LanPro PDU- PDU-IXXX-XXX Installation Instructions 5/02/04 2020000502



GE Industrial Systems



IMPORTANT SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS!

<u>WARNING</u>: The equipment covered by these instructions should be installed and serviced only by competent personnel utilizing proper safety practices and procedures. These instructions are written for such personnel and are not intended as a substitute for adequate training and experience in safe procedures for this type of equipment.

PRODUCT DESCRIPTION

The GE PDU-Ixxx-xxx is an AC power distribution panel intended for use with the GE LanPro U UPS systems. The PDU is designed to provide current protected receptacles as output connections for the LanPro 5KVA, 6KVA, 8KVA, and 10KVA systems eliminating the need to install hard-wired output connections. The PDU can also accommodate 1 of 2 different input power cords that may be installed on the UPS making a complete 'Plug and Play' system.

APPLICATION GUIDELINES

<u>WARNING</u>: The LanPro U PDU-Ixxx-xxx units should only be installed on the LanPro5-11U LanPro6-11U, LanPro8-11U, and/or LanPro10-11U systems. The PDU is not approved for use with any other UPS system.



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The GE PDU should not be installed until installation personnel have a thorough understanding of the configuration of the LanPro system it is being added to.

Refer to the LanPro U Installation/User manual for proper Input/Output configurations of the LanPro UPS.

The PDU can be purchased with a variety of output receptacles for 125 VAC-250 VAC applications. See Table 1 below for the input and output options available for the LanPro U PDU accessory.

LanPro Type UPS Models	INPUT				OUTPUT (ANY 3)										
Model Type	208/240V, 10/3 SO Cord, L6-30 Plug	120V, 8/3 SO Cord, 5-50 Plug	208/240V, 8/3 SO Cord, 6-50 Plug	No Cord, Hard-wired	5-20 Duplex,125V, 20A	L5-15R,125V, 15A	L5-20R,125V, 20A	L5-30R,125V, 30A	L6-15R,250V, 15A	L6-20R,250V, 20A	L6-30R,250V, 30A	L14-20R,125V/250V,20A	L14-30R,125V/250V, 30A	5-50R,125V, 50A	Blank Cover Plate
5kVA LanPro U	Х	Х		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
6kVA LanPro U	Х	Х		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
8kVA LanPro U			Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
10kVA LanPro U			Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х

Table 1

The PDU is shipped with connection wires to be used when connecting the UPS terminal blocks to the receptacles on the PDU.

REQUIRED TOOLS

#2 Phillips Screwdriver7 mm Nut Driver11/32" Nut Driver





INSTALLATION

The GE LanPro PDU can be installed on LanPro U UPS units with a 208/240VAC input or on units with a 120 VAC input. See the 'Input Connections' instructions below for each input configuration.

Input Connections

Input voltage 208-240Vac

- 1) Make sure that all circuit breakers (7-8-9) are in the 'OFF' position (down) and the DC fuses at the back of the UPS have been removed. (See Fig. 1)
- 2) Loosen the screws and remove the existing conduit box and metal cover plate from the back of the UPS. (See FIG. 2)
- 3) Remove the conduit bracket from the back of the UPS. Make sure to disconnect the ground wire from the bracket. The ground wire from the UPS will be reconnected to the PDU enclosure later in this procedure. (See FIG. 3 and FIG. 4)
- 4) Lead the input cable through the small conduit opening and the battery extension cable (if used) through the larger conduit opening in the bottom of the PDU. The battery extension cable connector can be separated to make it easier to install. Make sure to feed through enough cable to connect to the LanPro UPS terminal block assembly.
- 5) Connect the input power cable to the UPS input power terminal block as instructed in the LanPro U Installation/User manual section 4.4.2.
- 6) Connect the battery extension cable as instructed in the LanPro U Installation/Users Manual.
- 7) Connect the PDU to the UPS output terminals as indicated in the 'Output Connections' section below.

Input voltage 120Vac (optional, 5kVA, 6kVA only)

 Make sure that all circuit breakers (7-8-9) are in the 'OFF' position (down) and the DC fuses at the back of the UPS have been removed as indicated in Fig. 5.

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- 2) Loosen the screws and remove the UPS conduit boxes and cover plate from the back of the UPS. Make sure to disconnect the ground wire from the bracket. The ground wire from the UPS will be reconnected to the PDU enclosure later in this procedure. (See Fig. 6)
- 3) Lead the input and battery extension cable (if used) through the cable inlets at the bottom of the LanPro U UPS. If the cables come from below (recommended for 8kVA and 10kVA models), you can rotate the cable inlet 90 degrees. Connect the input wires to the input terminals as described in section 4.4.2 of the LanPro U Installation/User manual . Plug the battery extension cable into the external battery connector shown in Fig. 7.
- 4) Replace the intermediate conduit box shown in Fig. 8 with the one supplied in the PDU kit. (PDU with 120V Input option)
- 5) Reinstall the conduit boxes. (shown in Fig. 9)
- 6) Remove the conduit cover installed on the bottom of the PDU as shown in Fig. 8b.
- 7) Connect the PDU to the UPS output terminals as indicated in the 'Output Connections' section below.

