

No.OIDC/TRAN/PIDS/2015-2016/1196

#### Date: 23/11/2015.

#### E-TENDER (ONLINE) NOTICE (3rd Call)

Omnibus Industrial Development Corporation of Daman & Diu and Dadra & Nagar Haveli (OIDC), Daman hereby invites E- Tender (two bid systems) (3<sup>rd</sup> Call) for **"Supply, Installation & Maintenance of LED based Bus Destination System** (Passenger Information Display System)" through on-line on http: nprocure.com from the Manufacturer/ Authorized distributor/Dealer whose average annual turnover shall not be less than Rs. 25/- Lakhs for each of the preceding 03 financial years i.e. 2012-13, 2013-14 & 2014-15.

Sr. No.	Description of items	Estimated cost	EMD (in the form of FDR)	Tender Fees ( DD - non- refundable)	Time of Completion of work	
1	"Supply, Installation & Maintenance of LED based Bus Destination System (Passenger Information Display System)"	Rs. 20,00,000/-	Rs. 50,000/-	Rs.500.00	30 days	
Date		load of tender doo	uments: <b>14/12/20</b>	15 upto 11.00 hrs	<u> </u>	
		g of bid (i.e. last da				
	2/2015 upto 16.00					
		nission of detail pro			o 18.00 hrs.	
		if possible on 15/1				
	¥	if possible on 17/1				
		& other details v		•		
		er notice can also it price bid in ele				
	the last date and time for submission. Price bid in physical format shall not be accepted in any case.					
	Submission of tender fees in the form of DD, EMD in the form of DD of the Schedule Bank					
	and other supporting documents i.e. copy of valid license from competent authority, copy					
	of VAT/ST registration and copy of PAN/TAN of income tax etc. and terms and condition					
duly signed in hard copy to the undersigned by RPAD/Speed post by hand on or before						
14/12/2015upto 18.00 hrs., however, tender inviting authority shall not be responsible for						
any postal delay.						
OIDC reserves the right to reject any or all tenders without assigning any reason and						
selection shall be at the absolute discretion of the OIDC and OIDC's decision in this						
respect shall be final and binding.						
Bidder shall have to post their queries on e-mail address: <u>m</u> t-oidc-dd@nic.in./ lijuantony25@gmail.com on or before 07/12/2015 upto 16.00 hrs.						
	In case bidder needs any clarification or if training required for participating in online					
tender they can contact the following office. (n)Code Solution – A division GNFC Ltd., 403,						
	GNFC info Tower, Bodakdev, Ahmedabad – 380 054, Gujarat (India), e-mail:					
<u>npov</u>	npower@ncode.in, Fax : +917926857321, website: www.nprocure.com					



Omnibus Industrial Development Corporation of Daman &Diu and Dadra &Nagar Haveli Limited (A Govt. Undertaking) Corporate Office : Plot No.35, Somnath, Nani Daman - 396 210. Tel: (0260) 2241120, 2241112, Fax : (0260) 2241108. Website. www.oidc.nic.in CIN : U65923DD1992SGC001221

No.OIDC/TRAN/PIDS/2015-2016/1196

Date: 23/11/2015.

## E-TENDER (ONLINE) NOTICE (3rd Call)

# \*\*\* Terms and Conditions for "Supply, Installation & Maintenance of LED based Bus Destination System (Passenger Information Display System)".

Omnibus Industrial Development Corporation of Daman & Diu and Dadra & Nagar Haveli (OIDC), Daman hereby invites E- Tender (two bid systems) (3<sup>rd</sup> Call) for "Supply, Installation & Maintenance of LED based Bus Destination System (Passenger Information Display System)" through on-line on http: nprocure.com from the Manufacturer/Authorized distributor/Dealer whose average annual turnover shall not be less than Rs. 20/- Lakhs for each of the preceding 03 financial years i.e. 2012-13, 2013-14 & 2014-15 as per Schedule-B attached with the following conditions:

## 1. CHECK OFF LIST:

**I.** All the bidders are kindly requested to go through the tender document very carefully and understand all the clauses before submission of the tender. You are kindly requested for following:

**a)** All proposals/bids/offers shall be numbered, signed & stamped on Each Page by the duly 'Authorized Signatory' of the Bidder.

