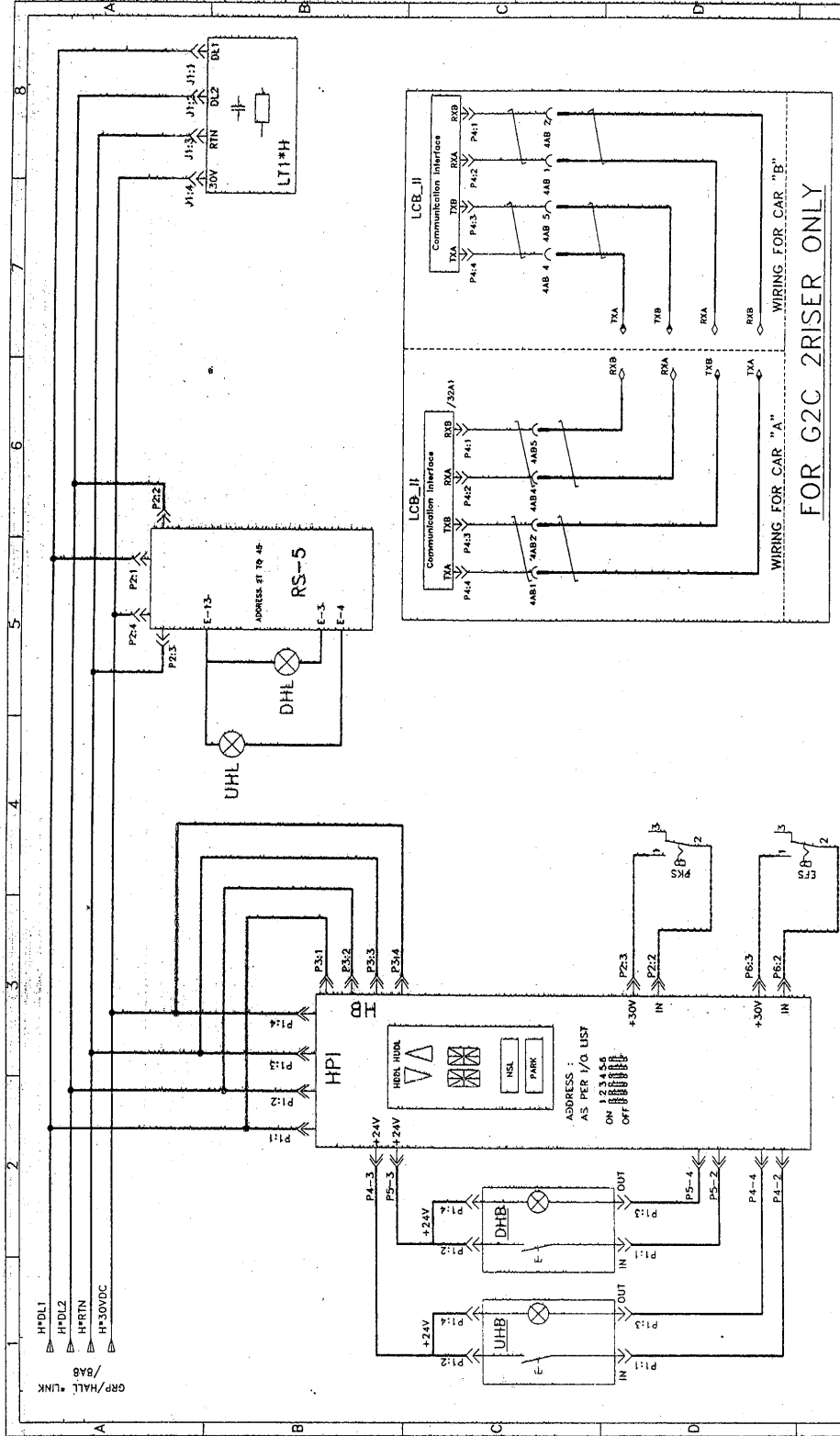
DIAGRAM NO.
 NLL21290K
 EN202590
 DTD:17-01-2011
 TOTAL PAGES : 24 PAGE #12



DATE	05-01-2008	BW/ETS/07/0071
DATE	05-02-2009	CONNECTION ADDED
DATE	21-05-2007	MH
DATE	21-05-2007	MH
DATE	21-05-2007	MH

OTIS - INDIA
 LTB-200 CONTROLLER
 408Kg @ 0.7Mps, 544Kg, 680Kg, 884Kg @ 1Mps
 WITH 9550CC & 9530CC-VF DOOR OPERATOR ONLY
 SUBJECT TO QUOTES ONLY

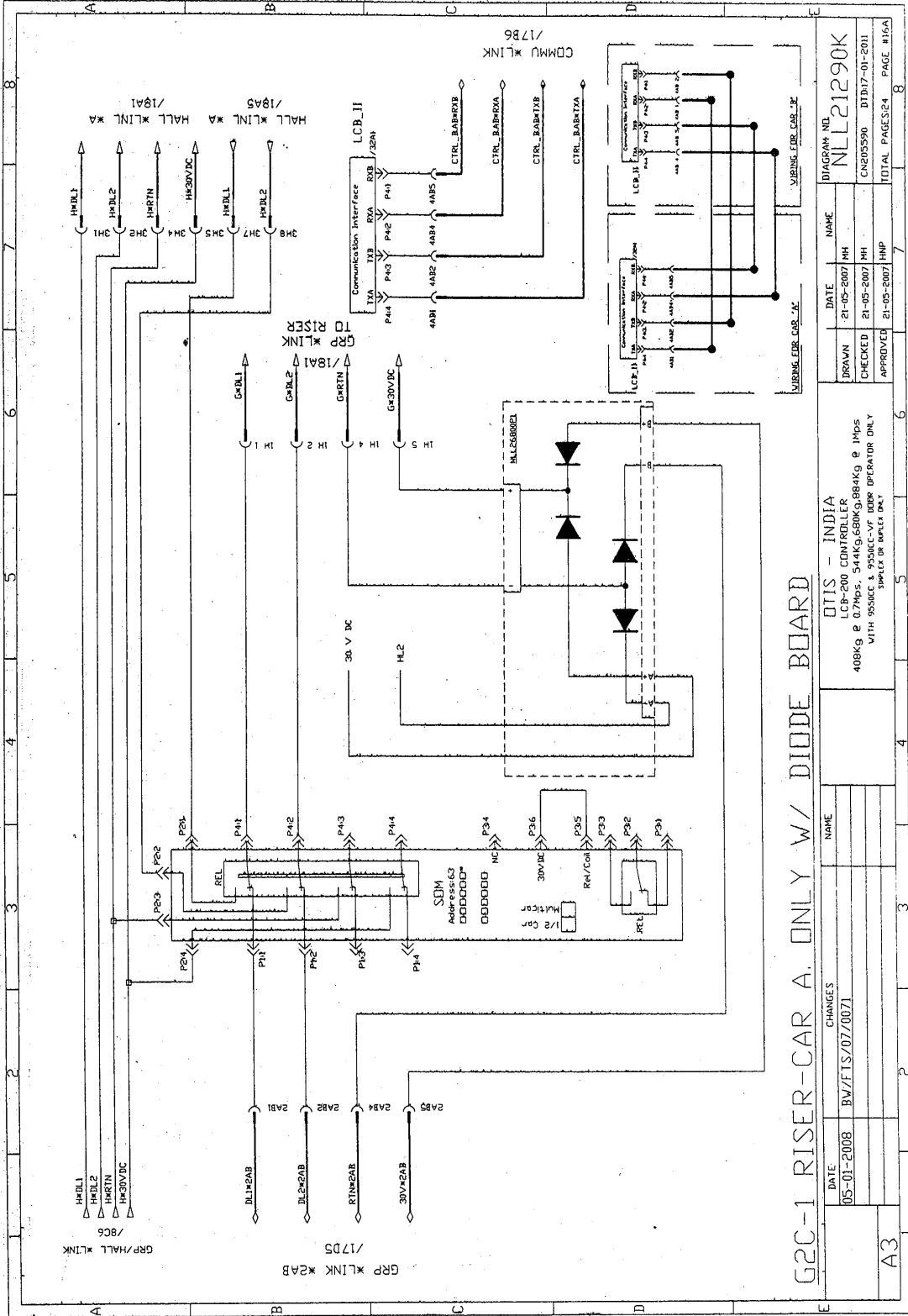
DRAWN	21-05-2007	MH	DIAGRAM NO.	NLL21290K
CHECKED	21-05-2007	MH	CN205590	DT0117-01-2011
APPROVED	21-05-2007	MH	TOTAL PAGES :	24 PAGE #14



ONLY FOR SIMPLEX OR G2C, 2RISER CAR "A" & "B" FOR ADDRESS REFER I/O LIST

DATE		DIAGRAM NO.	
05-01-2008		NLL21290K	
BW/FIS/07/0071		NAME	
		OTIS - INDIA	
		LCB-200 CONTROLLER	
		408Kg @ 0.7Mps, 544Kg, 680Kg, 884Kg @ 1Mps	
		WITH 9550CC & 9550CC-VF DOOR OPERATOR ONLY	
		SIMPLEX OR DUPLEX ONLY	
		DRAWN 21-05-2007 MH	
		CHECKED 21-05-2007 MH	
		APPROVED 21-05-2007 HNP	
		CIN205590 DTD:17-01-2011	
		TOTAL PAGES : 24 PAGE #15	

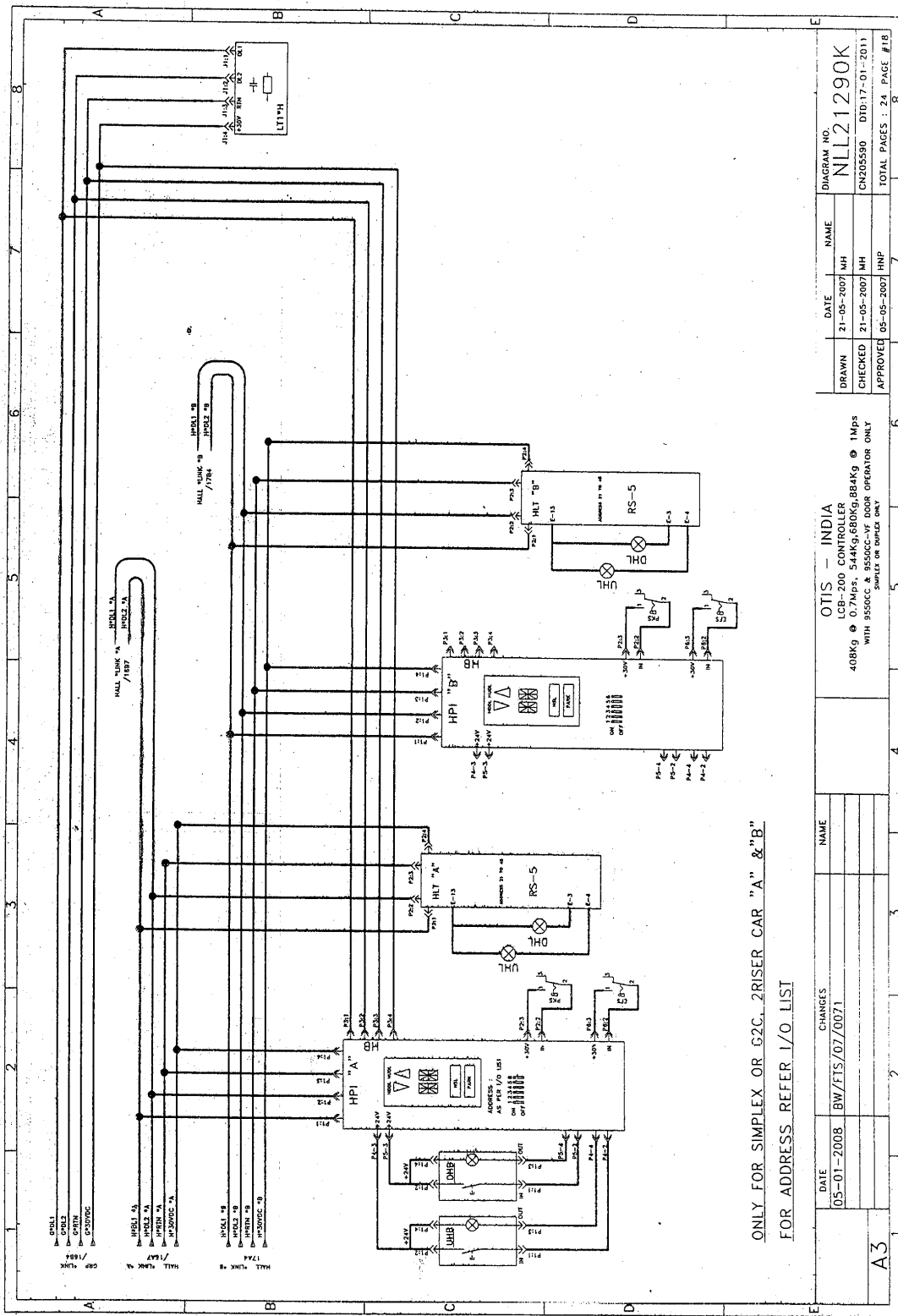
A3



G2C-1 RISER-CAR A. ONLY W/ DIODE BOARD

DATE	CHANGES	NAME	DATE	NAME	DIAGRAM NO.
05-01-2008	BV/FIS/07/0071		21-05-2007	IHI	NULL21290K
OTIS - INDIA LCP-200 CONTROLLER 408Kg, p 0.7Mds, S44Ks, 680Kg, 884Kg, p 1Mds WITH 9550CC & 9550CC-VF BOARD OPERATOR ONLY SIMPLEX OR DUPLEX ONLY			CHECKED	21-05-2007	CN205590
			APPROVED	21-05-2007	DTD17-01-2011
			TOTAL PAGES: 24 PAGE #15A		

