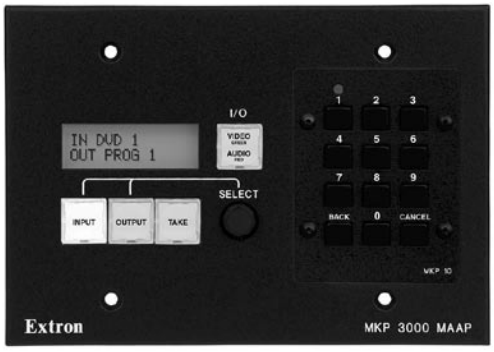
MKP 3000 Series

MATRIX SWITCHER X-Y REMOTE CONTROL PANELS WITH LCD DISPLAY

- LCD display
- User-friendly selection scroll knob
- Inputs, outputs, and presets selectable by name or number
- View all I/O ties in real time
- Audio/Video breakaway control
- Audio volume control
- Supports unlimited control points
- Create custom switching zones with virtual I/O grouping
- Physical and virtual switcher sizes up to 256x256 and larger
- Tri-color, backlit buttons with custom labels
- Ethernet and RS-232 control ports
- RS-232 pass-through port
- Easily configurable via integrated Web pages
- Versatile mounting options
- Optional MKP 10 MAAP 10-key numeric keypad

MKP 3000

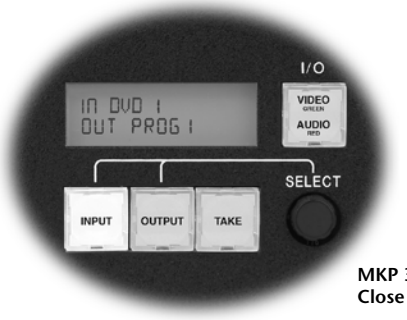


MKP 3000 MAAP
(Shown with optional MKP 10 MAAP)

The MKP 3000 Series of matrix switcher remote control panels provide simple access to I/O switching, global presets, and audio control. With the ability to control any Extron matrix switcher, the MKP 3000 offers flexible communication via Ethernet or RS-232 serial control. It is ideal for a variety of applications, including museums, themed entertainment, hotel ballrooms, and other environments where convenient remote control points are needed.

DESCRIPTION

The Extron **MKP 3000** is a mountable X-Y remote control panel designed to work with any Extron matrix switcher equipped with RS-232 or IP Link® Ethernet control capabilities. It provides a convenient remote point of control for selecting both input and output channels (X-Y mode), recalling global presets, or selecting inputs tied to a specific output. When configured as an Ethernet-based control panel, multiple MKP 3000s can be placed wherever switcher control is needed.



MKP 3000 MAAP Close up

User Interface

The MKP 3000's user interface features:

- **LCD display** – The two-line LCD display makes it easy to select and view the status of inputs, outputs, and presets.
- **Selection scroll knob** – Allows simple selection of inputs, outputs, and presets, as well as volume control.
- **I/O plane selection button** – Changes color to indicate audio only, video only, or audio and video.
- **Tri-color, backlit buttons** – Illuminate green, red, or amber, depending on function. The buttons can be custom-labeled for easy identification.

Control Options

The MKP 3000 is designed to work with any Extron matrix switcher using Extron's Simple Instruction Set (SIS™) command structure, and is equipped with Ethernet and RS-232 serial control ports.

RS-232 Control

The MKP 3000 features two RS-232 ports: one for primary communication with the matrix switcher, and one pass-through port for use with a third-party control system. In addition, several MKP 3000s can be daisy-chained together via RS-232. The MKP 3000 can also be combined with the Extron MKP 2000 to suit a variety of technical or control needs.

IP Link Ethernet Control

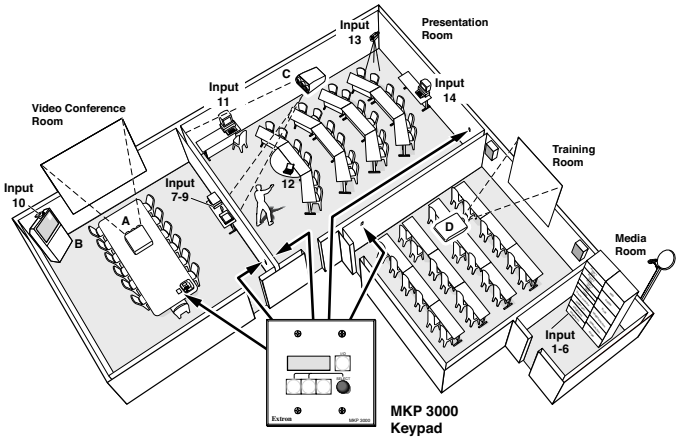
In a network environment, the Ethernet port allows the MKP 3000 to be placed on a standard TCP/IP network for use with IP Link™ enabled matrix switchers such as the Extron CrossPoint 450 Plus and MAV Plus Series. An unlimited number of MKP 3000s can be connected to a matrix switcher as part of a simple IP network.

