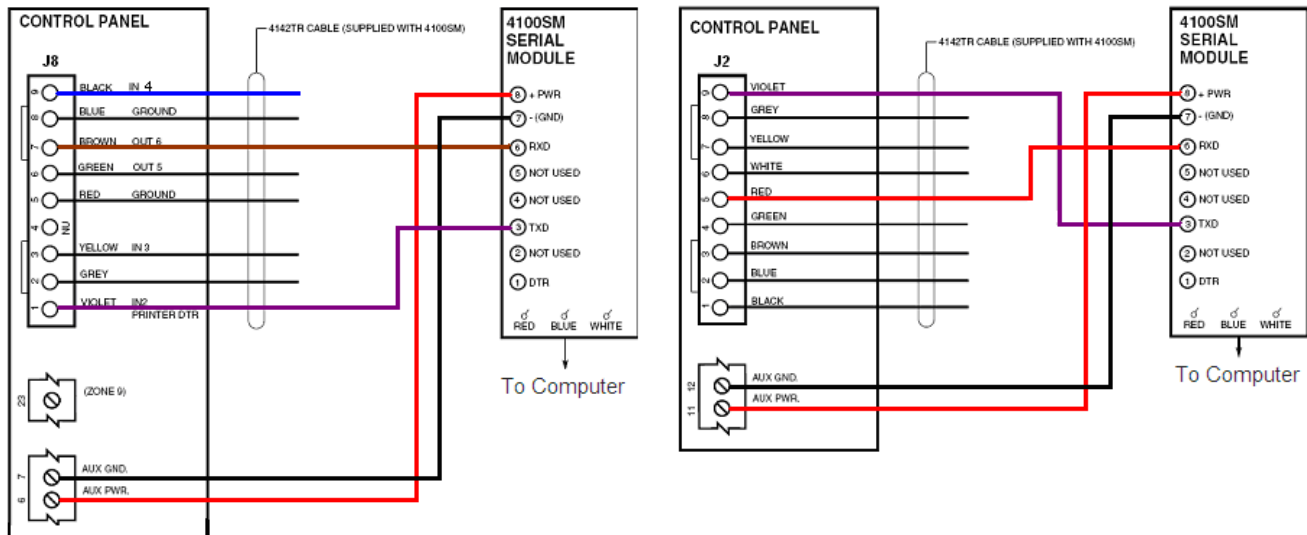


## Direct Wire Downloading Set up and Troubleshooting

**Note:** If the Installation Instructions that come with the 4100sm are dated before 2006, don't use them. The wiring diagram in this version is incorrect, instead, use the diagram below.

If connecting the 4100sm causes a ground fault (Trouble Zone 972) unplug your laptop and disarm twice to see if the check 972 clears. On some laptops the ground pin on the power cord will cause this. In this case, either power the laptop by battery or use a ground isolator.



Vista-40/50/128B/BP/BPE,  
250BP/BPE and FA Equivalents

Vista-100, 32FB, 128FB/FBP,  
250FBP, 5140XM and FA Equivalents

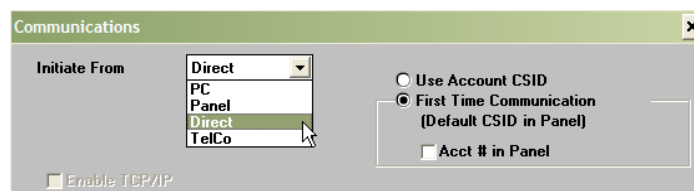
**Note:** The recommended method for powering the 4100sm is via the Panel Aux. Power. If an alternate power source is used you MUST share a common ground with the panel.

### Panel Programming:

Field	Description	Default Value
*32	Account #	15 15 15 15 (FFFF)
*36	CSID #	15 15 15 15 15 15 15 15 (FFFFFFFF)

**Note:**

- The above configuration is for using the first time communication option (see below) in compass:



**Notes:**

- Generally speaking, if the Account # in the panel is set to default, do not check the "Acct # in panel box." If the Account # in the panel is NOT set to the default, it must match the account # in Compass, and you must select the "Acct # in Panel" option. For Direct Wire Downloading, Compass verifies the Account # at both ends, but will NOT keep you from connecting if they do not match. Instead, you will get a message telling you what the account # in the panel is, and that it does not match the account # you have programmed in Compass.
- If you have previously connected to the panel and no changes have been made to the above locations, or account info in the software, then you can just check the box that states Use Account CSID.

1. Once you have selected the above options, enter the Installer Code + #5 on the keypad Verify that the Keypad shows “Modem Comm.”
  - The only thing that will keep the panel from going into Modem Comm., assuming a valid code is used to enter the command, is if the panel is attempting to communicate to Central Station. This includes attempts to communicate via AlarmNet device.
  - The Vista-40/100/50p will stay in “Modem Comm.” for approximately 5 minutes. The 128BP/BPE, 250BP/BPE, 128FBP, and 250FBP will stay in “Modem Comm.” also for approximately 5 minutes.
2. Press Connect on the PC and you should see send/receive arrows running back and forth across the bottom.

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## Troubleshooting

### **If the screen says: “Requesting Session” or “Prepare for Callback” (these messages are normal!)**

#### **“Central Station ID Mismatch”**

1. Since the CSID in panel can not be viewed try setting \*36 to 15 15 15 15 15 15 15 15, then select first time communication.
  - NOTE: See Panel Programming Section above.
2. Possibly a bad serial cable, or bad connection, verify all connections are secure.

