State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER	PAGE
HOP11053	1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
ROBERTA WAGNER
304-558-0067

VENDOR
RFQ COPY
TYPE NAME/ADDRESS HERE
Longs Security Camera Systems LLC
102 38th ST SE.
Charleston WV 25304

SHIP TO
HEALTH AND HUMAN RESOURCES
HOPEMONT HOSPITAL
CENTRAL RECEIVING
150 HOPEMONT DRIVE
TERRA ALTA, WV
26764-7728 304-789-2411

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
08/26/2010				

BID OPENING DATE: 09/27/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
				**********	**********	
				PLEASE NOTE A MANDATORY PRE-BID MEETING IS SCHEDULED FOR 09/07/2010 AT 10:00 AM IN TRAINING ROOM AD-1 AT HOPEMONT HOSPITAL.		
				**********	**********	
				PLEASE NOTE THE DRUG FREE WORKPLACE AFFIDAVIT AND BID BOND ARE REQUIRED WITH BID SUBMISSION.		
				**********	**********	
0001	1	JB		936-73	See attached Continuation Sheet	
				WARRANTY: THREE (3) YEAR PARTS WARRANTY		
				TO PROVIDE ALL PRODUCTS, NEW WIRING, LABOR AND INSTALLATION MATERIAL TO INSTALL A RESIDENT WANDERING SYSTEM, WIRELESS NURSE CALL SYSTEM AND COMPUTER AT HOPEMONT HOSPITAL LOCATED AT 150 HOPEMONT DRIVE, TERRA ALTA, WV 26764, ACCORDING TO THE ATTACHED SPECIFICATIONS.		
				WARRANTY: THREE (3) YEAR PARTS WARRANTY ONE (2) YEAR LABOR WARRANTY		

RECEIVED
2010 OCT -5 PM 12:52
W.V. PURCHASING

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE [signature] TELEPHONE 304-925-0338 DATE 10-5-10

TITLE Owner FEIN 20-3881880-001 ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

State of West Virginia
Department of Administration
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2019 Washington Street East
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Request for Quotation

RFQ NUMBER	PAGE
HOP11053	2

ADDRESS CORRESPONDENCE TO ATTENTION OF:
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304-558-0067

VENDOR
RFQ COPY
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SHIP TO
HEALTH AND HUMAN RESOURCES
HOPEMONT HOSPITAL
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26764-7728 304-789-2411

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
08/26/2010				

BID OPENING DATE: 09/27/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0002	28	EA		936-73		
	DOOR CONTROL UNITS				See Continuation Sheet	
0003	1	EA		936-73		
	TRANSMITTER TESTER					
0004	28	EA		936-73		
	RESIDENT TRANSMITTERS					
0005	50	EA		936-73		
	RESIDENT TRANSMITTER BANDS					
0006	3	EA		936-73		
	MAGNETIC DOOR LOCKS					

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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State of West Virginia
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Request for Quotation

RFQ NUMBER	PAGE
HOP11053	3

ADDRESS CORRESPONDENCE TO ATTENTION OF:
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304-558-0067

VENDOR
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SHIP TO
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DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
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BID OPENING DATE: 09/27/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0007	1	EA		936-73		
	CONNECTIONS				See Continuation Sheet	
0008	50	EA		936-73		
	ALPHANUMERIC PAGERS					
0009	1	EA		936-73		
	NETWORK PC PAGING SOFTWARE, CLIENT & SERVER					
0010	1	EA		936-73		
	CPU 17" MONITOR, 2 HARD DRIVES, 2 SERIAL PORTS,					
0011	5	EA		936-73		
	WIRELESS RECEIVERS					

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE

TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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State of West Virginia
Department of Administration
Purchasing Division
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Request for Quotation

RFQ NUMBER	PAGE
HOP11053	4

ADDRESS CORRESPONDENCE TO ATTENTION OF:
ROBERTA WAGNER
304-558-0067

VENDOR
RFQ COPY
TYPE NAME/ADDRESS HERE

SHIP TO
HEALTH AND HUMAN RESOURCES
HOPEMONT HOSPITAL
CENTRAL RECEIVING
150 HOPEMONT DRIVE
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26764-7728 304-789-2411

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
08/26/2010				

BID OPENING DATE: 09/27/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0012	1	EA		936-73		
	TRAINING AND TOTAL SYSTEM PROGRAMMING				See Continuation Sheet	
0013	2	EA		936-73		
	FRONT DOOR CODED KEYPAD ENTRY WITH TIMER					
0014	1	EA		936-73		
	UP-GRADABLE SYSTEM ON THE WIRELESS CALL STATIONS AND					
0015	23	EA		936-73		
	PUSH BUTTONS ON EXTERIOR DOORS TO UNLOCK DOOR UNITS					
0016	1	EA		936-73		
	NURSES STATION MONITOR UNIT - ALTERNATE BID					

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER	PAGE
HOP11053	5

ADDRESS CORRESPONDENCE TO ATTENTION OF:
ROBERTA WAGNER
304-558-0067

VENDOR
RFQ COPY
TYPE NAME/ADDRESS HERE

SHIP TO
HEALTH AND HUMAN RESOURCES
HOPEMONT HOSPITAL
CENTRAL RECEIVING
150 HOPEMONT DRIVE
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26764-7728 304-789-2411

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
08/26/2010				

BID OPENING DATE: 09/27/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0017	54	EA		936-73	See Continuation Sheet	
	MAGNETIC PULL CORDS.					
0018	98	EA		936-73		
	CALL CORDS WITH RESET.					
0019	1	EA		936-73		
	WARRANTY: THREE (3) YEAR PARTS WARRANTY					

MANDATORY PRE-BID

A MANDATORY PRE-BID WILL BE HELD ON 09/07/2010 AT 10:00 AM IN TRAINING ROOM AD-1 AT THE HOSPITAL. ALL INTERESTED PARTIES ARE REQUIRED TO ATTEND THIS MEETING. FAILURE TO ATTEND THE MANDATORY PRE-BID SHALL RESULT IN DISQUALIFICATION OF THE BID. NO ONE PERSON MAY REPRESENT MORE THAN ONE BIDDER.

AN ATTENDANCE SHEET WILL BE MADE AVAILABLE FOR ALL POTENTIAL BIDDERS TO COMPLETE. THIS WILL SERVE AS THE OFFICIAL DOCUMENT VERIFYING ATTENDANCE AT THE MANDATORY PRE-BID. FAILURE TO PROVIDE YOUR COMPANY AND REPRESENTATIVE NAME ON THE ATTENDANCE SHEET WILL RESULT IN DISQUALIFICATION OF THE BID. THE STATE WILL NOT ACCEPT ANY OTHER DOCUMENTATION TO VERIFY ATTENDANCE. THE BIDDER IS RESPONSIBLE FOR ENSURING THEY HAVE COMPLETED THE INFORMATION REQUIRED ON THE ATTENDANCE SHEET. THE PURCHASING DIVISION AND THE STATE AGENCY

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE

TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
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Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER	PAGE
HOP11053	11

ADDRESS CORRESPONDENCE TO ATTENTION OF:
ROBERTA WAGNER
304-558-0067

VENDOR
RFQ COPY
TYPE NAME/ADDRESS HERE

SHIP TO
HEALTH AND HUMAN RESOURCES
HOPEMONT HOSPITAL
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BID OPENING DATE: 09/27/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT

(2) THE BUYER SHALL SEND THE ADDENDUM TO ALL INTERESTED PARTIES AND, IF NECESSARY, EXTEND THE BID OPENING DATE. ANY ADDENDUM SHOULD BE RECEIVED BY THE BUYER WITHIN FOURTEEN (14) DAYS PRIOR TO THE BID OPENING DATE.

(3) ALL ADDENDA SHOULD BE FORMALLY ACKNOWLEDGED BY ALL BIDDERS AND SUBMITTED TO THE STATE PURCHASING DIVISION. THE SAME RULES AND REGULATIONS THAT APPLY TO THE ORIGINAL BIDDING DOCUMENT SHALL ALSO APPLY TO AN ADDENDUM DOCUMENT. THE ONLY EXCEPTION MAY BE FOR AN ADDENDUM THAT IS ISSUED FOR THE SOLE PURPOSE OF CHANGING A BID OPENING TIME AND/OR DATE.

REV. 11/96

EXHIBIT 10

ADDENDUM ACKNOWLEDGEMENT

I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.

ADDENDUM NOS.:

NO. 1 ..... X .....

NO. 2 .....

NO. 3 .....

NO. 4 .....

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE

TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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State of West Virginia
Department of Administration
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Request for Quotation

RFQ NUMBER	PAGE
HOP11053	12

ADDRESS CORRESPONDENCE TO ATTENTION OF:
ROBERTA WAGNER
304-558-0067

VENDOR
RFQ COPY
TYPE NAME/ADDRESS HERE

SHIP TO
HEALTH AND HUMAN RESOURCES
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DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B	FREIGHT TERMS
08/26/2010				

BID OPENING DATE: 09/27/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT

NO. 5 .....

I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF THE BIDS.

VENDOR MUST CLEARLY UNDERSTAND THAT ANY VERBAL REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE INFORMATION ISSUED IN WRITING AND ADDED TO THE SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.

Allen E Longs .....SIGNATURE

Longs Security Camera Systems LLC .....COMPANY

10-05-10 .....DATE

REV. 11/96

CONTRACTORS LICENSE

WEST VIRGINIA STATE CODE 21-11-2 REQUIRES THAT ALL PERSONS DESIRING TO PERFORM CONTRACTING WORK IN THIS STATE MUST BE LICENSED. THE WEST VIRGINIA CONTRACTORS LICENSING BOARD IS EMPOWERED TO ISSUE THE CONTRACTORS LICENSE. APPLICATIONS FOR A CONTRACTORS LICENSE MAY B MADE BY CONTACTING THE WEST VIRGINIA DIVISION OF LABOR CAPITOL COMPLEX, BUILDING 3, ROOM 319, CHARLESTON, WV 25305. TELEPHONE: (304) 558-7890.

WEST VIRGINIA STATE CODE 21-11-11 REQUIRES ANY PROSPECTIVE BIDDER TO INCLUDE THE CONTRACTORS

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE

TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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State of West Virginia
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Request for Quotation

RFQ NUMBER	PAGE
HOP11053	13

ADDRESS CORRESPONDENCE TO ATTENTION OF:
ROBERTA WAGNER
304-558-0067

VENDOR
RFQ COPY
TYPE NAME/ADDRESS HERE

SHIP TO
HEALTH AND HUMAN RESOURCES
HOPEMONT HOSPITAL
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26764-7728 304-789-2411

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LINE	QUANTITY	UOP	CAT. NO	ITEM NUMBER	UNIT PRICE	AMOUNT

LICENSE NUMBER ON THEIR BID.

BIDDER TO COMPLETE:

CONTRACTORS NAME: Longs Security Camera Systems LLC

CONTRACTORS LICENSE NO.: WV040102

THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FURNISH A COPY OF THEIR CONTRACTORS LICENSE PRIOR TO ISSUANCE OF A PURCHASE ORDER/CONTRACT

APPLICABLE LAW

THE WEST VIRGINIA STATE CODE, PURCHASING DIVISION RULES AND REGULATIONS, AND THE INFORMATION PROVIDED IN THE "REQUEST FOR QUOTATION" ISSUED BY THE PURCHASING DIVISION IS THE SOLE AUTHORITY GOVERNING THIS PROCUREMENT.

ANY INFORMATION PROVIDED IN SPECIFICATION MANUALS, OR ANY OTHER SOURCE, VERBAL OR WRITTEN, WHICH CONTRADICTS OR ALTERS THE INFORMATION PROVIDED FROM THE SOURCES AS DESCRIBED IN THE ABOVE PARAGRAPH IS VOID AND OF NO EFFECT.

BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.

REV. 5/2009

NOTICE

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE

TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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Request for Quotation

RFQ NUMBER	PAGE
HOP11053	14

ADDRESS CORRESPONDENCE TO ATTENTION OF:
ROBERTA WAGNER
304-558-0067

VENDOR
RFQ COPY
TYPE NAME/ADDRESS HERE

SHIP TO
HEALTH AND HUMAN RESOURCES
HOPEMONT HOSPITAL
CENTRAL RECEIVING
150 HOPEMONT DRIVE
TERRA ALTA, WV
26764-7728 304-789-2411

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
08/26/2010				

BID OPENING DATE: 09/27/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO.	ITEM NUMBER	UNIT PRICE	AMOUNT

A SIGNED BID MUST BE SUBMITTED TO:

DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
BUILDING 15
2019 WASHINGTON STREET, EAST
CHARLESTON, WV 25305-0130

THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:

SEALED BID

BUYER:----------RW/22----------

REQ. NO.:----------HOP11053----------

BID OPENING DATE:----------09/27/2010----------

BID OPENING TIME:----------1:30 PM----------

PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:

304-925-0338

PLEASE PRINT OR TYPE NAME OF PERSON TO CONTACT CONCERNING THIS QUOTE:

ALAN E. LONG

PLEASE PROVIDE A CONVENIENCE COPY.

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE

TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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State of West Virginia
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Request for Quotation

RFQ NUMBER	PAGE
HOP11053	15

ADDRESS CORRESPONDENCE TO ATTENTION OF:
ROBERTA WAGNER
304-558-0067

VENDOR
RFQ COPY
TYPE NAME/ADDRESS HERE

SHIP TO
HEALTH AND HUMAN RESOURCES
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BID OPENING DATE: 09/27/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
	****** THIS IS THE END OF RFQ HOP11053 ****** TOTAL:					

See Continuation Sheet

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE

TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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HOP11053	1

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Longs' Security Camera Systems LLC
102 38th ST SE.
Charleston, WV 25304

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DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
09/21/2010				

BID OPENING DATE: 10/05/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT

ADDENDUM NO. 1

1. QUESTIONS AND ANSWERS ARE ATTACHED.
2. TO MOVE THE BID OPENING DATE FROM 9/27/2010 TO 10/05/2010.
3. ADDENDUM ACKNOWLEDGEMENT IS ATTACHED. THIS DOCUMENT SHOULD BE SIGNED AND RETURNED WITH YOUR BID. FAILURE TO SIGN AND RETURN MAY RESULT IN DISQUALIFICATION OF YOUR BID.

EXHIBIT 10

REQUISITION NO.: HOP11053

ADDENDUM ACKNOWLEDGEMENT

I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.

ADDENDUM NO. S:

NO. 1 ..X.. Allen E Long

NO. 2 .....

NO. 3 .....

NO. 4 .....

NO. 5 .....

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE Allen E Long TELEPHONE 304-925-0338 DATE 10-5-10

TITLE Owner FEIN 20-3881880-001 ADDRESS CHANGES TO BE NOTED ABOVE

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HOP11053	2

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VENDOR
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LINE	QUANTITY	UOP	CAT NO.	ITEM NUMBER	UNIT PRICE	AMOUNT

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Allen E. Longs
SIGNATURE

Longs Security Camera Systems LLC
COMPANY

10-05-10
DATE

NOTE: THIS ADDENDUM ACKNOWLEDGEMENT SHOULD BE SUBMITTED WITH THE BID.

REV. 09/21/2009

END OF ADDENDUM NO. 1

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE

TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

Andrew K Teeter, Janis K Peacock, Kimberly L Miles, Douglas P Taylor, Donna J Price, Individually

of Charleston, WV, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law printed on the reverse hereof, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Senior Vice President and its corporate seal to be hereto affixed on this 19th day of March, 2010.

WESTERN SURETY COMPANY

Paul T. Bruflat, Senior Vice President

State of South Dakota
County of Minnehaha } ss

On this 19th day of March, 2010, before me personally came Paul T. Bruflat, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is the Senior Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires
November 30, 2012

D. KRELL
SEAL NOTARY PUBLIC SEAL
SOUTH DAKOTA

D. Krell, Notary Public

CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law of the corporation printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 5th day of October 2010.

WESTERN SURETY COMPANY

L. Nelson, Assistant Secretary

Form F4280-09-06

ATTACHMENT
P.O.#_____

This agreement constitutes the entire agreement between the parties, and there are no other terms and conditions applicable to the licenses granted hereunder.

Agreed

Signature 10-05-10 Date

Owner
Title

Langs Security Camera Systems LLC
Company Name

_____
Signature Date

_____
Title

_____
Agency/Division

WV-96
Rev. 10/07

AGREEMENT ADDENDUM

In the event of conflict between this addendum and the agreement, this addendum shall control:

1. **DISPUTES** - Any references in the agreement to arbitration or to the jurisdiction of any court are hereby deleted. Disputes arising out of the agreement shall be presented to the West Virginia Court of Claims.

2. **HOLD HARMLESS** - Any clause requiring the Agency to indemnify or hold harmless any party is hereby deleted in its entirety.

3. **GOVERNING LAW** - The agreement shall be governed by the laws of the State of West Virginia. This provision replaces any references to any other State's governing law.

4. **TAXES** - Provisions in the agreement requiring the Agency to pay taxes are deleted. As a State entity, the Agency is exempt from Federal, State, and local taxes and will not pay taxes for any Vendor including individuals, nor will the Agency file any tax returns or reports on behalf of Vendor or any other party.

5. **PAYMENT** - Any references to prepayment are deleted. Payment will be in arrears.

6. **INTEREST** - Should the agreement include a provision for interest on late payments, the Agency agrees to pay the maximum legal rate under West Virginia law. All other references to interest or late charges are deleted.

7. **RECOUPMENT** - Any language in the agreement waiving the Agency's right to set-off, counterclaim, recoupment, or other defense is hereby deleted.

8. **FISCAL YEAR FUNDING** - Service performed under the agreement may be continued in succeeding fiscal years for the term of the agreement, contingent upon funds being appropriated by the Legislature or otherwise being available for this service. In the event funds are not appropriated or otherwise available for this service, the agreement shall terminate without penalty on June 30. After that date, the agreement becomes of no effect and is null and void. However, the Agency agrees to use its best efforts to have the amounts contemplated under the agreement included in its budget. Non-appropriation or non-funding shall not be considered an event of default.

9. **STATUTE OF LIMITATION** - Any clauses limiting the time in which the Agency may bring suit against the Vendor, lessor, individual, or any other party are deleted.

10. **SIMILAR SERVICES** - Any provisions limiting the Agency's right to obtain similar services or equipment in the event of default or non-funding during the term of the agreement are hereby deleted.

11. **ATTORNEY FEES** - The Agency recognizes an obligation to pay attorney's fees or costs only when assessed by a court of competent jurisdiction. Any other provision is invalid and considered null and void.

12. **ASSIGNMENT** - Notwithstanding any clause to the contrary, the Agency reserves the right to assign the agreement to another State of West Virginia agency, board or commission upon thirty (30) days written notice to the Vendor and Vendor shall obtain the written consent of Agency prior to assigning the agreement.

13. **LIMITATION OF LIABILITY** - The Agency, as a State entity, cannot agree to assume the potential liability of a Vendor. Accordingly, any provision limiting the Vendor's liability for direct damages to a certain dollar amount or to the amount of the agreement is hereby deleted. Limitations on special, incidental or consequential damages are acceptable. In addition, any limitation is null and void to the extent that it precludes any action for injury to persons or for damages to personal property.

14. **RIGHT TO TERMINATE** - Agency shall have the right to terminate the agreement upon thirty (30) days written notice to Vendor. Agency agrees to pay Vendor for services rendered or goods received prior to the effective date of termination.

15. **TERMINATION CHARGES** - Any provision requiring the Agency to pay a fixed amount or liquidated damages upon termination of the agreement is hereby deleted. The Agency may only agree to reimburse a Vendor for actual costs incurred or losses sustained during the current fiscal year due to wrongful termination by the Agency prior to the end of any current agreement term.

16. **RENEWAL** - Any reference to automatic renewal is hereby deleted. The agreement may be renewed only upon mutual written agreement of the parties.

17. **INSURANCE** - Any provision requiring the Agency to insure equipment or property of any kind and name the Vendor as beneficiary or as an additional insured is hereby deleted.

18. **RIGHT TO NOTICE** - Any provision for repossession of equipment without notice is hereby deleted. However, the Agency does recognize a right of repossession with notice.

19. **ACCELERATION** - Any reference to acceleration of payments in the event of default or non-funding is hereby deleted.

20. **CONFIDENTIALITY:** -Any provision regarding confidentiality of the terms and conditions of the agreement is hereby deleted. State contracts are public records under the West Virginia Freedom of Information Act.

21. **AMENDMENTS** - All amendments, modifications, alterations or changes to the agreement shall be in writing and signed by both parties. No amendment, modification, alteration or change may be made to this addendum without the express written approval of the Purchasing Division and the Attorney General.

ACCEPTED BY:

STATE OF WEST VIRGINIA

Spending Unit: _____

Signed: _____

Title: _____

Date: _____

VENDOR

Company Name: Long's Security Camera Systems LLC

Signed: Allen E Long

Title: Owner

Date: 10-05-10

Longs'Security Camera Systems LLC

102 38th Street • Charleston, WV 25304 • Phone: 304 925-0338 • Fax: 304-925-0338
e-mail: longscctv@suddenlink.net

Warranty Statement

The proposed System and Materials are offered according to the following terms and conditions.