A3



ONLY FOR SIMPLEX OR G2C, 2RISER CAR "A" & "B"
 FOR ADDRESS REFER I/O LIST

DATE	CHANGES	NAME	DATE	NAME
05-01-2008	BW/FTS/07/0071		21-05-2007	MH
			21-05-2007	MH
			05-05-2007	HNP

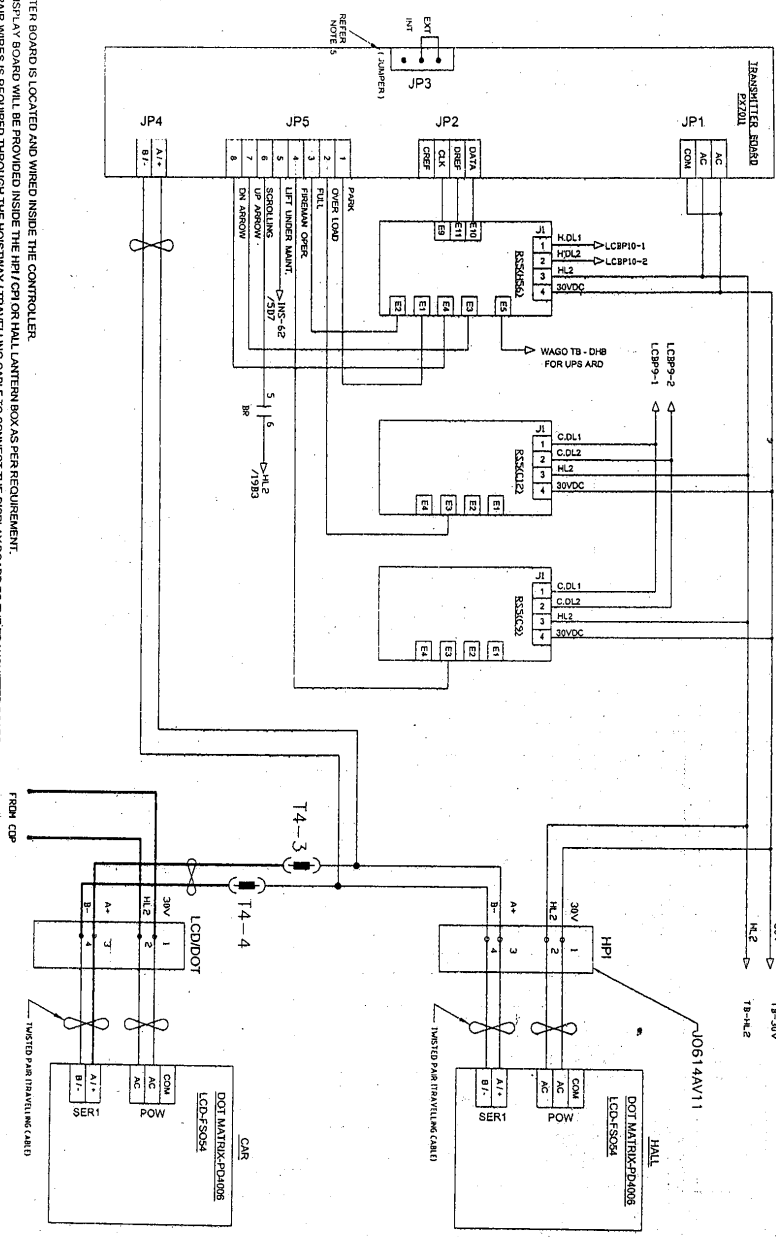
DIAGRAM NO.	NLL21290K
DRAWN	21-05-2007 MH
CHECKED	21-05-2007 MH
APPROVED	05-05-2007 HNP
TOTAL PAGES	24 PAGE #18

OTIS - INDIA
 LCB-200 CONTROLLER
 408Kg @ 0.7Mps, 544Kg, 680Kg, 884Kg @ 1Mps
 WITH 8550CC-1000R OPERATOR ONLY
 MODEL NO. 1000R-1000

A3

A3

LCD/DOT MATRIX INTERFACE - CAR HALL ONLY WITH DISCRETE DOT MATRIX FROM E-MOTIVE/LCD WITH TRANSMITTER BOARD



NOTES:

1. TRANSMITTER BOARD IS LOCATED AND WIRED INSIDE THE CONTROLLER.
2. EACH LCD/DOT MATRIX BOARD WILL BE PROVIDED INSIDE THE HPI/CPH OR HALL LANTERN BOX AS PER REQUIREMENT.
3. TWISTED PAIR WIRES IS REQUIRED THROUGH THE HOISTWAY / TRAVELLING CABLE TO CONNECT THE DISPLAY BOARD TO THE TRANSMITTER BOARD.
4. MAKE SURE THAT THE TWISTED PAIR IS CONNECTED CORRECTLY AS PER *+ POLARITY OR ELSE THE DISPLAY BOARD WILL INDICATE *****
5. REFER TO WAGO TB-DIB FOR UPS BOARD.
6. REFER TO WAGO TB-DIB FOR UPS BOARD.
7. REFER TO WAGO TB-DIB FOR UPS BOARD.
8. REFER TO WAGO TB-DIB FOR UPS BOARD.
9. REFER TO WAGO TB-DIB FOR UPS BOARD.
10. REFER TO WAGO TB-DIB FOR UPS BOARD.

REV: 01 2008 BV/FTS/07/0071

CHANGES

NO.	DESCRIPTION	DATE	BY
1	ISSUED FOR WORK	07/07/07	BV/FTS
2	ISSUED FOR WORK	07/07/07	BV/FTS
3	ISSUED FOR WORK	07/07/07	BV/FTS
4	ISSUED FOR WORK	07/07/07	BV/FTS
5	ISSUED FOR WORK	07/07/07	BV/FTS
6	ISSUED FOR WORK	07/07/07	BV/FTS
7	ISSUED FOR WORK	07/07/07	BV/FTS
8	ISSUED FOR WORK	07/07/07	BV/FTS

WARNING

THE WIRING OF THIS EQUIPMENT IS COMPLETED BY THE PERSONNEL OF THE ELEVATOR COMPANY ONLY. IT IS NOT TO BE TOUCHED OR REWired BY ANY OTHER PERSON. IF YOU ARE NOT SURE OF THE WIRING, CONTACT THE ELEVATOR COMPANY. THE WIRING IS TO BE DONE IN ACCORDANCE WITH THE WIRING DIAGRAM AND THE WIRING INSTRUCTIONS PROVIDED WITH THE EQUIPMENT. THE WIRING IS TO BE DONE IN ACCORDANCE WITH THE WIRING DIAGRAM AND THE WIRING INSTRUCTIONS PROVIDED WITH THE EQUIPMENT. THE WIRING IS TO BE DONE IN ACCORDANCE WITH THE WIRING DIAGRAM AND THE WIRING INSTRUCTIONS PROVIDED WITH THE EQUIPMENT.

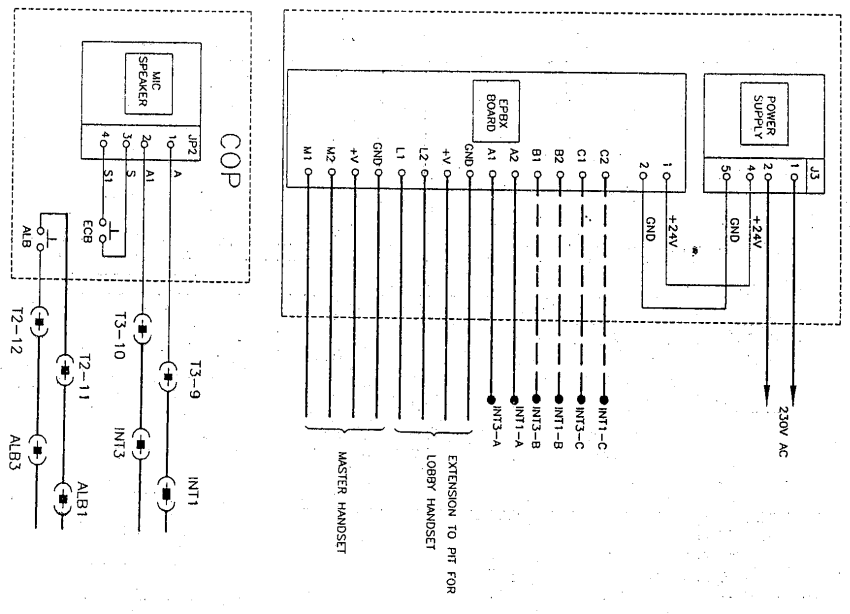
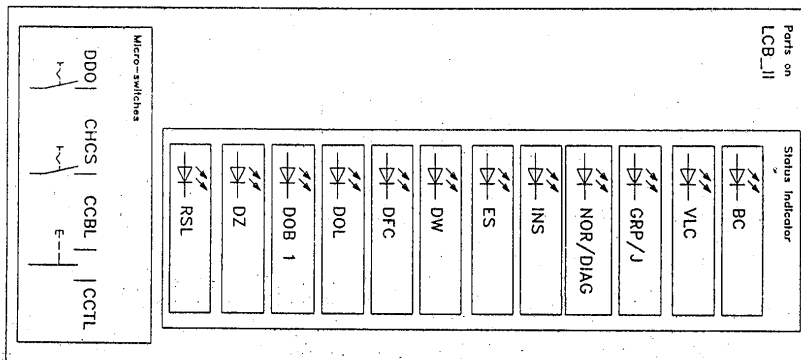
OTIS - INDIA
ELEVATOR CO. (I) LTD.
KANDIVALI

DOT MATRIX-PD4008
DOT MATRIX-S004
LCD/DOT

DIAGRAM NO. NLL21290K
DRAWN: M.H.
CHECKED: V.M.
APPROVED: M.H.P.
ORIGINAL DATE: 01-12-2006
SHEET: 24
SHEETS: 18A

PC-BOARD : LCB_II

PINNAME	SIGNAL MARKING	LOC.
P111	/J	2A3, 3A3
P112		
P812		
P814	24V. A.C.	2C5, 3C5
P816	HL2	5B7
P818	HL1	5B7
P121	/BC	205, 305
P122		
P714	/NS	4A8
P715	/ES	4B8
P716	/DW	4B8
P717	/DIB	4C8
P718	/SE	5E3
P719	/DFC	5C8
P811	/DI	4C8
P812	/DI	4C8
P813	/DC	5A8
P814	/DC	607
P815	/DC	607, 706
P91		
P92	CAR LINK	802
P93		
P101		
P102	HALL LINK	8A2
P103		
P41		
P42	GROUPING	16C6, 17B7
P43		
P44		
P112		
P113		
P114		
P115		
P116		
P117		
P118		
P119		
P120		
P121		
P122		



DATE	CHANGES	NAME
05-01-2008	BW/ITS/07/0071	

OTIS - INDIA
LCB-200 CONTROLLER
408Kg @ 0.7Mps, 544Kg, 680Kg, 884Kg @ 1Mps
WITH 9550CC & 9550CC-VF DOOR OPERATOR ONLY
SIMULT. OR BURST ONLY

DATE	NAME	DIAGRAM NO.
21-05-2007	MH	NLL21290K
21-05-2007	MH	CN205590
21-05-2007	HHP	D10-17-01-2011

TOTAL PAGES : 24 PAGE #20

CORRT No.	DESCRIPTION	DATA
A1-00	SELECT LANGUAGE	0
A1-01	LEVEL ACCESS	2->0
A1-02	CONTROL METHOD	3
A1-03	ACCELERATION TIME 1	SEC 3.0
A1-04	ACCELERATION TIME 2	SEC 3.0
A1-05	ACCELERATION TIME 3	SEC 1.5
A1-06	ACCELERATION TIME 4	SEC 0
A1-07	ACCELERATION TIME 5	SEC 0
A1-08	ACCELERATION TIME 6	SEC 0
A1-09	ACCELERATION TIME 7	SEC 0
A1-10	ACCELERATION TIME 8	SEC 0
A1-11	ACCE./DEC. SMOOTHING FREQ.	Hz 0
A1-12	STOP COMPENSATION CNT	0
A1-13	STOP COMPENSATION TIME	0
A1-14	STOP COMPENSATION SPEED	0
A1-15	STOP COMPENSATION ACCEL	0
A1-16	STOP COMPENSATION DECEL	0
A1-17	STOP COMPENSATION JERK	0
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E1-3	

