

DX400UL, DX400ULPD4ECB, DX400ULPD8ECB, DX400ULMOM8ECB, DX400ULACM4ECB.

Power Supply / Charger

Description

The DX400UL series of power supply/charger supplies a total of 4 amp nominal continuous supply current @ 12/24VDC outputs. It is installed in a large sheet steel enclosure capable of accommodating one or two 12AH or 17.2AH lead acid rechargeable batteries. The power supply models : DX400UL,DX400ULPD4ECB,DX400ULPD8ECB have been evaluated for: CAN/ULC-S527,UL864,ULC-S318,UL603,UL294, CAN/ULC-60839-11-1,CAN/ULC-S533. The above Power supplies are not intended to power Fire Notification Appliances(Horns,Strobes & Bells). The power supply models: DX400ULACM4ECB, DX400ULMOM8ECB have been evaluated for: UL294, CAN/ULC-60839-11-1,CAN/ULC-S533.

General Specifications:

1. Input = 120-240VAC 50-60Hz, 1.8 Amp maximum, fuse at 4 Amp
2. Output 4 Amps continuous supply current PF 0.6 at nominal 12/24 VDC.
3. Built-in dedicated charger for sealed lead acid or gel cell type batteries.
4. Maximum battery charging current 1.5Amps (not part of the max output current rating).
5. Automatic switch over to stand-by battery upon AC failure or below 69.9VAC.
6. Battery presence detection within 10 seconds.
7. Temperature Compensated Battery Charger.(EN54-4 only,not UL evaluated)
8. Battery Charger Monitor.
9. Battery load test every 48hr.
10. Battery test result indication.
11. Battery Reversal protection.
12. Low Battery indication at 11.40/22.80 Volts.
13. Low Battery disconnect at 10/20.2 Volts.
14. Low Battery, Battery disconnect, No Battery presence, battery charger trouble reporting. (See FAULT TABLE)
15. AC input indication by Green LED. (LED on when AC is present).
16. AC Fault CMOS Relay contact for AC failure
17. LEDs display on enclosure door (Green, Yellow, Blue).
18. DC output indication by Blue LED, on board and enclosure.
19. Overload and short circuit protection on DC output.
20. Battery charging leads included.
- 21 Board Dimension: 195mm x 110mm
22. Enclosure Dimension: 338 x 448 x 110mm(HP346 for 12Ah Battery)
23. Enclosure Dimension: 356 x 472 x 110mm(HP347 for 17.2Ah Battery)

Technical Specification:

Output Voltage Output Amperage Ripple	12/24 Vdc Regulated. Class E, unsupervised 4 Amp 50 mVp-p max
Charging Current Battery Charging Voltage	1.5A Max, and not part of max output rating 13.8V/27.6V Nominal
Operating Temperature	0deg.C to 49deg.C

Performance Ratings

UL 294 Performance Levels:

Model	Product Type	Line Security	Destructive Attack	Endurance	Standby Power
DX400ULMOM8ECB DX400ULACM4ECB DX400ULPD4ECB DX400ULPD8ECB DX400UL	Power Supply	I	I	IV	III (when used with 12Ah battery) III (when used with 17.2Ah battery)

CAN/ULC-60839-11-1 Performance Grades:

Model	Product Type	Grade	Grade Achievement
DX400ULMOM8ECB DX400ULACM4ECB DX400ULPD4ECB DX400ULPD8ECB DX400UL	Power Supply	3 (when used with 12Ah battery) 3 (when used with 17.2Ah battery)	Connect AC & Battery Trouble Relay Outputs to a Grade 3 Control Unit, to achieve Grade 3.

LED Indications

1. Green LED - AC indicator

- On when AC present.
- The AC fail Relay activates (opens) within 60 seconds after AC failure.

2. Blue LED – DC Power indicator

- Powered directly from the power supply DC output and indicates output is present.

3. Yellow LED – Battery Charging and Fault indicator

- The Yellow LED flashing indicates the battery is charging and is also used to indicate various Fault conditions. See the Fault Condition and Indication Table for details.

4. Red LED –Battery/Charger test Indicator for Pass or Failure.

- The Red LED indicates a Battery test Failure or a Battery charger failure in conjunction with the Yellow LED to indicate other Fault Conditions. See the Fault Conditions and Indication Table for details.

Relay Outputs:

Output	Output Type	Description
AC FAIL	NORMALLY CLOSED OPEN = FAULT	TRIPS WITHIN 60 SEC. AFTER AC FAILS CMOS RELAY RATING: 30VDC 60mA 16 OHMS
BATTERY FAIL	NORMALLY CLOSED OPEN = FAULT	BATTERY PROBLEM CMOS RELAY RATING: 30VDC 60mA 16 OHMS

Fault Condition & Indications:

FAULT	LED-G	LED-Y	LED-R	BATT RELAY	AC RELAY	LED-B
BATTERY REVERSED OR NOT CONNECTED		ON		OPEN		
BATTERY LOW		ON		OPEN		
BATTERY DISCONNECTED		ON		OPEN		
BATTERY TEST FAIL		ON	5 RAPID FLASHES STOP 1 SECOND REPEAT UNTIL BATTERY IS REPLACED	OPEN		
BATTERY TEST OK		OFF	3 FLASHES 1 SEC ON/OFF			
CHARGER FAIL			10 RAPID FLASHES 2 SECONDS STOP AND REPEAT UNTIL OK	OPEN		
AC FAIL	OFF				OPEN WITHIN 60 SEC	
DC FAIL/OVERLOAD						OFF

Battery Operating Values

Parameter	Output	Description
Battery Disconnect voltage	10/20.2V	When AC is off, the battery is disconnected when the battery voltage drops below this value. The battery is only reconnected when the AC is restored.
Minimum battery voltage to pass battery test	11.50V 23.0V	Red Led Flash 1 sec ON/OFF during 2 minutes testing. Battery Fail 5 rapid flashes and 1 sec pause. Replace Battery
Low Battery Voltage Warning	11.40V 22.80V	If the output voltage drops below this value a voltage low warning is generated. See Fault Conditions and Indication table.

Optional Temperature Compensated Charging Voltages for EN-54 only, not evaluated by UL

Temperature Degrees Celsius	Charger Voltage 12 Volts	Charger Voltage 24 volts
-10	14.1	28.20
0	14.0	28.00
10	13.9	27.80
20	13.75	27.50
30	13.65	27.30
40	13.50	27.00
50	13.40	26.80
>50	Charger off	Charger off

Installation Instructions

This power supply should be installed in compliance with National Electrical Code, NFPA70 as well NFPA72 National Fire Alarm Code, CSA C22.1, Safety Standard for Electrical Installations, Canadian Electrical Code, Part I, CAN/ULC-S524, and all applicable Local Codes. Installation to be performed by suitably qualified personnel. The power supply shall not be installed in the fail secure mode unless permitted by the local authority having jurisdiction, and shall not interfere with the operation of Listed panic hardware.