Virtual I/O Grouping

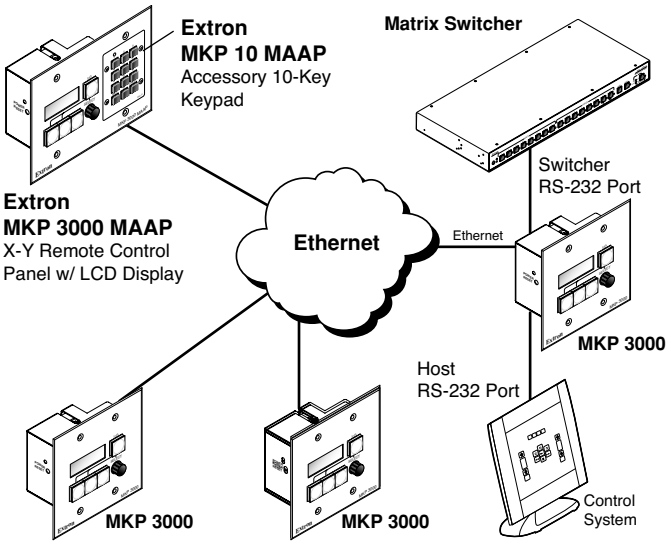
A key feature of the MKP 3000 is virtual I/O grouping, which allows specific inputs and outputs to be assigned or blocked for each controller utilized in a system design. For example, each room in a multi-room application can have its own set of inputs and outputs programmed into a local MKP 3000. Any number of MKP 3000s can be integrated into the system, and each can be restricted to a certain set of I/Os with relatively little effort.

APPLICATION DIAGRAMS

The MKP 3000 can be mounted wherever control is needed.

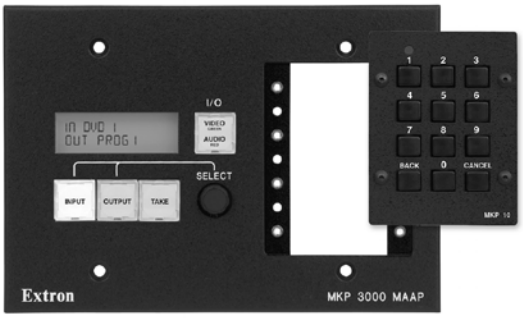


A simple IP network can be created with multiple MKP 3000s. With virtual I/O grouping, each MKP 3000 can be configured to switch its own unique set of inputs and outputs.



