



SPECIAL FEATURES

- NEW** 3 flexible expansion modes using a primary/secondary configuration of up to 7 systems and 288 cameras
- NEW** Ethernet Cat 5 IP connection for multi-matrix communications and system setup
- NEW** EASY 48 configuration and monitoring software for Windows® XP, 2000, 95/98 and NT® 4.0-based systems
- NEW** Dome ping test and status display
- NEW** Improved legacy RS-422 dome support, including simplex RS-422
- NEW** DirectSet® function control menu for SensorNet or RS-422 domes with ControlCenter™ 200/300 DirectSet key or ADTTE and AD2088 site keys
- Modular microprocessor-based, high-density matrix
- 48 video inputs
- 16 video outputs, 8 with text overlay
- Slim, vertical wall-mount design; optional rack mount kit available
- Tool-free removability of main electronics unit (MEU) keeps system wiring intact
- Optional Unshielded Twisted Pair (UTP) Adaptor Module allows installation with simple UTP cable for video
- Full embedded system menus for easy setup
- Removable flash memory module for data backup without a PC
- Recorder control
- User-defined macros
- Supports wireless text messaging on alarm for pagers and cellular phones
- 4096 preset titles
- 250 alarm titles
- Dedicated alarm programming tables differentiate between alarm sources
- 8 flexible RS-232 inputs expandable to 32 per MP 48
- 64 system tours and 64 salvos

MegaPower™ 48 Plus MATRIX SWITCHER/CONTROLLER SYSTEM

The MegaPower™ 48 Plus Matrix Switcher/Controller System takes the modular design and high-end functionality of the MegaPower 48 to new levels of flexibility and performance for the small to mid-sized application. Features standard to our largest matrix switchers – macro control, recorder control, a choice of keyboards, a complete offering of programmable functions – are augmented with several exciting enhancements.

For one, the MegaPower 48 Plus is an Ethernet Cat 5 IP enabled matrix that can operate as a stand-alone system or as part of a network. Choose from one of three expansion modes and grow your system by up to 288 inputs. Whether used as a centralized or distributed system, the MegaPower 48 Plus can be cost-effectively installed and optimized for the most challenging of site requirements.

The new EASY48 system configuration software is a user-friendly MS Windows® application that permits the administrator to program the MegaPower 48 Plus either on-site or remotely via Ethernet or RS-232. Use it to remotely check the system status of cameras and monitors via an Ethernet connection or to back up and restore both system data.

The slim modular wall-mount design saves space and reduces cabling costs by letting you install the MegaPower 48 Plus in the location that is most central to your cameras. Because it doesn't have to be rack mounted in a control room, the MegaPower 48 Plus can be installed anywhere in your facility – even an electrical closet, or maximize the space and fit in more devices in your standard rack by installing it at 90° angle behind other equipment. You can also rack mount the MegaPower 48 Plus at other angles to facilitate easy cable connections with the optional rack mount kit.

FEATURES

System Expansion

Systems are expanded with a primary-to-secondary relationship. There are 3 modes of expansion, using Ethernet for command and control. If inter-matrix communication is disrupted, all secondary units continue functioning locally and the primary provides status to users of the fault condition.

Mode 0: Basic System, 48 Video Inputs, 16 full crosspoint video outputs.

Mode 1: The primary unit has 16 video trunk lines from each of up to 3 secondary units, providing 16 full crosspoint video outputs with up to 144 Video inputs.

Mode 2: The primary unit has 12 video trunk lines from each of up to 4 secondary units, providing 12 full crosspoint video outputs with up to 192 Video inputs. Each secondary has 3 local outputs with full crosspoint video switching of local cameras.

Mode 3: The primary unit has 8 video trunk lines from each of up to 6 secondary units, providing 8 full crosspoint video outputs with up to 288 video inputs. Each secondary has 7 local outputs with full crosspoint video switching of local cameras.

Expansion Mode Chart

Mode	Primary		Secondary			Key-boards	Alarms			
	Inputs	Outputs	Units	Outputs Per	Total Outputs		Patch Panel	Dome	Video Loss	RS232 Alarms
0	48	16	0	N/A	N/A	32	16	192	48	512
1	80	16	1	0	0	64	32	320	80	512
	112	16	2	0	0	96	48	448	112	512
	144	16	3	0	0	128	64	576	144	512
	84	12	1	3	3	64	32	336	84	512
2	120	12	2	3	6	96	48	480	120	512
	156	12	3	3	9	128	64	624	156	512
	192	12	4	3	12	160	80	768	192	512
	88	8	1	7	7	64	32	352	88	512
3	128	8	2	7	14	96	48	512	128	512
	168	8	3	7	21	128	64	672	168	512
	208	8	4	7	28	160	80	832	208	512
	248	8	5	7	35	192	96	992	248	512
	288	8	6	7	42	224	112	1152	288	512

Camera Site Control

Users can control domes, pan/tilts, motorized lenses, auxiliary outputs, presets and patterns at suitably-equipped camera sites via SensorNet, RS-422 and Manchester outputs. To better support legacy SpeedDomes® and installations that use simplex RS-422 communication, the system allows presets to be stored in the dome.

