KBD300A Keyboard

FULL-FUNCTIONALITY, FIXED/VARIABLE SPEED, PTZ CONTROL

Product Features

- Keyboard to Control:
    - CM6700/CM6800/CM9760-SAT/CM9700 Matrix Switchers
    - DX8100 Series Digital Video Recorder
    - Genex® Multiplexer When Used with CM6700 and CM6800
    - Up to 16 Receivers Directly from Keyboard (such as Spectra®, Esprit®, and ExSite®)
- Automatic Recognition of CM6700/CM6800 and Direct P Modes
- Joystick Control of PTZ Functions
- Preset Position and Pattern Control

- Auxiliary Operation
- Auto/Random/Frame Scanning
- Programming of CM6700/CM6800/CM9760-SAT/CM9760-MDA

The **KBD300A** keyboard is a full-function, desktop keyboard controller that can be used in a variety of applications.

A barrel-type joystick provides precise pan and tilt control of fixed speed and variable speed receivers. Twisting the joystick clockwise or counterclockwise zooms the lens in or out.

Keys select cameras and monitors; operate presets, patterns, auxiliaries, and sequences; open and close the iris; zoom and focus the lens; and start and stop auto, frame, and random scanning.

The keyboard can be used in six modes of operation: CM6700/CM6800/CM9760-SAT Mode, Direct P, Direct D, CM6700 ASCII, CM6800 ASCII/DX8100, and CM9760-MDA. The **KBD300A** keyboard automatically recognizes CM6700/CM6800 and Direct P modes. The **KBD300A** must be operated in CM6700 ASCII mode when used with the DX4500/DX4600 Series DVRs and the Digital Sentry® DS ControlPoint server or remote client. The **KBD300A** keyboard must run firmware 5.0 or later to operate in CM6700 ASCII mode.

In the first two modes, the keyboard is plugged into a CM6700, CM6800, or CM9760-SAT switcher/controller unit (SCU) and is used to program and operate the SCU. The maximum number of keyboards per unit is eight (CM6700 and CM6800-32X6), sixteen (CM6800-48X8, CM6800E-48X8, and CM6800-96X16) or four (CM9760-SAT). In CM6700/CM6800 applications, the keyboard can control cameras connected directly to the SCU or through an MX4000 Series Genex® multiplexer.
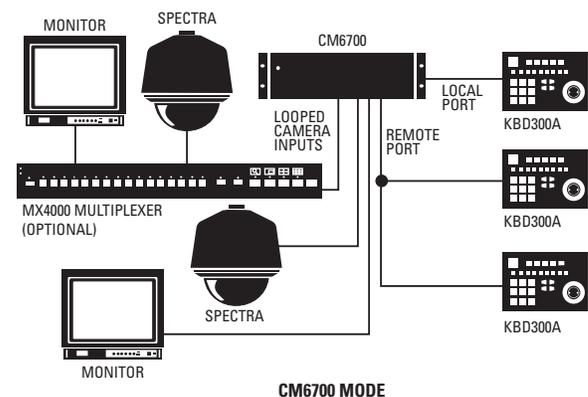
If you do not need all the features of the CM6700/CM6800 SCU but want the same keyboard functionality, then one keyboard can be wired directly to camera receivers in Direct P or Direct D mode (KBD-KIT is required).

Up to 16 receivers can be wired to a keyboard; however, a switcher such as an MS500 or VA6100 is required to route video to the monitor. Direct P or Direct D mode uses 2-wire control of receivers using Pelco P or Pelco D protocols.

The **KBD300A** keyboard can also be used for on-screen programming of the CM9760-MDA master distribution amplifier.

When used with the CM9760-DMR data manager, up to four **KBD300A** keyboards can be used to control a single Pelco P or Pelco D protocol device such as a Spectra® dome or an Esprit®/ExSite® positioning system.

The optional KBD300USBKIT is required to connect the KBD300A keyboard to the DX4500/DX4600. The KBD300USBKIT is also required to control certain functions of DS ControlPoint software.

