VICON

PRODUCT SPECIFICATION

NOTES	SPEC NO.	REV.	SEC.
SUPERSEDES PRODUCT SPECIFICATION 923-1298	923	299	11

MODELS: V1400X-DVC SYSTEM CONSOLE

PRODUCT CODE: REFER TO TABLE 1

DESCRIPTION: CONTROL STATION

- **Controls CPUs, multiplexers, VCRs**
- **Fail-safe device prevents complete system shutdown (option)**
- **Customizable trackball pointing device (option)**
- **Joystick pointing device with multi-function button (option)**
- **Ergonomic design including hand rest**
- **Multicolored, oversized keys**
- **Fiber optic backlit soft keys**
- **User-defined macros**
- **On-line help system**

CE

The V1400X-DVC System Console is a central control station capable of controlling camera stations connected to Vicon control systems, AurorA99 digital multiplexers and video cassette recorders. Control systems include the V1300 Series (V1300 and V1344) and V1400 Series (V1400, V1422, V1444 and V1466). The menu-based LCD display changes to display the proper functionality for the selected control system. Selections are made using fiber optic backlit soft keys and the system console keyboard. Multicolored, oversized keys and a hand rest, as well as user-defined macros and an on-line help system, are just a few of the features that make the System Console easy to use. Refer to Figure 1 (hand rest not shown).

V1400X-DVC SYSTEM CONSOLE

TABLE 1
V1400X-DVC PRODUCT CODES

Model Number	Product Code	Description
V1400X-DVC	6162	System Console, 120 VAC
V1400X-DVC-230	6162-01	System Console, 230 VAC
V1400X-JST	5831	Joystick Keypad
V1400X-DJT	6182	Desk-Top Joystick
V1400X-IFS	5967	Fail-Safe Device

Vicon part number 8006-7923-01-00

VICON INDUSTRIES INC. 89 ARKAY DRIVE, HAUPPAUGE, N.Y. 11788 ❖ **TEL:** 516-952-CCTV *(2288)* ❖ **FAX:** 516-951-CCTV *(2288)*
TOLL FREE: 800-645-9116 ❖ **UK:** 44/(0)1489/566300 ❖ **INFOFAX:** 800-287-1207 ❖ **WORLD WIDE WEB:** www.vicon-cctv.com

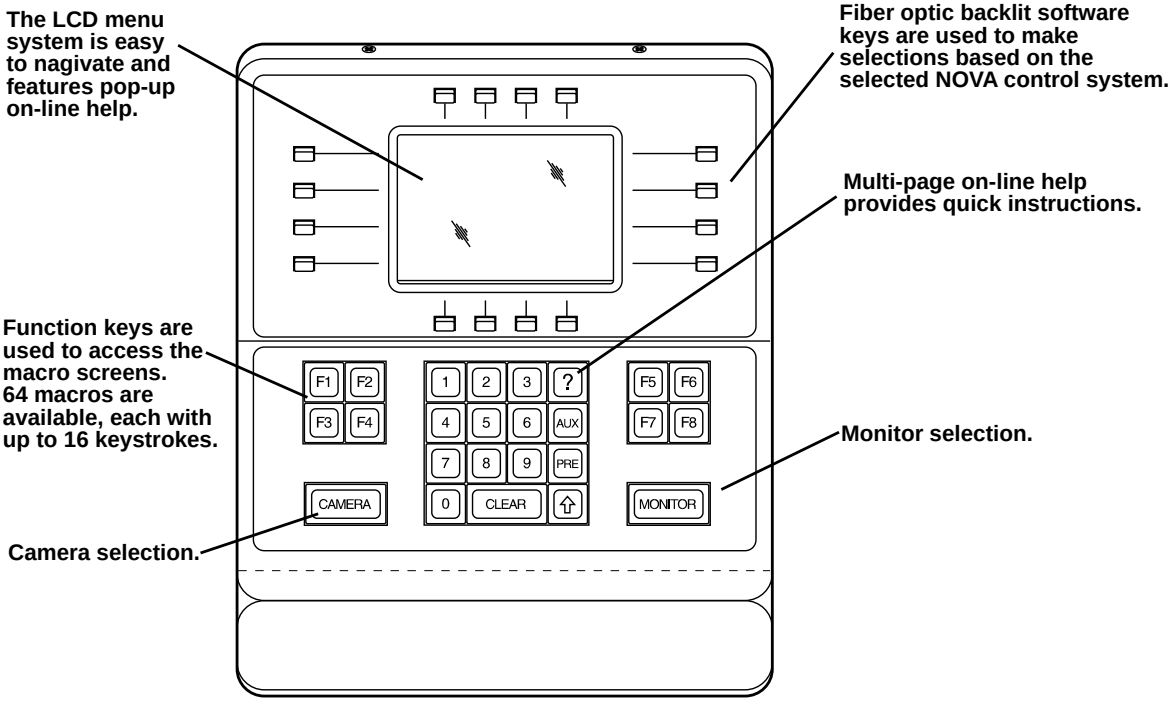


Figure 1
V1400X-DVC System Console

CONTRACTORS' SPECIFICATION

CONTROL STATION

The control station shall be able to control camera stations connected to control systems, digital multiplexers and video cassette recorders (VCRs). It shall include a menu-based LCD display which changes to display the proper functionality for the selected device. Selections shall be made using fiber optic backlit soft keys and the control station keyboard. It shall include ergonomic features such as multicolored, oversized keys and a hand rest.

