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PS3002 Power Supply Module

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DESCRIPTION

The PS3002 is a 12-volt, 1.9-ampere continuous regulated power supply. Designed to support numerous control panels, the module increases the panel's available standby current and provides an ac-only mode of operation as required by UL and NFPA for residential fire applications. A 50VA, 16.5-volt transformer and all required mounting hardware are supplied.

The PS3002 is UL listed for Central Station, Police Station Connect, Household Fire and Household Burglar Alarm System Units. (For UL Certified installations, the PS3002 must be wired as part of a supervised system as shown in Fig. 3.

In the ac-only mode, the PS3002 can supply auxiliary and/or siren current up to a maximum total of 1.9 amperes where the auxiliary current from the PS3002 does not exceed 1.4 amperes.

MOUNTING

To mount the PS3002 inside a Napco enclosure, see Fig. 1. Refer to Fig. 2 for mounting inside other enclosures.

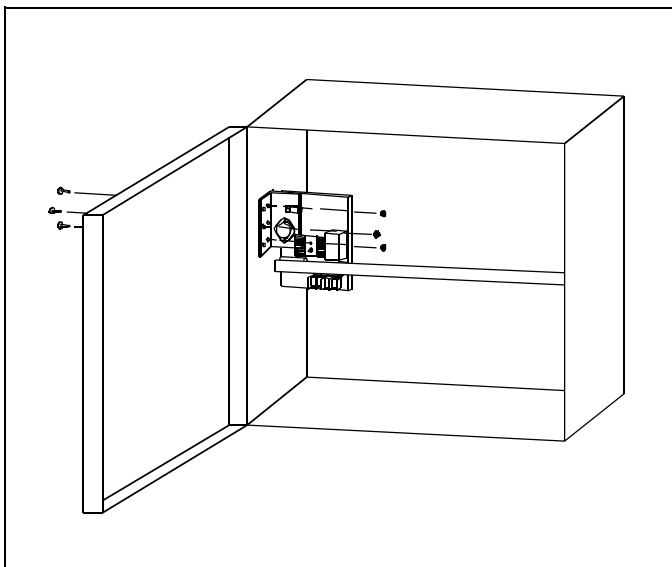


Fig. 1. Mounting into a Napco universal housing. Use the template shown in Fig. 5.

1. Remove power to the control panel. Remove the circuit

board from the enclosure.

2. Remove the knockout, if present, so that the PS3002 fits flush with the inner wall of the enclosure.

3. Position the Mounting Template (see Fig. 5) to the outside of the enclosure as indicated and drill three $\frac{3}{16}$ " holes where shown. Remove burrs after drilling.

4. Mount the PS3002 into the enclosure using the supplied screws and nuts. (Three additional holes are provided in the PS3002 for mounting into enclosures other than Napco's.)

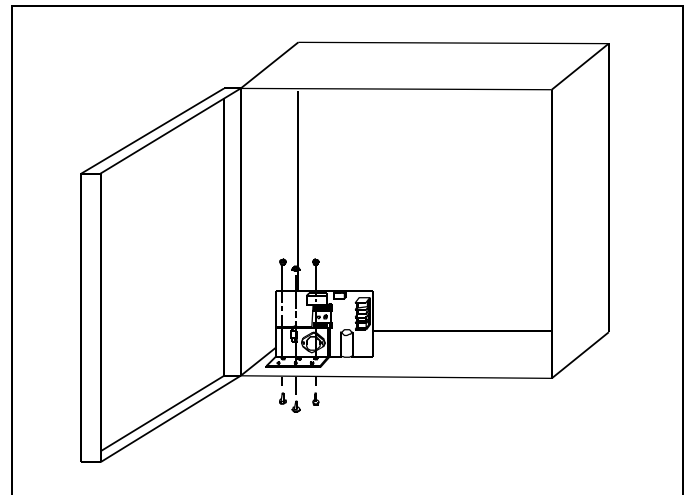


Fig. 2. Mounting into a housing with less than 2 inches clearance from the PC board to the back wall.

