

IC Change Instructions

- 1. Before removing the top panel and swapping the IC, turn the battery off if one is installed and unplug the unit. Disconnect the unit from external wiring.
- 2. Remove the top panel.
 - 2.1. Looking at the front of the unit, remove the two screws that screw into the top of the right side panel extrusion (one screw in front and one screw in back).
 - 2.2. Loosen (don't remove) the two screws that screw into the bottom of the right side panel extrusion (one screw in front and one screw in back).
 - 2.3. Loosen (don't remove) the two screws that screw into the top of the left side panel extrusion (one screw in front and one screw in back).
 - 2.4. If there is a screw in the center of the rear panel close to the top, remove this screw as well.
 - 2.5. Rotating the right side extrusion should allow for a small flat head screwdriver to be inserted in between the front panel and the top panel. Use the screwdriver to lift the top panel out of the right side extrusion.
- 3. Remove the IC.
 - 3.1. If the IC is installed in a 40-pin dip socket, a small flat head screwdriver may be used to carefully remove the IC. Before removing the IC, note how the IC is oriented so that the replacement IC may be installed in the same orientation.
 - 3.2. If the IC is installed in a 52-pin PLCC socket, a chip extractor is recommended if available. If not, a tool with a point may be used to remove the chip. Before removing the IC, note how the IC is oriented so that the replacement IC may be installed in the same orientation. Use the pointed tool to carefully remove the chip. There are two small rectangular cutouts on opposite sides of the socket. Use the pointed tool in these cutouts to remove the IC. ESE suggests alternating between the cutouts to remove the chip.
- 4. Install the new IC.
 - 4.1. Install the new IC in the same orientation that the previous chip was installed. If you are unsure of the orientation of the IC, refer to the manual or call ESE. ESE recommends saving the old IC in case the DST standards are changed in the future.
- 5. Replace the top panel.
 - 5.1. Replace the top panel.
 - 5.2. Reinstall all screws that were removed and tighten all screws that were loosened.
- 6. Plug the unit in, turn the battery switch on if a battery is installed, and reconnect to external wiring.



IC Change Instructions for Desk Top Units

- 1. Before opening the unit and swapping the IC, turn the battery off if one is installed and unplug the unit. Disconnect the unit from external wiring.
- 2. Remove the top panel.
 - 2.1. Looking at the back of the unit, remove the two screws that secure the top panel to the chassis.
 - 2.2. Slide the top panel back and remove it from the unit.
 - 2.3. If you have tools that will allow you to remove the IC now, go to section 3. If not, one of the side panels will need to be removed.
 - 2.4. Four screws hold each side panel in place: one on the top, one in the rear and two on the bottom. Remove these screws for the side panel that will allow the best access to the IC.
- 3. Remove the IC.
 - 3.1. If the IC is installed in a 40-pin dip socket, a small flat head screwdriver may be used to carefully remove the IC. Before removing the IC, note how the IC is oriented so that the replacement IC may be installed in the same orientation.
 - 3.2. If the IC is installed in a 52-pin PLCC socket, a chip extractor is recommended if available. If not, a tool with a point may be used to remove the chip. Before removing the IC, note how the IC is oriented so that the replacement IC may be installed in the same orientation. Use the pointed tool to carefully remove the chip. There are two small rectangular cutouts on opposite sides of the socket. Use the pointed tool in these cutouts to remove the IC. ESE suggests alternating between the cutouts to remove the chip.
- 4. Install the new IC.
 - 4.1. Install the new IC in the same orientation that the previous chip was installed. If you are unsure of the orientation of the IC, refer to the manual or call ESE. ESE recommends saving the old IC in case the DST standards are changed in the future.
- 5. Replace the side panel (if it was removed) and the top panel.
 - 5.1. Replace the side panel if it was removed and replace all screws that were removed. 5.2. Replace the top panel and replace the two screws that were removed.
- Plug the unit in, turn the battery switch on if a battery is installed, and reconnect to external wiring.

IC Change Instructions for Airborne Units

- 1. Before opening the unit and swapping the IC, turn the battery off if one is installed and unplug the unit. Disconnect the unit from external wiring.
- 2. Remove the front panel and if necessary, the top panel.
 - 2.1. Remove the front panel. If the unit is made with extrusions, you should be able to slide the top panel out. If a battery is installed, be careful with the battery wires.
 - 2.2. If the unit is not made with extrusions, the top panel will need to be removed.
- 3. Identify the IC to be replaced. In units that have multiple printed circuit boards, the IC is located on the printed circuit board that has the GPS receiver board mounted on it and is connected to the GPS antenna connector.
- 4. Remove the IC.
 - 4.1. If the IC is installed in a 40-pin dip socket, a small flat head screwdriver may be used to carefully remove the IC. Before removing the IC, note how the IC is oriented so that the replacement IC may be installed in the same orientation.
 - 4.2. If the IC is soldered to the board, the board will need to be separated from the other boards in the unit in order to allow the IC to be removed. ESE recommends removing all solder using a 35w or smaller soldering iron and solder wick to prevent damage to the printed circuit board.
 - 4.3. If the IC is installed in a 52-pin PLCC socket, a chip extractor is recommended if available. If not, a tool with a point may be used to remove the chip. Before removing the IC, note how the IC is oriented so that the replacement IC may be installed in the same orientation. Use the pointed tool to carefully remove the chip. There are two small rectangular cutouts on opposite sides of the socket. Use the pointed tool in these cutouts to remove the IC. ESE suggests alternating between the cutouts to remove the chip.
- 5. Install the new IC.
 - 5.1. Install the new IC in the same orientation that the previous chip was installed. If you are unsure of the orientation of the IC, refer to the manual or call ESE. ESE recommends saving the old IC in case the DST standards are changed in the future.
- 6. Replace the board (if it was removed), top panel (if it was removed) and the front panel.
 - 6.1. Replace the board if it was removed and replace all screws that were removed.
 - 6.2. Replace the top panel if it was removed and replace all screws that were removed.
 - 6.3. Replace the front panel and replace all screws that were removed.
- 7. Plug the unit in, turn the battery switch on if a battery is installed, and reconnect to external wiring.