



NIT. No. AO SHIMLA/SECURITY/TENDER/101//2024-25/03 DATED: 5.11.2024

**NOTICE FOR INVITING TENDER OF APPROVED EMPANELLED FOR SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF SECURITY ALARM SYSTEMS AND THEIR MAINTENANCE (INCLUDING MAINTENANCE OF EXISTING SECURITY ALARM SYSTEMS AT BRANCHES/ OFFICES/ CELLS OF STATE BANK OF INDIA UNDER ADMINISTRATIVE OFFICE SHIMLA**

**TO BE SUBMITTED**

ON OR BEFORE UP TO 1230 HRS ON 25.11.2024

**ADDRESS FOR COMMUNICATION**

Deputy General Manager (B &O)  
State Bank of India  
Administrative Office  
40 SDA Complex, Kasumpti,  
Shimla, Pin code-171009

Name of the Vendor .....

Address:-.....

Contact no:-.....

### **Brief details of tender:-**

1.	Name of the work	Supply, installation, testing & commissioning of Security Alarm Systems and their maintenance (including maintenance of existing security alarm systems at branches/ offices/ cells of State Bank of India under Administrative Office Shimla
2.	Application mode	EOI document may be downloaded from the bank's web site <a href="https://sbi.co.in">https://sbi.co.in</a> under link of "PROCUREMENT NEWS"
3.	EMD & Security Deposit	<b>Rupees 25000 (Rupees Twenty Five Thousand)</b> in the shape of demand draft in favor of State Bank of India, Administrative Office, Shimla
4.	E-Tender Agency	Online submission up to <b>25.11.2024 up to 1230 hrs. (Both technical bid and Price bid)</b> at <a href="http://www.tenderwizard.com/">www.tenderwizard.com/</a> SBI tender Contact No. Abhay Kumar MOB – 9708966660.
5.	Date and time of opening of tender	<b>Technical bid: - 25.11.2024 at 1400 hrs. (ONLINE/OFFLINE)</b> <b>Price bid: - 25.11.2024 at 1500 hrs. (ONLINE)</b>
6.	Place of opening tender	State Bank of India Administrative Office 40 SDA Complex, Kasumpti, Shimla, Pin code-171009

### **MODE OF SUBMISSION OF TENDER: ONLINE E-TENDER**

The tender shall be submitted ONLINE in two cover system in accordance with the procedure detailed herein below:-

1) **Submission of Technical Bid: -**

i) It is required to be submitted through **online mode** as well as in **physical mode**.

ii) After submission of technical bid through online mode at [www.tenderwizard.com/](http://www.tenderwizard.com/), all original documents of technical bid with EMD are required to submit/send in a sealed envelope super scribed as "**Technical Bid for new supply, installation and maintenance of Security Alarm System**" at

**Administrative Office Shimla** and that should be reached us on or before 25.11.2024 up to 1230 hrs.

iii) The technical bid should be accompanied by the following documents duly signed (on all pages) by the authorized signatory of the firm/company.

- (a) Terms & Conditions as per Annexure-A
- (b) An undertaking as per Annexure-B
- (c) Information of Vendor on the format attached as per Annexure-C
- (d) Certificate for new installation as per Annexure-D
- (e) Certificate for service/maintenance as per Annexure-E
- (f) Technical specification as per Annexure-F
- (g) Earnest Money Deposit of **Rupees 25000 (Rupees Twenty Five Thousand)** in the shape of demand draft in favor of State Bank of India, Administrative Office, Shimla

2) **Opening of Technical Bid:-**

Technical quotation of empaneled vendors received timely through both i.e. online mode and physical mode only shall be opened at Administrative Office Shimla on 25.11.2024 at 1400 hrs.

3) **Opening of Price bid:** - Price quotations submitted through online mode at [www.tenderwizard.com/](http://www.tenderwizard.com/) and qualified in technical bid shall be opened at Administrative Office Shimla on 25.11.2024 at 1500 hrs.

In case the date of opening of tenders is declared as a holiday, the tenders will be opened on the next working day at the same time. Administrative Office Shimla has the right to accept / reject any or all tenders without assigning any reasons.