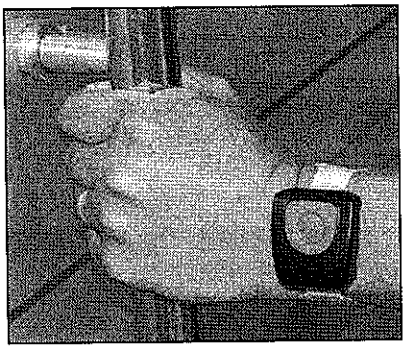
- One-year factory warranty on all equipment and all software unless stated in the proposal.
- One-year warranty on all installation labor unless stated in the proposal.
- Warranty coverage includes one-year parts and technical labor.
- Warranty coverage includes Technical Labor between the hours of 8:00AM-8:00PM Monday –Friday, except Holidays.
- Warranty covers only viability of software. Warranty does not cover existing computers, servers, networks, existing network software and/or any conflict of proposed software with existing software. The owner's network administrator will be responsible for establishing available Network IP addresses and Socket Ports.
- Warranty does not cover any wire and/or hardware associated with existing LAN Network.
- Warranty does not cover damage from floods, storms and/or any natural disaster defined as an "Acts of God".
- Warranty does not cover equipment and /or software that has been tampered with, abused and/or vandalized.
- Longs' Security Camera Systems LLC can not be responsible for delivery delays caused by strikes, accidents or incidents beyond our control.
- Longs' Security Camera Systems LLC can not be responsible for delays due to improper handling and/or any improper deliveries of equipment by delivery companies.
- Warranty voided should the equipment be modified or has any other unauthorized work performed on the system by anyone other than the Longs' Security Camera Systems LLC within the warranty period.

Elpas
Single-Door Wandering Patient Solution

The Elpas Single-Door Wandering Patient Solution is a stand-alone, low cost, single-door wandering patient solution that responds to the need for cost-effective protection of ambulatory individuals suffering from Alzheimer's Disease (AD) or other forms of dementia.

This all-in-one kit reduces the need to continuously supervise chronic Wanderers or to excessively restrict their mobile independence. In simple terms, The solution permits regular movement of care givers, guests, other residents or family members through a protected doorway while preventing un-supervised Wanderers from exiting through the door.

Each Wanderer is given an Elpas active RFID patient tag (may be worn like a wrist watch) which allows the individual free and unregulated movement within the allowed interior area of the building or residence. Should the Wanderer approach the protected door through which he or she is not allowed to pass unescorted; the kit's alert intervention functionality will auto trigger.



Features & Benefits

- **All In One Kit**: Includes everything needed to install a single-door, stand-alone wandering patient solution.
- **Simple to Install:** Installation can be performed by any experienced electrician or security/alarm technician.
- **Intelligent Alarm:** Only sounds when a Wanderer has gone though the protected door without authorized staff member escort.
- **Patient Escort Option**: Wanders can be escorted through the protected exit/entrance by staff members without triggering Smartguard's alert intervention functionality.
- **Unlimited Tag Population:** As many supplemental patient tags or staff badges can be added to the basic Smartguard installation without risk to patient safety.
- **Unrestricted Life Cycle Tags and Badges**: Patient tags and staff badges use the same low-cost; easy to change, Lithium battery which delivers up to 1.5 years of continuous service between replacements.
- **Total Hardware Compatibility:** From single-door, stand-alone safety solutions to networked, enterprise wide unified risk mitigation and asset tracking solutions.
- **Internationally Safety Compliant**: Meets CE, FCC, EMI, ESD and EM susceptibility standards.

Ordering Information

Part Number	Description
5-WDK00001	Single-Door Wander Patient Solution, European Standard
5-WDK00001-1	Single-Door Wander Patient Solution, U.S. Standard
5-WDK00001-2	Single-Door Wander Patient Solution, U.K. Standard

Office Locations

VT World Headquarters
Tel Aviv, Israel
Tel: +972-3-7681400
marketing@visonictech.com

VT Americas
Bloomfield, CT (USA)
Tel: 1-800-223-0020
vta_marketing@visonictech.com

VT United Kingdom
Beckenham Kent BR3 9BF U.K.
Tel: +44-870-730-0840
vtuk_marketing@visonictech.com

Visonic GmbH
D-40215 Düsseldorf, Germany
Tel: +49-(0)-221-600-696-0
support@visonictech.de

About Visonic Technologies

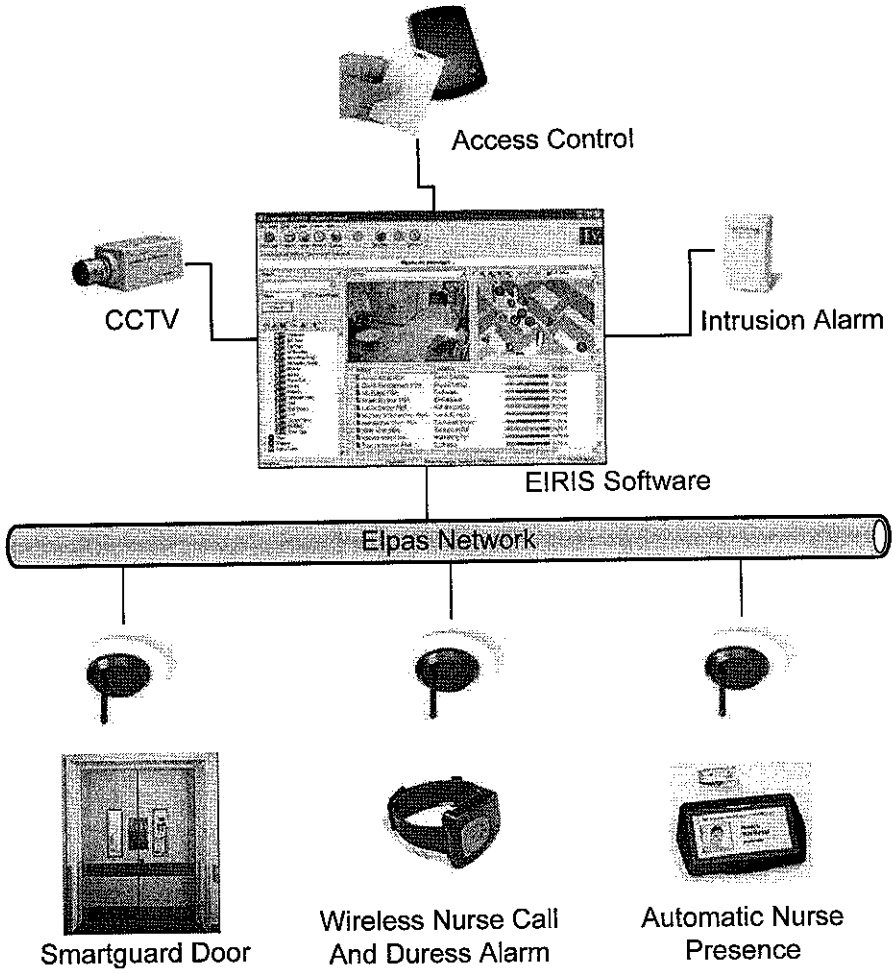
Visonic Technologies, a fully owned subsidiary of Visonic, Ltd. (VSC.L) is a global leader in enterprise class, active and passive RFID/ RTLS real-time visibility solutions. Distributed under the Elpas, SpiderAlert, VisAccess and EIRIS system names the company's products deliver personnel identification and safety; supply-chain logistics, asset protection and facility supervision.

Growing the Elpas Single-Door Wandering Patient Solution

Elpas Smartguard kits are network ready. Elpas solutions scale from single door control to full enterprise security and safety systems.

By combining an Elpas network with EIRIS Software and other Visonic Technologies products and solutions, your facility can benefit from a host of applications including:

- Enterprise-wide wanderer protection
- Wireless nurse-call from anywhere on site
- Access control (conventional and hands-free for disabled)
- Intrusion, gas, smoke and flood detection
- In room night monitoring
- Care reports for billing

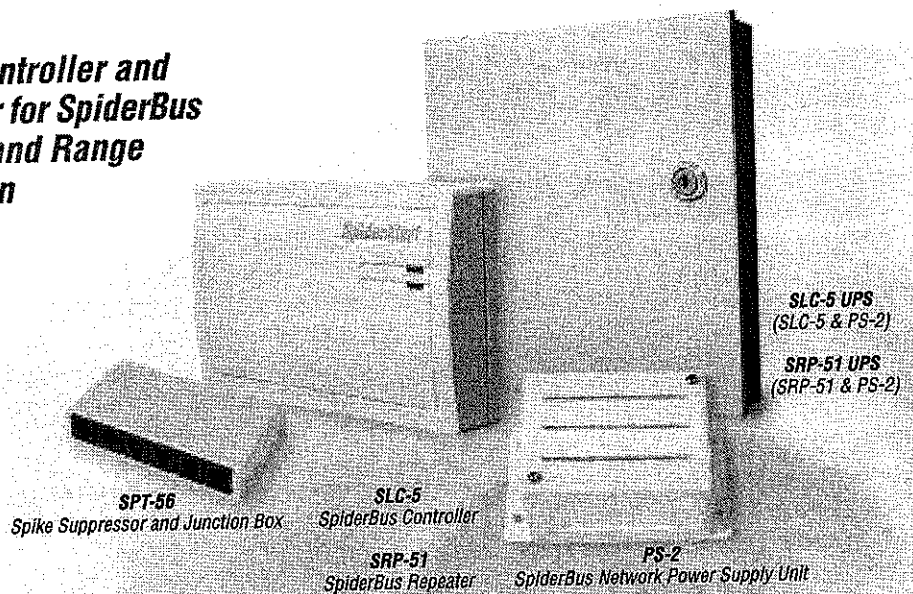


Product Sheet

SpiderAlert®

SpiderBus Communication and Control Devices

Local Controller and Repeater for SpiderBus Control and Range Extension



SLC-5 UPS
(SLC-5 & PS-2)

SRP-51 UPS
(SRP-51 & PS-2)

SPT-56
Spike Suppressor and Junction Box

SLC-5
SpiderBus Controller

SRP-51
SpiderBus Repeater

PS-2
SpiderBus Network Power Supply Unit

Applications

- SpiderBus data collection and control
- SpiderBus interface to the PC
- SpiderBus length extension and segmentation
- Power supply to SpiderBus devices

Features

SLC-5
- Commands reception from PC for delivery to the remote units
- Alerts and service messages collection from all remote units
- Data transfer to the PC through RS-232 serial port
- Acknowledgement of received messages and failure warnings
- Supervision of data bus and remote units

SRP-51
- Enable SpiderBus extension
- Electrically isolates FAR and NEAR SpiderBus sections
- Includes an output circuit controled by head-end computer
- Includes an input circuit for local alarm reporting
- Continuous self supervision and power failure indication.

PS-2
- High frequency switching regulator 1A/13.8V power supply
- Thermal shutdown and automatic current limiting

SPT-56
- SpiderBus devices protection against voltage spikes
- Six RJ-11 connectors for quick SpiderBus wires attach/detach

Description

SLC-5 *is a microprocessor- controlled data collection and computer interface unit designed for the SpiderAlert network. It supervises the operation of the entire system.*
SLC-5 *selectable operating modes are single-site direct connection to the computer, multi-site connection via short-range fast modems and multi-site connection via telephone lines modems.*
SRP-51 *is a repeater unit, used for SpiderBus extension. It sends commands received from the* ***SLC-5*** *to the SpiderBus devices and delivers reports collected from all the SpiderBus devices to the* ***SLC-5****.*
The ***SLC-5*** *and* ***SRP-51*** *modules are mounted in plastic box. The* ***SLC-5*** *UPS and* ***SRP-51 UPS*** *include the* ***SLC-5/SRP-51*** *modules with power supply unit* ***PS-2****, mounted in a large metal box, together with a 12V battery.*
SPT-56 *is a 6-port SpiderBus spike suppressor and junction box for bus devices protection and ease of installation.*

Visonetix

SpiderAlert®

SpiderBus Communication and Control Devices

Specifications

SPIDERBUS

Communication Protocol: *SpiderBus*
Message Format: *40-bit message, including 24-bit ID code*
Operating Voltage Range: *10 -16 VDC*
Cables: *AWG-18 or AWG-22, 4-conductor (minimum), 6- conductor (3 twisted pairs) if using the audio communication option. Category 5 cabling is acceptable. For short distances, flat cable wire AWG-24 may be used*

SLC-5

Communication with Computer: *Serial, RS-232*
Memory Type: *EEPROM*
Memory Capacity: *Up to 255 incoming messages*
Maximum Units located on the SpiderBus: *255*
Current Consumption: *35 mA max (in operation)*
Operating Temperatures Range: *0 °C to 49 °C (32 °F to 120 °F)*
Dimensions:
SLC-5: 165 x 108 x 38 mm (6-1/2 x 4-1/4 x 1-1/2 in.)
SLC-5 UPS: 314 x 264 x 74 mm (12-3/8 x 10-3/8 x 2-15/16 in.)
Weight:
SLC-5: 205 g (7.2 oz.)
SLC-5 UPS: 2880 g (102 oz.)

PS-2

Switching Frequency: *80 - 120 kHz*
Efficiency: *80% (Vin = 19VAC, Iout = 1A)*
Regulated DC Output: *13.8V/1A (Max. output ripple: 200 mV p-p)*
Overload Protection: *Current limiting and a 1.5 A fuse on PCB*
AC FAIL & BAT FAIL Outputs: *Open collector, 5 mA max.*
BAT TEST Input: *Normally HIGH (12VDC); < 1V for battery test*
Dimensions: *56 x 107 x 65 mm (2-1/4 x 4-3/16 x 2-9/16 in.)*
PCB Size: *76 x 56 mm (3 x 2-1/4 in.)*
Weight : *127g (4.5 oz.)*
Color: *White*

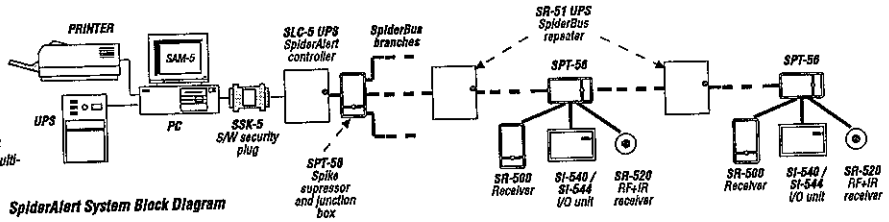
SRP-51

Repeater ID: *8-bit pre-programmed code (2 hexadecimal digits)*
Current Consumption: *7 mA*
Open Collector Output Current: *100 mA maximum*
Output Operating Modes: *Latched on, unlatched or pulsed on by digital commands*
Alarm Input: *Normally Closed. Contacts must open for at least 260 ms to initiate an alarm*
Operating Temperature Range: *-10 °C to 49 °C (14 °F to 120 °F)*
Dimensions:
SRP-50: 110 x 63 x 25 mm (4-5/16 x 2-1/2 x 1 in.)
SRP-50UPS: 314 x 264 x 74 mm (12-3/8 x 10-3/8 x 2-15/16 in.)
Weight:
SRP-50: 190 g (6.7 oz.)
SRP-50 UPS: 2720 g (96 oz.) - excluding the backup battery

SPT-56

Ports: *Two terminal blocks, six RJ-11 jacks*
Spike Suppression Threshold: *39 V ±10%*
Response Time: *10 µs*
Maximum Pulse Transient Energy (10/1000 µSec.): *3.5 Joules*
Operating Temperatures: *-10 °C to 49 °C (14 °F to 120 °F)*
Dimensions (H x W x D): *110 x 63 x 25 mm (4-5/16 x 2-1/2 x 1 in.)*
Weight: *91g (3.2 oz.)*
Color: *White*

Configuration



Note: *For Multi-Site Connection via Short-Range Modems, refer to the multi-site communicator brochure*

SpiderAlert System Block Diagram

ORDERING INFORMATION:

Product Name	Cat. No.	Description
SLC-5	1-7115-0	Single and multi-site communication interface to SpiderBus
SLC-5 UPS	1-7116-0	Same as SLC-5 but in metal box with power supply unit (PS-2)
SRP-51	1-7125-0	SpiderBus repeater with download option
SRP-51 UPS	1-7126-0	Same as SRP-51 but in metal box with power supply unit (PS-2)
PS-2	1-5711-0	Power supply, charger and interface to bus repeater
SPT-56	1-7129-0	SpiderBus 6-port connector with a transorber module for bus protection

A Visonic Group Company
Visonetix Ltd
VSI (Visonic Systems Inc)
Visonic (UK) Ltd
www.visonetix.com

Visonetix
Security and Control Networks

English

SLC-5, SLC-5 UPS

SpiderAlert Local Controller

SpiderAlert®
Installation Instructions

1. INTRODUCTION

1.1 System Overview

The SLC-5 is a microprocessor controlled data collection and computer interface unit, especially designed for the SpiderAlert 5 system. It supervises operation of the entire system and serves as an interface between the system data bus and the head-end computer.

The SLC-5 is available as a stand-alone module (Fig. 4) mounted within a plastic cabinet (Fig. 2). It may be optionally supplied in a large metal cabinet (designated **SLC-5 UPS**, fig. 3), together with power supply unit PS-2, a rechargeable backup battery and an **SPT-56** (SpiderBus Spike Suppressor and Junction Box unit, ref. document DE7129).

The SLC-5 is compatible with both the previous SpiderAlert generation that uses 12-bit codes, and the new SpiderAlert equipment that uses 24-bit codes. It is therefore very easy to upgrade existing systems by replacing the CCU-2 with the SLC-5 and adding new-generation units.

The primary task of the SLC-5 is to collect alert and service messages from all remote units (receivers, input/output devices and repeaters) connected to the SpiderBus. Up to 255 remote units can be handled by a single SLC-5.

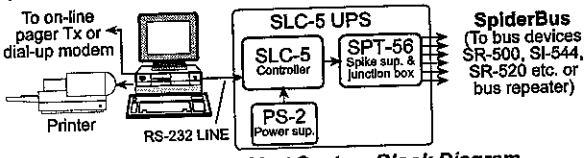


Figure 1 - SpiderAlert System Block Diagram

The secondary task of the SLC-5 is to receive command codes from the central station computer and send them over the bus to the remote units - receivers, input/output devices and repeaters. Each command code is addressed to a specific remote unit, for controlling its output circuits. This allows the attendant at the central station to control remote equipment such as sirens, lights or automatic voice announcers that can be turned on and off.

The functions of the SLC-5 may be summarized as follows:

- Acknowledgement of all messages and failure warnings received via the bus.
- Data storage and transfer to the computer via RS-232 serial port.
- Supervision of the data bus and the remote units.
- Reception of command codes from the head-end computer, for transmission over the data bus to selected remote units.
- Interaction with power supply unit PS-2 (Para. 1-6).

***Important**: PS-2 is the only certified power supply unit. If another power supply unit is used, the product warranty is not valid.*

1.2 Operating Modes

The SLC-5 provides few operating modes, selectable by an on-board DIP switch. In each mode, the SLC-5 communication LED lights steadily while SLC-5 is busy communicating with the computer.

The following operating modes are available:

A. Single-site direct connection to PC (SW1 & SW2 ON) (fig. 7).

B. Multi-site connection via RAD SRM-5AC short-range fast modems (SW1 OFF, SW2 ON). (fig. 6).

C. Multi-site connection via U.S Robotics telephone-line modems (SW1 ON, SW2 OFF). (fig. 6).

This mode allows data interchange with the computer via telephone line data modems compatible with Hayes AT command set. Since the SpiderAlert data transfer rate is 9960bps, 33Kb modem is OK.

The telephone modem LED lights steadily whenever the local modem communicates with a remote modem.

D. Multi-Site Connection via fiber-optic modem, Math model 5002, Telebyte or RAD. (fig. 6).

Note: Whenever the SSK-5 is not directly connected to SLC-5, it requires an external 12 VDC supply.

