Electrical characteristics and additional information

Maximum load ratings and electrical characteristics of P series control panels

Maximum long term output current of P16 control panel: $(I_{+AUX} + I_{+BELL} + I_{+PGM} + I_{BAT.\ CHARGE} \leqslant 1{,}5\ A)$	1,5 A
Maximum long term output current of P32, P64 control panel: $(I_{+AUX} + I_{+BELL} + I_{+PGM} + I_{BAT.\ CHARGE} \leqslant 2\ A)$	2 A
Maximum current out of +AUX:	+1 A
Maximum current out of +BELL:	+2,0 A
Maximum current into -PGM:	-0,3A
Maximum current out of +PGM for P16:	+0,5 A
Maximum current out of +PGM for P32, P64:	+0,9 A
Maximum battery charging current:	+0,35 A
Low battery voltage threshold:	10,5 V
Control panel disconnect battery when it's voltage is less than:	9,5 V
Minimum AC voltage on 20 VAC: **Note:** with ~16 V on 20 VAC max DC current generated by control panel power supply is 0,7A.	~16 V
Maximum AC voltage on 20 VAC: **Note:** higher than ~22 V voltage can damage control panel.	~22 V
Maximum voltage on +AUX, +BELL, +PGM outputs:	+13,9 V
Minimum voltage on +AUX, +BELL, +PGM outputs:	+12,0 V
Maximum current of a fast blowing fuse used in battery circuit:	3,15 A
Max current of a slow blowing fuse used in primary AC circuit:	250 mA
Maximum AC power consumption:	240 mA

Keypad mounting

Use only self-tapping screws with a flat (countersunk) head (3x30 PH) to mount keypad's plastic on the wall . Make sure the screw is fastened completely and its head is hidden in the plastic. Other shapes of screws that are not completely screwed in, may touch keypad electronics and cause damage of keypad.

Operating temperature

|	
Operating temperature range:	-10°C to +55°C
Calculated life expectancy at 40°C ambient temperature: ♦ for P16, P32, P64 control panels:	12 years
Note: ambient temperature over 40°C may reduce life expectancy.	
Note: poor ventilation of the cabinet increases ambient temperature.	

Restoring service PIN to default value

To restore default value (0000) for service PIN, follow these steps:
♦ disconnect control panel from 20 V AC power supply;
♦ disconnect control panel from back-up battery;
♦ use a wire to short-circuit the -PGM and zone Z1;
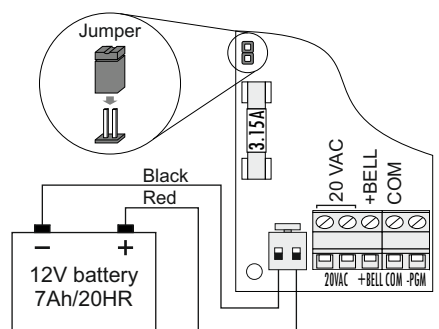♦ connect control panel to 20 V AC power supply.

Service mode is now enabled and service PIN is restored to 0000. To reset user PIN follow the steps:
♦ do not block service by pressing ENT;
♦ press arrow key to navigate in the menu;
♦ go to: Main Menu/Settings/Users/Edit Users/ enter **0000** /Reset PIN to default/YES
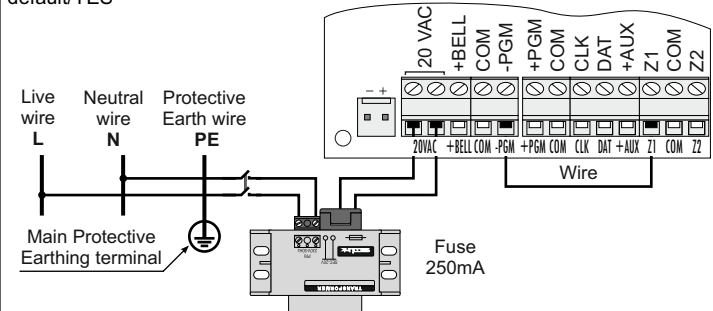
System start-up with no 230V AC power

Connect 12V battery to P series control panel by using a BAT connector. Use the jumper to close the shown pins for 1 second. The system will start operating; however, AC loss trouble will be indicated.


Non-volatile memory

Control panel has non-volatile memory to store all parameters, event log, and the last control panel status. System status returns to the same status as it was before the power supply was disconnected.

Wiring of modules in large or high security level system

Maximum load ratings and electrical characteristics of PWR20

Maximum long term current out of PWR20: $(I_{+AUX} + I_{+BELL} + I_{BAT.\ CHARGE} \leqslant 2\ A)$	2,0A
Maximum current out of +AUX:	+1A
Maximum current out of +BELL:	+2A
Maximum current into -PGM1:	-0,05A
Maximum battery charging current:	0,35A
Module disconnect battery when its voltage is less than:	9,5V
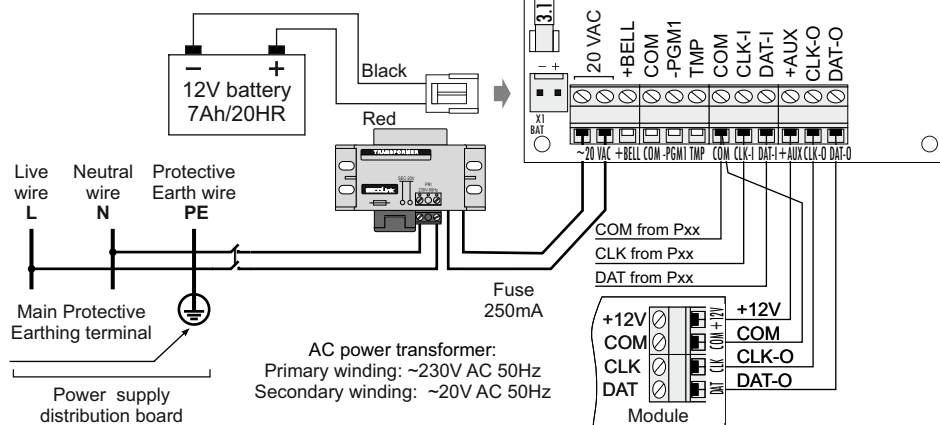
Outdoor siren's safe wiring

Use a transformer, other than a control panel, and a rechargeable 12V 7Ah battery to power up PWR20. If an alarm system includes PWR20, it is recommended to wire an outdoor siren to the PWR20 terminals +BELL, -PGM1, and COM same as shown on page 2. Failure of siren's internal battery or the siren itself will not affect the performance of an alarm system.

PWR20 – power supply module with a bus supervision

It is recommended to wire all outside proximity readers or keypads to the CLK-O and DAT-O. An attempt to make a short circuit on the outside module will make no affect to system's performance. PWR20 will detect the short circuit on bus and will disconnect it from the main bus. Terminals CLK-I and DAT-I are inputs for the main bus, terminals CLK-O and DAT-O are used for outside modules. To supply power to modules, PWR20 output +AUX must be used.
Note: the use of PWR20 does not extend the total bus length.