ReServ4WPV
Outdoor Video Surveillance UPS

Overview:

ReServ4WPV Video Surveillance UPS unit is designed to provide power for 24VAC and 12VDC cameras during normal or power outage conditions. True sine wave regulated AC outputs and/or regulated DC outputs.

Specifications:

Input:
- 220VAC (working range 198VAC - 256VAC), 50/60Hz, 2.0A.

Output:
- PTC protected auto-resettable outputs:
  - 24VAC @ 4A max.
  - 12VDC @ 1A.

Battery Backup:
- Built-in charger for sealed lead acid or gel type batteries.
- Automatic switchover to stand-by battery when AC fails.

Supervision:
- AC fail and low battery supervision (form "C" contacts).

Visual and Audio Indicators:
- AC/DC power LED indicators.

Visual Indicators:
- Individual power output LED indicators.
- Low voltage input and Shutdown LED indicators.

Additional Features:
- True sine wave regulated AC outputs and regulated DC outputs.
- Unit maintains camera synchronization.
- Ease of installation saves time and eliminates costly labor.

Enclosure Dimensions:
- NEMA4 / IP66 Rated enclosure accommodates up to two (2) 12VDC/7AH batteries.
  17.375" x 12" x 6.5" (441.3mm x 304.8mm x 165.1mm).

Stand-by Specifications:

Stand-by Batteries	4A (100VA) load at 24VAC and 1A load at 12VDC max.
Two (2) 12VDC/7AH	45 minutes
Two (2) 12VDC/12AH	90 minutes

Installation Instructions:

This installation should be made by qualified service personnel and should conform to the National Electrical Code and all local codes. This product contains no serviceable parts.

1. Remove back plate inside the enclosure by removing four (4) mounting screws.
2. Mark and drill desired knockouts on the enclosure to facilitate wiring *(Fig. 1, pg. 1)*.
   Note: It is required to use UL Listed outdoor rated conduit hubs with a minimum outdoor rating of NEMA4X.
3. Secure back plate inside the enclosure with four (4) mounting screws.
4. Mount unit in the desired location with the appropriate fasteners utilizing the holes on the flanges *(pg. 8)*. Secure enclosure to earth ground.
   Note: This product needs to be secured to the building/pole before operation.
5. Connect AC power mains to the terminals marked [L] and [N] *(Fig. 2, pg. 3)*.
   Connect ground wire to ground lug *(Fig. 2, pg. 3)*.
   Use 18 AWG or larger for all power connections (Battery, output) *(Fig. 2, pg. 3)*.
   Use 18 AWG to 22 AWG for power-limited circuits (AC Fail/Low Battery reporting) *(Fig. 2, pg. 3)*.
   Note: A readily accessible disconnect device shall be incorporated in the building installation wiring.

