# Altronix®

## T1M1CK1D (Pre-wired Kit)
## Access and Power Integration Solution for Mercury

**TROVE PLUS**

Altronix T1M1CK1D is a 4-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 T1M1CK1D accommodates one (1) Intelligent Dual Reader Controller and one (1) Dual Reader Interface Module. 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™**

T1M1CK1D - includes
eFlow4NB, PDS8CB, VR6, ACM4CB,
wire harnesses and wire magnets

*Mercury modules are not included*

## Key Features

- Accommodates the following Mercury controllers:
  1 - LP1502 / LP4502 and 1 - MR52

- Convenient knockout configuration:
  - One (1) knockout - 1-1/2" Conduit
  - Nine (9) double knockouts - 3/4" Conduit and 1" Conduit

- Unit includes:
  - Removable backplane
  - Wire management
  - Custom wire assemblies for power distribution with terminal blocks for controller connections

- 16 AWG galvanized steel backplane simplifies board layout and wire management

- 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

- Enclosure accommodates up to two (2) 12VDC/7AH batteries

- Lifetime Warranty*

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

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## Specifications

### Power Supply (eFlow4NB):

**Input**

| | |
|---|---|
| Voltage | 120VAC, 60Hz, 3.5A |
| Input Fuse | 5A/250V |

**Output**

| | |
|---|---|
| Voltage | 24VDC |
| Current | 4A continuous |
| Other | Overvoltage protection. Filtered and regulated |

**Battery Charging**

| | |
|---|---|
| Capacity | 7AH/12VDC (2 within enclosure) |
| | 40AH/65AH (requires separate enclosure) |
| Type | Sealed lead acid or gel type |
| Failover | Upon AC loss, instantaneous |

Batteries are sold separately

**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)**

| | |
|---|---|
| Input | 120VAC is present |
| DC Output | Powered |
| Battery | Discharged or not connected |

### Dual Input Power Distribution Module (PDS8CB)

**Input**

| | |
|---|---|
| Voltage | 24VDC from eFlow4NB and 12VDC from VR6 |
| Input PTCs | 9A |

**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 PTCs | 2.5A |

**Indicators (LED)**

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

### Voltage Regulator (VR6):

**Input**

| | |
|---|---|
| Voltage | 24VDC from eFlow4NB |

**Output**

| | |
|---|---|
| Voltage | 12VDC |
| Current | 6A continuous |
| Other | Surge suppression |

**Indicators (LED)**

| | |
|---|---|
| Input | 24VDC is present |
| Output | Powered |

### Access Power Controller (ACM4CB):

**Input**

| | |
|---|---|
| Voltage | 24VDC from eFlow4NB |
| Input PTC | 9A |

**Outputs**

| | |
|---|---|
| Voltage | 24VDC |

Four (4) independently controlled PTC outputs:
> a) Fail-Safe and/or Fail-Secure power outputs
>> Form "C" Relays rated 28VAC or VDC @ 2.5A
> b) Auxiliary power outputs (unswitched)
> c) Any combination of the above

| | |
|---|---|
| Output PTCs | 2.5A |

**Indicators (LED)**

| | |
|---|---|
| Red LEDs | Outputs are triggered (relays energized) |
| Green LED | FACP disconnect is triggered |

### T1M1CK1D Kit:

**Agency Listings**

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

| | |
|---|---|
| CE | European Conformity |

**Physical and Environmental**

Dimensions (H x W x D)
> Enclosure:
> 18" x 14.5" x 4.62" (457.2mm x 368.3mm x 118.0mm)
> Shipping:
> 21.75" x 18.25" x 5.75" (552.5mm x 463.6mm x 146.1mm)

Weight (approx.)