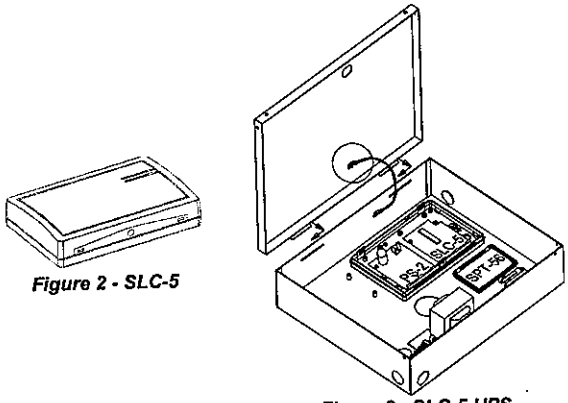


Figure 2 - SLC-5

Figure 3 - SLC-5 UPS

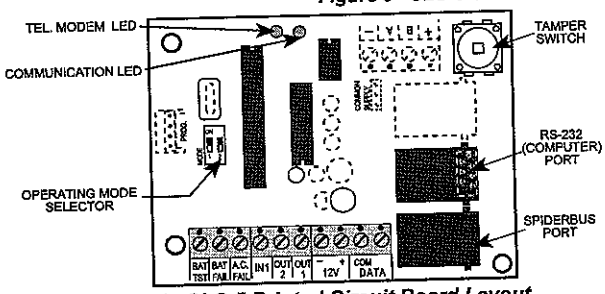


Figure 4 - SLC-5 Printed Circuit Board Layout

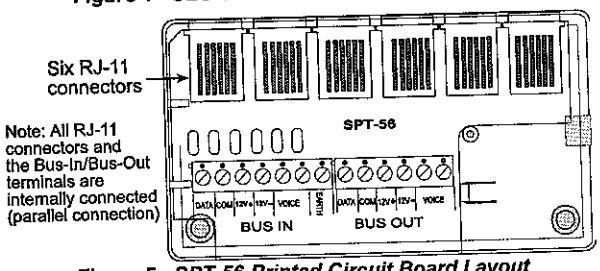


Figure 5 - SPT-56 Printed Circuit Board Layout

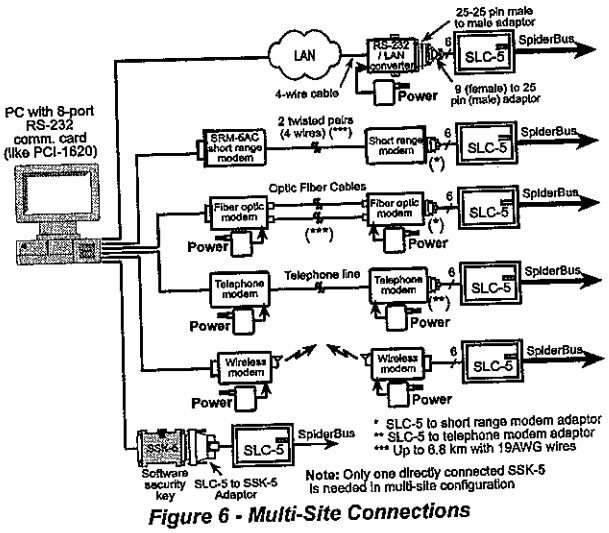


Figure 6 - Multi-Site Connections

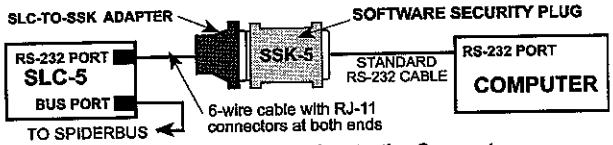


Figure 7 - Direct Connection to the Computer

1.3 Bus Supervision Capability

A supervisory feature is provided by the SLC-5 to prevent data bus trouble from rendering the network inoperable without warning. To make supervision possible, each remote unit sharing the data bus is programmed to send out attendance reports at regular intervals.

Once the SpiderAlert network is powered up, all remote units go through the first cycle of attendance reports. The SLC-5 automatically "learns" the participating units' ID numbers, registers the incoming reports and creates a supervision list. After the first reporting cycle, the SLC-5 expects regular attendance reports from each unit on its list.

Attendance reports received at regular (correct) intervals are "transparent" as far as the monitoring station operator is concerned, although their reception is acknowledged by the SLC-5. If an attendance report from a specific supervised unit fails to come in within 4 minutes from the last report, a suitable warning appears on the computer's monitor.

Note: *After conclusion of the first reporting cycle, you can use the monitoring program to produce a list of all receivers that checked in (the list is retrieved from the automatically generated data base). Compare this list with your installation plan to make sure that all receivers have been accounted for.*

In addition to checking attendance, the SLC-5 monitors the data bus. If the bus leads are shorted together, a suitable warning will appear on the computer's monitor.

1.4 Interaction with the Computer

The SLC-5 is equipped with an RS-232 serial port and is supplied with a suitable interconnection cable and software security plug. This permits serial data interchange with a computer. The SpiderAlert monitor software, which runs under Microsoft Windows, is discussed in the SpiderAlert software SAM-5 User's Guide (Publication DE7160U).

All messages received via the bus are automatically transferred to a computer terminal for further processing and display. A message data string is composed of:

- **Site Identification:** Installation site of unit that sent the message.
- **Unit Identification:** ID assigned to unit that sent the message.
- **Source Identification:** The ID code assigned to the message initiator (transmitter or physical switch).
- **Event Code:** The type of event reported (alarm, tamper alert, low battery, power failure etc.)
- **Checksum:** Message validity data.

Messages reaching the head-end computer are registered in an on-screen event log and on the hard disk. Event log entries may be sorted by the dedicated SAM-5 software in accordance with various criteria and sent to the printer to produce a hard copy.

1.5 Special Input/Output Terminals

The SLC-5 provides one input terminal (IN1) and 2 output terminals (OUT1 and OUT2). The input terminal, that is of the normally closed type, may be connected to a local motion, smoke or glass break detector for reporting a local alarm to the monitoring station.

The two output terminals, which are of the open-collector type, are under control of the monitoring station software - they can be pulled LOW and released by computer command. The two outputs may be used to sound an alarm, to switch lights on and off, to open a door controlled by an electrical door strike, or for many other tasks.

1.6 Power Supply Status Data Flow

The SLC-5 can draw operating power from a distant source via the SpiderBus. It can also operate with the PS-2 - a companion power supply, switching regulator type. The PS-2 powers the SLC-5 and the various remote devices connected to the bus. It also charges the backup battery and provides power supply status information to the SLC-5 via BAT FAIL and AC FAIL terminals (Fig. 8).

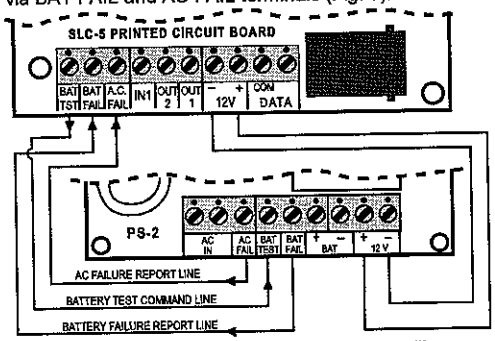


Figure 8 - Power Supply Status Data Flow

Power supply status messages are as follows:

A. **Low Battery:** The SLC-5 sends, at 90 second intervals, a battery test command to the PS-2 via the BAT TST terminal, to check the backup battery under load and report the results. The BAT FAIL output of the power supply is normally LOW, but changes to HIGH if the battery fails this test. If the BAT FAIL terminals are connected as shown in Figure 8, a change from LOW to HIGH will be reported to the computer. As a result, a "LOW BATTERY" message will appear on the computer monitor, together with identification of the SLC-5 installation site.

B. **Battery Restoral:** If the battery is rechecked and found in order, the interconnected BAT FAIL terminals on both units will change state from HIGH to LOW. As a result, a "BATTERY RESTORED" message will appear on the computer monitor, together with identification of the SLC-5 installation site.

Note: *The system will not operate properly without a standby battery. If no battery is being used during initial setup, disconnect the BAT TEST lead.*

C. **AC Line Failure:** The AC FAIL open-collector output of the PS-2 is kept LOW as long as AC power is supplied. Upon an AC failure, this AC FAIL output changes from LOW to HIGH. If the AC FAIL terminals are connected as shown in Figure 8, a change from LOW to HIGH that persists for 60 seconds will be reported to the computer. As a result, an "AC FAILURE" message will appear on the computer monitor, together with identification of the SLC-5 installation site.

D. **AC Line Restoral:** Once the AC supply is restored, the interconnected AC FAIL terminals of both units pull down from HIGH to LOW. If they remain low for 60 seconds, an "AC RESTORED" message will appear on the computer monitor together with identification of the SLC-5 installation site.

2. SPECIFICATIONS

Communication with Computer: Serial, RS-232
Communication Format: ASCII, 8-bits, no-parity, non-polling mode
ID and Event Codes: Hexadecimal
Memory Type: EEPROM
Memory Capacity: Up to 255 incoming messages
Maximum No. of Remote Units: 255, limited by protocol considerations
Bus Protocol: Proprietary SpiderBus™ Protocol

Number of Users: 4087, with wireless system using 12-bit ID code, over 16 million, with wireless system using 24-bit ID codes.
Operating Voltage: 10 - 16 VDC
Current Consumption: 35 mA max (in operation)
Operating Temperature Range: 0°C to 49°C (32°F to 120°F)
Dimensions:
Plastic Box: 165 x 108 x 38mm (6-1/2 x 4-1/4 x 1-1/2 in.)
Metal Box: 262 x 315 x 74mm (10-5/16 x 12-3/8 x 2-15/16 in.)
Weight (Plastic Box with SLC-5): 205 gr (7.2 oz)

3. INSTALLATION

3.1 SLC-5 Mounting

The SLC-5 is supplied in a plastic cabinet, which facilitates installation on a flat surface. This cabinet is suitable for applications where the SLC-5 is powered from a remote power supply through the SpiderBus. To install the box, proceed as follows:

A. Remove the screw securing the cover to the base (see Figure 9).

B. Insert a small screwdriver blade into the slot near one of the snap-in teeth, as shown. Carefully flex the cover edge out, until the tooth disengages the dent. Repeat this with the other tooth to free the cover edge completely.

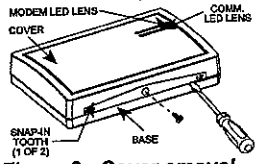


Figure 9 - Cover emoval

C. Lift the free edge of the cover diagonally up and get the other edge free by pulling it backwards to disengage the tabs at the back. The SLC-5 module does not prevent access to the mounting holes, as evident from Fig. 10.

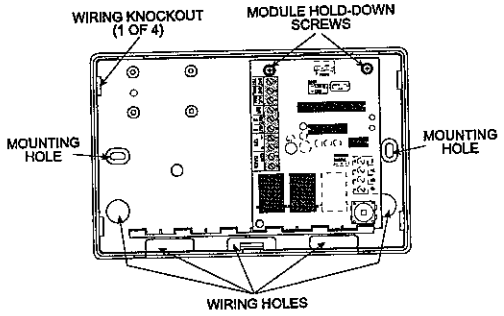


Figure 10 - Plastic Cabinet with SLC-5 Installed

D. Hold the base against the mounting surface and mark the points for drilling.

E. Drill the mounting holes and insert wall anchors if necessary. Bring the wires into the base through the wiring holes or wiring knockouts. Attach the base to the mounting surface with the two long screws.

3.2 SLC-5 UPS

Besides the SLC-5, the plastic cabinet can accommodate power supply PS-2 that provides operating power for the SLC-5 and for the remote units via the 2 power supply wires of the SpiderBus (see Figure 12). The base, complete with both units, can be easily mounted within a metal cabinet, together with an AC line transformer and a 12 V rechargeable battery. The reference designation of this entire configuration including the metal cabinet is SLC-5 UPS.

***Note:** For this type of installation, only the base part of the plastic cabinet is used (the cover is not supplied), to permit better heat dissipation.*

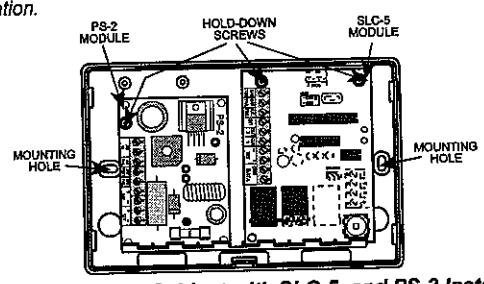


Figure 11 - Plastic Cabinet with SLC-5 and PS-2 Installed

To install within a metal cabinet, proceed as follows.

A. Hold the base against the inner wall of the host metal cabinet and mark the points for drilling through both mounting holes.

B. Punch out one or more of the wiring knockouts at the sides of the base, as necessary.

C. Drill the mounting holes and attach the base with both units in it to the inner surface of the metal cabinet using two screws and nuts.

3.3 Wiring SLC-5 to the SpiderBus

For the SpiderBus design, refer to the SpiderBus design and wiring guide, document number DE7110W.

The SLC-5 may be connected to the SpiderBus either via the 4 terminals shown in Figure 12, or via the telephone type bus port, which is a 4-position RJ-11 receptacle.

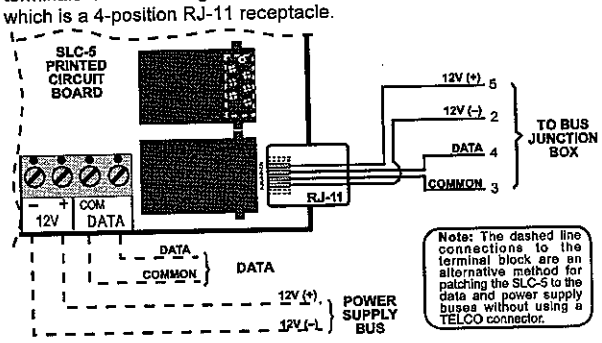
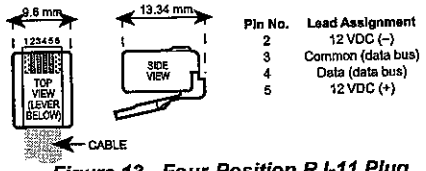


Figure 12 - Bus Wiring

As evident from Figure 12, the connection to the SpiderBus via the terminal block is very simple. However, if you prefer the quick attach/detach feature of telephone-type connectors, you will need a 4-pin RJ-11 mating plug that is commonly called "TELCO plug" (see Figure 13 for plug shape and pin assignments).



Pin No.	Lead Assignment
2	12 VDC (–)
3	Common (data bus)
4	Data (data bus)
5	12 VDC (+)

Figure 13 - Four-Position RJ-11 Plug

If an RJ-11 (TELCO) plug is used for connecting the SLC-5 to the SpiderBus, the following items are required:

- An unspecified length of 4-lead, color coded modular cable for producing a patch cord connecting the BUS port to the bus junction box (if junction boxes are indeed used along the bus).
- Two 4-position RJ-11 plugs, to terminate the patch cord.
- A crimping tool for RJ-11 plugs.

A telephone-type junction box with a built-in RJ-11 receptacle may be used to facilitate connection to the bus. Refer to Figure 14 and proceed as follows:

A. Identify the 4 wires of the bus and connect them to the numbered terminals within the junction box, maintaining the order required for correct patching.

B. Prepare an RJ-11-to-RJ-11 patch cord, long enough to bridge the distance between the bus junction box and the SLC-5.

Make sure a "one-for-one" configuration is obtained, whereby pin 2 is connected to pin 2, pin 3 to pin 3 , etc.

CAUTION:** If you intend to use ready-made RJ-11 to RJ-11 TELCO patch cords, verify that they have the above mentioned "one for one" design. **Typically they do not.

C. If the bus itself is made of "modular" cable, there is no need for junction boxes. The bus cable can then be directly connected to the bus port of the SLC-5. Verify that the assignments and order of the cable leads match the assignments and order of terminals in the bus receptacle. If everything matches, crimp an RJ-11 plug onto the end of the bus cable. The bus end terminated with the plug may then be inserted directly into the SLC-5 bus receptacle.

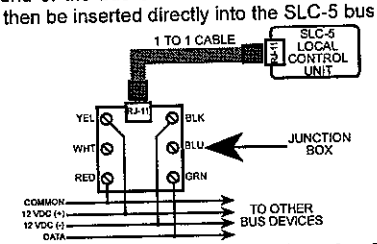


Figure 14 - Bus Connection via a Junction Box

3.4 Patching the SLC-5 to the PC

A. For single-site installation (only one SLC-5 is used and no modems), verify that both switch levers of the SLC-5 operating mode selector are set to ON.

B. Connect the SLC-to-SSK adapter cable (supplied with the unit) between the RS-232 connector on the SLC-5 board and the D-type 25-pin **female** connector on the SSK-5 software security plug.

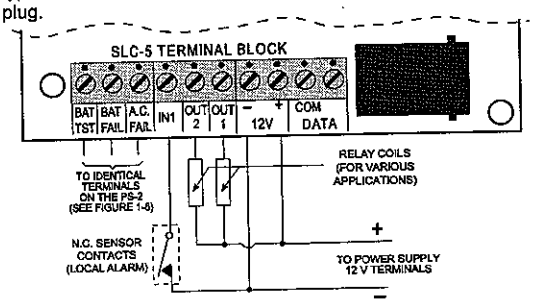


Figure 15 - Wiring the Input and Output Circuits

C. Use the RS-232 cable supplied with the SSK-5 to connect the free end of the SSK-5 (the one with the 25-pin D-type **male** connector) to the computer's serial data port.

3.5 Using the Input/Output Circuits

A. Connect a normally closed switch of a local alarm sensor (such as a smoke detector, motion detector, glass break detector, etc.) across the IN1 and 12V(–) terminals.

> ***IMPORTANT:*** *If IN1 is not to be used, bridge it to the 12 V(–) terminal with a short piece of jumper wire. If you fail to do so, this input will constantly initiate an alarm.*

B. Either output terminal is suitable for operating a low-current 12VDC buzzer, an LED, or an auxiliary relay that draws less than 100mA current, as required. In case of a relay, connect its operating coil across the OUT1 and 12V(+) or OUT2 and 12V(+) terminals. Relays connected to OUT1 and OUT2 will pull in by automatic or manual computer command. The relay contacts may be wired to open doors, to control lighting fixtures, to sound an alarm, to switch a wireless transmitter on and off etc.

Output 2 can be selected by the software for SLC-PC communication failure indication (parameter 01 - checking communication with PC). If this function is selected, when an SLC-PC communication failure exists, output 2 is activated in pulse mode.

3.6 SLC-5 UPS Internal Wiring

If you wish to install an SLC-5 UPS in a metal cabinet together with an AC power transformer and a backup battery, proceed as follows:

A. Interconnect the identically marked terminals of the SLC-5 and PS-2, as shown in Figure 8 (BAT FAIL to BAT FAIL and so on). When connecting the 12 V terminals, be careful not to reverse the (+) and (–) wires.

B. Connect the secondary winding of a step-down transformer with 18 - 26 V / 1A rating across the AC IN terminals of the PS-2. Then connect the primary winding of the transformer to the AC power line.

C. Connect a 12 VDC / 6 Ah sealed lead-acid battery across the BAT terminals of the PS-2. Observe polarity.

3.7 SLC-5 UPS Connection to Bus Devices

The SLC-5 UPS is connected to the SpiderBus devices (and to an SRP-51 bus repeater) via SPT-56 RJ-11 connectors (see fig. 3 & 4b).

WARRANTY

Visonic Technologies Ltd., and its affiliates, (hereinafter collectively referred to as "the Manufacturer") warrants its products (hereinafter referred to as "the Product") to be free of defects in materials and workmanship under normal operating conditions and use for a period of one year from the date of shipment by the Manufacturer. The Manufacturer's obligations shall be limited within the warranty period, at its option, to repair or to replace the defective Product or any defective component or part thereof. To exercise this warranty, the product must be returned to the manufacturer freight prepaid and insured.

This warranty does not apply to repairs or replacement caused by improper installation, Product misuse, failure to follow installation or operating instructions, alteration, abuse, accident, tampering, repair by anyone other than the Manufacturer, external causes, and failure to perform required preventive maintenance. This warranty also does not apply to any products, accessories, or attachments used in conjunction with the Product, including batteries, which shall be covered solely by their own warranties, if any. The Manufacturer shall not be liable for any damage or loss whatsoever, whether directly, indirectly, incidentally, consequentially or otherwise, resulting from a malfunction of the Product due to products, accessories, or attachments of others, including batteries, used in conjunction with the Product.

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The Manufacturer shall not, under any circumstances whatsoever, be liable for any inaccuracy, error of judgment, default, or negligence of the Manufacturer, its employees, officers, agents, or any other party, or of the purchaser or user, arising from any assistance or communication of any kind regarding the configuration, design, installation, or creation of security system involving the Product, that being the responsibility of the purchaser or user.

If the Manufacturer is unable to make such repair or replacement, the Manufacturer's entire liability shall be limited to the cost of a reasonable substitute product.

The Manufacturer shall not be responsible for any dismantling, installation, reinstallation, purchasing, shipping, insurance, or any similar charges.

The Manufacturer shall have no liability for any damages, including without limitation, any direct, indirect, incidental, special, or consequential damages, expenses, costs, profits, lost savings or earnings, or other damages arising out of the use of the Product or the removal, installation, reinstallation, repair or replacement of the Product or any related events. In the event that there is any liability against the Manufacturer, such liability shall be limited to the purchase price of the Product which amount shall be fixed as liquidated damages.

The purchaser and user understand that this Product may be compromised or circumvented by intentional acts; that the Product will not in all cases prevent death, personal injury, property damage, or other loss resulting from burglary, robbery, fire or other causes; and that the Product will not in all cases provide adequate warning or protection. The purchaser and user also understand that a properly installed and maintained alarm may reduce the risk of events such as burglary, robbery, and fire without warning, but it is not insurance or a guarantee that such events will not occur or that there will be no death, personal injury, property damage, or other loss as a result of such events.

By purchasing the Product, the purchaser and user shall defend, indemnify and hold the Manufacturer, its officers, directors, affiliates, subsidiaries, agents, servants, employees, and authorized representatives harmless from and against any and all claims, suits, costs, damages, and judgments incurred, claimed, or sustained whether for death, personal injury, property damage, or otherwise, because of or in any way related to the configuration, design, installation, or creation of a security system involving the Product, and the use, sale, distribution, and installation of the Product, including payment of any and all attorney's fees, costs, and expenses incurred as a result of any such events.

The purchaser or user should follow the Product installation and operation instructions and test the Product and the entire system at least once each week. For various reasons, including but not limited to changes in environmental conditions, electric, electronic, or electromagnetic disruptions, and tampering, the Product may not perform as expected. The purchaser and user are advised to take all necessary precautions for the protection and safety of persons and property.

This statement provides certain legal rights. Other rights may vary by state or country. Under certain circumstances, some states or countries may not allow exclusion or limitation of incidental or consequential damages or implied warranties, so the above exclusions may not apply under those circumstances and in those states or countries.

