

2.6 Connecting RS232 Communication

RS232 control is not necessary for operation, but it is a convenient way to control Bay Cat Xs from a distance.

RS232 communication allows a computer to control one or more units using the computer's serial port. Almost everything you can do with the remote, you can do with RS232 commands. Plus, you can send inquiries to the units and find out the current settings and values.

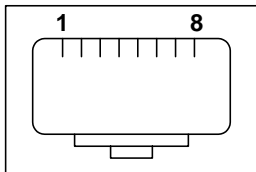
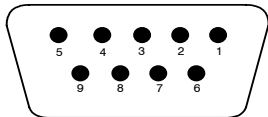
To connect a computer to the first unit, use an adapter on the computer's serial port connector to convert this to an RJ45 connector.

1. Obtain an adapter that has a female 9-pin connector.
2. Wire it as shown in the illustration and table below.
Only three wires are required. Clip off the other wires, or tuck them into the connector body.

Wiring the adapter

To go from 9-pin D-sub serial connector on the back of the computer to an RJ45 connector, use a standard RJ45-to-9-pin adapter. Wire it internally as shown. The wiring shown for this adapter is correct for *straight-thru* cables. Straight-thru cables are wired 1-to-1, 2-to-2, etc.

Yellow wire	pin 3
Black wire	pin 2
Green wire	pin 5
RJ45	9-pin
6	3
5	5
3	2



RJ45 looking into the socket.



female 9-pin

Connecting for RS232 control

Use Cat-5 cable to connect from the computer (with the adapter in place) to the first unit's RS232 In connector.

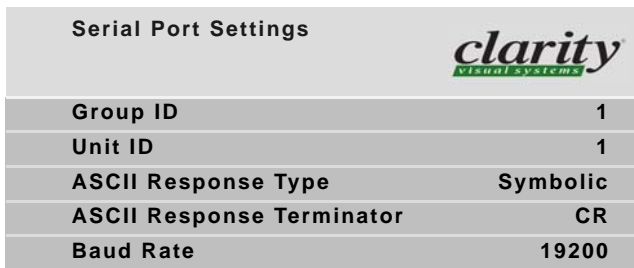
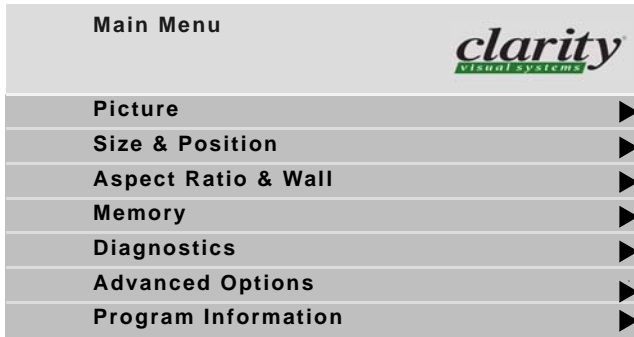
From the first unit, connect RS232 Out to the next unit's RS232 In. Continue in this way until all units are in the loop. The order of units in the loop does not matter because each unit in the array must have a unique address.

- 📎 The loopthrough limit is approximately 30 units in typical situations. However, if the units are spaced far apart or the total length of the loopthrough is very long, this limit may be reduced. You may need multiple RS232 sources.

RS232 IDs

Each unit in the loop must have a unique RS232 ID. Open the Serial Port Settings menu for each unit. On the

remote, press MENU. Using the up and down arrows, move to Advanced Options and select Serial Port Settings.



In the Serial Port Settings menu, set the Group ID and the Unit ID so that the combined ID is unique for each Bay Cat X in this RS232 loop.

Addressing Bay Cat X

Part of the RS232 command will be an address. This address may take several forms. For example, suppose we

have 8 units in one area divided into two groups. We might set the ID s of the units like this:

Group ID	Unit ID
1	1
1	2
1	3
1	4
2	1
2	2
2	3
2	4

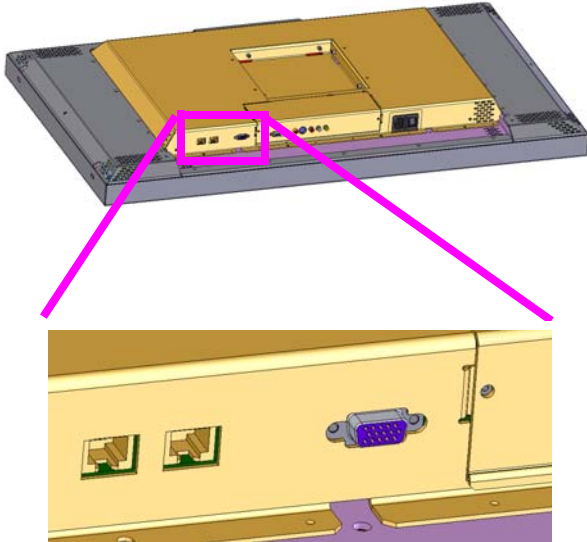
With this scheme, we have four ways to address these Bay Cat Xs:

Type of Addresses	Affect on Bay Cat X
13 24 etc.	Only the specific Bay Cat X addressed will obey the command. Also, the Bay Cat X will respond to the host computer.
**	All Bay Cat Xs in this RS232 loop will obey the command
*4	Both the Bay Cat Xs whose IDs end in "4" will obey this command
2*	All five Bay Cat Xs in Group 2 will obey the command

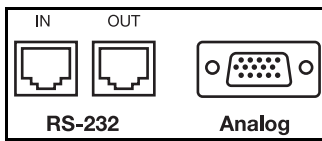
A complete list of all commands is given in "RS232 Control for Bay Cat X", document 070-0120, available from Clarity's website:

- Go to www.ClarityVisual.com
- Click on LOGIN in upper right banner
- Click on lower, blue LOGIN NOW button

User name: tech
Password: help
Find Bay Cat X tech support.
Open or download “Bay Cat X RS232 Programming Guide.”



RS232 Connector Location



For exact locations and dimensions of connectors, see “Connector Locations and Diagrams” on page 114.