

INSTALLATION INSTRUCTIONS FOR
423-345-001A
RS-232 DRIVER CHIP REPLACEMENT KIT

The RS-232 driver chip (Shivvers part number E-6066) is used in the Compudry Command Center to send information from the Moisture Control module to the Plenum Control Module. It is also used to send information from the Plenum Control Module to the printer. Since both modules use the same driver chip, two chips are included in this kit, but only one may be needed to fix the problem.

The E-Z check uses the same RS-232 driver chip to send information directly to the printer.

For a Compudry Command Center, check the system out as follows to help determine which module needs the chip replaced.

- 1). Place the Low Grain Shutoff switch in the Bypass position. Place the Machine switch in the Auto position. Make sure the Fans Enabled light is on. Turn on the Control power. Both modules should start flashing their program version number Px.x.
- 2). Press the Adjust Switch up or down on the Moisture Control Module until the display shows "8.8.8.", then release the switch. The moisture control should now be into its program. Without doing anything else, within about 10 seconds, the Plenum Control Module should show "8.8.8." and start into its program. If the Plenum control module does not start, replace the RS-232 driver chip in the Moisture Control Module.
- 3). Within 10 seconds after the Plenum Control Module automatically starts, the printer should start printing out the drying parameters. If it does not, replace the RS-232 driver chip in the Plenum Control Module. Note that if the plenum control module is manually started with its Adjust Switch, the printer may not print anything for approximately 30 minutes.
- 4). If the printer still does not print anything, the printer may need to be replaced.

For an E-Z Check, replace the RS-232 driver chip if the printer does not print anything. Keep in mind that both the chip and the printer could be bad.

INSTALLING THE RS-232 DRIVER CHIP IN THE COMMAND CENTER OR E-Z CHECK

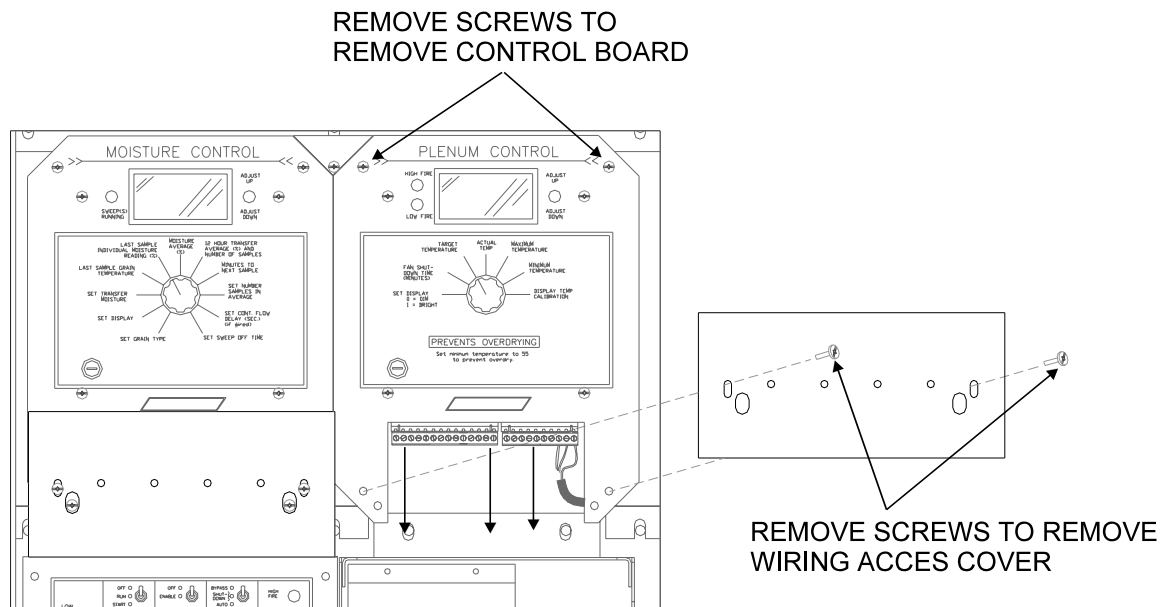


DISCONNECT AND LOCK OFF POWER TO THE ENTIRE DRYING SYSTEM!!!

These instructions show replacing the RS-232 driver chip in the Plenum Control module but the same procedure applies for the Moisture Control module or the E-Z Check.

Make sure the low amperage control voltage indicator is not on to verify that the power has been turned off. Double check by turning the control panel switch to start, and see that nothing comes on.

Remove the wiring access cover on the Plenum control module by removing the 2 screws holding it in place. Unhook the wiring harnesses by pulling **straight down** on the 2 connectors being careful not to bend any of the pins in the socket. Remove the 2 remaining Phillips head screws (as shown below) holding the control board in, and remove the Plenum control module from the Command center.



