

DRO Chip Upgrade

P/N 81705

About the DRO Chip Upgrade

The new Sherline DRO chip (P/N 81705) has been reprogrammed in order to allow our customers to use our DRO on their ball screw machines. The chip also has some additional upgrades. The new DRO can now be connected to an Inch machine while having the DRO display in Metric, or it can be connected to a Metric machine while having the display in Inch.

If you have a DRO that you purchased prior to 8/1/21 and you would like to upgrade with our new DRO Chip (P/N 81705), follow the installation instructions below.

1. Remove all of the axis cables and the power cable from the DRO housing.

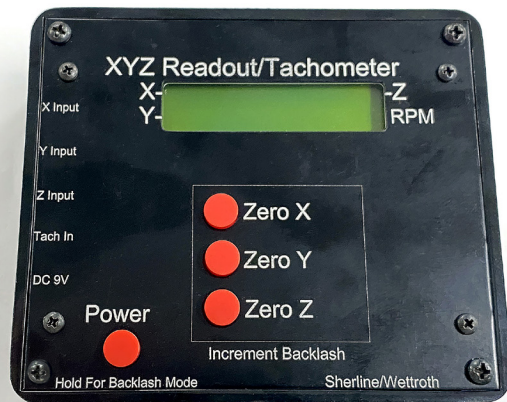


FIGURE 1—The DRO display and housing with all the cables removed.

2. Unscrew the four corner screws that hold the DRO face plate and control onto the housing (see Figure 2).

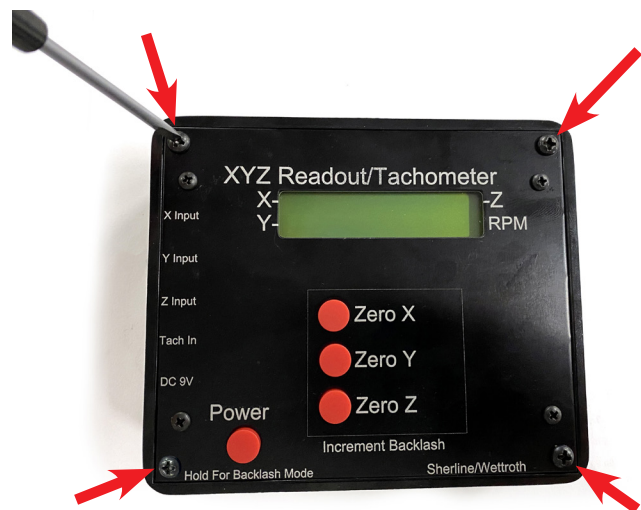


FIGURE 2—Remove the four corner screws.

3. Remove the DRO control from the housing and place it face down on the table (see Figure 3).

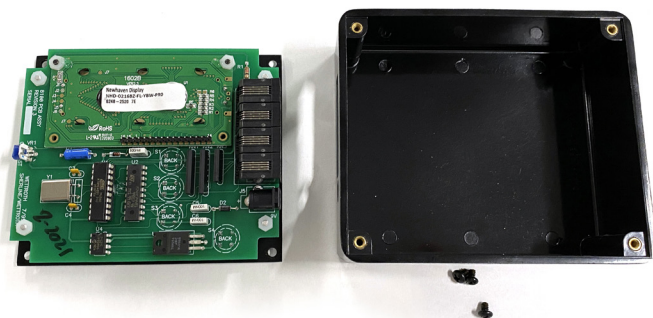


FIGURE 3

4. The DRO chip is circled in Figure 4 on the following page. Note the orientation of the original chip that is mounted to the board. The new chip must be mounted to the board with the letters and numbers facing in the same direction. If you mount the new chip in the opposite orientation, the DRO will not work.

