Drum amp calibration - for 15-3330 (black & gold) drum amp only

Applies to

- ☑ Trendsetter 400/800 with 15-3330 drum amp (S/N TE237, TE234 and lower, except TE174, TE195, TE227),
- ☑ Trendsetter AL with 15-3330 drum amp
- ☑ Proofsetter Spectrum with 15-3330 drum amp (PX071 and lower)
- ☑ Platesetter 3244 with 15-3330 drum amp

Background

Before replacing a 15-3330 drum amp, you should try to calibrate it using this procedure.

15-3330 drum amps are not used in MCE devices or newer TS8 MPE devices.

NOTE: This procedure does NOT apply to machines with the grey & black drum amp (15-3466) because the drum amp does not require or allow for internal calibration and therefore does not support the `drum cal` command.

Tools

- #2 Phillips screw driver
- Potentiometer adjustment tool (Non-Conductive)
- Torque Seal™ or nail polish.

Steps

Using `drum cal` to calibrate the drum amp:

The `drum cal` command is issued through the diagnostic monitor. Therefore, be sure to exit the device control and other RIP Software and unload any plates before proceeding.

1. Initialize the machine.
2. Check that the trailing edge clamps are off the drum.
3. Use the command `drum init` to ensure that the drum amplifier has been initialized.
4. Ensure that the drum amp is up to operating temperature (the machine should be running for about an hour before proceeding).
5. Issue the `drum cal` command

   When the firmware command completes, one of the following messages is reported:

   1. `Deadband too narrow to compensate, .....but should function and Drum Cal: Deadband offset value (doff) set to zero`

      This message appears if the *deadband* is less than *dfrict* (the amount of signal required to move the drum from a stationary position) but greater than zero.

      In this case, the drum amp can still be used even though the

drum cal routine could not compensate for the *deadband* of that drum amp. (Replacement or manual adjustment of the drum amp offset potentiometer is not required.)

2. `deadband too narrow, replace or adjust drum amp and Drum Cal: Deadband offset value (doff) set to zero`

   This message appears if the drum won't settle (*deadband* zero or no *deadband* at all).

   In this case, you need to either replace the drum amp or adjust the offset potentiometer, as described in **Adjusting the drum amp offset:.**

3. `Drum Cal: complete, new deadband offset = <#>`

   This message appears if a new *doff* was determined.

   In this case, save the *deadband* offset by typing `nvs save drum doff`.

Adjusting the drum amp offset:



WARNING: High voltage is present inside the drum amplifier!! Only Creo service engineers should perform this adjustment.

1. Turn off power to the output device.
2. Allow the unit to discharge the high voltage capacitors for 1 hour before proceeding.
3. Remove the #2 Phillips screw and cover from the drive.
4. Locate the potentiometer shown in Figure 1 below and break away any Torque Seal™ from the potentiometer screw head.

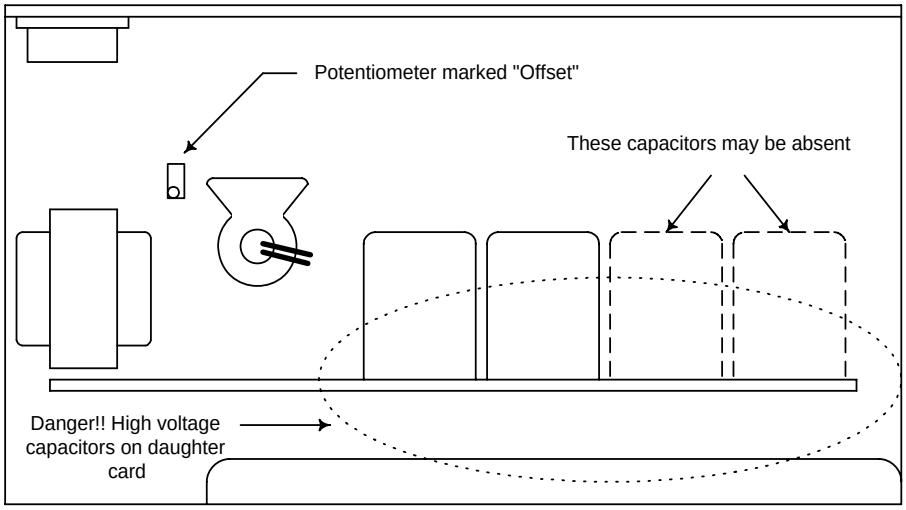


Figure 1: Offset Adjustment Potentiometer Location

5. Turn the potentiometer 1/8 turn counter clockwise.
6. Re-install the unit into the device.
7. Power up the device with the cover still removed.
8. Wait one half hour for the temperature inside the amplifier to stabilize.
9. Perform the `drum cal` command, as outlined in **Using `drum cal` to calibrate the drum amp:**.

   If the routine does not complete successfully, you will have to adjust the potentiometer again. Proceed to step 10.

   If the routine completes correctly, then go to step 11.
10. To make subsequent adjustments:
    - quickly turn off the machine
    - adjust the potentiometer in 1/8 turns
    - turn the machine back on
    - repeat the `drum cal` procedure.

    Repeat as required.
11. Once the unit passes the `drum cal` procedure, remove the unit.
12. Allow one hour for the capacitors to discharge, then reinstall the cover and retaining screw.
13. If you cannot adjust the unit then replace it with a new unit.

Notes	For output devices with the 15-3330 drum amp, ensure that `set sys hpd` is set to `0`. For output devices with the 15-3466 drum amp, ensure that `set sys hpd` is set to `1`. As noted above, this calibration procedure does not apply to 15-3466 because 15-3466 does not support calibration.
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