(b) Return original tender along with the technical bid.

(c) Submit technical bid separately in a sealed envelope.

(d) Provide complete details of the bankers with MICR and IFSC/NEFT/RTGS details and copy of income tax PAN card.

(e) Give your complete details & contact number for ease of communication.

(f) Sign the certificate undertaking enclosed with tender document and return it duly signed in original along with the technical bid document.

**(g)** Only original equipment manufacturers or Authorized Distributor/Dealer of OEM are to participate.

(h) All items whose samples cannot be shown at the time of opening of the technical bid, original catalog of the same with specification and quote serial No to be specified.

II. Following is the List of documents, which you are kindly requested to attach with the Technical bid.

Sr. No.	Document Required / Important things to ensure	Yes	No
1	Audited balance sheet of last three financial year i.e.		
	2012 - 2013, 2013 - 2014 & 2014 – 2015		
2	Copies of Sales Tax Returns		
3	Details of pending cases/disputes/claims with		
	arbitration courts/consumer forums etc.		
4	Details of after sale Warranty / Guarantee etc. to be		
	provided.		
5	Proposal/bid/offer shall be numbered, signed &		
	stamped on Each Page by the duly 'Authorized		
	Signatory' of the Bidder.		
6	Sample of all the items to be supplied.		
7	Catalog of all equipment attached in the cover of		
	technical bids		

- The Tender documents & other details will be available on <u>https://www.nprocure.com</u> upto 14/12/2015. Tender notice can also be seen at web site <u>www.daman.nic.in</u>.
- 3. Hard copy of the technical bid should be in a sealed envelope subscribed as "Supply, Installation & Maintenance of LED based Bus Destination System (Passenger Information Display System)" and addressed to the Office of Chief General Manager, OIDC Corporate Office, Plot No. 35, Somnath, Nani Daman, Daman – 396 210.
- 4. The Bidder should be in the trade for the last three years and documentary evidence should be enclosed with the technical bid.
- 5. The location of units where these items are to be delivered is at : 1) OIDC, Corporate Office, Plot No. 35, Somanth, Nani Daman, Daman, 2) OIDC, Bandar Road, Diu & 3) OIDC, Plot No. 20, Govt. Industrial Estate, Masat, Silvassa. The rate(s) quoted should be strictly for free delivery at Daman, Diu & Silvassa. No extra charge for packaging, forwarding and insurance, transportation etc. will be paid.
- **6.** Vender must customize the software and reports as per user's requirement during warranty period.
- **7.** Supplier has to supply the system at Daman, Diu and Silvassa as per department's requirement i.e. 06 nos. in Daman, 06 nos. in Silvassa and 04 nos. in Diu initially.
- 8. The bidder should specify the name of the manufacturer for the items quoted by him along with catalog of the items. A detailed catalog with drawing indicating specifications, material used etc. may be submitted in the hard copy envelope.
- **9.** Only Sales Tax / VAT will be paid on the items on which it is chargeable under the Central Sales Tax Act / VAT Act or the Rules made there under.
- **10.** Copy of the Sales Tax Registration should be attached to tender.
- 11. The rate(s) should be quoted only for the items specified in **Annexure I** and should be for the items of given special make / manufacture

(Preferred Brands: Lumex Auto Technologies Ltd., Arka Technologies Pvt. Ltd, Chemito Technologies Ltd., Autometers Alliance Ltd., Fiem Industries Ltd., & Megastar LED LTd.).

