Part No.180ULX Ver. A

PWX180ULX

POWER SUPPLY / CHARGER FOR ACCESS CONTROL AND EGRESS DOORS.

This power supply should be installed in compliance with the National Electric Code (NFPA 70) CSA C22.1, Canadian Electric Code, Part 1 and all applicable Local Codes. Installation to be performed by qualified technical personnel.

Description:

This is a power supply /charger that supplies a total of 2.3 amps nominal continuous supply at nominal 12/24VDC. There are 2 outputs for Magnetic Lock or Electric Strike each with over current protected by 2.5 amp P.T.C. The PWX180ULX can accommodate 1 or 2- 7Ah and or 1 or 2- 12Ah Batteries.

UL listed with UL294 Edition 7th, ULC-S533

General Specification

1. Input : 60Hz 1.8A max,120VAC for PWX180ULX, AC monitor relay (C contacts) within 60 Sec.
2. 1.3 Amp continuous supply current at nominal 12/24VDC, 0.6 Pf controlled output for Maglock or Electric Strike. Operating temperature from 0 to 49 Celsius, and 85% relative humidity. See Connection Diagram for output voltage ranges.
3. Auxiliary Output 200mA, 0.6 pf at nominal 12/24VDC for Access Device. See Connection Diagram for output voltage ranges.
4. Built in Battery Charger of 500mA for sealed lead acid or gel cell batteries, Battery Charger Monitor, Battery Reversal Protection, Automatic switch over to stand-by Battery upon AC Failure. Low Battery and Battery Disconnect, Battery Leads included. Battery Fail relay (C contacts).
5. AC Fail and Battery Relay contact rating as 28Vdc, 300mA resistive.
6. All Outputs in absense of AC will measure from 10.20 - 13.20 vdc / 20.40 -26.40 vdc.
7. LEDs display on enclosure door (LED Green for AC ,LED Yellow for Battery, Led Blue for DC.
8. Enclosure dimension PWX180ULX 12” x 13” x 4: (323mm x 331mm x 110mm)

UL 294 7th Edition, ULC-S533 Access Control Performance Level:
Destructive Attack - I, Endurance - IV, Line Security – I, Standby Power – IV.

BATTERY STAND-BY SPECIFICATION

Output	Stand-by 4hr.	Alarm 5 min
12VDC / 7AH Battery	1A	1A
24VDC / 7AH Battery	1A	1A

Output	Stand-by 4hr.	Alarm 5 min
12VDC / 12AH Battery	1.3A	1A
12VDC / 12AH Battery	1.3A	1A

Installation Instructions

This power supply should be installed in compliance with the National Electrical Code (NFPA 70), CSA ,C22.1, Canadian Electrical Code, Part 1 and all applicable Local Codes. Installation to be performed by suitably qualified technical personnel.

1 Surface 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 in Exterior Conditions. NOTE; For use Indoor Protective Area Controlled Environment Only. Do not install This Power supply in Exterior Conditions and not intended for mounting on Inside or outside of an exterior door.

2 With the Mains power disconnected, connect the leads to the AC Input Fuse Terminal Block, respecting the wiring phase and polarity :Ground/Earth=Green/Yellow, Neutral = White, Live =Black.
This equipment must be connected to the 120 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. Jumper OFF 12VDC, Jumper ON 24VDC. Measure the output voltage before connecting the MagLock or Electric Strike to confirm wright rate of the devices.

3 Switch ON the AC. Green LED will come ON indicating AC is present. Connect the battery if required with the 18AWG Battery Leads. Yellow Led will come if battery is not connected, Blue LED will come ON indicating the output voltage is active.

5 Connect the AC and Battery Fault Relays to a monitoring point.

4 Connect the locking device: Magnetic Lock respecting the positive polarity to terminal + Mag Lock and negative polarity to terminal –COM. Electric Strike positive polarity to the terminal +STRIKE and the negative polarity to the terminal negative -COM. Use 22 to 18 AWG Cable for this connections.

