

# KBD4002 Multiplexer Keyboard

## FULL-FUNCTION, FIXED/VARIABLE-SPEED, PTZ CONTROL

### Product Features

- Economical Full-Feature Keyboard
- Select up to 256 Cameras from One Keyboard Connected to a String of MX4000 Genex® Multiplexers
- Select up to 128 Cameras from a Maximum of Four Keyboards through an MX4000SVR Genex Multiplexer Server
- Variable-Speed Control of Pan/Tilt Units Made by Keypad Selection Using "Select-a-Speed" Feature
- Preset Position and Pattern Control
- Main and Spot Monitor Control
- Digital Zoom Control on Main Monitor
- Auxiliary Operation



The **KBD4002** Keyboard is an economical full-function keyboard controller for the MX4000 Genex Multiplexer and the MX4000SVR Genex Multiplexer Server.

There are two modes of operation – multiplexer mode and multiplexer server mode – depending on whether the keyboard is connected to a multiplexer or to a server.

In the multiplexer mode, a single keyboard interfaces up to 16 multiplexers that are daisy-chained together. With 9-channel multiplexers, the keyboard can control up to 144 cameras; with 16-channel multiplexers, up to 256 cameras can be controlled.

In the multiplexer server mode, up to four keyboards can be connected to a server, which interfaces up to eight multiplexers. Up to 72 cameras can be controlled with 9-channel multiplexers or 128 cameras with 16-channel multiplexers.

In addition to performing all the control functions that can be done from the front panel of the multiplexer, the keyboard also features additional keys for complete operation of the fixed-speed and variable-speed pan, tilt, and lens functions. Control of variable-speed pan and tilt receivers is accomplished with the number keypad using the "select-a-speed" feature. With select-a-speed, each digit (1-9) signifies a relative pan and tilt speed. The number 1 represents the slowest speed available while the number 9 speed equates to turbo pan (for those receivers capable of supporting turbo pan speed). When the number 9 is entered, the tilt will operate at the number 8 speed. Entering the number 0 sets a mid-range speed.

Under control of the keyboard, cameras can be viewed on the main and spot monitor outputs of the multiplexer. On the main monitor, select full screen or multiple screen (4, 9 or 16) images or picture-in-picture display. Get a closer look with the 2X and 4X zoom feature. Use the spot monitor for control of pan/tilt and zoom functions, and to operate presets, auxiliaries, and patterns. The spot monitor shows a full screen view only and does not have the zoom feature.

When used with a Genex multiplexer, the **KBD4002** keyboard is capable of Coaxitron® control of pan, tilt, and lens functions, including setting and calling presets and patterns. (see note on back page)

The keyboard provides two methods of camera addressing. One method allows selection of cameras by entering the multiplexer unit ID (1-16) followed by the desired camera (1-16). The second method allows selection of cameras by entering an incremental camera number (unit 1 = cameras 1-16, unit 2 = cameras 17-32, etc.).

The keyboard is supplied with a 25-foot (7.6 m) data cable with RJ-45 connectors for connecting the keyboard to a multiplexer or to the Local Keyboard Port of a server. One keyboard can be connected to a multiplexer or the Local Keyboard Port of a server. Three additional keyboards can be connected to the Remote Keyboard(s) Port of a server. Multiple keyboards may not be connected without a server (MX4000SVR). If using the Remote Keyboard(s) Port, a remote keyboard wiring kit (KBDKIT/KBDKIT-X) is required for each keyboard.



DataFAX  
SPEC: 2581

MANUAL: Not Available through DataFAX

C581 / REVISED 10-00



International Standards  
Organization Registered  
Firm ISO 9001 Quality System



# TECHNICAL SPECIFICATIONS

## MODEL

KBD4002 Economical full-function keyboard controller for use with Genex multiplexer and server

## ELECTRICAL

Input Voltage 12 VAC or  $\pm 12$  VDC  
Power Consumption 1 watt

## KEYBOARD COMMUNICATION

Keyboard Interface RS-485 (25-foot flat cable supplied)  
Connector Type RJ-45 8-pin modular (female)

## MECHANICAL

Keyboard Keypad Mechanical  
Digital Display Two red seven-segment LEDs  
Main/Spot Two green LEDs

## GENERAL

Ambient Operating Temperature 20° to 120°F (-7° to 49°C)  
Humidity 10% - 90% non-condensing  
Dimensions 2.25" H x 8.125" W x 7.125" L  
(5.72 x 20.64 x 18.10 cm)  
Unit Weight 2.1 lb (0.97 kg)  
Shipping Weight 3 lb (1.35 kg)

## CERTIFICATIONS

- CE, Class B
- FCC, Class B

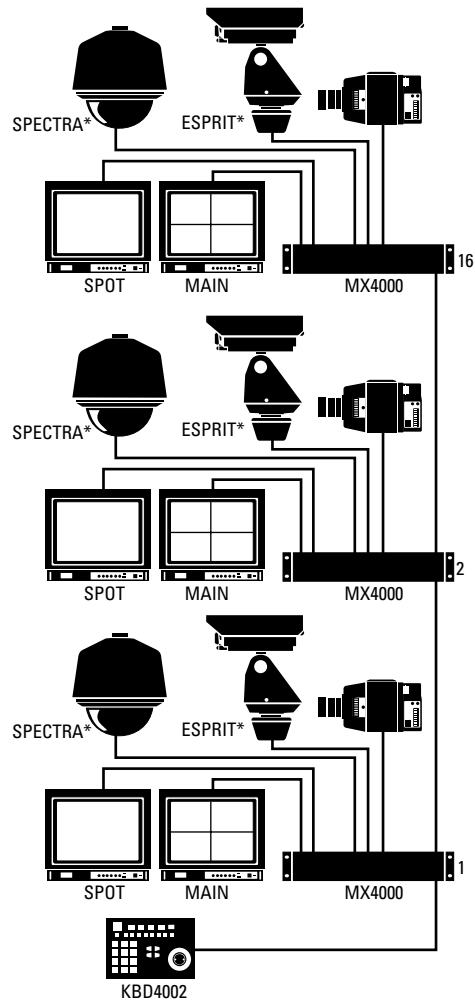
## OPTIONAL ACCESSORIES

**KBDKIT** Remote keyboard wiring kit with RJ-45 wall block and 120 VAC to 12 VAC transformer. Required if using Remote Keyboard Port on multiplexer server or if extending Local Keyboard Port beyond 25 feet (7.6 m). Maximum distance of 4,000 feet (1,219 m) to last keyboard in daisy chain. Use shielded twisted pairs such as Belden 9843 or equivalent that meets RS-485 standards. (One kit for each keyboard required.)

**KBDKIT-X** Same as KBDKIT except 230 VAC to 12 VAC transformer

Note: When used with 15-bit standard Coaxitron receivers (such as the CX9000 Series, the PT7700, and the ED25/27/28/29), the KBD4002 supports all pan, tilt, and lens functions, and AUX on/off. The keyboard will not set or call presets or support preset scanning.

When used with 32-bit extended Coaxitron receivers, such as Esprit®, Intercept®, Spectra®, and Legacy® LRD41C21/LRD41C22 Series, the KBD4002 supports all the functions above, including the setting and calling of presets and patterns. It will not support programming of labels for presets or patterns. If labels for presets or patterns are required, they would need to be programmed with a different control, such as the MPT9500.



\*INCLUDES BUILT-IN RECEIVER FOR CONTROL OF PAN/TILT/LENS FUNCTIONS. OTHER PAN/TILT UNITS MAY REQUIRES SEPARATE RECEIVER.



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