Altronix®

Rev. 07102023

# T3M77XK1 (Pre-wired Kit)

## Access and Power Integration Solution for Mercury

TROVE PLUS

Altronix T3M77XK1 is a 16-door access and power integration kit which includes Altronix power and sub-assemblies along with factory installed wire management and wire assemblies that are pre-configured with terminal blocks for Mercury hardware. This unit provides ample power and dual voltage outputs to support Mercury platform controllers and locking devices. The T3M77XK1 accommodates one (1) Intelligent Dual Reader Controller and seven (7) Dual Reader Interface Modules. Trove Plus simplifies field installations and provides reliable, robust critical power and control for the most demanding applications.

***Also compatible with these authentic Mercury partners:**

AccessNsite, Avigilon, BadgePass, BluBox, Feenics, Genetec, Identicard, IMRON, Johnson Controls, Kastle, Keri Systems, LockState, Maxxess, Midpoint Security, NLSS, Open Options, Panasonic i-PRO MonitorCast, Quintron, RS2, S2 Security, Schneider Electric, Vanderbilt

Mercury™

T3M77XK1 - includes
(2) eFlow104NB, (2) ACMS8, (2) VR6, (2) PDS8, wire harnesses and finger duct

*Mercury boards are not included*

## Key Features

- Accommodates the following Mercury controllers:
  1 - LP1502 / LP4502 and 7 - MR52
- Convenient knockout configuration:
  - One (1) single knockout 2.415" (2" Conduit)
  - Two (2) double knockouts
    1.948" (1.5" Conduit) / 1.701" (1.25" Conduit)
  - Thirteen (13) double knockouts
    1.362" (1" Conduit) / 1.115" (3/4" Conduit)
- Unit includes:
  - Removable backplane
  - 2" high finger duct for wire management
  - Custom wire assemblies for power distribution with terminal blocks for controller connections
- Supervision
  - AC Fail
  - Low Battery and Battery Presence
  - Low power shutdown
- Agency Listings:
  - All Altronix components of this Trove kit are UL Listed sub-assemblies. Please refer to the Sub-Assembly Installation Guides for further information
  - UL: UL294 - Access Control System
  - cUL: CAN/ULC - s319-05 - Electronic Access Control Systems
  - CE European Conformity
- 16 gauge galvanized steel backplane simplifies board layout and wire management
- Enclosure accommodates up to four (4) 12VDC/12AH batteries
- Lifetime Warranty*

**Altronix Power Supply/Chargers and Sub-Assemblies only*

Altronix Corporation | 140 58th St | Brooklyn, NY 11220 USA
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## Specifications

### Two (2) Power Supplies (eFlow104NB):

**Input**
- Voltage: 120VAC, 60Hz, 9A max
- Input Fuse: 6.3A/250V

**Output**
- Voltage: 24VDC @ 10A
- Auxiliary: 1A (unswitched)
- Protection: Overvoltage protection. Filtered and regulated

**Battery Charging**
- Capacity: 12VDC/12AH (4 within enclosure)
  40AH/65AH (requires separate enclosure)
- Type: Sealed lead acid or gel type
- Failover: Upon AC loss, instantaneous

Batteries are sold separately

**Fire Alarm Disconnect**
- Supervised: Latching or non-latching
- EOL: 10K Resistor

**Supervision**
- AC Failure: Form "C" contacts
- Battery: Form "C" contacts
- Low DC Power Shutdown
  - Shuts down DC output terminals if battery voltage drops below 70-75% for 24V units (depending on the power supply)
  - Prevents deep battery discharge

**Indicators (LED)**
- AC Input: 120VAC is present
- DC Output: 24VDC is present
- Battery: Discharged or not connected

### Two (2) Dual Input Access Power Controllers (ACMS8):

**Input**
- Voltage: 24VDC from eFlow104NB and 12VDC from VR6
- Input Fuses: 15A/32V

**Outputs**
- Voltage: 12 or 24VDC individually selectable

Eight (8) selectable 12VDC - 24VDC independently controlled outputs or eight (8) indepently controlled Form "C" relay outputs:
- a) Fail-Safe and/or Fail-Secure power outputs
- b) Form "C" Relays. 28VAC or VDC @ 2.5A Rated
- c) Auxiliary power outputs (unswitched)
- d) Any combination of the above

