



Vision.net

RS232 Serial Interface Port



Model: 63035

Strand Lighting Offices

Strand Lighting - Dallas 10911 Petal
Street
Dallas, TX 75238
Tel: 214-647-7880
Fax: 214-647-8030

Strand Lighting - New York 267 5th
Ave, 4th Floor
New York, NY 10016
Tel: 212-213-8219
Fax: 212-532-2593

Strand Lighting - Asia Limited Unit
C, 14/F, Roxy Industrial Centre No.
41-49 Kwai Cheong Road
Kwai Chung, N.T., Hong Kong
Tel: +852 2796 9786
Fax: +852 2798 6545

Strand Lighting - Auckland
19-21 Kawana Street
Northcote, Auckland 0627
New Zealand
Tel: +64 9 481 0100
Fax: +64 9 481 0101

Strand Lighting - Europe
Marssteden 152
Enschede 7547 TD
The Netherlands
Tel: +31 53 4500424
Fax: +31 53 4500425

Website:

www.strandlighting.com

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Vision.net RS232 Serial Interface Port Installation & Operation Guide

Important Safeguards

When using electrical equipment, basic safety precautions should always be followed including the following:



- a. **READ AND FOLLOW ALL SAFETY INSTRUCTIONS.**
- b. Do not use outdoors.
- c. Do not mount near gas or electric heaters.
- d. Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- e. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- f. Do not use this equipment for other than intended use.
- g. Refer service to qualified personnel.

SAVE THESE INSTRUCTIONS.



WARNING: You must have access to a main circuit breaker or other power disconnect device before installing any wiring. Be sure that power is disconnected by removing fuses or turning the main circuit breaker off before installation. Installing the device with power on may expose you to dangerous voltage and damage the device. A qualified electrician must perform this installation.

WARNING: Refer to National Electrical Code® and local codes for cable specifications. Failure to use proper cable can result in damage to equipment or danger to persons.

CAUTION: Wire openings **MUST** have fittings or lining to protect wires/cables from damage. Use 90° C copper wire only!

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OVERVIEW

Vision.net System Overview

The Vision.net System is designed to control architectural lighting by distributing both power and intelligence. The system provides processing power and control at each respective Push button, Fader or Touch Screen Station, eliminating the need for a central processor. Fader Stations provide individual control for up to 15 channels, 8 scenes plus "Off," all with adjustable fade times. By combining Vision.net Fader Stations, Vision.net Preset Stations and Vision.net Touch Screens, the system provides remote access to scenes, Master Raise/Lower control, Multi-room partition control, or Master Station Lockout.

Vision.net Stations are compatible with Strand Lighting A21, R21, C21 and EC21 Dimming Cabinets.

Vision.net products are controlled by the Vision.net System protocol. All Vision.net control devices must be connected to the Vision.net system and given a unique ID (or address) in order to interact properly. The ID identifies the device on the network and allows the device to avoid network collisions when transmitting data.

Vision.net RS232 Serial Interface Port Overview

The Vision.net RS232 Serial Interface Port (Strand Part No: 63035) allows integration with the Vision.net Network using standard RS232 communication. The RS232 Interface has the ability to receive and transmit data in two modes: Vision.net Protocol (binary) and Show Control Protocol (standard ASCII). The unit will sense the incoming protocol and automatically switch to the proper mode.

The RS232 Interface Port accepts standard 9-pin RS232 serial cable connections of up to 25 feet.

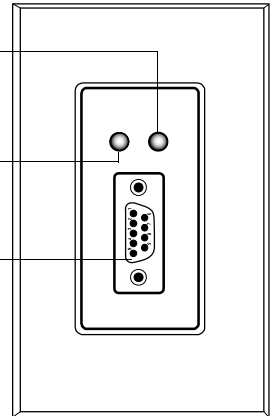
Note:

When sending/receiving Vision.net commands, the PC requires the use of Vision.net Desktop software. The Vision.net Desktop software (67518) is sold separately and is available through your authorized dealer.

Transmit Indicator - Red
LED indicates valid data transmit activity when lit.

Receive Indicator - Green
LED indicates valid data received when lit.

RS232 Connector -
Standard RS232 serial port connector for input of ASCII or Vision.net protocol.

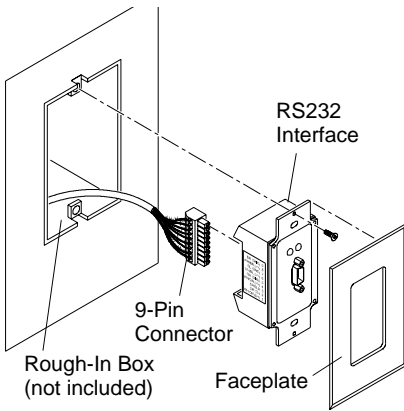


INSTALLATION

The Vision.net Network consists of a single CAT5e cable connecting all modules in a daisy chain manner. All units connect to the network using a 9-pin plug-in connector (included).

Installation Steps

- Step 1. Unpack unit and inspect for any signs of shipping damage. Ensure that two mounting screws are included.
- Step 2. Connect Vision.net Network Cable to 9-pin connector at back of RS232 Interface Port.



9-Pin Connector Wiring

Pin	Signal
1	WH/OR (+ Data)
2	OR (- Data)
3	SHIELD
4	WH/GN (+ Volts)
5	GN (Ground)
6	WH/BL (+ Volts)
7	BL (Ground)
8	WH/BR (+ Volts)
9	BR (Ground)

- Step 3. Insert RS232 Interface Port into standard deep rough-in box (not included). Secure with two supplied mounting screws.
- Step 4. Snap faceplate into place.