- 1 Mount the power supply in the desired location using the 4 mounting holes.
**NOTE: For use in Indoor Protected Area with Controlled Environment only.
Do not Install Power Supply on Exterior Doors.**
- 2 With the Mains power disconnected, connect the leads to the AC Input Terminal Block, respecting the wiring phase and polarity :
Ground/Earth=Green/Yellow, Neutral = Blue (White), Live =Black (Brown). This equipment must be connected to the 120-240 Volt Mains via a readily dedicated accessible external disconnect device with maximum 15 Amp branch protection. Select the operating output DC voltage 12/24 with the jumper SW1. SW1 ON=12VDC, SW1 OFF=24VDC.
- 3 **Do not connect the battery at this time.**
- 4 Switch ON the AC. Green LED will come ON indicating AC is present and the AC Fault Relay will be energized "ON" (closed). When the AC is off the AC Fault Relay will drop open within 60 seconds (Factory set) activating the CMOS output contact "AC Fail". Connect this output to relevant monitoring devices.
- 5 Verify the DC output voltage is correct = 13.20VDC or 26.40VDC max. Blue DC LED will be ON to indicate DC output is OK.
- 6 Yellow LED will be on and the BAT FAULT CMOS relay open indicating the Battery is not present or connected with reversed polarity.
- 7 Connect the Battery or Batteries respecting the polarity. Battery shall not be connected if AC is not present first.
- 8 If the battery is connected with the correct polarities the Yellow LED will turn OFF (See Fault Conditions and Indications Table). Within one minute the Battery Fault Relay will restore and the Yellow LED will flash once every 2 seconds.
- 9 If the battery is connected reverse polarity, the Yellow LED will be ON. (See the Table Fault). The CMOS relay will open indicating Battery Fault. Connect this output to relevant monitoring devices.
- 10 Connect the devices to be powered to the output terminals marked "Vo- Vo+".
- 11 See below for installation of PD4ECB, PD8ECB, MOM8ECB and ACM4ECB need 2 EOLR Resistors(2K2) provided. See Fig 1 & Fig 2.
- 12 If Tamper Switch is required use part # TSW1-02 or TWS2-02, see Fig 3.
- 13 Use 2K2 EOLR (end of line resistor) Part #EORL-PWX2K2
- 14 Connect the fault relays to FACP or ACP for trouble indication.
- 15 Secure the enclosure with the screw or with the Key Lock if provided.

PD4ECB, PD8ECB

Description:

The PD4ECB and the PD8ECB are distribution boards used for Fire Alarm, Burglary, Access Control and Egress Doors installation. The PD4ECB and PD8ECB board have 4 and 8 outputs each rated max. 2.0Amp(max. total current 4 Amp), each with electronic overcurrent protection set at 2.5 Amp.

Installation:

Connect the devices to be powered to the output terminals marked “ - DC +” 1 to 4 or 1 to 8 of the PD4ECB and PD8ECB board. Red Led indicates output is live. Red Led OFF indicates output is disabled due to overload or short, therefore the DC fail relay will open. To reset the output, remove the Load or the Short and investigate the cause of the trouble. Secure the enclosure with the screw and/or with the Key Lock if provided. CMOS relay rating: 30Vdc, 60mA. 16ohms contact resistance.

MOM8ECB

Description:

The MOM8ECB is a distribution controller to be used with Access Control System, and Egress Doors, It provides 12/24 vdc through 8 electronic over-current protected outputs, each rated max. 2 amp(max. total current = 4 amp), each with electronic overcurrent. The 8 outputs will switch ON or OFF security devices such as Magnetic Locks, Door Strikes, etc. It is to be connected to FACP or ACP via a NO or NC configurable contact input with EOLR 2.2kohm. (Part #EORL-PWX2K2) Also it has another input for Reversed Polarity triggering for older version of Fire Alarm Control Panel. The MOM8ECB has 2 status relay output, one with Dry Contact “Form C” to indicate output status and One Dry Contact “Form C” to indicate DC Failure on any of the 8 outputs.

Installation:

1. Output Connections

There are 8 selectable outputs suitable for FAIL Safe config and FAIL SECURE config.

1) For Fail Safe operation connect the device positive to DC STANDBY OUPUT (+) on the MOM8ECB. DC power is present in normal condition and will switch OFF when the FACP/ACP or Rev. Pol input is triggered. Fail Safe operation devices such as Magnetic Lock should be connected to this output as show on Fig. 1.

2) For Fail Secure operation connect device positive to DC ALARM OUTPUT (+) on the MOM8ECB. DC power is not present in normal condition and will switch ON when the FACP/ACP input is triggered. Fail Secure Operation Devices such as Door Strikes should be connected to this output.

3) In either configuration connect the negative of the device to the NEGATIVE terminal CN8

2. Fire Alarm and Access Control interface connection

Normally Open (NO), Normally Closed (NC) input or Polarity Reverse (Rev. Volt.) input are available to trigger the MOM8ECB operation. Connect the positive (+) and Negative (-) from the FACP/ACP to the REV. VOLT terminals observing the polarity,(polarity is referenced in alarm condition) or connect the NO or NC from the FACP/ACP output to the “Fire Trigger Terminals”. Install a 2K2 Ohms (EOL) PWX2K2 resistor at the FACP/ACP as show in Fig 1. Note: No ELOR on Rev. Pol.

3. Engineering RESET/REX Input

This option is available when the Jumper **JL** is removed(JL OFF). This will cause the MOM8ECB to latch upon receiving alarm from the FACP or ACP with this option in place. When the FIRE/ACP TRIGGER resets, MOM8ECB will only reset by activating the RESET/REX input.

JL ON will cause the unit to follow the FIRE/ACP TRIGGER. Install the 2K2 EOLR (end of line resistor) #EORL-PWX2K2 at the key Switch or Push Button to perform This Operation.

4. Relay Output

- a) DC Fail: DC output fail at one or more of the 8 outputs will cause the (DC FAIL) Trouble relay to open (De-energize). Connect this output to monitoring device. (28Vdc, 300mA)
- b) Status Output: The **FACP or ACP** or Rev. Pol input will cause the dry contact Relay “Form C” to open (de-energize). Connect this output to monitoring device. (28Vdc, 300mA)

5. Cascade Connection

Two(2) or more MOM8ECB units(maximum 20) can be connected together as follow: Connect the status output relay **C** and **NC** terminals from the 1st unit to the **REMOTE RESET INPUT** of the 2nd unit(not polarity sensitive) and remove the **JR** of the 1st unit. Install EOLR(2K2) on 2nd unit Fire Trigger terminal. If a 3rd unit needs to be connected the JR of the 2nd unit must be removed and so on for any additional unit. Ref to Fig.1.

NOTE: *If Latch Mode is used, only JL jumper on the first unit must be removed. Engineering Reset will be performed from the 1st unit.*

6. MOM8ECB LED Indication:

LD1 to LD8 RED LED when ON indicates that the output is ON (enable). When OFF, the output is OFF, NO DC present (disable). The cause could be Overload or short on the output. Note: all 8 outputs are current limited set at 2.5Amp, rated max 2.0Amp. LDF Fire Green Led is normally OFF. It will switch on upon receiving an Input from the FACP/ACP. This led will stay ON following the status of the FACP/ACP input. IF JL was removed this LED will stay ON until the manual RESET circuit resets.

ACM4ECB

DESCRIPTION:

The ACM4ECB is a distribution controller to be used with card Access Control, Egress Doors. It provides 12/24Vdc through 4 outputs rated 2.0A(max. 4A total) each with electronic over-current protection set at 2.5A. The 4 outputs will switch ON or OFF security devices such as Magnetic Locks, Door Strikes, etc. It is connected to FACP or ACP via a NO or NC configurable contact input using 2K2 EOLR(Part #EORL-PWX2K2). Also it has input for Reversed Polarity triggering. The ACM4ECB has 2 relay outputs, one Dry Contact "Form C" to indicate output status, and one Dry Contact "Form C" to indicate DC failure on any of the 4 outputs, due to overcurrent or short.

Installation:

1. Output Connections

There are 4 selectable outputs suitable for FAIL Safe config and Fail Secure config.

- a) For Fail Safe Operation connect the positive (+) lead of the device to normally Closed (NC) and the negative lead to COM "Neg", connector CN1 to CN4. DC power is present in normal condition and will switch OFF when FACP/ACP or or Reverse Polarity input is triggered. Fail Safe operation devices such as, Magnetic Lock should be connected to this output as show on Fig. 2.
- b) For Fail Secure operation connect device positive(+) lead to Normally Open (NO) DC power is not present in normal condition and will switch ON when the FACP or ACP or Reverse Polarity input is triggered. Fail Secure operation devices such as Door Strikes should be connected to this output.

2. Fire Alarm and Access Control Interface

Normally Open (NO), Normally Closed (NC) input or Polarity Reverse (Rev. Volt.) input are available to trigger the ACM4ECB operation. Connect the positive(+) and Negative(-) from the FACP or ACP to the REV. VOLT terminals observing the polarity, (polarity is referenced in alarm condition) or connect the NO or NC from the FACP or ACP output to the "Fire Trigger "terminals. Install PWX2K2 2k2 (EOLR) resistor at the FACP or ACP as show in Fig. 1. Note: No ELOR on Rev. Pol.

