

Installation and Operation of TITAN 12Vdc UPS

SAFETY WARNINGS

- USE COMMON SENSE!
 - Only qualified personnel should service this equipment.
 - The battery contains hazardous currents and may present a burn hazard if damaged, shorted, or installed improperly.
- USE ONLY GS BATTERY MODEL GT12080-HG and ESPI MODEL DCSP1150200 AC/DC ADAPTER**

The following precautions should be followed to insure your safety:

- Remove watches, rings, or other metallic objects.
- Wear protective clothing and eye protection when working with batteries.
- Always carry a water supply to wash eyes or skin in the event of exposure to battery electrolyte.
- Use of tools with insulated handles is required.
- Do not disassemble the unit. No user-serviceable parts are inside except the battery.
- Keep liquid and foreign objects from getting inside the unit.
- Avoid operating unit in excessive humidity or near water.
- Do not operate near gas or fire.
- Inspect unit for leaking substance. If substance is leaking, do not use product.
- Servicing this equipment may require working with protective covers removed and utility power connected. Use EXTREME CAUTION during these procedures.
- Check that power cord, plugs, and output terminals are in good working order.

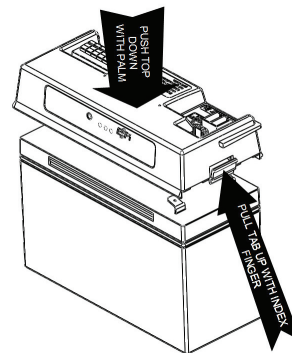
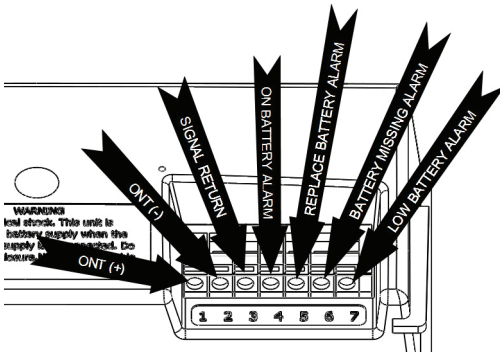
BATTERY WARNINGS

- Danger of explosion if battery is incorrectly connected. Use only approved replacement batteries.
- Worn out or damaged batteries are considered environmentally unsafe. ALWAYS recycle used batteries in accordance with all federal, state, and local regulations. This is your planet too!
- Any gel or liquid emissions from a VRLA battery contain sulfuric acid, which is harmful to the skin and eyes.
- Batteries can produce explosive gases. Avoid all open flames and sparks.
- Batteries contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Battery post terminals contain lead and lead compounds. Wash hands after handling. (California Proposition 65)
- Wear protective clothing and eye protection when installing, maintaining, servicing, or replacing batteries.
- If battery emissions contact the skin or eyes, immediately wash area with water. Report chemical spills and seek medical attention if necessary.
- Always replace batteries with new batteries of identical type and rating.
- A battery showing signs of cracking, leaking, or swelling should be replaced immediately with an approved battery.

SPECIFICATIONS

Output and Alarm Connectors: The TITAN output wiring is as follows:
+,-,On Battery, Replace Battery, Battery Missing, Low Battery, Battery Failure.

Once wiring is complete, push down on the unit as you slide the UPS controller over the battery. The enclosure has a groove that will contain the battery and lid.



INSTALLATION

- Installation of the unit must be performed by skilled technicians and electricians familiar with electrical equipment. Do not allow unqualified personnel to handle, install, or operate equipment.

MAX DISTANCE:

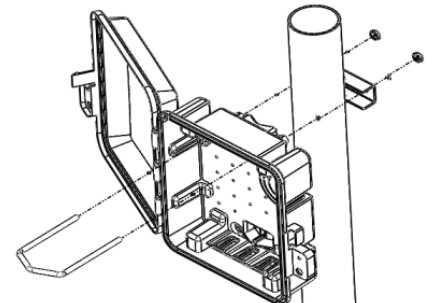
- The TITAN UPS has been engineered for a maximum distance between the AC outlet and the UPS. The recommended cable from the switching power supply and the UPS is 16 AWG cable for cable runs up to 115'. From the UPS to the ONT, the maximum distance is 70'. Install the unit in a sheltered location away from gas, fire, potential sparks, water, and rain

MOUNTING ORIENTATION

WALL MOUNT:

- Locate a stud within the wall. Pre-drill holes suitable for appropriate screw size. #10- 1 1/2" pan head sheet metal screws are suggested. Choose an appropriate screw for the material. Holes should be pre-drilled within the enclosure. Hold enclosure up to the wall to mark drill locations. Remove enclosure and pre-drill 1/8" holes.

