

Overview

Retrofit Kit (RK) replaces existing relay panel electronics. RK installation retains the original relays, line voltage wire, conduit, and enclosure reducing labor as well as material cost. Retrofit Kit 1 (RK1) is a direct replacement for LMB, Lx5, and Lx6 Legacy Controllers in relay panels which utilize LTR style relays. The kit includes a Controller Board, two 16-20pin ribbon cables, and 6 threaded standoffs.

Features

Compatible with :

- Automated Logic LC Line Panels (LTR)
- Blue Ridge Technologies Panels (LTR)
- Kele AutoPhos Panels (LTR)
- Lumisys Panels (LTR)
- Triatek Panels (LTR)

Retains relays, line voltage wire, conduit, and enclosure

Control up to 64 relays

BACnet MS/TP communication to BAS network

Sub network for Satellite and Capacitive Touch Stations (CTS)

Install in less than 4 hours

General Specifications

Dimensions:

- Controller Board: 9.70"(246mm)H x 4.25"(108mm)W x 1.13"(29mm)D
- Threaded Stand-offs: 5/16"(8mm) to provide clearance for Controller Board
- 16-20pin Ribbon Cable: 12"(304mm)L

Weight: 10oz(283g)

Mounting: Mounts in position of original controller

Operating Environment: 32-125°F (0-50°C), 20-95%RH, non-condensing

Certifications

Electronics meet or exceed IEC Level 3

Maintains Panel UL Listing

Warranty

Two (2) year limited manufacturer warranty from date of shipment (extended warranty optional).

Firmware Specifications (Controller Board)

Platform: Aperio Open Control Platform

Time Clock: Real-time clock with BACnet time sync

Schedule: BACnet Schedule, Monday – Sunday, Holidays, and Exceptions

Non-Volatile Memory: 16MB total, 2MB for trend data (15min trend requires 2K per day)

RAM: 2MB total, data stored in non-volatile memory upon power loss

Configuration: Tech Kit 2.0 (see data sheet for details)

Configuration Connection: Micro-B USB or Bluetooth Wireless

Low Voltage Specifications (Controller Board)

Power In: 24VAC +/-10%, 30VA, 50-60 Hz

Auxiliary Out: 24VAC, 800mA (devices with full wave rectified power supply only)

Universal Input (UI) and Satellite / Station Network Power Out: 24VDC, 200mA total

Universal Input: 24 two-wire inputs

Universal Input Software Configuration:

Digital Input (DI)

Analog Input (AI): 0-5VDC, 0-10VDC, or 4-20mA

Universal Input Wire Requirement / Maximum Length: 18AWG (Solid or Stranded) / 500'(152m)

BAS Network Specifications

Protocol: BACnet MS/TP

Baud Rate: DIP switch selectable 9.6K, 19.2K, 38.4K, 76.8K, or 115.2K

Device Profile: BACnet Advance Application Controller (AAC)

Address Range: 1 – 99 selectable with rotary dials

Unit Load: 1/8 unit load

Topology: RS-485, half duplex, daisy chain wiring

Wire Requirement / Maximum Length: CL3P, 22AWG, 2 conductor, shielded, low cap / 4000'(1216m)

Points: See *PIC Statement*

Satellite / Station Network Specifications

Compatible with CTS and Satellite devices. See data sheet for details.