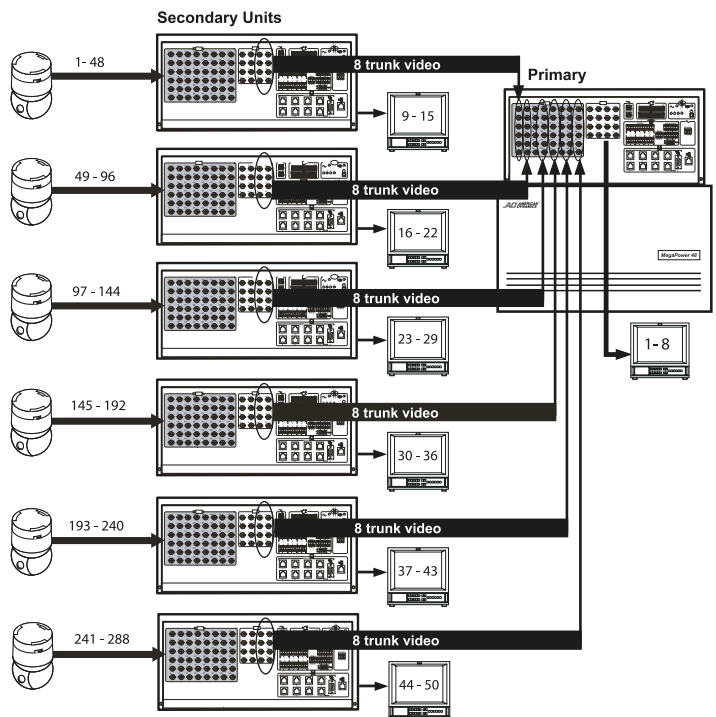
System Programming

On-screen menus enable you to program system features from any full-system keyboard. Operators can use the monitors with text overlay to program the system. In addition, the EASY 48 system configuration software enables you to custom-configure using computers running Windows XP, 2000, 95/98 or NT 4.0. This software package provides simplified setup, archiving and retrieval of setup as well as the ability to load and retrieve that data via Ethernet or RS-232.

RS-232 Communications

Eight direct ports allow standard communication with keyboards, alarm interface units, recorder control devices, computers, 3rd party devices, modems (for text message paging) and more. Each port can expand to 4 ports with an optional port expander.

Mode 3 Example



Selectable On-Screen Text

Each of the first 8 monitors can display the date/time, video input number, 16-character user-definable video input or preset title, alarm title, monitor status, and secondary status.

Macro Control

The system's powerful macros allow each operator to customize their own MegaPower ControlCenter 1100 or AD2088 workstation to perform a multitude of tasks via simple, intuitive, easy-to-remember keystrokes

Recorder Control

Users can control all of the standard recorder functions directly from any suitably-equipped keyboard – play, stop, pause, record, rewind, fast forward and eject.

Pseudo Camera Numbers

Users can assign a 4-digit number to replace the default video input number for each video input, making it easier to identify cameras in multiple level buildings and similar situations.

System and Monitor Tours

A tour is a sequence of video inputs with each input featuring an individual dwell time, a preset/pattern and an auxiliary action. Tours can run forward or in reverse. Video partitioned from a monitor is skipped.

Event Timers

There are 35 user-programmable times available. These times may be independently designated for multiple days of the week to automatically call up system tours to video output(s). Event timers also enable you to activate and deactivate alarm contacts based on the time of day.

FEATURES

Salvo Switching

Salvo switching allows multiple video inputs to be called simultaneously to multiple contiguous video outputs. Sixty-four individual groups (salvos), consisting of up to 16 video inputs (each with a preset, pattern and/or auxiliary action), can be called either manually or as part of a system tour.

Automatic Alarm Callup

Alarm inputs can be programmed to call any video input or salvo to any one or more video outputs. For each alarm input, users can define a camera, preset, pattern, wireless text message, salvo, alarm message and/or auxiliary action (with individual dwell time for each to accommodate sequencing alarms). In addition, two local patch panel relays can be triggered upon any alarm event. Any combination of 25 alarm display/clearance methods may be selected independently for each video output. Alarms can hold or sequence on outputs. Blocks of monitors can be defined; normal, automatic and instant clearing are supported.

