

## **PS2** *Super Stabilized Power*

### **1.0 OVERVIEW**

#### **1.1 Introduction**

The PS2 is XPR's unique power supply unit, which is fully compatible with XPR products. It has sufficient capacity to power readers, EM locks or strikes, in addition to the Controller and/or Extension unit. It provides stable DC output even with varying input voltages. It comes in a strong and elegant steel housing. It has a built-in charger circuit and an option to house a battery for backup, in case of power failure. The PS2 has built-in automatic protection against battery over-charging. It also has built-in over voltage and surge protection

#### **1.2 Features**

- Switched Mode Power Supply.
- Steel housing.
- In-built battery charger.
- Provision for battery for backup power.
- Fuse protection for mains input.
- Fuse protection against battery polarity reversal.
- Short-circuit and output overload protection.
- Tamper protection.
- Protection against battery over-charging.

#### **1.3 Specifications**

Main input power:	230V AC+/-15%, 50Hz.
Output Voltage:	12.8 V to 13.8 VDC, Nominal 13.5 VDC.
Output Current:	Average 1.5 A, Maximum 2 Amp.
Output Ripple:	< 6mV at nominal input voltage.
Electrical protection:	Against high voltages and surges.
Monitoring:	Green LED indicates output.
Battery specification:	12V, 7.2 Ah sealed lead acid type battery.
Fuse protection:	2A for mains. 2A fuse for battery polarity reversal. Note: On polarity reversal the fuse protects both the battery and the circuit.
Dimensions (mm):	210(L) x 179 (W) x 73 (H).
Housing:	1.2 mm white powder coated CRCA steel.
IP Factor:	IP30.

#### **1.4 General information**

PS2 is intended for use as a reliable power supply for access control systems.