The control station menu system shall include a control screen used to select cameras and monitors, sequence video, start or stop tours or salvos, store and recall presets, acknowledge alarms and perform other CCTV functions. Using the multiplexer control screen, multiplexers may be controlled and their menu systems navigated from the control station. Multiplexer receiver control capabilities, which allow receiver control (telemetry) from the multiplexer, shall be available from the control station. Using the VCR control screen, tapes in VCRs with RS-232 capability may be played, recorded, and controlled as from the VCR's own front panel. Macros shall be available to allow one-keystroke recall of control system functions (up to 16 keystrokes). Other menu screens shall include diagnostics and screen brightness control, as well as user-defined macros and an on-line help system.

There shall be three general system configurations using the control station. Two configurations shall include control systems (one configuration for multiple control systems, one configuration for a single control system). Those configurations shall also be able to control multiplexers and VCRs. There shall be one configuration that does not include control system(s), but shall be used to control multiplexers and VCRs.

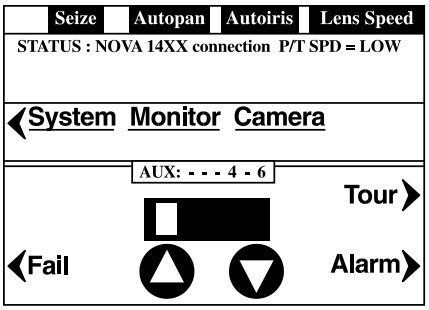
Optional devices with the control station shall include a fail-safe device used to daisy-chain control stations. This device shall ensure continuous communication with all control stations should one control station become inoperable. There shall be two pointing devices available for use with the control station. A joystick keypad shall be customizable for left- or right-handed users using a conveniently located switch. The joystick keypad trackball, with an optional trackball shaft, shall be used to control receiver functions and buttons shall be used to control lens functions. The second pointing device shall be a desk-top joystick with one button used to control all lens functions and with LEDs to indicate which function is active. This device shall include a traditional joystick for receiver control. Both devices may also be used to make choices in the menu system. Only one device may be used at a time.

Two power supplies shall be available with the control station; one for 120 VAC and one for 230 VAC. Maximum power consumption shall not exceed 4.8 W.

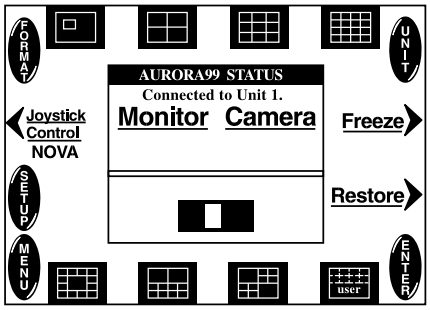
The control station shall be Vicon model V1400X-DVC System Console; the fail safe device shall be Vicon model V1400X-IFS; the joystick keypad shall be Vicon model V1400X-JST; the desk-top joystick shall be Vicon model V1400X-DJT.

The System Console's menu system includes a control screen used to select cameras and monitors, sequence video, start or stop tours or salvos, store and recall presets, acknowledge alarms and perform other CCTV functions as shown in Figure 2a. Macros are available to allow one-keystroke recall of a control system function with up to 16 keystrokes. Macros may be assigned unique titles and are recalled using the function keys. Using the AurorA99 control screen, AurorA and AurorA99 digital multiplexers may be controlled and their menu systems navigated from the System Console. Refer to Figure 2b. The AurorA99 receiver capabilities, which allow receiver control from the multiplexer, may also be used from the System Console. Using the VCR control screen, tapes in VCRs with RS-232 capability may be played, recorded, and controlled as from the VCR's own front panel. The VCR screen in shown in Figure 2c. Other menu screens include diagnostics and screen brightness control.

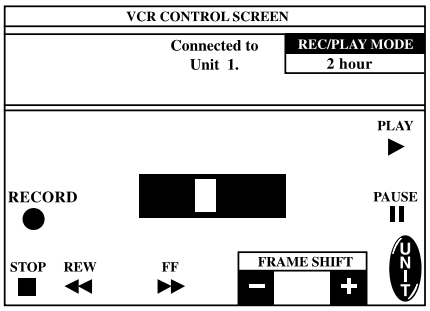
There are three general system configurations using the V1400X-DVC System Console: MSS/NOVA/AURORA/VCR control system, NOVA/AURORA/VCR control system and AURORA/VCR ONLY.