VECL INSTALLATION PARAMETERS WITH YASKAWA L1000A DRIVE-1/MS
INSTALLATION PARAMETERS

CODE	DESCRIPTION	DATA
A1-00	SELECT LANGUAGE	0
A1-01	LEVEL ACCESS	2->0
A1-02	CONTROL METHOD	3
01-01	ACCELERATION TIME 1	SEC 3.0
01-02	DECELERATION TIME 1	SEC 1.5
01-07	ACCELERATION TIME 4	SEC 0
01-08	DECELERATION TIME 4	SEC 0
01-09	ACC./DEC. SWITCHING FREQ.	Hz 10
02-01	UP-COMMAND INPUT UNIT	1
02-02	DOWN-COMMAND INPUT UNIT	1
02-03	SPEED REVERSE SELECTION	1
02-04	STOP INPUT UNIT	1
02-05	STOP INPUT UNIT	1
02-06	STOP INPUT UNIT	1
02-07	STOP INPUT UNIT	1
02-08	STOP INPUT UNIT	1
02-09	STOP INPUT UNIT	1
02-10	STOP INPUT UNIT	1
02-11	STOP INPUT UNIT	1
02-12	STOP INPUT UNIT	1
02-13	STOP INPUT UNIT	1
02-14	STOP INPUT UNIT	1
02-15	STOP INPUT UNIT	1
02-16	STOP INPUT UNIT	1
02-17	STOP INPUT UNIT	1
02-18	STOP INPUT UNIT	1
02-19	STOP INPUT UNIT	1
02-20	STOP INPUT UNIT	1
02-21	STOP INPUT UNIT	1
02-22	STOP INPUT UNIT	1
02-23	STOP INPUT UNIT	1
02-24	STOP INPUT UNIT	1
02-25	STOP INPUT UNIT	1
02-26	STOP INPUT UNIT	1
02-27	STOP INPUT UNIT	1
02-28	STOP INPUT UNIT	1
02-29	STOP INPUT UNIT	1
02-30	STOP INPUT UNIT	1
02-31	STOP INPUT UNIT	1
02-32	STOP INPUT UNIT	1
02-33	STOP INPUT UNIT	1
02-34	STOP INPUT UNIT	1
02-35	STOP INPUT UNIT	1
02-36	STOP INPUT UNIT	1
02-37	STOP INPUT UNIT	1
02-38	STOP INPUT UNIT	1
02-39	STOP INPUT UNIT	1
02-40	STOP INPUT UNIT	1
02-41	STOP INPUT UNIT	1
02-42	STOP INPUT UNIT	1
02-43	STOP INPUT UNIT	1
02-44	STOP INPUT UNIT	1
02-45	STOP INPUT UNIT	1
02-46	STOP INPUT UNIT	1
02-47	STOP INPUT UNIT	1
02-48	STOP INPUT UNIT	1
02-49	STOP INPUT UNIT	1
02-50	STOP INPUT UNIT	1
02-51	STOP INPUT UNIT	1
02-52	STOP INPUT UNIT	1
02-53	STOP INPUT UNIT	1
02-54	STOP INPUT UNIT	1
02-55	STOP INPUT UNIT	1
02-56	STOP INPUT UNIT	1
02-57	STOP INPUT UNIT	1
02-58	STOP INPUT UNIT	1
02-59	STOP INPUT UNIT	1
02-60	STOP INPUT UNIT	1
02-61	STOP INPUT UNIT	1
02-62	STOP INPUT UNIT	1
02-63	STOP INPUT UNIT	1
02-64	STOP INPUT UNIT	1
02-65	STOP INPUT UNIT	1
02-66	STOP INPUT UNIT	1
02-67	STOP INPUT UNIT	1
02-68	STOP INPUT UNIT	1
02-69	STOP INPUT UNIT	1
02-70	STOP INPUT UNIT	1
02-71	STOP INPUT UNIT	1
02-72	STOP INPUT UNIT	1
02-73	STOP INPUT UNIT	1
02-74	STOP INPUT UNIT	1
02-75	STOP INPUT UNIT	1
02-76	STOP INPUT UNIT	1
02-77	STOP INPUT UNIT	1
02-78	STOP INPUT UNIT	1
02-79	STOP INPUT UNIT	1
02-80	STOP INPUT UNIT	1
02-81	STOP INPUT UNIT	1
02-82	STOP INPUT UNIT	1
02-83	STOP INPUT UNIT	1
02-84	STOP INPUT UNIT	1
02-85	STOP INPUT UNIT	1
02-86	STOP INPUT UNIT	1
02-87	STOP INPUT UNIT	1
02-88	STOP INPUT UNIT	1
02-89	STOP INPUT UNIT	1
02-90	STOP INPUT UNIT	1
02-91	STOP INPUT UNIT	1
02-92	STOP INPUT UNIT	1
02-93	STOP INPUT UNIT	1
02-94	STOP INPUT UNIT	1
02-95	STOP INPUT UNIT	1
02-96	STOP INPUT UNIT	1
02-97	STOP INPUT UNIT	1
02-98	STOP INPUT UNIT	1
02-99	STOP INPUT UNIT	1
02-100	STOP INPUT UNIT	1

INSTALLATION PARAMETERS

CONSTANT No.	DATA
A1-03	0
A1-04	0
A1-05	0
A1-06	0
A1-07	0
A1-08	0
A1-09	0
A1-10	0
A1-11	0
A1-12	0
A1-13	0
A1-14	0
A1-15	0
A1-16	0
A1-17	0
A1-18	0
A1-19	0
A1-20	0
A1-21	0
A1-22	0
A1-23	0
A1-24	0
A1-25	0
A1-26	0
A1-27	0
A1-28	0
A1-29	0
A1-30	0
A1-31	0
A1-32	0
A1-33	0
A1-34	0
A1-35	0
A1-36	0
A1-37	0
A1-38	0
A1-39	0
A1-40	0
A1-41	0
A1-42	0
A1-43	0
A1-44	0
A1-45	0
A1-46	0
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A1-50	0
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A1-65	0
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A1-67	0
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A1-70	0
A1-71	0
A1-72	0
A1-73	0
A1-74	0
A1-75	0
A1-76	0
A1-77	0
A1-78	0
A1-79	0
A1-80	0
A1-81	0
A1-82	0
A1-83	0
A1-84	0
A1-85	0
A1-86	0
A1-87	0
A1-88	0
A1-89	0
A1-90	0
A1-91	0
A1-92	0
A1-93	0
A1-94	0
A1-95	0
A1-96	0
A1-97	0
A1-98	0
A1-99	0
A1-100	0

INSTALLATION PARAMETERS

CONSTANT No.	DATA
H5-01	1
H5-02	3.0
H5-03	1.0
H5-04	100
H5-05	1
H5-06	1
H5-07	0
H5-08	0
H5-09	0
H5-10	0
H5-11	0
H5-12	0
H5-13	0
H5-14	0
H5-15	0
H5-16	0
H5-17	0
H5-18	0
H5-19	0
H5-20	0
H5-21	0
H5-22	0
H5-23	0
H5-24	0
H5-25	0
H5-26	0
H5-27	0
H5-28	0
H5-29	0
H5-30	0
H5-31	0
H5-32	0
H5-33	0
H5-34	0
H5-35	0
H5-36	0
H5-37	0
H5-38	0
H5-39	0
H5-40	0
H5-41	0
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H5-66	0
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H5-69	0
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H5-74	0
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H5-81	0
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H5-85	0
H5-86	0
H5-87	0
H5-88	0
H5-89	0
H5-90	0
H5-91	0
H5-92	0
H5-93	0
H5-94	0
H5-95	0
H5-96	0
H5-97	0
H5-98	0
H5-99	0
H5-100	0

ADJUSTMENT PARAMETERS

CODE	DESCRIPTION	MOTOR										FIELD						
		5	5.6	6.7	8.5	10.5	11	12	15	18	20		24					
E1-01	MOTOR RATED CURRENT	11.8	13	15	23.8	23	24	26.5	11.8	13.5	20	36	13	15	24	31	34	40
E1-02	MOTOR RATED SLIP	4.12	4.37	5.08	4.3	3.07	1.28	3.07	3.06	4.93	3.0	4.47	1.35	1.10	0.9	0.88	3.0	0.88
E1-03	MOTOR NO-LOAD CURRENT	5.5	4.96	3.4	8.8	8.8	7.7	8.8	6.57	7.04	10.2	17.7	6.71	5.41	10.3	14.9	17.3	16.1
E1-04	NUMBER OF POLES	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
E1-05	MOTOR LINE TO LINE RESISTANCE	1.6542	2.277	1.782	0.5	0.851	0.332	0.851	2.004	1.7	0.5	1.75	1.30	1.09	1.73	0.830	0.480	0.364
E1-06	MOTOR LEAK INDUCTANCE	18.5	17.2	19.6	15.5	15.5	19.6	19.6	15.5	19.6	19.6	15.5	19.6	17.2	23.8	23.8	15.5	23.5
E1-07	IRON CORE SATURATION COEFFICIENT 1	0.5	0.46	0.5	0.46	0.46	0.5	0.46	0.46	0.5	0.5	0.46	0.46	0.4	0.32	0.32	0.43	
E1-08	IRON CORE SATURATION COEFFICIENT 2	0.75	0.7	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.62	0.57	0.57	0.66	
E1-09	MOTOR RATED OUTPUT POWER	6.0	5.6	6.7	8.5	10.5	11.0	12.0	5.0	5.0	8.5	15	5.5	6.7	11.0	15	15	18.5
E1-10	MAX. VOLTAGE	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
E1-11	CURVE AT ACC START	SEC 1.5-2.5																
E1-12	CURVE AT ACC END	SEC 1.0-1.5																
E1-13	CURVE AT DEC START	SEC 0.7-1.5																
E1-14	CURVE AT DEC END	SEC 0.5-1.0																
E1-15	BELOW LEVELING SPEED	SEC 0.5-1.2																
E1-16	NOMINAL SPEED	Hz 40-40																
E1-17	INSPECTION SPEED	Hz 20																
E1-18	INSPECTION SPEED	Hz 6.0-12 (DEFAULT = 6.0)																
E1-19	INSPECTION BRAKING TIME AT START	SEC 0.1-0.3																
E1-20	INSPECTION BRAKING TIME AT STOP	SEC 0.1-0.3																
E1-21	INSPECTION DELAY TIME	SEC 0.3-0.1																

- NOTE-1. FOR PROGRAMMING SET A1-01=2
 2. AFTER PROGRAMMING & ADJUSTMENT SET 02-03=1 TO STORE AS USER DEFAULTS
 3. X = DON'T CARE
 4. FIELD TO ADJUST THE FREQUENCY TO MEET CONTRACT SPEED OF ELEVATOR (MEASURE THE SPEED WITH TACHOMETER)
 5. FIELD TO PROGRAM CORRECT NUMBER OF POLES IN E2-04.
 FOR 1500 RPM MOTOR — E2-04=4; FOR 1000 RPM MOTOR — E2-04=6
 6. DATA '0' OR '1' DEPENDS ON WIRING OF 'A' & 'B' CHANNEL OF ENCODER
 7. FIELD TO ADJUST THE CREEP FREQUENCY AS PER CONTRACT SPEED: FOR 1.0 m/s=6Hz,
 FOR 0.5/0.4 m/s = 10-12 Hz.
 8. INCREASE TIMING TO DELAY MOTOR RUN TO ALLOW BRAKE TO OPEN FULLY
 9. FIELD TO SET INSPECTION FREQUENCY AS PER CONTRACT SPEED: FOR 1.0 m/s=10Hz,
 FOR 0.5/0.4 m/s = 20Hz.
 10. WITH 'W' SERIES UPS-ARD, CHANGE THE FOLLOWING PARAMETERS: H1-04=54, H1-07=51, D1-24=05, AND D1-20=10 (INTERMEDIATE SPEED)

DATE: 04-10-2013
 CHANGES: L7 Drive parameters modified for L1000A Drive parameters
 PCH#: CH450719
 BR: MK
 AUTH: VMD
 OTIS - INDIA
 LCB-200 CONTROLLER
 408Kg @ 0.7Mps, 544Kg, 680Kg, 884Kg @ 1Mps
 WITH 9550C & 9550C-VF MOTOR OPERATOR ONLY
 SHIPMENT OR PURCHASE ONLY
 DRAWN: 04.10.2013
 CHECKED: 04.10.2013
 APPROVED: 04.10.2013
 NAME: VMD
 VMD
 VMD
 DIAGRAM NO: NLL21290K
 CND450719
 DTD: 04.10.2013
 TOTAL PAGES : 24 PAGE #23A

YFCU INSTALLATION PARAMETERS WITH YASKAWA I7 DRIVE-0.7MPS
 SET A1-02 = 2 FOR OPEN LOOP
 SET A1-02 = 3 FOR CLOSE LOOP

INSTALLATION PARAMETERS-OPEN/CLOSE LOOP

CONST No.	DESCRIPTION	DATA
A1-00	SELECT LANGUAGE	2
A1-01	LEVEL ACCESS	0
A1-02	ACCELERATION TIME 1	SEC 3.0
A1-03	DECELERATION TIME 1	SEC 1.5
A1-04	ACCELERATION TIME 4	SEC 0
A1-05	DECELERATION TIME 4	SEC 0
A1-06	ACC./DEC. SWITCHING FREQ.	Hz 1
A1-07	CARRIER FREQ UPPER LIMIT	Hz 3
A1-08	SPEED PRIORITY SELECTION	V 415
A1-09	INPUT VOLTAGE	Hz 50
A1-10	MAX. OUTPUT FREQ.	Hz 50
A1-11	BASE FREQ.	Hz 50
A1-12	MULTI FUNCTION INPUT TERMINAL-S3	F
A1-13	MULTI FUNCTION INPUT TERMINAL-S4	F
A1-14	MULTI FUNCTION INPUT TERMINAL-S5	F
A1-15	MULTI FUNCTION INPUT TERMINAL-S6	F
A1-16	MULTI FUNCTION INPUT TERMINAL-S7	F
A1-17	MULTI FUNCTION OUTPUT - M1-M2	F
A1-18	MULTI FUNCTION OUTPUT - M3-M4	F
A1-19	MULTI FUNCTION OUTPUT - M5-M6	F
A1-20	BATTERY VOLTAGE (UPS AFD)	V 72
A1-21	TORQUE DETECTION SELECTION	% 150
A1-22	TORQUE DETECTION LEVEL	% 150
A1-23	OVERSPEED DETECTION TIME	SEC 7
A1-24	OVERSPEED LEVEL	% 80
A1-25	OUTPUT OPEN PHASE PROTECTION	0
A1-26	GROUND FAULT SELECTION	0
A1-27	COOLING FAN SELECTION	0
A1-28	COOLING FAN CUT OFF	SEC 120
A1-29	AIRTEMPERATURE	°C 45
A1-30	LF DETECTION TIME	SEC 1.0
A1-31	LCF DISPLAY CONTRAST	SEC 3
A1-32	BRAKE OPEN DELAY TIME	SEC 0
A1-33	BRAKE CLOSE DELAY TIME	SEC 0

INSTALLATION PARAMETERS-OPEN/CLOSE LOOP

CONSTANT No.	DATA
A1-03	0
A1-04	0
A1-05	0
A2-00	DO NOT SET
B1-01	0
B1-02	1
B1-03	1
B1-06	0
B1-07	0
B1-08	0
B1-09	0
B1-10	0
B1-11	0
B1-12	0
B1-13	0
B1-14	0
B1-15	0
B1-16	0
B1-17	0
B1-18	0
B1-19	0
B1-20	0
B1-21	0
B1-22	0
B1-23	0
B1-24	0
B1-25	0
B1-26	0
B1-27	0
B1-28	0
B1-29	0
B1-30	0
B1-31	0
B1-32	0
B1-33	0
B1-34	0
B1-35	0
B1-36	0
B1-37	0
B1-38	0
B1-39	0
B1-40	0
B1-41	0
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B1-43	0
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B1-48	0
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B1-89	0
B1-90	0
B1-91	0
B1-92	0
B1-93	0
B1-94	0
B1-95	0
B1-96	0
B1-97	0
B1-98	0
B1-99	0
B1-100	0

