AMERICAN DYNAMICS™

MegaPower™ LT

MATRIX SWITCHER/CONTROLLER SYSTEM

The MegaPower LT is a new family of matrix switcher systems designed to satisfy the needs of small scale installations. It comes in 16 and 32 input models and has a choice of keyboards, including the ControlCenter™ 200 and 300 models. The MegaPower LT also supports all the current American Dynamics system keyboards including the ADTTE, AD2088 and MegaPower ControlCenter.

The MegaPower LT is fully compatible with the SpeedDome® series of domes. It supports both the highly reliable SensorNet RS-485 communication protocol as well as a new bi-directional, digital Up-The-Cable (AD-UTC) protocol. With both of these protocols, the user can "ping" the dome to verify communication. In addition, the new DirectSet feature allows the user to quickly change dome camera settings. It 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 — racks, walls or even under a desk. It supports the system features one typically expects in a high-end system, including: partitioning, priorities, sequences, and a robust alarm-handling package. In addition, up to three MegaPower LT systems can be networked to form a distributed system. The MegaPower LT is also easily integrated with other security system components through the American Dynamic's standard RS-232 keyboard protocol.

FEATURES

- 16 x 4 or 32 x 8 models
- Looping inputs, auto terminated
- SensorNet or AD-Up-The-Cable (AD-UTC) dome protocols
- Control of RS-422 domes using the SensorNet to RS-422 converter
- New DirectSet function for changing dome settings
- 128 views (camera/preset and camera/pattern)
- 16 sequences/tours
- ADnet (RS-485) and RS-232 communication protocols
- Up to eight keyboards with priority settings
- Password protection for menu entry
- Network up to three matrix systems on ADnet (RS-485) bus
- Dome ping test
- System partitioning
- Video loss detection on all channels
- 16 alarm inputs with 1 relay output (16 channel model); 32 alarm inputs with 2 relay outputs (32 channel model)
- 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

FEATURES

Multiple Mounting Options

MegaPower LT is provided with mounting ears which can be attached to the unit in multiple orientations to provide for 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 as well as 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 four 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. The on-screen text uses white characters with black outline to optimize 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 all of the 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 will enable the clock to be adjusted forward, backward, or no action.

Views

128 views can be programmed. Each view consists of a camera input number and either a preset number or a pattern number. The view can be given a unique title, which will replace 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 any time. 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. 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 eight levels of priority control of remote camera sites. Level 1 has highest priority for control of cameras. Up to four keyboards may simultaneously control PTZ devices.

DirectSet (SpeedDome Ultra VII Series or Newer)

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

ADCC0200, ADCC0300 Series 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 commands.

AD2088 Series 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 four 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)[‡]. These adapters use Category 2-6 twisted pair wires to transmit the video and dome control signals and do not require power.

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

VRCMKIT Cable Brackets

Each kit contains three cable management brackets.

SPECIFICATIONS

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

Accessories

ADCC0200 ..... Keyboard, ControlCenter, RS-485/RS-232, 2-axis joystick, no power supply
ADCC0300 ..... Keyboard, ControlCenter, RS-485/RS-232, 3-axis joystick, no power supply
ADCC0200P ..... Keyboard, ControlCenter, RS-485/RS-232, 2-axis joystick, with 100-240 VAC power supply
ADCC0300P ..... Keyboard, ControlCenter, RS-485/RS-232, 3-axis joystick, with 100-240 VAC power supply
ADCCACPSP ..... Keyboard Accessory, remote kit, power supply and interface, 100-240 VAC

Operational

Number of Video Inputs ..... 16 or 32 depending upon model
Number of Video Outputs ..... Four or eight
Bandwidth ..... 6 MHz
Frequency Response ..... ± 0.5 dB to 6 MHz
S/N Ratio ..... -60 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 ..... ± 1.0°
- Differential Phase ..... ≤ 0.5°
- Differential Gain ..... ≤ 1.5%
- Tilt ..... ≤ 0.5%
- 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)
- Non-Volatile Memory ..... Setup information saved for a minimum of 5 years

Connectors

Video Inputs ..... 16 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-232 ..... One 8-Pin Modular RJ-45 jack (expandable) Optional Port Expander extends the RS-232 port to four
SensorNet ..... 1 port, 1 connector (16 inputs) or 2 ports, 2 connectors (32 inputs) through 5-pin pluggable Eurostyle terminal screw connectors
Alarm Inputs ..... 4 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)
ADnet ..... 16 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-UTC ..... 700 m (2,300 ft) on 20 AWG RG59/U coax (Belden 8281 or equivalent) or URM70 cable*

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

Electrical

Input Voltage ..... Regulated, 12 VDC ± 10%
Power Supply ..... 12VDC ± 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 Weight ..... 3.5 kg (7.7 lbs)
Shipping Weight ..... 4.7 kg (10.4 lbs)
Color ..... Black

Environmental

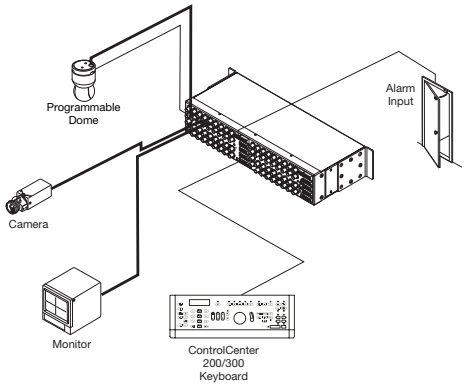
Temperature
- Operating ..... 0° to 40° C (0° to 104° F)
- Storage ..... -20° to 60° C (-4° to 140° F)

Humidity ..... 10% - 95% RH, non condensing

Regulatory

Emissions ..... FCC Part 15, Subpart B, Class A EN50081-1
Immunity EN50130-4
Safety ..... UL and CUL 1950 EN60950

Basic System Diagram



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