The Manufacturer reserves the right to modify this statement at any time, in its sole discretion without notice to any purchaser or user. However, this statement shall not be modified or varied except by the Manufacturer in writing, and the Manufacturer does not authorize any single individual to act on its behalf to modify or vary this statement.

Any questions about this statement should be directed to the Manufacturer.

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Enterprise Protection Solutions

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SLC-5 DE7115- (REV. 6, 10/04)

MADE IN ISRAEL

English

SRP-51, SRP-51 UPS

SpiderBus Repeater With Download Option

SpiderAlert®

Installation Instructions

1. INTRODUCTION

1.1 SRP-51 in the SpiderAlert System

The SRP-51 is a bus repeater unit designed for use in the SpiderAlert system, to extend the data bus length beyond the limits specified in the SLC-5 Installation Manual.

The SRP-51 is available as a stand-alone module (fig. 1-4) mounted within a plastic cabinet (fig. 1-2). It may be optionally supplied in a large metal cabinet (designated **SRP-51 UPS**, fig. 1-3), together with power supply unit PS-2 and an **SPT-56** SpiderBus Spike Suppressor and Junction Box unit (Ref. document DE7129).

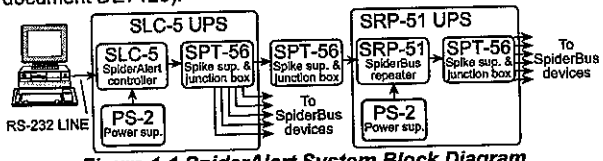


Figure 1-1 SpiderAlert System Block Diagram

Table 1 - Differences Between SRP-51 and SRP-50

Function	SRP-50	SRP-51
Unit's ID changing (by downloading)	No	Yes
Data download to unit's memory	No	Yes
Unit's pulse output duration adjustment (by downloading)	No	Yes
Voice signal delivery (via RJ-11 or terminal block)	No	Yes
BROADCAST command delivery (via terminal block)	No	Yes
Number of inputs (supported by S/W)	3	1
Number of outputs (supported by S/W)	2	1
Connector for PS-2 power supply unit	No	Yes

Caution: *Download option is applicable to all SpiderBus devices except SI-561 and SRP-50.*

As demonstrated in figure 1-5, a long bus is split into two sections, between which the SRP-51 repeater is inserted. The SpiderAlert Local Control unit SLC-5 is connected via the "NEAR" section of the bus to the NEAR port of the SRP-51. The "FAR" section of the bus is connected to the FAR port of the SRP-51. The SRP-51 printed circuit board accommodates two quick attach/detach RJ-11 receptacles or terminal board for bus connections.

If the bus proves too long for only one repeater, multi-repeater configurations are also possible, by further sub-division of the bus. Sub-division is advantageous because it allows easier troubleshooting if a short circuit occurs anywhere along the bus.

Since the SRP-51 simulates a regular SpiderBus unit, it is likewise identified by an 8-bit ID number (by 2 hexadecimal digits). The ID can be downloaded into memory location (address) number 33. The unit sends out attendance reports at regular intervals, the same way as other bus units such as wireless receiver SR-500 and I/O input unit SI-544.

The SRP-51 sends to the SLC-5 data and attendance reports collected from all devices connected to the FAR section of the bus, but electrically isolates the FAR and NEAR sections of the bus. Consequently, a short circuit on the FAR bus does not affect the NEAR bus, which continues to function normally.

1.2 Power Distribution Method

A jumper in the SRP-51 printed circuit board (Fig. 1-4) can be mounted across the COMMON SUPPLY pins to bridge the FAR and NEAR positive (+) supply lines (see Sec. 3). With an unbroken positive line, receivers connected to both sections of the power supply bus can be fed from a common source. When the jumper is removed from the COMMON SUPPLY position, the positive supply line is broken into separate sections, each of which must be fed from a separate PS-2 power supply unit.

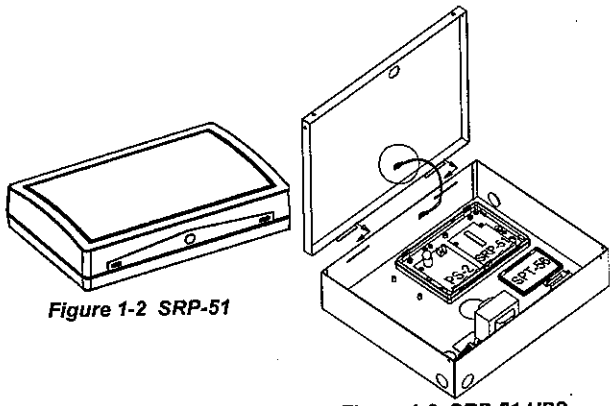


Figure 1-2 SRP-51

Figure 1-3 SRP-51 UPS

1.3 Single Power Supply Configuration

A single power supply unit may be enough for the NEAR and FAR buses together, provided that the power supply unit can deliver the required current and that the supplied voltage to the farthest unit is not less than 10V.

In such a case, the repeater's internal jumper must be in COM SUP (common supply) position (across the bottom 2 pins, see fig. 1-4). The common power supply unit can be installed near the SLC-5 or near the repeater.

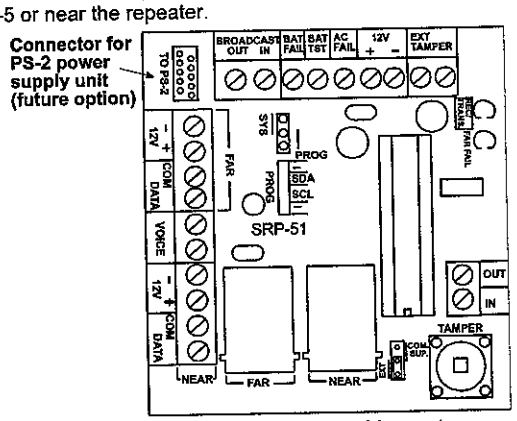


Figure 1-4. SRP-51 PC Board Layout

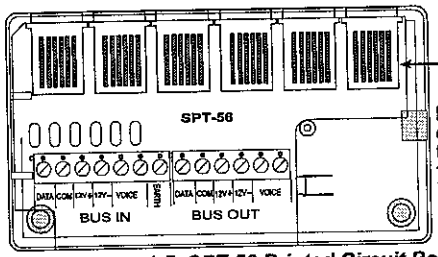


Figure 1-5. SPT-56 Printed Circuit Board Layout

The output can be activated (pulled "LOW"), deactivated (pulled HIGH) or pulsed "LOW" (0-255 seconds) manually or by automatic computer command. When downloading the pulse output duration, the location (address) number in the internal memory is 36. The output may be used to sound an alarm, to control lighting device, to open a door controlled by an electrical door strike, or for many other tasks. Since the output can not sink

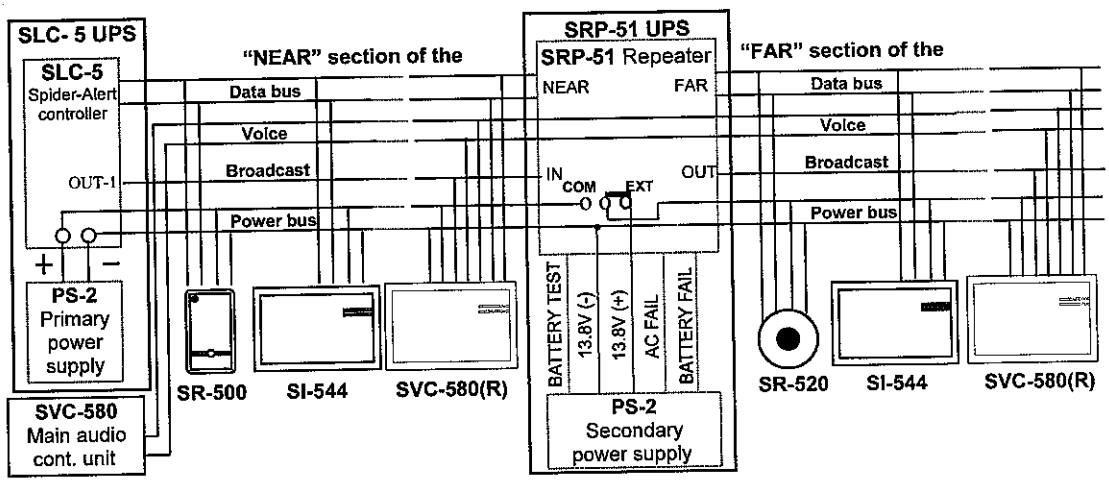
more than 100 mA, an interface relay might be required for controlling an external device.

1.4 Input Circuit

One input circuit of the normally closed (N.C.) type is available for reporting to the head-end computer alarms or events that occur at the SRP-51 installation site. This input may be connected to motion, smoke or glass break detector that is installed near the repeater. The computer software identifies the repeater that sent out the alarm signal. Consecutively, a suitable message appears on the computer's monitor, the alert is registered in the event log and an automatic response (if programmed) will be initiated.

1.5 Tamper Protection

An internal normally closed tamper switch protects the SRP-51 against tampering while installed in its original plastic case. The EXT TMPER terminals permit the use of an external normally closed (N.C.) tamper switch. Such a switch is required if the SRP-51 is to be housed in a metal cabinet, together with Power Supply/Charger PS-2, a backup battery and a 20 VA step-down transformer (see Para. 5-2). In every configuration only one tamper switch is used (internal or external). The internal and external tamper switches contacts are connected in parallel. There is no jumper that has to be moved when using an external tamper - for installation simplicity.



2. SPECIFICATIONS

Repeater ID: 8-bit pre-programmed code (2 hexadecimal digits)
Message Format: 40-bit message.
Communication Protocol: SpiderBus
Operating voltage Range: 10 -16 VDC
Current Consumption: 7 mA
Open Collector Output Current: 100 mA maximum
Output Operating Modes: Latched on, unlatched or pulsed on by digital commands.
Alarm Input: Normally Closed (N.C.) type
Alarm Input Sensitivity: Contacts must open for at least 260 ms to initiate an alarm.
Operating Temperature Range: -10°C to 49°C (14°F to 120°F)

Compatibility with bus devices: Compatible with all SpiderBus devices. For download option, all SpiderBus devices are compatible except for SI-561 and SRP-50.

Dimensions:
SRP-51 (in plastic box - H X W X D): 165 x 108 x 38 mm (6-1/2x4-1/4x1-1/2 in.)
SRP-51 UPS (H X W X D): 262 x 315 x 74 mm (10-5/16 x 12-3/8 x 2-15/16 in.).
Weight:
SRP-51 (in plastic box): 190 g (6.7 oz)
SRP-51 UPS (in metal cabinet): 2.720 kg (6 lb) - excluding the backup battery.

3. POWER SUPPLY METHODS

3.1 Single Power Supply Configuration

The repeater can receive operating power from a distant source via the power supply bus. A single source may be enough for the NEAR and FAR buses together, provided that the power supply unit can deliver the required current and that the voltage supplied to the farthest unit is not less than 10V. In such a case, the repeater's on-board jumper must be mounted across the two pins closest to the tamper switch (in the COMMON SUPPLY position). The common power supply can be installed near the SLC-5 or near the repeater.

3.2 Using Power Supply Model PS-2

If separate power supplies are required for the NEAR and FAR sections of the bus, the switching regulator type power supply PS-2 should be used. Figure 3-1 shows how the SRP-51 and PS-2 should be interconnected.

Caution: *PS-2 is the authorized power supply unit for the SpiderAlert system. Using any other power supply unit may reduce the system performance and will invalidate the system warranty.*

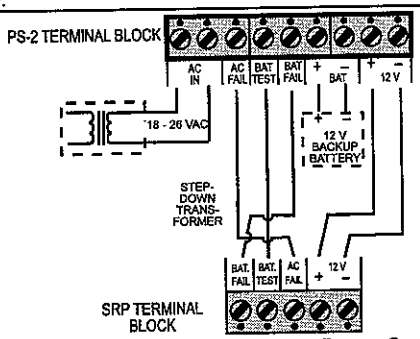


Figure 3-1. SRP-51 Interconnection with Power Supply PS-2

The PS-2 has been especially designed to feed the repeater and the various devices connected to the FAR bus. Besides feeding the system, the PS-2 charges a backup battery and tests the battery whenever a **BAT TEST** command is received from the SRP-51. **BAT TEST** commands are sent by the SRP-51 at regular intervals, and the battery status is reported to the repeater. Failures and restores of the AC mains supply are also reported. All power supply status messages are relayed by the repeater to the head-end computer (see Para. 4-4).

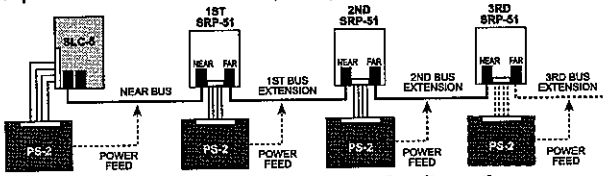


Figure 3-2. Multiple Repeater Configuration

Remember that the COMMON SUPPLY jumper must be removed from the COMMON SUPPLY position (it may be placed on the two pins closer to the NEAR socket).

This will separate the two sections of the bus as far as power supply is concerned. The NEAR section of the bus will be powered from a power supply located at the "near end" (the SLC-5 installation site).

For detailed data on the PS-2, refer to the PS-2 Installation Manual, Publication DE5711.

3.3 Multi-Segment Bus Power Supply

A very long bus can be divided into several segments, with an SRP-51 repeater positioned at each division point. In this case, a PS-2 power supply will be connected to each repeater to provide power "further down the bus" (see Figure 3-2). The jumpers must be removed from the COMMON SUPPLY pins in all repeater units, to achieve power supply line separation between all segments of the bus.

4. DATA AND COMMAND TRANSFER ROUTINES

In principle, the SRP-51 is a bi-directional repeater. It collects messages and attendance reports from various units on the FAR section of the bus, and transfers them via the NEAR section of the bus to the SLC-5 (and through it to the head end computer). In addition, commands issued by the head-end computer are sent to the repeater via the NEAR section of the bus and relayed by the repeater to the devices on the FAR section of the bus.

4.1 Message from Wireless Transmitters

Message transfer from SpiderAlert wireless transmitters consists of the following stages:

A. Upon activation, a wireless transmitter transmits its digital ID and an alarm code.

B. Let's assume that the transmission is picked up by one of the FAR bus wireless receivers.

C. The receiver sends its own ID, the transmitter's ID and alarm data over the FAR bus.

D. The message is received and verified by the SRP-51 repeater.

E. If the message proves valid, the repeater acknowledges its reception.

F. The repeater relays the message in its original format via the NEAR bus to the SLC-5 and through it to the head-end computer. If several repeaters are used, the message will go through all of them, one after the other, until it reaches the head end computer. The repeater's red LED lights while it is engaged in message transfer, until an acknowledgement is received from the SLC-5 or from the next repeater.
Note: The repeater is "transparent" during the message transfer process, because it does not add its own ID to the message.

G. Once the relayed message is acknowledged by the SLC-5 (or by the next repeater), the red LED goes out and the repeater returns to the FAR bus, ready for the next message.

4.2 FAR Bus Devices Messages

Hard wired interface units have several input circuits. Each input simulates a wireless transmitter and has a digital ID just like any other SpiderAlert transmitter. The interface unit itself simulates a wireless receiver and has a SpiderAlert receiver ID. Message transfer stages are:

A. An input is triggered in a hard-wired unit on the FAR section of the bus.

B. The hard-wired unit sends its own ID and the specific input's ID over the FAR bus.

C. The rest of the process is exactly as described in Para. 4-1, Steps D through G.

4.3 Attendance Report Transfer

Attendance reports are sent at regular intervals by all devices connected to the NEAR and FAR sections of the bus - wireless receivers and hard-wired input/output units alike. Similar attendance reports are sent by the repeater itself. An attendance report consists of the bus device's ID (or the repeater's ID) and a code that distinguishes it from all other messages. Reports sent by devices on the NEAR section of the bus and by the repeater are collected directly by the SLC-5 Local Control Unit. Reports sent by devices on the FAR section of the bus are collected by the repeater and relayed to the SLC-5 via the NEAR section of the bus. The message transfer routine is as described in Paragraph 4-1 above, except that attendance reports are initiated automatically.

4.4 Local Alarms and Data Transfer

The repeater uses its own ID and additional codes to report local alarms, power supply status and maintenance-related events (failures and recoveries from failures) to the SLC-5 and through it to the head-end computer.

Special codes are used to indicate the following events:

- Local alarms that occur at the repeater N.C. input
- Tamper alert
- Tamper restore.
- AC supply failure (when operating with Power Supply PS-2).
- The AC supply is restored (when operating with Power Supply PS-2).
- Low battery condition (when operating with Power Supply PS-2).
- The battery is restored (when operating with Power Supply PS-2).
- Short circuit in the far section of the SpiderBus
- Recovery from a short circuit in the far section of the SpiderBus

A. Local Alarms: If the repeater input senses an open circuit, the SRP-51 will send over the data bus its own ID and a special ALARM AT INPUT code. Both repeater ID and event code will be registered by the head-end computer and an "ALARM AT INPUT" message will appear on the computer's monitor.

B. Tamper Alert: If its tamper switch contacts open, the SRP-51 will send over the data bus its own ID and a special TAMPER ALERT code. Both repeater ID and event code will be registered by the head-end computer and a "TAMPER ALERT IN REPEATER X" message will appear on the computer's monitor.

C. AC Line Failure: The SRP-51 and the bus can be fed from power supply PS-2. The AC FAIL output of the PS-2 is kept LOW as long as AC power is supplied. If the AC FAIL terminal

of the PS-2 is connected to the AC FAIL terminal of the SRP-51 and a change from LOW to HIGH persists for 60 seconds, the SRP-51 will send over the bus its own ID and a special AC FAILURE code. Both repeater ID and event code will be registered by the head-end computer and an "AC FAILURE IN REPEATER X" message will appear on the computer's monitor.

D. **AC Line Restored:** Whenever the AC supply is restored, causing the AC FAIL line to be pulled from HIGH to LOW and remain low for 60 seconds, the SRP-51 will send over the data bus its own ID and a special AC RESTORED code. Both repeater ID and the event code will be registered by the head-end computer and an "AC RESTORED IN REPEATER X" message will appear on the computer's monitor.

E. **Low Battery:** If the SRP-51 is fed from power supply PS-2 and a backup battery is used, the SRP-51 sends LOW signal to the PS-2, to test the battery under load, every 90 second. The BAT FAIL output of the power supply is normally LOW, but changes to HIGH if the battery fails this test. If the BAT FAIL output of the power supply is connected to the BAT FAIL input of the SRP-51 and the circuit changes from LOW to HIGH, the SRP-51 will send over the data bus its own ID and a special LOW BATTERY code. Both repeater ID and the event code will be registered by the head-end computer and a "LOW BATTERY IN REPEATER X" message will appear on the computer's monitor.

F. **Battery Restored:** If the battery is rechecked and found in order for 3 minutes running, the BATTERY FAIL line will change state from HIGH to LOW. This will cause the SRP-51 to send over the data bus its own ID and a special BATTERY RESTORED code. Both repeater ID and the event code will be registered by the head-end computer and a "BATTERY RESTORED IN REPEATER X" message will appear on the computer's monitor,

G. **Short Circuit in the FAR Bus:** Once the FAR section of the bus is short circuited, the SRP-51 will send over the data bus its own ID and a special FAR BUS SHORTED code. Both repeater ID and the event code will be registered by the head-end computer and a "REPEATER X FAR BUS SHORTED" message will appear on the computer's monitor. The yellow LED on the SRP-51 board will light, making it easier to trace and repair bus trouble.

H. **Recovery from Short Circuit in the FAR Bus:** Upon elimination of a short circuit in the FAR section of the bus, the SRP-51 will send over the data bus its own ID and a special FAR BUS RECOVERED code.

Both repeater ID and the event code will be registered by the head-end computer and a "REPEATER X FAR BUS RECOVERED" message will appear on the computer's monitor. The yellow LED on the SRP-51 board will extinguish once the bus returns to normal.

4.5 Commands to FAR Bus Devices

The head-end computer can control the output circuits of wireless receivers and hard-wired units connected to the SpiderBus, provided that these are SpiderAlert 5 units.

The command transfer process consists of the following stages:

A. The attendant at the head end computer (or the computer itself, if programmed to do so) sends a digital command code over the bus. The code specifically identifies the target unit, the specific output circuit and the requested activation mode.

B. The repeater receives the command, verifies that the target unit is indeed present at the far section of the bus - each unit is accounted for by its regular attendance reports. The repeater then acknowledges receipt of the command to the head end computer. If the target unit is unaccounted for, the repeater will not acknowledge.

C. Upon receiving the command code, the target unit will acknowledge and will activate the target output in the mode dictated by the code. If the target unit does not acknowledge, the repeater will send out an error message to the SLC-5 and the head-end computer.

5. INSTALLATION

5.1 Stand Alone Configuration

The SRP-51 is supplied in a closed plastic cabinet, which facilitates installation on a flat surface and protects the unit against tampering.

To install the plastic, proceed as follows:

A. Remove the screw securing the plastic cabinet cover to the base (see Figure 5-1).

B. Insert a small screwdriver blade into the slot near one of the snap-in teeth, as shown. Carefully flex the cover edge out, until the tooth disengages the dent. Repeat this with the other tooth to free the cover edge completely.

C. Swing the free edge of the cover diagonally up and move it slightly backwards to disengage the tabs at the back. The SRP-51 module does not prevent access to the mounting holes, as evident from Figure 5-2.