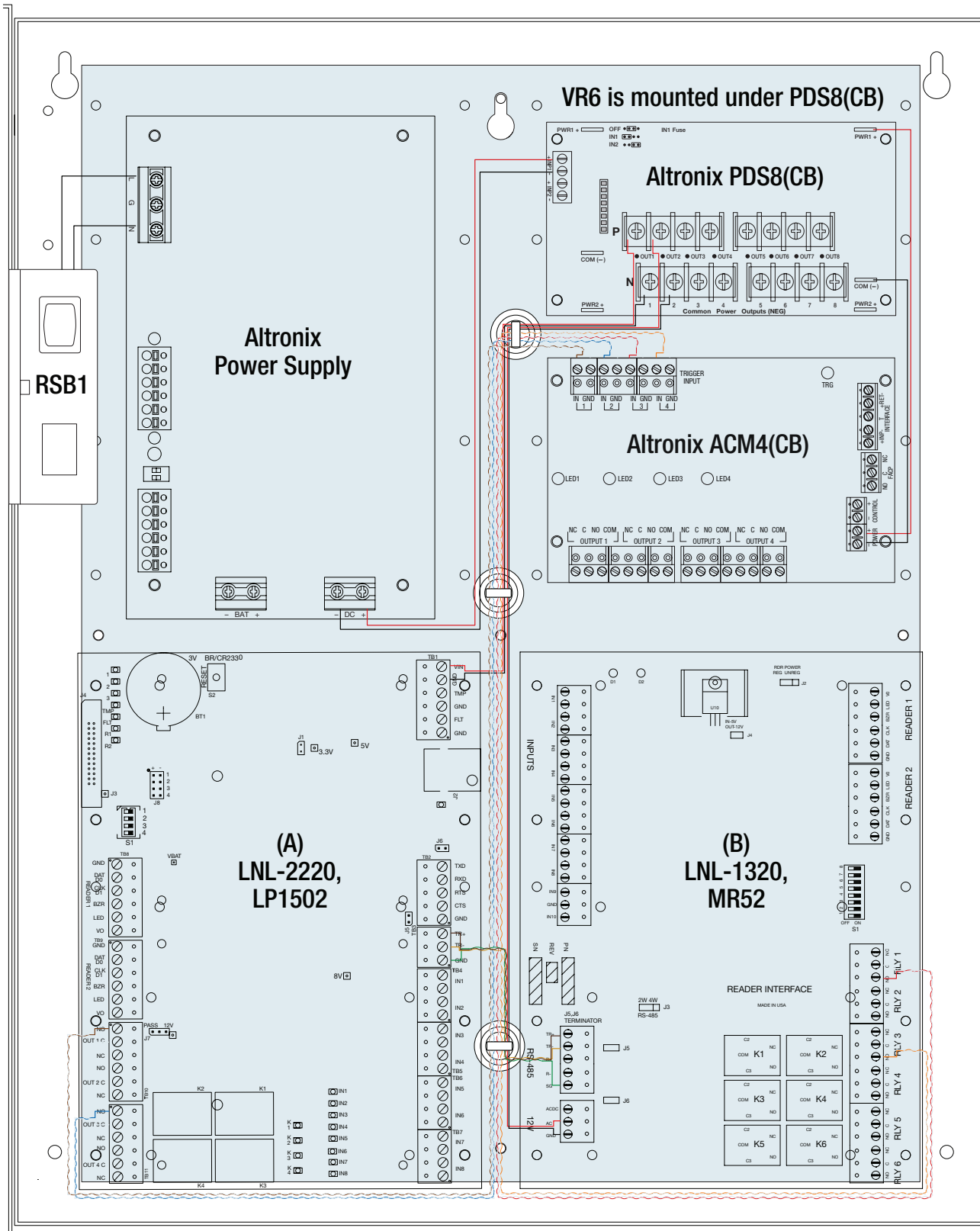| | |
|---|---|
| Product | 18.0 lb. (8.17 kg) |
| Shipping | 22.0 lb. (9.98 kg) |

Temperature

| | |
|---|---|
| Operating | 0ºC to 49ºC (32ºF to 120ºF) |
| Storage | − 20ºC to 70ºC (− 4ºF to 158ºF) |
| Relative Humidity | 85% +/− 5% |
| BTU/Hr (approx.): | 90 BTU/Hr. |