INSTALLATION PARAMETERS-OPEN/CLOSE LOOP

CONSTANT No.	DATA
L7-01	200
L7-02	200
L7-03	200
L7-04	200
L7-05	200
L7-06	0
L7-07	0
L7-08	0
L7-09	0
L7-10	0
L7-11	0
L7-12	0
L7-13	0
L7-14	0
L7-15	0
L7-16	0
L7-17	0
L7-18	0
L7-19	0
L7-20	0
L7-21	0
L7-22	0
L7-23	0
L7-24	0
L7-25	0
L7-26	0
L7-27	0
L7-28	0
L7-29	0
L7-30	0
L7-31	0
L7-32	0
L7-33	0
L7-34	0
L7-35	0
L7-36	0
L7-37	0
L7-38	0
L7-39	0
L7-40	0
L7-41	0
L7-42	0
L7-43	0
L7-44	0
L7-45	0
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L7-47	0
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L7-94	0
L7-95	0
L7-96	0
L7-97	0
L7-98	0
L7-99	0
L7-100	0

INSTALLATION PARAMETERS-OPEN/CLOSE LOOP

CONST No.	DESCRIPTION	DATA
C3-01	SLIP COMPENSATION GAIN	1.0
E1-08	MIN. OUTPUT FREQ.	Hz 0
E2-04	NUMBER OF POLES	4
F1-01	PG PULSE / REV	1024
F1-02	PG FEEDBACK LOSS SELECT.	1
F1-03	PG OVERSPEED SELECT.	1
F1-04	PG DEVIATION SELECT	1
F1-05	PG AUTOMATIC SELECT	0 or 1
F1-06	PG OVERSPEED LEVEL	% 110
F1-07	PG OVERSPEED TIME	SEC 0.1
F1-08	PG DEVIATE LEVEL	% 200
F1-09	PG DEVIATE TIME	SEC 2.0
F1-10	PG OPEN CKT. TIME	SEC 2

ADJUSTMENT PARAMETERS-OPEN/CLOSE LOOP

CONST No.	DESCRIPTION	DATA
E1-01	MIN. OUTPUT FREQ.	Hz 0
E1-02	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-03	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-04	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-05	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-06	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-07	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-08	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-09	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-10	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-11	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-12	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-13	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-14	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-15	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-16	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-17	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-18	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-19	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-20	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-21	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-22	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-23	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-24	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-25	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-26	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-27	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-28	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-29	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-30	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-31	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-32	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-33	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-34	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-35	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-36	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-37	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-38	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-39	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-40	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-41	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-42	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-43	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-44	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-45	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-46	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-47	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-48	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-49	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-50	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-51	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-52	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-53	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-54	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-55	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-56	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-57	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-58	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-59	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-60	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-61	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-62	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-63	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-64	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-65	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-66	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-67	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-68	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-69	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-70	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-71	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-72	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-73	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-74	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-75	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-76	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-77	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-78	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-79	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-80	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-81	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-82	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-83	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-84	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-85	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-86	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-87	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-88	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-89	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-90	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-91	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-92	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-93	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-94	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-95	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-96	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-97	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-98	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-99	MIN. OUTPUT FREQ. VOLTAGE	V 2.4
E1-100	MIN. OUTPUT FREQ. VOLTAGE	V 2.4

ADJUSTMENT PARAMETERS-OPEN/CLOSE LOOP

CONSTANT No.	DATA
B2-08	0
C3-02	200
C3-03	200
C4-01	1
C4-02	50
C4-03	0
C4-04	0
C4-05	0
C4-06	0
C4-07	0
C4-08	0
C4-09	0
C4-10	0
C4-11	0
C4-12	0
C4-13	0
C4-14	0
C4-15	0
C4-16	0
C4-17	0
C4-18	0
C4-19	0
C4-20	0
C4-21	0
C4-22	0
C4-23	0
C4-24	0
C4-25	0
C4-26	0
C4-27	0
C4-28	0
C4-29	0
C4-30	0
C4-31	0
C4-32	0
C4-33	0
C4-34	0
C4-35	0
C4-36	0
C4-37	0
C4-38	0
C4-39	0
C4-40	0
C4-41	0
C4-42	0
C4-43	0
C4-44	0
C4-45	0
C4-46	0
C4-47	0
C4-48	0
C4-49	0
C4-50	0
C4-51	0
C4-52	0
C4-53	0
C4-54	0
C4-55	0
C4-56	0
C4-57	0
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C4-64	0
C4-65	0
C4-66	0
C4-67	0
C4-68	0
C4-69	0
C4-70	0
C4-71	0
C4-72	0
C4-73	0
C4-74	0
C4-75	0
C4-76	0
C4-77	0
C4-78	0
C4-79	0
C4-80	0
C4-81	0
C4-82	0
C4-83	0
C4-84	0
C4-85	0
C4-86	0
C4-87	0
C4-88	0
C4-89	0
C4-90	0
C4-91	0
C4-92	0
C4-93	0
C4-94	0
C4-95	0
C4-96	0
C4-97	0
C4-98	0
C4-99	0
C4-100	0

INSTALLATION PARAMETERS-OPEN/CLOSE LOOP

CONSTANT No.	DATA
C3-05	1
C5-01	50
C5-02	0.5
C5-03	50
C5-04	0.5
C5-05	0.004
C5-06	40
C5-07	40
C5-08	400
C5-09	40
C5-10	40
C5-11	0.5
C5-12	0</

SET A1-02 = 2 FOR OPEN LOOP
SET A1-02 = 3 FOR CLOSE LOOP

INSTALLATION PARAMETERS-OPEN/CLOSE LOOP

CONST No.	DESCRIPTION	DATA
A1-00	SELECT LANGUAGE	0
A1-01	LEARN ACCESS	2
C1-01	ACCELERATION TIME 1	SEC 3.0
C1-02	ACCELERATION TIME 2	SEC 1.5
C1-03	ACCELERATION TIME 3	SEC 0
C1-04	ACCELERATION TIME 4	SEC 0
C1-05	ACCELERATION TIME 5	SEC 0
C1-06	ACCELERATION TIME 6	SEC 0
C1-07	ACCELERATION TIME 7	SEC 0
C1-08	ACCELERATION TIME 8	SEC 0
C1-09	ACCELERATION TIME 9	SEC 0
C1-10	ACCELERATION TIME 10	SEC 0
C1-11	ACCELERATION TIME 11	SEC 0
C1-12	ACCELERATION TIME 12	SEC 0
C1-13	ACCELERATION TIME 13	SEC 0
C1-14	ACCELERATION TIME 14	SEC 0
C1-15	ACCELERATION TIME 15	SEC 0
C1-16	ACCELERATION TIME 16	SEC 0
C1-17	ACCELERATION TIME 17	SEC 0
C1-18	ACCELERATION TIME 18	SEC 0
C1-19	ACCELERATION TIME 19	SEC 0
C1-20	ACCELERATION TIME 20	SEC 0
C1-21	ACCELERATION TIME 21	SEC 0
C1-22	ACCELERATION TIME 22	SEC 0
C1-23	ACCELERATION TIME 23	SEC 0
C1-24	ACCELERATION TIME 24	SEC 0
C1-25	ACCELERATION TIME 25	SEC 0
C1-26	ACCELERATION TIME 26	SEC 0
C1-27	ACCELERATION TIME 27	SEC 0
C1-28	ACCELERATION TIME 28	SEC 0
C1-29	ACCELERATION TIME 29	SEC 0
C1-30	ACCELERATION TIME 30	SEC 0
C1-31	ACCELERATION TIME 31	SEC 0
C1-32	ACCELERATION TIME 32	SEC 0
C1-33	ACCELERATION TIME 33	SEC 0
C1-34	ACCELERATION TIME 34	SEC 0
C1-35	ACCELERATION TIME 35	SEC 0
C1-36	ACCELERATION TIME 36	SEC 0
C1-37	ACCELERATION TIME 37	SEC 0
C1-38	ACCELERATION TIME 38	SEC 0
C1-39	ACCELERATION TIME 39	SEC 0
C1-40	ACCELERATION TIME 40	SEC 0
C1-41	ACCELERATION TIME 41	SEC 0
C1-42	ACCELERATION TIME 42	SEC 0
C1-43	ACCELERATION TIME 43	SEC 0
C1-44	ACCELERATION TIME 44	SEC 0
C1-45	ACCELERATION TIME 45	SEC 0
C1-46	ACCELERATION TIME 46	SEC 0
C1-47	ACCELERATION TIME 47	SEC 0
C1-48	ACCELERATION TIME 48	SEC 0
C1-49	ACCELERATION TIME 49	SEC 0
C1-50	ACCELERATION TIME 50	SEC 0
C1-51	ACCELERATION TIME 51	SEC 0
C1-52	ACCELERATION TIME 52	SEC 0
C1-53	ACCELERATION TIME 53	SEC 0
C1-54	ACCELERATION TIME 54	SEC 0
C1-55	ACCELERATION TIME 55	SEC 0
C1-56	ACCELERATION TIME 56	SEC 0
C1-57	ACCELERATION TIME 57	SEC 0
C1-58	ACCELERATION TIME 58	SEC 0
C1-59	ACCELERATION TIME 59	SEC 0
C1-60	ACCELERATION TIME 60	SEC 0
C1-61	ACCELERATION TIME 61	SEC 0
C1-62	ACCELERATION TIME 62	SEC 0
C1-63	ACCELERATION TIME 63	SEC 0
C1-64	ACCELERATION TIME 64	SEC 0
C1-65	ACCELERATION TIME 65	SEC 0
C1-66	ACCELERATION TIME 66	SEC 0
C1-67	ACCELERATION TIME 67	SEC 0
C1-68	ACCELERATION TIME 68	SEC 0
C1-69	ACCELERATION TIME 69	SEC 0
C1-70	ACCELERATION TIME 70	SEC 0
C1-71	ACCELERATION TIME 71	SEC 0
C1-72	ACCELERATION TIME 72	SEC 0
C1-73	ACCELERATION TIME 73	SEC 0
C1-74	ACCELERATION TIME 74	SEC 0
C1-75	ACCELERATION TIME 75	SEC 0
C1-76	ACCELERATION TIME 76	SEC 0
C1-77	ACCELERATION TIME 77	SEC 0
C1-78	ACCELERATION TIME 78	SEC 0
C1-79	ACCELERATION TIME 79	SEC 0
C1-80	ACCELERATION TIME 80	SEC 0
C1-81	ACCELERATION TIME 81	SEC 0
C1-82	ACCELERATION TIME 82	SEC 0
C1-83	ACCELERATION TIME 83	SEC 0
C1-84	ACCELERATION TIME 84	SEC 0
C1-85	ACCELERATION TIME 85	SEC 0
C1-86	ACCELERATION TIME 86	SEC 0
C1-87	ACCELERATION TIME 87	SEC 0
C1-88	ACCELERATION TIME 88	SEC 0
C1-89	ACCELERATION TIME 89	SEC 0
C1-90	ACCELERATION TIME 90	SEC 0
C1-91	ACCELERATION TIME 91	SEC 0
C1-92	ACCELERATION TIME 92	SEC 0
C1-93	ACCELERATION TIME 93	SEC 0
C1-94	ACCELERATION TIME 94	SEC 0
C1-95	ACCELERATION TIME 95	SEC 0
C1-96	ACCELERATION TIME 96	SEC 0
C1-97	ACCELERATION TIME 97	SEC 0
C1-98	ACCELERATION TIME 98	SEC 0
C1-99	ACCELERATION TIME 99	SEC 0
C1-100	ACCELERATION TIME 100	SEC 0

INSTALLATION PARAMETERS-OPEN/CLOSE LOOP

CONSTANT No.	DATA
A1-03	0
A1-04	0
A1-05	DO NOT SET
A1-06	DO NOT SET
A1-07	DO NOT SET
A1-08	DO NOT SET
A1-09	DO NOT SET
A1-10	DO NOT SET
A1-11	DO NOT SET
A1-12	DO NOT SET
A1-13	DO NOT SET
A1-14	DO NOT SET
A1-15	DO NOT SET
A1-16	DO NOT SET
A1-17	DO NOT SET
A1-18	DO NOT SET
A1-19	DO NOT SET
A1-20	DO NOT SET
A1-21	DO NOT SET
A1-22	DO NOT SET
A1-23	DO NOT SET
A1-24	DO NOT SET
A1-25	DO NOT SET
A1-26	DO NOT SET
A1-27	DO NOT SET
A1-28	DO NOT SET
A1-29	DO NOT SET
A1-30	DO NOT SET
A1-31	DO NOT SET
A1-32	DO NOT SET
A1-33	DO NOT SET
A1-34	DO NOT SET
A1-35	DO NOT SET
A1-36	DO NOT SET
A1-37	DO NOT SET
A1-38	DO NOT SET
A1-39	DO NOT SET
A1-40	DO NOT SET
A1-41	DO NOT SET
A1-42	DO NOT SET
A1-43	DO NOT SET
A1-44	DO NOT SET
A1-45	DO NOT SET
A1-46	DO NOT SET
A1-47	DO NOT SET
A1-48	DO NOT SET
A1-49	DO NOT SET
A1-50	DO NOT SET

INSTALLATION PARAMETERS-OPEN LOOP ONLY

CONSTANT No.	DATA
B2-08	0
C3-02	200
C3-03	200
C3-04	1
C4-01	50
C4-02	50
C4-03	0
C4-04	0
C4-05	0
C4-06	0
C4-07	0
C4-08	0
C4-09	0
C4-10	0
C4-11	0
C4-12	0
C4-13	0
C4-14	0
C4-15	0
C4-16	0
C4-17	0
C4-18	0
C4-19	0
C4-20	0
C4-21	0
C4-22	0
C4-23	0
C4-24	0
C4-25	0
C4-26	0
C4-27	0
C4-28	0
C4-29	0
C4-30	0
C4-31	0
C4-32	0
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C4-36	0
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C4-38	0
C4-39	0
C4-40	0
C4-41	0
C4-42	0
C4-43	0
C4-44	0
C4-45	0
C4-46	0
C4-47	0
C4-48	0
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C4-69	0
C4-70	0
C4-71	0
C4-72	0
C4-73	0
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C4-76	0
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C4-78	0
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C4-93	0
C4-94	0
C4-95	0
C4-96	0
C4-97	0
C4-98	0
C4-99	0
C4-100	0