3. Engineering RESET/REX Input

This option is available when the Jumper **JL** is removed(JL OFF). This will cause the ACM4ECB to latch upon receiving Input from the FACP or ACP with this option in place and when the FIRE/ACP TRIGGER resets, ACM4ECB will only reset by activating the RESET/REX input.

JL ON will cause the unit to follow the FIRE/ACP TIGGER. Install PWX2K2 2.2K (EOLR) resistor at the Key Switch or Push Button to perform this operation.

4. Relay Output

- a) DC Fail: When one or more of the 4 outputs fail due to over current or short circuit condition, the DC fail Relay will open. Connect this output to monitoring device. (28Vdc, 300mA)
- b) Status Output: When the **FACP or ACP** input activates this will cause the dry contact Relay Form "C" to change state (de-energize). Connect this output to monitoring device. (28Vdc, 300mA)

5. Cascade Connection

Two(2) or more ACM4ECB units can be connected together as follow: Connect the Status Output relay **C** and **NC** terminals from the 1st unit to the **REMOTE RESET/REX INPUT** of the 2nd unit(not polarity sensitive) and remove the **JR** of the 1st unit. Install EOLR(2K2) on 2nd unit Fire Trigger terminal. If 3rd unit is connected, the JR of the 2nd unit must be removed, and so on for any additional unit. Ref to Fig.1.

NOTE: *If Latch Mode is used, only JL jumper on the first unit must be removed. Engineering Reset will be performed from the 1st unit.*

6. ACM4ECB LED INDICATION

L1 to L4 are the Output RED Led, when **ON** indicates DC is present (enable), and the Output relays are energized.

When **OFF**, Relay is de-energized and the output is **OFF**, NO DC present (disable).

LD1 to LD4 Yellow LED indication denotes overload or short on the output. The outputs are **Current limited set @ 2.5Amp, rated at max 2.0Amp.**

L9 Green Led is normally OFF. It will switch on upon receiving an alarm from the FACP/ACP. This LED will stay ON following the status of the FACP/ACP input. If JL was removed this LED will stay ON until the manual RESET circuit resets.

7. Access Control Panel (ACP)Trigger input.

There are 4 inputs, **CN10** through **CN13** each with two terminals, **IN** and **GND**. Activation of the inputs is achieved by shorting **IN** and **GND** terminals of the respective inputs.

8. FACP/ACP Input Programming

Selectable Output to be Irrelevant on Fire Activation

To have the output relay activation follow the FACP or ACP input place the DIP switch corresponding to desired relay to the "OFF" position. In the "ON position, the correspondent output relay will not be effected by the FACP,ACP or Rev. Pol input.

9. Isolated Output Configuration

If any of the outputs requires to be Isolated DRY CONTACT, remove the respective Jumper J1 through J4 to achieve this configuration, Form "C", (C NO NC) available to connectors CN1 through CN4. This connection is now isolated from the internal power source.

Relay Rating: 28Vdc, 2A. PF 0.6

DX400ULPD4ECB

REGULATED POWER SUPPLY CHARGER
UL/ULC LISTED AS FOLLOWS:

UL294, CAN/ULC-60839-11-1, CAN/ULC-S533 FOR ACCESS CONTROL SYSTEM
UL864, CAN/ULC-S527 FOR COMMERCIAL FIRE
UL603, ULC-S318 FOR BURGLARY ALARM SYSTEM

NOTE: PLEASE REFER TO DX400UL INSTALLATION MANUAL, PART NO:PX4000 REV:01



DATE OF MFG:

PART NO:PX4002 REV:01



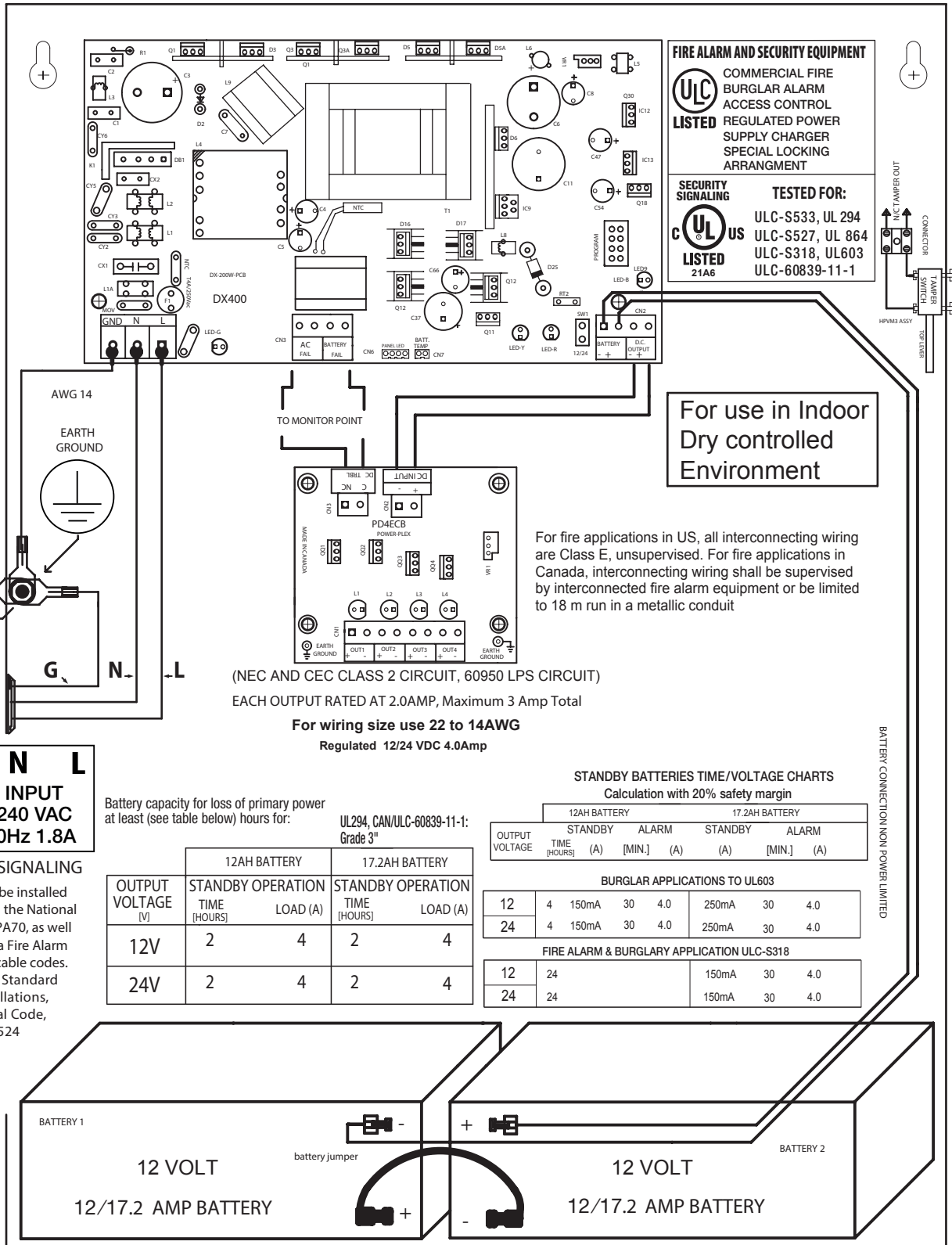
REG# T1880475-02



REG#T1880475-01



REG# T1880475-03



FIRE ALARM AND SECURITY EQUIPMENT
ULC LISTED
 COMMERCIAL FIRE
 BURGLAR ALARM
 ACCESS CONTROL
 REGULATED POWER
 SUPPLY CHARGER
 SPECIAL LOCKING
 ARRANGEMENT

