Broadcast Software International

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Installing your PCI Trigger Kit

Installing and Configuring the PCI Trigger Kit

Courtesy of BSI Technical Support

Overview

Congratulations on your purchase of the BSI Trigger Kit. The Trigger Kit provides easy external control of BSI software functions via contact closures. Up to 24 incoming circuits can trigger almost any BSI software function, including the playing of audio files. Following are some important considerations and installation instructions for your new kit

Considerations

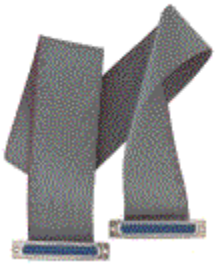
- Trigger kits accept contact closures from outside sources, not vice-versa
- The card with the three red pull-up resistors is the trigger card. If your card doesn't have resistors, you have a Switcher card and require different instructions
- If you have a Trigger Kit and a Switcher Kit, install one completely before installing the other

Parts

The BSI Trigger Kit includes:

PCI-DIO24 I/O Card

Three Foot Ribbon Cable



CIO-Mini37 Terminal Card

- INSTACAL software on the BSI Install CD
- PCI-DIO 24 installation guide (this guide!)

(Note: Ribbon cable may be substituted for similar cable)

Please be sure that you have all the above parts before continuing.

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Installation Overview

1. Insert the BSI Install CD and select **`Measurement Computing – Instacal Drivers`** from the drop down box. Click **`Install`**.
2. Power down the computer and disconnect the power supply
3. Physically install the PCI card into a spare slot and reassemble the case
4. Restart the computer and allow Windows to Plug and Play the PCI-DIO 24
5. Configure the software
6. Test the internal installation
7. Wire the triggers
8. Test the complete installation

Step-by-Step

Install the 32-Bit Instacal program

1. Insert the BSI Install CD and select **`Measurement Computing – Instacal Drivers`** from the drop down box. Click **`Install`**.

2. Follow the on-screen prompts to continue installation of the drivers and reboot your computer when instructed.

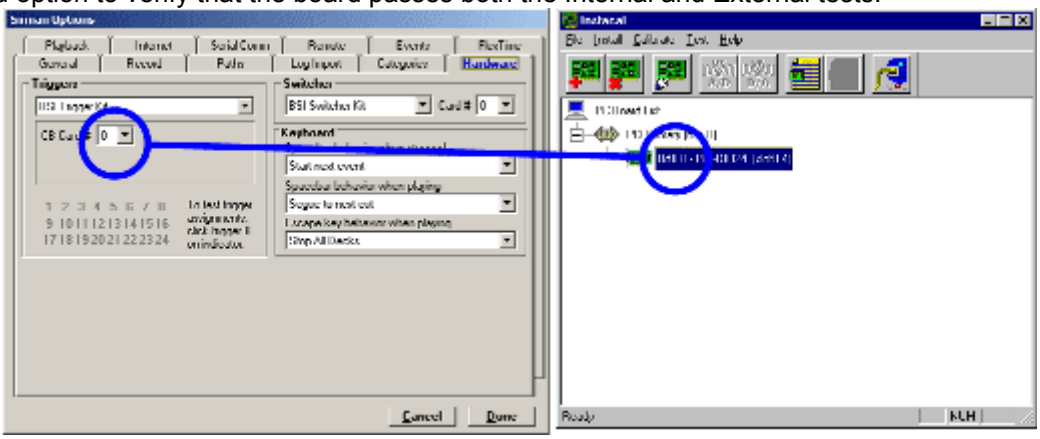
Physically install the kit and reassemble the case

** Make sure that the PCI-DIO24 card has three red SIP pull-up resistors installed. If it does not, you have a Switcher Kit card, not a Trigger Kit card.

1. Power down the computer and disconnect the power supply
2. Remove the computer case and seat the card solidly in an empty PCI slot
3. Connect one end of the ribbon cable to the PCI-DIO24 card. Connect the other end to the CIO-MINI 37 connector card
4. Reassemble the case and reconnect the power supply to the computer
5. Start up the computer and allow Windows to Plug and Play the PCI-DIO 24 card

Configure the software

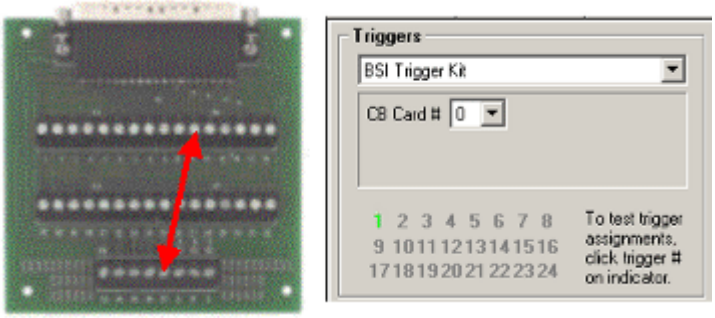
1. Launch `Instacal` from the **Measurement Computing** program group. It will automatically detect the new PCI card. Look for the Board Number (Bd# as shown below) and *write this down*. Use the Test menu option to verify that the board passes both the Internal and External tests.



2. Look in the Device Manager and make sure the board is present (under DAS or Digital Acquisition Systems), and has no conflicts (i.e., that the device is compatible with all IRQ's and Base Memory Addresses. A red X will show if there is a conflict). For best results, make sure that the card is not sharing an IRQ.
3. Launch Simian and go to **Tools/Program Options**, then select the **Hardware** tab (see figure above, left).
4. Select **Computer Boards CIO-DIO24** card and choose the number that you *wrote down*.
5. Go to the **Tools/Program Options/General** tab and select **Triggers ON at Startup**.
6. Click **Done**.

Test the Internal Installation

1. In Simian, go to Tools/Program Options, then select the Hardware tab
2. Short Pins 11 and 37 as shown on the MINI 37 below
3. Trigger 1 should light up green as shown on the right below



Wiring the Trigger Connections to the MINI 37

MINI 37	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Triggers/ Grounds	---	---	16	15	14	13	12	11	10	9	Gr	-5V	Gr	-12V	Gr	+12V
MINI 37	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Triggers/ Grounds	Gr	+5V	Gr	PC Bus +5V	PC Bus Gr	24	23	22	21	20	19	18	17	8	7	6
MINI 37						33	34	35	36	37						
Triggers						5	4	3	2	1						

Do not connect anything to pin #21 PC ground; This could seriously damage your I/O card or PC!

To connect a switch or relay to the Trigger Kit, wire one side of your satellite receiver contact closure, switching relay or control board button to a ground pin (11,13,15,17,19) and the other side to the appropriate screw terminal.

Test the Complete Installation

1. Launch Simian. In the **Edit** menu, choose **Trigger Sets** to program your triggers. Open the Event Builder by clicking **Tools/Event Builder**. Arrange the Event Builder window alongside the Trigger Sets window.
2. In the Event Builder window, click on the tab for the type of Event you want to trigger. Select the audio file, cart, macro, application, etc., and enter any parameters needed. Drag the event onto the line number that corresponds with the incoming trigger for this Event. To learn more about this procedure, refer to the Triggers section in your Simian manual.
3. Simulate an incoming trigger by shorting a ground pin (e.g., 11) and the MINI 37 terminal that corresponds with the trigger number for the Event you programmed above (e.g., terminal #37 for trigger #1, #36 for trigger #2, etc.). If your kit and software have been properly installed and configured, Simian will execute the Event.

We hope that these instructions were helpful.
If you require further assistance, please contact us.
BSI Technical Support:
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