Internal Video Loss Detection

Video loss detection is standard on all video inputs. Upon video loss, a system alarm is generated. Enabling video loss detection occupies video output 16.

Text Message Paging on Alarm

MegaPower 48 Plus can transmit text messages to cellular phones and pagers when an alarm occurs, alerting users with a detailed description of the event and instructions for how to respond. With alarm programming a single event can trigger multiple unique messages to one or more recipients. You can program as many as 64 different pager profiles and define up to 250 unique text messages for transmitting. The paging feature supports the TAP protocol via an external modem (not supplied).

Status Output

System status output via an RS-232 printer port may be programmed to output both the occurrence and clearing of all alarms as well as power status and monitor messages.

System Partitioning

System flexibility is further enhanced by defining authorized access to keyboards, video inputs and video outputs. System partitioning includes:

- **Keyboard-to-Monitor Access:** Restricts selected keyboards from accessing selected video outputs.
- **Monitor-to-Camera Access:** Restricts selected video outputs from displaying selected video inputs.
- **Keyboard-to-Camera Access:** Restricts selected keyboards from calling or controlling selected video inputs.
- **Keyboard-to-Camera Control Access:** Allows selected keyboards to access views from certain cameras but restricts those keyboards from controlling the cameras.

Password and Priority Operation

Keyboards or users can be assigned one of eight priority levels for controlling remote camera sites. Up to 64 user codes, each with a unique password, can be assigned to operators. Access to certain system features may be restricted depending on a user's priority level

Diagnostics and Dome Information Screens

Built-in diagnostics clearly indicate power status and system health, allowing you to determine the status of the system's internal components. The dome information screen shows the video detection status, dome mnemonic, dome protocol, dome software version and whether the dome is

responding to the system polls for each camera on the system. For troubleshooting purposes, the dome ping test screen allows the installer to verify the integrity of SensorNet and RS-422 communications and display dome firmware number, mnemonic, serial number and production date.

Flash Memory Module for Data Backup

The system is comprised of a passive patch panel for all system wiring, and a removable main electronics unit (MEU). There is also a flash memory module that is separate from the (MEU) and lets you automatically back up data without a PC. This allows you to replace a system and restore the existing data in less than one minute.

SPECIFICATIONS

Model Numbers

Each MegaPower 48 Plus system consists of a wall-mount assembly (bracket and patch panel assembly), main electronics unit (NTSC or PAL), pre-wired transformer assembly (USA or International), and documentation kit including CD with all languages.

ADMP48N MegaPower 48 Plus, NTSC
ADMP48P MegaPower 48 Plus, PAL

Optional Accessories:

Keyboards:

- **ADCC1100 MegaPower ControlCenter 1100,** smart card and macro keys
- **ADTTE, Touch Tracker** controller
- **ADCC0200P ControlCenter 200 series,** 2-axis joystick
- **ADCC0300P ControlCenter 300 series,** 3-axis joystick and programming access
- **AD2088, AD2088R, AD2088-1, AD2088R-1, Full System Keyboard** with macro keys and recorder control

Other Accessories:

- **AD2081, AD2081-1 Port Expander**
Expands one RS-232 port on a system into 4 ports, providing connections to multiple system keyboards.
- **AD1691, AD1691F-1 Manchester Code Distributor**
The distributor interfaces with the matrix switcher/controller system via the Manchester port to provide 64 Manchester code outputs for use by receiver/drivers and suitably-equipped pan/tilts and domes.
- **AD2096A, AD2096-1 Alarm Interface**
Monitors up to 64 alarm inputs and provides RS-232 ASCII alarm commands to the system. Up to 8 units can be cascaded on a RS-232 line.
- **AD2031, AD2031-1 Switcher Follower**
Activates relays when designated video inputs are called to designated video outputs. It interfaces via Manchester and provides up to 32 Form A relays that can be grouped in series and addressed to a single video output or in 2 groups of 16 relays for 2 specific video outputs.
- **AD2032, AD2032-1 Alarm Responder**
Activates relays when associated video outputs are in an alarmed condition. Interfaces via Manchester and provides up to 32 Form A relays.
- **AD2033, AD2033-1 Auxiliary Follower**
Activates relays when a specific auxiliary is triggered either manually or automatically for an associated video input. Interfaces with matrix switcher/controllers and provides up to 32 Form A relays via Manchester. Multiple units can be cascaded together.
- **AD1983, AD1983X Code Converter**
Converts Manchester code to 2 bytes of RS-232 control code for transmission on standard RS-232 links.