- **POLE MOUNT OPTION:** The TITAN UPS has been designed to mount on a 2 1/4" pole. Pre-drill the top two holes in the enclosure. Put a "U" shaped bracket through holes so that two prongs are out the back. Install security bracket on the outside of the pole and tighten nuts against the bracket.

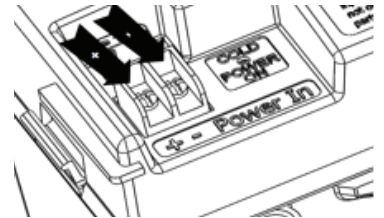


WIRING:

- Connect the switching power supply to the input side of the UPS. The screw terminals are labeled “+” and “-”.
- Connecting the power wires backwards will not damage the unit but will cause the unit to malfunction.

Plug in the switching power supply and connect the ONT. USE ONLY THE ESPi MODEL DCSP150200 AC/DC ADAPTER!

USE ONLY THE GS BATTERY MODEL: GT12080-HG. (OTHER BATTERIES WILL CAUSE GASSING AND WILL EXPLODE!)



OPERATIONAL LED

The TITAN UPS has been designed for easy operation and notification of battery status as follows:

- **Green light solid** = normal operation and AC power is present.
- **Green Flashing** = Battery is in Test Mode.
- **Yellow light blinking** = unit is providing output from the battery. No AC is present.
 1. Blinking once per second = > 66% run time available.
 2. Blinking two times per second = 33% to 66% run time available.
 3. Blinking three times per second = < 33% run time available.
- **Red light solid** = Battery failed and must be replaced
- **Red Flashing** = Battery is missing or not connected. Check lid position.
- **Red + Yellow** = Temperature above +150°.
- **All Three Flashing** = Short Circuit between the UPS and ONT.

CONTROLS:

Reset Button: The red reset button on the front will temporarily disconnect power to the output device causing a reset of the ONT. Press and hold the red reset button for 5 seconds to reset the ONT.

Cold Power ON: This button is located next to the power input. Use a paper clip to activate. (Must hold cold power on button down for 3 seconds to activate.) If AC power is not available, pressing the “COLD POWER ON” button will activate the UPS.

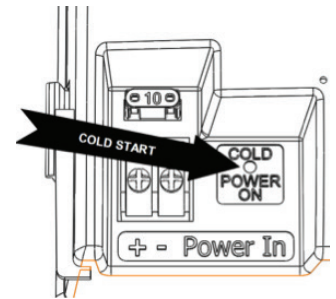
Off Switch: To turn off the unit for long periods of storage, unplug the switching power supply from the wall and press the reset button on the front. To turn on the UPS, plug in the switching power supply.

Maintenance Mode: The TITAN UPS will diagnose the battery every 45 days. The TITAN will run a 3-hour battery test to determine current battery state. If it fails this test, the solid RED LED will come on signifying the battery is at the end of its useful life. GREEN LIGHT FLASHING INDICATES TESTING IN PROGRESS.

Battery Replacement: When replacing the battery take care at all times not to short out the battery terminals. The TITAN UPS includes a temperature probe that must follow the groove on the arm of the circuit board cover. This probe will determine the battery temperature and provide a precise and exact charging of the battery.

Approved Batteries: The combination of temperature compensated charging and using the best batteries available: **GS MODEL: GT12080-HG BATTERY** or the **CSB MODEL: XTV 1285 F2 BATTERY** will provide the longest battery life.

The recommended temperature range for maximum battery life is 4F to 122F. The TITAN has been designed to stop charging the battery if the temperature is outside of this range.



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