SECURITY SIGNALING
UL US LISTED 21A6
TESTED FOR:
 ULC-S533, UL 294
 ULC-S527, UL 864
 ULC-S318, UL603
 ULC-60839-11-1

For use in Indoor Dry controlled Environment

For fire applications in US, all interconnecting wiring are Class E, unsupervised. For fire applications in Canada, interconnecting wiring shall be supervised by interconnected fire alarm equipment or be limited to 18 m run in a metallic conduit

(NEC AND CEC CLASS 2 CIRCUIT, 60950 LPS CIRCUIT)
EACH OUTPUT RATED AT 2.0AMP, Maximum 3 Amp Total

For wiring size use 22 to 14AWG
Regulated 12/24 VDC 4.0Amp

G N L
AC INPUT
 120-240 VAC
 50-60Hz 1.8A

Battery capacity for loss of primary power at least (see table below) hours for:

UL294, CAN/ULC-60839-11-1: Grade 3*

OUTPUT VOLTAGE [V]	12AH BATTERY		17.2AH BATTERY	
	STANDBY OPERATION TIME [HOURS]	LOAD (A)	STANDBY OPERATION TIME [HOURS]	LOAD (A)
12V	2	4	2	4
24V	2	4	2	4

STANDBY BATTERIES TIME/VOLTAGE CHARTS
Calculation with 20% safety margin

OUTPUT VOLTAGE	12AH BATTERY				17.2AH BATTERY			
	STANDBY TIME [HOURS]	ALARM (A)	STANDBY (A)	ALARM (A)	STANDBY (A)	ALARM (A)	STANDBY (A)	ALARM (A)
12	4	150mA	30	4.0	250mA	30	4.0	
	24	4	150mA	30	4.0	250mA	30	4.0
BURGLARY APPLICATIONS TO UL603								
12	24				150mA	30	4.0	
	24				150mA	30	4.0	
FIRE ALARM & BURGLARY APPLICATION ULC-S318								
12	24				150mA	30	4.0	
	24				150mA	30	4.0	

FIRE PROTECTIVE SIGNALING

This Product must be installed in compliance with the National Electrical Code NFPA70, as well as NFPA72 Nation a Fire Alarm Code and all applicable codes. CSA C22.1, Safety Standard for Electrical Installations, Canadian Electrical Code, Part I, CAN/ULC-S524

KEEP POWER LIMITED WIRING FROM NON POWER LIMITED WIRING AT LEAST 0.25" INCH APART

DX400ULPD8ECB

REGULATED POWER SUPPLY CHARGER
UL/ULC LISTED AS FOLLOWS:

UL294, CAN/ULC-60839-11-1, CAN/ULC-S533 FOR ACCESS CONTROL SYSTEM
UL864, CAN/ULC-S527 FOR COMMERCIAL FIRE
UL603, ULC-S318 FOR BURGLARY ALARM SYSTEM

NOTE: PLEASE REFER TO DX400UL INSTALLATION MANUAL, PART NO:PX4000 REV:01



DATE OF MFG:

PART NO:PX4003 REV:01



I.T.E. POWER SUPPLY
E220695



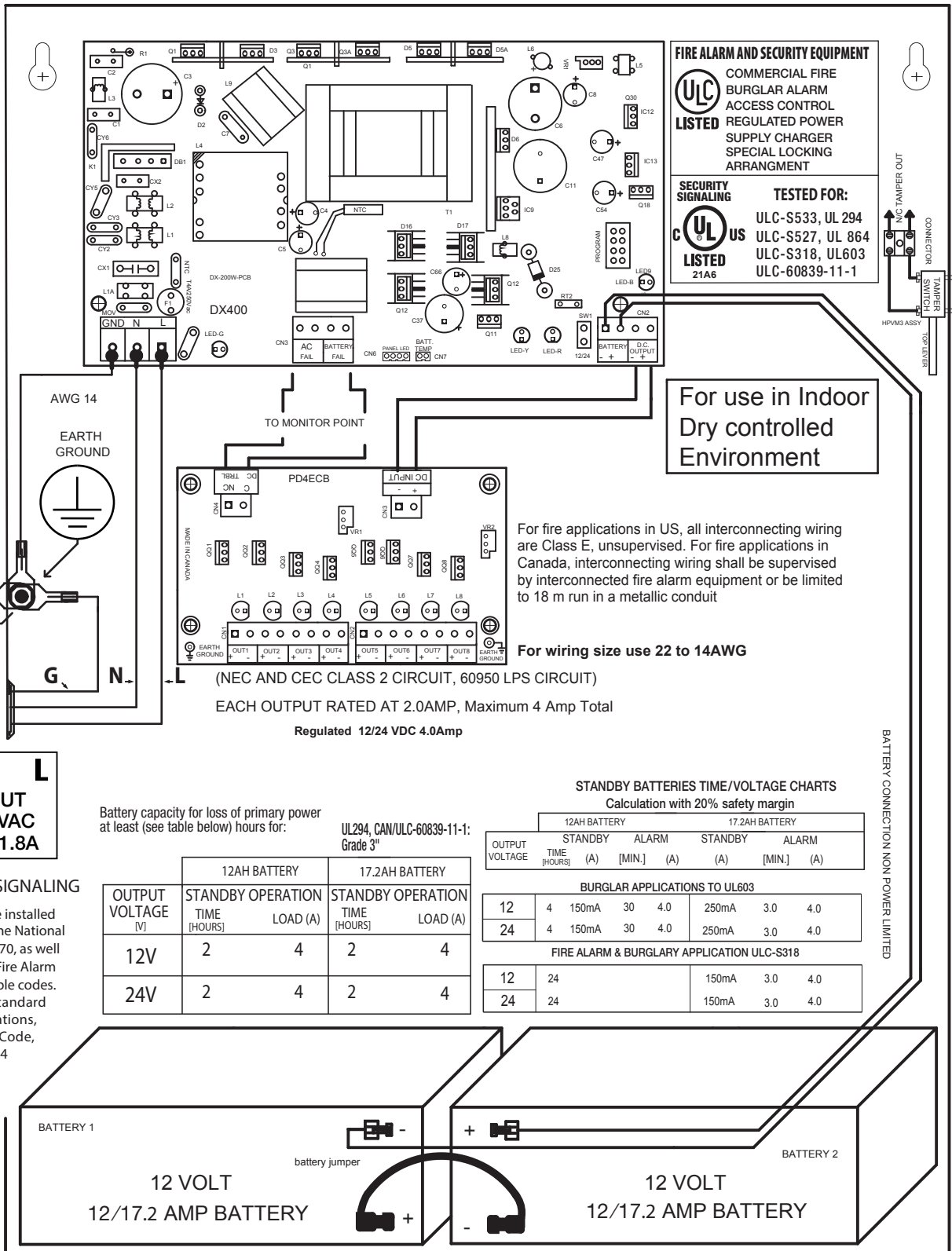
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REG# T1880475-01



REG# T1880475-03



FIRE ALARM AND SECURITY EQUIPMENT
ULC LISTED
COMMERCIAL FIRE
BURGLAR ALARM
ACCESS CONTROL
REGULATED POWER
SUPPLY CHARGER
SPECIAL LOCKING
ARRANGMENT

SECURITY SIGNALING
ULC LISTED 21A6
TESTED FOR:
ULC-S533, UL 294
ULC-S527, UL 864
ULC-S318, UL603
ULC-60839-11-1

For use in Indoor
Dry controlled
Environment

For fire applications in US, all interconnecting wiring are Class E, unsupervised. For fire applications in Canada, interconnecting wiring shall be supervised by interconnected fire alarm equipment or be limited to 18 m run in a metallic conduit

For wiring size use 22 to 14AWG

(NEC AND CEC CLASS 2 CIRCUIT, 60950 LPS CIRCUIT)
EACH OUTPUT RATED AT 2.0AMP, Maximum 4 Amp Total

Regulated 12/24 VDC 4.0Amp

G N L
AC INPUT
120-240 VAC
50-60Hz 1.8A

Battery capacity for loss of primary power at least (see table below) hours for: UL294, CAN/ULC-60839-11-1: Grade 3"

