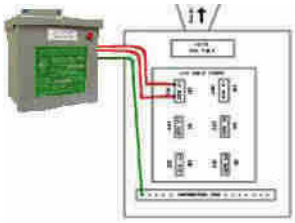
KVAR™ US-1 Residential Power Conditioning Unit
Installation Instructions

Enclosed:
(1) KVAR unit
(1) Panel box coupling device
(1) Panel box coupling device nut
(1) Tubing (10")



KVAR Energy Savings, Inc., authorized dealers and distributors and sales agents shall not be responsible for any damages, personal or property, resulting from the installation of this product in a manner which deviates from the instructions specified herein.

KVAR Energy Savings, Inc. recommends that this unit be installed by a licensed electrician.

KVAR Energy Savings, Inc. recommends the removal of electrical power to the breaker panel box prior to beginning installation. This is best accomplished by opening the MAIN electrical breaker.

Installation Instructions

Attach Coupling Device:

Note: This section assumes the breaker panel box is flush with the wall (see bottom picture). If the panel box extends from the wall (i.e. not flush), omit step 1 and step 5.

1. Draw a line above and below the panel box cover. (This will ensure that the installation will not overlap the panel box cover).

2. Remove panel box cover.

3. Within the panel box, locate an unused, "perforated knock-out" hole (i.e. one that does not have existing wiring).

4. Remove the perforated cover in the knock-out hole.

5. Drill a 7/8" inch hole into the wall approximately ¼" to ½" above the panel box cover pencil line. The 7/8" hole should be located directly above the knock-out hole, but above the pencil line (or below, if knock-out hole is located on the bottom of the electrical panel).

6. Place the panel box coupling device through the 7/8" hole, if installed, and into the knock-out hole. Tighten the coupling device by attaching the coupling nut.

Mounting the Unit:

1. Identify a location to mount the KVAR unit approximately 6" to 8" from the 7/8" hole drilled in wall.

2. Mount the unit on the wall using concrete screws or wallboard screws and anchors, as appropriate. (Take care to mount the unit level so that it will have a neat appearance).

Attach Tubing:

(Optional) Estimate the approximate length of tubing needed to extend from unit to coupling device in 7/8" hole. Cut excess tubing as necessary.

1. Run the two red and one green wires through the tubing, and then through the coupling device. (The wires should then be located in the panel box).

2. Attach tubing to the unit and to the coupling device. (You'll have to spread the throngs in order to fit around the unit attachment and coupling device).

3. Thoroughly tighten the tubing to the unit.

4. Thoroughly tighten the other end of the tubing to the coupling device.

Wiring the unit:

1. Estimate the length of green wire needed to attach to the grounding bar.

2. Cut off the unnecessary green wire, being sure to leave some "slack".

3. Attach green wire securely to grounding bar.

4. Find the two (i.e. one left side and one right side) uppermost **220v** breakers within the panel box. These breakers are the ones closest to the incoming service line, e.g. for the air conditioning, washer, dryer, etc.

5. Select either the left side or right side top breaker for coupling to the unit. (Preferably the one with the highest gauge, i.e. thinner, wire).

Notes:

(i) If a 220v breaker is not the top breaker, one will have to be relocated to the top.

(ii) If only one 220v breaker is at the top, then select this one.

(iii) If electrical service comes in from the bottom of the panel box, then the remaining instructions apply to the bottom-most 220v breaker. Either way, the breaker upon which you will attach the unit is one closest to the incoming service line. It does not matter whether you select one on the right or left side of the panel box, although preference should be given to the one with the highest gauge wire (i.e. thinner wire).

6. Loosen the two screws in the breaker you've selected. (If this is too difficult, then pry breaker from panel box. You can replace it once you're done).

7. Estimate the amount of red wire need to attach to the breaker.

8. Cut off the unnecessary red wiring being sure to leave some "slack".

9. Slip the two red wires under the screws of the breaker and tighten **thoroughly**.

10. If the breaker was removed to access the screws, then return it to the panel box now.

11. Replace panel box cover.

12. Restore power to the panel box.

You're done! At this point, the unit red light should be on. Should this not occur, remove power from panel box and review installation instructions.

Note: The unit's red light should always be on. If for some reason the light goes out, give us a call or contact the local distributor where you purchased our unit.