Output Connections

- 8) Install the supplied connection wires into the terminal block located on the back of the PDU by connecting the BLACK wire to any available terminal in the L1 section of the terminal block mounted on the back of the PDU. Connect the RED wire (if needed) to any available terminal in the L2 section of the PDU terminal block. Connect the WHITE wire to any available N terminal on the PDU terminal block, and connect the GROUND wire to any available ground terminal. (If connecting for 120VAC single phase on an 8kVA or 10kVA LanPro, use both black wires for L1 and both white wires for N)
- 9) The off-factory setting is 208 Vac: a link is placed Page 4 of 7

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between terminals 2 and 3. An extra link was delivered with the unit (in a plastic bag) to enable other output voltages (5/6kVA models only). The following voltages are available: 120, 208, 220, 230, 240VAC. See the 'Available Output Voltages' section (4.4.3) of the Installation/User Manual for hardware configurations for each output voltage.

10) Connect the PDU terminal block wires to the LanPro U output terminal block as follows:

OUTPUT VOLTAGE: 120VAC SPLIT-PHASE, 208/220/230/240VAC (FIG. 10)

This is the off-factory setting. There is a link between terminal 2 and 3.

- 1. Connect the output wires to the terminals 1 (L1) and 4 (L2).
- 2. Connect the neutral wire (N) to terminal 2.
- 3. Connect the ground wire to terminal 5. Ground connection is essential!

OUTPUT VOLTAGE 120VAC SINGLE PHASE

- The factory setting of the output tap (208Vac) must be changed to 240Vac. Follow the procedure as described in section 4.4.3.2 steps 1.1 and 1.2 of the LanPro U users manual.
- 2. Remove the link between terminals 2 and 3.
- Proceed as follows: *LanPro[®]-U* 5/6kVA: step 4-6, *LanPro[®]-U* 8/10kVA: step 7-10.

For LanPro[®]-U 5/6kVA: (FIG. 11)

- 4. Place this link between terminals 1 and 2.
- 5. Place the extra link (delivered with the unit) between terminals 3 and 4.





6. Connect the load wires between connectors 1 (or 2) for L1 and 3(or 4) for Neutral.

For LanPro[®]-U 8/10kVA: (FIG. 12)

- 7. Install one of the black load wires (L1) into terminal position 1 and the second black L1 wire into position 2.
- 8. Install one of the white load wires (N) into terminal position 3 and the second white neutral wire into position 4.
- 9. Connect the ground wire to terminal position 5. Ground connection is essential!

Fig. 13

Fig. 13

- 11) Refer to section 4.4.3 of the LanPro Installation/User Manual for additional output voltage information.
- 12) Tighten all connections to the UPS terminal block according to the TIGHTENING TORQUE FORCE requirements indicated in the LanPro U Installation/User manual.
- 13) Reinstall the cover plate removed in step 2.
- 14) Remove the nut and lock washer from the from the ground stud located in the bottom of the PDU enclosure. Connect the UPS ground wire from step 3 to the ground stud and reinstall the nut and lock washer.
- 15) Attach the PDU to the LanPro UPS. (For 208/220/230/240VAC units, pull excess input cable and battery extension cable through the conduit fittings at the bottom of the PDU enclosure as the unit is moved and held into position to install the mounting screws.) Install the #8 machine screw supplied into the top hole of the PDU (labeled 'Position 1 in Fig. 13). Reinstall screws remove in step 2 into the remaining PDU mounting holes to secure it to the back of the LanPro unit.

16) Tighten the strain relief conduit fittings on the input and

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battery extension cable.

- 17) Install the CAUTION label supplied with the PDU assembly on the back of the LanPro UPS as shown in Fig. 14.
- 18) Insure that all breakers on the PDU are in the 'ON' position and the DC fuses have been installed.
- 19) Connect the 'Plug' end of the power cord, if installed, to the appropriate U.L. Listed L6-30 or 5-50 receptacle.
- 20) Complete the UPS installation and start-up as outlined in the LanPro U Installation/User manual.
- 21) Upon initial start-up, measure the voltage at the output receptacles to insure proper hardware configuration before connecting equipment to the UPS.