- 12. The rate accepted shall be operative for a period of one year from the date of the acceptance of rate. The bidder whose rates are approved, will be bound to supply material on approved rate for a period of one year. Rate(s) quoted for items other than the required specification may not be considered.
- **13.** Training must include hand-on/practical training to the user and should be delivered at Daman, Diu and Silvassa individually.
- 14. Warranty shall be of three year comprehensive (Including parts). The bidder has to provide warranty against all the items supplied which shall include warranty against failure due to bad workmanship or design defects, faulty components/parts etc. Warranty should be onsite i.e. in case of malfunctions/errors in the systems displayed, the bidder should provide onsite services bearing all costs for to & from travel, accommodation etc.
- **15.** The BIDDER shall bear the cost of day-to-day repairs and maintenance. All repairs shall be the responsibility of Bidder. If the repairs or maintenance required to be carried out by Bidder are not carried out within reasonable time (in any case not more than 05 days), the bidder will have to go through the penalty of Rs. 250/- per day.
- **16.** The Managing Director, OIDC, Daman will be at liberty to accept the tender for the entire quantity or the part thereof at the rates submitted by the bidder or at reduced rate during the negotiations if any.
- 17. The Tender Committee will open the Tenders in presence of tenderers or their representatives, if any present in the Office of the OIDC. The Tender Committee will first open the technical bid. The Committee will open the financial bid only of those firms who are qualified for technical bid as per minimum specification given by the department.
- **18.** Where specification is not specified by this office, the rate(s) should be quoted only for the superior quality.
- **19.** Items supplied by the successful bidder shall be randomly checked & verified by the Tender inviting Officer through Departmental staff/authorized staff. Acceptance item shall be strictly subject to satisfaction of the verifying authority. The items which are not found as per specification given in the tender will be directly rejected and the same has to be replaced by the cost of the bidder.

#### 20. Earnest Money Deposit (E.M.D):

- I. The tenders must be accompanied with Earnest Money Deposit (EMD) of Rs. 50,000/- (Rupees Fifty Thousand Only) in form of Demand Draft drawn on any Schedule Bank in favour of OIDC, payable at Daman for the fulfillment of the contract. Tender received without EMD will be treated as invalid.
- II. The amount of Earnest Money Deposit paid by the Tenderer(s) whose tenders are not accepted will be refunded to them within 15 days.

- III. The Successful bidder shall have to deposit 5% of Tender amount as security deposit through Demand Draft or in the form of Bank Guarantee of Schedule Bank and shall have to sign a contract with OIDC as per rules within 15 days after receipt of order. The EMD paid by the successful tenderer will be adjusted towards Security Deposit. No interest will be paid on the amount of the security deposit money. This security deposit will be refunded after successful completion of the warranty.
- IV. In case, the supplier does not execute the supply order placed with him, the Security Deposit of the supplier will be forfeited to the OIDC and the contract for the supply shall be terminated with no further liabilities on either party to the contract. EMD will be forfeited in case successful bidder fails to sign agreement as mentioned above.
- V. Extensions of time limit for supplies shall be considered by the OIDC maximum upto 30 days of issue of supply order. The extension so granted may be with levy of compensation for delay in execution of supply order up to 5% of the cost of supplies ordered for at the discretion of the authority competent to grant extension of time limit provided such request is made well in time, depending upon the circumstances and such decision in the matter will be final.
- VI. In case of failure to supply the store, items and equipment etc. ordered for, as per conditions and within the stipulated time, the same articles will be obtained from the other Tenderer who offered next higher rates or from any other sources, as may be decided by the OIDC and the loss to the Government on account of such purchases(s) shall be recovered from the former supplier's Security Deposit/Earnest Money or amount of bill payable. The supplier shall have no right to dispute with this procedure.
- VII. In case of successful bidder, who decline to accept the contract order, the EMD will be forfeited and the concerned agency will be blacklisted.
- The supplies of LED DESTINATION BOARDS of inferior sub-21. (i) quality/measure or of different specifications, standard brand. manufacturer etc. other than that ordered / specified and/or incomplete or broken articles will not be accepted. The supplier will have to replace the same at his own cost and risk within 07 days. Intimation of nonacceptance of any stores Items and equipment etc. will be sent to the supplier within 03 days from the date of receipt of the stores and the same will be returned to the supplier at his own cost and risk within 07 days from the date of dispatch of intimation of the non-acceptance. However, if the replaced supplies are not received within 05 days from the date of communication, OIDC will not be responsible for any damage, loss etc. of such rejected articles. In case of failure to replace the rejected articles from supplies made, as mentioned in the conditions, the loss suffered by the Government will be recovered from the supplier's Security Deposit or payment of any bill(s) to the extent required.