**Note: The interested firms are advised to keep on visiting Bank website <https://.sbi.co.in> for any subsequent changes/corrigendum/additions/updates etc., for which there would be no press notifications.**

For and behalf of SBI, Administrative Office, Shimla

**TERMS & CONDITIONS**

1. **THE FIRM** has represented to the Bank that the firm has necessary technical expertise and infrastructure including trained Technician & Engineers, Equipment etc. to undertake the Supply, Installation, Testing & Commissioning of Security Alarm Systems and their maintenance including maintenance of existing systems in the Branches / Offices and after sales, their servicing & maintenance for the Bank and offered the Bank, to provide the required services to the Bank purely on contract basis.

2. **VALIDITY OF RATE CONTRACT:**

a) The Agreement shall be effective from **the date of signing of the agreement** and shall be in force for an initial period of **One Year** and shall automatically be terminated after the expiry of one year unless renewed. However, the same shall be renewable only on getting a written request from the Firm before expiry and at the sole discretion of the Bank.

b) SBI shall have sole discretion to terminate the contract agreement at any time during the contract period, if considered necessary, for any reason, whatsoever by giving a notice of 30 days.

3. **PROCEDURE AND SCOPE FOR SUPPLY, INSTALLATION, TESTING & COMMISSIONING SECURITY ALARM SYSTEM AND THEIR MAINTENANCE (INCLUDING MAINTENANCE OF EXISTING SYSTEMS INSTALLED IN THE BRANCHES/OFFICES/CELLS)**

The following procedure of work is to be followed for Supply, Installation, Testing & Commissioning of Security Alarm System, and their maintenance including maintenance of existing systems in the Branches / Offices:

a) The Firm(s) will contact the Chief Manager (Operations) of AOs / Chief Managers (Operations) of RBOs / Security Officer of Administrative/ Regional Office and obtain the list of the Branches / Offices.

b) The Supply, Installation & Maintenance will be carried out by the Firm during any working day as per schedule, before or by the date or as and when ordered by

branches on requirement basis. The installation of Security Alarm System should be carried out under the supervision of Branch Manager/ Nominated official of the Branch by the Branch Manager. Care should be taken that the panel of Security Alarm System is installed at a secure place in branch e.g. system room. Panic switches to be provided at key locations e.g. with Branch Manager, all SWOs, Cash Room/Strong Room, Locker Room, Wash Room (to be accessed in a panic situations), guard's positions. Vibration sensors to be provided at all walls/floor of Currency Chest, Strong Room. PIR sensors to be installed inside Currency Chest, Strong Room, Locker Room, Cash/Safe Room. In cash balance branches PIR can be installed inside cash safe room additionally.

c) The maintenance should be done in the presence of the Branch Manager or some other official of the Branch authorized by the Branch Manager. The engineer/ technician, who should have the Firm's Authority Letter and Identity Card should give demonstration/ training to all authorised staff members during the visit.

d) The maintenance of Security Alarm System will be carried out at the site and a certificate to this effect will be given to the Branch Manager and a copy of the same be enclosed with the bill.

e) AOs/ RBOs to accord financial sanctions based on the clearance from Security Officer and issue work order in writing to the Firms.

f) For New Supply and Installation of the Security Alarm System, after obtaining the orders from the AOs/ RBOs/ Branches in writing, the Firm will prepare Bill of Quantity (BOQ) and submit to the concerned branch/ office/cell.

g) AO/ RBOs/ Branches will get the BOQ vetted from the Security Officer posted at the AO/ RBO and release payment accordingly only after successful installation.

h) The work shall be completed within **03 DAYS** from the date of receipt of the work order.

i) Firms to complete the Supply, Installation work and get Installation/ Maintenance Certificate signed from the BM as per sample enclosed (**Annexure-'D' or Annexure-'E', as applicable**) in addition to the Firms/ Company's service certificate.

j) Four copies of "**Installation/ Maintenance Certificate**" (**sample copy enclosed as Annexure-'D/ Annexure-'E, as applicable**) will be prepared by the Firm and submitted to the following officials.