INSTALLATION PARAMETERS-CLOSE LOOP ONLY

CONST No.	DESCRIPTION	DATA
C3-01	SLIP COMPENSATION GAIN	1.0
E2-04	NUMBER OF POLES	4
F1-01	PG PULSE / REV	1024
F1-02	PG FEEDBACK LOSS SELECT	1
F1-03	PG OVERSPEED SELECT	1
F1-04	PG OVERTORQUE SELECT	1
F1-05	PG ROTATION SELECT	0 or 1
F1-06	PG OUTPUT RAMP	1
F1-07	PG OVERSPEED TIME	% 110
F1-08	PG OVERTORQUE TIME	SEC 0.5
F1-09	PG DEBRAKE TIME	% 20%
F1-10	PG DEBRAKE TIME	SEC 2.0
F1-11	PG DEBRAKE TIME	SEC 2.0
F1-12	PG DEBRAKE TIME	SEC 2.0
F1-13	PG DEBRAKE TIME	SEC 2.0
F1-14	PG DEBRAKE TIME	SEC 2.0

INSTALLATION PARAMETERS-CLOSE LOOP ONLY

CONSTANT No.	DATA
C3-05	1
C3-06	30
C3-07	0.5
C3-08	50
C3-09	0.5
C3-10	0.0004
C3-11	40
C3-12	40
C3-13	40
C3-14	0.5
C3-15	0
C3-16	400%
C3-17	0
C3-18	1.0
C3-19	1.0
C3-20	500 ms
C3-21	0
C3-22	0
C3-23	0
C3-24	0
C3-25	0
C3-26	0
C3-27	0
C3-28	0
C3-29	0
C3-30	0
C3-31	0
C3-32	0
C3-33	0
C3-34	0
C3-35	0
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C3-40	0
C3-41	0
C3-42	0
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C3-45	0
C3-46	0
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C3-89	0
C3-90	0
C3-91	0
C3-92	0
C3-93	0
C3-94	0
C3-95	0
C3-96	0
C3-97	0
C3-98	0
C3-99	0
C3-100	0

INSTALLATION PARAMETERS-CLOSE LOOP ONLY

CONST No.	DESCRIPTION	DATA
C3-01	SLIP COMPENSATION GAIN	1.0
E2-04	NUMBER OF POLES	4
F1-01	PG PULSE / REV	1024
F1-02	PG FEEDBACK LOSS SELECT	1
F1-03	PG OVERSPEED SELECT	1
F1-04	PG OVERTORQUE SELECT	1
F1-05	PG ROTATION SELECT	0 or 1
F1-06	PG OUTPUT RAMP	1
F1-07	PG OVERSPEED TIME	% 110
F1-08	PG OVERTORQUE TIME	SEC 0.5
F1-09	PG DEBRAKE TIME	% 20%
F1-10	PG DEBRAKE TIME	SEC 2.0
F1-11	PG DEBRAKE TIME	SEC 2.0
F1-12	PG DEBRAKE TIME	SEC 2.0
F1-13	PG DEBRAKE TIME	SEC 2.0
F1-14	PG DEBRAKE TIME	SEC 2.0

INSTALLATION PARAMETERS-CLOSE LOOP ONLY

CONSTANT No.	DATA
B2-08	0
C3-02	200
C3-03	200
C3-04	1
C4-01	50
C4-02	50
C4-03	0
C4-04	0
C4-05	0
C4-06	0
C4-07	0
C4-08	0
C4-09	0
C4-10	0
C4-11	0
C4-12	0
C4-13	0
C4-14	0
C4-15	0
C4-16	0
C4-17	0
C4-18	0
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C4-25	0
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C4-28	0
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C4-32	0
C4-33	0
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C4-37	0
C4-38	0
C4-39	0
C4-40	0
C4-41	0
C4-42	0
C4-43	0
C4-44	0
C4-45	0
C4-46	0
C4-47	0
C4-48	0
C4-49	0
C4-50	0
C4-51	0
C4-52	0
C4-53	0
C4-54	0
C4-55	0
C4-56	0
C4-57	0
C4-58	0
C4-59	0
C4-60	0
C4-61	0
C4-62	0
C4-63	0
C4-64	0
C4-65	0
C4-66	0
C4-67	0
C4-68	0
C4-69	0
C4-70	0
C4-71	0
C4-72	0
C4-73	0
C4-74	0
C4-75	0
C4-76	0
C4-77	0
C4-78	0
C4-79	0
C4-80	0
C4-81	0
C4-82	0
C4-83	0
C4-84	0
C4-85	0
C4-86	0
C4-87	0
C4-88	0
C4-89	0

CAR WIRING

COP / CAR TOP COMPONENTS

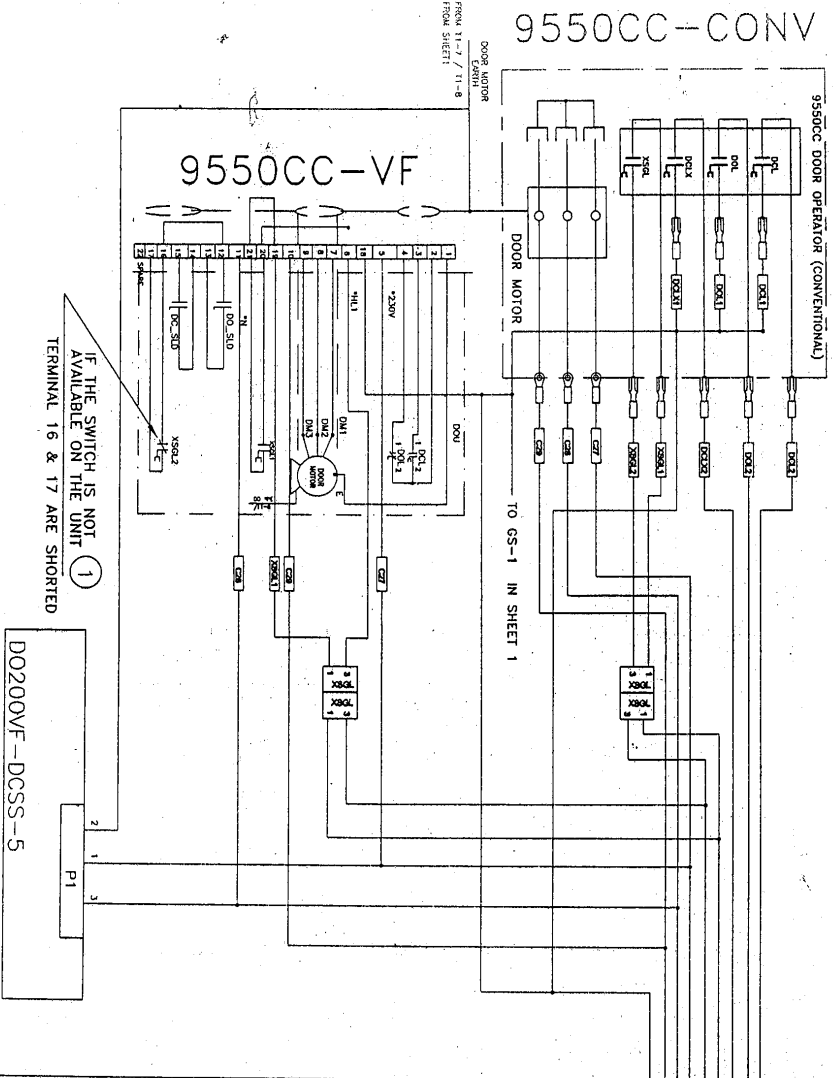
T/C

MID WAY

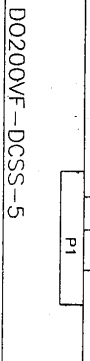
CONTROLLER

9550CC-CONV

9550CC-VF



IF THE SWITCH IS NOT AVAILABLE ON THE UNIT
TERMINAL 16 & 17 ARE SHORTED



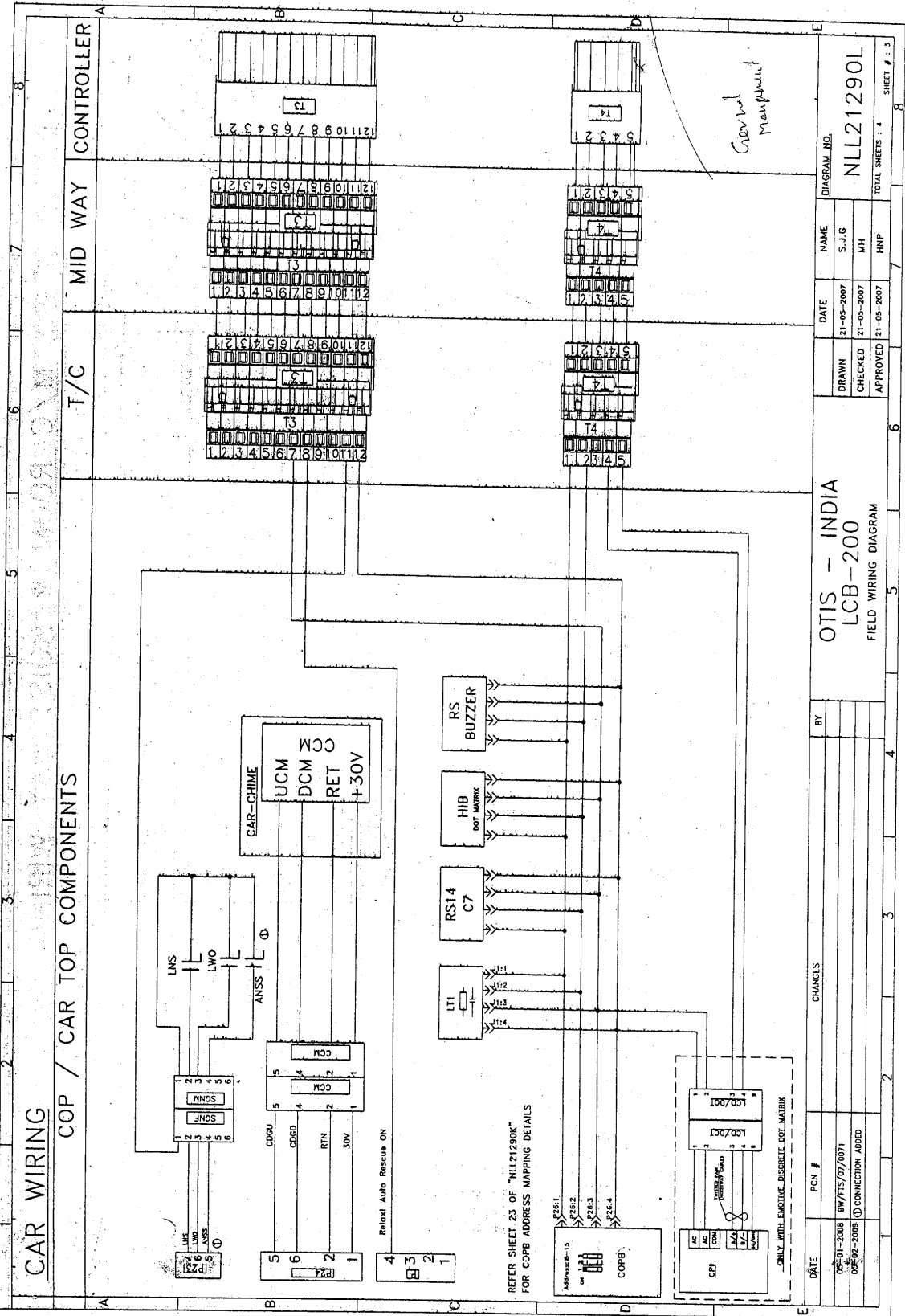
DATE	PCN #	CHANGES	BY	DATE	NAME	DISCREP. NO.
5-31-2008	BY/T/S/07/0071			21-05-2007	S.J.C	NLL21290L
23-C-2008	10000 AS PER			21-05-2007	MH	
	12758-2008-231			21-05-2007	HNP	
			TOTAL SHEETS 14			
			SHEET # : 2			

OTIS - INDIA
LCB-200
FIELD WIRING DIAGRAM

DRAWN	DATE	NAME	DISCREP. NO.
21-05-2007	S.J.C	NLL21290L	
CHECKED	DATE	NAME	DISCREP. NO.
21-05-2007	MH		
APPROVED	DATE	NAME	DISCREP. NO.
21-05-2007	HNP		

CAR WIRING

COP / CAR TOP COMPONENTS



REFER SHEET 23 OF "NLL21290K" FOR COP ADDRESS MAPPING DETAILS

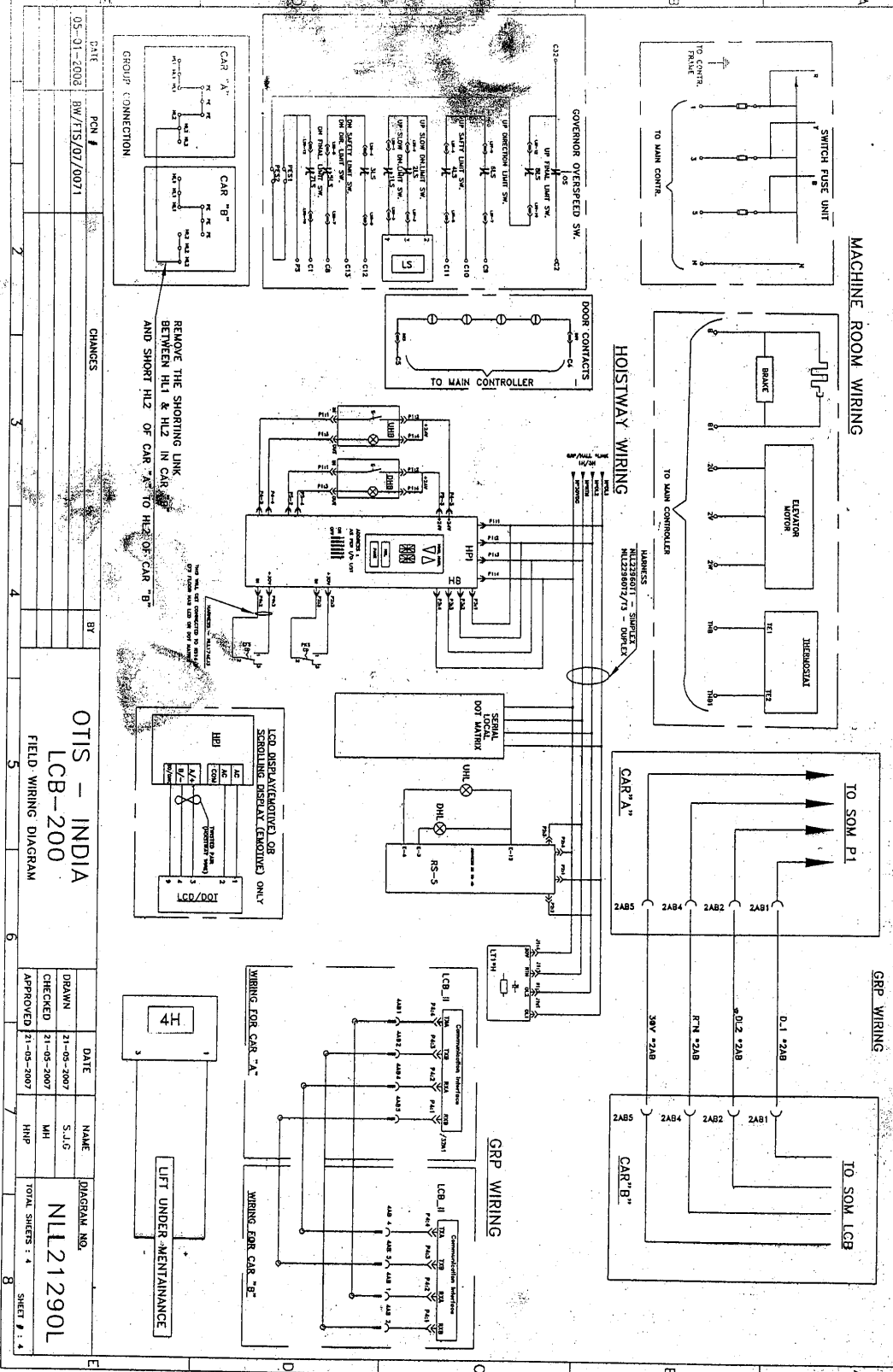
OTIS - INDIA
LCB-200
FIELD WIRING DIAGRAM