5. Replace the control-panel circuit board. Insert all screws, but do not tighten. Tighten the heat-sink screws first, securely enough to ensure adequate heat transfer, then tighten remaining screws.

WIRING A SUPERVISED SYSTEM

Refer to Fig. 3. In this configuration, the PS3002 is wired between the battery and the control panel. The battery charging resistor must be cut to isolate the control-panel current from the PS3002 current.

1. Locate the battery-charging resistor (5 ohms/5 watts: R83 in the MA850, 854, 900, 1008, 1010, and 1016; R66 in the MA825; R89 in the MA2600). This is a large, white, rectangular component mounted near the ac input termi-

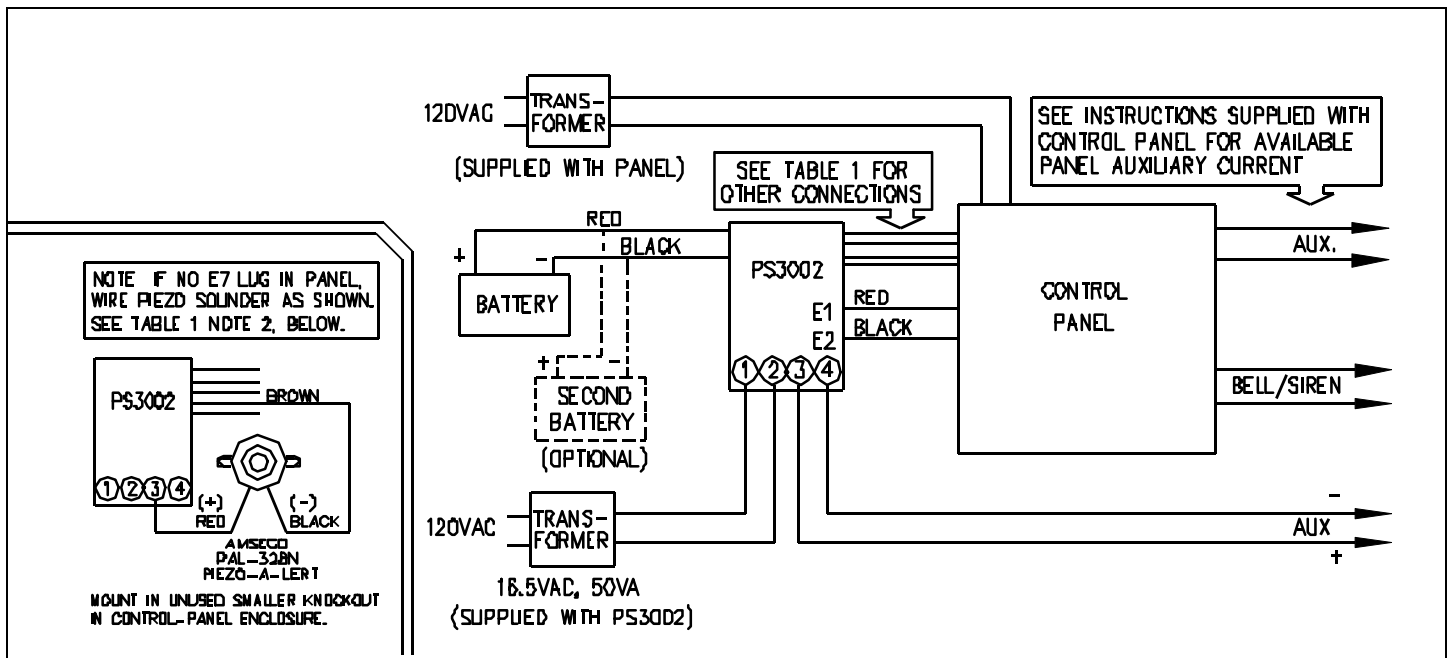


Fig. 3. Block diagram of a supervised system.