Fire Alarm / Access Control Interface Connection

Normally Open (NO), Normally Closed (NC) input from the FACP or ACP are available to trigger PWX series operation. Connect the NO or NC from the FACP or ACP output to the FIRE/ACP TRIGGER terminals. Install the 2K2 Ohm end of line resistor (EOLR provided) at the FACP or ACCESS CONTROL PANEL as shown on the diagram. (Fig 1)

REX/Engineering Reset Input Connection

This option is available when the Jumper JL is removed (JL OFF). This will cause the PWX to latch upon receiving alarm from the FACP or ACP with this option in place and when the FIRE/ACP TRIGGER resets, PWX will only reset by activating the RESET/REX input. JL ON will cause the unit to follow the FIRE/ACP TIGGER. Install the 2.2K Ohms RESISTOR, Part provided at the Key Switch or Push Button to perform this operation. (Fig 1) ***. JL ON*** will cause the unit to follow the FACP/ACP TRIGGER. Install a 2K2 OHM RESISTOR provided at the KEY Switch or Push Button to perform this operation.

Cascade Connection

Two (2) or more units can be connected together as follow : Connect the Status Output relay C and NC

Terminals from unit 1 to the RESET/REX input of the 2nd unit (not polarity sensistive) and remove the jumper JR of the 1st unit. Install 2K2 resistor on 2nd unit FIRE/ACP TRIGGER. If a 3rd unit JR must be removed from 2nd unit and so on for additional unit. Also 2K2 EOLR must be installed on 3rd unit. Note: maximum 20 units allowed.

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

Reset Output on Power Up.

JLAC OFF jumper will set the output OFF when a total loss of power occurs. To reset the power after powering back up Switch ON/ OFF the Reset Key switch for 2 seconds.

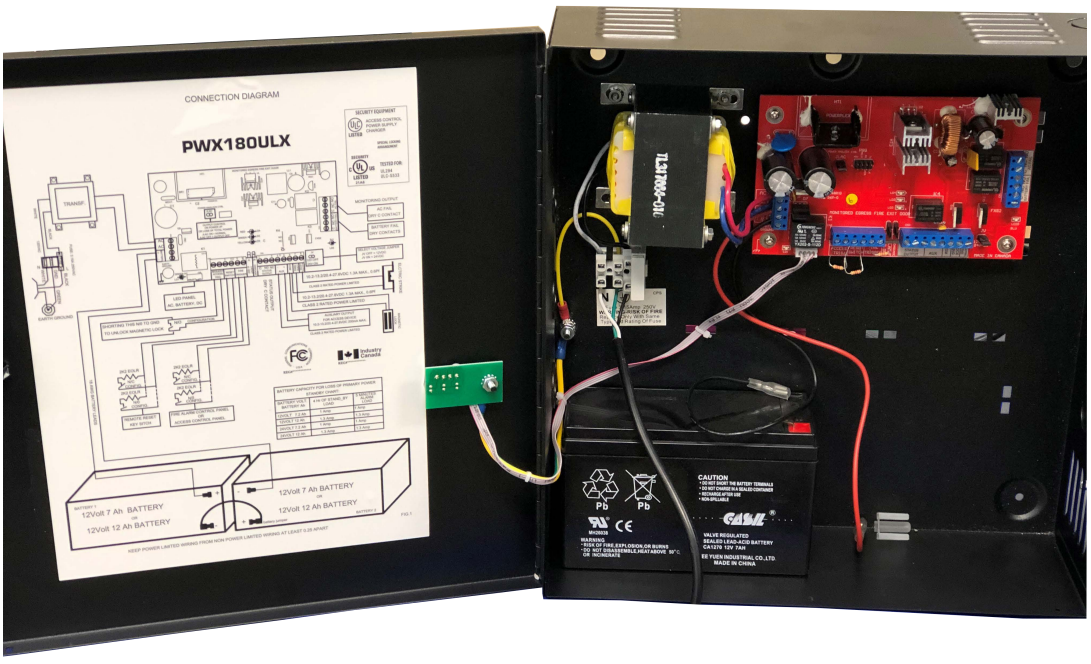
VOLTAGE SELECTION CHART:				
Output	JV1 Position	Stand-by Load	Alarm Load	Battery (optional)
12VDC	OFF	**1.3AMP**	**1.3AMP**	**12VDC**
24VDC	ON	**1.3AMP**	**1.3AMP**	**24VDC**

