



## STBC/BT-94 Calibration Procedure

Select the Setup Mode from the Main Menu by pressing the "DOWN" and "OK" buttons simultaneously. Upon releasing the buttons, "MODE: SETUP" appears on the display. There are two sub-menus in the SETUP menu: CALIBRATION, and SETUP DELAY (in newer firmwares there is also a password configuration submenu). Selecting one of the sub-menus is accomplished by pressing the "YES" or "NO" button as each option appears on the display. Pressing the "ESC" button (EXIT) leads back to the previous menu mode. Select CALIBRATION.

The calibration parameters are set here. If you need to check the calibration of the unit or need to recalibrate it, you must obtain an ST-H3/ST-H4 chuck calibrator from Sure Torque. If you do not have this unit, you must not make any changes in this mode.

If you obtained the ST-H3/ST-H4 unit, please follow this procedure:

1. Move the platform assembly all the way down to make room for the ST-H3/ST-H4 attachment.
2. Place the collet in the chuck that matches the diameter of the cap ring on the end of the ST-H3/ST-H4's sensor.
3. Place the ST-H3/ST-H4's sensor with the cap ring inside the collet.
4. Press "YES" to calibrate the clutch. The collet will close grabbing the cap ring.
5. Release the sensor, so it is only held by the collet.
6. Raise the platform back, so that the handle of the ST-H3/ST-H4's sensor won't be able to rotate 360 degrees around but gets stopped by one of the parts of the platform at some point. Bring it to that point now, so it cannot turn clockwise.
7. Turn your ST-H3/ST-H4 unit on and make sure it is in Peak mode, and the torque reading is zero.
8. With the UP and DOWN buttons on the STBC/BT-94 set the torque to the value at which you wish to check the calibration.
9. Press OK. A second value will appear on the bottom line of the display. This value is the input of the digital to analog converter that controls the clutch's output.
10. Press the OK button on the STBC/BT-94. The motor will start trying to rotate the chuck, but the handle of the ST-H3/ST-H4 will stop the rotation, forcing the clutch to slip. While the motor is running, check the reading on the ST-H3/ST-H4. It should be within  $\pm 0.5$  in-lb. of the torque value that you set on the STBC/BT-94.
11. If the reading met the above criteria, wait until the motor stops then hold the sensor with one hand, while pressing the ESC key with the other. The collet will open releasing the sensor.
12. If the motor is running for only a short period of time and you can't get a good reading, try to increase the CAP TIMING in the Setup Delay mode.
13. If you find the reading was outside of the  $\pm 0.5$  in-lb. range, you need to readjust the STBC/BT-94's calibration by changing the input of the digital to analog converter. Press OK to move the cursor to the bottom line of the display. If your reading was higher, decrease this number, if it was lower, increase this number.
14. Repeat steps 11 through 14 until you get the correct reading.
15. You should check the calibration of the STBC/BT-94 at all the different torque levels the machine is used on. To do this, repeat the procedure from step 9 with the desired torque values.
16. After the STBC/BT-94 has been successfully calibrated, hold the sensor with one hand, while pressing the Esc key with the other. The collet will open releasing the sensor.