

TECH NOTE

VICON TECHNICAL SERVICES GROUP

Subject: Matrix Switching Cage Testing
Product: V4481SCC & V6680SCC
Number: 1400-0001-35-00
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Matrix Switching Cage Testing or Emergency System Operation

This Tech Note details the steps and connections to follow that will provide camera to monitor switching for bench testing of a V6680SCC-HD or V4481SCC-HD Matrix Switching Card Cage. This can be accomplished by using either a V1300X-DVC/RVC Intelligent Keypad or a V1400X-DVC System Console (software version 1.22 or later).

Additionally, these procedures may be used in an emergency situation to perform basic matrix functions in the event of CPU failure.

Section I: Card Cage Testing

A. V1300X-DVC/RVC Intelligent Keypad:

Materials Required:

- 1 – Adapter-Connector, 37P-F to 25P-M, Vicon part 1294-3055-01 (see figure 1)
- 1 – Ribbon cable, 37P-M to 37P-M, Vicon part 1251-3455-02

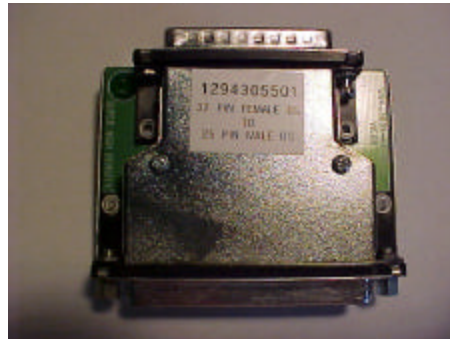


Figure 1

Procedure:

1. Program the V1300X-DVC/RVC to the Standalone mode by making the following changes:
 - a. Keypad Type: SNGL
 - b. Keypad Address: 0Any other programming options are not applicable.
2. The adapter-connector shown in figure 1 is the same part that is included as an accessory with the *Matrix66 Super High Density Video Switching System* (V1466). The ribbon cable, part 1251-3455-02, is the same part that is included with the V1300X-IA *Alarm Interface* module. Alternatively, cable part number 1806-5374-01-00 included with the V1400X-MSSV *Multi System Selector*, could also be used as well as any 37 conductor cable wired straight through (pin 1 to pin 1, pin 2 to pin 2, etc.).
3. Connect the ribbon cable from the V1300X-DVC/RVC J20 connector to the V6680SCC-HDD *External CPU Control In* connector, using the Adapter-Connector.

4. In the case of a V4481SCC-HD, connect to the *CPU Control In* connector J4.

Note: Regardless of Card Cage type, V6680SCC-HD or V4481SCC-HD, any internal CPU card *must* be removed to prevent signal loading.

B. V1400X-DVC System Console:

Materials Required:

- 1 – Cable, 25P-M to 25P-M D-Shell (all pins wired straight through, pin 1 to pin 1, etc.)

Procedure:

1. Program the V1400X-DVC to the Standalone mode by making the following changes:
 - a. System – Mode Selection: StandaloneAny other programming options are not applicable.
2. Connect the cable from the V1400X-DVC *Control Out* connector to the V6680SCC-HDD *External CPU Control In* connector, using the Adapter-Connector.
3. In the case of a V4481SCC-HD, connect to the *CPU Control In* connector J4.

Operation:

1. Apply power to both the Matrix Card Cage under test and the Keypad. Select monitors and cameras as desired.
2. The maximum number of monitors that may be selected is 128. The maximum number of cameras that may be selected is 255.

Section II: Emergency System Operation

In the event of failure of a system CPU, these same procedures can be employed to maintain basic system camera to monitor switching capability. If the RS422 data output of the Keypad is connected to the system's Receiver data control line, PTZ Receivers can be controlled at the same time.

Procedure:

1. After connecting the Keypad as above, disconnect the Keypad data line from the CPU Keypad Port.
2. Rewire the connections to the Receiver line as follows:

- a. V1300X-DVC/RVC Intelligent Keypad:

J1-1:	Shield
J1-2:	Response In –
J1-3:	Response In +
J1-7:	Shield
J1-8:	Command Out –
J1-9:	Command Out +

- b. V1400X-DVC System Console: (connections made to the RJ45 Termination Box connected to the Comm/Pwr port, screws numbered clockwise)

Screw 1:	Command Out +
Screw 4:	Response In –
Screw 5:	Command Out –
Screw 6:	Shield
Screw 8:	Response In +

Operation:

Operation would be the same as normal: select a monitor, select a camera and then control the PTZ functions as desired.

System Limitations:

1. As noted above, the maximum number of cameras that may be controlled is limited to camera addresses up to 255.
2. In this emergency mode, Monitor Time/Date/Title information and Alarm Actions will be unavailable as well as any other automatic functions such as RS232 Host Computer Interface controls..