

Load Shed A/C

by, All Professional Industries

+Plus+
30A, 60A & 100A

Installation / Technical Manual

This manual should remain with the unit.

DANGER

**ONLY QUALIFIED ELECTRICIANS OR CONTRACTORS SHOULD
ATTEMPT INSTALLATION!**

READ THIS MANUAL THOROUGHLY!	INSTALLATION AS FOLLOWS:
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INTRODUCTION

Thank you for purchasing the Load Shed A/C Plus by All Professional Industries. Every effort was expended to make sure that the information and instructions in this manual were both accurate and current at the time the manual was written. However, the manufacturer reserves the right to change, alter or otherwise improve this product(s) at any time without prior notice.

READ THIS MANUAL THOROUGHLY

If any portion of this manual is not understood, contact us at (847)516-8882.

HOW TO OBTAIN SERVICE

If the Load Shed A/C requires service, call (847)516-8882 to locate at servicing dealer in your area.

EQUIPMENT DESCRIPTION

The Load Shed A/C Plus assembly is used to automatically alternate 2 air conditioners and shed 2-120V or 1-240V circuits while in generator mode. The 2 air conditioners will only alternate automatically when the transfer switch is in the generator position. Once installation is complete, the Load Shed A/C Plus will operate automatically without any need for user intervention or routine maintenance.

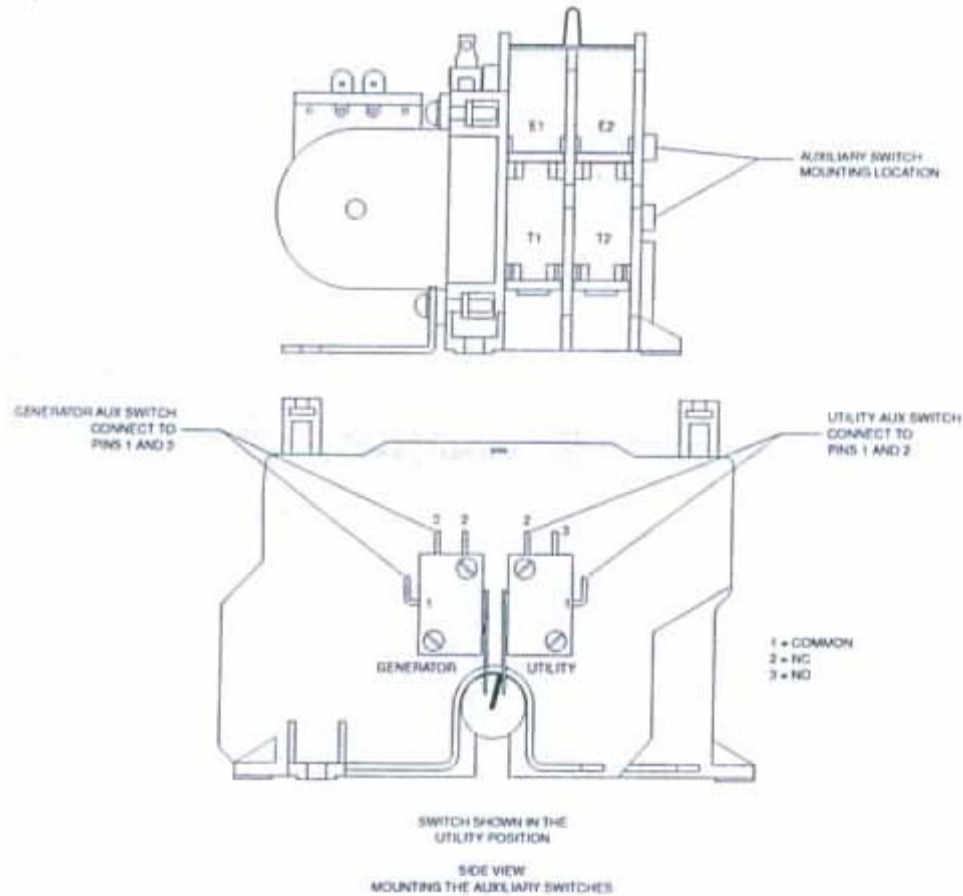
UNPACKING AND ASSEMBLY

The timers are shipped loose for shipping purposes only. Every Load Shed A/C Plus is tested thoroughly before it leaves manufacturing.

DO NOT install timers before installation. Damage may occur if this instructions are not followed.