D. Hold the base against the mounting surface and mark the points for drilling.

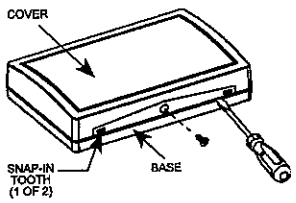


Figure 5-1. Opening the Plastic Cabinet

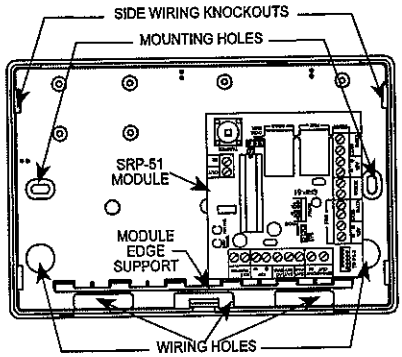


Figure 5-2. Plastic Cabinet Base with SRP-51 Module installed

E. Drill the mounting holes and insert masonry anchors if necessary. Bring the wires into the base through the wiring holes or wiring knockouts. Attach the base to the mounting surface with two long screws.

F. Complete the wiring as described in Section 5-3, 5-4.

5.2 Metal Cabinet Option (SRP-51 UPS)

The SRP-51 may be optionally supplied pre-installed in a large metal cabinet, together with the following items:

- Power supply PS-2 (mounted within the plastic cabinet base - Fig 5-3)
- An AC line transformer (see Figure 5-4)
- SPT-56 SpiderBus Spike Suppressor and junction box (ref. Document #DE7129).
- A tamper switch (see Figure 5-4)

In this application, the plastic cabinet cover is not used, to allow better heat dissipation. The large metal cabinet is spacious enough to contain a rechargeable lead-acid 12 V backup battery.

To install the metal cabinet, just mark at least three drilling points on the wall, drill the holes, use masonry anchors if required and attach the metal cabinet to the wall with screws. Wiring instructions are given in Section 5-3, 5-4.

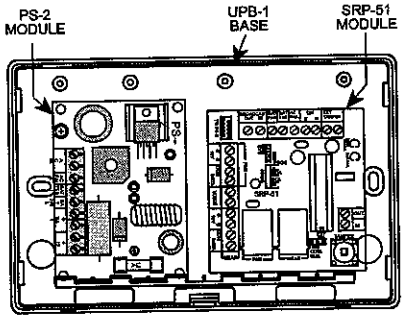


Figure 5-3.
Plastic Cabinet Base with SRP-51 and PS-2 Installed

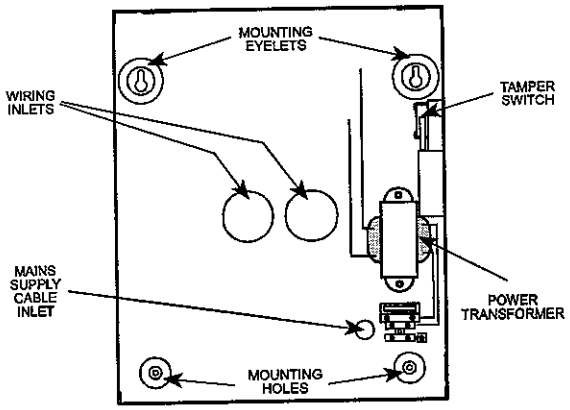


Figure 5-4.
Metal Cabinet with Power Transformer and Tamper Switch

5.3 Power Supply Wiring

If the repeater and the FAR section of the bus are to receive operating power via the NEAR section of the bus, just make sure that the power supply jumper is mounted across the "COMMON SUPPLY" pins (see Figure 3-1). Do not make any connections to the power supply terminal block.

If the FAR section of the bus is to be fed from auxiliary power supply PS-2, make sure that the power supply jumper is removed from the COMMON SUPPLY position and proceed as follows:

A. Interconnect the identically marked terminals of the SRP-51 and PS-2, as shown in Figure 3-1 (BAT FAIL to BAT FAIL and so on). When connecting the 12 V terminals, be careful not to reverse the (+) and (–) wires.

B. Connect the secondary winding of a step-down transformer with 18 - 26 V / 1A rating across the AC IN terminals of the PS-2. Then connect the primary winding of the transformer to the AC power line.

C. Should you require battery backup, connect a 12 VDC / 6 Ah sealed lead-acid battery across the BAT terminals of the PS-2. Observe polarity.

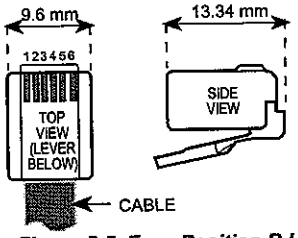
5.4 SRP-51 Bus Connections

Both NEAR and FAR ports are 6-position telephone-type RJ-11 receptacles. The 4-pin mating plug for these receptacles is shown in Figure 5-5.

To connect the repeater to the bus, you need the following items:

- An unspecified length of 6-lead, color coded modular cable (required to produce two patch cords for connecting the NEAR and FAR ports to the NEAR and FAR junction boxes, respectively.
- Four RJ-11 type male connectors, to terminate the patch cords.
- A crimping tool for RJ-11 four-position plugs.

Pin assignments for both FAR and NEAR ports are shown in Figure 5-5.



Pin No.	Assignment
1	Audio
2	12 VDC (–)
3	Common (data bus)
4	Data (data bus)
5	12 VDC (+)
6	Audio

Figure 5-5. Four-Position RJ-11 Plug and Pin Assignments

Telephone-type junction boxes must be used to facilitate connection to the bus. To complete the bus connections, proceed as follows:

A. Identify the 4 wires of each bus and connect them to the numbered terminals within the junction box, maintaining the order required for correct patching (see Figure 5-6).

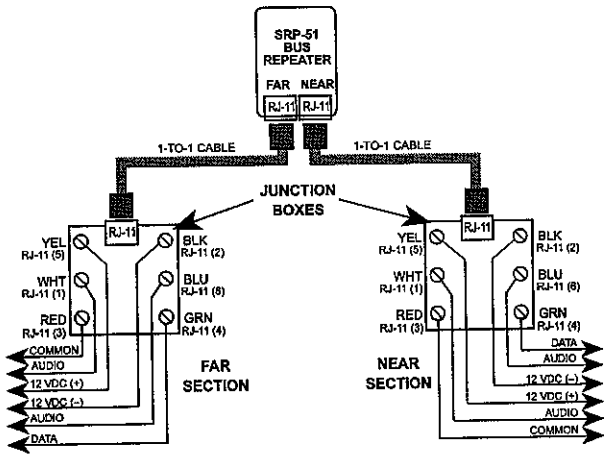


Figure 5-6. Bus Connection via a Junction Box

B. Prepare two RJ-11 to RJ-11 patch cords, long enough to bridge the distance from the NEAR and FAR receptacles to their corresponding junction boxes. Make sure a "one-for-one" configuration is obtained, where pin 2 is connected to pin 2, pin 3 to pin 3, etc.

CAUTION: *Do not use ready-made TELCO RJ-11 to RJ-11 patch cords, because they very rarely have the above mentioned "one for one" design.*

5.5 SRP-51 UPS Bus Connections

Connect the SRP-51 UPS to the SpiderBus devices by the six RJ-11 connectors of the internal SPT-56 unit.

5.6 Input /Output Connections

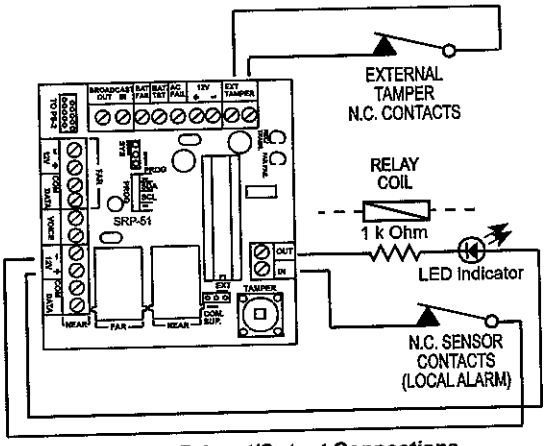


Figure 5-7. Input/Output Connections

Either output terminal is suitable for operating a low-current 12VDC buzzer, an LED, or an auxiliary relay that draws less than 100 mA current.

Connect the relay's operating coil across the **OUTPUT** and **12V(+)** (as shown in Figure 5-7).

When using a 12 VDC buzzer, observe polarity.

When using an LED, make sure that you connect it as shown in Figure 5-7, with a 1kΩ resistor in series.

Relays connected to the output terminals will pull in by manually entered or automatic command received from the head-end computer. Relay contacts may be wired to open or close doors, to control lighting fixtures, sound an alarm, switch wireless transmitters or CCTV on and off, etc. LEDs or buzzers connected to the output terminals will light or beep, respectively, by manually entered or automatic command received from the head-end computer.

***Remember:** Unused input should be bridged to the ground terminal with a short jumper wire, or else they will constantly initiate an alarm.*

5.7 Tamper Connections

If it is desired to use an external tamper switch, connect it as shown in fig. 5.7. In this way the internal and the external tamper switches are connected in parallel (for more details, see paragraph 1.5).

5.8 Broadcast Connections

Connect the NEAR side BROADCAST wire to the IN terminal (see figure 1-2) and the FAR side BROADCAST wire to the OUT terminal.

WARRANTY

Visonic Technologies Ltd., and its affiliates, (hereinafter collectively referred to as "the Manufacturer") warrants its products (hereinafter referred to as "the Product") to be free of defects in materials and workmanship under normal operating conditions and use for a period of one year from the date of shipment by the Manufacturer. The Manufacturer's obligations shall be limited within the warranty period, at its option, to repair or to replace the defective Product or any defective component or part thereof. To exercise this warranty, the product must be returned to the manufacturer freight prepaid and insured.

This warranty does not apply to repairs or replacement caused by improper installation, Product misuse, failure to follow installation or operating instructions, alteration, abuse, accident, tampering, repair by anyone other than the Manufacturer, external causes, and failure to perform required preventive maintenance. This warranty also does not apply to any products, accessories, or attachments used in conjunction with the Product, including batteries, which shall be covered solely by their own warranties, if any. The Manufacturer shall not be liable for any damage or loss whatsoever, whether directly, indirectly, incidentally, consequentially or otherwise, resulting from a malfunction of the Product due to products, accessories, or attachments of others, including batteries, used in conjunction with the Product.

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The Manufacturer shall not, under any circumstances whatsoever, be liable for any inaccuracy, error of judgment, default, or negligence of the Manufacturer, its employees, officers, agents, or any other party, or of the purchaser or user, arising from any assistance or communication of any kind regarding the configuration, design, installation, or creation of security system involving the Product, that being the responsibility of the purchaser or user.

If the Manufacturer is unable to make such repair or replacement, the Manufacturer's entire liability shall be limited to the cost of a reasonable substitute product.

The Manufacturer shall not be responsible for any dismantling, installation, reinstallation, purchasing, shipping, insurance, or any similar charges.

The Manufacturer shall have no liability for any damages, including without limitation, any direct, indirect, incidental, special, or consequential damages, expenses, costs, profits, lost savings or earnings, or other damages arising out of the use of the Product or the removal, installation, reinstallation, repair or replacement of the Product or any related events. In the event that there is any liability against the Manufacturer, such liability shall be limited to the purchase price of the Product which amount shall be fixed as liquidated damages.

The purchaser and user understand that this Product may be compromised or circumvented by intentional acts; that the Product will not in all cases prevent death, personal injury, property damage, or other loss resulting from burglary, robbery, fire or other causes; and that the Product will not in all cases provide adequate warning or protection. The purchaser and user also understand that a properly installed and maintained alarm may reduce the risk of events such as burglary, robbery, and fire without warning, but it is not insurance or a guarantee that such events will not occur or that there will be no death, personal injury, property damage, or other loss as a result of such events.

By purchasing the Product, the purchaser and user shall defend, indemnify and hold the Manufacturer, its officers, directors, affiliates, subsidiaries, agents, servants, employees, and authorized representatives harmless from and against any and all claims, suits, costs, damages, and judgments incurred, claimed, or sustained whether for death, personal injury, property damage, or otherwise, because of or in any way related to the configuration, design, installation, or creation of a security system involving the Product, and the use, sale, distribution, and installation of the Product, including payment of any and all attorney's fees, costs, and expenses incurred as a result of any such events.

The purchaser or user should follow the Product installation and operation instructions and test the Product and the entire system at least once each week. For various reasons, including but not limited to changes in environmental conditions, electric, electronic, or electromagnetic disruptions, and tampering, the Product may not perform as expected. The purchaser and user are advised to take all necessary precautions for the protection and safety of persons and property.

This statement provides certain legal rights. Other rights may vary by state or country. Under certain circumstances, some states or countries may not allow exclusion or limitation of incidental or consequential damages or implied warranties, so the above exclusions may not apply under those circumstances and in those states or countries.

The Manufacturer reserves the right to modify this statement at any time, in its sole discretion without notice to any purchaser or user. However, this statement shall not be modified or varied except by the Manufacturer in writing, and the Manufacturer does not authorize any single individual to act on its behalf to modify or vary this statement.

Any questions about this statement should be directed to the Manufacturer.

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INTERNET: www.visonictech.com
 SRP-51, SRP-51 UPS, DE7125- (REV. 3, 10/04)

MADE IN ISRAEL

English

SPT-56

SpiderBus Spike Suppressor and Junction Box Unit

SpiderAlert®
Installation Instructions

1. INTRODUCTION

SPT-56 is a spike suppression unit and junction box designed to suppress voltage spikes and transients that might endanger SpiderAlert units connected to the SpiderBus. Voltage spikes and transients are likely to be induced in long outdoor sections of the bus, between distant buildings or sites.

The SPT-56 internal voltage-sensitive varistors have very fast response with no power consumption during standby. Permanent connection of SPT-56 units at various points along the bus suppress spikes that exceed 39 V ±10%. Eight bus ports are provided on the SPT-56 printed circuit board (figure 3-2):

- Six telephone type RJ-11 sockets, for quick attach and detach of all 6 bus wires at once.

Two terminal blocks, one with 6 terminals and the other with 7 terminals, allow each wire of the bus to be connected or disconnected separately.

Thanks to its six RJ-11 connectors and the two terminal blocks, the SPT-56 may be used for splitting the SpiderBus into 7 bus branches. Figure 1-1 shows an example of SPT-56 used for splitting the bus into 3 bus branches.

Spike suppression at the junction point, combined with suppression at the far end of each branch increases reliability and assures long-term, trouble-free operation.

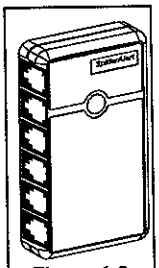


Figure 1-2. Ext. View

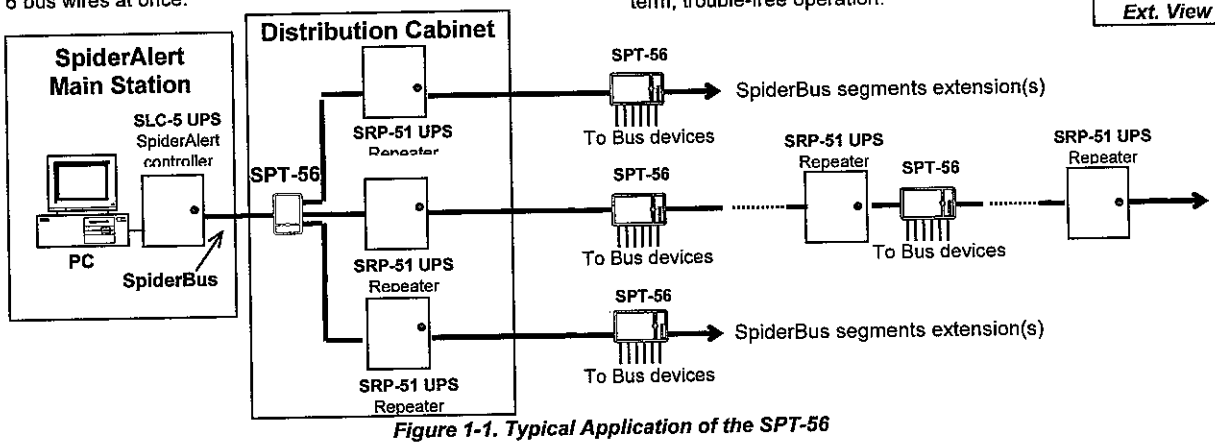


Figure 1-1. Typical Application of the SPT-56

2. SPECIFICATIONS

Spike Suppression Threshold: 39 V ±10%
Response Time: 10 µSec.
Maximum Energy (10/1000 µSec): 3.5 Joule
Operating Temperature: -10°C to 49°C (14°F to 120°F).
Dimensions (H x W x D): 110 x 63 x 25 mm (4-5/16 x 2-1/2 x 1 in.).
Weight: 91 gr (3.2 oz).
Color: White
Ports: 6 + 2

3. INSTALLATION

3.1 Installation Recommendations

A. Install one spike suppressor at least at the SLC-5.
B. Install spike suppressor near each repeater (preferable).
C. Wherever the SpiderBus™ exits and enters a building, install spike suppressor at each end.
D. Install 10 feet ground rod (preferable) or cold water ground at each spike suppressor. Keep the ground wire as short as possible, with very slight bends in the wire.

3.2 Mounting

The SPT–56 module is enclosed in a plastic housing that can be separated into two parts - base and cover. Mounting and wiring knockouts are provided for wall or ceiling installations.

A. Open the case by removing the screw from the front cover (figure 3-1). The round plastic cap is supplied separately in a small nylon bag. Save it for later use.

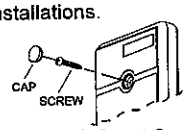


Figure 3-1 Front Cover

B. Mount the base (with the printed circuit board) in the selected location, by using the mounting knockouts (Figure 3-2).

3.3 Wiring Information

SPT-56 may be connected to the SpiderBus either by the two terminal blocks and/or by the six RJ-11 telephone-type connectors. Connections to the terminal blocks are recommended for long distance bus (wire gauge AWG-18 is recommended, AWG-22 is acceptable). Connections to the RJ-11 connectors are recommended for short distance bus (Flat cable AWG-24 may be used). The terminal blocks and the telephone type sockets are all connected in parallel. The SpiderBus may be cut at any point and connected as follows:

A. One end to a terminal block and the other end to one of the RJ-11 connectors.
B. Both ends to the RJ-11 connectors.

The continuity of the bus will thereby be maintained. With two ports connected to the bus, you could always start a new branch of the bus by another free port.

3.4 Terminal Block Wiring

A. Connect the 2 data wires to the **DATA** and **COM** terminals on the SPT-56 circuit board.

CAUTION! *The data terminal (marked **COM**) is to be connected to the common (negative) lead of the data bus. The other terminal (marked **DATA**) must be connected to the data lead of the data bus. This lead is kept HIGH by a pull-up resistor within the SpiderAlert Local Control unit SLC-5 for as long as the data bus is free.* ***Make sure not to reverse the data bus wires!***

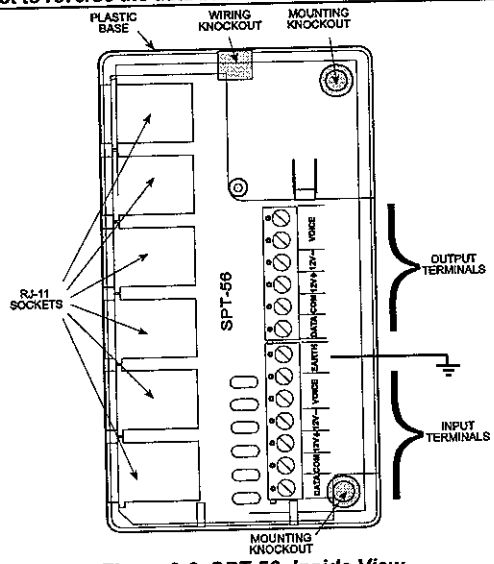


Figure 3-2. SPT-56, Inside View

B. Connect the power supply bus wires to the **12 V(+)** and **(–)** terminals. Verify that the polarity is correct.

C. Connect the **EARTH** terminal to a cold water pipe or to a ground rod, by using 14-gauge wire at least.

3.5 Using the RJ-11 Sockets

SPT-56 can be wired to the SpiderAlert bus using the on-board telephone-type sockets. The 6-contact mating plugs are designated RJ-11 and are commonly called "TELCO plugs" (see Figure 3-3 for plug shape and pin assignments).

Prepare the following items:

- Two 6-contact RJ-11 connectors, to terminate the bus ends that will be connected to the SPT-56.
- A crimping tool for 6-contact RJ-11 plugs.

Provided that the bus is made of color coded telephone type modular cable, continue as follows:

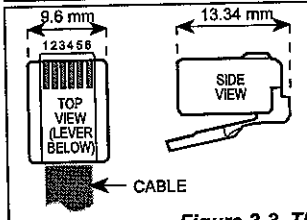
A. Verify that the assignments and order of the cable leads match the assignments and order of terminals in the RJ-11 plug (see figure 3-3).

B. Route the cable into the SPT-56 plastic base through any one of the wiring knockouts. When cutting the cable, leave some slack that will allow the cable to reach any one of the RJ-11 sockets.

