

MegaPower LT

Matrix Switcher/Controller System

Features That Make a Difference:

- DirectSet function allows dome settings to be easily changed
- 128 views (camera/preset and camera/pattern)
- 16 sequences/tours
- ADnet (RS-485) and RS-232 communication protocols
- Supports up to eight keyboards with priority settings
- Password protection for menu entry
- Network up to three matrix systems on an ADnet (RS-485) bus
- Dome ping test
- System partitioning
- Video loss detection on all channels
- Alarm titles
- Five alarm display modes
- Three alarm response modes
- Send alarm messages to other networked matrix systems
- 255 event messages
- Embedded menu support for English, French, Spanish, German and Italian
- 16 x 4 or 32 x 8 models
- Looping inputs, auto terminated
- Supports SensorNet or AD-Up-The-Cable (AD-UTC) dome protocols
- Controls RS-422 domes using the SensorNet to RS-422 converter
- Supports FSK coaxial telemetry



American Dynamics™ MegaPower LT matrix switcher systems are designed to satisfy the needs of small scale installations. The system is available in 16 and 32 input models and supports American Dynamics MegaPower 1100, ADTTE, AD2089, and ControlCenter 200 and 300 keyboards.

MegaPower LT is fully compatible with the SpeedDome series of programmable dome cameras. It supports the highly reliable ADnet RS-485 communication protocol as well as SensorNet and digital AD-Up-The-Cable (AD-UTC) protocols. These protocols enable you to “ping” the dome to verify communication. In addition, the DirectSet feature allows you to quickly change dome camera settings. MegaPower LT supports standard dome features such as presets, patterns and auxiliaries as well as “views,” which allow an operator to call a camera/preset or camera/pattern with a single command.

This small versatile system can be mounted virtually anywhere—in racks, on walls or even under a desk. It supports the robust features you would typically expect in a high-end system including partitioning, priorities, sequences; and includes a robust alarm-handling package. In addition, you can network up to three MegaPower LT systems to form a distributed system. MegaPower LT is also easily integrated with other security system components through the American Dynamics standard RS-232 keyboard protocol.

features

Multiple Mounting Options

MegaPower LT is provided with mounting ears that can be attached to the unit in multiple orientations to enable desk, wall or rack mounting.

System Configuration

Modular, high-density system with a choice of 16 video inputs and 4 video outputs or 32 video inputs and 8 video outputs.

Camera Site Control

Users can control fixed and variable-speed domes, auxiliary outputs, presets and patterns at suitably equipped camera sites via the SensorNet outputs and the AD-UTC protocol. Each input is independently configurable.

System Programming

On-screen menus enable use of any full-system keyboard to program system features. Menu access is passcode protected to prevent unauthorized access.

Passcode Menu Access

Two levels of menu access are provided, administrator and supervisor. Only administrator access provides access to the alarm and installer menus.

ADnet (RS-485) Communications

One RJ-45 connector allows standard communication with keyboards, other MegaPower LT systems and other ADnet devices. The port is programmable for data rates of 9.6k and 19.2k baud.

RS-232 Communications

The RJ-45 connector simultaneously supports RS-232 communications as well as ADnet. The port can expand to 4 ports with an optional port expander. This expands the available RS-232 ports to a maximum of 4.

Selectable On-Screen Text

Each of the monitors can display the date/time, video input number, monitor number, 16-character user-definable video input or view title, alarm message and event message. White character on-screen text with black outline optimizes viewing on diverse contrast scenes. The user can turn each of the displays on and off. In addition, users can select the line on which each of the titles will appear.

Recorder Control (DirectControl)

With the ControlCenter 200 and 300 keyboards in ADnet mode, users can control standard recorder functions directly—play, stop, pause, record, rewind, fast forward, eject—for both RS-232 controlled VCRs and digital recorders. Users can customize the keyboards to support different command sets.

Time and Date

Administrators can set the display to a 12 or 24-hour clock. Three date formats are provided:

- MM/DD/YY
- YY/MM/DD
- DD/MM/YY

In addition, the daylight savings time option enables the clock to be adjusted forward, backward, or no action.

Views

Program up to 128 views, each with a camera input number and either a preset number or a pattern number. Each view can be given a unique title, which replaces the camera title on the monitor display when selected either manually or as part of a sequence.

Tours (Sequences)

Sixteen tours of video inputs may be established for call-up to monitors at anytime. Each tour provides 16 positions for insertion of video inputs and views—each with an individual dwell time. Tours can be run forward or in reverse. They can include the same video input multiple times and/or multiple presets and patterns from a single camera. Two tours can be connected together to provide up to 32 entries. Video inputs partitioned from a monitor are automatically skipped.

Automatic Alarm Call-Up

Alarm inputs can be programmed to call any video input to any one or more video outputs. For each alarm or event, users can define a camera, preset, alarm title, event message, keyboard sound level and/or auxiliary action. Each monitor can be configured to display alarms. After an alarm is cleared, the monitor can either display the last alarm response or be returned to its pre-alarm state. The global alarm settings have 5 display modes and 3 clearance modes.

