

# Alex-Tronix Service Bulletin No. 15, Rev 4, as of 07-29-08

Controllers: ENERCON + Version 2.xx, and up.

Issue: Main Panel & Output Board Replacement Instructions for the Enercon +

Procedure for software upgrades or defective main panel.; note that this latest bulletin **does not** pertain to older ECN 4-24 models.

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**NOTE: During replacement, “CHANGE BATTERIES” may appear on the display when:**

- **The main panel’s ribbon cable has been disconnected from the output board.**
- **A battery has been removed and/or replaced from the output board.**

**This characteristic is normal, and is remedied when the reset button on the rear of the main panel is pressed or when any valve is actuated by any means.**

## **Main panel Replacement Procedure:**

- 1) Open bottom door of pedestal, and remove green battery pack cover; remove only one battery.
- 2) Open top door of pedestal and remove single hex/slotted screw on the right side of the front panel. Set this screw on top of the pedestal.
- 3) Gently swing main panel open, and observe gray colored ribbon connector plugged into the location marked- **TO OUTPUT BOARD**. Using your index finger and thumb slightly pull on one side of the connector, then the other end --back and forth until the connector is removed. **DO NOT PULL ON RIBBON CABLE ITSELF!** You may damage the cable and render the controller inoperable.
- 4) Remove the front panel by loosening the two hex/slotted screws on the left side (**do not remove screws**), and slide panel out.
- 5) Discharge your body from static electricity by placing your hand *flat* somewhere on the pedestal chassis for a second.
- 6) Unpack the new panel from it's static sensitive bag. **DO NOT TOUCH EXPOSED PINS WHERE CONNECTOR PLUGS IN**; static from your body may damage panel.
- 7) Match the connector with socket (has key) of the ribbon cable connector, and firmly seat connector into the socket on the back of the main panel. This step may be done already.
- 8) Slide the new panel in the chassis, between the screws and hinge, and cinch down. Ensure the panel is aligned straight.

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**VERY IMPORTANT NOTE:** If the previous main panel version was *less than 2.00*, has a modular output board, and are upgrading to a software version of 2.00 or above, you will need to ensure the following:

- A) Under the battery cover there are three pins marked “X1” and “X2”. A jumper can be switched between any two of the three pins by pulling it straight off, this jumper must be across “X1”.
  - B) The yellow main module must be marked “CLM”. If your module does not have this marking on it you must obtain a module that does.
- 9) Replace 9 volt battery and cover previously removed on output board.
- 10) Controller should be reset by pressing the reset button sandwiched between the rear and face plate of the main panel on the actual circuit board. An arrow marking (ENERCON) on the rear panel is where the reset button is located at.
- 11) Finally, fasten down main panel with remaining screw and replace bottom door on pedestal, then test unit by running the OBT, TEST or MANUAL start functions. Reprogram watering schedules.

## **Output Board Replacement Procedure:**

Ensure the following parts are including with a new output board:

- 1) **Output circuit board.**
- 2) **10- Flat head mounting screws.**
- 3) **1 yellow output module.**
- 4) **1-6 green station output modules.**
- 5) **2 extra “Velcro” type round decal fasteners.**
- 6) **3- 9 volt metal jacketed batteries.**

- 1) Mark all valve wires as to which station they are wired to, then remove them from the terminal strip on the old output board while still mounted in the pedestal. Remove temperature and rain sensor, as well as the ground wire.
- 2) If the existing output board has a blue battery cover (older non-modular type), peel off blue protective laminate and remove all circuit board mounting screws using a Phillips screwdriver. If the output board has a green battery cover (modular type), then remove the battery cover, and all modules by pulling them straight out. All Phillips screw heads will now be exposed and circuit board can now be removed.
- 3) Remove **all batteries** and modules on the new output board prior to installing.
- 4) Using supplied screws, match and place the output board over the standoffs, and fasten a

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screw starting at the upper right hand corner. Align the output board once again, and fasten a second screw at the bottom left hand corner. The board should now be aligned and the remaining screws can be fastened and cinched down tight.

- 5) Using a knife or small flat blade screwdriver, Apply two new velcro decal fasteners over the missing printed circles (old ones removed) on the circuit board where two of the modules will be placed. The decal fastener will cover the screw head. Press on the decal with your thumb to ensure the decal adheres to the board well.
- 6) Reconnect the green ground wire and ensure it is attached to a solid ground rod.
- 7) Reconnect all field valve wires, followed by temperature and rain sensor if any.
- 8) Install all three 9 volt batteries ensuring they are properly seated, and snap green cover back on.
- 9) Install yellow (marked "CLM" if version 2.00 or above) module on top first position, followed by green station modules. Modules snap into place over connector and velcro fastener.
- 10) Noting the key on the gray ribbon connector, press the connector coming from the main board on to the output board's connector.
- 11) Reset controller by pressing the reset button sandwiched between the rear and face plate of the main panel on the actual circuit board. An arrow marking (ENERCON) on the rear panel is where the reset button is located at, then test unit by running the OBT, TEST or MANUAL start, functions. Reprogram watering schedules.