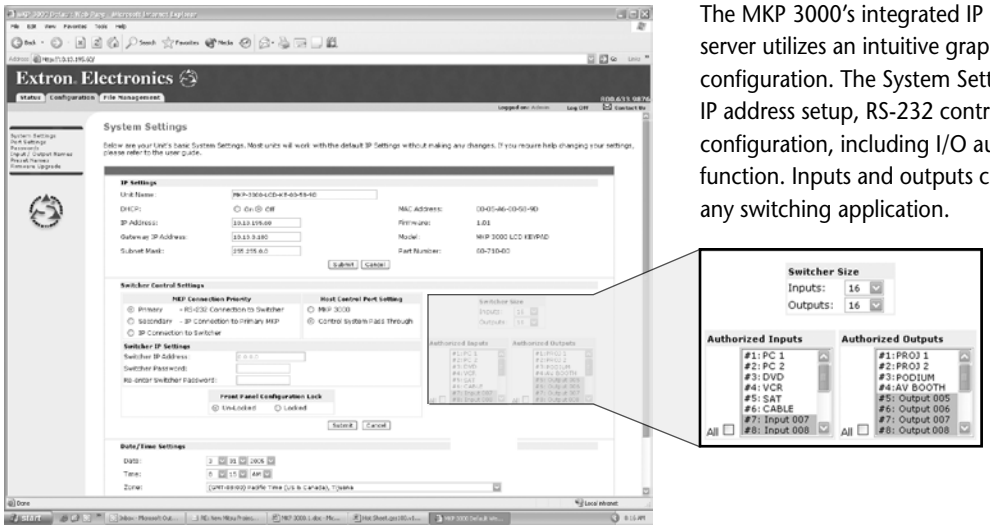
- **LCD display** – Makes it easy to select and view the status of inputs, outputs, and presets.
- **I/O and preset naming** – Input sources, output destinations, and global presets can be easily named using internal Web pages or serial commands.
- **Audio/Video breakaway control** – Select audio only, video only, or audio and video, per input.
- **Audio volume control** – The selection scroll knob doubles as an audio output volume control for many Extron matrix switcher models.
- **Virtual I/O grouping** – Each MKP 3000 can be configured with its own unique set of inputs and outputs. By limiting user access to specific I/O ties, custom switching zones can be easily created.
- **View all I/O ties in real time** – Allows the user to recall any established I/O tie and view it on an MKP 3000's LCD display.
- **RS-232 pass-through port** – In addition to the primary RS-232 port, the MKP 3000 also includes a second RS-232 pass-through port. This provides a convenient communication path when a third-party control system is used in conjunction with the MKP 3000.
- **Unlimited control points** – Multiple MKP 3000s can be added to any matrix system, providing convenient points of control from virtually any location.
- **Ethernet and RS-232 matrix switcher control** – Remote control can be added to both new and existing Extron matrix switcher installations.
- **Integrated Web server** – The MKP 3000 can be easily configured through its Ethernet port, using a Web browser such as Microsoft's Internet Explorer.
- **I/O sizes up to 256 x 256 and larger** – The MKP 3000 can switch both physical and virtual I/Os on large switchers such as the Extron Matrix 12800.
- **Executive lockout mode** – The front panel of the MKP 3000 can be locked out via Ethernet or RS-232 to prevent unauthorized configuration.
- **Downloadable firmware updates** – The latest firmware can be conveniently downloaded from the Extron Web site (www.extron.com). Updates for new features and capabilities can be easily upgraded through the Ethernet port.
- **Versatile mounting options** – The MKP 3000 fits into a two-gang wall plate that can be installed on a conference table or podium, or in a wall, using any standard 2.5" deep masonry or surface mount box.
- **MAAP openings** – The MKP 3000 MAAP fits into a three-gang wall plate and includes four single space Mini Architectural Adapter Plate (MAAP) openings. The openings allow for integration with many of Extron's MAAPs, including the MKP 10 MAAP. Blank MAAPs are not included.
- **MKP 10 MAAP** – This optional 10-key numeric keypad enables quick and easy creation of I/O ties, and is ideal for larger switching systems.

MKP 10 MAAP



An optional accessory, the Extron MKP 10 MAAP is a 10-key numeric keypad designed to supplement the selection scroll knob of the MKP 3000. It allows direct entry of input and output numbers to the MKP 3000 MAAP remote control panels. The MKP 10 MAAP is powered by the host MKP 3000 for fast, easy installation.

INTEGRATED WEB SERVER



The MKP 3000's integrated IP Link® high performance Web server utilizes an intuitive graphical interface for easy set up and configuration. The System Settings page consolidates controls for IP address setup, RS-232 control port setting, and switcher I/O configuration, including I/O authorization for the virtual I/O grouping function. Inputs and outputs can be named for ease of operation in any switching application.

SPECIFICATIONS

CONTROL/REMOTE — Keypad (MKP 3000, MKP 3000 MAAP)

Serial control port	(2) RS-232 on (2) 3.5 mm, 3-pole captive screw connectors
Baud rate and protocol	Variable (9600 to 115200 baud), 9600 baud (default), 8 data bits, 1 stop bit, no parity
Serial control pin configurations	1 = TX, 2 = RX, 3 = GND
Ethernet control port	1 RJ-45 female connector
Ethernet data rate	10/100Base-T, half/full duplex with autodetect
Ethernet protocol	ARP, DHCP, ICMP (ping), TCP/IP, Telnet, HTTP, SMTP client
Ethernet default settings	Link speed and duplex level = autodetected IP address = 192.168.254.253, subnet mask = 255.255.0.0, default gateway = 0.0.0.0 DHCP = off
Program control	Extron's Simple Instruction Set (SIS™), Microsoft® Internet Explorer, Telnet