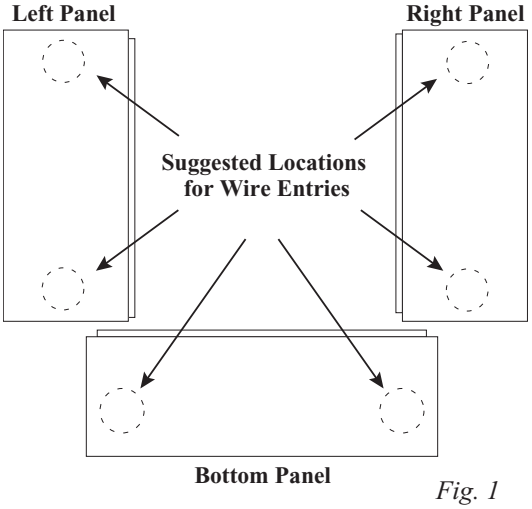


Fig. 1

6. The LEDs on the power supply board will illuminate when AC power is present.
7. Measure output voltage before connecting cameras/devices to outputs. This helps avoiding potential damage.
8. Connecting Fluidmesh Wireless Radio/Bosch Autodome:
   Connect 12VDC Fluidmesh Wireless Radio to the terminals marked [P 1-2, N 1-2] *(Fig. 2, pg. 3)*.
   Connect 24VAC Bosch Autodome to the terminals marked [15-16] *(Fig. 2, pg. 3)*.
9. Connect batteries to the terminals marked [+ BAT –] *(Fig. 2, pg. 3)*. Use two (2) 12VDC batteries connected in series for 24VDC operation (battery leads included).
   Use batteries - Casil CA1270 (12V/7AH), Genesis NP7-12 (12V/7AH), Ultratech UT1270 (12V/7AH).
10. Connect appropriate signaling notification devices to AC FAIL and BAT FAIL *(Fig. 2, pg. 3)* supervisory relay outputs.
11. The power LEDs on the unit for Outputs 1-2 and 15-16 will illuminate when AC power is present *(Fig. 2, pg. 3)*.
    Note: If any of the power LEDs are not illuminated, the cause may be due to the following:
    a. AC mains and battery fail.
    b. One (1) or more power output PTCs are tripped due to a short circuit or overload condition.
    c. Unit damaged/defective.

To reset the PTC:

1. Temporarily remove wiring from output with tripped PTC *(Fig. 2, pg. 3)*.
2. Eliminate the trouble condition (short circuit or overload).
3. Allow 1 minute for PTC to cool off (reset).
4. Re-attach wiring to the output *(Fig. 2, pg. 3)*.
5. Power LEDs will illuminate indicating power has been restored to outputs *(Fig. 2, pg. 3)*.

WARNING: To reduce the risk of fire or electric shock, do not expose the unit to rain or moisture. This installation should be made by qualified service personnel and should conform to the National Electrical Code and all local codes.

LED Diagnostics:

Power Supply Board

Red (DC)	Green (AC1)	Power Supply Status
ON	ON	Normal operating condition.
ON	OFF	Loss of AC. Stand-by battery supplying power.
OFF	ON	No DC output.
OFF	OFF	Loss of AC. Discharged or no stand-by battery. No DC output.

ReServ Board

LED	LED State		Unit Status
Output LEDs	ON	—	Normal operating condition.
	—	OFF	Loss of 24VAC and/or 12VDC output power.
Low Battery	ON	—	Stand-by batteries are low.
	—	OFF	Normal operating condition.
Shutdown	ON	—	Loss of 24VAC and/or 12VDC output power. Discharged stand-by battery.
	—	OFF	Normal operating condition.

Terminal Identification:

Power Supply Board

Terminal Legend	Function/Description
L, G, N	Connect 220VAC 60Hz to these terminals: L to hot, N to neutral.
– DC +	24VDC output.
AC FAIL NO, C, NC	Form “C” dry contacts used to instantaneously signal the loss AC to local annunciation devices. With AC present terminals marked NO and C are open, NC and C are closed. When loss of AC occurs, terminals marked NO and C are closed, NC and C are open.
BAT FAIL NO, C, NC	Form “C” dry contacts used to signal low battery voltage or loss of battery voltage. Under normal conditions terminals marked NO and C are open, NC and C are closed. During a trouble condition terminals marked NO and C are closed, and NC and C are open.
+ BAT –	Stand-by battery connections. Maximum charge current 0.7A.