DRAWN	CHECKED	APPROVED	DATE	NAME	DIAGRAM NO.
			21-05-2007	S.J.G	NLL21290L
			21-05-2007	MH	
			21-05-2007	HNP	

TOTAL SHEETS : 4 SHEET # : 3

Checked
Manufact

M/C ROOM & HOISTWAY WIRING



DATE	05-31-2003
PCN #	BW/ITS/07/0071
CHANGES	
BY	

OTIS - INDIA
LCB-200
FIELD WIRING DIAGRAM

DATE	NAME	DIAGRAM NO.
21-05-2007	S.J.G	NLL21290L
21-05-2007	MH	
21-05-2007	HRP	

TOTAL SHEETS : 4
SHEET # 1 4

Rev 01

1st June
2012

FORMS & PROCEDURES

(Document No. PS:MSX:F&P)

BHARAT HEAVY ELECTRICALS
LIMITED



OFFER FORWARDING LETTER / TENDER SUBMISSION LETTER
(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

Offer Reference No:.....

Date:.....

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub : Submission of Offer against Tender Specification No:

I/We hereby offer to carry out the work detailed in the Tender Specification issued by Bharat Heavy Electricals Limited, Power Sector-....., in accordance with the terms and conditions thereof.

I/We have carefully perused the following listed documents connected with the above work and agree to abide by the same.

1. Amendments/Clarifications/Corrigenda/Errata/etc issued in respect of the Tender documents by BHEL
2. Notice Inviting Tender (NIT)
3. Price Bid
4. Technical Conditions of Contract
5. Special Conditions of Contract
6. General Conditions of Contract
7. Forms and Procedures

Should our Offer be accepted by BHEL for Award, I/we further agree to furnish 'Security Deposit' for the work as provided for in the Tender Conditions within the stipulated time as may be indicated by BHEL.

I/We further agree to execute all the works referred to in the said Tender documents upon the terms and conditions contained or referred to therein and as detailed in the appendices annexed thereto.

I/We have deposited/depositing herewith the requisite Earnest Money Deposit (EMD) as per details furnished in the Check List.

Authorised Representative of Bidder

Signature :

Name :

Address :

Place:

Date:

DECLARATION BY AUTHORISED SIGNATORY OF BIDDER

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub : **Declaration by Authorised Signatory**

Ref : 1) NIT/Tender Specification No:,

2) All other pertinent issues till date

I/We, hereby certify that all the information and data furnished by me with regard to the above Tender Specification are true and complete to the best of my knowledge. I have gone through the specifications, conditions, stipulations and all other pertinent issues till date, and agree to comply with the requirements and Intent of the specification.

I further certify that I am authorised to represent on behalf of my Company/Firm for the above mentioned tender and a valid Power of Attorney to this effect is also enclosed.

Yours faithfully,

(Signature, Date & Seal of Authorized
Signatory of the Bidder)

Date:

Enclosed : Power of Attorney

DECLARATION BY AUTHORISED SIGNATORY OF BIDDER
(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub : **Declaration by Authorised Signatory regarding Authenticity of submitted documents.**

Ref : 1) NIT/Tender Specification No:,
2) All other pertinent issues till date

I/We, hereby certify that all the documents submitted by us in support of possession of “Qualifying Requirements” are true copies of the original and are fully compliant required for qualifying / applying in the bid and shall produce the original of same as and when required by Bharat Heavy Electricals Limited.

I / We hereby further confirm that no tampering is done with documents submitted in support of our qualification as bidder. I / We understand that at any stage (during bidding process or while executing the awarded works) if it is found that fake / false / forged bid qualifying / supporting documents / certificates were submitted, it would lead to summarily rejection of our bid / termination of contract. BHEL shall be at liberty to initiate other appropriate actions as per the terms of the Bid / Contract and other extant policies of Bharat Heavy Electricals Limited.

Yours faithfully,

(Signature, Date & Seal of Authorized
Signatory of the Bidder)

Date:

NO DEVIATION CERTIFICATE

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub : **No Deviation Certificate**

Ref : 1) NIT/Tender Specification No:,

2) All other pertinent issues till date

We hereby confirm that we have not changed/ modified/materially altered any of the tender documents as downloaded from the website/ issued by BHEL and in case of such observance at any stage, it shall be treated as null and void.

We also hereby confirm that we have neither set any Terms and Conditions and nor have we taken any deviation from the Tender conditions together with other references applicable for the above referred NIT/Tender Specification.

We further confirm our unqualified acceptance to all Terms and Conditions, unqualified compliance to Tender Conditions, Integrity Pact (if applicable) and acceptance to Reverse Auctioning process.

We confirm to have submitted offer in accordance with tender instructions and as per aforesaid references.

Thanking you,

Yours faithfully,

(Signature, date & seal of authorized
representative of the bidder)

DECLARATION CONFIRMING KNOWLEDGE ABOUT SITE CONDITIONS
(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub : **Declaration confirming knowledge about Site conditions**

Ref : 1) NIT/Tender Specification No:,
2) All other pertinent issues till date

I/We, _____ hereby declare and confirm that we have visited the Project Site as referred in BHEL Tender Specifications and acquired full knowledge and information about the Site conditions including Wage structure, Industrial Climate, the Law & Order and other conditions prevalent at and around the Site. We further confirm that the above information is true and correct and we shall not raise any claim of any nature due to lack of knowledge of Site conditions.

I/We, hereby offer to carry out work as detailed in above mentioned Tender Specification, in accordance with Terms & Conditions thereof.

Yours faithfully,

(Signature, Date & Seal of Authorized
Representative of the Bidder)

Date :

Place:

DECLARATION FOR RELATION IN BHEL

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder failing which the offer of Bidder is liable to be summarily rejected)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub : **Declaration for relation in BHEL**

Ref : 1) NIT/Tender Specification No:

I/We hereby submit the following information pertaining to relation/relatives of Proprieter/Partner(s)/Director(s) employed in BHEL

Tick(√) any one as applicable:

1. The Proprieter, Partner(s), Director(s) of our Company/Firm DO NOT have any relation or relatives employed in BHEL

OR

2. The Proprieter, Partner(s), or Director(s) of our Company/Firm HAVE relation/relatives employed in BHEL and their particulars are as below:

(i)

(ii)

Signature of the Authorised Signatory

Note:

1. Attach separate sheet, if necessary.
2. If BHEL Management comes to know at a later date that the information furnished by the Bidder is false, BHEL reserves the right to take suitable against the Bidder/Contractor.

NON DISCLOSURE CERTIFICATE

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

NON DISCLOSURE CERTIFICATE

I/We understand that BHEL PS __ is committed to Information Security Management System as per their Information Security Policy.

Hence, I/We M/s.....
who are submitting offer for providing services to BHEL PS __ against
Tender Specification No: _____,
hereby undertake to comply with the following in line with Information
Security Policy of BHEL PS __, _____

- To maintain confidentiality of documents & information which shall be used during the execution of the Contract.
- The documents & information shall not be revealed to or shared with third party which shall not be in the business interest of BHEL PS__.

(Signature, date & seal of Authorized
Signatory of the bidder)

Date:

BANK ACCOUNT DETAILS FOR E-PAYMENT

(To be given on Letter head of the Company /Firm of Bidder, and **ENDORSED (SIGNED & STAMPED) BY THE BANK** to enable BHEL release payments through Electronic Fund Transfer (EFT/RTGS))

1. Beneficiary Name :
2. Beneficiary Account No. :
3. Bank Name & Branch :
4. City/Place :
5. 9 digit M ICR Code of Bank Branch :
6. IFSC Code of Bank Branch :
7. Beneficiary E-mail ID :
(for payment confirmation)

NOTE: In case Bank endorsed certificate regarding above has already been submitted earlier, Kindly submit photocopy of the same

FORMAT FOR SEEKING CLARIFICATION

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub : **Request for Clarification**

Ref : 1) NIT/Tender Specification No:,

2) All other pertinent issues till date

Sl no	Reference clause of Tender Document	Existing provision	Bidder's query	BHEL's clarification
1				
2				
3				
4				
5				
6				

Yours faithfully,

(Signature, date & seal of Authorized Representative of the Bidder)

PROFORMA OF BANK GUARANTEE (in lieu of SECURITY DEPOSIT)

In consideration of Bharat Heavy Electricals Limited (hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns) incorporated under the Companies Act, 1956 and having its registered office at BHEL House, Siri Fort, Asiad, New Delhi – 110049 through its Unit at Bharat Heavy Electricals Limited, Power Sector Northern Region, HRDI & PSNR Complex, Plot no. 25, Sector – 16 A, Noida - 201301 having agreed to exempt (Name of the Vendor / Contractor / Supplier) with its registered office at _____¹(hereinafter called the said “Contractor” which term includes supplier), from demand under the terms and conditions of the Contract reference No. _____ dated _____² valued at Rs.³ (Rupees -----)³ (hereinafter called the said Contract), of Security Deposit for the due fulfilment by the said Contractor of the terms and conditions contained in the said Contract, on production of a Bank Guarantee for Rs. _____⁴ (Rupees _____ only),

We _____(indicate the name and address of the Bank) having its Head Office at _____(address of the head Office) (hereinafter referred to as the Bank), at the request of _____[Contractor(s)], being the Guarantor under this Guarantee, do hereby irrevocably and unconditionally undertake to forthwith and immediately pay to the Employer, an amount not exceeding Rs. _____ without any demur, immediately on demand from the Employer and without any reservation, protest, and recourse and without the Employer needing to prove or demonstrate reasons for its such demand.

Any such demand made on the bank, shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____.

We undertake to pay to the Employer any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) in any suit or proceeding pending before any Court or Tribunal or Arbitrator or any other authority, our liability under this present being absolute and unequivocal.

The payment so made by us under this guarantee shall be a valid discharge of our liability for payment hereunder and the Contractor(s) shall have no claim against us for making such payment.

We, further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract and that it shall continue to be enforceable till all the dues of the Employer under or by virtue of the said Contract have been fully paid and its claims satisfied & the Employer certifies that the terms and conditions of the said Contract have been fully and properly carried out by the said contractor(s) or acceptance of the final bill or discharge of this guarantee by the Employer, whichever is earlier. This guarantee shall initially remain in force upto and including _____⁵ and shall be extended from time to time for such period as may be desired by the Employer. Unless a demand or claim under this guarantee is made on us in writing on or before the _____⁶, we shall be discharged from all the liability under this guarantee thereafter.

We, _____(indicate the name of the Bank)_____ further agree with the Employer that the Employer shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract or to extend time of performance by the said contractor(s) from time to time or to postpone for any time or

PROFORMA OF BANK GUARANTEE (in lieu of SECURITY DEPOSIT)

from time to time any of the powers exercisable by the Employer against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Contract and we shall not be relieved from our liability by any reason of any such variation or extension being granted to the said contractor(s) or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee that the Employer may have in relation to the Contractor's liabilities.

This Guarantee shall not be determined or affected by liquidation or winding up, dissolution or change of constitution or insolvency of the Contractor but shall in all respects and for all purposes be binding and operative until payment of all money payable to the Employer in terms thereof. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

We,..... Bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing.

Notwithstanding anything to the contrary contained hereinabove:

- a) The liability of the Bank under this Guarantee shall not exceed..... ⁴
- b) This Guarantee shall be valid up to⁵
- c) Unless the Bank is served a written claim or demand on or before _____⁶ all rights under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities under this guarantee irrespective of whether or not the original bank guarantee is returned to the Bank.

We, _____ Bank, have power to issue this Guarantee under law and the undersigned as a duly authorized person has full powers to sign this Guarantee on behalf of the Bank.

Date _____ Day of _____
for _____ (indicate the name of the Bank) _____

(Signature of Authorised signatory)

- ¹ ADDRESS OF THE VENDOR/ CONTRACTOR/ SUPPLIER.
- ² DETAILS ABOUT THE NOTICE OF AWARD/ CONTRACT REFERENCE
- ³ CONTRACT VALUE
- ⁴ BG AMOUNT IN FIGURES AND WORDS
- ⁵ VALIDITY DATE
- ⁶ DATE OF EXPIRY OF CLAIM PERIOD

PROFORMA OF BANK GUARANTEE (in lieu of SECURITY DEPOSIT)

Note:

1. Bidders are advised that expiry of claim period may be kept 3-6 months after validity date..
2. The BG should be on Non-Judicial Stamp paper/ e-stamp paper of appropriate value as per Stamp Act prevailing in the State(s) where the BG is submitted or is to be acted upon or the rate prevailing in the State where the BG was executed, whichever is higher. The Stamp Paper/ e-stamp paper shall be purchased in the name of Vendor/ Contractor/ Supplier/ Bank issuing the guarantee.