OUTPUT VOLTAGE (V)	12AH BATTERY		17.2AH BATTERY	
	STANDBY OPERATION TIME (HOURS)	LOAD (A)	STANDBY OPERATION TIME (HOURS)	LOAD (A)
12V	2	4	2	4
24V	2	4	2	4

STANDBY BATTERIES TIME/VOLTAGE CHARTS
Calculation with 20% safety margin

OUTPUT VOLTAGE	TIME (HOURS)	12AH BATTERY		17.2AH BATTERY	
		STANDBY (A)	ALARM [MIN.] (A)	STANDBY (A)	ALARM [MIN.] (A)
12	4	150mA	30	4.0	250mA
	3.0	4.0	3.0	4.0	4.0
24	4	150mA	30	4.0	250mA
	3.0	4.0	3.0	4.0	4.0

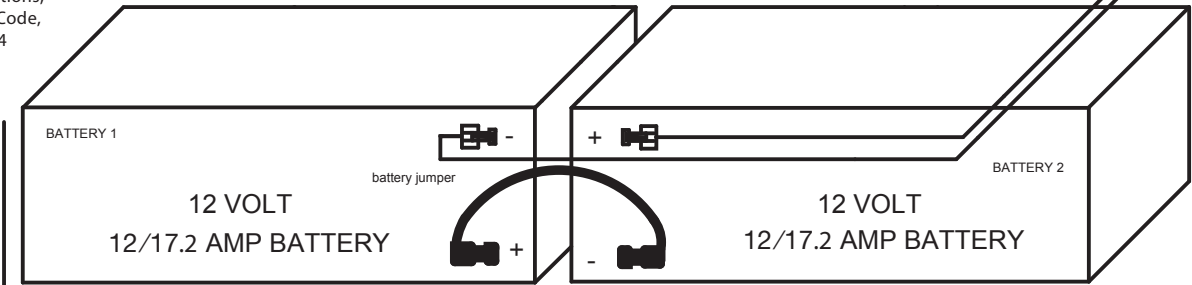
BURGLAR APPLICATIONS TO UL603

OUTPUT VOLTAGE	TIME (HOURS)	STANDBY (A)	ALARM [MIN.] (A)	STANDBY (A)	ALARM [MIN.] (A)
12	24	150mA	3.0	4.0	4.0
24	24	150mA	3.0	4.0	4.0

FIRE ALARM & BURGLARY APPLICATION ULC-S318

OUTPUT VOLTAGE	TIME (HOURS)	STANDBY (A)	ALARM [MIN.] (A)	STANDBY (A)	ALARM [MIN.] (A)
12	24	150mA	3.0	4.0	4.0
24	24	150mA	3.0	4.0	4.0

FIRE PROTECTIVE SIGNALING
This Product must be installed in compliance with the National Electrical Code NFPA70, as well as NFPA72 Nation a Fire Alarm Code and all applicable codes. CSA C22.1, Safety Standard for Electrical Installations, Canadian Electrical Code, Part I, CAN/ULC-S524



KEEP POWER LIMITED WIRING FROM NON POWER LIMITED WIRING AT LEAST 0.25" INCH APART

BATTERY CONNECTION NON-POWER LIMITED

DX400ULMOM8ECB

REGULATED POWER SUPPLY CHARGER
 UL/ULC LISTED AS FOLLOWS:
 UL 294, C AN/ULC-60839-11-1, CAN/ULC-S533
 POWER SUPPLY FOR ACCESS CONTROL SYSTEM

This Product must be installed in compliance with National Electrical Code NFPA 70, and all applicable codes. CSA C22.1, Safety Standard for Electrical Installations, Canadian Electrical Code.



DATE OF MFG:

NOTE: PLEASE REFER TO DX400UL INSTALLATION MANUAL, PART NO:PX4000 REV:01

PART NO:PX4004 REV:01



I.T.E. POWER SUPPLY
E220695



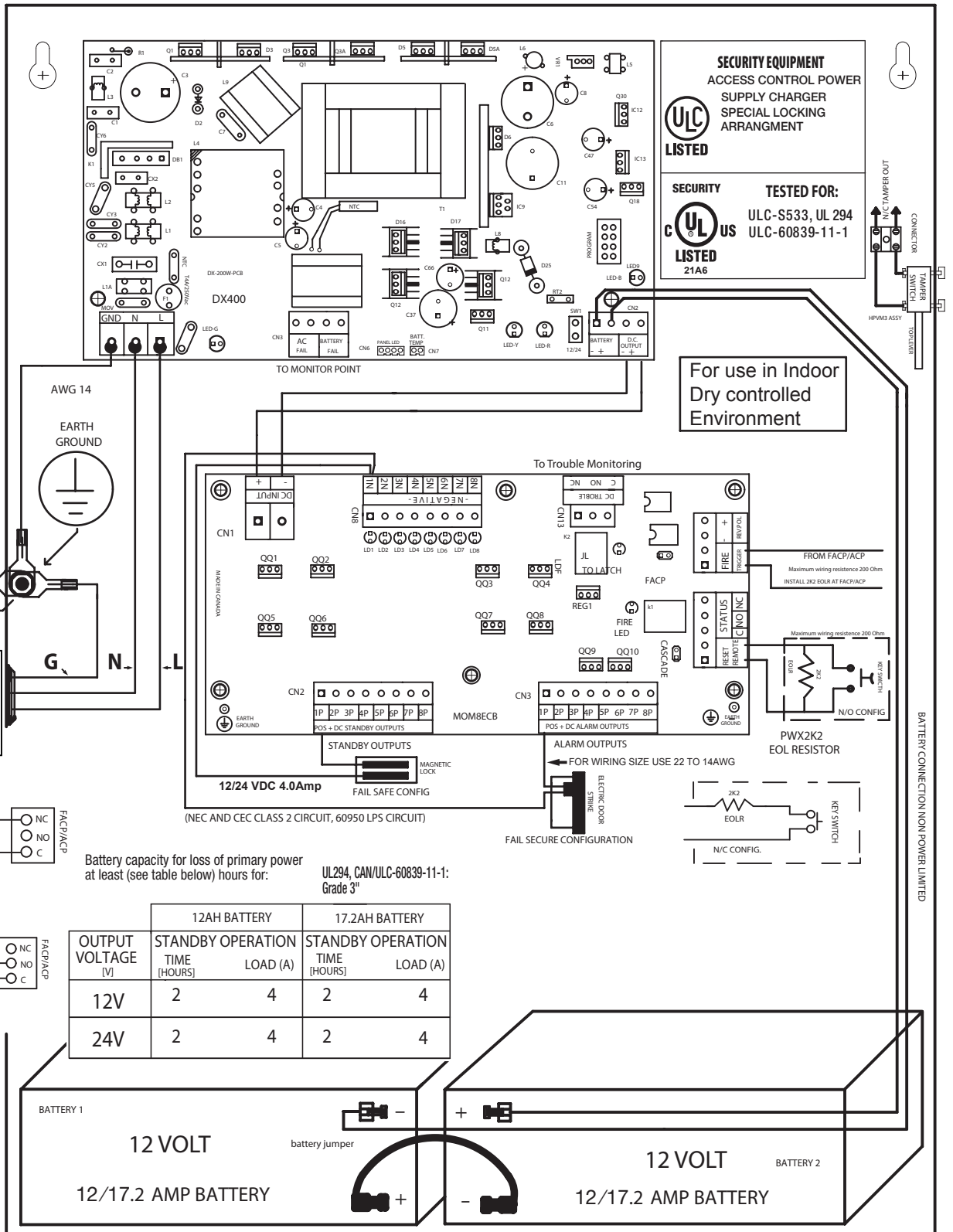
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REG# T1880468-01