VR6 is mounted under PDS8(CB)

PWR1 +    OFF    IN1 Fuse    PWR1 +
IN1
IN2

## Altronix PDS8(CB)

P

COM (–)    OUT1  OUT2  OUT3  OUT4    OUT5  OUT6  OUT7  OUT8    COM (–)

N

PWR2 +    1    2    3    4    Common  Power    5    6    Outputs (NEG)    7    8    PWR2 +

RSB1

### Altronix
### Power Supply

TRIGGER
INPUT

TRG

IN GND IN GND IN GND IN GND
 1      2      3      4

## Altronix ACM4(CB)

LED1    LED2    LED3    LED4

-RET-
+INP    INTERFACE

NC  NO
 C
FACP

NC  C  NO COM    NC  C  NO COM    NC  C  NO COM    NC  C  NO COM
  OUTPUT 1         OUTPUT 2         OUTPUT 3         OUTPUT 4

PWR+    CONTROL

–  BAT  +        –  DC  +

3V  BR/CR2330

TB1
VIN1

RESET
S2

BT1

TMP
GND

FLT
GND

J1  3.3V    5V

INPUTS

RDR POWER
REG  UNREG

U10    IN-5V
       OUT-12V  J4

READER 1

J4

READER 2

J3

IN1
IN2
IN3
IN4
IN5
IN6
IN7
IN8
IN9
GND
IN10

### (A)
### LNL-2220,
### LP1502

### (B)
### LNL-1320,
### MR52

S1

TB8
GND
DAT D0
CLK D1
BZR
LED
VO

TB9
GND
DAT D0
CLK D1
BZR
LED
VO

VBAT

TB2
TXD
RXD
RTS
CTS
GND

J6

TR+
GND
TR-

S1

OFF  ON

RLY 1
RLY 2

READER INTERFACE
MADE IN USA

C2      NC      C2      NC
COM  K1         COM  K2
C3              C3

RLY 3
RLY 4

8V

TB4
IN1
IN2
IN3
IN4
TB5
TB6
IN5
IN6
TB7
IN7
IN8

SN    REV    PN

2W 4W
RS-485

J5,J6
TERMINATOR

RS-485

TB-
TR-
R-
SG-

J5

ACDC
AC
GND

12V

J6

PASS  12V
J7

OUT 1 C
NC
NO
OUT 2 C
NC
NO
OUT 3 C
NC
NO
OUT 4 C
NC

K2    K1

IN1
IN2
IN3
IN4
IN5
IN6
IN7
IN8

K4    K3

C2      NC      C2      NC
COM  K3         COM  K4
C3              C3

RLY 5
RLY 6

C2      NC      C2      NC
COM  K5         COM  K6
C3              C3

## Accessories (order separately)
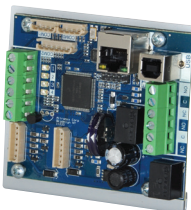
### LINQ2 - Network Supervision

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

LINQ2

### 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.

WM5

### 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.

Mounting Magnet

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### Dimensions and Drawing

Dimensions (H x W x D approximate)
18.0" x 14.5" x 4.625" (457.2mm x 368.3mm x 117.5mm)



14.5" (321.3mm)
7.25" (184.2mm)
1.45" (36.8mm)
⌀1.95" (49.5mm)

4.5" (114.3mm)
1.25" (31.8mm)
1.5" (38.1mm)
0.57" (14.5mm)
8.5" (215.9mm)
6.5" (165.1mm)

13.0" (330.2mm)
0.6" (15.2mm)
18.0" (457.2mm)
0.6" (15.2mm)
1.1" (27.9mm)

1.25" (31.8mm)
1.5" (38.1mm)
8.5" (215.9mm)
6.5" (165.1mm)

4.5" (114.3mm)
4.5" (114.3mm)
2.75" (69.9mm)
⌀1.115" (28.3mm)
1.36" (34.5mm)
1.25" (31.8mm)