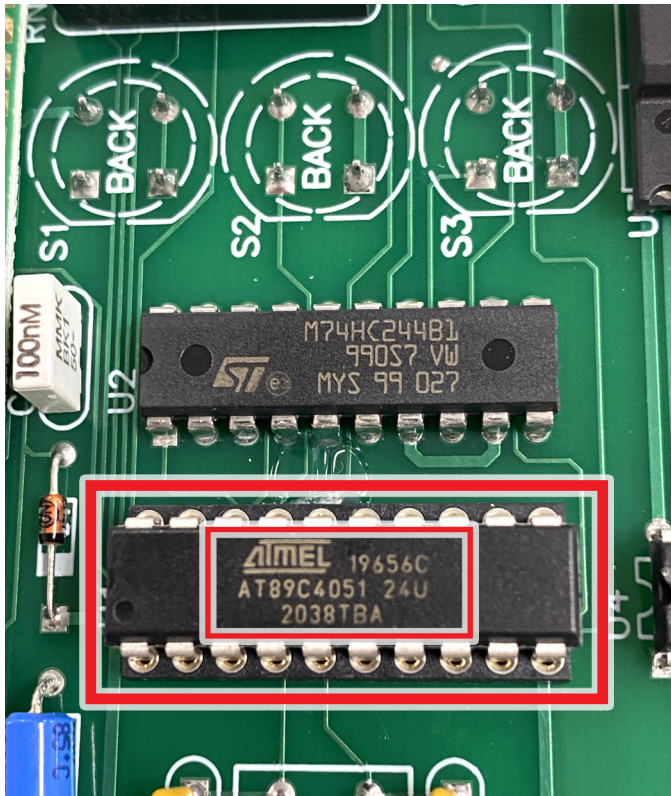


FIGURE 4—The original DRO chip is circled in red. Note the orientation of the printed text on the chip.

5. Remove the original chip by sliding a straight blade jeweler's screwdriver between the bottom of the chip and the top of the chip mount on the board and "gently" pry it upwards. Insert the screw driver alternately on both ends of the chip and pry it upwards a little bit at a time until the chip is free from the board (see Figure 5).



FIGURE 5

6. Place the original chip away from the control board so it doesn't inadvertently get mistaken for the new chip. The chip number and logo on the new chip may be the same as the original chip.

7. Place the new chip on top of the connector on the board and make sure that the chip pins on both sides of the chip align with the holes on the board (see Figure 6).

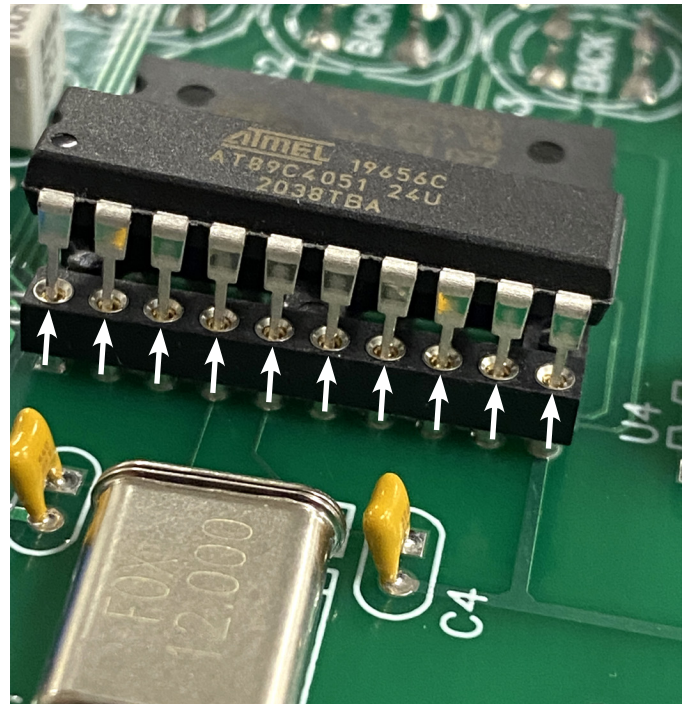


FIGURE 6—The white arrows show the pin-to-hole alignment.

8. If the pins need to be bent in a little to align better with the holes, place the chip on its side on the table and gently push down on the chip to bend the pins inward (see Figure 7).