3. In Case of Bank Guarantees submitted by Foreign Vendors.

a. From Nationalized/ Public Sector/ Private Sector/ Foreign Banks (BG issued by Branches in India) can be accepted subject to the condition that the Bank Guarantee should be enforceable in the town/ city or at nearest branch where the Unit is located i.e. Demand can be presented at the Branch located in the town/city or at nearest branch where the Unit is located.

b. From Foreign Banks (wherein Foreign Vendors intend to provide BG from local branch of the Vendor country's Bank)

b.1 In such cases, Bank Guarantee issued by **any of the Consortium Banks only** will be accepted by BHEL. As such, Foreign Vendor needs to make necessary arrangements for issuance of Counter- Guarantee by Foreign Bank in favour of the Indian Bank's (BHEL's Consortium Bank) branch in India. All charges for issuance of Bank Guarantee/ counter-Guarantee should be borne by the Foreign Vendor.

b.2 In case, Foreign Vendors intend to provide BG from Overseas Branch of our Consortium Bank (e.g. if a BG is to be issued by SBI Frankfurt), the same is acceptable. However, the procedure at **sl.no. b.1** will required to be followed.

b.3 The BG issued may preferably be subject to Uniform Rules for Demand Guarantees (URDG) 758 (as amended from time to time).

FORM for EXTENSION OF VALIDITY OF BANK GUARANTEE

1. To be typed on non judicial Stamp Papers of value as applicable in the State of India from where the BG has been issued or the State of India where the BG shall be operated
2. The non judicial stamp papers shall be purchased in the name of the Party on whose behalf the BG is being issued or the BG issuing Bank

BANK GUARANTEE No:

Date:.....

To

(Write Designation and Address of Officer of BHEL inviting the Tender)

Dear Sir

Sub : Validity of Bank Guarantee No:..... Dated for
..... Rs in favour of yourself, expiry date
....., on account of M/s in respect of
Contract Number....., (herein after called the Original bank Guarantee)

At the request of M/s....., we Bank,
having its branch Office at and having Head office
at, do hereby extend our liability under the above mentioned Bank Guarantee
number..... dated for a further period ofMonths/years
from to expire on

Except as provided above, all other terms and conditions of the Original Bank Guarantee No
..... Dated..... shall remain unaltered and binding on us.

Kindly treat this extension as an integral part of the original Bank Guarantee to which it
would be attached.

Yours faithfully

Signature.....
Name & Designation.....
Power of Attorney/Signing Power No
Seal of Bank

MILESTONE COMPLETION CERTIFICATE
(issued by BHEL on the specific request of Contractor)

 Ref :

Date:

To,

(Name & address of Contractor)

Dear Sir,

References

1. Contract No:
2. Job Description:

This is to hereby confirm that the following Milestone Activity has been achieved in respect of the Contract /Job under reference

Sl No	Milestone Activity	Remarks

This certificate is issued as per your request vide letter no
 without any prejudice to the rights of BHEL in line with the terms and conditions of the
 above referred Contract

Yours faithfully,

For and on behalf of Bharat Heavy Electricals Limited

Construction Manager/Head (Subcontracts)

CONTRACT COMPLETION CERTIFICATE
(Issued by BHEL/HQ on the specific request of Contractor)

Ref :

Date:

To Whom so ever it may concern

1	DESCRIPTION OF WORK	
2	NAME AND ADDRESS OF THE CONTRACTOR	
3	CONTRACT NO	
4	CONTRACT VALUE	
5	LETTER OF INTENT/ AWARD NO. & DATE	
6	CONTRACT PERIOD//CONTRACT DURATION	
7	DATE OF START/COMPLETION	
8	FINAL EXECUTED VALUE	
9	PERFORMANCE	GOOD SATISFACTORY UNSATISFACTORY

This certificate is issued as per your request vide letter no
without any prejudice to the rights of BHEL to use this certificate for evaluation of your offers for future tenders

Yours faithfully,

For and on behalf of Bharat Heavy Electricals Limited

Head (Subcontracts)

BHARAT HEAVY ELECTRICALS LIMITED
DIVISION.....
Claim for Refund of Security Deposit
(Para 4.7.4 of Works Accounts Manual)

Ref No.:

Date:

- 1 Name and address of the contractor
- 2 Contract Agreement/Work Order No.
- 3 Date of contract agreement/work order
- 4 Name of the work undertaken
- 5 Date of commencement of the work
- 6 Date of completion of the work
- 7 Period of Maintenance
- 8 Date on which the final bill was paid
- 9 Last date of making good the defect, if any, during maintenance period
- 10 Expenditure incurred by BHEL during maintenance period, if any, recoverable
- 11 Date on which security deposit refund falls due as per contract

12 Amount deposited/recovered

Details	Mode	Amount

13 LESS amounts recoverable (with details)

- (i) Amount spent by BHEL on maintenance :
- (ii) Payments made on behalf of contractor :
- (iii) Court dues / penalties / compensation :
- (iv) Other recoveries for services etc. :
- (v) Security deposit released with final bill (%) :

14 Net amount recommended for release (12-13)

Details	Mode	Amount

Date:

Signature of Engineer in Charge

CERTIFICATE TO BE FURNISHED BY THE CONTRACTOR

I/We have no claim or demand outstanding against BHELfor the work done or for labor or material supplied or any other account arising out of or connected with the contract agreement/work order (No.....dated) and the payment of this bill shall be in full and final

Date:

Signature of Contractor

CERTIFICATE TO BE FURNISHED BY SENIOR ENGINEER

Certified that

- The payment recommended for release is in order and there are no demands other than those included in the claim outstanding from the contractor;
- The maintenance period as per the contract agreement is over and the contractor has carried out the works required to be carried out by him during the period of maintenance to our satisfaction, and all expenses incurred by the company on carrying out such works have been included for adjustment;
- All the objections raised so far have been settled;
- A note of refund of security deposit has been made in the measurement book and contract agreement/work order.

Date:

Signature of Senior Engineer

FOR USE IN FINANCE DEPARTMENT

Passed for

Rs.....(Rupees.....
.....only)

Accountant

Accounts Officer

REFUND OF GUARANTEE MONEY

**BHARAT HEAVY ELECTRICALS LIMITED
POWER SECTOR, _____ REGION**

Ref No:

Date:

1. Name and Address of Contractor :
2. Contract Agreement/LOI/ LOA No. :
3. Date of Contract Agreement/LOI/ LOA :
4. Name of the Work undertaken :
5. Date of commencement of the Work :
6. Date of Completion of the Work :
7. Period of Maintenance :
(Guarantee Period) :
8. Date on which the Final Bill was paid :
9. Last date of making good the defect :
during Maintenance Period
10. Expenditure incurred by BHEL during :
Maintenance Period, if any, recoverable
11. Date on which Guarantee Money refund:
falls due as per Contract
12. Amount of Guarantee Money to be refunded:
13. Less Amounts recoverable (with details)
 - a. Amount spent by BHEL on maintenance :
 - b. Payments made by BHEL on behalf of Contractor:
 - c. Court dues/penalties/compensation :
 - d. Other recoveries for Services, etc :
 - e. Total of 'a' to 'd' :
14. Net Amount recommended for release (12-13) :

Signature of BHEL Engineer

Date: _____

REFUND OF GUARANTEE MONEY

BHARAT HEAVY ELECTRICALS LIMITED
POWER SECTOR, _____ REGION

CERTIFICATE TO BE FURNISHED BY THE CONTRACTOR

I/We have no claim or demand outstanding against BHEL _____, for the work done or for labour or material supplied or any other account arising out of or connected with the Contract Agreement/LOI/ LOA (No _____ dated _____) and the payment of this bill shall be in full and final settlement of all my/our claims and demands including the 'Deposits' of the Contract Agreement/LOI/ LOA referred to.

Signature of Contractor

Date:

CERTIFICATE TO BE FURNISHED BY SENIOR ENGINEER/CONSTRUCTION MANAGER

1. Certified that
 - a. The payment recommended for release is in order and there are no demands other than those included in the claim outstanding from the Contractor
 - b. Maintenance period (Contract Guarantee period) is over and the Contractor has carried out the works required to be carried out by him during the period of maintenance (Guarantee) to our satisfaction, and all expenses incurred by the Company on carrying out such works have been included for adjustment
 - c. All objections raised so far have been settled
 - d. A note for refund of Guarantee Amount has been made in the Measurement Book and Contract Agreement/Work Order

Signature of BHEL Engineer

Construction Manager

Date:-----

FOR USE IN ACCOUNTS DEPARTMENT

Passed for Rs _____ (Rupees _____ only)

Accountant

Accounts Officer

ACKNOWLEDGE BY THE CONTRACTOR

Received Rs _____ in full and final settlement of my/our claim

Signature of Contractor

Date:

POWER OF ATTORNEY for SUBMISSION OF TENDER/SIGNING CONTRACT AGREEMENT (To be typed on non-judicial stamp paper of minimum Rs. 100/- and Notarized)

KNOW ALL MEN BY THESE PRESENTS, that I/We do hereby make, nominate, constitute and appoint Mr , whose signature given below herewith to be true and lawful Attorney of M/s..... hereinafter called 'Company', for submitting Tender/entering into Contract and inter alia, sign, execute all papers and to do necessary lawful acts on behalf of Company with M/s Bharat Heavy Electricals Ltd, Power Sector _____ Region, _____, in connection with
.....
..... vide Tender Specification No : _____, dated _____.

And the Company do hereby agree to ratify and confirm all acts, deeds, things or proceedings as may be lawfully done by the said attorney and by or on behalf of the company and in the name of the company, by virtue of the powers conferred herein and the same shall be binding on the company and shall have full force and effect.

IN WITNESS WHEREOF the common seal of the company has been hereunto affixed in the manner hereinafter appearing on the document.

Dated at _____, this _____ day of _____

Director/CMD/Partner/Proprietor

Signature of Mr.....(Attorney)

Attested by: Director/CMD/Partner/Proprietor

Witness

Notary Public

**STATEMENT OF CLAIMS/COUNTER CLAIMS TO BE SUBMITTED TO THE
IEC BY BOTH THE PARTIES**

1. Chronology of the Disputes
2. Brief of the Contract/MoU/Agreement/LOI/LOA
3. Brief history of the Disputes:
4. Issues:
5. Details of Clam(s)/Counter Claim(s):

SI. No.	Description of claim(s)/Counter Claim	Amount (in INR)Or currency applicable in the contract	Relevant contract clause

6. Basis/Ground of claim(s)/counter claim(s) (along with relevant clause of contract)

Note– *The Statement of Claims/ Counter Claims may ideally be restricted to maximum limit of 20 pages. Relevant documents may be compiled and submitted along with the statement of Claims/ Counter Claims. The statement of Claims/ Counter Claims is to be submitted to all IEC members and to the other party by post as well as by email.*

FORMAT FOR NOTICE INVOKING CONCILIATION CLAUSE BY BHEL FOR REFERRING THE DISPUTES TO CONCILIATION THROUGH IEC

To,

M/s. (Stakeholder's name)

Subject: **NOTICE FOR INVOCATION OF THE CONCILIATION CLAUSE OF THE CONTRACT BY BHEL**

Ref: Contract No/MoU/Agreement/LOI/LOA& date _____.

Dear Sir/Madam,

As you are aware, with reference to above referred Contract/MoU/Agreement/LOI/LOA, certain disputes have arisen, which, in spite of several rounds of mutual discussions and various correspondences have remained unresolved. The brief particulars of our claims which arise out of the above-referred Contract/MoU/Agreement/LOI/LOA are reproduced hereunder:

Sl. No.	Claim description	Amount involved

As you are aware, there is a provision in the captioned Contract/MoU/Agreement/LOI/LOA for referring disputes to conciliation.

In terms of Clause -----of Procedure i.e., Annexure ----- to the Contract/MoU /Agreement / LOI / LOA, we hereby seek your consent to refer the matter to Conciliation by Independent Experts Committee to be appointed by BHEL. You are invited to provide your consent in writing to proceed with conciliation into the above mentioned disputes within a period of 30 days from the date of this letter along with details of counter-claims, if any, which you might have with regard to the subject Contract/ MoU/ Agreement/ LOI/ LOA.

Please note that upon receipt of your consent in writing within 30 days of the date of receipt of this letter by you, BHEL shall appoint suitable person(s) from the BHEL Panel of Conciliators.

This letter is being issued without prejudice to our rights and contentions available under the contract and law.

Thanking you
Yours faithfully

Representative of BHEL

Note: The Format may be suitably modified, as required, based on facts and circumstances of the case.

**FORMAT FOR NOTICE INVOKING CONCILIATION CLAUSE BY A
STAKEHOLDER FOR REFERRING THE DISPUTES TO CONCILIATION
THROUGH IEC**

To,

BHEL (Head of the Unit/Division/Region/Business Group)

Subject: **NOTICE FOR INVOCATION OF THE CONCILIATION CLAUSE OF THE
CONTRACT BY A STAKEHOLDER**

Ref: Contract No/MoU/Agreement/LOI/LOA& date _____.

Dear Sir/Madam,

As you are aware, with reference to above referred Contract/MoU/Agreement/LOI/LOA, certain disputes have arisen, which, in spite of several rounds of mutual discussions and various correspondences have remained unresolved. The brief particulars of our claims which have arisen out of the above-referred Contract/MoU/Agreement/LOI/LOA are enumerated hereunder:

Sl. No.	Claim description	Amount involved

As you are aware, there is a provision in the captioned Contract/MoU/Agreement/LOI/ LOA for referring inter-se disputes of the Parties to conciliation.

We wish to refer the above-said disputes to Conciliation as per the said Clause of the captioned Contract/MoU/Agreement/LOI/ LOA. In terms of Clause -----of Procedure i.e., Annexure ----- to the Contract/MoU /Agreement / LOI / LOA, we hereby invite BHEL to provide its consent in writing to proceed with conciliation into the above mentioned disputes within a period of 30 days from the date of this letter along with details of counter-claims, if any, which it might have with regard to the subject Contract/ MoU/ Agreement/ LOI/ LOA and to appoint suitable person(s) as Conciliator(s) from the BHEL Panel of Conciliators.