(i) CM (Operations)/ CM (Operations) of the AO/RBO

(ii) Zonal Security Officer of the AO/RBO

(iii) Branch Manager

(iv) Their own copy.

k) The Firm shall submit bills supported by Installation/ Maintenance Certificate, Tax Challan etc. to the concerned Branch / CM (Operations) for payment.

l) The representative of the Firm should arrange to visit branches/offices during working hours, but they should try and complete their task well before the closing of working hours.

m) The visiting mechanic / technician of the Firm, who should be in possession of identity card and authority letter, shall carry out the Periodic Inspection of Security Alarm System. The following procedure shall be followed for maintenance of Security Alarm System at the Branches / Offices:

i. **Mandatory AMC Visits: Four visits in a year (i.e. every quarter) in all currency chests as well as Cash Balance Branches/Offices.**

ii. Submit a maintenance certificate during the visit after the Periodic Inspection and maintenance of Security Alarm System.

iii. Check all the components of the Security Alarm System as per the maintenance check list and proper preventive maintenance to be carried out.

iv. Staff members should be trained on the operating procedure of the Security Alarm System.

v. Examine the Security Alarm System and sensors for any kind of damage.

vi. Damaged Security Alarm System should be repaired and made operational.

vii. All the electronic parts including battery if any / UPS should be checked thoroughly.

n) By accepting the work order placed by the Bank, the Firm shall assume all responsibilities and fully indemnify the Bank against liabilities and consequences of any damages to any part / equipment of the building and any accident / injury to any person, whether Firm's employee or anyone else, during the course of execution of work. The Firm shall reinstate all damages of any sort mentioned in this clause, so as to deliver the whole of the contract works complete and perfect in every respect and also make good or otherwise satisfy all claims for damages to the property or of third parties.

o) In case of any break down (minor/major) qualified technical/engineer should be deputed by the firm for repairing the system. On receipt of information from the branches/RBO/AO the firm shall respond within 72 hours. The repairs/servicing of the system/equipment's shall be done as per the guidelines of the respective manuals of the manufactures. In case the system requires major repairs, the Firm shall provide a replacement before taking the defective system for repairs.

p) The Firm shall make necessary arrangements to acquire insurance cover against fire, damage, accidents, injury to workmen during installation work and of equipment till it is tested, commissioned, and handed over to the Bank. The acceptance of this work order by the Firm shall automatically indemnify the Bank against any claim pertaining to or arising out of the said work till the system is tested, commissioned, and handed over to the Bank.

q) Any damage caused to the existing structure, wiring, other devices / equipment during installation shall have to be made good by the Firm at its own expense, failing which the Bank will be free to do the needful to restore the status-quo-ante at the risk and cost of the Firm and shall recover the cost for such rectification from the Firm's final bill or EMD as deemed fit.

r) While carrying out wiring, it should be ensured that adequate flexibility is available in the wiring to allow the renovation work on the floor, whenever required. Required margins from the ceiling on each floor to allow renovation work, whenever required, will have to be catered for while executing the installation in consultation with Branch Manager/ Electrical Engineer.

s) All cables / wires, sensors, exit switches should be properly anchored / fixed. The wiring for the system should be so spaced to cause no electrical interference in the data cables; this aspect shall be tested and confirmed by the Firm during the progress of the work. Whenever the data cables have to be crossed, as far as possible, the pattern of other electrical wiring shall be followed.

t) A sample of all the cables/ wires/ connectors used should be provided by the Firm to the Branch Manager and Security Officer at AO for verification and comparison purpose.

u) The Firm shall ensure that the work is carried out neatly and Bank's ambience is not disturbed. The Firm shall also ensure that there should be no damage to Bank's

property/or any decorative structure, while carrying out the work. The contractor will rectify the damages at his own cost.

v) The Firm will ensure that whenever the work is to be carried out in the working hours, the entire work involved shall be carried out with least disturbance. All dismantling work and work generating noise shall be done after office hours and holidays and day-time work shall have to be done in restricted hours, after obtaining written permission from the Branch Manager.

w) The debris/ dust or any wastage generated out of the above work shall be cleaned as frequently as required and as instructed by the Branch Manager/ Bank's Engineer.

x) The Firm shall make adequate arrangement for watch and ward of his material and shall ensure the safety, breakage and any theft of such material fixed or unfixed by him.

