

# TECHNICAL DATA FOR CHANGING THE SDS DEFAULT DRIVE VOLTAGE

## 6.5 Calibration Mode:

The Synchronous Drive System is provided with a digital calibration system that allows front panel calibration of the critical system parameters. There are no other calibration points within the unit. There is no need to open the enclosure for set-up or configuring of the drive system.

### 6.5.1 Entering the Calibration Mode:

1. Remove power by setting the power switch to the "off" position. The "off" position is when the white border on the power switch is not visible. Disconnect the turntable from the Drive System.
2. While simultaneously depressing the "Up Arrow" and "Down Arrow", apply power.
3. Within 2 seconds of "CAL" being displayed in the left hand display release the keys.
4. You can abort the calibration mode at this time by pressing either "Arrow" key.

### 6.5.2 Span Adjust Output Frequency: DO NOT ADJUST THIS FEATURE

1. Depress "RPM" to advance to this task.
2. The left hand display shows "C1" and the right hand displays shows "90.00".
3. Connect a calibrated frequency counter to the NEMA 5-15R receptacle.
4. If the frequency counter is reading less than 90.00 Hz, then press "Up Arrow".
5. If the frequency counter is reading more than 90.00 Hz, then press "Down Arrow".
6. Continue with either "Arrow" until the frequency is the closest to 90.00Hz.
7. Press "RPM" to lock the calibration constant and advance to the next task.

**TECH NOTE:** All synchronous drive systems are factory calibrated with calibrated instrumentation traceable to the U.S. NBS.

### 6.5.3 Number of Power-On Cycles: DO NOT ADJUST THIS FEATURE

1. The left hand display shows "C2" and the right hand displays shows the number of power-on cycles since construction.
2. Press "RPM" to advance to the next task.

1. The left hand display shows "C3A" and the right hand displays shows thousands of run hours since construction.
2. Press "RPM" to advance.
3. The left hand display shows "C3b" and the right hand displays shows hundreds, tens, units and tenths of run hours.
4. Combining the two display results show X,XXX,XXX.X hours.
5. Press "RPM" to advance to the next task.

#### **6.5.5 Steady State Voltage Level for 33 RPM: CHANGE TO DESIRED VOLTAGE**

*This value is the nominal voltage output in VAC(rms) for the steady state mode. Steady state is after all start -up ga in functions have been executed. The choices are: 115; 108; 102; 96; 90; 84; 78; 72. Default factory value is 72.*

1. The left hand display shows "C4" and the right hand displays shows the selected voltage level.
2. Press "Up Arrow" to increase the voltage or "Down Arrow" to decrease the voltage.
3. Press "RPM" to advance to the next task.

*TECH NOTE: The default values are based upon VPI turntables. If the Synchronous Drive System is used with non VPI turntables, this value may need to be adjusted. A lower voltage level generates less electrical noise but we need to use a high enough voltage to ensure consistent operation with the target turntable.*

#### **6.5.6 Steady State Voltage Level for 45 RPM: ADJUST ONLY IF 45 SPEED NEEDS MORE POWER.**

This value is the nominal voltage output in VAC(rms) for the steady state mode. Steady state is after all start -up gain functions have been executed. The choices are: 115; 108; 102; 96; 90; 84; 78; 72. Default factory value is 90 for Software Version 1.1 and is 102 for Software Version 1.2.

1. The left hand display shows "C5" and the right hand displays shows the selected voltage level.
2. Press "Up Arrow" to increase the voltage or "Down Arrow" to decrease the voltage.
3. Press "RPM" to advance to the next task.