This letter is being issued without prejudice to our rights and contentions available under the contract and law.

Thanking you
Yours faithfully

Representative of the Stakeholder

Note: The Format may be suitably modified, as required, based on facts and circumstances of the case.

FORMAT FOR INTIMATION TO THE STAKEHOLDER ABOUT APPOINTMENT OF CONCILIATOR/IEC

To,

M/s. (Stakeholder's name)

Subject: **INTIMATION BY BHEL TO THE STAKEHOLDER AND CONCILIATOR(S) ABOUT APPOINTMENT OF CONCILIATOR/IEC**

Ref: Contract No/MoU/Agreement/LOI/LOA& date _____.

Sir,

This is with reference to letter dated ----- regarding reference of the disputes arising in connection with the subject Contract No /MoU/Agreement/LOI/LOA to conciliation and appointment of Conciliator(s).

In pursuance of the said letter, the said disputes are assigned to conciliation and the following persons are nominated as Conciliator(s) for conciliating and assisting the Parties to amicably resolve the disputes in terms of the Arbitration & Conciliation Act, 1996 and the Procedure ---- to the subject Contract/MoU/Agreement/LOI/LOA, if possible.

Name and contact details of Conciliator(s)

a)

b)

c)

You are requested to submit the Statement of Claims or Counter-Claims (strike off whichever is inapplicable) before the Conciliator(s) in Format 29 (enclosed herewith) as per the time limit as prescribed by the Conciliator(s).

Yours faithfully,

Representative of BHEL

CC: To Conciliator(s)... for Kind Information please.

Encl: As above

Note: The Format may be suitably modified, as required, based on facts and circumstances of the case.

PROCEDURE FOR CONDUCT OF CONCILIATION PROCEEDINGS

1. The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided herein:
2. The party desirous of resorting to Conciliation shall send an invitation/notice in writing to the other party to conciliate specifying all points of Disputes with details of the amount claimed. The party concerned shall not raise any new issue thereafter. Parties shall also not claim any interest on claims/counter-claims from the date of notice invoking Conciliation till the conclusion of the Conciliation proceedings. If BHEL is to initiate Conciliation, then, the invitation to Conciliate shall be extended to the concerned Stakeholder in **Format-30** hereto. Where the stakeholder is to initiate the Conciliation, the notice for initiation of Conciliation shall be sent in **Format-31** hereto.
3. The party receiving the invitation/notice for Conciliation shall within 30 days of receipt of the notice of Conciliation intimate its consent for Conciliation along with its counter-claims, if any.
4. The Conciliation in a matter involving claim or counter-claim (whichever is higher) up to Rs 5 crores shall be carried out by sole Conciliator nominated by BHEL while in a matter involving claim or counter-claim (whichever is higher) of more than Rs 5 crores Conciliation shall be carried out by 3 Conciliators nominated by BHEL. The appointment of Conciliator(s) shall be completed and communicated by the concerned Department/Group of BHEL Unit/Division/Region/Business Group to the other party and the Conciliator(s) within 30 days from the date of acceptance of the invitation to conciliate by the concerned party in the **Format-32**. The details of the Claim, and counter-claim, if any, shall be intimated to the Conciliator(s) simultaneously in **Format-29**.
5. The Parties shall be represented by only their duly authorized in-house executives/officers and neither Party shall be represented by a Lawyer.
6. The first meeting of the IEC shall be convened by the IEC by sending appropriate communication/notice to both the parties as soon as possible but not later than 30 days from the date of his/their appointment. The hearings in the Conciliation proceeding shall ordinarily be concluded within two (2) months and, in exceptional cases where parties have expressed willingness to settle the matter or there exists possibility of settlement in the matter, the proceedings may be extended by the IEC by a maximum of further 2 months with the consent of the Parties subject to cogent reasons being recorded in writing.

- 7.** The IEC shall thereafter formulate recommendations for settlement of the Disputes supported by reasons at the earliest but in any case within 15 days from the date of conclusion of the last hearing. The recommendations so formulated along with the reasons shall be furnished by the IEC to both the Parties at the earliest but in any case within 1 month from the date of conclusion of the last hearing.
- 8.** Response/modifications/suggestions of the Parties on the recommendations of the IEC are to be submitted to the IEC within time limit stipulated by the IEC but not more than 15 days from the date of receipt of the recommendations from the IEC.
- 9.** In the event, upon consideration, further review of the recommendations is considered necessary, whether by BHEL or by the other Party, then, the matter can be remitted back to the IEC with request to reconsider the same in light of the issues projected by either/both the Parties and to submit its recommendations thereon within the following 15 days from the date of remitting of the case by either of the Parties.
- 10.** Upon the recommendations by the Parties, with or without modifications, as considered necessary, the IEC shall be called upon to draw up the Draft Settlement Agreement in terms of the recommendations.
- 11.** When a consensus can be arrived at between the parties only in regard to any one or some of the issues referred for Conciliation the draft Settlement Agreement shall be accordingly formulated in regard to the said Issue(s), and the said Settlement Agreement, if signed, by the parties, shall be valid only for the said issues. As regards the balance issues not settled, the parties may seek to resolve them further as per terms and conditions provided in the contract.
- 12.** In case no settlement can be reached between the parties, the IEC shall by a written declaration, pronounce that the Conciliation between the parties has failed and is accordingly terminated.
- 13.** Unless the Conciliation proceedings are terminated in terms of para 22 (b), (c) & (d) herein below, the IEC shall forward his/its recommendations as to possible terms of settlement within one (1) month from the date of last hearing. The date of first hearing of Conciliation shall be the starting date for calculating the period of 2 months.
- 14.** In case of 3 members IEC, 2 members of IEC present will constitute a valid quorum for IEC and meeting can take place to proceed in the matter after

seeking consent from the member who is not available. If necessary, videoconferencing may be arranged for facilitating participation of the members. However, the IEC recommendations will be signed by all members. Where there is more than one (1) Conciliator, as a general rule they shall act jointly. In the event of differences between the Members of IEC, the decision/recommendations of the majority of the Members of IEC shall prevail and be construed as the recommendation of the IEC.

- 15.** The Draft Settlement Agreement prepared by the IEC in terms of the consensus arrived at during the Conciliation proceedings between the Parties shall be given by the IEC to both the parties for putting up for approval of their respective Competent Authority.
- 16.** Before submitting the draft settlement agreement to BHEL's Competent Authority viz. the Board Level Committee on Alternative Dispute Resolution (BLCADR) for approval, concurrence of the other party's Competent Authority to the draft settlement agreement shall be obtained by the other party and informed to BHEL within 15 days of receipt of the final draft settlement agreement by it. Upon approval by the Competent Authority, the Settlement Agreement would thereafter be signed by the authorized representatives of both the Parties and authenticated by the members of the IEC.
- 17.** In case the Draft Settlement Agreement is rejected by the Competent Authority of BHEL or the other Party, the Conciliation proceedings would stand terminated.
- 18.** A Settlement Agreement shall contain a statement to the effect that each of the person(s) signing thereto (i) is fully authorized by the respective Party(ies) he/she represents, (ii) has fully understood the contents of the same and (iii) is signing on the same out of complete freewill and consent, without any pressure, undue influence.
- 19.** The Settlement Agreement shall thereafter have the same legal status and effect as an arbitration award on agreed terms on the substance of the dispute rendered by an arbitral tribunal passed under section 30 of the Arbitration and Conciliation Act, 1996.
- 20.** Acceptance of the Draft Settlement Agreement/recommendations of the Conciliator and/or signing of the Settlement Agreement by BHEL shall however, be subject to withdrawal/closure of any arbitral and/or judicial proceedings initiated by the concerned Party in regard to such settled issues.
- 21.** Unless otherwise provided for in the agreement, contract or the Memorandum of Understanding, as the case may be, in the event of likelihood of prolonged

absence of the Conciliator or any member of IEC, for any reason/incapacity, the Competent Authority/Head of Unit/Division/Region/Business Group of BHEL may substitute the Conciliator or such member at any stage of the proceedings. Upon appointment of the substitute Conciliator(s), such reconstituted IEC may, with the consent of the Parties, proceed with further Conciliation into the matter either de-novo or from the stage already reached by the previous IEC before the substitution.

22. The proceedings of Conciliation under this Scheme may be terminated as follows:

- a.** On the date of signing of the Settlement agreement by the Parties; or,
- b.** By a written declaration of the IEC, after consultation with the parties, to the effect that further efforts at conciliation are no longer justified, on the date of the declaration; or,
- c.** By a written declaration of the Parties addressed to the IEC to the effect that the Conciliation proceedings are terminated, on the date of the declaration; or,
- d.** By a written declaration of a Party to the other Party and the IEC, if appointed, to the effect that the Conciliation proceedings are terminated, on the date of the declaration; or,
- e.** On rejection of the Draft Settlement Agreement by the Competent Authority of BHEL or the other Party.

23. The Conciliator(s) shall be entitled to following fees and facilities:

Sl No	Particulars	Amount
1	Sitting fees	Each Member shall be paid a Lump Sum fee of Rs 75,000/- for the whole case payable in terms of paragraph No. 27 herein below.
2	Towards drafting of settlement agreement	In cases involving claim and/or counter-claim of up to Rs 5crores. Rs 50,000/- (Sole Conciliator) In cases involving claim and/or counter-claim of exceeding Rs 5 crores but less than Rs 10 crores. Rs 75,000 (per Conciliator)

Sl No	Particulars	Amount
		<p>In cases involving claim and/or counter-claim of more than Rs 10 crores.</p> <p>Rs 1,00,000/- (per Conciliator)</p> <p>Note: The aforesaid fees for the drafting of the Settlement Agreement shall be paid on the, Signing of the Settlement Agreement after approval of the Competent Authority or Rejection of the proposed Settlement Agreement by the Competent Authority of BHEL.</p>
3	Secretarial expenses	<p>Rs 10,000/- (one time) for the whole case for Conciliation by a Sole Member IEC.</p> <p>Where Conciliation is by multi member Conciliators –Rs 30,000/- (one time)- to be paid to the IEC</p>
4	<p>Travel and transportation and stay at outstation Retired Senior Officials of other Public Sector Undertakings (pay scale wise equivalent to or more than E-8 level of BHEL)</p> <p>Others</p>	<p>As per entitlement of the equivalent officer (pay scale wise) in BHEL.</p> <p>As per the extant entitlement of whole time Functional Directors in BHEL.</p> <p>Ordinarily, the IEC Member(s) would be entitled to travel by air Economy Class.</p>
5	Venue for meeting	<p>Unless otherwise agreed in the agreement, contract or the Memorandum of Understanding, as the case may be, the venue/seat of proceedings shall be the location of the concerned Unit / Division / Region /</p>

Sl No	Particulars	Amount
		Business Group of BHEL. Without prejudice to the seat/venue of the Conciliation being at the location of concerned BHEL Unit / Division / Region / Business Group, the IEC after consulting the Parties may decide to hold the proceedings at any other place/venue to facilitate the proceedings. Unless, Parties agree to conduct Conciliation at BHEL premises, the venue is to be arranged by either Party alternately.

- 24.** The parties will bear their own costs including cost of presenting their cases/evidence/witness(es)/expert(s) on their behalf. The parties agree to rely upon documentary evidence in support of their claims and not to bring any oral evidence in IEC proceedings.
- 25.** If any witness(es) or expert(s) is/are, with the consent of the parties, called upon to appear at the instance of the IEC in connection with the matter, then, the costs towards such witness(es)/expert(s) shall be determined by the IEC with the consent of the Parties and the cost so determined shall be borne equally by the Parties.
- 26.** The other expenditures/costs in connection with the Conciliation proceedings as well as the IEC's fees and expenses shall be shared by the Parties equally.
- 27.** Out of the lump sum fees of Rs 75,000/- for Sitting Fees, 50% shall be payable after the first meeting of the IEC and the remaining 50% of the Sitting Fees shall be payable only after termination of the conciliation proceedings in terms of para 22 hereinabove.
- 28.** The travelling, transportation and stay at outstation shall be arranged by concerned Unit as per entitlements as per Serial No. 4 of the Table at para 23 above, and in case such arrangements are not made by the BHEL Unit, the same shall be reimbursed to the IEC on actuals limited to their entitlement as per Serial No. 4 of the Table at Para 23 above against supporting documents. The IEC Member(s) shall submit necessary invoice for claiming the fees/reimbursements.
- 29.** The Parties shall keep confidential all matters relating to the conciliation proceedings. Confidentiality shall extend also to the settlement agreement,

except where its disclosure is necessary for purposes of its implementation and enforcement or as required by or under a law or as per directions of a Court/Governmental authority/ regulatory body, as the case may be.

- 30.** The Parties shall not rely upon or introduce as evidence in any further arbitral or judicial proceedings, whether or not such proceedings relate to the Disputes that is the subject of the Conciliation proceedings:
 - a.** Views expressed or suggestions made by the other party in respect of a possible settlement of the Disputes;
 - b.** admissions made by the other party in the course of the Conciliator proceedings;
 - c.** proposals made by the Conciliator;
 - d.** The fact that the other Party had indicated his willingness to accept a proposal for settlement made by the Conciliator.
- 31.** The Parties shall not present the Conciliator(s) as witness in any Alternative Dispute Resolution or Judicial proceedings in respect of a Disputes that is/was the subject of that particular Conciliation proceeding.
- 32.** None of the Conciliators shall act as an arbitrator or as a representative or counsel of a Party in any arbitral or judicial proceeding in respect of a Disputes that is/was the subject of that particular Conciliation proceeding.
- 33.** The Parties shall not initiate, during the Conciliation proceedings, any arbitral or judicial proceedings in respect of a Disputes that is the subject matter of the Conciliation proceedings except that a Party may initiate arbitral or judicial proceedings where, in his opinion, such proceedings are necessary for preserving his rights including for preventing expiry of period of limitation. Unless terminated as per the provisions of this Scheme, the Conciliation proceedings shall continue notwithstanding the commencement of the arbitral or judicial proceedings and the arbitral or judicial proceedings shall be primarily for the purpose of preserving rights including preventing expiry of period of limitation.
- 34.** The official language of Conciliation proceedings under this Scheme shall be English unless the Parties agree to some other language.