



Catalog Number	
Notes	Type

FEATURES

The Synergy[®] MLX system controller adds programming, automation and networking capabilities to a Synergy system. Capabilities include individual circuit switching control of lighting functions for a wide variety of applications. System outputs respond to time-of-day schedules via the internal time clock. Additionally, inputs can be accepted from external devices such as simple switches, photocells, occupancy sensors, telephones and other control systems to directly control lighting or override scheduled events. Over 4,000,000 Synergy MLX controllers may be interconnected to provide access to more than 500,000,000 control outputs from a single switch or schedule.

- Supports all Synergy controllable breakers and all power modules
- Seven-day scheduling with astronomic clock
- Holiday schedule dates
- Load prioritization setup
- Exclusive Script Application Language
- Programmable switches with interpanel linking (with optional LVIN)
- Support for SEQUEL[®] Dimming Control Stations
- Support for digital remote stations
- Timed switch overrides (with optional LVIN)
- Analog source monitoring with multiple set points (with optional LVIN)
- Integral keypad with backlit display
- All programming stored in non-volatile industrial compact flash memory card
- Automatic system event logging
- Integral lamp burn hours and start counters
- BACnet[™] compliant network
- Integral RS232 ports
- Optional PC software
- Optional touch-tone telephone interface for voice-prompted overrides.
- Optional support for legacy MiniPac, Sequel, and MaxStar dimmer cabinets.
- English, Spanish or French operation
- Sixty digital stations maximum perSYBPC MLS/MLX controllers
- UL and C-UL listed; CEC certified

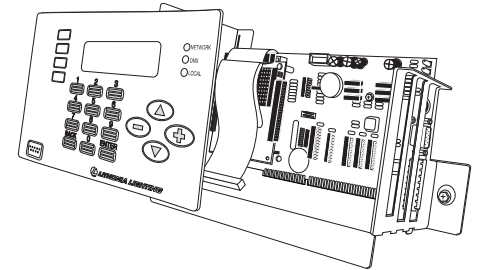
Network Controllable Breaker Panel

System Controller

SYBPC MLX



BACnet[™] is an exclusive trademark of ASHRAE.



Synergy Controller Features Selection Table

System Functions	SYBPC MLS Controller	SYBPC MLX Controller
Controllable Breaker Capacity	42 126 Total w/ Secondary Cabinet	42 126 Total w/ Secondary Cabinets
DMX512 Input	DMX Channel-to-Output Configured via controller software	DMX Channel-to-Output Configured via controller software
Scheduling	100 schedules/unlimited events	100 schedules/unlimited events
PC Support	YES	YES
Script Logic	YES	YES
Logging	YES	YES
Priority Logic	YES	YES
Network	NO	YES
Telephone Override	YES, optional	YES, optional
BACnet[®]	NO	YES
RS232	YES	YES
Modem	YES, optional	YES, optional
Sequel Stations	YES (3)	YES (3)
Legacy Dimmers	YES, optional	YES, optional
Digital Remotes	YES (60 Max)	YES (60 Max)

ORDERING INFORMATION

Choose the boldface catalog nomenclature that best suits your needs and write it on the appropriate line. Order accessories as separate catalog number.

Example: **SYBPC MLX**

SYBPC		MLX		Options	
Series	Controller type	Options	Options	Options	Options
SYBPC	Controllable breaker panel system controller	MLX	Network system controller	ISA	Three 16-bit ISA expansion slots
				PHONE	Telephone interface for voice-prompted override and remote modem access (requires ISA option)
				DMX	Interface for connection to DMX512 control signal for house lighting control.
				LEGACY	Allows control of one complete network (255 dimmers) of legacy MiniPac, Sequel, and MaxStar dimmer cabinets. Replaces master controller on existing systems.
				LVIN	Low voltage input card for 16 low voltage switches/occupancysensors, one analog photocell input.

NOTE: This controller, identified as MLX, can be ordered as an integral part of the SYBP nomenclature specification. See the SYBP specification sheet for ordering information.

Accessories

Order as a separate item.

SYBPASC	Cable to connect a secondary panel or Synergy enclosure to one MLS or MLX controller. Available in 6' and 25'.
SYBPCONFIG	Windows [™] configuration software and cable
SYA CABLES2	Lithonia plenum rated RS485 network cable (Specify length: 250', 500' or 1000')
SYA CABLEA4	Synergy Class2, four conductor, plenum rated control station network cable (specify length: 250', 500', or 1000')

SYBPC MLX Network Controllable Breaker Panel System Controller

SPECIFICATIONS

MECHANICAL

- Chassis: Plug-in assembly with locking screw, field-installable in SYBPE enclosure.
- Keypad ships with controllable breaker interior.

ENVIRONMENTAL

- Operation and storage temperature: 32-104°F (0-40°C).
- Humidity: 10-90% non-condensing.