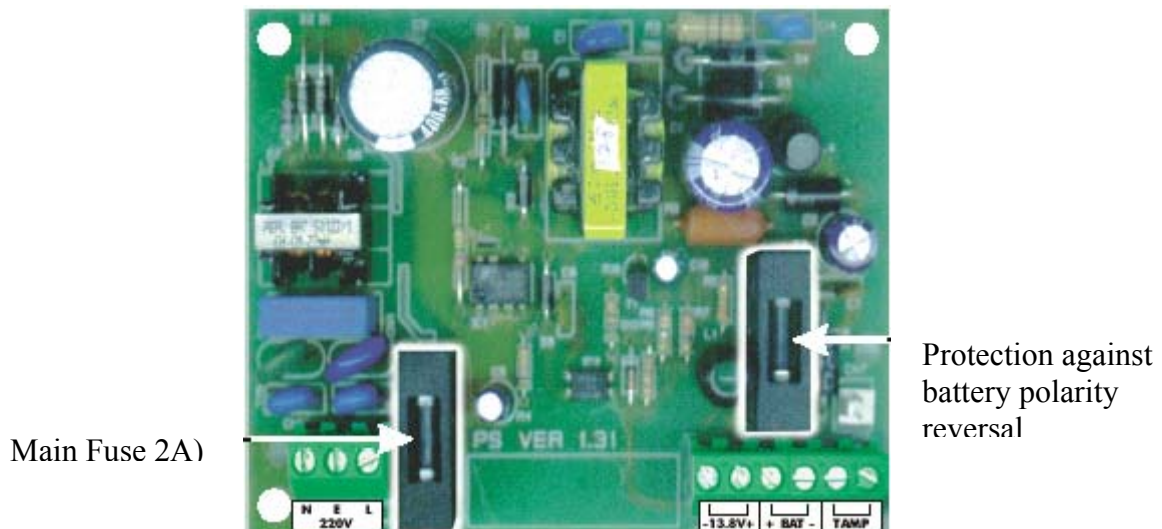
### **2.0 INSTALLATION**

#### **2.1 Mounting instructions for PS2**

1. Identify a suitable location to mount the PS2.

2. Separate the top cover of the PS2 carefully from the base plate.
3. Stick the drilling template provided onto the wall and drill 5 holes as indicated in the template. Four holes are for fixing the base plate to the wall and the 5<sup>th</sup> hole is to fix a bush for the tamper.
4. Insert the 6 mm wall plugs (5 nos provided) into the drilled holes.
5. Place the round blackened bush (provided) on the hole drilled in the central part of the template, and fix it to the wall with the screw provided.
6. Ensure that PS2 unit is grounded, using the grounding screw provided in the base plate (see also Section 2.3)
7. Route the cables through the holes in the base plate and fix the base plate to the wall using the screws provided.
8. Wire the PS2 referring Section “2.2 Overall PCB view” as a guide.
9. Place the battery (not provided) in place & **ensure proper connection**.  
 Note: For Battery connection, the wires on one end are already connected to PS2 and the other end of the wires have clips for connection to the Battery.  
**Caution: Please observe correct polarity, as otherwise the fuse may blow.**
10. Place the top-cover against the wall over the base plate, and slide it down to lock it in place.
11. Fix the top cover to the base plate with 2 screws (M3x6mm security screw) at the bottom, using the security screwdriver provided.

## 2.2 Overall PCB View

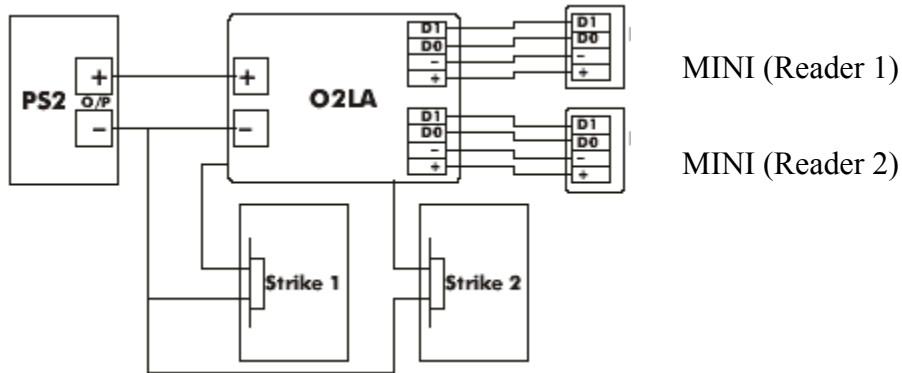


### 2.3 Earthing

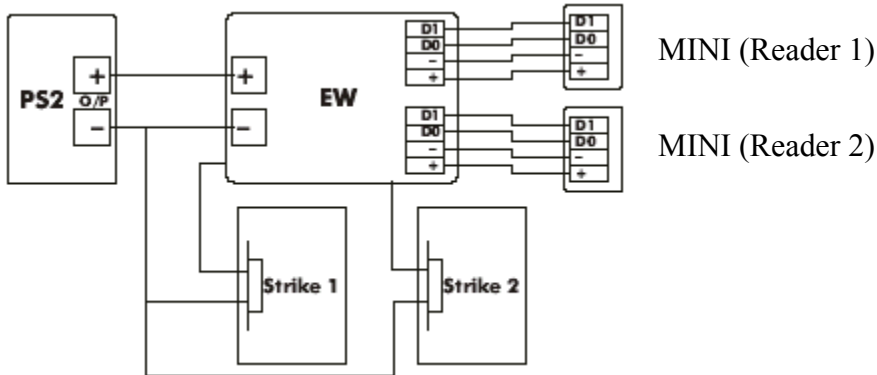
Several layers of protection are provided against transient **voltages** from static discharge, **lightning** and **power supply spikes**. For protection to be fully effective, earthing of the housing should be done properly

Use 16 AWG or heavier cable and keep the length of the cable as short as possible.

### 3.0 APPLICATION



Use of **the PS2** in **an O2LA** installation



Use of **the PS2** in **an EW** installation

#### Reader1

MINI		EW Terminal	O2LA Terminal
Terminal	Wire		
D1	Yellow	21	21

D0	White	22	22
-	0V	11	11
+	+12V	10	10

**Reader 2**

MINI		EW Terminal	O2LA Terminal
Terminal	Wire		
D1	Yellow	18	17
D0	White	17	18
-	0V	11	11
+	+12V	10	10

*Caution: The capacity of the PS2 (rating/ 2 Amp) is used for both charging the battery and to power devices connected to it. Care should be taken to ensure that the battery does not get completely discharged as charging of exhausted batteries will draw excessive current and other connected devices may not receive sufficient power to function.*

*Note: A typical installation, comprising one O2LA (or EW), two MINI proximity readers and two door strikes, will operate solely on a 7.2 Ah battery for about 3½ hours before there is danger of battery exhaustion. However, this figure is to be used as a guideline only since power consumption will depend upon usage i.e. number of times per hour the door is used.*