PS3002 LEAD	MA825HS	MA850	MA854	MA900	MA1008/1008e SS4509	MA1010	MA1016	MA1016e SS4516	MA2600	GEM-P3200/P9600 SS-P3200/P9600
Fire Sense (YELLOW) ⁽¹⁾	E9	E9	E9	E9	E9	E9	E9	—	E9	E9
Burg Sense (GREEN) ⁽¹⁾	E10	E10	E10	E10	E10	E10	E10	E10	E10	E10
Ac Fail High (BLUE)	Term. 11	—	—	—	—	—	—	—	—	—
Ac Fail Low (BROWN) ⁽²⁾	—	E7	E7	E7	E7	E7	E7	E7	E7	E7
Dyn. Bat. Test (WHITE)	—	—	—	E18 ⁽³⁾	E18 ⁽³⁾	—	—	E18 ⁽³⁾	E18 ⁽³⁾	E18 ⁽⁵⁾
(RED)	BATTERY (+) TERMINAL									
(BLACK)	BATTERY (-) TERMINAL									
E1	CONTROL PANEL RED LEAD									
E2	CONTROL PANEL BLACK LEAD									

Table 1. PS3002 wiring to control panel.

Note: (1) Only for residential fire installations. (2) If no E7 lug on panel, wire piezo sounder as shown in Fig. 3 inset for audible indication that 50VA transformer has lost power. Alternatively, both transformers may be powered from the same ac branch circuit. (3) If no E18 lug on panel, Dynamic Battery Test feature will not function correctly with PS3002. Do not use PS3002 if this feature is desired. (4) When used with the PS3002, the Bell/Siren Output for the control panels listed above is: MA900: 12Vdc/2A (8Ω, 15W speaker); all others: 12Vdc/1.2A (8Ω, 15W speaker). (5) Cut Jumper "D".

nals. Cut the resistor.

2. Plug the red wire from the control panel onto Lug E1 on the PS3002. Plug the black wire onto Lug E2.

3. Wire the control panel according to Table 1. Note that for residential fire use, the yellow and green wires are connected to Lugs E9 and E10 respectively. This will disconnect the battery during an alarm and power the system from ac only, unless the PS3002 senses an ac loss. This feature is required for residential fire installations. For other installations, do not use the yellow and green wires. This will allow current to flow from the battery during an alarm.

USING THE PS3002 AS A STAND-ALONE POWER SUPPLY

The PS3002 may be used as a stand-alone power supply. (See Fig. 4.) This configuration does not supervise the

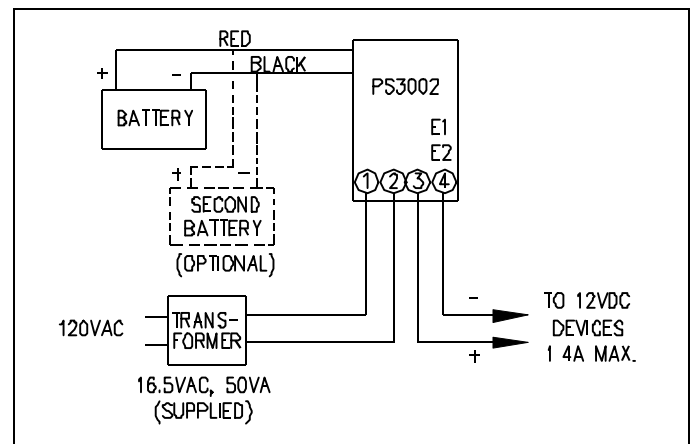


Fig. 4. Block diagram of stand-alone power supply.

battery and therefore should not be used when battery supervision is critical. (This configuration may not be used for UL installations.)

AVAILABLE CURRENTS

Supervised System, UL residential Fire Systems

- Auxiliary Current from UL Module: 1.4A
- Auxiliary Current from Control Panel: See installation instructions supplied with control panel.
- Bell/Siren Current: 1.9A

Additional Current Restrictions

- Auxiliary current from PS3002 + Bell/Siren current may not exceed 1.9A.
- Auxiliary current from PS3002 + Auxiliary current from control panel may not exceed 1.9A.

Supervised System, Commercial Burglar Alarm Systems

- Auxiliary Current from UL Module: 1.4A
- Auxiliary Current from Control Panel: See installation instructions supplied with control panel.
- Bell/Siren Current: MA900: 2.0A; Others: 1.2A

Additional Current Restrictions

- Auxiliary current from PS3002 + Auxiliary current from control panel may not exceed 1.9A.