y) The work executed/ equipment supplied should be got inspected by the authorized Official and the contractor shall rectify any bad workmanship/defect pointed out at any stage and rectify the same.

z) The Firm shall be responsible for the application of labour laws, all other social security enactments applicable to such works and workmen and compensation for injury and accident to person, if any, employed by it.

aa) The statutory deductions like income tax and any other taxes, as applicable shall be deducted at source from each payment of the Firm.

ab) The Bank will be within its right to ask for the testing of item(s) supplied/material used from the competent/approved agency. The cost of testing will have to be borne by the Firm.

ac) The dealership of the Firm shall not be allowed to be discontinued by the principal manufacturer during the contract period. The Bank will be free to forfeit the security deposit of Firm in case dealership of the Firm is canceled by the principal manufacturer during the contract due to any reason.

4. **Firm shall, under no circumstances, be allowed any enhancement of rates for 12 months i.e., one year from the date of signing of the contract** The rates accepted are inclusive of packaging, labour, transportation, installation charges, toll taxes and **all other taxes and exclusive of only GST, as applicable. No extra or additional charges other than the ones quoted in the respective tenders shall be**



**allowed. It is also made clear that firm completely indemnify the Bank against such dues and/or any claims made by any statutory authority subsequently, and to settle all such claims shall remain firm's responsibility.**

5. In case of a serious lapse or non-fulfillment of any terms & conditions, the contract is liable to be canceled with forfeiture of the 'Security Deposit'/ 'Performance Guarantee Deposit'. The authority to take a decision in this regard shall be vested in the Security Officer/ Chief Manager (Operations) / Chief Manager (Operations) of the concerned AO/RBO, with the approval of the Competent Authority.

6. The Bank reserves the right, to make changes in method and specifications of work within the overall framework of the terms and conditions.

7. The Bank also reserves the right to seek downward revision of prices after the initial fixed rate period, if it finds that the prices have fallen 30% or more of the equipment being supplied.

8. All components/sub-assemblies/spares used shall be as per the Technical Specifications of the Bank. No deviation shall be allowable in this regard, unless approved by the concerned Administrative Office.

9. The responsibility for maintaining the equipment during the Warranty period and later during AMC, would be of the concerned contractor who must diarize the schedule and ensure that the needful is done on or before the due date, but not more than 30 days before the due date.

10. **Warranty period:** For new supply of the Security Alarm System, it shall be **12 calendar months** from the date of supply against any manufacturing defects.

11. The Firm shall attend to any other unforeseen, reasonable requirement of the Bank within the overall framework of the contract, which may arise during the course of operations/currency of Contract.

12. The Bank reserves the right to mete out penalty from the Firm upon receipt of recommendations duly supported by documents, from the Administrative Offices /Branches/Cells.

13. The Bank shall extend its co-operation to facilitate the smooth execution of this contract. Any work which is not in the scope of this, if deemed necessary for enhanced security purpose may be arranged by the branch at its own cost. Any difficulty faced by

the contractor in execution of this contract shall be brought to the notice of concerned Security Officer of the AO/ RBO without any delay.

14. In case of any dispute the procedure (under Arbitration Act 1996) shall be taken recourse to. The **courts at Shimla** shall alone have jurisdiction in this regard.

15. Notwithstanding any condition stipulated above, Poor performance, abnormal delay in completion of work, abandoning of allotted work, bankruptcy, for any activity detrimental to the interest of the Bank and cancellation of empanelment, the Bank shall have the right to instantly revoke / cancel the said contract without prior notice. In this regard, decision of the Bank will be final and binding on the Firm. The said contract is not binding on the Bank, and it is sole discretion of the Bank to cancel/terminate the contract without assigning any reason thereof with liability to pay only for the equipment supplied and installed at its entities.