a) System Control Screen



b) AurorA99 Control Screen



c) VCR Control Screen

Figure 2
Sample Control Screens

In a MSS/NOVA/AURORA/VCR system, the V1400X-MSS Multi-System Selector will be necessary and will be able to select each of the control systems using the system console control screen. MSS/NOVA/AURORA/VCR systems may include the following devices:

- 7 additional system consoles or V800KBD AurorA99 Remote Keyboards
- 1 V1400X-MSS Multi-System Selector connected to up to 8 CPUs
- 8 V800MIU Multi-Output Interface devices, each connected to up to 4 AurorA99/AurorA multiplexers and VCRs (for a total of 32 multiplexer/VCR combinations)
- 2 auxiliary devices
- 1 RS-232 device
- 1 V1400X-DJT or V1400X-JST

Note: V800KBD Aurora99 Remote Keyboards can only access 4 V800MIUs, for a total of 8 multiplexers and 8 VCRs. System consoles can access the full set of V800MIUs, for a total of 32 multiplexers/VCRs.

Figure 3 illustrates a sample MSS/NOVA/AURORA/VCR system.

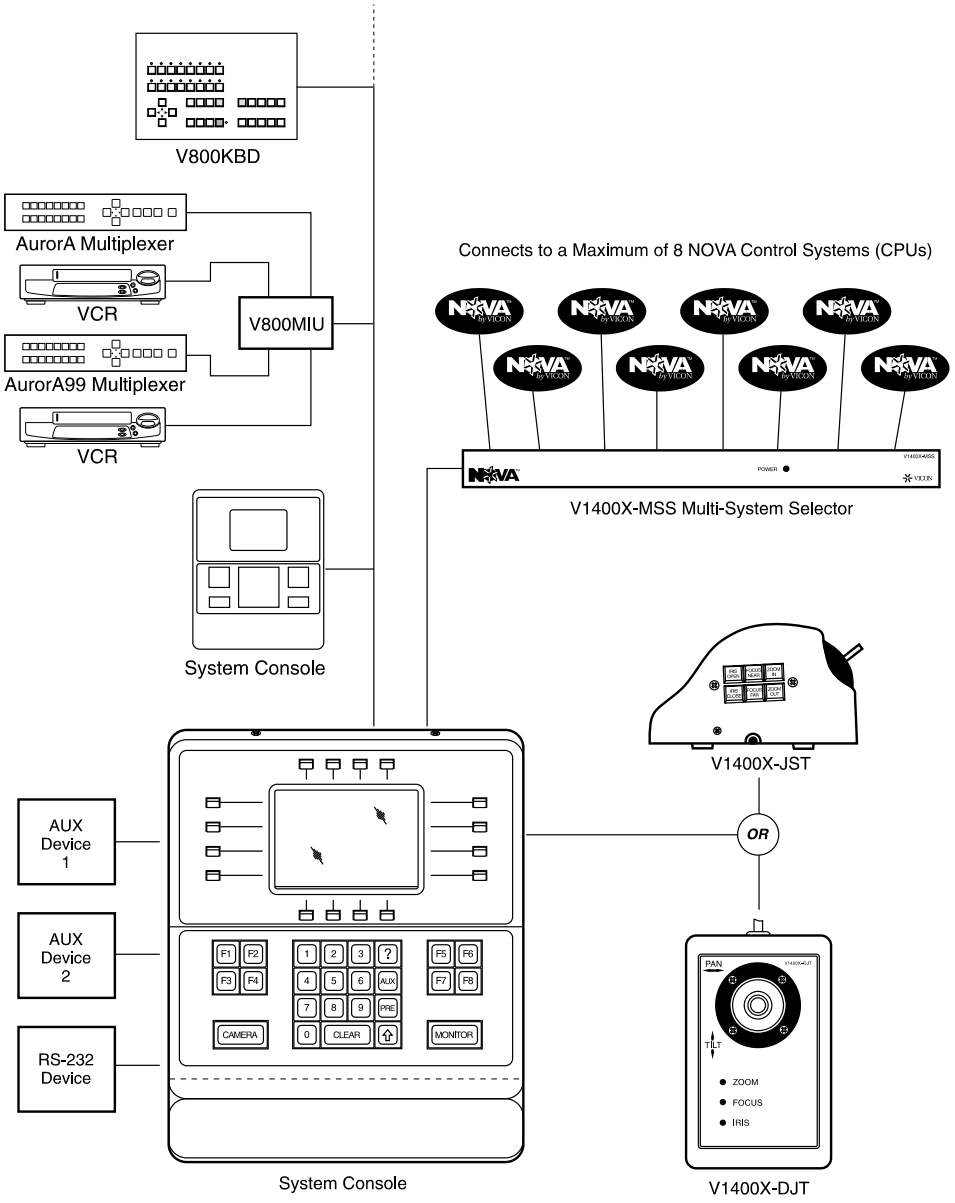


Figure 3
Sample System with MSS/NOVA/AURORA/VCR Systems

NOVA/AURORA/VCR systems may include the following devices:

- 7 additional system consoles or V800KBD AurorA99 Remote Keyboards
- 1 NOVA control system (CPU)
- 8 V800MIU Multi-Output Interface devices, each connected to up to 4 AurorA99/AurorA multiplexers and VCRs (for a total of 32 multiplexer/VCR combinations)
- 2 auxiliary devices
- 1 RS-232 device
- 1 V1400X-DJT or V1400X-JST

Note: V800KBD Aurora99 Remote Keyboards can only access 4 V800MIUs, for a total of 8 multiplexers and 8 VCRs. System consoles can access the full set of V800MIUs, for a total of 32 multiplexers/VCRs.