(ii) In case of delay in replacement, delivery of defective parts or deficiency in services, liquidated damages not exceeding an amount of 0.2% (Zero point two percent) of the contract value per day, subject to a maximum of 10% (Ten percent) of the contract value will be imposed and shall be recovered from the security deposit or otherwise. However, in case of delay due to reasons beyond the control of the tenderer, suitable extension of time shall be granted as per discretion of the management.

- 22. Earliest Acceptable year of Manufacture: 2015 (The standard quality / life certificate will need to be enclosed with the Bill).
- **23.** Fill the tender with pen/ball pen only. Any entry/detail written in pencil will not be accepted. Avoid over writing. In case of any corrections, old wrong entries are to be neatly cut by one line and signed in full. Correct entry is then written. Use of correcting fluid not permitted.
- **24.** The Compliance statement should be submitted in the following formats:

Para No.	Specifications as per Tender Documents	Specifications offered	Compliance (Yes/No)	In case of non- compliance, deviation from T. E. Specification in unambiguous terms
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- **25.** The equipment supplied will not become obsolete in next 05 years from the date of completion of guarantee / warrantee liability period and complete product support for next 05 years including providing spares required if any to keep the equipment in operational condition to its optimum performance, shall be promised and provided.
- **26.** If at any time after the order for supply of materials, OIDC shall for any reason whatsoever not require the whole or part of the quantity thereof as specified in the order it shall give notice in writing of the fact to the supplier(s) who shall have no claim to any payment of compensation whatsoever on account of any profit or advantage which the supplier(s) might have derived from the supply of articles in full, but which did not derive in consequence of the full quantity of articles not having been purchased, nor shall have any claim for compensation due to any alterations having been made in the original instructions which shall invoice any curtailment of the supply originally contemplated.
- **27.**Successful bidder will have to sign an agreement with the purchaser within 07 (Seven) days of the receipt of the supply order.
- 28. The Tender documents will be rejected if it is
  - a. Incomplete,
  - b. Not properly filled,
  - c. Received after the due date,
  - d. Nor accompanied with EMD,
  - e. Not accompanied with technical specifications/Make/Model etc of the equipments.

- 29. A prospective bidder who requires clarification regarding the contents of the bidding documents shall notify to the Buyer in writing/through mail about the clarifications sought not later than 05 days prior to the date of opening of the Bids. (mt-oidc-dd@gov.in / lijuantony25@gmail.com)
- **30.** For specified items, the amount of Security Deposit will be refunded after expiry of guarantee/warranty period of 03 years.
- **31.**OIDC may consider extension of time for remitting the Security Deposit if demanded. However, in case of denial to consider such extension, the supplier is bound to abide by the limit given and liable to make good any loss to the OIDC on account of his failure to abide by the time limit.
- **32.** The Earnest Money(s)/Security Deposit(s) paid by the tender(s) earlier against any tender(s) or supply order(s) is/are not adjustable with Earnest Money or Security Deposit required as per conditions of this tender.
- **33.** Payment shall be released only after acceptance of items and verification by the authority. Any condition relating to advance payment of the ordered material will not be entertained.
- **34.** The duly filled authorization letter for release of payment through RTGS must be submitted along with the technical bid envelope.
- **35.** All bills should be in DUPLICATE and should invariable mention the number and date of supply order.
- 36. It shall be normally being presumed that material(s) are available ex-stock and shall be supplied immediately. If not so, the delivery period (not more than 15 days) shall be specifically mentioned in the bid otherwise EMD will be forfeited.
- **37.** The bidder has to furnish guarantee & Warranty Certificates in the technical Bid Envelop.
- **38.** The bidder has to furnish list of service centers alongwith full details in the technical bid envelop. (Surrounding area of Daman Territory).
- **39.** The Contract shall be considered and made in accordance with the laws of the Republic of India. The contract shall be governed by and interpreted in accordance with the laws of the Republic of India.
- **40.** All bills for amount above Rs. 5,000.00 should be pre-receipted on a Revenue Stamp of proper value. Bills for amount exceeding Rs. 5,000.00 not pre-receipted on Revenue Stamp of proper value will not accepted for payment.
- **41.** Each bill in which VAT is charged must contain the following certificate on the body of the bill.
- 42. "CERTIFIED that the goods on which Value Added Tax has been charged have not been exempted under the Central Sale Tax Act or the Rules made there under and the amount charged on account of Value Added Tax on these goods is not more than what is payable under the provisions of relevant Act or Rules made there under."
- **43.** In respect of any dispute given rise to the legal proceedings between the parties, the courts at Daman shall alone have the Jurisdiction.