16. **PAYMENTS AND DEDUCTIONS**

a) No advance payment will be made by the Bank. Payment will be made against supply and installation of material only.

b) **In Case of New Supply and Installation Security Alarm System:**

In case of new supply and Installation of Security Alarm System at the branches/ offices/ cells, the Firm will submit an estimate to the branch/ office/ cell and on confirmation, will supply and install the system together with the Bill. The Bills for new supply and installation of Security Alarm System will be vetted by the Security Officer posted at respective Administrative Office or Regional Office. On satisfactory completion of work respective Branch/ office/cell will pay the 95% amount of the bill to the Supplier and retain the 5% amount for one year warranty period, which will be released by the branch on completion of warranty period.

c) **In Case of Maintenance of Security Alarm System:** On completion of the Maintenance of Security Alarm System at the branches/ offices/ cells, the firm will submit their Quarterly bills along with work completion certificate/ Service certificate duly signed by the Branch Manager to the respective Regional Business Office (RBO) and respective RBO will arrange to pay the bills after duly vetted by the Security Officer posted at respective Administrative Office or Regional Office.

d) The rates above are including all Taxes and other statutory dues.

17. **PERFORMANCE GUARANTEE DEPOSIT & PENALTY:**

**NEW SUPPLY & INSTALLATIONS** Period of completion/execution of work/order for new supply & installations will be 03 days from the date of receipt of order. In case of delay in completion/execution of work/order a penalty of **Rs 100** per day per system subject to the maximum of 10% of cost of respective work/order shall be levied. Bank reserves its right to deduct the penalty amount from the billed amount or from the security money/deposit. The bank has the right to terminate the contract and forfeit the EMD & security money, if the vendor abandons the work or fails to commence and complete the work by given time or fails to abide by the contract conditions.

**DURING WARRANTY PERIOD** Similarly, the Applicant, on execution of work, will also be required to attend to the complaints of Security Alarm System within 72 hours during the warranty period. In case of delay beyond above period in attending to the complaint during warranty period a **penalty of Rs 100 per day per system (subject to the maximum 10% of billed amount)** shall be levied. Bank reserve its right to get the faulty items/systems repaired/ replaced at the risk & cost of vendor. Bank also reserves its right to deduct the penalty amount from security money/deposit or from the any pending bills/dues.

Performance Guarantee (Security Deposit) of **Rs 50000 (Rupees Fifty Thousand only)** in shape of Fix Deposit Receipt (FDR) to be required to submit by successful bidder(L-1) and shall be retained by the Bank, during the entire contract period. In case Firm fails to supply the Security equipment in any of the branch in the allotted region for more than 30 days, Bank reserves the right to cancel the whole contract and forfeit the Security Deposit.

In case of supply of substandard materials. The acts, contrary to the laid down norms, or on detection of any tendency to cheat the Bank, the contract to the company will be cancelled without prior notice and the Firm will be delisted or blacklisted from the Bank.

**FOR AMC/ VISITS** For delay beyond 72 hours in hills of getting to attend the break down complaint during AMC, penalty at the rate of Rs. 100/- per day to a maximum of 10% of the total AMC value shall be imposed. This amount shall be deducted from the AMC bill or Security Deposit as deemed fit.

UNDERTAKING

We undertake:-

(a) That we will carry out the supply/maintenance/service/ testing work of bank’s Security Alarm System (of any make) & supply of new Security Alarm System (of approved make) in the branches /offices of State Bank of India located in the state of Himachal Pradesh.

(b) That we will carry out the work at all allotted centers/branches/offices under the Administrative Office Shimla and will have our Service Center with technicians/representative **at Shimla as well as Hamirpur District (02 service center)** in the Himachal Pradesh. So as to be able to attend to the calls from branches/offices for maintenance/service & supply of Security Alarm System etc. promptly. We will also continue to keep activated a dedicated e-mail ID for receiving the complaints from branches/offices. We also undertake that we will receive the complaints from branches/offices from 9:30 AM to 5:30 PM telephonically on all banks working days. We also undertake that due record of each complaint lodged by branches/offices of bank will be maintained by us and complaint/docket number will be given to complainant.