#### **“DDE” Error While trying to connect**

1. Check wiring to the 4100SM. (See Wiring diagram above)
  - NOTE: Terminal 1 is the closest terminal to the 25-Pin connector. Some of the Modules were shipped with the terminals marked backwards.
2. Can be caused by low voltage, be sure Computer is connected to AC and using a compatible USB to Serial Adapter. (See Page 4)
3. Make sure you are on the right J-Connector (Should be the Upper Right)

#### **No Send Receive Arrows upon attempt to connect**

1. The Panel is not initiated for download
  - Enter [Installer Code] + #5 at the keypad and verify the Keypad says “Modem Comm.” or “CC”
2. Check for loose wire connections.
3. No modem is selected for the active com port (only on older versions of Compass, if you have this issue, you should update your software before continuing!)
4. Make sure you are connected to a 9-pin Serial Port on your PC or a compatible USB Serial Adapter. (See Page 4)

## Verifying Data Transmission via Voltage:

Note: Data is always referenced to ground. So when verifying the following voltages, make sure your Negative Meter lead is on Terminal 7.

### Voltages from the 4100SM screw terminals:

8 = +12 to 13VDC (Steady Voltage) ← to keypad Auxiliary Power Positive

7 = Ground ← to keypad Auxiliary Power Negative

6 = .6 to .8VDC then rapidly pulses (2-13VDC) after panel is in "MODEM COMM".

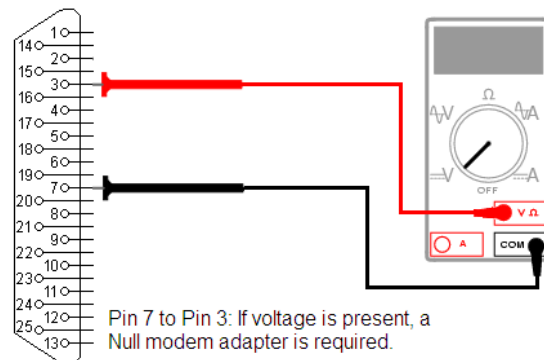
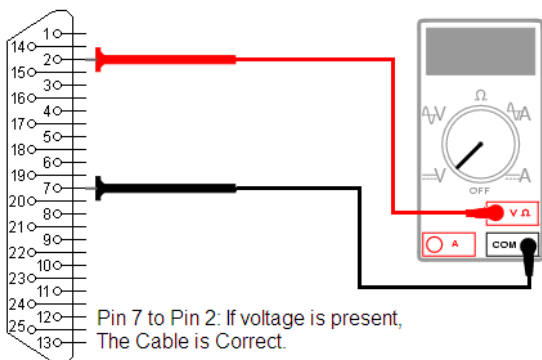
- If the .6 to .8 is not present in standby, check connections to panel.
- Possibly bad panel/harness/wrong J connector.
- If rapid pulsing 4 to 10 volts does not occur when panel is in "Modem Comm." check connection to computer, serial cable, and null modem adaptor (may be needed, or may be connected when it's not needed). ← See explanation on page 4 for a Null Modem Adapter.
- Neither voltage will be present if the Violet wire is open. Violet must be connected to the 4100sm or shorted to ground for the panel to have output on the brown/red wire.

3 = 1.9 to 4.4VDC then has one momentary pulse (12VDC) when the computer is initiated. If using a USB to Serial adapter the voltage pulse will be approximately 5VDC.

- See below for Cable Troubleshooting.

### Voltages from Computer (25pin connector disconnected from 4100sm):

1. With pin 7 on the RS232 cable as ground measure pins 2 & 3 (one at a time) for a quick pulse after the computer "Start Communication" or "Connect" has been selected.



2. Data OUT (Pin 2) should be -12 then pulse + 12, or -5 to +5 when using a USB to serial adapter, when the computer is initiated. (Start Communication or Connect).
3. Data IN (Pin 3) will not significantly change. Use a null modem adapter if the pulse is on pin 3 instead of Pin 2.
4. If there is no pulse at all, possibly bad or wrong com port or bad computer cable.

## Testing Cable:

Our Factory Cable is configured:

Connector 1	Connector 2	Function
2	2	Rx ← Rx
3	3	Tx → Tx
7	7	Signal ground

Other Cables Might Be Null Modem Cables and be configured as:

Connector 1	Connector 2	Function
2	3	Rx ← Tx
3	2	Tx → Rx
7	7	Signal ground

A 9 pin adapter should be: (9 pin adapter is Null Modem)

25 pin end	9 Pin end	Function
2	3	Rx ← Rx
3	2	Tx → Tx
7	5	Signal ground

Generally, a Null Modem output is required, where pins 2 and 3 are swapped. The Null Modem adaptor included with the 4100SM can be used to add or remove this from a cable if needed.

## Using a USB to Serial Adapter

Manufacturer	Part #	Notes	Supported OS	Web Address
Keyspan	USA-19HS	This unit has been tested, and is approved in WINDOWS XP and 2000, for direct connect, via the 4100SM, and the CIA modem, when emulating COM 1 - COM 8.	Windows XP Windows Vista	<a href="http://www.tripplite.com/en/lp/keyspan/">http://www.tripplite.com/en/lp/keyspan/</a>
Hawking	HUC-232S	This unit has been tested for modem and direct connect communications with Windows XP Pro, SP2 only. We can not verify it will work on any other operating system. Must be COM1 – COM8	Windows XP	<a href="http://www.hawkingtech.com">www.hawkingtech.com</a>

- Other USB to serial adapters may be used. These adapters have not been tested by tech support; hence they are not supported by tech support.