BATTERY REQUIREMENTS

4 HOURS STANDBY/15 MINUTES ALARM/1.2A BELL CURRENT	
TOTAL AUXILIARY CURRENT (PS3002 + CONTROL PANEL)	REQUIRED BATTERY CAPACITY
715mA	6AH
325mA	4AH
4 HOURS STANDBY/4 MINUTES ALARM/1.2A BELL CURRENT	
TOTAL AUXILIARY CURRENT (PS3002 + CONTROL PANEL)	REQUIRED BATTERY CAPACITY
818mA	6AH
455mA	4AH

Table 2. Total Auxiliary Current as a function of Battery Capacity.

The PS3002 is intended to charge sealed lead-acid batteries (RBAT4, RBAT6).

NAPCO LIMITED WARRANTY

NAPCO SECURITY SYSTEMS, INC. (NAPCO) warrants its products to be free from manufacturing defects in materials and workmanship for thirty-six months following the date of manufacture. NAPCO will, within said period, at its option, repair or replace any product failing to operate correctly without charge to the original purchaser or user.

This warranty shall not apply to any equipment, or any part thereof, which has been repaired by others, improperly installed, improperly used, abused, altered, damaged, subjected to acts of God, or on which any serial numbers have been altered, defaced or removed. Seller will not be responsible for any dismantling or reinstallation charges.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THERE IS NO EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. ADDITIONALLY, THIS WARRANTY IS IN LIEU OF ALL OTHER OBLIGATIONS OR LIABILITIES ON THE PART OF NAPCO.

Any action for breach of warranty, including but not limited to any implied warranty of merchantability, must be brought within the six months following the end of the warranty period. IN NO CASE SHALL NAPCO BE LIABLE TO ANYONE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, EVEN IF THE LOSS OR DAMAGE IS CAUSED BY THE SELLER'S OWN NEGLIGENCE OR FAULT.

In case of defect, contact the security professional who installed and maintains your security system. In order to exercise the warranty, the product must be returned by the security professional, shipping costs prepaid and insured to NAPCO. After repair or replacement, NAPCO assumes the cost of returning products under warranty. NAPCO shall have no obligation under this warranty, or otherwise, if the product has been repaired by others, improperly installed, improperly used, abused, altered, damaged, subjected to accident, nuisance, flood, fire or acts of God, or on which any serial numbers have been altered, defaced or removed. NAPCO will not be responsible for any dismantling, reassembly or reinstallation charges.

This warranty contains the entire warranty. It is the sole warranty and any prior agreements or representations, whether oral or written, are either merged herein or are expressly cancelled. NAPCO neither assumes, nor authorizes any other person purporting to act on its behalf to modify, to change, or to assume for

it, any other warranty or liability concerning its products.

In no event shall NAPCO be liable for an amount in excess of NAPCO's original selling price of the product, for any loss or damage, whether direct, indirect, incidental, consequential, or otherwise arising out of any failure of the product. Seller's warranty, as hereinabove set forth, shall not be enlarged, diminished or affected by and no obligation or liability shall arise or grow out of Seller's rendering of technical advice or service in connection with Buyer's order of the goods furnished hereunder.

NAPCO RECOMMENDS THAT THE ENTIRE SYSTEM BE COMPLETELY TESTED WEEKLY.

Warning: Despite frequent testing, and due to, but not limited to, any or all of the following: criminal tampering, electrical or communications disruption, it is possible for the system to fail to perform as expected. NAPCO does not represent that the product/system may not be compromised or circumvented; or that the product or system will prevent any personal injury or property loss by burglary, robbery, fire or otherwise; nor that the product or system will in all cases provide adequate warning or protection. A properly installed and maintained alarm may only reduce risk of burglary, robbery, fire or otherwise but it is not insurance or a guarantee that these events will not occur. CONSEQUENTLY, SELLER SHALL HAVE NO LIABILITY FOR ANY PERSONAL INJURY, PROPERTY DAMAGE, OR OTHER LOSS BASED ON A CLAIM THE PRODUCT FAILED TO GIVE WARNING. Therefore, the installer should in turn advise the consumer to take any and all precautions for his or her safety including, but not limited to, fleeing the premises and calling police or fire department, in order to mitigate the possibilities of harm and/or damage.