Place:

Authorised Signatory of the  
firm / company with Seal

Date:

**INFORMATION OF VENDOR****SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF SECURITY ALARM SYSTEM AND THEIR MAINTENANCE (INCLUDING MAINTENANCE OF EXISTING SYSTEMS) AT BRANCHES/ OFFICES/ CELLS OF STATE BANK OF INDIA UNDER ADMINISTRATIVE OFFICE SHIMLA**

1. Name of the Firm/ Company/Agency : \_\_\_\_\_
2. Address with Communication Nos.
  - (a) Head Office : \_\_\_\_\_
  - (b) Local Office (s) in Service Center  
in the Himachal Pradesh : \_\_\_\_\_
3. Complaint attendance System.
  - (a) Land Line : \_\_\_\_\_
  - (b) Mob No : \_\_\_\_\_
  - (c) Dedicated e-mail : \_\_\_\_\_
4. Status of Firm (Whether Company/  
Firm/ Sole Proprietary) : \_\_\_\_\_
5. Organization Details ( Name of  
Directors / Partners / Proprietor ) : \_\_\_\_\_
6. Name and Address of Banker : \_\_\_\_\_  
Bank account No : \_\_\_\_\_
7. Name of Original Equipment Manufacturer : \_\_\_\_\_
8. Validity of Dealership Certificate : \_\_\_\_\_  
(Enclose Copy of Certificate)
9. GST No : \_\_\_\_\_
10. PAN : \_\_\_\_\_
11. EMD details
  - (a) DD No : \_\_\_\_\_
  - (b) Date & Amount : \_\_\_\_\_

Authorised Signatory of the firm / company  
with Seal

Place : .....

Date : .....

**CERTIFICATE**

**(Applicable for New Installation)**

It is to certify that the Security Alarm System has been installed at ..... (Name of the branch) on ....., in accordance with Administrative Office Shimla, ..... vide their letter No.....dated ..... and the system is working satisfactorily. All the items as per invoice No..... dated..... have been installed at the branch and have been physically verified by the Branch Manager.

2. It is further certified that working of the Security Alarm System has been explained to the following staff members by Shri....., authorised representative of M/S.....

<b>Sr. No.</b>	<b>Name</b>	<b>Designation</b>	<b>Signature</b>
1			
2			
3			
4			
5			

( )  
Authorised Representative

Branch Manager

M/s .....

(Branch Seal)

Date : .....

**CERTIFICATE**

**(Applicable for Service/ Maintenance)**

It is to certify that the Security Alarm System installed at .....(Name of the branch) has been checked by Shri ....., authorized representative of M/S ..... on .....(date), in accordance with Administrative Office Shimla, .....letter No.....dated ..... and the system is working satisfactorily. Auto dialer installed in the system is also in working condition and latest contact nos. of Branch Manager, Authorised Branch officials and Police station have been fed in the system.

2. It is further certified that working of the Security Alarm System has been explained to the following staff members by Shri....., authorized representative of M/S.....

<b>Sr. No.</b>	<b>Name</b>	<b>Designation</b>	<b>Signature</b>
1			
2			
3			
4			
5			

Signature

( )

Authorised Representative

Branch Manager

M/s .....

(Branch Seal)

Date: .....

**TECHNICAL SPECIFICATION****SECURITY ALARM SYSTEM AND THEIR MAINTENANCE (INCLUDING MAINTENANCE OF EXISTING SYSTEMS)****1. Components of Security Alarm System at all Branches**

- (a) Control Panel with Integrated Auto-dialer
  - 1.PSTN based
  - 2.GSM Based
  - 3.TCP-IP based
  - 4.PSTN+GPRS + TCP-IP based
- (b) In Built Auto DIALLER
- (c) Wires
- (d) PIR Sensors
- (e) Hooters – External and Internal
- (f) Magnetic Sensors
- (g) Vibration Sensors
- (h) Panic Switches

**2. Technical Specification for Security Alarm System****(a) Micro-controller Based Control Panel with inbuilt LCD indication & with integrated Auto-dialer (preferably GSM Based. However, if mobile network is not available, PSTN based)**