Chief General Manager

## **DECLARATION**

- **1.** I have read the terms & conditions mentioned in the tender document and undertake to abide the same during the contractual period.
- 2. The information given in the technical bid by the undersigned is correct.

(Signature of Supplier / Tenderer) Date & Rubber Stamp.

NOTE :- Please return one copy of these conditions duly signed along with your tender/quotations.

## TECHNICAL BID FORM (TO BE SUBMITTED SEPARATELY IN TECHNICAL BID ENVELOP)

The following detail s / documents / certificates issued by the concerned Authorities in respect of the bidder are required to be submitted for qualifying in Technical Bid :

1. Name of the Firm / Agency	
2. Name of the Proprietor /	
Partner / Directors	
3. Address of the Firm / Company	
4. Registration Number of the	
Firm / Memorandum & Article of	
Association of the Company	
(attached a photo copy)	
5. Telephone / Fax No. / Email ID /	
Web site of the Company	
6. PAN / TIN number (attached a	
photo copy)	
7. VAT / CST number (attached a	
photo copy)	
8. Attached copy of ITR for the last	
three years	
9. Annual Turnover during last 3	
preceding years duly certified by	
CA (attached copy of the	
balance sheet ) - 2012-13,	
2013-14 & 2014-15	
10. Documentary proof regarding	
Manufacturer / Authorized	
Distributor/Dealer of (OEM)	
11. Experience in the line	
(mentioned number of years) /	
Credential - attached list of	
clients.	
12. EMD Details : Demand Draft No	
& Date, Amount, Bank Name,	
Valid for the Period	
13. Valid Service Tax Registration	
Certificate	
14. Latest Sales Clearance	
Certificate	

SIGNATURE OF THE BIDDER With Address & Seal

#### AUTHORIZATION LETTER FOR RELEASE OF PAYMENT (TO BE SUBMITTED SEPARATELY IN TECHNICAL BID ENVELOP)

	Name of Payee as in	
	Bank Account	
	Address :	
Payee Particulars		
	Telephone / Fax No. with	
	STD Code	
	Name of the Bank	
	Bank Branch Address	
	(Full address & telephone	
	no.)	
Bank details		
	Mode of electronic	
	transfer available	
	RTGS NIFD any other	
	IFSC Code	
	MICR Code	

## SIGNATURE OF THE BIDDER \_\_\_\_\_ With Seal Name : \_\_\_\_\_

Account number has been verified by me

Manager (Bank branch maintain the account )

## <u>Annexure – I</u>

#### Technical Specification of LED DESTINATION BOARD:

#### (1) FRONT LED DISPLAY BOARD:

**Quantity Required-16 Nos** 

#### A) **<u>DIMENSIONS</u>**:

Cabinet Size 289.5mm x 984.5mm Display Area 212mm x 911mm Character Height 205mm Line Matrix 16 x 91 Pitch 10.0mm (H) x 13.4mm (V)

## B) **LED PARAMETERS** :

Type of LED Oval, 5mm diffused Color Amber Colored Wavelength 591 to 595nm Dominant Wavelength as per AIS-012 standard Intensity Multiplexed design (4:1 ) with 1560-2180mCd at 20mA Viewing angle 120°H / 60°V Operating Temperature -40°C to +85°C Ingress Protection IP 66 UV Resistant Yes

## C) <u>ELECTRICAL PRAMETERS</u> :

Operating Voltage +24V DC # }25%

## D) **DISPLAY CHARACTERISTICS** :

1. Single sided

2. In-built light sensor with continuously variable brightness control to enable the display intensity to change based on ambient light conditions.