Figure 4 illustrates a sample NOVA/AURORA/VCR system.

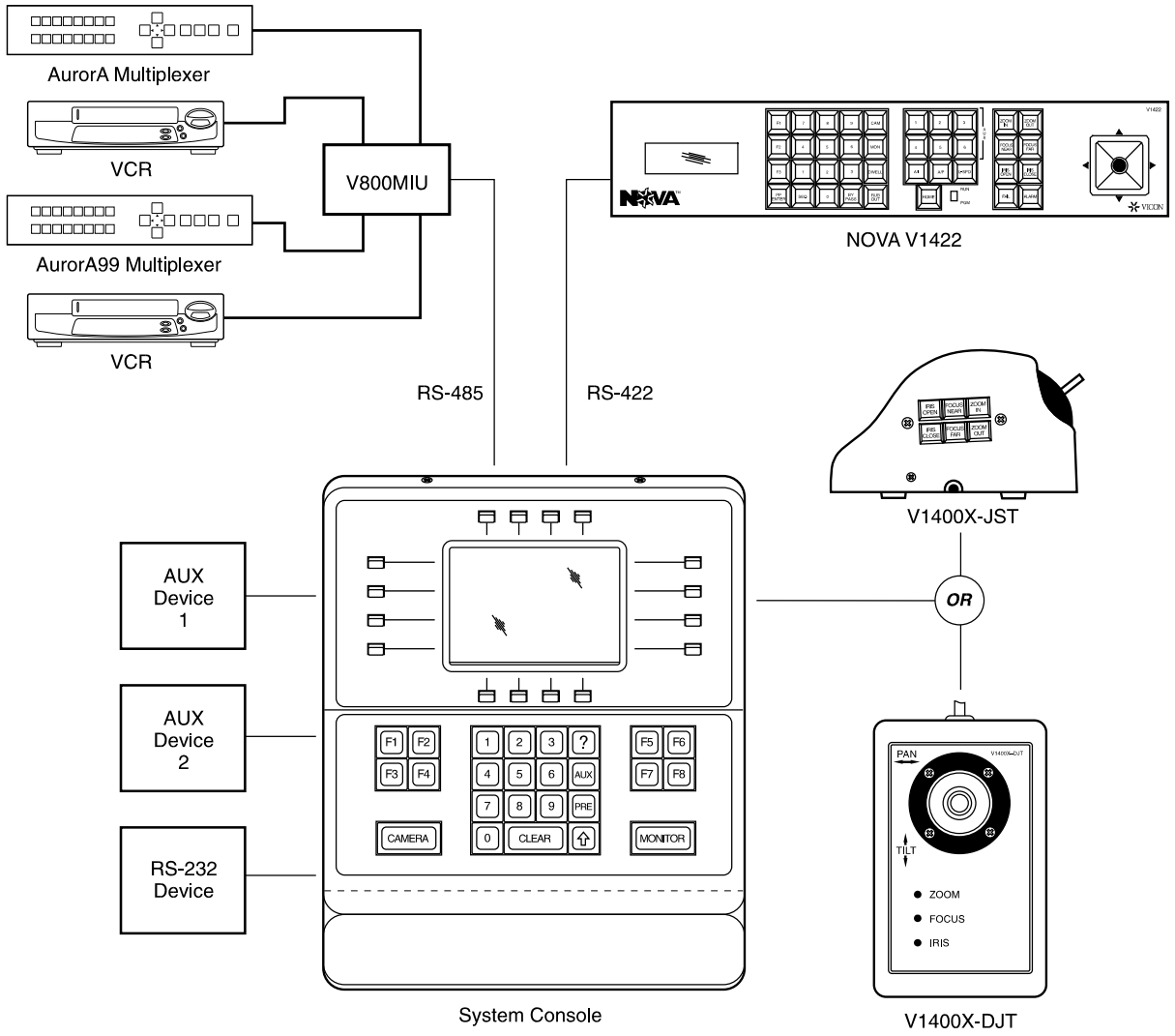


Figure 4
Sample System with NOVA/AURORA/VCR Systems

An AURORA/VCR ONLY system does not include a control system (CPU). The purpose of this configuration is to control multiplexers and VCRs. The System Console may be connected to:

- 7 additional system consoles or V800KBD AurorA99 Remote Keyboards
- 8 V800MIU Multi-Output Interface devices, each connected to up to 4 AurorA99/AurorA multiplexers and VCRs (for a total of 32 multiplexer/VCR combinations)
- 1 V1400X-DJT or V1400X-JST

Note: V800KBD Aurora99 Remote Keyboards can only access 4 V800MIUs, for a total of 8 multiplexers and 8 VCRs. System consoles can access the full set of V800MIUs, for a total of 32 multiplexers/VCRs.