NAPCO is not an insurer of either the property or safety of the user's family or employees, and limits its liability for any loss or damage including incidental or consequential damages to NAPCO's original selling price of the product regardless of the cause of such loss or damage.

Some states do not allow limitations on how long an implied warranty lasts or do not allow the exclusion or limitation of incidental or consequential damages, or differentiate in their treatment of limitations of liability for ordinary or gross negligence, so the above limitations or exclusions may not apply to you. This Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

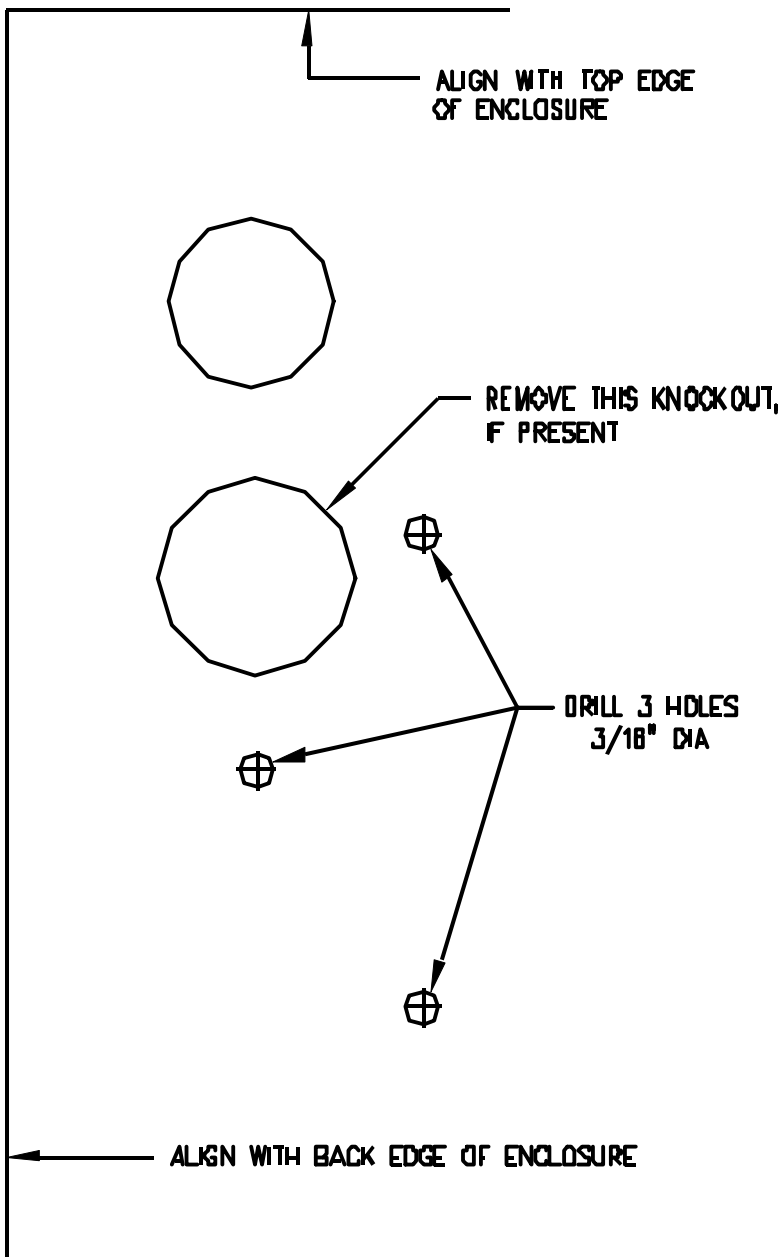


Fig. 5. Mounting Template. Position on exterior left side of enclosure (hinged side).

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