3. 50 meters minimum, for single line text in both Day and Night

4. a) To display Bus number and Destination with Fixed, Scrolling and flashing mode (with fixed route number up to 6 characters with capability of customized graphics)

b) Data interface through RS 485

c) Display in English (2 lines) / Hindi(1 line) / Regional (1 line) Language

d) Total display height is capable to accommodate two lines in English language and the Individual heights of each line are adjustable to enable one line to be larger/smaller than the second line.

e) Possible to display, concurrently, different messages

5. Able to display special signs like signs for 'PWD enable bus', 'ladies special'.

6. Ability to retain the last message displayed in the memory in the event of power failure.

7. Display in English and local languages using Microsoft fonts via window based software Package.

## E) <u>STRUCTURE</u>:

1. Aluminum Cabinet , Powder Coated finish with toughened glass at front

2. Mounting arrangement by roof hanging, wall mounting

3. Automotive grade components used, rated for temperature -25°C to +85°C with conformal coated PCB boards

4. Power to signs is supplied through bus multiplex wiring system.

## (2) <u>REAR LED DISPLAY BOARD:</u>

**Quantity Required-16 Nos** 

## A) <u>DIMENSIONS</u> :

Cabinet Size 289.5mm x 984.5mm Display Area 212mm x 911mm Character Height 205mm Line Matrix 16 x 91 Pitch 10.0mm (H) x 13.4mm (V)

## B) **LED PARAMETERS** :

Type of LED Oval, 5mm diffused Color Amber Colored Wavelength 591 to 595nm Dominant Wavelength as per AIS-012 standard Intensity Multiplexed design (4:1 ) with 1560-2180mCd at 20mA Viewing angle 120°H / 60°V Operating Temperature -40°C to +85°C Ingress Protection IP 66 UV Resistant - Yes

## C) <u>ELECTRICAL PRAMETERS</u> :

Operating Voltage +24V DC # }25%

# D) **DISPLAY CHARACTERISTICS** :

1. Single sided

2. In-built light sensor with continuously variable brightness control to enable the display intensity to change based on ambient light conditions.

- 3. 50 meters minimum, for single line text in both Day and Night
- 4. a) To display Bus number and Destination with Fixed, Scrolling and flashing

mode (with fixed route number up to 6 characters with capability of customized graphics)

- b) Data interface through RS 485
- c) Display in English (2 lines) / Hindi(1 line) / Regional (1 line) Language.\
- d) Total display height is capable to accommodate two lines in English language and the Individual heights of each line are adjustable to enable one line to be larger/smaller than the second line.
- e) Possible to display, concurrently, different messages
- 5. Able to display special signs like signs for 'PWD enable bus', 'ladies special'.

6. Ability to retain the last message displayed in the memory in the event of power failure.

7. Display in English and local languages using Microsoft fonts via window based software package

## E) STRUCTURE :

1. Aluminum Cabinet , Powder Coated finish with toughened glass at front

2. Mounting arrangement by roof hanging, wall mounting

3. Automotive grade components used, rated for temperature -25°C to +85°C with conformal coated PCB boards

4. Power to signs is supplied through bus multiplex wiring system.

## (3) <u>IN-BUS DISPLAY BOARD</u>:

**Quantity Required-16 Nos** 

## A) <u>DIMENSIONS :</u>

Cabinet Size 911.5mm x 184.5mm Display Area 120mm x 842mm Character Height 120mm Line Matrix 16 x 112 No. of Lines 1 Line Pitch 7.62mm (H) x 7.62mm (V)