REG# T1880468-03



SECURITY EQUIPMENT
 ACCESS CONTROL POWER
 SUPPLY CHARGER
 SPECIAL LOCKING
 ARRANGMENT

ULC LISTED

SECURITY TESTED FOR:
 ULC-S533, UL 294
 ULC-60839-11-1

UL US LISTED 21A6

For use in Indoor
 Dry controlled
 Environment

Battery capacity for loss of primary power at least (see table below) hours for:
 UL294, CAN/ULC-60839-11-1:
 Grade 3¹

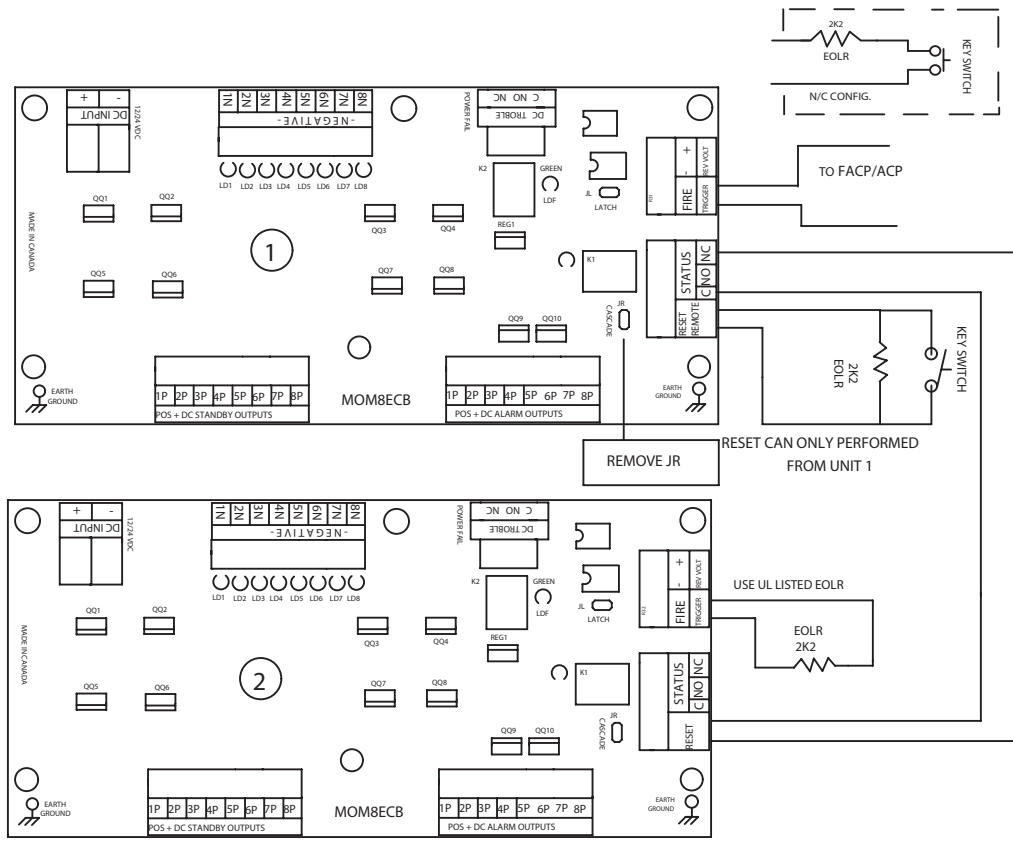
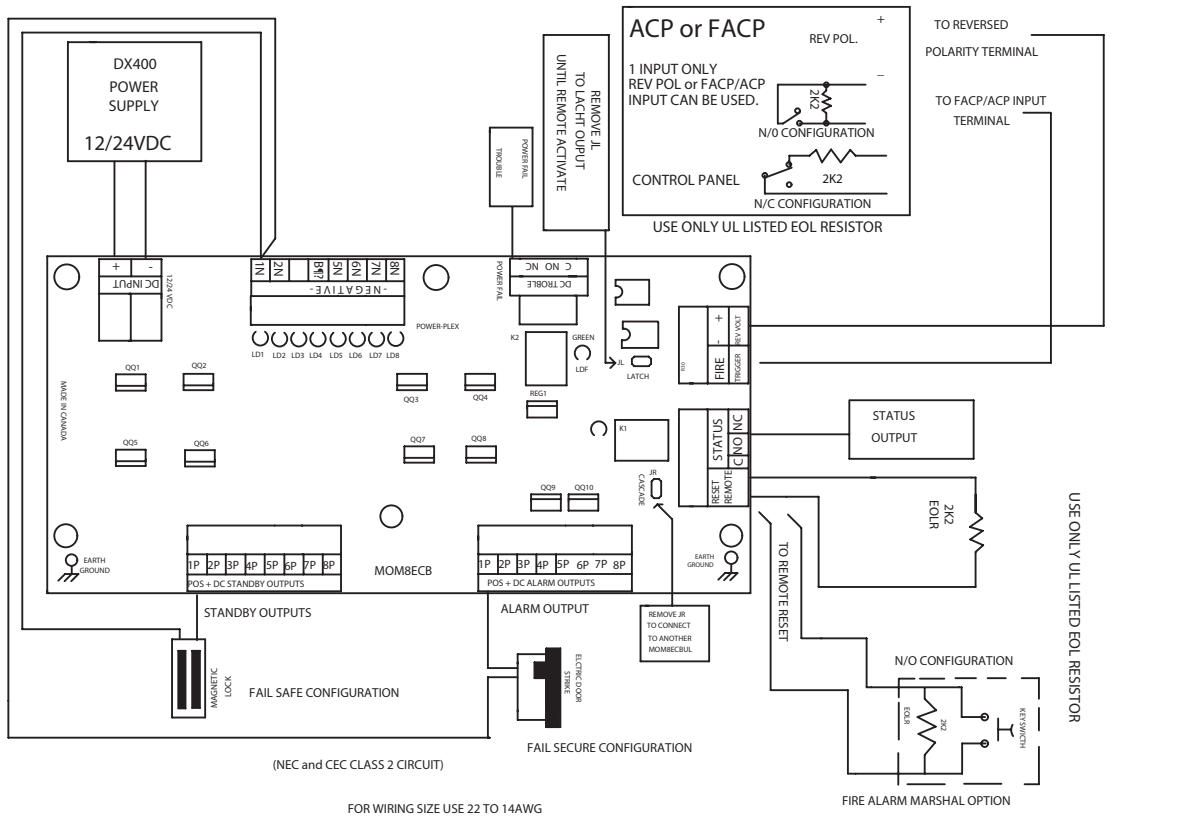
OUTPUT VOLTAGE [V]	12AH BATTERY		17.2AH BATTERY	
	STANDBY OPERATION TIME [HOURS]	LOAD (A)	STANDBY OPERATION TIME [HOURS]	LOAD (A)
12V	2	4	2	4
24V	2	4	2	4

KEEP POWER LIMITED WIRING FROM NON POWER LIMITED WIRING AT LEAST 0.25" INCH APART

TYPICAL APPLICATION WIRING DIAGRAM

2 OR MORE DX400ULMOM8ECB CONNECTED IN CASCADE

PART NO: PX4005 REV:01



KEEP POWER LIMITED WIRING FROM NON POWER LIMITED WIRING AT LEAST 0.25" INCH APART

FIG.1

DX400ULACM4ECB

REGULATED POWER SUPPLY CHARGER
UL/ULC LISTED AS FOLLOWS:
UL 294, CAN/ULC60839-11-1, CAN/ULC-S533
POWER SUPPLY FOR ACCESS CONTROL SYSTEM

