

**Universal Transceiver – Model 21810****Manufactured by Lester Electrical Inc, Lincoln NE. FCC ID #: OBH 21810****Distributed by: Energy Management Solutions, Santa Fe Springs, CA.**

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**Installation Instructions**

**Tools needed to install Universal Transceiver Model 21810 and Base Station PC**

Drill, ¼ " drill bit, Phillips screwdriver, ¼ x 8" acid resistant cable ties.

**CAUTION:** Use caution when working around battery charging areas and industrial environments, always wear approved protective eyewear. Always work in a well-lit area. Wear approved safety shoes. Follow all posted safety warnings when working on and around ladders. Use extreme caution when operating tools. Do not rest tools on top of machinery or storage rack beams.

**Note:** Do not mount the Universal Transceiver where water spills may occur. Do not mount Universal Transceiver on unstable surfaces such as rolling doors, access panels, etc. Do not mount Universal Transceiver where it may be struck by or interfere with the operation of other moving objects, vehicles or other machinery. Never mount the Universal Transceiver near radiators, heating sources or high temperature areas. Never cover or obstruct fire sprinkler systems, access panels, limit switches, circuit breakers, light fixtures or other installed machinery, electronic or mechanical devices.

The Universal Transceiver unit has been designed for optimum operation with a clear, unobstructed "Line of Sight" signal transmission range of two hundred feet or less. When mounting the Universal Transceiver, machinery, walls, doors and other physical structures should be avoided in order to achieve maximum antenna performance.

**Installation Instructions – Universal Transceiver Model 21810 and Universal Transceiver**

**PROCEDURE - Universal Transceiver**

1. Locate a clear wall, ceiling or non-metal rack area to mount the Universal Transceiver. The unit should be mounted at least one foot from metal pipes or racks. Avoid mounting Universal Transceiver near any sources of potential noise interference such as electric motors, fluorescent lamps, radio transmitters, infra-red devices, etc. (At least ten feet of clear area is recommended). Line of site obstructions may interfere with maximum signal strength and reception.
2. Using the Universal Transceiver mounting bracket as a guide, mark two spots to be drilled to support the unit. Use extreme caution to avoid drilling into walls containing wiring or pipes.

## **Installation Instructions – Universal Transceiver Model 21810 and Base Station PC**

### **PROCEDURE – Base Station PC**

1. Determine a suitable wall or rack location to mount the Base Station PC with-in twenty-five feet of the Universal Transceiver unit near a standard 110 volts ac power supply and approved telephone jack. Use only the supplied hardware brackets when mounting the Base Station PC. Do not drill or tap any holes in the case of the Base Station PC.
2. Attach the RS232 nine pin cable to the Universal Transceiver. Carefully route this cable to the Base Station PC and attach cable to RS232 receptacle.
3. Secure the RS232 Cable to wall and rack areas using approved cable ties and wall style cable fasteners. Do not allow anything to rest on the Base Station PC or its cables including other signal transmission cables or lines.
4. Attach an approved telecommunications cable to the receptacle port on the rear of the Base Station PC. Neatly secure the cable along its path using approved cable ties.
5. Attach the 110 volts ac power cable to the rear of the Base Station PC. Plug the power cable in to the nearest 110 volts ac power source.
6. Turn Base Station PC power on using the rocker switch located on the rear of the unit.
7. Insert the 3 ½" EMS supplied Floppy Disc in the unit drive located in the rear of the Base Station PC. This disc is programmed to establish dial-up properties and telecommunications connections to Energy Management Solutions.

There are no user serviceable parts in the Universal Transceiver or Base Station PC. Any attempt to access or repair any internal components will void the manufacturer's warranty.

For product warranty or customer assistance, please contact Energy Management Solutions at: (949) 460-0422 or Lester Electrical Inc. at (402) 441-3720