## B) <u>LED PARAMETERS</u> :

Color Amber Colored Wavelength 590 to 595nm Dominant Wavelength as per AIS-012 standard Intensity 40 mCd Viewing angle 45° all around Operating Temperature -40°C to +85°C Ingress Protection IP 66 UV Resistant Yes

## C) <u>ELECTRICAL PRAMETERS</u> :

Operating Voltage +24V DC # }25%

## D) <u>DISPLAY CHARACTERISTICS</u> :

- 1. Single sided
- 2. In-built light sensor with continuously variable brightness control to enable the display intensity to change based on ambient light conditions.
- 3. 15 meters minimum, for single line text in both Day and Night
- 4 a) Data interface through RS 485
  - b) Display in English (2 lines) / Hindi(1 line) / Regional (1 line) Language
  - c) Total display height is capable to accommodate two lines in English Language, Next stop announcement, single line text.
  - d) Possible to display, concurrently, different messages

e) Able to display up to three languages, one after the other in sequence. For example display in English, then Hindi followed by local language for benefit of the passengers. Display is possible "before arrival" of the bus at the bus stop, "on arrival" of the bus at bus stop and "after departure" of the bus from the bus stop.

- 5. Able to display special signs like signs for 'PWD enable bus', 'ladies special'.
- 6. Ability to retain the last message displayed in the memory in the event of power failure.

7. Display in English and local languages using Microsoft fonts via window based software package.

## E) <u>STRUCTURE :</u>

- 1. Aluminum Cabinet, Powder Coated finish with poly glass at front.
- 2. Mounting arrangement by, roof hanging, wall mounting .

## (4) IBDC CONTROLLER:

## **Quantity Required-16 Nos**

## Salient features:

- 1. Interactive Human Interface with 64x256, graphic LCD & 20 key keypad.
- 2. LCD being graphical, can be used as multiple line or single line with various fonts for letters and symbols.
- 3. 20 keys keypad with long life cycle provides ease in entering, number, English characters.
- 4. Operation of 8 function key in tandem with LCD for smooth operations
- 5. IBDC is compatible with most of the available GPS trackers or GPS receivers with NEMA 0183 protocol. Choice of External or Built-in GPS receivers is available (Optional)
- 6. Choice of External or Built-in GPRS should be available as optional feature
- 7. IBDC plays voice file corresponding to the location of the vehicle at bus stops as "Current Stop" and defined location to announce "Next Stop"
- 8. Announcements are done in 2 languages. Optional feature available for Announcement in 3 languages
- 9. IBDC supports operation of displays & announcement for 150 routes, 300 destinations & 50 bus stops in each route. (Option of increasing memory capacity; up to 2GB).

- 10. IBDC provides a facility to skipping of bus stops during run
- 11. Integrating voice announcement system to speakers installed in bus; sync with display message.

#### **Specifications:**

#### **Operations**

Route No. selection by Route no. Route No. selection by Sr. no. Downloading of bitmap & LAT LON through USB Pen Drive. Skip Next Stop operation

#### <u>Display</u>

Graphic LCD 64 x 256 Pixels with white back light Displays Route no. with Destination name in English. Displays LAT LON on move

#### <u>Memory</u>

1 GB (128 M bytes) For Route & 2 GB for Audio Files.

#### <u>Keyboard</u>

20 keys Alpha Numeric, Function, Arrow Keys

#### Input / Output

**RS 485** Communication channel for Front, Side & Rear destination displays and Inside Bus Display. As per SAE-J1708

#### Audio Output

2 Chanel -20W/C- 4/8 Ohms

#### Interface Protocols for Displays

Industry Standard protocols to show bitmaps.

#### Operating voltage Supply voltage 24 V # } 25%

Ingress protection

#### <u>Fire Resistance</u> Horizontal burning test HB as per UL 94 -1998 clause 7

# (5) <u>Standard Accessories</u>

- 1 Wiring set/ Harness
- 2 Speakers (set of 4 nos) 1 set .
- 3 GPS Antenna
- 4 Mounting brackets (set of 3 displays) 1 set
- 5 Labor charges for Installation /supervision & testing of product at site by technician.