Figure 5 illustrates the AURORA/VCR ONLY configuration.

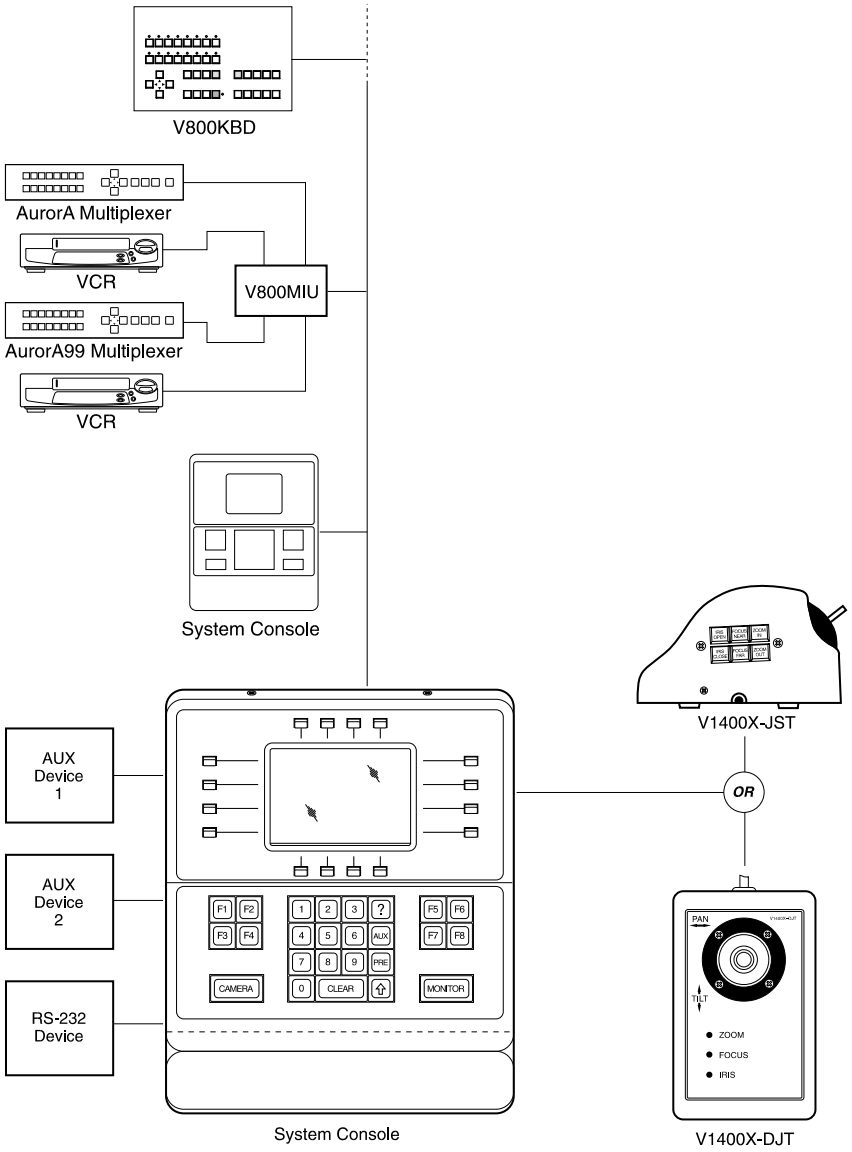


Figure 5
Sample AURORA/VCR ONLY System

The V1400X-IFS Fail-Safe Device is used to daisy-chain System Consoles. Unlike Vicon receivers, which contain an internal fail-safe circuit, the System Console must be used with the fail-safe device to ensure continuous communication with all consoles should one console become inoperable. As shown in Figure 6, the fail-safe device is used in daisy-chain configurations, but is not required for star configurations, which use a distribution line control. Refer to the System Console Instruction Manual X923 for more information.