C. Crimp an RJ-11 plug onto the end of the cable.

D. Insert the RJ-11 plug into one of the RJ-11 sockets and push it inside until it locks in with a click.

IMPORTANT NOTICE! *Before re-installing the cover, verify that the EARTH terminal is connected to a cold water pipe or to a ground rod, as instructed in Para. 3-4C. Without this connection, the SPT-56 will not function as a spike suppressor.*



Pin No.	Assignment
1	Audio
2	12 VDC (–)
3	Common (data bus)
4	Data (data bus)
5	12 VDC (+)
6	Audio

Figure 3-3. The RJ-11 Plug

WARRANTY

Visonic Technologies Ltd., and its affiliates, (hereinafter collectively referred to as "the Manufacturer") warrants its products (hereinafter referred to as "the Product") to be free of defects in materials and workmanship under normal operating conditions and use for a period of one year from the date of shipment by the Manufacturer. The Manufacturer's obligations shall be limited within the warranty period, at its option, to repair or to replace the defective Product or any defective component or part thereof. To exercise this warranty, the product must be returned to the manufacturer freight prepaid and insured.

This warranty does not apply to repairs or replacement caused by improper installation, Product misuse, failure to follow installation or operating instructions, alteration, abuse, accident, tampering, repair by anyone other than the Manufacturer, external causes, and failure to perform required preventive maintenance. This warranty also does not apply to any products, accessories, or attachments used in conjunction with the Product, including batteries, which shall be covered solely by their own warranties, if any. The Manufacturer shall not be liable for any damage or loss whatsoever, whether directly, indirectly, incidentally, consequentially or otherwise, resulting from a malfunction of the Product due to products, accessories, or attachments of others, including batteries, used in conjunction with the Product.

THE MANUFACTURER MAKES NO EXPRESS WARRANTIES EXCEPT THOSE STATED IN THIS STATEMENT. THE MANUFACTURER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE MANUFACTURER'S SOLE RESPONSIBILITY FOR WARRANTY CLAIMS IS LIMITED TO REPAIR OR TO REPLACE AS SET FORTH IN THIS STATEMENT.

The Manufacturer shall have no liability for any death, personal injury, property damage, or other loss whether direct, indirect, incidental, consequential, or otherwise, based on a claim that the Product failed to function. However, if the Manufacturer is held liable, whether directly or indirectly, for any loss or damage arising under this limited warranty or otherwise, regardless of cause or origin, the Manufacturer's maximum liability shall be limited to the purchase price of the Product, which shall be fixed as liquidated damages and not as a penalty, and shall be the complete and exclusive liability of the Manufacturer.

The Manufacturer shall not, under any circumstances whatsoever, be liable for any inaccuracy, error of judgment, default, or negligence of the Manufacturer, its employees, officers, agents, or any other party, or of the purchaser or user, arising from any assistance or communication of any kind regarding the configuration, design, installation, or creation of security system involving the Product, that being the responsibility of the purchaser or user.

If the Manufacturer is unable to make such repair or replacement, the Manufacturer's entire liability shall be limited to the cost of a reasonable substitute product.

The Manufacturer shall not be responsible for any dismantling, installation, reinstallation, purchasing, shipping, insurance, or any similar charges.

The Manufacturer shall have no liability for any damages, including without limitation, any direct, indirect, incidental, special, or consequential damages, expenses, costs, profits, lost savings or earnings, or other damages arising out of the use of the Product or the removal, installation, reinstallation, repair or replacement of the Product or any related events. In the event that there is any liability against the Manufacturer, such liability shall be limited to the purchase price of the Product which amount shall be fixed as liquidated damages.

The purchaser and user understand that this Product may be compromised or circumvented by intentional acts; that the Product will not in all cases prevent death, personal injury, property damage, or other loss resulting from burglary, robbery, fire or other causes; and that the Product will not in all cases provide adequate warning or protection. The purchaser and user also understand that a properly installed and maintained alarm may reduce the risk of events such as burglary, robbery, and fire without warning, but it is not insurance or a guarantee that such events will not occur or that there will be no death, personal injury, property damage, or other loss as a result of such events.

By purchasing the Product, the purchaser and user shall defend, indemnify and hold the Manufacturer, its officers, directors, affiliates, subsidiaries, agents, servants, employees, and authorized representatives harmless from and against any and all claims, suits, costs, damages, and judgments incurred, claimed, or sustained whether for death, personal injury, property damage, or otherwise, because of or in any way related to the configuration, design, installation, or creation of a security system involving the Product, and the use, sale, distribution, and installation of the Product, including payment of any and all attorney's fees, costs, and expenses incurred as a result of any such events.

The purchaser or user should follow the Product installation and operation instructions and test the Product and the entire system at least once each week. For various reasons, including but not limited to changes in environmental conditions, electric, electronic, or electromagnetic disruptions, and tampering, the Product may not perform as expected. The purchaser and user are advised to take all necessary precautions for the protection and safety of persons and property.

This statement provides certain legal rights. Other rights may vary by state or country. Under certain circumstances, some states or countries may not allow exclusion or limitation of incidental or consequential damages or implied warranties, so the above exclusions may not apply under those circumstances and in those states or countries.

The Manufacturer reserves the right to modify this statement at any time, in its sole discretion without notice to any purchaser or user. However, this statement shall not be modified or varied except by the Manufacturer in writing, and the Manufacturer does not authorize any single individual to act on its behalf to modify or vary this statement.

Any questions about this statement should be directed to the Manufacturer.

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SPT-56 DE7129- (REV. 2, 10/04)

MADE IN ISRAEL

English

PS-2

Power Supply Module

SpiderAlert®

Installation Guide

INTRODUCTION

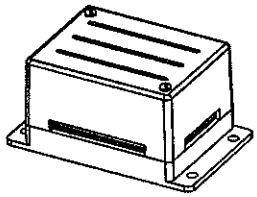
The PS-2 is a regulated 13.8 VDC/1A switching power supply module that is connected to the AC mains via a step-down transformer.

The module is used to supply power to such SpiderAlert fixed components as the SR-500 receiver, the SRP repeater, the SLC controller as well as many compatible third party input/output devices.

The PS-2 module may also be used to trickle charge a backup battery. PS-2 power status data may be monitored by the SLC controller, the SRP repeater in addition to the EIRIS software platform.

Technical features include:

- High switching frequency (80 - 120 kHz).
- Soft start
- Automatic current limiting
- Thermal shutdown



SPECIFICATIONS

Operating Temperature Range: -10°C to 49°C (14°F - 120°F)
PCB Size: 76 x 56 mm (3 x 2-1/4 in.).
AC Input: 18 - 24 VAC, 50 / 60 Hz.
Switching Frequency: 80 – 120 kHz
Efficiency: 80% (V_{in} = 19VAC, I_{out} = 1A)
Regulated DC Output: 13.8 V / 1 A
Max. Output Ripple: 200 mV p-p.
Overload Protection: Current limiting and a 1.5A fuse on PCB
AC FAIL Output: Open collector, 5 mA max., grounded while AC input is present. With no AC, this output opens and pulls HIGH through a 15 kΩ resistor.
BAT FAIL Output: Open collector, 5 mA max., grounded if battery voltage exceeds 11VDC. With a low battery, output opens and pulls HIGH through a 15 kΩ resistor.
BAT TEST Input: Normally HIGH (12VDC); must be pulled down below 1.0 VDC to initiate battery test.
Backup Battery: 6V/6 Ah, Microlite Plus or equivalent
Dimensions: 56 x 107 x 65 mm (2-1/4 x 4-3/16 x 2-9/16 in.)
Weight: 127g (4.5oz).
Color: White
Compliance Standards: EMC 89/336/EEC & 92/31/EEC and ETS 300-220

INSTALLATION

Regular Terminals

The following PS-2 terminals are suitable for general use:

AC IN: 18 - 24 VAC/1A input applied across these two terminals.

12 V (+) / (–): The regulated 13.8 VDC output is obtained across these terminals.

BAT (+) / (–): A 12 V lead-acid battery, connected across these terminals, is trickle charged constantly. Upon an AC power failure, the load current will be supplied directly from the battery.

Special-Function Terminals

As a companion power supply for SpiderAlert bus **SRP** repeaters and control units of the **SLC** series, the PS-2 has special function terminals for reporting AC supply and battery status:

A. **AC FAIL** - Connect this open collector output to the AC FAIL input of the **SRP** or **SLC**. The AC FAIL line is kept LOW as long as AC power is supplied. Upon AC failure, the AC FAIL line will go HIGH, causing the SRP or SLC to send an "AC failure" code to the system's computer.

When the AC supply is restored, the AC FAIL line reverts to LOW, and an "AC restoral" code will be sent to the system's computer.

B. **BAT TEST** - Connect this input terminal, which is normally HIGH (12VDC), to the BAT TEST terminal of the **SRP** or **SLC**. Once the BAT TEST line goes LOW (below 1 V) under control of the SRP or SLC, the battery is tested under the existing load. If the battery voltage drops below 11V, the BAT FAIL terminal will go HIGH. (see Para. C below)

C. **BAT FAIL** - Connect this open collector output to the BAT FAIL input of the **SRP** or **SLC**. The BAT FAIL line is normally LOW, but will go HIGH if the battery voltage drops below 11V under load (see Para. B above). This will cause the SRP or SLC to send a "low battery" code to the system's computer.

If the battery is later rechecked and found in order, the BAT FAIL line will revert to LOW. This will cause a "battery restored" code to be sent to the system's computer.

Mounting

The power supply module is housed in a plastic case, which can be separated into two parts: the base that accommodates the electronic module, and the cover which is held in place by two long screws. Two flanges at the short sides of the base with two mounting holes in each (see Fig. 1) allow mounting on a flat surface. Alternatively, the electronic module may be supplied without the case. The holes at the 4 corners of the printed circuit board may then be used for mounting the PS-2 within a large cabinet, together with other equipment, such as a backup battery and an AC transformer.

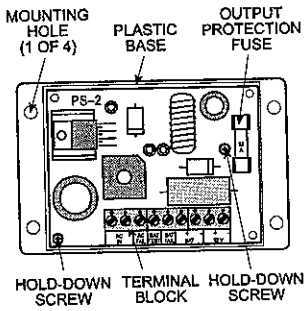


***Figure 1.** PS-2 Components Layout*

***Note:** When mounted in a metal cabinet, the foil side of the PS-2 should be kept clear of the metal surface by using suitable spacers over the 4 mounting screws.*

Wiring

A. Operation with SRP and SLC Units (Figures 2 and 3)

(1) Interconnect the identically marked terminals of the PS-2 and the SRP or SLC units, as shown in Figures 2 and 3, respectively (BAT FAIL to BAT FAIL and so on). When connecting the 12 V terminals, be careful not to reverse the (+) and (–) wires.

(2) Connect the secondary winding of a step-down transformer with 18 - 24 V/1A (18 VA min.) rating across the AC IN terminals of the PS-2. Then connect the transformer's primary winding to the AC power line.

(3) Connect a 12 VDC / 6 Ah sealed lead-acid battery across the BAT terminals of the PS-2. Observe polarity.

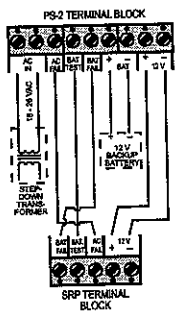


Figure 2. Connection to SRP-Type Units

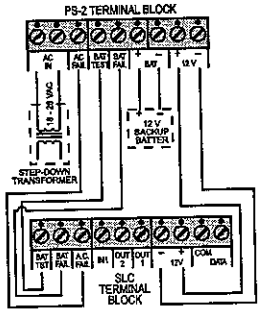


Figure 3. Connection to SLC-Type Units

B. Direct Connection to the Power Supply Bus (Fig. 4)

The major difference between this application and those shown in Para. A above is that the AC FAIL, BAT TEST and BAT FAIL terminals are not used. The 12 VDC output should be connected directly to the power supply bus and the power transformer's secondary winding across the AC IN terminals.

In non-SpiderAlert applications, connect the load directly across the 12 VDC terminals.

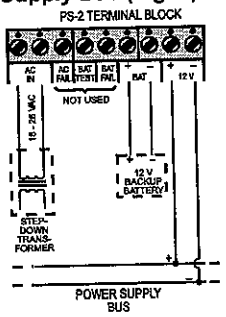


Figure 4. Direct Connection to the Bus

Testing

***Note:** After installation of a SpiderAlert system, use only the mains power for system check or trouble-shooting, in order not to use the backup battery. After the check / trouble-shooting, install the backup battery.*

To test all the functions of the power supply, proceed as follows:

A. Use an AC voltmeter to verify that the AC input across the AC IN terminals is indeed within the limits of 18 - 24 volts.

B. Disconnect the backup battery and connect a DC voltmeter across the 12V (+) and (–) terminals. The meter should read approximately 13.8V. Reconnect the backup battery.

C. Connect a DC voltmeter across the AC FAIL and 12V (–) terminals. The meter should read zero. Disconnect one of the AC input wires. The meter should read 12V. Reconnect the AC wire.

D. Connect a DC voltmeter across the BAT FAIL and 12V (–) terminals. The meter should read zero. Use a short jumper wire to ground the BAT TEST terminal. The meter should still read zero (provided that the battery voltage exceeds 11 Volts).

E. With the meter still connected across the BAT FAIL and 12V (–) terminals and the BAT TEST terminal still grounded, temporarily disconnect one of the backup battery wires. The meter should read 10 to 11 Volts. Reconnect the battery. The meter should revert to zero.

***Note:** When through testing, remove the jumper from the **BAT TEST** terminal.*

Maintenance

The PS-2 is a highly reliable, practically maintenance-free unit. Its integral current limiting circuit protects it against overloads. However, the current limited has no effect when the backup battery takes over. To protect the battery against overloads, a 1.5 amp fuse (type 3AG) has been included in the 12 VDC output circuit (Fig. 1). In case there is no power output, check the fuse. If the fuse is burnt out, verify that there is no short circuit on the power supply bus and replace the fuse.

Warranty

Visonic Technologies Ltd., and its affiliates, (hereinafter collectively referred to as "the Manufacturer") warrants its products (hereinafter referred to as "the Product") to be free of defects in materials and workmanship under normal operating conditions and use for a period of one year from the date of shipment by the Manufacturer. The Manufacturer's obligations shall be limited within the warranty period, at its option, to repair or to replace the defective Product or any defective component or part thereof. To exercise this warranty, the product must be returned to the manufacturer freight prepaid and insured.

This warranty does not apply to repairs or replacement caused by improper installation, Product misuse, failure to follow installation or operating instructions, alteration, abuse, accident, tampering, repair by anyone other than the Manufacturer, external causes, and failure to perform required preventive maintenance. This warranty also does not apply to any products, accessories, or attachments used in conjunction with the Product, including batteries, which shall be covered solely by their own warranties, if any. The Manufacturer shall not be liable for any damage or loss whatsoever, whether directly, indirectly, incidentally, consequentially or otherwise, resulting from a malfunction of the Product due to products, accessories, or attachments of others, including batteries, used in conjunction with the Product.

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Visonic GmbH * D-40215 D'sseldorf, Germany * Tel: + 49-0-211-600-696-0 * support@ visonictech.de
Contact: marketing@visonictech.com or Visit: www.vt-partners.com

Manufactured In Israel

W.E.E.E. Product Recycling Declaration
For information regarding the recycling of this product you must contact the company from which you orignially purchased it. If you are discarding this product and not returning it for repair then you must ensure that it is returned as identified by your supplier. This product is not to be thrown away with everyday waste.
Directive 2002/96/EC Waste Electrical and Electronic Equipment.

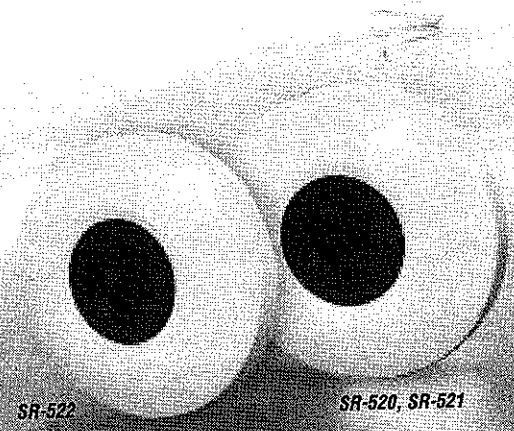
Visonic Technologies
Enterprise Protection Solutions

Product Sheet

SpiderAlert®

Dual Technology Receivers

When Accurate Indoor Location Is a Must



Applications

- *Personal security in buildings*
- *Accurate location of caller in a multifloor or multiroom facility*
- *Interface units between various SpiderAlert RF+IR transmitters and the SpiderBus*

Features

- *Dual technology, for accurate location of the caller*
- *Microprocessor-controlled*
- *Unique 8-bit ID number on a single SpiderBus*
- *Continuous supervision for trouble indication*
- *Tamper event reporting*
- *Ceiling or wall mounting*
- *Internal RANGE control for sensitivity adjustment*
- *PC-controlled output to sound alarm, switch on lights, open doors, etc.*
- *Optional plastic cover fits vandalproof housing*

Description

The main benefit of using dual (RF+IR) technology is that it can aid in accurately pinpointing, a user's (transmitter's) location in a multistory building.
***SR-520** is an RF+IR receiver. **SR-521** is an RF+IR receiver that serves as a base station for several **SR-522** IR receivers. All of these units are designed for use in the SpiderAlert network. Using one common **SR-521** RF+IR receiver with several lower-cost **SR-522** IR receivers, allows significant system cost reduction. Signals received from SpiderAlert dual technology transmitters are delivered to the SpiderAlert main station, together with their 8-bit ID number, thus allowing the main station to distinguish it from other system transmitters.*
***SK-1** is an indoor vandalproof enclosure for single and dual technology receivers.*

Visonetix

SpiderAlert®

Dual Technology Receivers

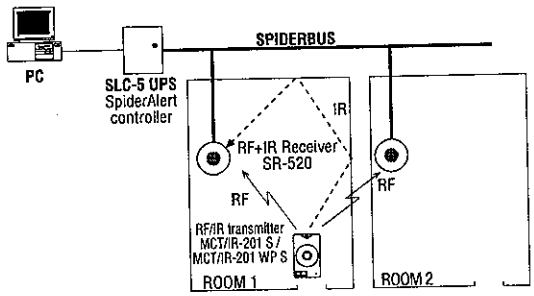
Specifications

	SR-520	SR-521	SR-522
Technology	RF+IR		IR
Operating Frequency (MHz)	315, 404, 418, 433.92, 868		-
Encoding	Factory-programmed, changeable on site, 8-bit ID number		
Operating Voltage Range	10 - 16 VDC		
Current Consumption	15 mA		
Open Collector Output Cur. Sinking	100 mA	Output terminal is used for interconnection	
Operating Temperature Range	0° C to 49° C (32° F to 120° F)		
Dimensions (Diameter x H)	86 x 24 mm (3-3/8 x 15/16 in.)		
Weight	66 g (2.3 oz)		57 g (2 oz)
Color	White; IR window - dark red		
Optional Accessory	SK-1, SK-2 Plastic enclosures vandalproof		

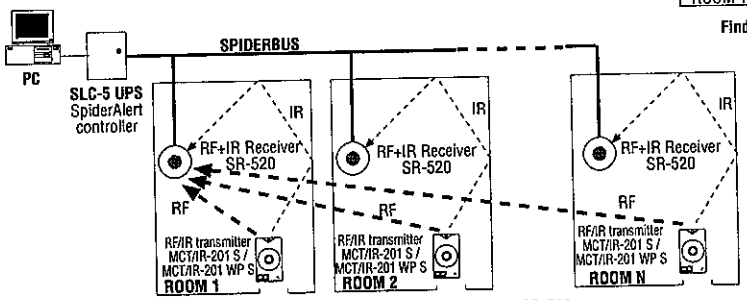
Configurations

Description

The receiver in Room 1 receives RF transmission (directly) and IR signal (indirectly, due to reflection off wall). It reports that RF+IR signals were received.
The receivers in Room 2, and in other rooms, receive the RF signal only. Therefore, they report that only the RF signal was received. As a result, the main monitoring station personnel knows that the exact location of the transmitter is in Room 1.



Finding the Transmitter-Holder's Location



RF+IR Detection Using SR-521 and SR-522

ORDERING INFORMATION:

Product Name	Cat. No.	Description
SR-520	1-323X-0	SpiderAlert RF+IR receiver
SR-521	1-323X-1	SpiderAlert RF+IR receiver (base station for SR-522 IR receivers)
SR-522	1-3236-0	SpiderAlert IR receiver
SK-1	1-9977-1	Vandalproof enclosure cover
SK-2	1-9977-2	Vandalproof enclosure cover

X = 1 FOR 315 MHz
X = 3 FOR 418 MHz
X = 4 FOR 404 MHz
X = 5 FOR 433.92 MHz

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Visonetix
Security and Control Networks

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English

SR-520 / SR-520 ER

Dual IR+RF Receiver

SpiderAlert®
Installation Guide

Introduction

The SR-520 is a dual-technology, microprocessor-controlled receiver designed for use in the SpiderAlert network. It accommodates a UHF receiver and an IR (infrared) receiver that operate together, to receive signals from combined RF+IR transmitters.

Attention! *The receiver is compatible with SpiderAlert transmitters that use 24-bit codes and 36-bit total message length.*

Signals received from RF+IR transmitters are sent via the SpiderBus to the Local Control Unit SLC-5 and through it to the head-end computer.