CM6700 MODE

MODEL

KBD300A — Desktop keyboard with full switching and programming capabilities, plus joystick control of PTZ functions

ELECTRICAL

Input Voltage	12 VAC or ±12 VDC
Power Consumption	5 W
Keyboard Connector	RJ-45, 8-pin, modular (female)

Keyboard Communication

CM6700/CM6800/CM9760-SAT Mode

Interface	RS-485
Protocol	Pelco ASCII
Baud	9600
Communication Parameters	8 data bits, odd parity, 1 stop bit

CM6700 ASCII Mode

Interface	RS-422
Protocol	Pelco ASCII
Baud	9600
Communication Parameters	8 data bits, odd parity, 1 stop bit

CM6800 ASCII Mode/DX8100

Interface	RS-485
Protocol	Pelco ASCII
Baud	9600
Communication Parameters	8 data bits, odd parity, 1 stop bit

Direct P Mode

Interface	RS-485
Protocol	Pelco P
Baud	4800
Communication Parameters	8 data bits, no parity, 1 stop bit

Direct D Mode

Interface	RS-485
Protocol	Pelco D
Baud	2400
Communication Parameters	8 data bits, no parity, 1 stop bit

GENERAL

Keyboard Keypad	Electromechanical
Joystick	3-axis, vector-solving with twisting, return-to-center head
Display	Red LED, 7-segment, 2 cells
Dimensions	2.25" H x 9.50" W x 7.125" D (5.72 x 24.13 x 18.10 cm)

Weights
Unit	2.5 lb (1.12 kg)
Shipping	5 lb (2.26 kg)

ENVIRONMENTAL

Ambient Operating Temperature	20° to 120°F (-7° to 49°C)
Humidity	10% to 90%, noncondensing

CERTIFICATIONS/PATENTS

- CE, Class B
- FCC, Class B
- UL/cUL Listed
- C-Tick
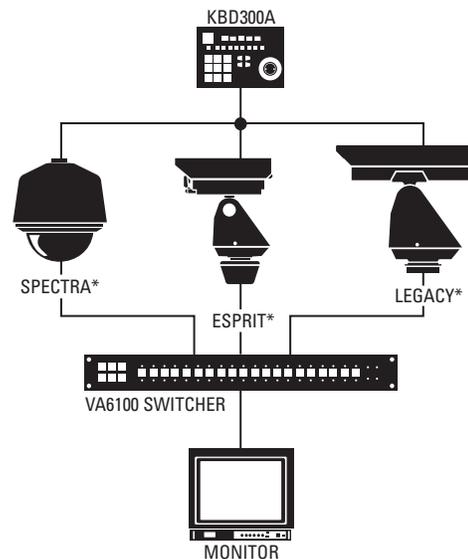- U.S. Patent D-464,654

SUPPLIED ACCESSORIES

25-foot (7.6 m) RJ-45 data cable

OPTIONAL ACCESSORIES

KBDKIT — Remote keyboard wiring kit. Required if connecting KBD300A keyboards to the Remote Keyboard Port on the SCU (CM6700/CM6800 Mode) or when using a single keyboard in Direct Mode applications. Includes two RJ-45 wall blocks and one 120 VAC to 12 VAC transformer. Maximum cable distance for RS-422/RS-485 communication over 24-gauge wire is 4,000 feet (1,219 m). Use shielded twisted pairs cable that meets basic requirements for RS-422/RS-485 applications. (One wall block and transformer required for each keyboard.)

KBDKIT-X — Same as KBDKIT except includes 230 VAC to 12 VAC transformer.

KBD300USBKIT — Wiring kit to attach a KBD300A to a USB port on either the DX4500/DX4600 or DS ControlPoint on the DS DVR or remote client. Includes: KBDKIT/KBDKIT-X wiring kit (keyboard power supply and RJ-45 junction box), PV140 RS-232 to RS-422 (DB9 connector) converter and power supply (included but not used), and USB to RS-232C adapter cable.

KBD300A

SPECTRA*   ESPRIT*   LEGACY*

VA6100 SWITCHER

MONITOR

* SPECTRA AND ESPRIT HAVE BUILT-IN RECEIVERS.
LEGACY REQUIRES LRD41C SERIES RECEIVER.

DIRECT MODE