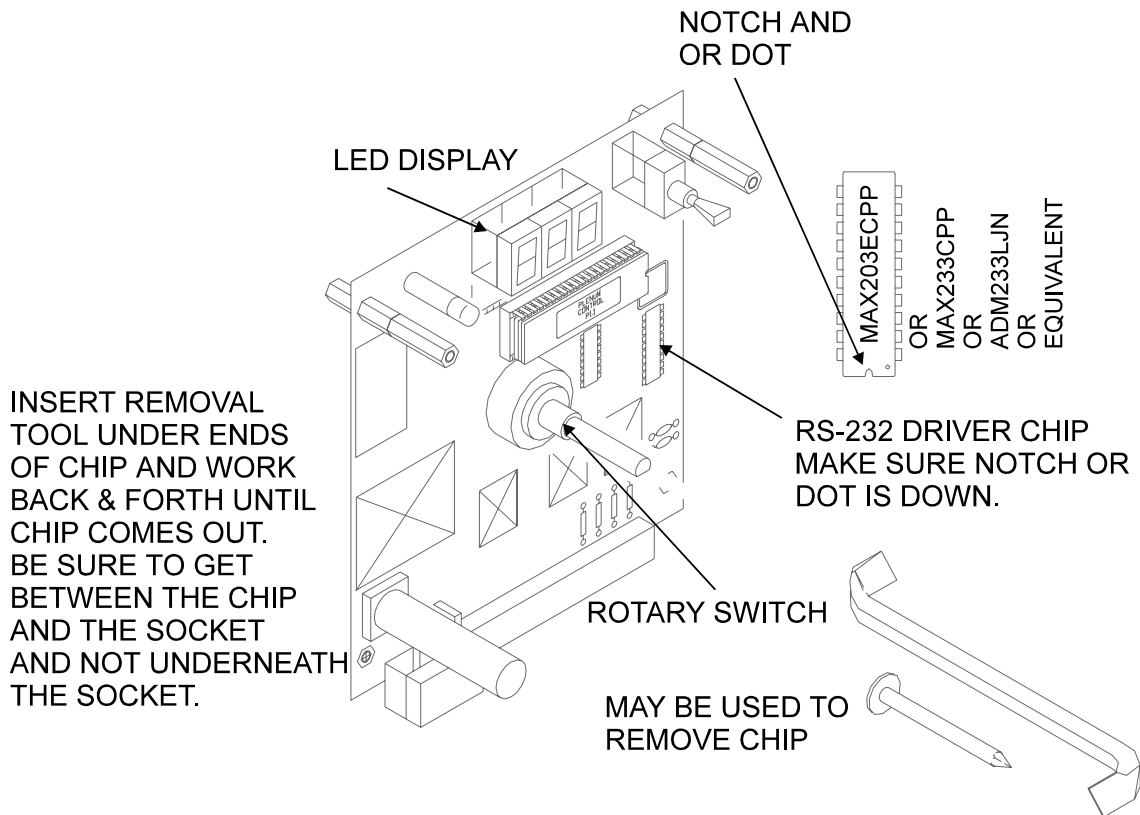
Once the control module has been removed from the command center or the E-Z Check, the faceplate will need to be taken off to gain access to the circuit board. Remove the knob by using a small straight screwdriver to loosen the set screw on the knob. The set screw is on the opposite side of the pointer. Loosen the set screw just enough for the knob to slide off. This will help to get the knob back to the right position later.

After the knob has been removed take out the four remaining screws holding the faceplate on. This will allow access to the circuit board where the RS-232 driver chip is located.

CHIP REMOVAL

ATTENTION: The chips on the circuit board are static sensitive devices. Before handling any of these devices be sure to touch a grounded metal object first. Try to avoid touching the pins on the chips during handling. Leave chips in their shipping container until ready to install.

The RS-232 driver chip is a 20 pin chip located on the right hand side of the circuit board about in the middle. It may be difficult to read, but it should be labeled with the numbers 203 or 233 in the part number. It could be MAX233CPP, or ADM233LJN, or MAX203ECPP, or something similar.

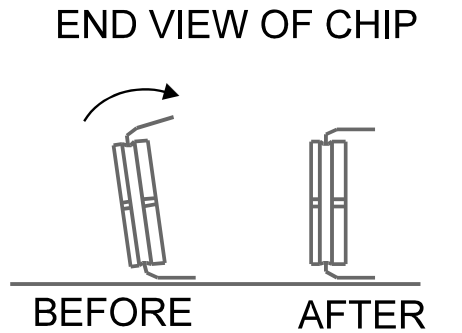


A tool will be needed to remove the chip from its socket. A small straight screwdriver will work. An offset flat screwdriver from NAPA, part # 374, or a 1½" roofing nail, may work, but may need some modifications made on a grinder. The tool needs to be thin enough to slide between the socket and the chip.

Insert the tool between the socket and the chip on either end. Rock the tool back and forth gently lifting the chip about half way out of the socket. Go to the other end and do the same

procedure. Keep alternating ends until the chip is free. Trying to remove the chip from one end only will bend the pins or possibly break them. Take notice of the orientation of the chip before removing it from the socket. There is a notch and or a dot on one end of the chip. This identifies pin # 1 on the chip. The new chip will need to be installed in the same position.

Before installing the new program chip make sure to follow the static charge precautions mentioned on the previous page. To install the program chip, the pins need to be parallel to each other to fit in the socket properly. The pins of new chips angle away from each other slightly. Grasp the chip by each end and place one row of pins on a clean flat metal surface. Carefully bend the pins of the chip inward slightly. Do this with both sides until the pins are parallel with each other. (The old chip can be used as a guide) Be careful not to over bend and avoid touching the pins as much as possible. Lay the chip in the socket to see if the pins sit in the socket properly. You may have to bend them more if they don't.



Place the chip in the socket making sure that the dot and or notch on the chip is pointing down and all the pins are in the socket. Using your thumbs, press straight down on the chip pushing it into the socket. Make sure all the pins are seated in properly. If a pin does get bent, the chip will need to be removed and the pin straightened.

Once the chip is installed, place the faceplate back on the module with the four screws removed earlier. Place the knob back on the rotary switch and tighten the set screw. Check the knob orientation by rotating it fully clockwise until it stops. The pointer should be at the six o'clock position. Loosen and adjust if it's not. Place the control module back into the Command Center or E-Z Check by installing the top two screws. Reconnect the connector(s), then install the wiring access cover with the bottom two screws.

Close all covers and turn power on to verify that the problem is fixed.