- (i) External Body Features –
  - (aa) Protected from dust, water, vermin etc.
  - (ab) Acrylonitrile Butadiene Styrene (ABS)/ 18 SWG M S Cabinet, epoxy Coated
  - (ac) Locking of panel by Allen Head screw on sides/internal lock
  - (ad) Bracket mounted
  - (ae) Provision for battery compartment inside the panel.
- (ii) Dual path communication of alarm events and other signals over LAN, PSTN, Wi-Fi, GPRS and 3G/4G utilizing a main and backup channel with configurable priority.
- (iii) 8 on-board wired zones, and expandable with up to 64 wired zones
- (iv) Option to add wireless module having provision for Cordless Switch to activate the alarm system
- (v) Up to 56 wireless inputs, 60 wireless outputs, 8 keyfobs, 1 wired siren and 2 wireless sirens
- (vi) Uploads alarm events to alarm receiving center or platform.
- (ix) Pushes alarm notification via messages and email
- (x) AES-128-bit data encryption
- (xi) LED indicator for indicating system status
- (xii) Expandable PSTN, 3G/4G, and GPRS interface
- (xiii) Supports RS-485 input and output expander



- (xiv) Supports lithium battery
- (xvi) System operating on Mains and battery backup (12V 7Ah) with recharging facility.
- (xvii) It should be compatible with PIR Sensors, Magnetic Sensors, Vibration Sensors, Light Sensors and have one zone for fire detector (smoke sensor) etc. and capable to put on the lights when activated during night mode.
- (xviii) Auto Reset after activation – 03 minutes (Day & Night Mode)
- (xix) Any wire cut should activate the alarm system for 120 seconds and thereafter the affected switch / zone to get isolated/ bypassed with display /blinking of LCD panel indicating the defect.

**(b) In-build Auto Dialer:**

- (i) It should be compatible with GSM or PSTN connection of any service provider.
- (h)** Provision for storage and dialing minimum five (08) Telephone / mobile numbers with recording message up to 20 Seconds duration.
- (i)** Message should be repeated at least twice before dialing the 2nd number. In case number not responded, facility to re-dial the number after completing the cycle.
- (iv) In-built GSM auto-dialer should have the ability to generate SMS alerts in addition to auto-dialing the pre-fed numbers.
- (v) Provide signal strength and status indication on display screen.

**(c) Wiring:**

- (i) 2 Core and 4 Core Multi strand .75 sq. mm, flexible, ISI marked (Finolex/ Plaza/ Polycab/ RR Cable or similar quality), PVC insulated copper wire for connection of panic switches and other sensors respectively.
- (ii) Rigid PVC conduit 2 mm ISI mark. Fixed with metal saddling at every 02 ft distance.

**(d) PIR SENSOR:**

- (i) Dual Technology (IR & Microwave) or Quad PIR
- (ii) Detection coverage horizontal angle 90 - 110 degrees
- (iii) Up to 18m detection range
- (iv) Digital temperature compensation
- (v) 52 zones of 3D optics including creep-zone protection, full coverage without dead angle
- (vi) Selectable EOL resistors for alarm and tamper-proof wiring
- (vii) Sealed optics preventing insect invasion interference
- (viii) 9 to 16 V wide voltage adaptation with polarity reverse connection protection
- (ix) IFT technology to prevent false alarms
- (x) Sensitivity range: Low/ Med/ High
- (xi) Wall/Ceiling mounting facility.
- (xii) Pet / rodents immunity.

- (xiii) Provision for calibration to adapt changes in ambient temperature due to various seasons.

**(e) Hooter:**

- (i) Min 90 dB for internal and 110 dB for External (CE & UL certification).
- (ii) 4 wired with tamper loop (Cutting of hooter wire should trigger other hooter)
- (iii) ABS body
- (iv) Weather Proof
- (v) Wall mounting facility
- (vi) Operates on 12 Volt DC
- (vii) Working Power: 15W

**(f) Magnetic Sensor:**

- (i) ABS body
- (ii) Connection Type: NC
- (iii) Operating Gap: 15mm – 17mm

**(g) Multi-Function Sensor:**

- (i) Capable of Detecting Vibration, Breaking of Glass, Cutting of Metal Grills/Aluminum Frames, Drilling.
- (ii) ABS body
- (iii) High-Low Sensitivity Adjustment Jumper.
- (iv)** Further Sensitivity Adjustment Pre-set.

**(h) Panic Switches:**

1. Surface Mount Type
2. Micro Switch Technology
3. In-built tamper Switch
4. Automatic reset (no key required)
5. Sturdy Steel Finish