

BravoPro Calibration Instructions *(For use with BravoPro Utility)*

A. Installing the Utility

Download the program – Save it to your desktop or any other location. There is no installation.

B. Using the Utility

Double Click on BravoProCalibration.exe to open.

Once the program opens, click the 'GET STATUS' button. You should see information related your Bravo appear in the window below

For any picking issues, first, try restoring factory defaults. This is done by clicking the RESTORE FACTORY button. All values set by the testing technicians before the unit was shipped will be restored. Test the Bravo at this point. 70% of picking issues are resolved after restoring the factory defaults. If it doesn't resolve the problem continue with the following instructions.

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 2 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. Loosen these two screws. The other two screws are located on the bottom of the machine near the back. Loosen these two screws. This should free up the drive so it slides forward and backward in the slots up front. Once adjusted properly, tighten the front screws back up.

G. Calibrate Last Disk

If you are getting false warnings such as “It appears that the input bin is empty” or “It appears that multiple discs have been placed in the printer/recorder” you may need to run this calibration.

Place one disc in both the input (right) and output (left) bins. Click the Calibrate Last Disk button the top of the screen. The Bravo will touch each disc and record the new values.

H. Testing the Bravo

After making any of the adjustments above, You can test the Bravo’s picking ability by opening Primo DVD – Go to the Robotics Menu – Choose Manual Movements – Select the number of rounds (Choose 10 to start) – Click Start Test. Check for proper picking during the manual movements test. Make sure that the Calibration Utility is closed before opening Primo DVD.