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# SYSTEM POWER SUPPLY --- PS2

## TECHNICAL INSTRUCTIONS

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### CONTENTS:

1. INTRODUCTION .....	2
2. CONNECTION PARTS AND FUNCTIONS.....	3
3. TROUBLE SHOOTING.....	5

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# 1. Introduction

The PS2 power supply is used to support the whole video/audio intercom system. It can supply the power to the Door Station, Distributor and Indoor Monitor at the same time. One PS2 can support one Door Station together with 10 Indoor Monitors, if only power the Indoor Monitors, it can support 16 pcs Indoor monitors.

## ◆ Install precaution:

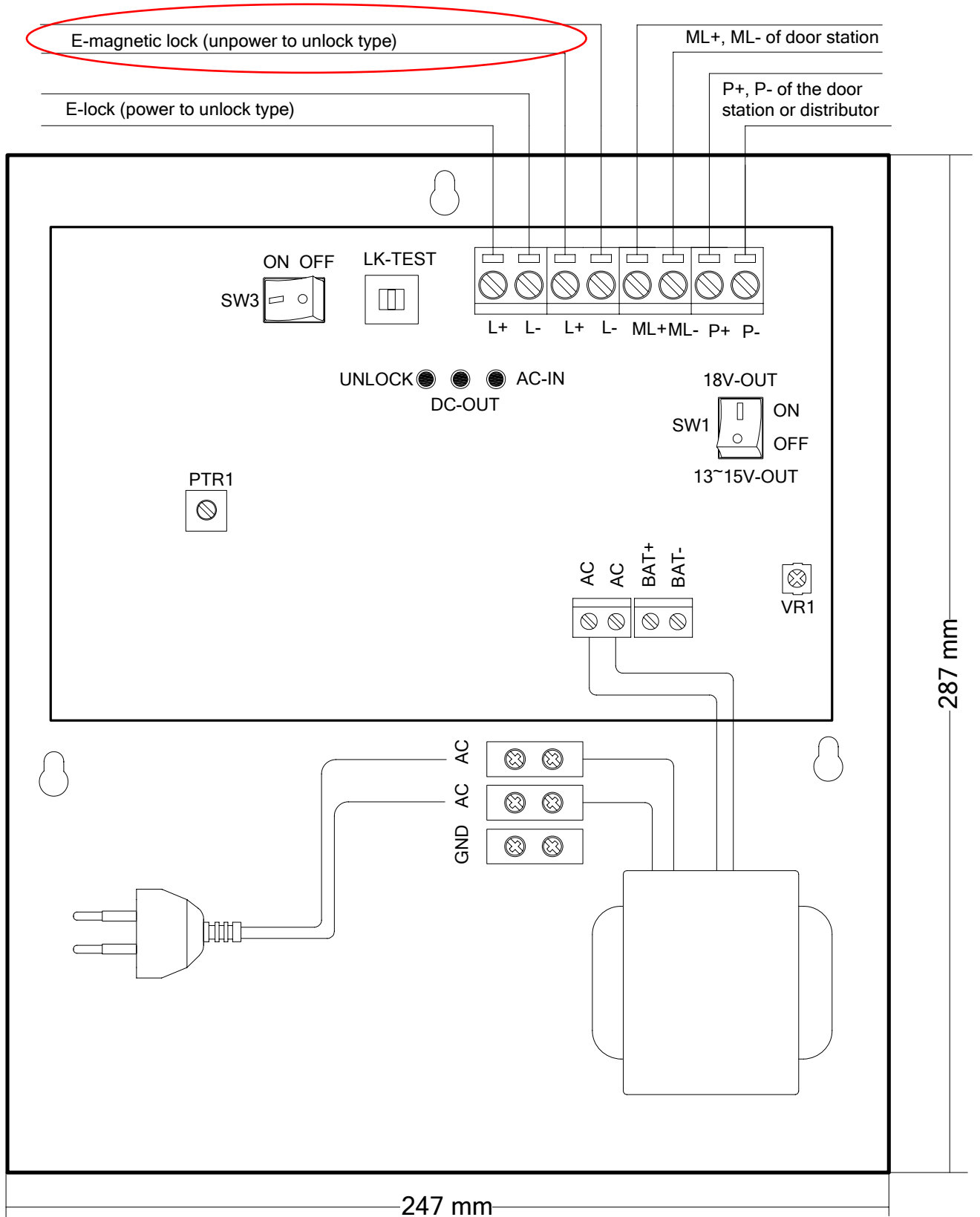
The PS2 usually install on the first floor near the Outdoor Station, and the distance from ground should be over 2 meters.