A standard Windows-compatible computer can be connected to the Vision.net Network using the RS232 Interface Port. The port accepts a standard one-to-one 9-pin serial cable up to 25 feet in length.

RS232 Interface Port	PC Computer
Pin 1 (NU)	Pin 1 (NU)
Pin 2 (TX)	Pin 2 (RD)
Pin 3 (RX)	Pin 3 (TD)
Pin 4 (NU)	Pin 4 (NU)
Pin 5 (GND)	Pin 5 (GND)
Pin 6 (NU)	Pin 6 (NU)
Pin 7 (CTS)	Pin 7 (RTS)
Pin 8 (RTS)	Pin 8 (CTS)
Pin 9 (NU)	Pin 9 (NU)

OPERATION

Communication Modes

The Vision.net RS232 Serial Interface Port operates in one of two modes: Vision.net (binary) or Show Control (ASCII).

Vision.net Mode	Show Control Mode
8 Bit	8 Bit
1 Stop Bit	1 Stop Bit
19200 Baud	9600 Baud
Protocol: Binary	Protocol: ASCII

The unit will sense the incoming protocol and automatically switch to the proper mode. Note that it may take several messages from either the third-party system or the Vision.net Designer PC before the RS232 Interface switches modes.

ASCII Codes For Vision.net Show Control Protocol

Vision.net Command	RS232 Protocol	Vision.net Command	RS232 Protocol
Start Preset	SP rrr pp tt<cr>	Record Blind	RB rrr pp ggg lll ... lll<cr>
Toggle Down	TD rrr ccc<cr>	Lock Button	LB idd n<cr>
Toggle Up	TU rrr ccc<cr>	Unlock Button	UB idd n<cr>
Learn Preset	LP rrr pp<cr>	Smart On	SN idd n<cr>
Slider Level	SL rrr ccc lll<cr>	Smart Off	SF idd n<cr>
Learn Submaster	LS rrr ss<cr>	Define Room Link	DR x fff rrr ... rrr<cr>
Manual	MN rrr ggg lll ... lll<cr>	Submaster Level	SB rrr ss lll<cr>
Expander Group	EG rrr ee<cr> EG rrr ee ff lll ... lll<cr>	Take Control (sub)	TC rrr ggg lll ... lll<cr>
Start Raise	RA rrr qq<cr>	Set Channel	SC rrr ccc lll rr<cr>
Start Lower	LW rrr qq<cr>	Set Mode	SM mm<cr>
Stop Raise/Lower	ST rrr qq<cr> *	Send Mimic	MC idd n a<cr>
		Console Button	CB idd n a<cr>
		Console LED	CL idd n a<cr>

* Sending a second <cr> after a RA or LW command will automatically send the proper ST command

where:

rrr	Room (1 - 255)	qqq	Coded Channel
pp	Preset (1 - 32) [0 = off]		(0: Reserved
tt	Rate Index		1 - 127: Channels 1 to 127
ccc	Channel (1-127)		128: All Channels in room
lll	Level (0 - 255)		129 - 255: Channel in Preset: 1 - 126
ss	Submaster Index (1 - 16)		255 current preset channels)
ggg	Grand Master Level (0 - 255)	x	0 = Clear All Links, 1 = Do not clear
ee	Expander Group (0 - 15)	mm	Mode (0 = All modes)
ff	Index of First Channel (1 - 127)	fff	First Room (1-255)
n	Button/LED (1-255)		
a	Action (0/1= Off/On or Button Up/Down for Send Mimic Command)		
	(0/1= Button Down/Up for Console Button Command)		
	(0/1= LED Off/On for Console Button Command)		

SPECIFICATIONS

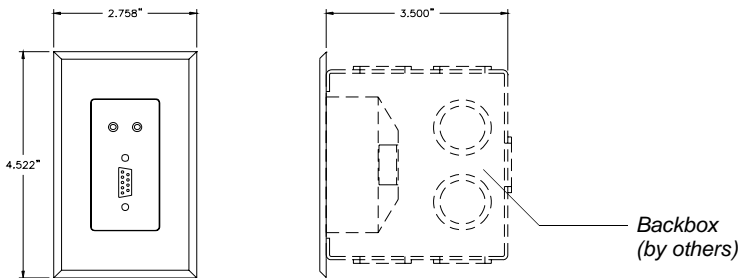
Electrical:

- Input Power: +18-26 VDC (powered from Vision.net network)
- Current: 20mA
- Temperature
 - Storage: -25° to 85° C
 - Operating: 0° to 40° C
 - Relative Humidity: 30-90% (non-condensing)

Communications:

- Vision.net Protocol (binary)
- ASCII

Mechanical:





Strand Lighting
Dallas
10911 Petal Street
Dallas, TX 75238
Tel: 214-647-7880
Fax: 214-647-8031

Strand Lighting
New York
267 5th Ave, 4th Floor
New York, NY 10016
Tel: 212-213-8219
Fax: 212-532-2593

Strand Lighting Asia Limited
Unit C, 14/F, Roxy Industrial Centre
No. 41-49 Kwai Cheong Road
Kwai Chung, N.T., Hong Kong
Tel: +852 2796 9786
Fax: +852 2798 6545

Strand Selecon
Auckland
19-21 Kawana Street
Northcote, Auckland 0627
New Zealand
Tel: +64 9 481 0100
Fax: +64 9 481 0101

Strand Lighting
Europe
Marssteden 152
Enschede 7547 TD
The Netherlands
Tel: +31 53 4500424
Fax: +31 53 4500425

www.strandlighting.com

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