Alarm Display Modes

- **None:** No change to the monitor display.
- **Last:** If multiple alarms are received, the last alarm received is displayed until it is cleared.
- **Stack:** If multiple alarms are received, the alarms are displayed on additional alarm enabled monitors. Additional alarms are held in a queue of up to 255 events and 32 alarm inputs.
- **Switch:** The first alarm in will be displayed on all alarm monitors. Additional alarms will display on all alarm monitors once the preceding alarm is cleared.
- **Rotate:** The first alarm in will be displayed on all alarm monitors. Additional alarms will sequence in a pre-defined dwell time (time-out) on all alarm monitors until acknowledged. Alarm outputs are disabled in this mode.

Alarm Clearance Methods

- **Acknowledge:** Alarms must be manually acknowledged.
- **Time Out:** Alarms are automatically cleared after a pre-defined dwell time of 2 to 99 seconds. Alarms can also be manually acknowledged.
- **Transparent:** Alarms are cleared after the alarm contact returns to its neutral state. If the contact returns to this state before the transparent dwell time of 2 to 99 seconds, then the alarm remains active for that predefined period. Alarms can also be manually acknowledged.

Events

An event is a message that is passed from one matrix to itself or other matrix systems (up to 3 on an ADnet network). Up to 255 events can be defined and each system can have a predefined event response. In addition, events can be generated from any ControlCenter 200 or 300 keyboard to produce a system response.

System Partitioning

Defining authorized access to keyboards, video inputs and video outputs further enhances system flexibility. System partitioning includes the following:

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

Keyboard Priority Operation

Keyboards can be assigned one of 8 levels of priority control of remote camera sites. Level 1 has highest priority for control of cameras. Up to 4 keyboards may simultaneously control PTZ devices.

Model Numbers

ADMPLT16	MegaPower LT, 16 inputs x 4 outputs, (120/230 VAC, NTSC/PAL)
ADMPLT16C2	MegaPower LT, 16 inputs x 4 outputs, (120/230 VAC, NTSC/PAL) with ControlCenter 200 keyboard
ADMPLT16C3	MegaPower LT, 16 inputs x 4 outputs, (120/230 VAC, NTSC/PAL) with ControlCenter 300 keyboard
ADMPLT32	MegaPower LT, 32 inputs x 8 outputs, (120/230 VAC, NTSC/PAL)
ADMPLT32C2	MegaPower LT, 32 inputs x 8 outputs, (120/230 VAC, NTSC/PAL) with ControlCenter 200 keyboard
ADMPLT32C3	MegaPower LT, 32 inputs x 8 outputs, (120/230 VAC, NTSC/PAL) with ControlCenter 300 keyboard

DirectSet¹

Allows the operator to quickly access and change dome camera settings either via an on-screen selection or simple keyboard command, without the need to access the dome menus. Features like wide dynamic range, day/night and dome information screens can be easily accessed without compromising other dome settings.

Dome Ping

This utility allows the administrator to verify the integrity of the communication between the matrix and the dome on both SensorNet and the AD-UTC protocol.

Internal Video Loss Detection

Video loss detection is standard on all video inputs. If such a camera is selected, a red screen will appear with a "Video Loss Camera" message.

On-Board Diagnostics

Built-in diagnostics allow the user to determine the status of the system's internal components. LEDs on the front of the unit clearly indicate power status and system health.