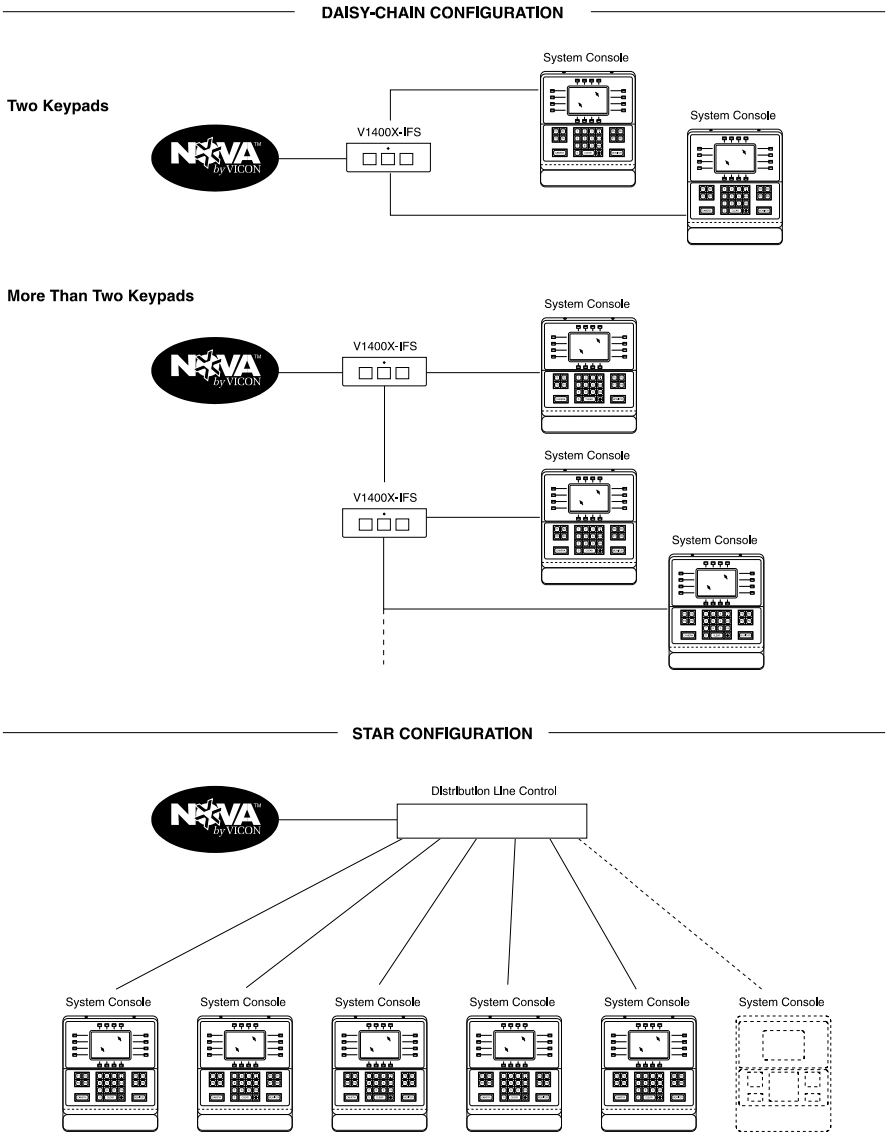


Figure 6
V1400X-IFS Fail-Safe Device and Distribution Line Control

Two pointing devices are available for use with the System Console, the V1400X-JST Joystick Keypad and the V1400X-DJT Desk-Top Joystick. Only one device may be used at a time. The joystick keypad may be customized for left- or right-handed users using a conveniently located switch. A trackball, with an optional trackball shaft, is used to control receiver functions. Buttons are used to control lens functions. The desk-top joystick contains one button used to control all lens functions and LEDs to indicate which function is active. A traditional joystick is used for receiver control. Both the V1400X-JST joystick keypad's trackball and the V1400X-DJT's joystick are used to make choices in the System Console menu system.

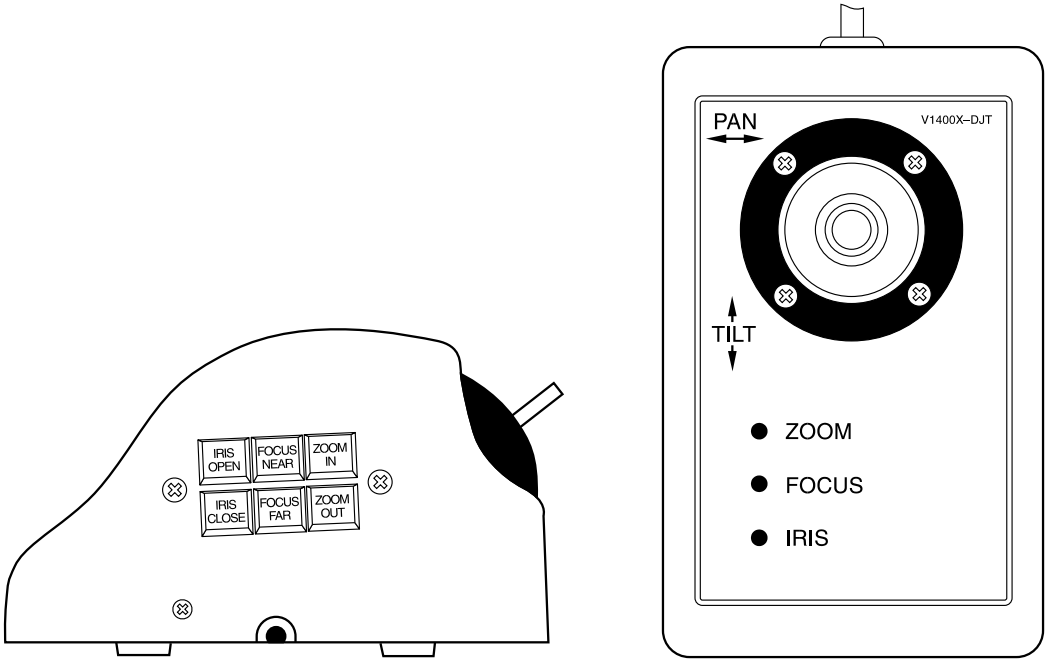


Figure 7
V1400X-JST Joystick Keypad (left) and V1400X-DJT Desk-Top Joystick (right)