- ⇒ Do not install the PS2 on the position with rain or high humidity
- ⇒ Make sure fix the box firmly enough on the wall.
- ⇒ Pay attention to the isolation when connect the AC electricity
- ⇒ Install the box first, then place the storage battery; do not use the battery with very low voltage.
- ⇒ Usually, the distance between PS2 and Door Station should within 10 meters.
- ⇒ Do not use the old and new or different brand storage battery together.

## ◆ Electronic parameters:

- ⇒ **Output voltage:** DC 18.0V(can be adjusted from 14~20V)
- ⇒ **Output current:** DC 2.50 A
- ⇒ **Standby battery:** 18V maintenance free lead-acid pile; standard 3\*6V in series
- ⇒ **Self-protect circuit:** short circuit, over flow(self-resume); pile under voltage protection

## 2. The Connection ports and functions



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## ◆ Connect ports:

- ⇒ **P+, P-** : Main power output, 18V, 2.5A; connect to the Outdoor Station, Distributor and Indoor Monitors. The output voltage can be changed by using the PTR1.
- ⇒ **ML+, ML-** : Unlock signal input, connect to the ML+, ML- of the Outdoor Station.
- ⇒ **L+, L- (left)** : Unlock signal output; connect to the electronic lock. Note that this port is no power in standby, it should connect to the Power-to-Unlock type lock, Normally is the electronic lock
- ⇒ **L+, L- (right)** : Unlock signal output; connect to the electron-magnetic lock. Note that this port is 13~15V in standby, it should connect to the Unpower-to-Unlock type lock, normally is the electron-magnetic lock.
- ⇒ **BAT+, BAT-** : Connect to the battery pile. Please mind the polarity.

## ◆ Switchers:

- ⇒ **SW1** : Use for lock type select; if switch to on, the L+ and L- signal output will be 18V(which is normally the voltage for electronic lock); if switch to off, the L+ and L- signal output will be 13~15V(which is normally the voltage for electron-magnetic lock).
- ⇒ **SW3** : Power output switcher, if switch to off, the P+ and P- will no voltage output.
- ⇒ **PTR1** : To change the output voltage of P+ and P-. (14~20 V)
- ⇒ **VR1** : To change the output voltage of L+ and L- when the SW1 is set to off.(13~15V)
- ⇒ **LK-TEST** : Lock signal test button, press this button will generate a unlock signal.

## ◆ LED indicators:

- ⇒ **UNLOCK(yellow)** : Lighten up when unlock signal sent in.
- ⇒ **DC-OUT(green)** : Lighten up when P+ and P- have output voltage.
- ⇒ **AC-IN(red)** : Lighten up when there is AC input.

### 3. Trouble Shooting

Phenomenon	Malfunction Cases	Malfunction analysis	Eliminate methods	Remark
No output	No 220V AC	The AC-IN LED is off, check the AC electricity by the multimeter, and check the connection and the connectors	Deal with the AC supply	
	AC fuse melted down	The AC-IN LED is off, exam the fuse by the multimeter to check whether it's open	Change the fuse	
	AC transformer damaged	The AC-IN LED is off, AC fuse is intact, 220V input is okay, but the transformer no output.	Change the transformer	transformer must be the same specification
	The SW3 is turned off	The AC-IN LED is on, but the DC-OUT LED is off. Check if the SW3 is turned off.	Turn on the SW3	
	Output over load or short circuit	Disconnect the output load, and check the P+ P-, the output return to normal.	Check the load circuit	
Low output	Overload or shorted	the DC-OUT is dim out, and return to normal after disconnect the load.	Check the load circuit	
	The VR1 set to low	Adjust the VR1 and then exam the output voltage.	Adjust the output to 18V	
	VR1 maladjustment	Adjust the VR1 but nothing change	Change the VR1	
Auto-jump out	SW3 connection badness	Turn the SW3 on and off, connection badness happened sometimes	Change the SW3	
	Load over flow	Overloaded or load partial shorted, or connect too many Indoor Monitors	Check the wiring or add other PS2	
Battery switch failure	Battery charge failure	Charge voltage is higher than the battery voltage, but can not charge.	Change the battery	
	Battery connect port connection badness	Battery voltage is normal, the connect port are oxidative	Retouch the connect port	
	F1self-resume fuse melt down	Battery charging port no output, or battery damage, fuse melt down for protection.	Change the battery	
Charge failure	Charging circuit badness	Charging port without voltage or voltage low.	Change the power supply	
	Battery badness	Charging voltage okay, all connect ports are normal.	Change the battery	