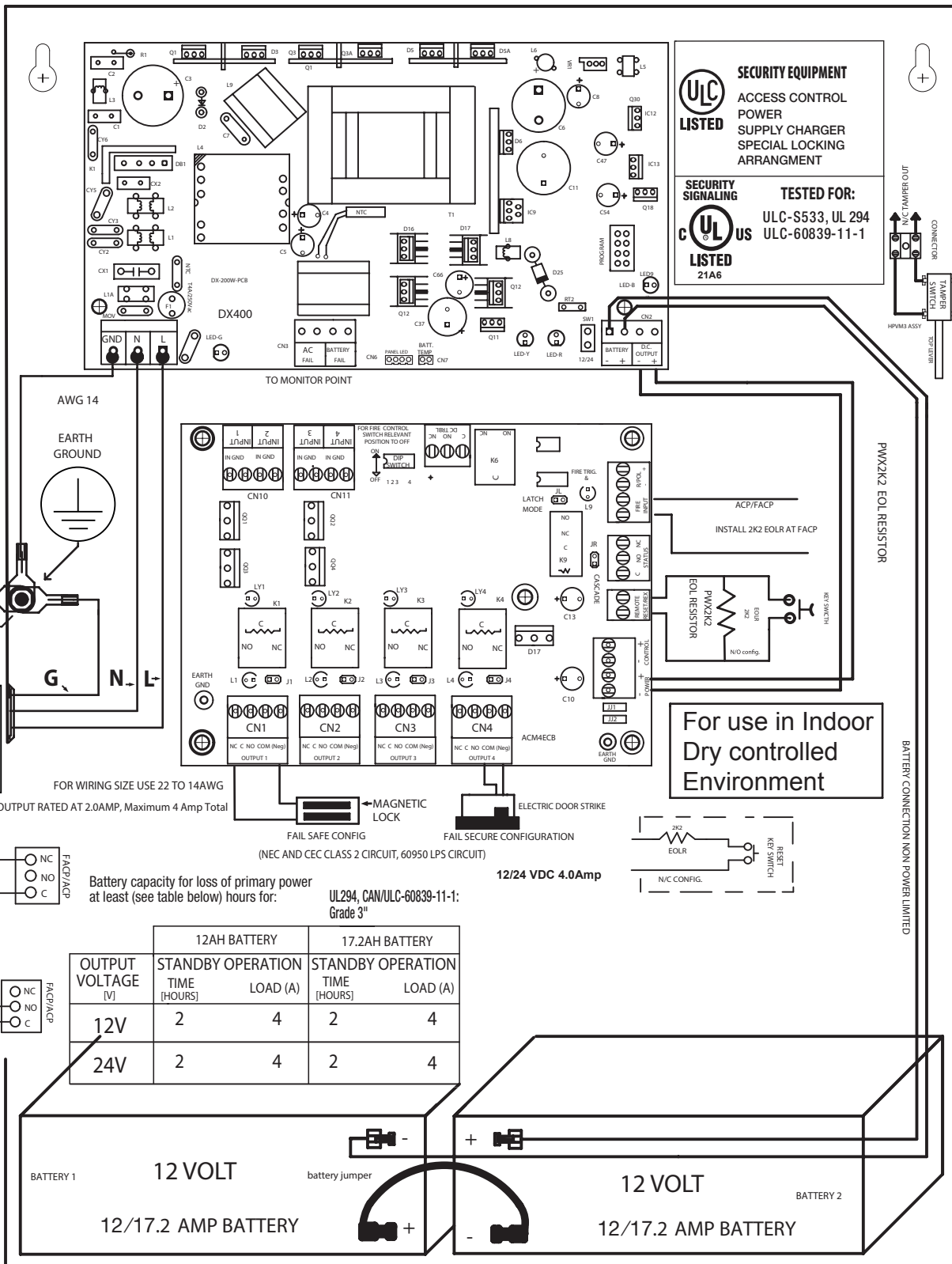
This Product must be installed in compliance with National Electrical Code NFPA70, and all applicable codes. CSA C22.1, Safety Standard for Electrical Installations, Canadian Electrical Code.



NOTE: PLEASE REFER TO DX400UL INSTALLATION MANUAL, PART NO:PX4000 REV:01

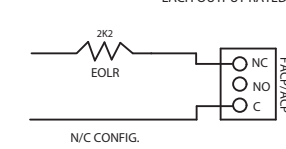
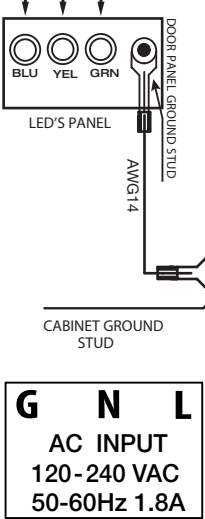
DATE OF MFG

PART NO:PX4006 REV:01



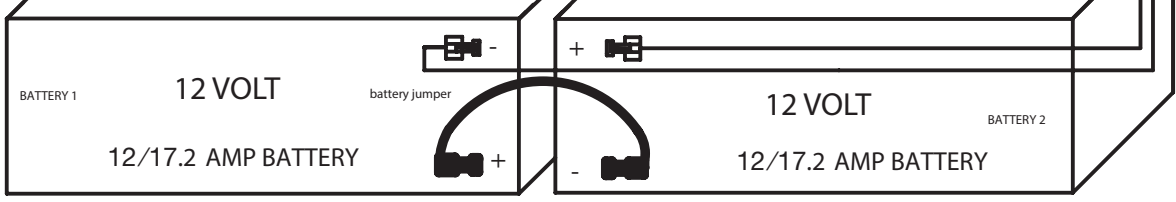
ULC LISTED SECURITY EQUIPMENT ACCESS CONTROL POWER SUPPLY CHARGER SPECIAL LOCKING ARRANGEMENT

ULC LISTED SECURITY SIGNALING TESTED FOR: ULC-S533, UL 294 ULC-60839-11-1



Battery capacity for loss of primary power at least (see table below) hours for: **UL294, CAN/ULC-60839-11-1: Grade 3"**

OUTPUT VOLTAGE [V]	12AH BATTERY		17.2AH BATTERY	
	STANDBY OPERATION TIME [HOURS]	LOAD (A)	STANDBY OPERATION TIME [HOURS]	LOAD (A)
12V	2	4	2	4
24V	2	4	2	4