TECHNICAL INFORMATION

V1400X-DVC SYSTEM CONSOLE

ELECTRICAL

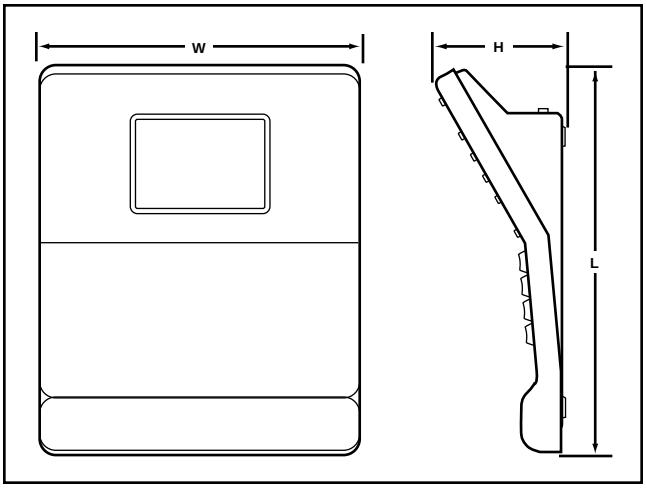
Input Voltage:	12 VAC.
AC Input:	Remote transformer, supplied.
Power Consumption:	4.8 W.
Heat Equivalent:	0.27 btu/min (0.07 cal/min). NOTE: These figures represent the conversion of 100% of the electrical energy to heat. Actual percentage of heat generated will be less and will vary from product to product. These figures are provided as an aid in determining the extent of cooling required for an installation.
Fuse:	2 A, 250 V.
Keypad Control:	9-pin (female) connector for RS-485 communication of multiple keypads/consoles.
Receiver Control:	8-pin RJ45 connector (female) for RS-422 communication of receivers in standalone mode. Two leads differential RS-422 drive, two leads differential RS-422 receive. Two leads shield ground. Connected to CPU or fail-safe device in multiple or single NOVA mode.
Matrix Switcher Control:	25-pin “Control Out” (female) connector for communications with a matrix switcher. Also used with V1400X-MSS Multi-System Selector.
Joystick Control:	9-pin (female) connector for communication with the V1400X-JST Joystick Keypad or V1400X-DJT Desk-Top Joystick.
RS-232 Control:	9-pin (female) connector for RS-232 communication with printer, computer or other RS-232 device.
Auxiliary Control:	9-pin (female) connector for connection to auxiliary devices. Note: Auxiliary, RS-485 and RS-232 communication use the same 9-pin connector.
Power:	2-pin connector plug (male).

CONTROLS

Numerical Keypad:	Used to enter numbers for camera selection, etc.
Soft Keys:	Fiber optic backlit buttons used for onscreen selection.
Camera Key:	Enters selected camera.
Monitor Key:	Enters selected monitor.
↑ Key:	Shift key. Allows alternate functions for other keys.
? Key:	Accesses help system.
PRE Key:	Enters selected preset for store or recall.
AUX Key:	Enters selected auxiliary function.
Function Keys:	8 keys that select macros or control screens.
LCD Panel:	Displays control screens/menus.

MECHANICAL

Construction:	Top: plastic. Bottom: steel.
Finish:	Black textured.
Dimensions:	Height (H): 4.00 in (10.2 cm). Width (W): 10.0 in. (25.4 cm). Length (L): 12.0 in (30.5 cm).



Weight: 4.5 lb (2.1 kg).

Shipping Dimensions: Height: 6.6 in. (16.8 cm).
Width: 14.9 in. (37.8 cm).
Depth: 14.9 in. (37.8 cm).

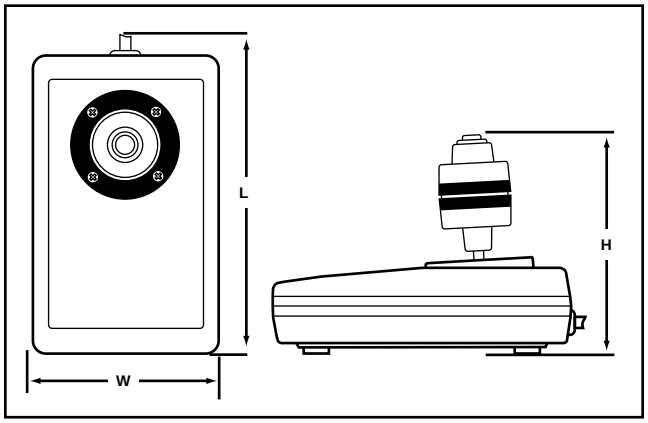
Shipping Weight: 6.1 lb (2.8 kg).