Available models:

SR-520 315 MHz

SR-520 433 MHz

SR-520 ER 433 MHz

SR-520 ER 868 MHz

The extended range (ER) models have the following features:

A. Higher receiver sensitivity for longer communication range.

B. Improved receiver selectivity (narrower bandwidth) to prevent reception of interfering signals from undesired transmitters (whose frequencies are on or near the receiving frequency).

Each receiver has a factory-programmed, 8-bit digital identification number (in a 2-digit hexadecimal form), that allows the SpiderAlert Local Control unit SLC-5 to distinguish it from other receivers used in the system. The identification number is marked on top of its microprocessor IC and it can be changed from the SpiderAlert main station.

The data bus over which the SR-520 (ER) reports to the head-end computer control unit is constantly supervised (see Para. 3.3, Supervision Method).

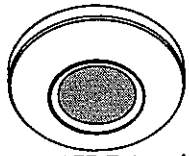
An on-board sensitivity control (marked RANGE) enables the installer to reduce the RF reception range. The SR-520 (ER) is protected by a tamper switch that is actuated by removing the cover. Once tampered with, the receiver sends out its ID number plus a special tamper code to the head-end computer.

Benefit Gained by Utilizing Patented RF+IR Technology

The main benefit of using the dual (RF+IR) technology is the capacity to pinpoint the user (transmitter) location in multi-room buildings.

The RF transmission, including 24-bit user ID, penetrates walls, floors and ceilings. The IR transmission serves as room pinpoint confirmation and is blocked by walls, floors and ceilings.

The combination of RF+IR signals enables accurate definition of the room in which the user is located. Reception of dual transmissions is defined as a "verified Alarm".

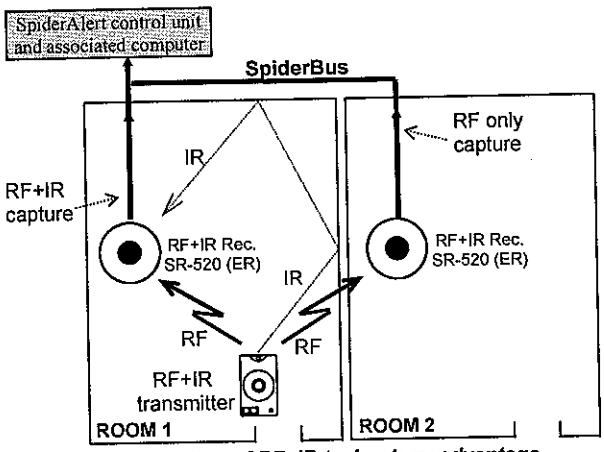


SR-520/520ER External View

Reception of RF transmission only, in another room, indicates that the user is within this receiver's range but not necessarily in the same room.

The signals, that are received at the central station, can be filtered to indicate either dual transmission reception of pinpointed location (Verified Alarms) or single (RF) transmission reception as an approximate location.

Undefined transmission codes can also be filtered out in the software. This option is especially important in multi-story buildings, where sending assistance to the wrong floor, may be counter productive.



Demonstration of RF+IR technology advantage

Note: *In this illustration, the receiver in room #1 receives the RF and IR signals and sends a verified alarm message. The receiver in room #2 receives RF transmission only and sends an unverified alarm message that is filtered out by the PC software.*

Specificatons

Operating Frequency: 315, 433.92 and 868 MHz

Encoding: Factory programmed 8-bit ID number

Data Transfer to Bus: Serial, software controlled

Attendance Report Repetition Rate: Once every 90 seconds

Operating Voltage Range: 10 - 16 VDC

Current Consumption (for 13.7 V):

SR-520 (315, 433 MHz): 12 mA (Standby), 15 mA (in operation)

SR-520 ER (433 MHz): 17 mA (standby), 20 mA (in operation)

SR-520 ER (868 MHz): 19 mA (standby), 22 mA (in operation)

Open Collector Output Current Sinking Capability: 100 mA

Operating Temperature Range: 0°C to 49°C (32°F to 120°F)

Dimensions (Diameter x H): 86 x 24 mm (3-3/8 x 15/16 in.)

Weight: 66 g (2.3 oz)

Color: White, IR window - dark red

Patent: US 5661471

Optional Accessories: SK-1, SK-2 vandal-proof enclosures

Functions

Transmitter Identification

Each transmitter used in the SpiderAlert system is identified by a randomly selected 24-bit digital code (over 16-million possible code combinations).

An alert transmission made by a dual-technology transmitter is composed of an RF (Radio Frequency) signal modulated repetitively by a digital pulse train, and a pulse modulated IR (infrared) signal.

The receiver reports reception of RF-only or RF+IR signals to the head-end computer. RF-only signals may be received from RF-only (UHF) transmitters used in the SpiderAlert network, or when there is no direct or indirect path between the dual-technology transmitter and receiver (as shown in room #2, Fig. 1-2). Dual-technology reception provides a more accurate indication of the area where the transmitter was located when activated.

Message Handling Routine

The receiver functions in the following manner:

A. If a valid RF signal and correctly timed IR pulses are both received within a 1-second period, the receiver registers a "dual capture", and immediately reports this to the head-end computer, together with its own 8-bit ID number and the transmitter's ID. **A dual capture is indicated by flashing of the receiver's LED.**

B. Upon reception of a valid RF signal but no IR, the SR-520 (ER) registers an "RF-only" capture and reports this to the head-end computer, together with its own 8-bit ID number and the transmitter's ID. **An RF only capture is indicated by steady illumination of the receiver's LED.**

Note: Users may press the transmission button for as long as 5 seconds. To prevent repetitive reporting of the same message, the SR-520 (ER) is programmed to ignore identical messages (dual and RF-only alike) received within a 5-second time frame.

C. Before reporting to the SLC-5, the SR-520 (ER) checks whether the bus is busy. If the bus is busy, the SR-520 (ER) pauses to prevent collision of its message with messages sent by other receivers, and then tries again.

D. Once the SLC-5 receives a valid message, it returns an "acknowledge" signal to the receiver, causing it to stop sending the data. Without a response from the SLC-5, the SR-520 (ER) will keep sending the data repeatedly, until the message is acknowledged. The receiver will not be free to receive new alert transmissions unless it gets this acknowledgment.

E. Regardless of whether it lights steadily (RF only) or pulsates (dual capture), the receiver's LED will go off 5 seconds after lighting, provided that the SLC-5 has already acknowledged the message. Without an acknowledgment, the LED will continue to light (or flash).

Supervision Method

Once every 90 seconds, the SR-520 (ER) sends an "attendance report" code to the head-end computer. The computer automatically registers all receivers that "checked in" and displays a "Restoral" message. Whenever an attendance report from a previously registered receiver is overdue, the head-end computer displays a "receiver trouble" message. This feature allows the head-end computer personnel to detect a cut data bus or a faulty/vandalized receiver.

If a receiver already on the "trouble list" resumes sending attendance reports, a "restoral" event is again registered by the head-end computer.

Output Control

The SR-520 (ER) provides a single open-collector output terminal (OUT). This circuit is controlled by the head-end computer software - it can be activated (pulled LOW), deactivated or pulsed LOW by manual or automatic computer command. The output circuit may be wired to sound an alarm, switch lights on and off, open a door controlled by an electrical door strike, control a CCTV camera or perform many other tasks. Since this open collector output can not sink more than 100 mA, an interface relay might be required for operating external devices.

Installation

Selecting the Mounting Location

Receiver placement for each site must be considered on an individual basis. As far as reflection and refraction are concerned, infrared emission behaves like visible light. Strict rules must therefore be observed for obtaining optimum results.

A. IR reception is up to 8m/26ft when the device's IR radiating elements are pointed directly at the receiver.

With an indirect reflection path, the range may only be to 4-5m/13-16.5ft depending on the quality of reflection or the type of receiver deployed as detailed below:

- **MDT-122 S** Read Range:8m/26ft Install Grid:16m/52ft
- **MCT/IR 201** Read Range: 5m/16ft Install Grid:10m/32ft
- **MCT/R-252** Read Range4m/13ft Install Grid: 8m/26ft

In practice, when deploying a combination of the above devices in a single installation,1 receiver should be installed per room. In hallways, the installation grid should be spaced at a minim 8m/26ft.

B. Installation in the center of the room is preferable, provided that the ceiling height does not exceed 3.5m/10ft. Installation on the ceiling near a wall or in a corner will yield poor results.

C. If ceiling installation is impossible, choose the middle of a side wall, slightly lower than the ceiling.

D. When selecting a mounting location, be sure to consider the possibility of reflections from bare tile floors, smooth walls and ceilings. The IR signal may be directed towards the reflecting object and still reach the receiver (see Fig. 1-2).

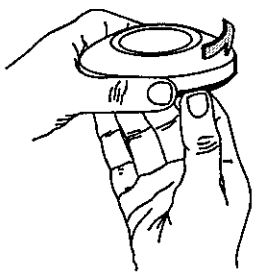
E. In large rooms, make sure that the coverage areas of adjacent receivers overlap a little, to prevent "dead spots" for the IR signal. Check reception in the various zones and add receivers if necessary.

F. Since the RF signals reach the receiver regardless of the transmitter's position within the room, it is not important to keep the receiver's antenna wire vertical. You may conceal the antenna behind false ceilings, or insert it into the duct which hides the wiring, or simply tape it to the ceiling.

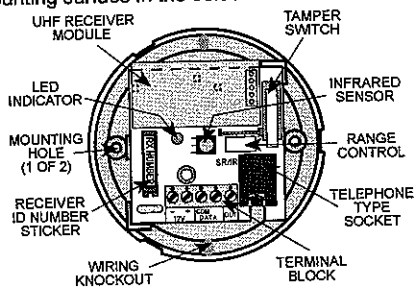
***IMPORTANT!** To prevent interference to IR reception, do not install the unit facing direct sunlight or near fluorescent lamps.*

Mechanical Mounting

A. Remove the front cover as shown



B. Hold the base, complete with the printed circuit board against the mounting surface in the selected location.



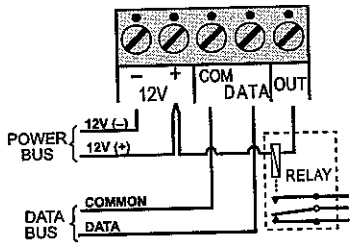
Receiver with Cover Removed

C. Mark the points for drilling, put the unit aside and drill the mounting holes.

D. Attach the unit to the mounting surface using two screws and anchors (if required).

E. Complete the wiring as instructed in the following section.

Wiring Terminal Block



A. Connect the 2-wire data bus to the **DATA** terminals on the receiver's circuit board. One of these terminals is marked **COM**, indicating connection to the common (negative) lead of the data bus. The other (unmarked) data terminal must be connected to the data lead of the bus, which is kept HIGH by a pull-up resistor in the SLC-5 for as long as the data bus is free. **Do not reverse the data bus wires!**

B. Connect the 12 VDC power source to the **12V(+)** and **(–)** terminals. Operating power may be supplied via the common 2-wire power supply bus. If required, individual power sources may be used for each group of receivers (see Paragraph 2-2 in the SLC-5 manual, Publication DE7115).

***Note:** In multi power-supply installations, interconnect the (–) terminals of all power supply units.*

C. You may connect a 12 VDC buzzer, an LED or the operating coil of an auxiliary relay across the **OUT** and **12V(+)** terminals. The OUT terminal is pulled low (–) by computer command (see Para. 3.4, Output Control).

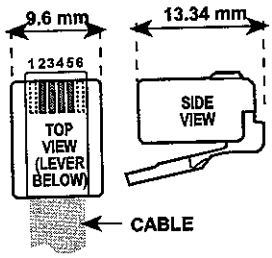
Wiring with Telephone Type RJ-11 Socket

If you prefer the quick attach/detach feature of telephone type connectors, you can wire the receiver to the SpiderAlert bus using the on-board four-position RJ-11 socket and a junction box with a similar built-in socket. Prepare the following items:

An appropriate length of a 4-lead color-coded modular cable.

Two 4-position RJ-11 male plugs (see below).

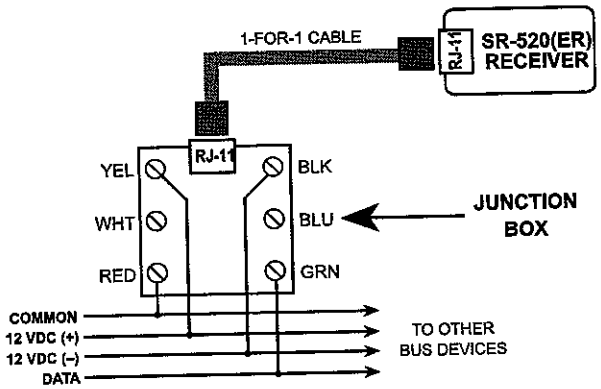
A crimping tool for RJ-11 type telephone plugs.



Pin No.	Lead Assignment
2	12 VDC (–)
3	Common (data bus)
4	Data (data bus)
5	12 VDC (+)

With all these items in your possession, proceed as follows:

A. Identify the 4 wires of the bus and connect them to the numbered terminals within the junction box, maintaining the order required for correct patching (see Figure 4-5)

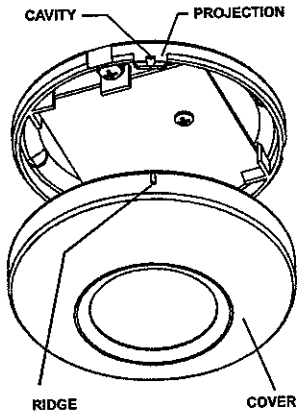


B Prepare an RJ-11-to-RJ-11 patch cord, long enough to bridge the distance between the bus junction box and the SR-520 (ER). Make sure a "one-for-one" configuration is obtained, whereby pin 2 is connected to pin 2, pin 3 to pin 3, etc.

***CAUTION:** Do not use ready-made TELCO RJ-11 to RJ-11 patch cords, because they very rarely have the above mentioned "one for one" design.*

Final Assembly and Test

After wiring, set the RANGE control of each receiver to mid-position. Align the ridge on the cover with the cavity in one of the two projections on the base circumference (see below) cover over the base, and rotate the cover clockwise until it stops. The translucent "lens" filters out visible light, but allows omni-directional reception of the IR signal.



Operate transmitters in various locations within a receiver's coverage area to test the reception range of each receiver. Reception is verified when the LED lights steadily (RF-only capture) or flashes (dual capture) in response to each transmission.

***Important:** Before testing, verify that the SLC-5 is active. If the SLC-5 happens to be OFF, each receiver that picks up an alert transmission will become "hung up" indefinitely, relaying the message over and over again.*

If "dead" or marginal reception areas are discovered, additional receivers may be located wherever necessary.

Maintenance

Periodic Inspection

The supervision feature of the SpiderAlert system allows the head-end computer personnel to detect a disconnected data bus or a receiver that fails to perform its data transfer duties.

This supervision, however, does not cover the RF and communication part of the process. If the RF or IR sections of the SR-520 (ER) malfunction, the receiver will continue to send out regular attendance reports, but will not be able to receive wireless (or IR) transmissions. For this reason, the system manager should make provisions for testing the system periodically without alarming the monitoring personnel, as suggested below in Testing by the System Manager.

Individual transmitter holders (system users) should test their transmitters periodically without involving the monitoring personnel.

Testing by the System Manager

To ensure unfailing operation of the system, the system manager is advised to act as follows:

A. Define one or several transmitters as **test units** and ask the monitoring personnel to link a test message to these transmitters' ID numbers in the computer's data base. Transmissions received from these test transmitters will be registered in the on-screen event log but will not be considered an alert.

B. Use a **test transmitter** to test all receivers at least once a week by initiating a transmission in the coverage area of each receiver. Watch the receiver's LED light in response to your transmission and go off once the message is acknowledged.

C. Return to the monitoring station and check the event log to verify that all test transmissions were duly registered by the system's computer.

D. Call the installation company and report any receiver that failed to send a message to the computer.

Testing by Individual Users

Any SpiderAlert site may be easily equipped for transmitter tests by individual users:

A. Create a special **test station**, well away from the coverage area of all other receivers.

B. Define a receiver as a **test unit** and set its sensitivity control to MIN.

C. Wire a green LED with a 1kΩ resistor in series across the test unit's **OUT** and **12V+** terminals. The computer can be programmed to respond to messages received from the test unit by momentary activation of the test unit's output.

D. Ask the monitoring station personnel to link a test message to the test unit's ID number in the computer's data base. Any message collected from this receiver will thereby be considered a test message.

E. Inform all users about the test station, and encourage them to test their transmitters periodically at close range.

Momentary illumination of the green LED in response to each transmission serves as an assurance that the test is successful.

Warranty

Visonic Technologies, and its affiliates, (hereinafter collectively referred to as "the Manufacturer") warrants its products (hereinafter referred to as "the Product") to be free of defects in materials and workmanship under normal operating conditions and use for a period of one year from the date of shipment by the Manufacturer. The Manufacturer's obligations shall be limited within the warranty period, at its option, to repair or to replace the defective Product or any defective component or part thereof. To exercise this warranty, the product must be returned to the manufacturer freight prepaid and insured.

This warranty does not apply to repairs or replacement caused by improper installation, Product misuse, failure to follow installation or operating instructions, alteration, abuse, accident, tampering, repair by anyone other than the Manufacturer, external causes, and failure to perform required preventive maintenance. This warranty also does not apply to any products, accessories, or attachments used in conjunction with the Product, including batteries, which shall be covered solely by their own warranties, if any. The Manufacturer shall not be liable for any damage or loss whatsoever, whether directly, indirectly, incidentally, consequentially or otherwise, resulting from a malfunction of the Product due to products, accessories, or attachments of others, including batteries, used in conjunction with the Product.

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The Manufacturer shall not, under any circumstances whatsoever, be liable for any inaccuracy, error of judgment, default, or negligence of the Manufacturer, its employees, officers, agents, or any other party, or of the purchaser or user, arising from any assistance or communication of any kind regarding the configuration, design, installation, or creation of security system involving the Product, that being the responsibility of the purchaser or user.

If the Manufacturer is unable to make such repair or replacement, the Manufacturer's entire liability shall be limited to the cost of a reasonable substitute product.

The Manufacturer shall not be responsible for any dismantling, installation, reinstallation, purchasing, shipping, insurance, or any similar charges.

The Manufacturer shall have no liability for any damages, including without limitation, any direct, indirect, incidental, special, or consequential damages, expenses, costs, profits, lost savings or earnings, or other damages arising out of the use of the Product or the removal, installation, reinstallation, repair or replacement of the Product or any related events. In the event that there is any liability against the Manufacturer, such liability shall be limited to the purchase price of the Product which amount shall be fixed as liquidated damages.

The purchaser and user understand that this Product may be compromised or circumvented by intentional acts; that the Product will not in all cases prevent death, personal injury, property damage, or other loss resulting from burglary, robbery, fire or other causes; and that the Product will not in all cases provide adequate warning or protection. The purchaser and user also understand that a properly installed and maintained alarm may reduce the risk of events such as burglary, robbery, and fire without warning, but it is not insurance or a guarantee that such events will not occur or that there will be no death, personal injury, property damage, or other loss as a result of such events.

By purchasing the Product, the purchaser and user shall defend, indemnify and hold the Manufacturer, its officers, directors, affiliates, subsidiaries, agents, servants, employees, and authorized representatives harmless from and against any and all claims, suits, costs, damages, and judgments incurred, claimed, or sustained whether for death, personal injury, property damage, or otherwise, because of or in any way related to the configuration, design, installation, or creation of a security system involving the Product, and the use, sale, distribution, and installation of the Product, including payment of any and all attorney's fees, costs, and expenses incurred as a result of any such events.

The purchaser or user should follow the Product installation and operation instructions and test the Product and the entire system at least once each week. For various reasons, including but not limited to changes in environmental conditions, electric, electronic, or electromagnetic disruptions, and tampering, the Product may not perform as expected. The purchaser and user are advised to take all necessary precautions for the protection and safety of persons and property.

This statement provides certain legal rights. Other rights may vary by state or country. Under certain circumstances, some states or countries may not allow exclusion or limitation of incidental or consequential damages or implied warranties, so the above exclusions may not apply under those circumstances and in those states or countries.

The Manufacturer reserves the right to modify this statement at any time, in its sole discretion without notice to any purchaser or user. However, this statement shall not be modified or varied except by the Manufacturer in writing, and the Manufacturer does not authorize any single individual to act on its behalf to modify or vary this statement.

Any questions about this statement should be directed to the Manufacturer.