TERMINAL BLOCK CONNECTIONS:

AC / AC	SECONDARY OF TRANSFORMER INPUT
BATTERY + / -	BATTERY INPUT 1 - 12VDC OR 2 – 12VDC BATTERIES IN SERIES
REQUEST ACCESS	THIS WILL TRIGGER THE OUTPUT BY SHORTING THEM
RESET SWITCH	SUPERVISED RESET SWITCH (EOLR 2K2) N/O or N/C configuration
FIRE TRIGGERING	SUPERVISED FIRE TRIGGERING FACP/ACP (EOLR 2K2) N/O or N/C config.
OUTPUT STATUS C/NO/NC	AUXILIARY RELAY CHANGE STATUS WITH TRIGGERING
AUXILIARY OUTPUT - / +	200mA 12/24VDC TO POWER ACCESS DEVICE, 0.6 pF
COMMON NEGATIVE -	NEGATIVE OUTPUT FOR ELECTRIC STRIKE AND MAGNETIC LOCK
ELECTRICK STRIKE POSITIVE +	POSITIVE OUTPUT FOR ELECTRIC STRIKE 1.3A Max 0.6Pf
MAGNETIC LOCK POITIVE +	POSITIVE OUTPUT FOR MAGNETIC LOCK 1.3A Max. 0.6Pf
AC FAIL C/NO/NC	AC FAIL MONITOR OUTPUT FORMAT C CONTACTS
BATTERY FAIL C/NO/NC	BATTERY FAIL MONITOR OUTPUT FORMAT C CONTACTS

FAULT CONDITION & INDICATION:

FAULTS	LD1 GREEN	LD2 GREEN	LD3 YELL0W	LD4 RED	LD5 BLUE	AC RELAY	BATT RELAY	STATUS RELAY
BATTERY MISSING OR REVERSED POL.			ON				OPEN	
BATTERY LOW			ON				OPEN	
BATTERY DISCONECT			ON				OPEN	
AC FAIL	OFF					OPEN WITHIN 60 SEC		
FIRE/ACP TRIGGER NOT ACTIVATED		OFF						OPEN
RESET/REX/ACP WHEN TRIGGER IS NOT ACTIVATED		OFF						OPEN
BATTERY CHARGER FAULT			ON				OPEN	
VDC OFF					OFF			
VDC ON					ON			