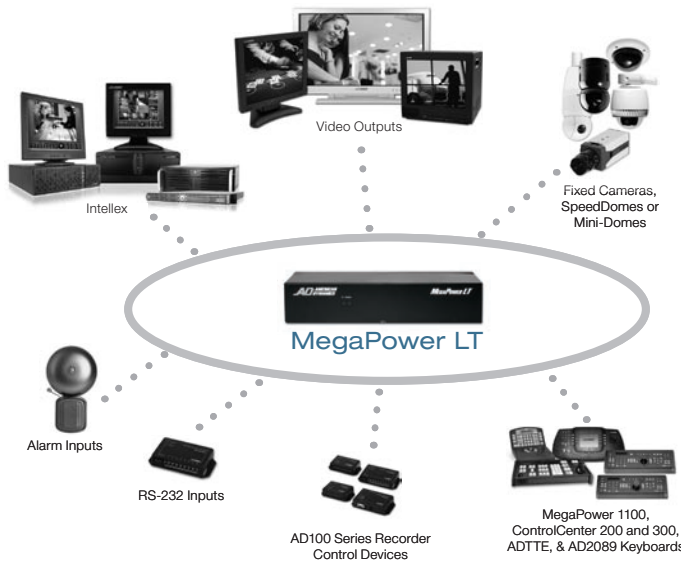
Optional Accessories

Accessory	Description
ADCC0200, ADCC0300 ControlCenter Keyboards	Full system keyboards allow for video switching, pan/tilt control, dome control, auxiliary control, recorder control, multiplexer control and system programming. The keyboards support bi-directional communication with the matrix via ADnet.
ADCC1100 MegaPower ControlCenter Keyboard	Full system, smart card enabled keyboards allow for video switching, pan/tilt control, dome control, auxiliary control, macro control, user partitioning and access, recorder control and system programming. The keyboards support bi-directional communication with the CPU via RS-232 ASCII commands.
ADTTE Touch Tracker Keyboard	Full system keyboards allow for video switching, pan/tilt control, dome control, auxiliary control and system programming. The keyboards support bi-directional communication with the CPU via RS-232 ASCII.
AD2088 and AD2089 Keyboards	Full system keyboards allow for video switching, pan/tilt control, dome control, auxiliary control, macro control, recorder control, and system programming. The keyboards support bi-directional communication with the CPU via RS-232 ASCII commands.
AD2081, AD2081-1 Port Expander	Expands one RS-232 port on a system into 4 ports. This provides connections to multiple system keyboards.
RCSN422, SensorNet-to-RS-422 Converter	Control of RS-422 domes using the RCSN422 SensorNet-to-RS-422 converter.
ADACTP01BNC Twisted Pair Video Adapter	A passive transmission device that transmits video or video with Up-The-Cable (AD-UTC) dome control signals over Unshielded Twisted Pair (UTP) cables, point-to-point, for distances up to 300 m (1,000 ft) ² . These adapters use Category 2-6 twisted pair wires to transmit the video and dome control signals and do not require power.
VRCMKIT Cable Brackets	Each kit contains 3 cable management brackets.

(1) Supported by SpeedDome Ultra VII or SpeedDome Ultra 8.

(2) Some digital video recorders, video servers, or similar products may lose color information when UTP cable distances exceed 180 m (600 ft).

Basic System Diagram



Operational

- Number of Video Inputs16 or 32
- Number of Video Outputs. . .4 (ADMPLT16)
8 (ADMPLT32)
- Bandwidth6 MHz
- S/N Ratio60 dB (Vp-p vs. Vrms noise)
- Crosstalk
- Adjacent Channels-45 dB (at 3.58 MHz)
- Input to Input-55 dB (at 3.58 MHz)
- Differential Delay. $\pm 1.0^\circ$
- Differential Phase $\leq 0.5^\circ$
- Differential Gain $\leq 1.5\%$
- Tilt. $\leq 0.5\%$
- GainUnity ± 1 dB

Return Loss

- Input/Output ≥ 40 dB
- DC Level (Video Signal) . . .0 Volts (± 0.1 V typical)
- SwitchingComplete switching of crosspoint matrix
EIA RS-170 and NTSC, CCIR and PAL
- Switching Speed.Less than 20 ms (typical)
- Non-Volatile MemorySetup information saved for a minimum
of 5 years

Connectors

- Video Inputs16 or 32, looping 0.5 to 2.0 Vp-p,
BNC composite
- Video Outputs.4 or 8 1.0 Vp-p, BNC composite
- RS-485/RS-232One 8-pin Modular RJ-45 jack (expandable)
Optional Port Expander extends the RS-232
port to 4
- SensorNet.1 port, 1 connector (16 inputs) or 2 ports,
2 connectors (32 inputs) through 5-pin
pluggable Eurostyle terminal screw connectors
- Alarm Inputs4 Connectors (16 inputs) or 8 connectors,
(32 inputs) through 5-pin pluggable
Eurostyle terminal screw connectors
- Relay Outputs.1 connector, 1 output (16 inputs) or
2 connectors, 2 outputs (32 inputs)
Form-C relays through 3-pin Eurostyle
terminal screw connectors

Communication

- SensorNet.32 devices per port at a maximum distance of
1 km (3,000 ft) on one 22 AWG unshielded
twisted pair (UTP)
- ADnet16 devices at a maximum distance of 1.2 km
(3,900 ft) on shielded/screened Cat5 wire
or better or Belden 8761 or equivalent
- AD-UTC700 m (2,300 ft) on 20 AWG RG59/U coax
(Belden 8281 or equivalent) or URM70 cable³
- FSK Telemetry350 m on 20 AWG RG59/U coax—Baxall, Vista
and Dennard domes (via DAX)

Electrical

- Input Voltage.Regulated, 12 VDC $\pm 10\%$
- Power Supply12 VDC $\pm 10\%$, 2 A, 2.1 mm pin-jack,
positive center conductor

Mechanical

- Dimensions (H x W x D) . . .90 x 445 x 185 mm (3.5 x 17.5 x 7.3 in)
- Unit Weight3.5 kg (7.7 lbs)
- Shipping Weight4.7 kg (10.4 lbs)
- Color.Black

Environmental

- Temperature
- Operating Temperature. . . .0° to 40°C (0° to 104°F)
- Storage.-20° to 60°C (-4° to 140°F)
- Humidity10% to 95% RH, noncondensing

Regulatory

- EmissionsFCC Part 15, Subpart B, Class A
EN50081-1
- Immunity.EN50130-4
- SafetyUL and CUL 1950
EN60950

(3) This distance is for the AD-UTC data only. See cable manufacturers specifications for video capabilities

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