ReServ Board

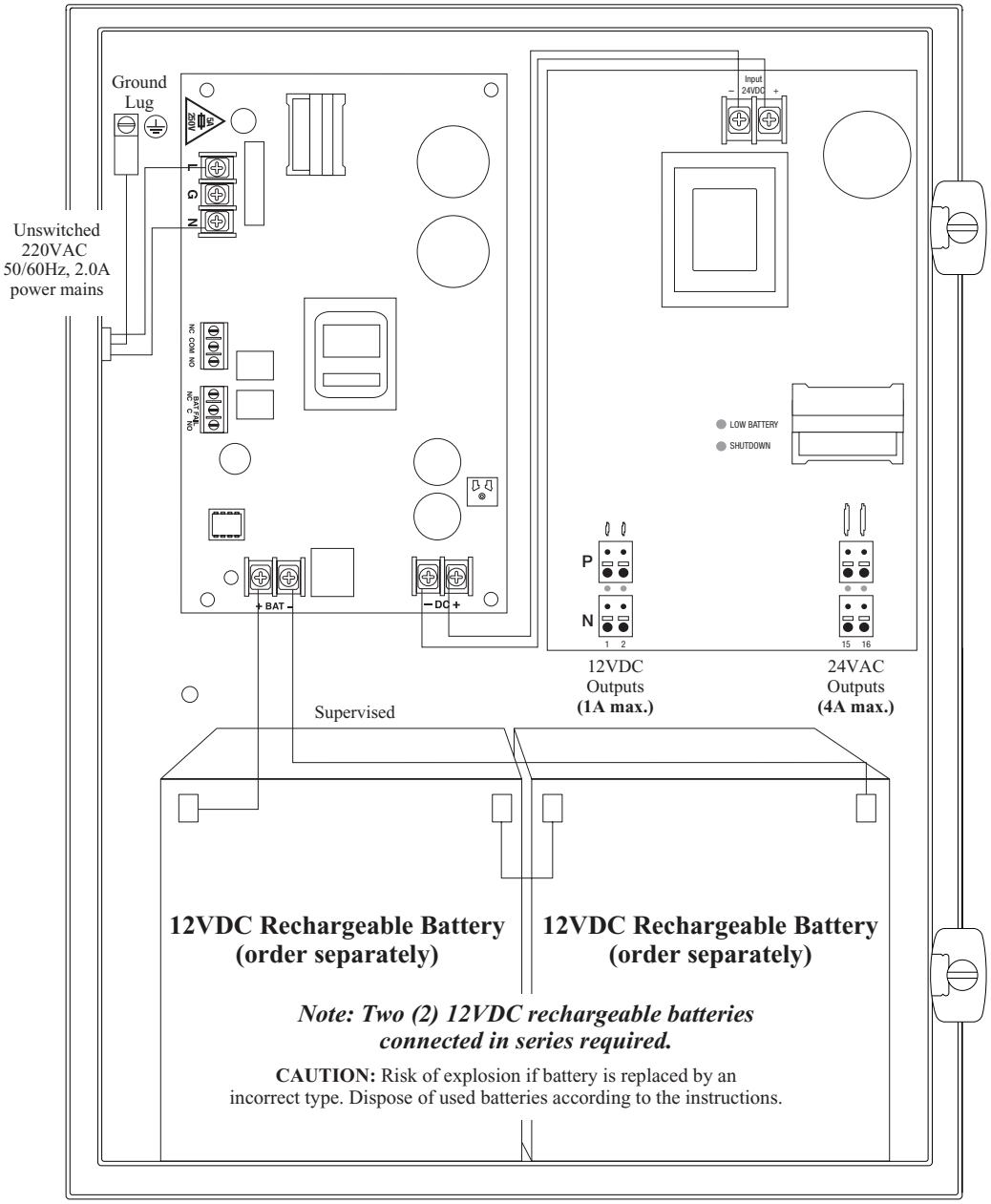
Terminal Legend	Function/Description
Input – 24VDC +	24VDC input from power supply board.
N, P 1-2	12VDC outputs. N = Negative, P = Positive *(Fig. 2, pg. 3)*.
N, P 15-16	24VAC outputs.

The lightning flash with arrow head symbol within an equilateral triangle is intended to alert the user to the presence of an insulated DANGEROUS VOLTAGE within the product’s enclosure that may be of sufficient magnitude to constitute an electric shock.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION: To reduce the risk of electric shock do not open enclosure. There are no user serviceable parts inside. Refer servicing to qualified service personnel.

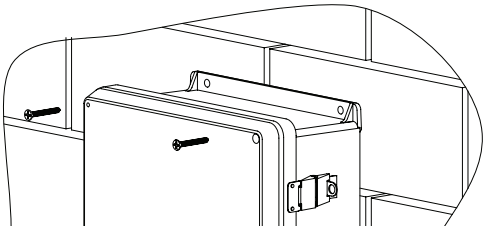
Fig. 2 - ReServ4WPV



Wall Mount Installation

1- Place unit at the desired location and secure with mounting screws (*not included) (Fig. 3, pg. 3).*

Fig. 3



Pole Mounting Using Optional Pole Mount Kit PMK1 *(not included)*:

This installation should be made by qualified service personnel. This product contains no serviceable parts. PMK1 is intended for use with Altronix outdoor rated power supplies or accessories housed in WP1, WP2, WP3 and WP4 enclosures. Brackets are designed for use with the Wormgear Quick Release Straps (two included).