Any of the eight (8) fuse protected power outputs are selectable to follow power Input 1 or Input 2
Individual outputs may be set to OFF position for servicing

- Output Fuses: 3A/32V

**Indicators (LED)**
- Red LEDs: Outputs are triggered (relays energized)
- Blue LED: FACP disconnect is triggered
- Individual voltage LEDs:
  - Green: 12VDC
  - Red: 24VDC

### Two (2) Voltage Regulators (VR6):

**Input**
- Voltage: 24VDC from eFlow104NB

**Output**
- Voltage: 12VDC
- Current: 6A continuous
- Other: Surge suppression

**Indicators (LED)**
- Input: 24VDC is present
- Output: Powered

### Two (2) Dual Input Power Distribution Modules (PDS8):

**Input**
- Voltage: 24VDC from eFlow104NB and 12VDC from VR6
- Input Fuses: 10A/32V

**Outputs**
- Voltage: 12VDC and/or 24VDC

Any of the eight (8) power outputs are selectable to follow power Input 1 or Input 2
Individual outputs may be set to OFF position for servicing

- Output Fuses: 3A/32V

**Indicators (LED)**
- DC Output: Eight (8) individual output LEDs
- Green: 12VDC
- Red: 24VDC

### T3M77XK1 Kit:

**Agency Listings**
- CE: European Conformity

All components of this Trove kit are UL Listed sub-assemblies
Please refer to the corresponding Sub-Assembly Installation Guides for further information

**Physical and Environmental:**
- Dimensions (H x W x D)
  - Enclosure:
    36.12" x 30.125" x 7.06" (917.5mm x 768.1mm x 179.3mm)
  - Shipping:
    40.75" x 35.25" x 12" (1035.1mm x 895.4mm x 304.8mm)
- Weight (approx.)
  - Product: 85.6 lb. (38.83 kg)
  - Shipping: 98.8 lb. (44.82 kg)
- Temperature
  - Operating: 0ºC to 49ºC (32ºF to 120ºF)
  - Storage: – 20ºC to 70ºC (– 4ºF to 158ºF)
- Relative Humidity: 85% +/– 5%
- BTU/Hr. (approx.): 289 BTU/Hr.

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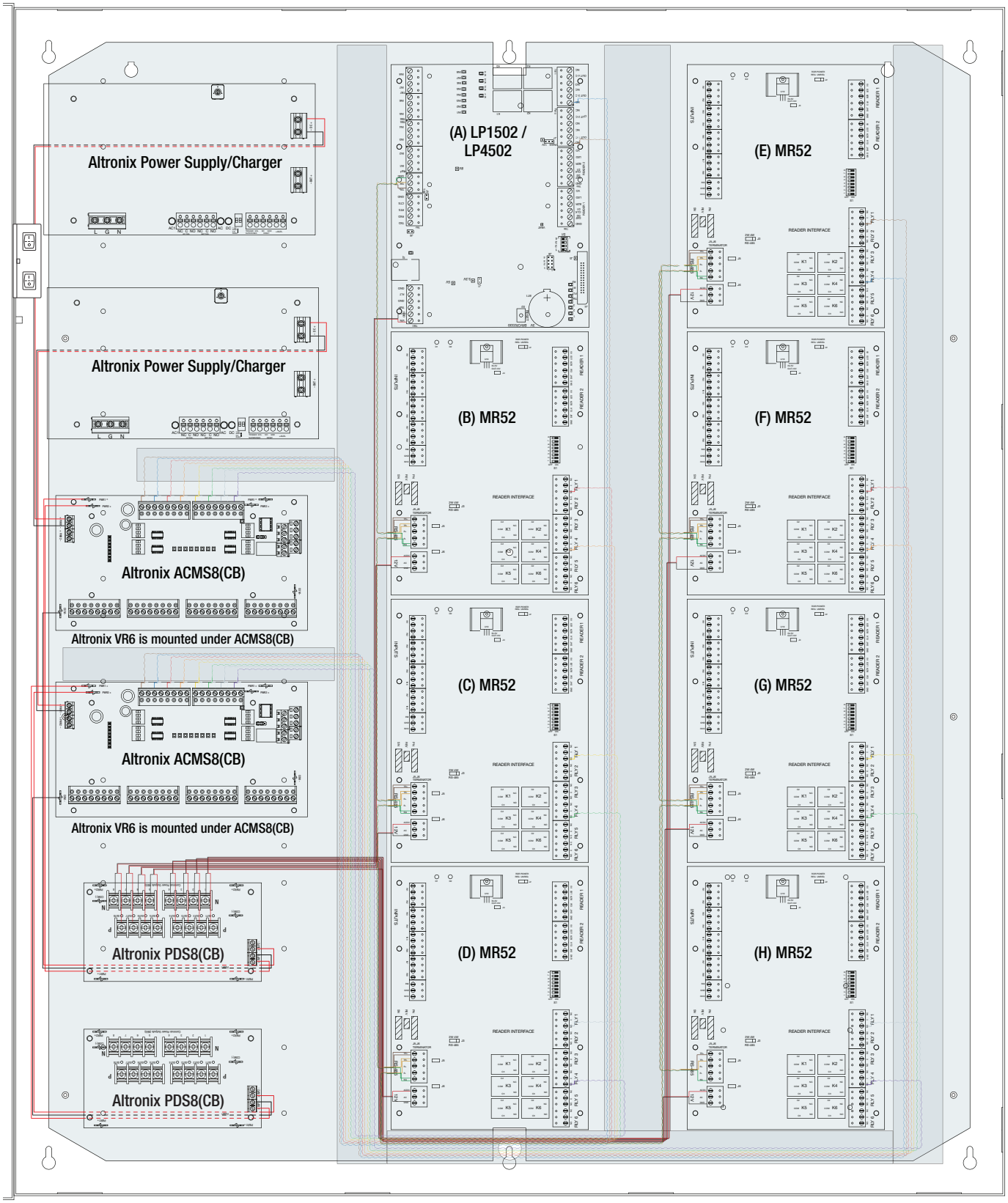