CONNECTION DIAGRAM

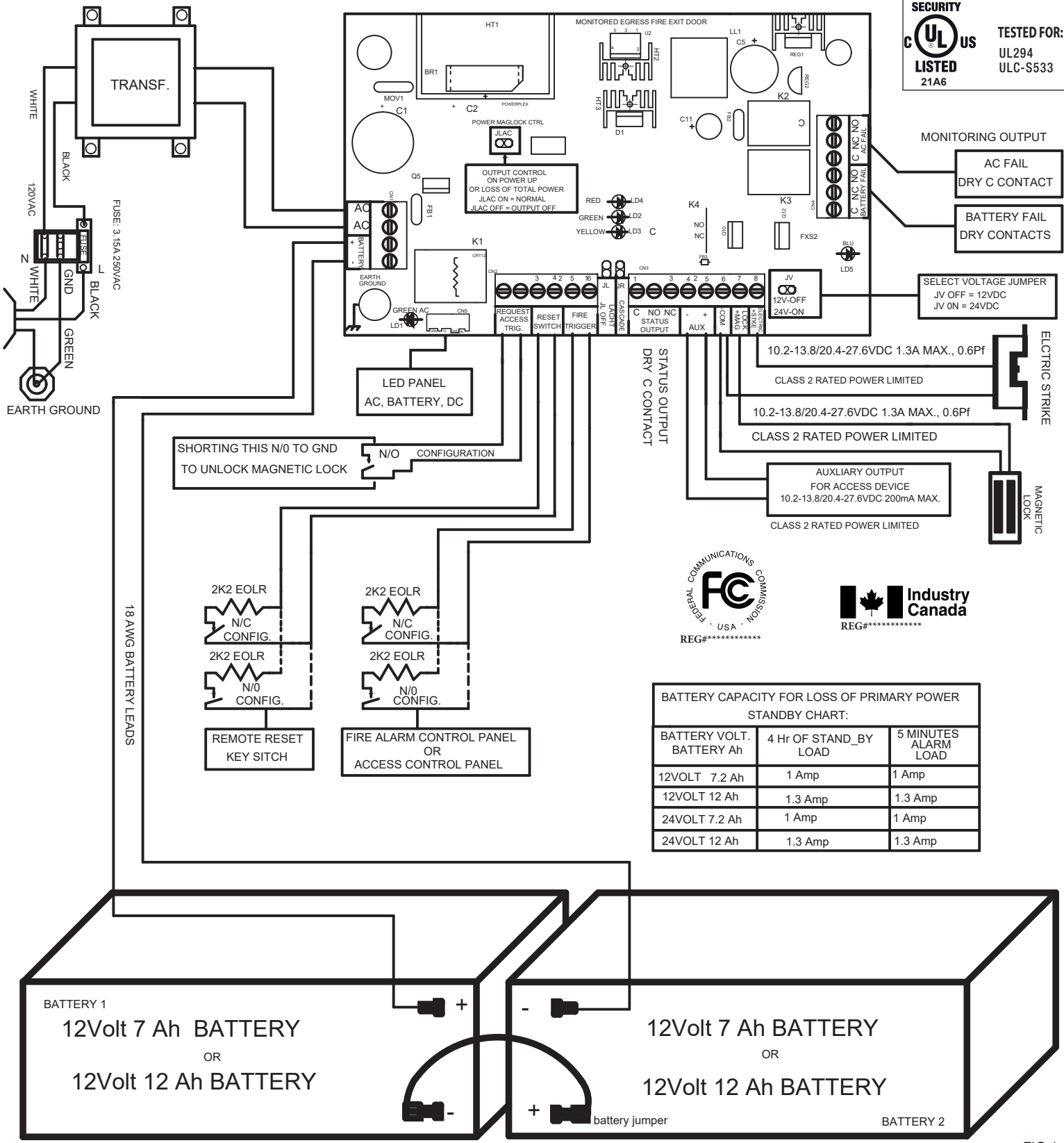
PWX180ULX

SECURITY EQUIPMENT

ULC LISTED — ACCESS CONTROL POWER SUPPLY CHARGER

SPECIAL LOCKING ARRANGEMENT

SECURITY C UL US LISTED 21A6 — TESTED FOR: UL294 ULC-S533



BATTERY CAPACITY FOR LOSS OF PRIMARY POWER STANDBY CHART:		
BATTERY VOLT. BATTERY Ah	4 Hr OF STAND_BY LOAD	5 MINUTES ALARM LOAD
12VOLT 7.2 Ah	1 Amp	1 Amp
12VOLT 12 Ah	1.3 Amp	1.3 Amp
24VOLT 7.2 Ah	1 Amp	1 Amp
24VOLT 12 Ah	1.3 Amp	1.3 Amp

FIG.1

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