INSTALLATION

1. Install the Load Shed A/C enclosure as close to the transfer switch as possible. (Note: The Load Shed A/C Plus Nema 1 enclosure is rated for indoors only. The Load Shed A/C Plus Nema 3R is rated for both indoor/outdoor use.
2. Turn off the 2 breakers that feed the 2 air conditioners.
3. Turn off each thermostat that controls both air conditioners.
4. Locate the thermostat wiring for one of the two air conditioners and cut the sheathing back approximately 6 inches. Cut the Yellow wire and splice 2ea #18 gauge thermostat wires, one to each cut end. Run both wires to the Load Shed A/C terminal strip and install 1 wire to each terminal labeled T1.
5. Follow the same procedure for the 2nd air conditioner. Run both wires to the Load Shed A/C terminal strip and install 1 wire to each terminal labeled T2.
6. Turn the breakers back on for each air conditioner.
7. Test both air conditioners by setting the thermostats so that both air conditioners turn on.
8. If both air conditioners turn on, move to step 9. If not, go back to step 4.
9. Turn the power off feeding the transfer switch.
10. Turn the generator to the OFF position.
11. Run a conduit from the transfer switch to the Load Shed A/C.
12. Install the auxiliary switch (Sold Separately in the Load Shed A/C Installation Kit) to the transfer switch. (Note: 2 installation kits are needed for the Plus 60A and Plus 100A) The auxiliary switch needs to be added to the transfer switch to provide switch position sensing and 120V to the Load Shed A/C Plus. The following drawing shows 2 auxiliary switches. The Load Shed A/C Plus needs 1 switch in the generator position and 1 switch for utility position. (The Load Shed A/C Plus 30A only needs 1 switch in the generator position)The bottom drawing, (switch shown on left) shows the side illustration of the transfer switch where the auxiliary switches are to be installed.




- 13. If you purchased the Load Shed A/C Plus 30A:** (For 60A & 100A skip to #14)
- Install the tap connector to one of the two generator power lugs.
 - Install the included 5 Amp fuse block and fuse.
 - Install the included wire from the tap connector to one side of the fuse block.
 - Install the second included wire from the fuse block to the auxiliary switch pin #1. (Note: The remainder of installation parts needed is to be customer supplied).
- 14. If you purchased the Load Shed A/C Plus 60A or 100A:**
- Install the tap connector to one of the two generator power lugs.
 - Install the included 5 Amp fuse block and fuse.
 - Install the included wire from the tap connector to one side of the fuse block.
 - Install the second included wire from the fuse block to the auxiliary switch pin #1.
 - Install the tap connector to one of the two utility power lugs.
 - Install the included 5 Amp fuse block and fuse.
 - Install the included wire from the tap connector to one side of the fuse block.
 - Install the second included wire from the fuse block to the auxiliary switch pin #1.
 - (Note: The remainder of installation parts needed is to be customer supplied).
15. Install a neutral wire (min. #18 gauge) from the transfer switch's neutral lug and run wiring through the previously installed conduit to the Load Shed A/C terminal strip labeled "N".
16. Install another (min. #18 gauge) wire from the transfer switch's previously installed generator auxiliary switch pin #3 and run wiring through the conduit previously installed to the Load Shed A/C Plus terminal strip labeled "120V" on far left side of terminal strip.
17. Install another (min. #18 gauge) wire from the transfer switch's previously installed utility auxiliary switch pin #3 and run wiring through the conduit previously installed to the Load Shed A/C Plus terminal strip labeled "120V" on far right side of terminal strip".

18. Pull up to 2-120V or 1-240V circuits from the breaker panel to the Load Shed A/C Plus contactor and install to the top 2 lugs.
19. Pull the circuits load side to the Load Shed A/C Plus contactor and install to the bottom 2 lugs.
20. Install both timers and relays. They only fit one way.
21. Turn both timers to the desired time (usually "6" which is 1 hour) to run each air conditioner. Can be set between 0.1 second to 180 hours. (Note: Instructions for setting the timers is located at the bottom of this page).
22. Turn utility back on and turn the generator to automatic.

TESTING THE INSTALLATION

- A. Turn both thermostats to their lowest setting and wait until both air conditioners turn on.
- B. After both air conditioners turn on, turn OFF utility.
- C. The automatic generator will start and the transfer switch will transfer to generator mode, engaging the auxiliary switch and giving the Load Shed A/C Plus 120v.
- D. A light should be lit on one relay and a blinking light on one timer. The air conditioner connected to the T1 terminals will be running. (Note: Some air conditioners have a delay before it will start).
- E. After the time runs out on the first timer, it will jump to the second timer, turning off the first timer automatically. The second air conditioner hooked up to the T2 terminals will now turn on.
- F. When the second timer expires, the Load Shed A/C will automatically start the process over again turning on timer one.
- G. If both air conditioners run as indicated above, and the 30A, 60A or 100A load(s) turned off, all components are installed properly. If not, call (847)516-8882 and ask for technical support.
- H. Turn ON utility. When the transfer switch switches back to utility, the auxiliary switch is deactivated and the Load Shed A/C Plus shuts off. Both timers and relays will not be lit. Both air conditioners and loads will operate as normal.

TIMER OPERATION

	<p>The 'Mode' dial is preset to 'A'. The center dial is preset. The 'Range' dial is preset to minutes, '10m'</p> <p>The large dial is the only dial that needs setting to the desired amount of time to allow each air conditioner to operate before switching to the next. Set the large dial to '6' for 60 min.</p>
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