1. Thread one (1) wormgear quick release strap through the slots on the back of a mounting bracket *(Fig. 4, pg. 4)*.
2. Once the desired height of the top Pole Mount bracket is achieved, tighten the straps down by sliding open end of the strap through the locking mechanism on the strap, then tighten the screw with flat head screwdriver or 5/16" hex socket driver *(Fig. 4, pg. 4)*.
3. Attach the bottom bracket to the enclosure by inserting bolts through the flange of the enclosure and into the bracket, tightening bolts with a 7/16" hex socket *(Fig. 5, pg. 4)*.
4. Thread the second wormgear quick release strap through the slots on the back of the bottom mounting bracket *(Fig. 7, pg. 4)*.

Fig. 4

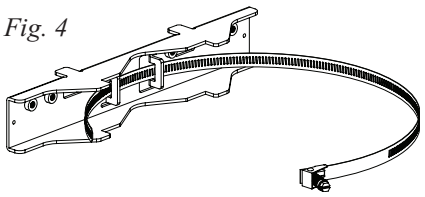


Fig. 5

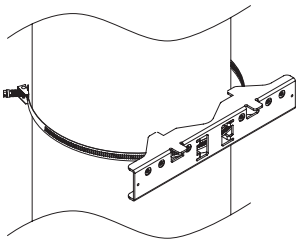
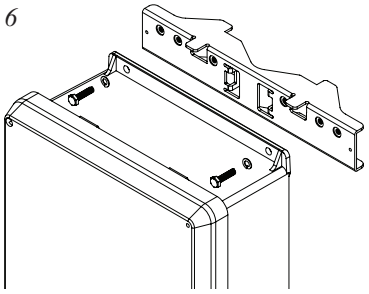


Fig. 6



5. Mount enclosure onto the top bracket by inserting bolts through flange of the enclosure and into the bracket, tightening bolts with a 7/16" hex socket *(Fig. 7, pg. 4)*.
6. Tighten the straps of the bottom bracket down by sliding the open end of the strap through the locking mechanism on the strap, then tighten screw with flat head screwdriver or 5/16" hex socket driver *(Fig. 8/8a, pg. 4)*.
7. Clip excess straps.

Fig. 7

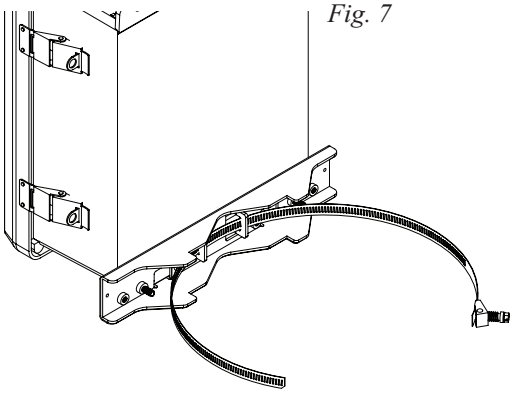


Fig. 8 - 2" to 8"(50.8mm to 203.2mm) diameter round pole

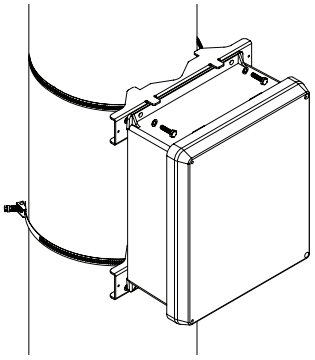
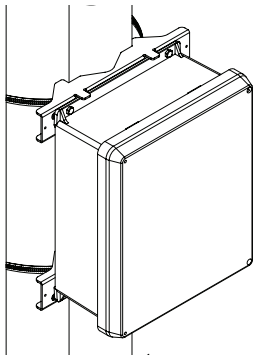


Fig. 8a - 5" (127mm) square pole



Enclosure Dimensions:

17.375" x 12" x 6.5" (441.3mm x 304.8mm x 165.1mm).