8/96

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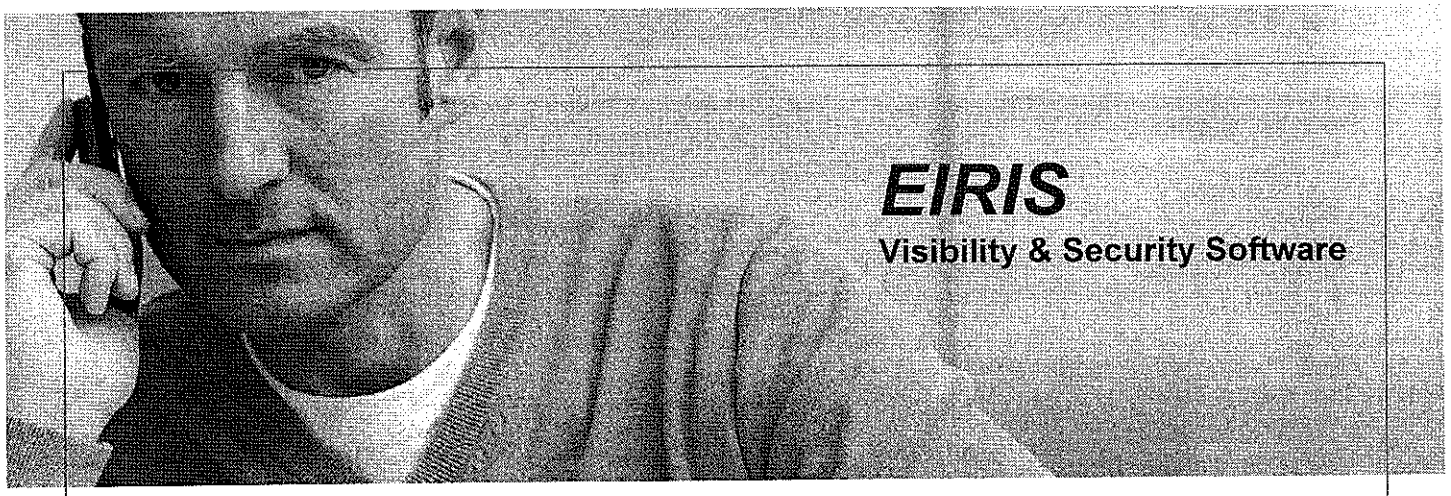
Manufactured In Israel

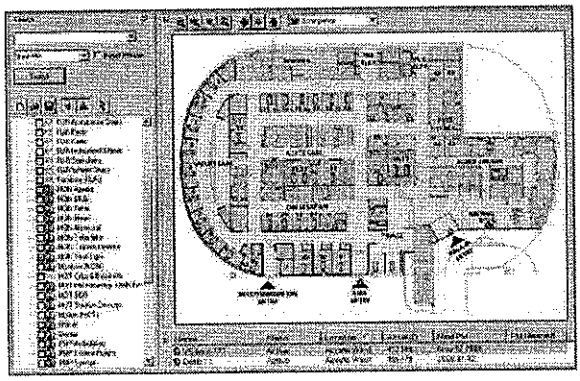


EIRIS

Visibility & Security Software

EIRIS – For Security Monitoring & Control

EIRIS Visibility & Security Management Software from Visonic Technologies is an affordable, end-to-end solution; providing real-time monitoring, command and control in a single unified system for today's most demanding security and safety applications.



EIRIS is ideally suited for today's organizations that are seeking to effectively and reliably self-monitor and manage their security/safety operations. Out-of-the-box, EIRIS enables seamless integration of access control, intrusion detection, digital video surveillance, patient protection, duress alarm monitoring and asset tracking into one, easy to use, enterprise-class security platform.

Function Summary

- Robust Client/Server architecture
- Intuitive Tools for alert Configuration
- Intuitive alarm handling screens
- Interactive, multi-layered graphical map displays
- Dynamic graphic monitoring & control
- Live CCTV alarm/event integration
- Automatic event/alarm recording
- Detailed event and tracking reports
- Integration with third-party applications
- Web and PDA client support
- Windows & XML based Web Services APIs

Standard Features

Network Configuration Tools
EIRIS' intuitive configuration tools enable commissioning and database enrollment of all wired and wireless system devices without the need for programming experience.

Automated Security Processes
Enables user definable, rule-based events and alarms, (triggerable by location and status), for automating and enhancing monitoring and response processes.

Dynamic graphic monitoring & control
Supports real-time interactive, multi-layered graphical map displays for monitoring and controlling device status, system events and all security/safety alarms.

Bundled Localization Editor
EIRIS' bundled language localization editor customizes user interfaces and menus for different locales Supports Asian languages and right-to-left scripts (Hebrew and Arabic).

Scalable System Expansion
Modular, multi-site, client/server architecture supports easy system expansion without interruption of service as needs grow.

Open APIs Extend Functionality
Open Application Program Interfaces (APIs) offer real-time, bi-directional alarm/event processing and control with legacy security, life safety and back office systems.

Integrated Incident Reporting
EIRIS' integrated report generator creates historical reports of alarms, tag movements, device status and event times for enterprise-wide information delivery.

EIRIS License Options

A complete line of licensable software configurations are available to meet the security requirements of any size organization. Whether needing to secure a small office or a large multi-site enterprise, organizations can start small and then upgrade capacity or system options as security or safety needs change

Visonic Technologies
Enterprise Protection Solutions

Contact: marketing@visonictech.com
Visit: www.visonictech.com

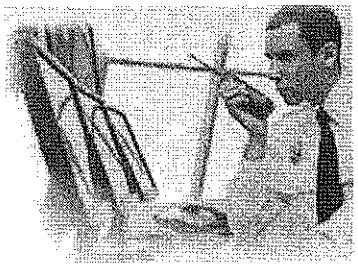
EIRIS

Visibility & Security Software

Access Control

Manages VisAccess AXS-100 Access Control Systems; provides support for Loops, Controllers, Readers, Doors, TimeZones, Access Levels, Card Holders and Keys.

- Supports up to 20,000 holders
- Controller/Reader supervision
- Automatic event recording
- Detailed historical reports
- Optional visitor management
- Controller/Server synchronization
- Real-time alarm & event monitoring
- Live CCTV alarm/event integration
- Dynamic graphic monitoring & control
- Time & Attendance data collection



Physical Intrusion Detection

Manages RISCO Group ProSYS Intrusion Systems; supports real-time alarm and event monitoring plus handles arming/disarming of alarm partitions and zones.

- Arms/Disarms alarm partitions
- Real-time alarm & event monitoring
- Automatic event/alarm recording
- Detailed historical reports
- Ad-hoc zone bypass
- Dynamic graphic monitoring & control
- Live CCTV alarm/event integration

Duress/Man-Down Assistance

Manages Elpas & SpiderAlert Nurse Call Man-Down, Emergency Call systems; supports, wired/wireless panic button transmitters, real-time monitoring, responder feedback, plus full pager integration.

- Wired/Wireless transmitters
- Panic button alarm activation
- Real-time alarm & event monitoring
- Automatic event/alarm recording
- Detailed historical reports
- Automatic responder notifications
- Responder cancel alarm confirmation
- Full pager integration
- Dynamic graphic monitoring & control
- Live CCTV alarm/event integration

Infant/Wanderer Protection

Manages Elpas patient protection systems; supports real-time alarm and event monitoring, handles device configuration plus external inputs and outputs.

- Arms/Disarms tags & transmitters
- Real-time alarm & event monitoring
- Automatic event/alarm recording
- Detailed historical reports
- Patient escort functionality
- Exit, Tamper, Lost & Battery alerts
- Dynamic graphic monitoring & control
- Automatic responder notifications
- Live CCTV alarm/event integration
- Match Test & Discharge procedures

Asset Protection

Manages Elpas & SpiderAlert mobile/fixed asset protection systems; supports real-time inventory search and view, handles device configuration plus quota enforcement.

- Quota enforcement
- Real-time alarm & event monitoring
- Automatic exit alarming
- Asset escort functionality
- Real-time inventory search and view
- Dynamic graphic monitoring & control
- Tamper, Lost & Battery alerts
- Live CCTV alarm/event integration

Contact Information

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About Visonic Technologies

Visonic Technologies (VT), a fully owned subsidiary of Visonic, Ltd. (VSC.L). As a global leader in active and passive wireless visibility solutions, VT is your complete source for active RFID/RTLS systems, marketed under the Elpas, SpiderAlert, VisAccess and EIRIS system names.

2009

2011

WEST VIRGINIA
STATE TAX DEPARTMENT

BUSINESS REGISTRATION CERTIFICATE

ISSUED TO:

LONGS SECURITY CAMERA SYSTEMS LLC
102 38TH ST SE
CHARLESTON, WV 25304-1502

BUSINESS REGISTRATION ACCOUNT NUMBER: **1010-8950**

This certificate is issued for the registration period beginning: **July 1, 2009**

This certificate is valid until: **June 30, 2011**

This business registration certificate is issued by the West Virginia State Tax Commissioner in accordance with Chapter 11, Article 12 of the West Virginia Code.

The person or organization identified on this certificate is registered to conduct business in the State of West Virginia at the location above.

This certificate is not transferrable and must be displayed at the location for which issued.

ENGAGING IN BUSINESS WITHOUT CONSPICUOUSLY POSTING A WEST VIRGINIA BUSINESS REGISTRATION CERTIFICATE IN THE PLACE OF BUSINESS IS A CRIME AND MAY SUBJECT YOU TO FINES PER W. VA. CODE § 11-9.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them. CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of this certificate displayed at every job site within West Virginia.

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CONTRACTOR LICENSE

Authorized by the

West Virginia Contractor Licensing Board

Number: WV040102

Classification:

LOW VOLTAGE SYSTEMS

LONGS SECURITY CAMERA SYSTEMS LLC
DBA LONGS SECURITY CAMERA SYSTEMS LLC
102 38TH STREET SE
CHARLESTON, WV 25304

Date Issued	Expiration Date
MAY 06, 2010	MAY 06, 2011

Authorized Company Signature

Michael A. Carl
Chair, West Virginia Contractor Licensing Board

WEST VIRGINIA CONTRACTOR LICENSING BOARD

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ACORD CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YY) 10/05/10

PRODUCER

Wells Fargo Ins. Services
of West Virginia, Inc.
P.O. Box 1551
Charleston WV 25326-1551
(304) 346-0611

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INSURED

Long's Security Camera Systems
102 38th St SE
Charleston, WV 25304

COMPANIES AFFORDING COVERAGE

COMPANY A: Landmark American Insurance Co

COMPANY B:

COMPANY C:

COMPANY D:

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	GENERAL LIABILITY	LBA064826	3/11/10	3/11/11	GENERAL AGGREGATE	$ 2,000,000
	X COMMERCIAL GENERAL LIABILITY				PRODUCTS-COMP/OP AGG	$ 2,000,000
	CLAIMS MADE [X] OCCUR				PERSONAL & ADV INJURY	$ 1,000,000
	OWNER'S & CONTRACTOR'S PROT				EACH OCCURRENCE	$ 1,000,000
					FIRE DAMAGE (Any one fire)	$ 100,000
					MED EXP (Any one person)	$ 5,000
	AUTOMOBILE LIABILITY				COMBINED SINGLE LIMIT	$
	ANY AUTO				BODILY INJURY (Per person)	$
	ALL OWNED AUTOS				BODILY INJURY (Per accident)	$
	SCHEDULED AUTOS				PROPERTY DAMAGE	$
	HIRED AUTOS					
	NON-OWNED AUTOS					
	GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT	$
	ANY AUTO				OTHER THAN AUTO ONLY:	
					EACH ACCIDENT	$
					AGGREGATE	$
	EXCESS LIABILITY				EACH OCCURRENCE	$
	UMBRELLA FORM				AGGREGATE	$
	OTHER THAN UMBRELLA FORM					$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				WC STATU-TORY LIMITS / OTH-ER	
	THE PROPRIETOR/ PARTNERS/EXECUTIVE OFFICERS ARE: [ ] INCL [ ] EXCL				E.L. EACH ACCIDENT	$
					E.L. DISEASE-POLICY LIMIT	$
					E.L. DISEASE-EA EMPLOYEE	$
	OTHER					

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

CERTIFICATE HOLDER

Health and Human Resources
Hopemount Hospital
150 Hopemount Dr
Terra Alta, WV 26764-7728

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

Tammy Bowles

IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

The Certificate of Insurance on the reverse side of this form does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

WV-36 (Rev. 01/01/07)

STATE OF WEST VIRGINIA

PURCHASE CONTINUATION SHEET

Vendor: Longji Security Camera Systems LLC P.O. Date: _____

Page 2 of 3 Pages | Requisition / P.O. No.: HOP11053 | File: RW22 | Acct. No.: | Spending Unit: HOPEMONT HOSPITAL

Item No.	Quantity	Description	Unit Price	Amount
		Mandatory Requirements: Bids to include all labor, materials, equipment and anything incidental to install a resident wandering system at Hopement Hospital, located at 150 Hopemont Drive, Terra Alta, WV 26764, according to the following specifications.		
1.	28 each	Vendor must provide and install Sigma Sentinel model or equal, self checking system door control units. Monitor residents will activate the door locks and will be prevented from leaving through locked doors. The system will identify the resident by number or name at the exit and nurses' monitor. The unit will monitor transmitter battery conditions. Doors must be coded with an exiting family code that will allow family to exit without allowing monitored residents to follow. Outside keypad at the front door will allow staff to enter when door is locked (with timer options at all door units).	$ 1,800.00	$ 29,366.40
2.	1 each	Vendor must provide Sigma Sentinel or equal Transmitter Tester. Transmitter tester/programmer, to be a hand held device to provide access to working status on each transmitter and provides wireless data entry. System is to be self checking capable.	$ 240.00	$ 240.00
3.	28 each	Vendor must provide 2 years life Sigma Sentinel or equal Transmitter. Resident transmitter, watch size, can be worn on wrist or ankle, water tight. Transmitters to be pro-rated.	$ 66.00	$ 1,848.00
4.	50 each	Vendor must provide Sigma Sentinel or equal Transmitter Bands. Bands are to be reinforced only way snap hypo-allergenic, water resistant material with a minimum 150 pound and a maximum 200 pound pull pressure.	$ 6.96	$ 348.00
5.	3 each	Vendor must provide and install Sigma Sentinel or equal Magnetic door locks with a minimum 15 second delay maximum 20 second delay.	$ 830.00	$ 2,490.00
6.	1 each	Vendor must provide and install Connexions 5 Paging Transmitter or equal with 4 serial ports.	$ 830.00	$ 830.00
7.	50 each	Vendor must provide Sigma Sentinel or equal alphanumeric pagers with capacity to hold six (6) addresses (929H) or equal.	$ 115.00	$ 5,750.00
8.	1 each	Vendor must provide Sigma Sentinel or equal Network PC Paging Software, Client & Service. This will allow Paging from all network computers.	$ 9,592.80	$ 9,592.80
[redacted]			$ N/A	$ N/A
[redacted]			$ N/A	$ N/A
11.	1 each	Vendor must provide on-site training to all required staff. Provide total system programming including installation and installation materials according to specifications.	$ Ø	$ Ø
12.	2 each	Vendor must provide and install Sigma Sentinel or equal front door coded keypad entry with timer, located at front door and grape harbor door.	$ 240.00	$ 240.00
14.		Vendor must provide and install push button on exterior doors to unlock doors unit.	$ 12.00	$ 276.00

WV-36 (Rev. 01/01/07)

STATE OF WEST VIRGINIA
PURCHASE CONTINUATION SHEET

Page 3 of 3 Pages | Requisition / P.O. No.: HOP11053 | File: RW22 | Acct. No.: | Spending Unit: HOPEMONT HOSPITAL

Vendor: _____ P.O. Date: _____

Item No.	Quantity	Description	Unit Price	Amount
13.	1 each	Vendor must provide and install an upgradable system on the wireless call stations and elevator lockout for future growth.	$ Eiris System is an Upgradable system.	$
14.	23 ~~each~~ 1 LOT	~~Vendor must provide and install push button on exterior doors to~~ unlock door units. INSTALLATION LABOR AND MATERIALS The vendor with the lowest grand total of all items will be awarded the contract. However, the facility reserves the right to accept or reject the following alternate items if the costs exceed what the facility has budgeted for the purchase.	$	$ 29,018.80 W/Wanderers
Moved To Page 16 of Continuation Sheet		Bid on Sigma Sentinel or equal resident wandering system:		$ 80,000.00
		Alternate Items for Nurse's Call Station:		$ 25,500.00 Nurse Call
	1 LOT	INSTALLATION LABOR AND MATERIALS	$ 4,899.60	$ 4,899.60
15.	1 each	Vendor must provide and install Phillips or equal wireless nurse's call station. Monitor must provide audible/visual indication of all exists. System must display resident name and exit location.	$ 162.00	$ 8,748.00
16.	54 each	Vendor must provide and install magnetic pull cords.	$ 162.00	$ 15,876.00
17.	98 each	Vendor must provide and install call cords with reset.		$ 55,023.6
		Alternate bid requested: Nurses Station Monitor Unit:		$ 135,023.60
		Grand total of all items:		

All equipment shall be provided FOB destination. Vendor shall deliver and complete the installation within 90 days of issuance of notice to proceed.
Warranty: 3 years parts
2 years labor

Exceptions to warranty: No warranty on existing door locks
Two (2) years parts and labor warranty on pagers.

15 To include:
1 each - 17" Monitor
2 each - computer - 500GB
5 each - Wireless Reciever
— Nurse call components

Warranty: Three (3) Years Part
One (2) Year Labor
Provided AT Completion of Project
— Covered in Grand Total

Agency Purchasing Division
REQ.P.O# HOP11053

BID BOND

KNOW ALL MEN BY THESE PRESENTS, That we, the undersigned, Long's Security Camera Systems, LLC of Charleston, WV, as Principal, and Western Surety Company of Sioux Falls, SD, a corporation organized and existing under the laws of the State of SD with its principal office in the City of Sioux Falls, as Surety, are held and firmly bound unto the State of West Virginia, as Obligee, in the penal sum of Five Percent of Amount Bid ($ 5%) for the payment of which, well and truly to be made, we jointly and severally bind ourselves, our heirs, administrators, executors, successors and assigns.

The Condition of the above obligation is such that whereas the Principal has submitted to the Purchasing Section of the Department of Administration a certain bid or proposal, attached hereto and made a part hereof, to enter into a contract in writing for Patient Wandering and Nurse Call, Hopemont Hospital Terra Alta, WV

NOW THEREFORE,

(a) If said bid shall be rejected, or

(b) If said bid shall be accepted and the Principal shall enter into a contract in accordance with the bid or proposal attached hereto and shall furnish any other bonds and insurance required by the bid or proposal, and shall in all other respects perform the agreement created by the acceptance of said bid, then this obligation shall be null and void, otherwise this obligation shall remain in full force and effect. It is expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for the value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Obligee may accept such bid, and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, Principal and Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be affixed hereunto and these presents to be signed by their proper officers, this 5th day of October, 2010.

Principal Corporate Seal

Long's Security Camera Systems, LLC
(Name of Principal)

By _____
(Must be President or Vice President)

Owner
(Title)

Surety Corporate Seal

Western Surety Company
(Name of Surety)

By: _____
Kimberly L. Miles, Licensed WV Resident Agent Attorney-in-Fact

IMPORTANT – Surety executing bonds must be licensed in West Virginia to transact surety insurance. Corporate seals must be affixed, and a power of attorney must be attached.

State of West Virginia
DRUG FREE WORKPLACE CONFORMANCE AFFIDAVIT
***West Virginia Code* §21-1D-5**

STATE OF West Virginia

COUNTY OF Kanawha, **TO-WIT:**

I, Alan E Long, after being first duly sworn, depose and state as follows:

1. I am an employee of Longs' Security Camera System LLC; and,
(Company Name)

2. I do hereby attest that Longs' Security Camera System LLC
(Company Name)

maintains a valid written drug free workplace policy and that such policy is in compliance with ***West Virginia Code*** §21-1D-5.

The above statements are sworn to under the penalty of perjury.

Longs' Security Camera Systems LLC
(Company Name)

By: Alan E Long

Title: Owner

Date: 10-5-10

Taken, subscribed and sworn to before me this 5 day of October, 2010

By Commission expires Feb. 5, 2017

(Seal) NOTARY PUBLIC OFFICIAL SEAL
JARROD HODGES
State of West Virginia
My Commission Expires Feb. 5, 2017
4515 MacCorkle Ave. S.E., Charleston, WV 25304

(Notary Public)

THIS AFFIDAVIT MUST BE SUBMITTED WITH THE BID IN ORDER TO COMPLY WITH WV CODE PROVISIONS. FAILURE TO INCLUDE THE AFFIDAVIT WITH THE BID SHALL RESULT IN DISQUALIFICATION OF THE BID.

Rev March 2009

Rev. 09/08

State of West Virginia

VENDOR PREFERENCE CERTIFICATE

Certification and application* is hereby made for Preference in accordance with ***West Virginia Code***, §5A-3-37. (Does not apply to construction contracts). ***West Virginia Code***, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the ***West Virginia Code***. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

1. **Application is made for 2.5% resident vendor preference for the reason checked:**
___ Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; **or,**
___ Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; **or,**
___ Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; **or,**

2. **Application is made for 2.5% resident vendor preference for the reason checked:**
___ Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; **or,**

3. **Application is made for 2.5% resident vendor preference for the reason checked:**
___ Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; **or,**

4. **Application is made for 5% resident vendor preference for the reason checked:**
X Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; **or,**

5. **Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:**
___ Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; **or,**

6. **Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:**
___ Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: Longs' Security Camera Systems LLC **Signed:** [signature]

Date: 10-05-10 **Title:** Owner

**Check any combination of preference consideration(s) indicated above, which you are entitled to receive.*

RFQ No. HOP11005

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

DEFINITIONS:
"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

Under penalty of law for false swearing (***West Virginia Code*** §61-5-3), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

WITNESS THE FOLLOWING SIGNATURE

Vendor's Name: Longs Security Camera Systems LLC

Authorized Signature: Allen E Long Date: 10-05-10

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 5 day of October, 2010.

My Commission expires Feb. 5, 2017.

AFFIX SEAL HERE

NOTARY PUBLIC Jarrod Hodges

NOTARY PUBLIC OFFICIAL SEAL
JARROD HODGES
State of West Virginia
My Commission Expires Feb. 5, 2017
4515 MacCorkle Ave. S.E., Charleston, WV 25304