GENERAL

External power supply	100 VAC to 240 VAC, 50/60 Hz, external, autoswitchable; to 12 VDC, 1 A, regulated
Power input requirements	12 VDC
MKP 10 MAAP	150 mA
MKP 3000	400 mA
MKP 3000 MAAP	400 mA
Temperature/humidity	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing
Rack mount	
MKP 10 MAAP	No, but mountable to an MAAP mounting frame or faceplate with MAAP openings
Other models	No, but furniture/wall mountable in a wall box
Enclosure type	Metal
Enclosure dimensions	
MKP 10 MAAP	
Plate	2.8" H x 2.7" W x 0.05" D (7.1 cm H x 17.8 cm W x 0.13 cm)
Circuit board	2.6" H x 1.6" W x 0.36" (6.6 cm H x 4.1 cm W X 0.9 cm)
MKP 3000	
Plate	4.5" H x 4.6" W x 0.1" D (2 gang) (11.4 cm H x 11.7 cm W x 0.3 cm D)
Enclosure	2.7" H x 3.4" W x 2.0" D (6.7 cm H x 8.6 cm W x 5.1 cm D) Allow at least 1" (2.5 cm) D for connectors and cable. (Depth excludes connectors.)
MKP 3000 MAAP	
Plate	4.5" H x 6.4" W x 0.1" D (3 gang) (11.4 cm H x 16.3 cm W x 0.3 cm D)
Circuit board	2.8" H x 2.2" W x 1.3" D (7.1 cm H x 5.6 cm W x 3.3 cm D)
Product weight	
MKP 10 MAAP	0.3 lbs (0.1 kg)
MKP 3000, MKP 3000 MAAP	0.5 lbs (0.3 kg)
Shipping weight	2 lbs (1 kg)
Vibration	ISTA 1A in carton (International Safe Transit Association)
Listings	UL, CUL
Compliances	CE, FCC Class A, VCCI, AS/NZS, ICES
MTBF	30,000 hours
Warranty	3 years parts and labor

NOTE: All nominal levels are at ±10%.

Model	Part Number
MKP 3000 (black)	60-708-02
MKP 3000 (white)	60-708-03
MKP 3000 (RAL9010 white)	60-708-05
MKP 3000 MAAP (black)	60-709-02
MKP 3000 MAAP (white)	60-709-03
MKP 3000 MAAP (RAL9010 white)	60-709-05
MKP 10 MAAP (black)	60-710-10
MKP 10 MAAP (white)	60-710-20
MKP 10 MAAP (RAL9010 white)	60-710-50

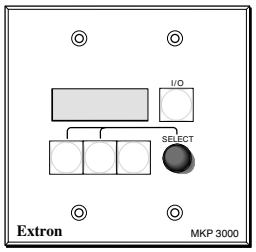
Specifications are subject to change without notice.

MKP 3000 COMPATIBILITY CHART

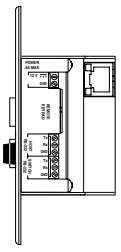
Current Matrix Switchers	RS-232	IP Link®	Ethernet Compatibility
MMX Series	✓		
MAV Series	✓		
MAV Plus Series	✓	✓	All
DXP Series	✓		
MVX Series	✓		
CrossPoint 300 Series	✓		
CrossPoint 450 Plus Series	✓	✓	All
Matrix 3200	✓		
Matrix 6400	✓		
Matrix 12800	✓		
ISM Series	✓		
MPX 423 A	✓		

Legacy Matrix Switchers	RS-232	IP Link®	Ethernet Compatibility
Matrix 50 Series	✓		
MAV Series	✓		Sizes up to 16 x 16
MAV 24x and 32x	✓	✓	Firmware version 2.0 and later
CrossPoint Series	✓		
CrossPoint Plus Series	✓		Sizes up to 16 x 16
CrossPoint Plus 24x and 32x	✓	✓	Firmware version 2.0 and later

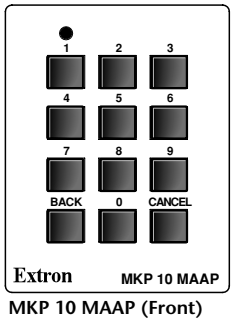
PANEL DRAWINGS



MKP 3000 (Front)



MKP 3000 (Side)



MKP 10 MAAP (Front)

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