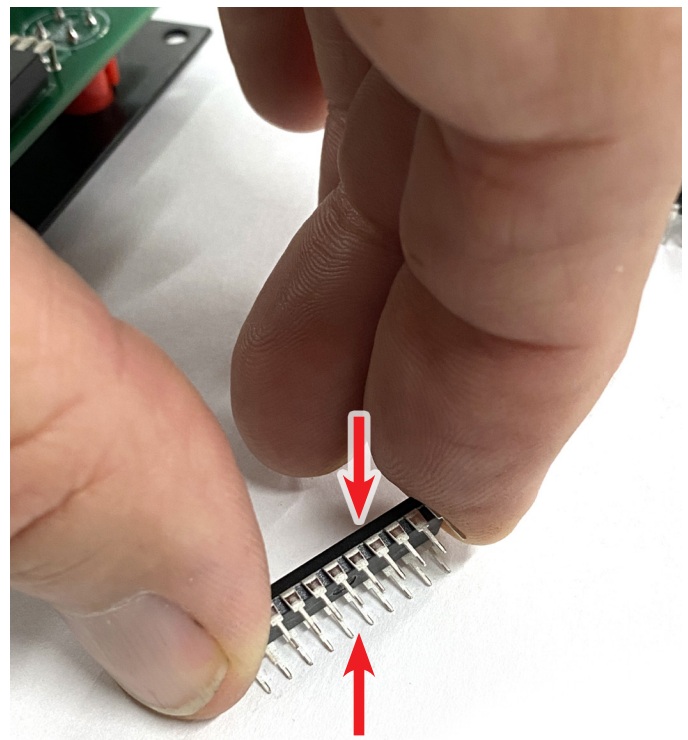


FIGURE 7—The red arrows indicate the direction and force necessary to bend the pins.

9. With the chip pins aligned to the mating holes, gently push down on the chip. First push in the middle of the chip. Then push on each end of the chip until the chip is fully seated on the board connector (see Figure 8).

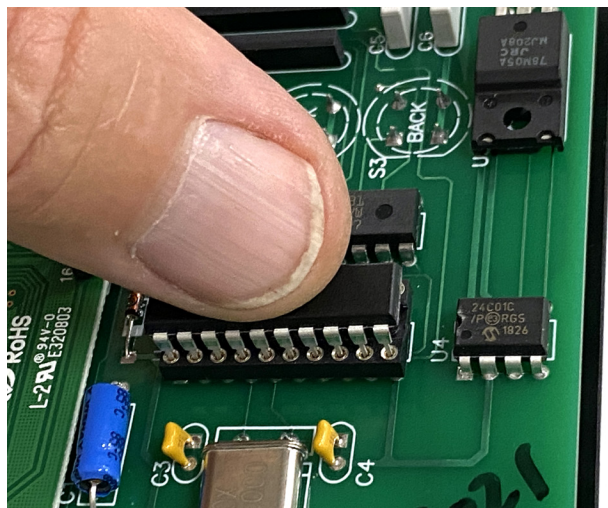


FIGURE 8

10. When the chip is fully seated on the board, it will look like the picture in Figure 9. Check both sides and make sure that the chip orientation is correct with the letters and numbers facing in the direction as shown below.

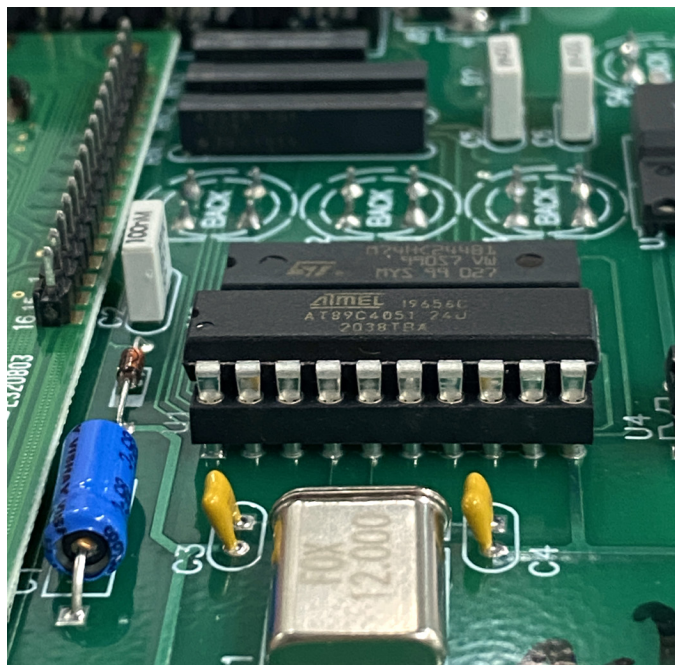


FIGURE 9—The chip is fully seated on the control board.

11. Now place the control back into the housing. Put the face plate back on the housing and reinstall the four mounting screws, plug in the power cable, and turn on the DRO. Use the instructions below to choose the proper mode setting for your machine. Then plug in your axis cables.

NOTE: For more detailed information on setting up the modes for DRO, please see the *DRO Mode Instructions* https://sherline.com/wp-content/uploads/2021/07/dro_mode_inst.pdf

Thank you,
Sherline Products Inc.