KEEP POWER LIMITED WIRING FROM NON POWER LIMITED WIRING AT LEAST 0.25" INCH APART

TYPICAL APPLICATION WIRING DIAGRAM

2 OR MORE DX400ULACM4ECB CONNECTED IN CASCADE

PART NO: PX4007 REV:01

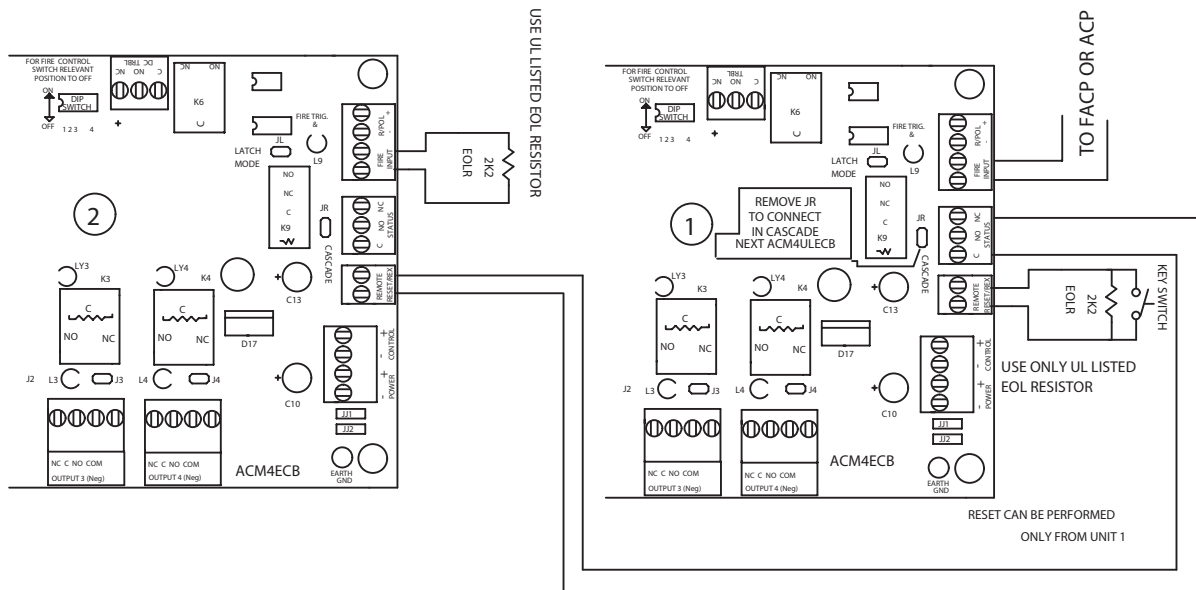
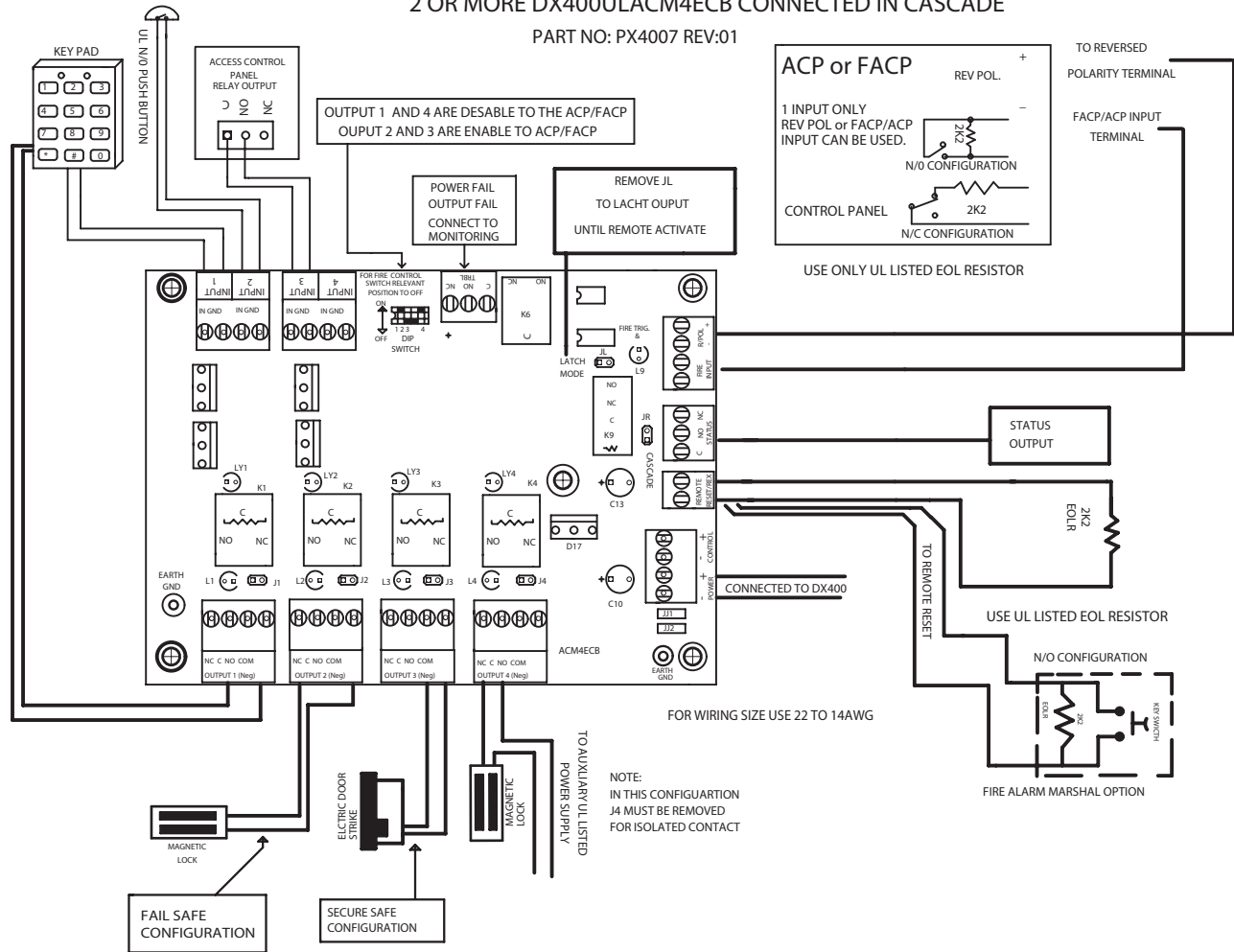
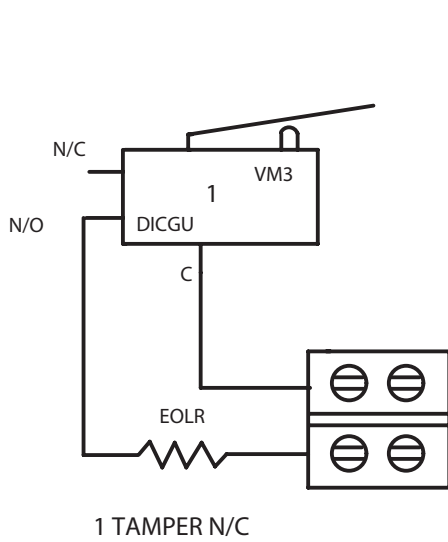


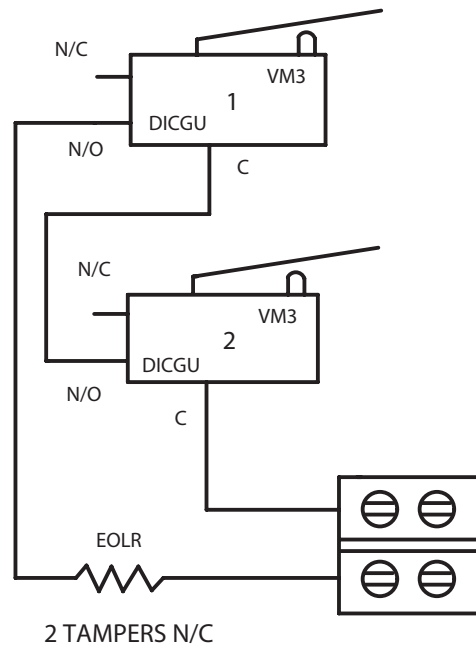
FIG 2

KEEP POWER LIMITED WIRING FROM NON POWER LIMITED WIRING AT LEAST 0.25" INCH APART

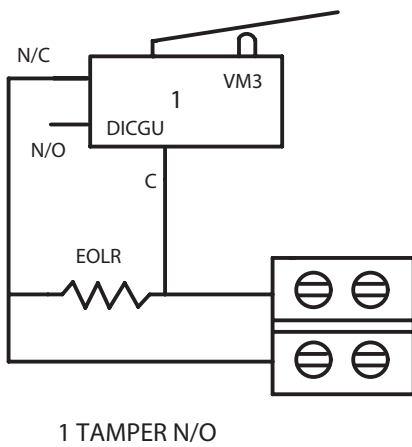
Tamper Switch Connection



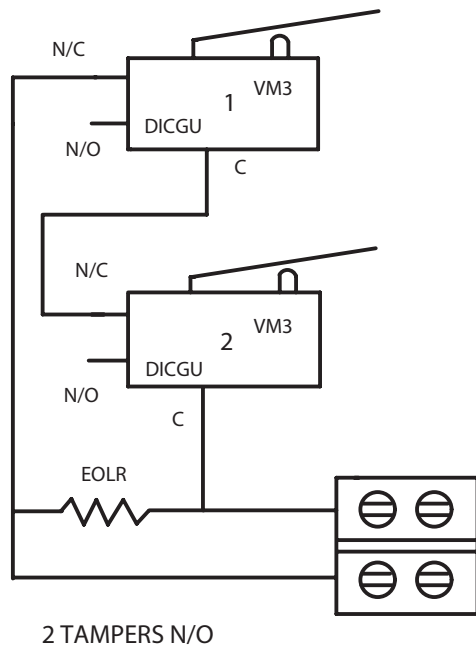
CONNECT TO MONITORING POINT



CONNECT TO MONITORING POINT



CONNECT TO MONITORING POINT



CONNECT TO MONITORING POINT

Fig. 3