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## Accessories (order separately)

LINQ2

### LINQ2 - Network Supervision

Altronix LINQ2 Network Communication Module provides remote supervision, control and monitoring over LAN/WAN

- Remotely reports accurate power diagnostics
- Controls power and resets devices
- Reports system diagnostics via Email

WM5

### WM5, WM25, WM100 - Magnetic Cable Tie Mounts

Altronix WM5, WM25, and WM100 are packs of 5, 25 or 100 magnetic cable tie mounts respectively. They accommodate standard zip ties or velcro straps.
These are ideal for wire management in our Trove series.

Mounting Magnet

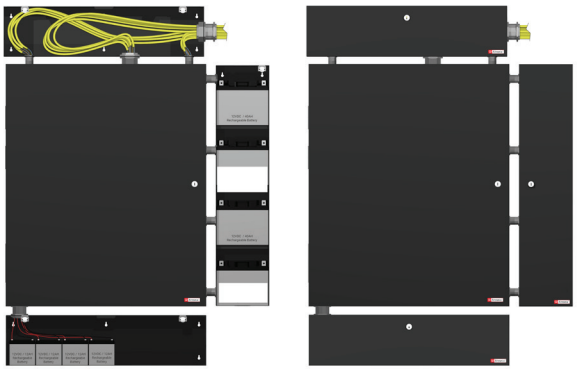
### MM4, MM8, MM12, MM24 - Magnetic Mounting Solution

Altronix mounting magnets accommodate screws and nylon standoffs to allow for mounting various boards/ accessories in any metal enclosure or backplane.

BR1

### BR1 - Sub-Assembly Mounting Bracket

Altronix BR1 mounting bracket is compatible with Altronix Maximal and Trove enclosures. It allows to mount one (1) PD4UL(CB), PD8UL(CB), ACM4(CB), MOM5, VR6, PDS8, NetWay5B or LINQ8PD(CB) sub-assembly on the enclosure's inside wall, saving valuable space.



*Typical battery/wiring setup with Trove3 Enclosure (not included)*

### TROVE3BWC / TROVE3SWC - Battery/Wire Trough Enclosure

Altronix Trove3BWC and Trove3SWC are dual-purpose enclosures that can be used as wiring troughs or battery cabinets when mounted above or below (Trove3BWC) or on either side (Trove3SWC) of the Trove integrated power and access solution. The knockouts on the Trove3BWC and Trove3SWC have been strategically placed to line up with the Trove3 allowing for easy conduit connections between cabinets.Trove3BWC and Trove3SWC include cam locks and 2 tamper switches each to ensure access to wiring and batteries is secure.