Shipping Volume: 0.85 ft^3 (0.02 m^3).

V1400X-DJT DESK-TOP JOYSTICK

Zoom, Iris, Focus Control: Button on top of joystick.

Dimensions: Height (H): 4.25 in. (10.8 cm).
Width (W): 3.5 in. (8.9 cm).
Length (L): 5.5 in. (14 cm).



Weight: 1.1 lb (0.5 kg).

Shipping Dimensions: Height: 9.75 in. (24.8 cm).
Width: 8.0 in. (20 cm).
Length: 5.9 in. (15 cm).

Shipping Weight: 1.85 lb (0.8 kg).

Shipping Volume: 0.26 ft^3 (0.007 m^3).

V1400X-JST JOYSTICK

Zoom, Iris, Focus Control: 6 buttons on both sides of device.

Joystick Travel: 25 degrees from center in all directions.

Mechanical Life Cycle: 5 million (minimum).

Trackball Shaft: 1/4-in. diameter molded PVC over 1/8-in. diameter stainless steel shaft.

Trackball Shaft Dimensions: 0.17 in. threaded (inserted into trackball) + 0.69 in. sticking out.

Grip Pad: Molded PVC.

Grip Pad Color: Red.

Grip Pad Dimensions: 5/8-in. diameter x 0.02-in. thickness.

Potentiometers: Set at center of resistance.

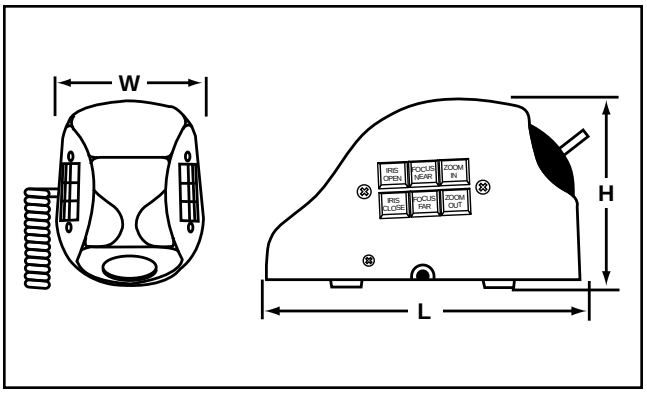
Potentiometer Calibration: Thumb tab provides up to 180 degrees of potentiometer calibration.

Return to Center Repeatability: ±1 degree.

Deflection Force: 0.18 lb @ 25 degrees @ 1-1/2 in. up from pivot point.

Color: Black.

Dimensions: Height (H): 3.0 in. (7.62 cm).
Width (W): 4.0 in. (10.2 cm).
Length (L): 5.0 in. (12.7 cm)



Weight: 0.8 lb (0.36 kg).

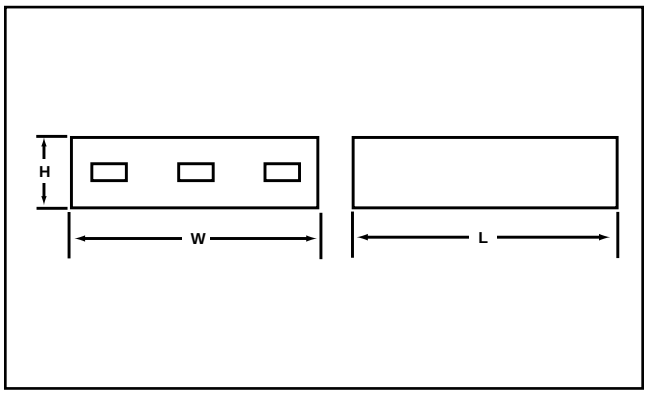
Shipping Dimensions: Height: 9.6 in. (24.4 cm).
Width: 7.4 in. (18.8 cm).
Length: 5.6 in. (14.2 cm).

Shipping Weight: 1.4 lb (0.6 kg).

Shipping Volume: 0.23 ft^3 (0.006 m^3).

V1400X-IFS FAIL-SAFE DEVICE

Dimensions: Height (H): 1.31 in. (3.3 cm).
Width (W): 4.5 in. (11.4 cm).
Length (L): 5.0 in. (12.7 cm).



Weight: 1.3 lb (0.6 kg)

Color: Black.

Material: Prefinished galvanized c.r.s.

Connectors: 8-pin RJ45 Loop In.
8-pin RJ45 Loop Out.
8-pin RJ45 Main Keypad.
9-pin terminal block.

Shipping Dimensions: Height: 9 in. (23 cm).
Width: 6 in. (15 cm).
Length: 4 in. (10 cm).

Shipping Weight: 1.7 lb (0.77 kg).

Shipping Volume: 0.12 ft^3 (0.003 m^3).