SPECIFICATIONS

• VR48RKIT Rack Mount Kit

This enables the MegaPower 48 Plus system to be rack mounted in a standard 19-inch EIA rack mount.

• ADACTP01BNC · Unshielded Twisted Pair Adaptor Module

This allows installation with simple UTP cable for video lines.

• VRCMKIT Cable Brackets

Each kit contains 3 additional cable management brackets.

Recorder Control Devices:

A series of recorder control devices provides remote control of recorders via the ADCC1100 Control Center or the AD2088 Full System Keyboard. This enables users to have integrated control of recorders.

• AD100XA/AD100XA-1A Recorder Controller

is the CPU of the recorder interface network. Just one recorder controller can accommodate the entire network and enable the programming of the various recorder control devices.

• AD100IR16/AD100IR16-1A IR Interface Module

controls any recorder that has IR capability and is supplied with an IR remote (used to learn the IR commands).

• AD100RL8/AD100RL8-1 Resistive Ladder Module

controls recorders that can be controlled via resistive ladder.

• AD100RS8/AD100RS8-1 RS-232 Module

controls RS-232 recorders.

Operational

Bandwidth	.....10 MHz
Frequency Response	.....± 1.0 dB to 6 MHz
S/N Ratio	.....60 dB (Vp-p vs. Vrms noise)
Crosstalk	
Adjacent Channels	.....≤ -55 dB (at 3.58 MHz)
Input to Input	.....≤ -70 dB (at 3.58 MHz)
Differential Delay	.....± 1.0°
Differential Phase	.....≤ 0.5°
Differential Gain	.....≤ 1.5%
Tilt	.....≤ 2.0%
Gain	.....Unity ± 1 dB
Return Loss	
(Input/Output)	.....40 dB
DC Level (Video Signal)	.....0 Volts (± 0.1 V typical)
Switching	.....Complete switching of crosspoint matrix. EIA RS-170 and NTSC, CCIR and PAL
Switching Speed	.....Less than 20 ms (typical)
On-Screen Text	.....Date/time, video input number, video
Outputs 1-8	.....input or preset title (16 characters), monitor status, alarm title (48 characters)
Character Set	.....English, French, Italian, German, Spanish, Portuguese
Connectors (per system)	
Video Inputs	.....48 BNC composite, 0.5 to 2.0 Vp-p
Video Outputs	.....16 BNC composite, 1.0 Vp-p, (with nominal input)
RS-232	.....Eight 8-pin RJ-45 optional port expander extends each port to 4

Network	.....Ethernet, IEEE 802.3, 10 Mbps, TCP/IP
Utilization	.....< 2.5%
Connection	.....RJ-45, Cat 5 wiring
Protocol	.....IP, fixed addresses, supports gateway connection
External Modem	.....One DB9 connector (Hayes AT compatible)
SensorNet	.....Six ports through terminal screw connectors
SEC RS-422	.....Six ports through terminal screw connector
Manchester	.....One port through terminal screw connector
Alarm Inputs	.....16 inputs through two 16-pin terminal screw connectors
Relay Outputs	.....Two Form-C relays through two 3-pin terminal screw connectors
Power	.....One 3-pin terminal screw connector
Flash Memory Module	.....One 8-pin header

Electrical

Power Source	.....24 VAC external transformer
Supply Voltage	.....90-132 VAC, 47-63 Hz 195-253 VAC, 47-63 Hz
Power Requirements	.....30 watts maximum

Mechanical

Mounting	.....Vertical wall or 19-inch EIA rack mount
Dimensions (H x W x D)	.....50.8 x 43.8 x 8.9 cm (20 x 17.3 x 3.5 in)
Unit Weight	
Wall Bracket	.....1.54 kg (3.4 lbs)
Patch Panel Assembly	.....1.72 kg (3.8 lbs)
Main Electronics Unit	.....2.72 kg (6.0 lbs)
Total	.....5.97 kg (13.2 lbs)
Transformer Weight	.....2.17 kg (4.8 lbs)
Color	.....Black

Environmental

Operating Temperature	.....0° to 50° C (32° to 122° F)
Humidity	.....5 to 95% RH (non-condensing)
Storage	.....-40° to 70° C (-40° to 155° F)

Regulatory

Emissions	.....FCC Part 15, Class A EN55022 (CE)
Immunity	.....EN50130-4 (CE)
Safety	.....UL1950 CSA 22.2, No. 950 (cUL) EN60950 (CE)

EASY 48

PC RecommendationWindows XP, 2000, NT 4.0 or 95/98 800 MHZ Processor 1 GB hard disk space 256 MB RAM
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