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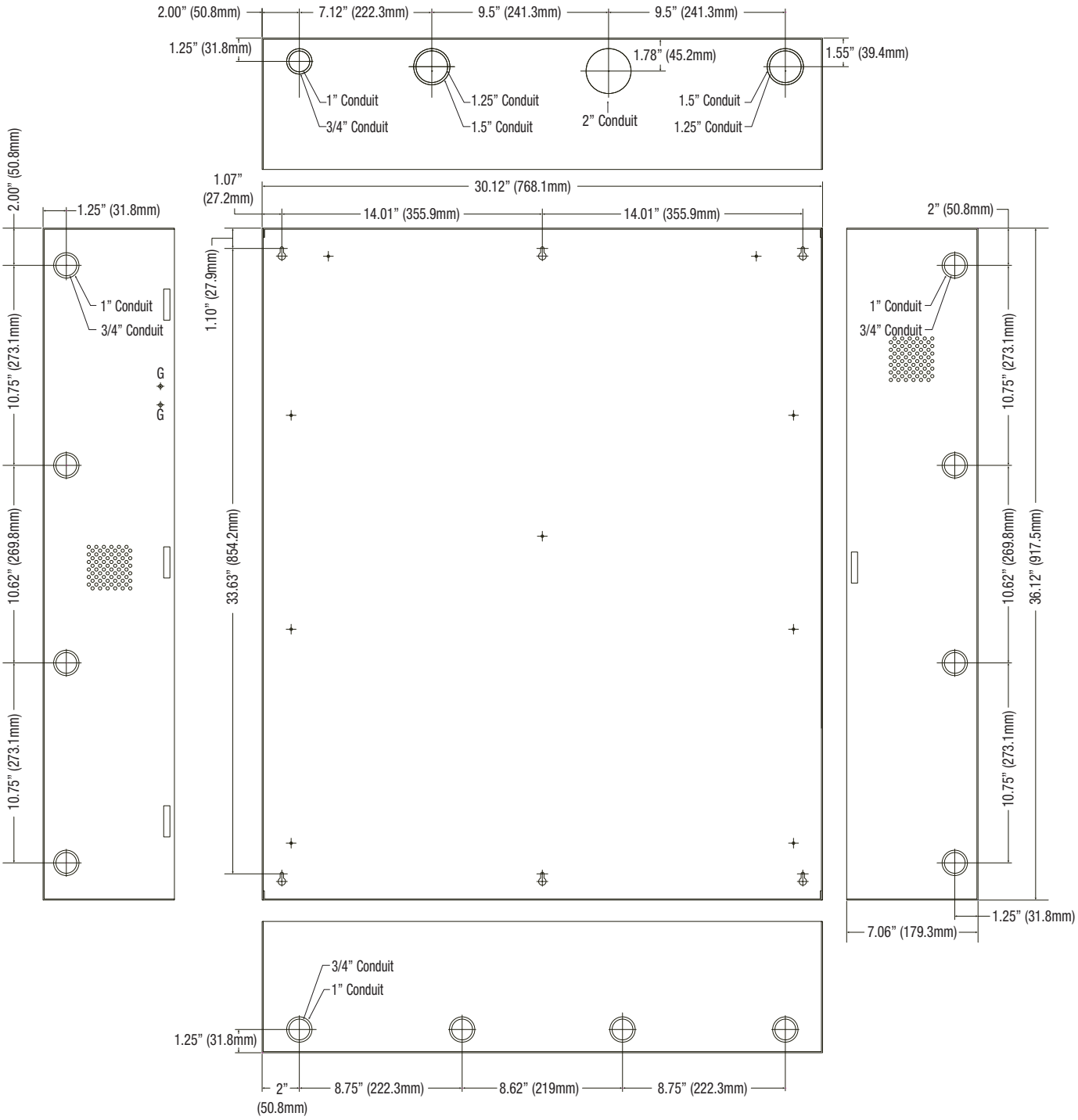
## Dimensions and Drawing

Dimensions (H x W x D approximate)

36.12” x 30.125” x 7.06” (917.5mm x 768.1mm x 179.3mm)





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