KX1600MD

16-CHANNEL BLACK-AND-WHITE DUPLEX MULTIPLEXER

The KX1600MD is a black-and-white, 16-channel duplex multiplexer with 512 x 464 pixel resolution. This unit provides many flexible multi-screen display formats – full-screen, 2x2, 3x3, 3+4, 2+8, 4x4 and two PIP modes. 2X zoom is also provided.

Ultrak's black-and-white multiplexer provides a simple user interface with one-touch operation of the most commonly used functions, accessed through the front panel keyboard. The unit can be synchronized with virtually any VCR using the VCR record and field delay tables.

Ultrak's black-and-white 16-channel duplex multiplexer provides what security professionals are looking for; ease of use, exceptional quality, high performance and dramatic cost savings.

- **Camera switch pulse allows automatic VCR/multiplexer synchronization**
- **Multi-screen display formats: full-screen, 2x2, 3x3, 3+4, 2+8, 4x4, two PIP modes & 2X zoom.**
- **Exceptional picture quality in live & playback modes**
- **On-screen text for camera identification, titles, date & time, & alarm/video status information**
- **Activity detection for alarm interleaved multiplexing**
- **Standard & high density time-lapse compatibility with field delay tables**
- **Alarm inputs for interface with alarm devices to activate alarm interleaved multiplexing**
- **Remote control capabilities, RS-232 & RS-485**
- **Rack mount accessory supplied**
- **Limited 3-year warranty**

ULTRAK®

KX1600MD

TECHNICAL SPECIFICATIONS

OPERATING DEFAULTS

Format	4 X 4 multi-screen format
Display	Live

VIDEO FORMAT

EIA black and white

VIDEO LEVEL

Camera Inputs	1.0Vp-p, 75 Ohms or High-Z, auto terminating (x16)
Camera Output	1.0Vp-p, (x16)
Monitor Output	1.0Vp-p,
Spot Output	1.0Vp-p,
VCR Input	1.0Vp-p, 75 Ohms
VCR Output	1.0Vp-p,

ALARM

Camera Alarm Input:	16 inputs with individual polarity selection; activated by contact closure or TTL/CMOS signal
Alarm Output:	One NO and NC contact with shared common; 1.0A and 24V dc (resistive only)
Alarm Hold Time:	20 seconds default; menu selectable 0 to 99 seconds
Alarm Buzzer Time:	4 seconds on alarm; on/off selectable

DISPLAY

Gray Shades	256 (8 bits)
Full-Screen Format	512 X 464 pixels
2 X 2 Format	256 X 232 pixels
3 X 3 Format	170 X 154 pixels
4 X 4 Format	128 X 116 pixels
PIP Insert	128 X 116 pixels
Zoom Display	Interpolated 512 X 464 pixels

CONTROLS

FULL	Selects full-screen display
PIP-I (V)	Selects picture-in-picture display with one inset picture (or down function)
PIP-II (∧)	Selects picture-in-picture display with four inset pictures (or up function)
2x2 (<)	Selects 2x2 picture display (or left function)
3x3 (>)	Selects 3x3 picture display (or right function)
2+8	Selects 2+8 picture display
4x4	Selects 4x4 picture display or SET function
FREEZE (MENU)	Freezes the current screen display in full-screen or lower right window
VCR	Select input source (camera or VCR)
SEQUENCE	Selects sequential camera display in full-screen or lower right window
SEL	Selects second function (MENU, SWAP or VCR Preview) or camera select in multi-screen. Resets the alarm action
LIVE RECORD (SET)	Selects a live camera for recording (or SET function)
ZOOM	Selects the 2x Zoom screen display
Camera 1-16	Selects cameras for viewing. Selects activity matrix cell enable/disable

CONNECTIONS

Power	2.1mm pin-type female
Remote	DB25-S female; remote control via contact closure, TTL/CMOS or RS-232
Alarm	DB25-S female; alarm input control via contact closure or TTL/CMOS signal
Spot Out	BNC video signal output to spot monitor
Main Out	BNC video signal output to main monitor
VCR In	BNC composite video input from VCR
VCR Out	BNC composite video output to VCR
Camera In (1-16)	BNC composite video input from cameras
Camera Out (1-16)	BNC with switch for changing input impedance automatically; composite video output from camera (passive loop through)

POWER REQUIREMENT

Power	12V dc/1.5A (117V ac to 12V oc supplied)

PHYSICAL CHARACTERISTICS

Dimensions	17W X 1.73H X 12.2D in. (432W X 44H X 310D mm)
Weight	(6 lbs.) 2.7kg

OPERATING ENVIRONMENT

Ambient Temperature	32º - 95º F (0º - 35º C)
Ambient Humidity	10% - 90% (non-condensing)

RECOMMENDED CAMERAS

KC4400MN	1/3" CCD B&W camera, 380 TVL
KC4500MN	1/3" CCD high performance B&W camera, 420 TVL
KC6500MN	1/3" CCD high resolution B&W camera, 570 TVL

RECOMMENDED RECORDERS

KR7496U	Ultrak® 24-hour virtual real-time recorder, 96-hour high density time lapse recorder with audio capabilities
KR7168U	Ultrak® 24-hour virtual real-time recorder, 168-hour high-density time-lapse recorder with audio capabilities

Design and specifications subject to change without notice.

Conversion: 1" = 25.4mm
Measurement conversions are approximate

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