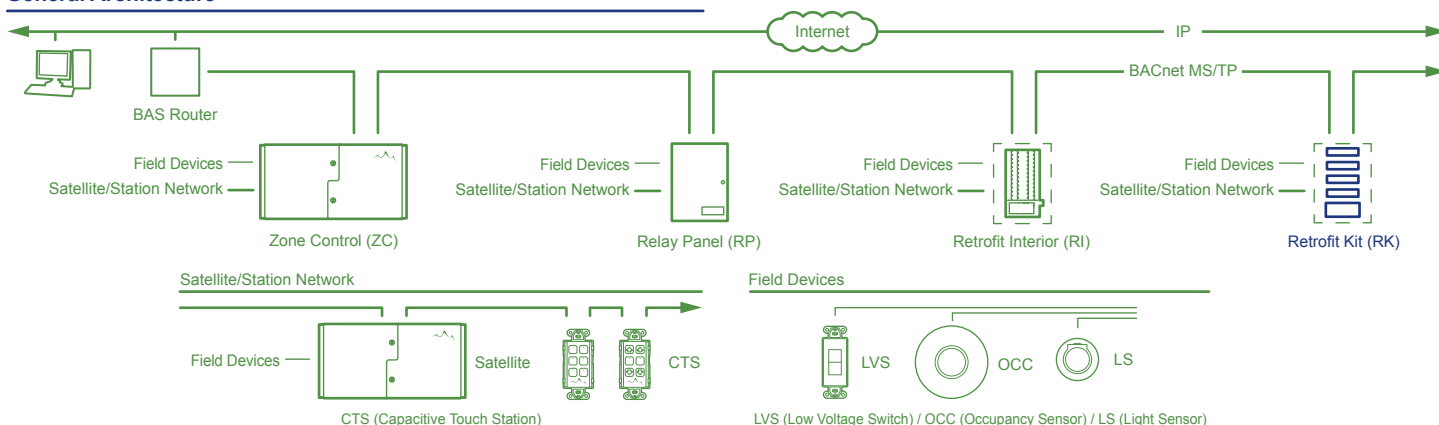
Not compatible with DDN devices

Retrofit Kit 1

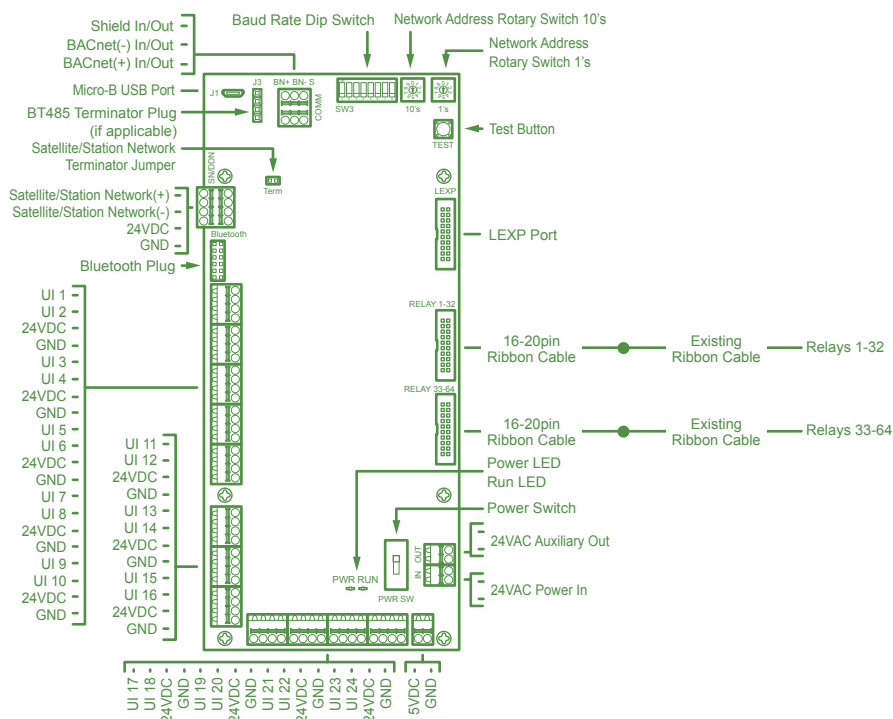
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General Architecture



Controller Board Terminations



Ordering Information

Part Number	Description
RK1SS	BACnet Upgrade Controller Board, LMB, Lx5, and Lx6 Based Products, Includes Controller Board, two 16 to 20 pin ribbon cables, and (6) standoffs. (Not compatible with DDN devices)