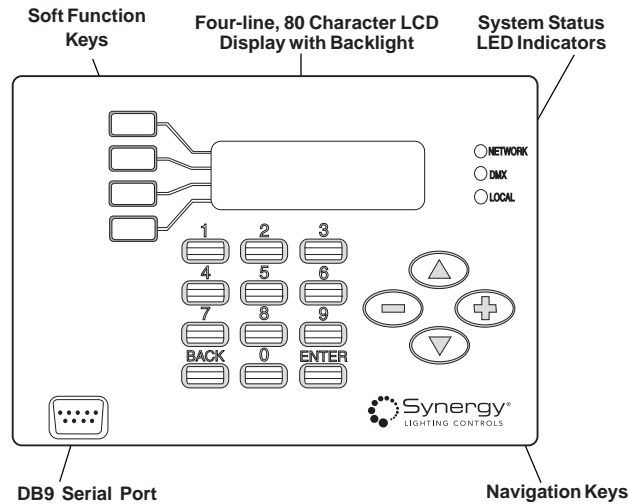
ELECTRICAL

- Power input: 24VDC maximum, supplied by enclosure power supply.
- Data port: Front-mounted DB9 RS232 serial communications connector accessible without removal of cover.
- Internal RS232 Port for connection to A/V systems.
- Internal RS485 Port for connection to SEQUEL control stations and digital remote stations.
- Internal RS485 ARCNET™ (ANSI 878.1) Port for connection to other Synergy controllers and BACnet™ systems.
- Internal Ethernet Port for connection to other Synergy® controllers and or BACnet™ systems.

FUNCTIONAL

- Program entry: Numeric keypad (0-9, back and enter), "soft" function keys, navigation key cluster (up, down, + and -) for menu navigation and logical entry selections.
- LCD display: 4-line, 80-character with back light.
- LED indicators: Network status, local status and DMX true indication.
- Outputs: 138 maximum per controller in typical configurations; outputs may be controllable circuit breakers, relays, or dimmers. Note that relays and dimmers may not be mounted in a SYBPE enclosure but must be mounted in separate secondary enclosure(s).
- Groups: Map output controllable circuit breakers, relays, and dimmers into logical groups (zones) for association with inputs and schedules.
- Switch inputs: 16 inputs per controllable breaker panel with LVIN option, 112 inputs maximum with connected relay panels; soft-linked through program to control any combination of outputs; optional 1 minute to 100 hour timeout function per switch.
- Analog inputs: 1 input per controllable breaker panel with LVIN option.
- *Priority on* switch: Switch input set to *priority on* cannot be overridden *off* by any other source until the *priority on* condition is removed.
- *Priority off* switch: Switch input set to *priority off* cannot be overridden *on* by any other source until the *priority off* condition is removed.
- Four levels of priority provide for preemptive layering of manual and automatic functions, supports all 16 BACnet™ priority levels via network commands.
- Schedules: Maximum of 100 independent schedules of time events; number of events per schedule limited only by system resources. Schedules may be assigned to days of the week, days of the year, or recurring holiday dates through 12/31/2200.
- *Warn off*: Automatic flash of lights at scheduled *off* to warn occupants of impending *off*; user selectable from one to 99 minutes.
- Logging: Automatic logging of system events including *on* events, *off* events, relay run time, relay starts, alarms, power up, power down, override *on* and override *off*; 10,000 event maximum storage with automatic overwrite of oldest data, view log data on LCD display or printout.
- Telephone Override: override selected loads via touch-tone phone using programmable four-digit codes and voice prompts using optional PHONE interface.
- DMX Control: control connected loads with DMX control signal using optional DMX input card. May be configured via hardware settings or through controller software to provide prioritized and conditional control of loads along with other input devices and schedules.
- Legacy Dimmer Control: control up to 255 legacy MiniPac, Sequel, and MaxStar dimmers with optional LEGACY card. Synergy controller replaces function of M2, M3, or M9 master controller in existing systems. Legacy dimmers may be controlled by any input or schedule in the Synergy system.

FUNCTIONAL



- PC software: Program the controller, download data, upload data and monitor status using optional Windows 95/98™, XP, 2000 or NT software via front-mounted DB-9 RS232 port, network connection or optional modem connection.

NETWORK

- Hardware: Ethernet 10/100BaseT, requires Cat5 cable connection
- Hardware: MSTP via RS485. Approved cables include Synergy SYA CALES2 (plenum-rated) or Belden 3105A. Use MSTP for network panel communication disables digital control station capability.
- Hardware: RS485 ARCNET™ (ANSI 878.1) token passing, 156 Kbps transmission speed. Approved cables include Lithonia SYA CABLES2 (plenum-rated) or Belden 3105A.
- Protocol: BACnet™, (ANSI / ASHRAE 135-1995) used for network communications.