

Bravo Calibration Instructions *(For use with Bravo Updater Utility)*

A. Installing the Utility

1. Double click on the file downloaded from the website. A setup program will launch.
2. Follow through the setup, click next at each step to accept defaults for file installation. (Recommended)
3. After installing this program, the folder it created with program listed should automatically open. You will need to click on the program name **Bravo Updater** to run the software. If the folder does not automatically open after installation, then you will need to open the program by clicking on the 'Start' button, then go up to the Programs menu, next go to the Production Tool Group, then select Bravo Updater.

B. Using the Utility

Once the program opens, click the 'GET STATUS' button.

Now click on 'SET OFFSETS' button.

After changing any values you can click the Pick button to test the values without running a job.

C. Tricking the Lid Sensor

In order to make any changes to values, the Bravo's cover must be closed. Often it is difficult to see inside the Bravo to make picking judgments with the cover closed. There is a way to open the lid and watch the Bravo. You can simply block that optical sensor for the lid, which is found roughly 3 centimeters to the right, and about 2 centimeters back of the power button on top cover of the Bravo. You will see an opening, or 'notch' in the white casing of the Bravo. This notch has the optical sensor inside it that detects when the lid is open. There is a corresponding plastic tab located on the lid of the Bravo that fits down into that notch on top of the Bravo. The plastic tab on the lid has the piece of reflective tape on it that blocks the optical sensor inside the notch when the lid is closed. To block the sensor, you need to take a piece of cardboard, or folded up paper, and wedge it down inside that notch, thus blocking the optical sensor, and tricking the Bravo to think that the lid is closed.

D. Pick Depth Adjustments

If it appears the fingers are perfectly centered but just not going down far enough to pick the disk, adjust with the following instructions:

Adjust the pick depth level by changing the values (with numbers in increments of 10) in the 'DISK SWITCH OFFSET' field. You should be at 50 or 60 right now. Try increasing the number in increments of 10, then testing (See Section H) until you find the proper

depth. Once you change the value, Click Test to set it. Do not set this value over 80 under any circumstances. If it is still not picking at 80, there are other problems with the unit that will need to be addressed.

E. Adjust Picking left to Right

If the CD is getting pushed to the left or right when the arm is attempting to pick for any one location, adjust with the following instructions:

Adjust the pick position left and right for the respective location by changing the values (with numbers in increments no larger than 2 at each adjustment attempt - i.e. try these values progressively - 00, 02, 04, 06, etc...) in the respective field. Keep in mind that using a negative value (i.e. -02, -04, -06) will move the arm position to the right, and positive values to the left. Click the Move button next to the proper location to move the arm over that position. Click Pick to test it.

F. Adjusting Picking Front to Back – (Printer Tray and Burner Tray only)

Printer Tray - Forward and backward adjustments are made with the Tray Out Position. The higher the positive value closer to +32 the further out the tray will come when ejected. Opposite goes for negative values entered. The tray will not eject as far. This would help if the arm is pushing the disc forward or backward to try to center the fingers in the hub of the disc.

CD/DVD Burner Tray – You need to physically adjust the drive position forward or backward, so the arm can pick correctly out of the drive. Loosening four screws holding the drive in place inside the Bravo allows the drive to move.

You will NOT need to remove the cover to access the screws. There are four total that will free up the drive to adjust it forward and backwards. Open the lid and look down at the metal plate just below the drive, you will see two screws that are torx heads. You will also notice that they are in slots and not holes. These slots are what the drive will slide in to get your micro adjustments. The other two screws are located in the back of the machine on the bottom. You should see four screws total in the back of the machine, the bottom two are the ones to loosen. This should free up the drive so it slides forward and backward in those slots up front. Once adjusted properly tighten the front screws back up, the rear screws do not need to be tightened as they are for shipping purposes.

G. Adjusting Pick Depth by adjusting the Micro Switch

Warning - this should only be done as last resort. (It is possible to break the sensor) Also, this is a very fine adjustment of 1/16" to achieve better picks. Make sure when you bend this switch that you do not grab on and bend it away from the button that pushes in to tell the solenoid to activate the white finger which grabs the disc. I have attached a picture of the micro switch and how to bend it. For testing you take a disc in your hand and hold it up to the arm. Push it up on the fingers gently and listen or watch for when the switch activates. The switch should be activating just before the disc goes all the way on the fingers (when it reaches the notched right angle part of the fingers and is fully seated). Push the switch up to make it pick deeper, down to make it pick lighter.

IN TRANSPORT
PRIOR TO SHIPPING.
SEE USER'S MANUAL.

1st needle-nose to secure

2nd needle-nose, butted-up against first
and used to bend switch up or down,
depending on how deep the arm is picking.

