

SYSTEM 200 AND 200A CALIBRATION PROCEDURE

PRECALIBRATION INSPECTION

Many times acceptors with poor or no acceptance can be cured by a few easy steps without any calibration. Calibration should only be performed semi-annually or annually. If frequent calibration is required contact your nearest service center.

1. Turn power off.
2. Pull the upper track up to expose the lower track.
3. Check the track cells on the lower track to make sure they are clean of obstructions (Dirt, lint, soda). If obstructions can be cleaned by brush or blowing with air, do that. If dirt needs to be cleaned by solvent, do this only with the power off. And turn the power back on when you are sure the track cells are 100% dry.

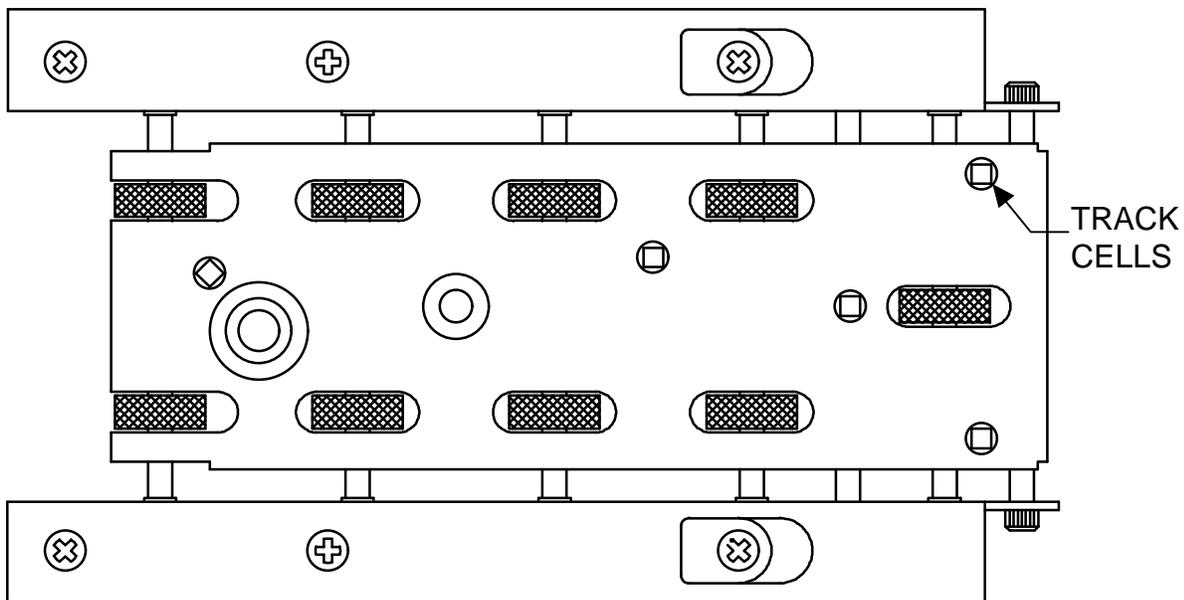


Figure 1
Top Down View of Lower Track

4. Inspect the upper chroma dome (hole in the upper track) for lint and dust build-up. The chroma dome can be cleaned by using pressurized air. (i.e., air hose, canned air or brush supplied in the kit. See Figure 2 below.

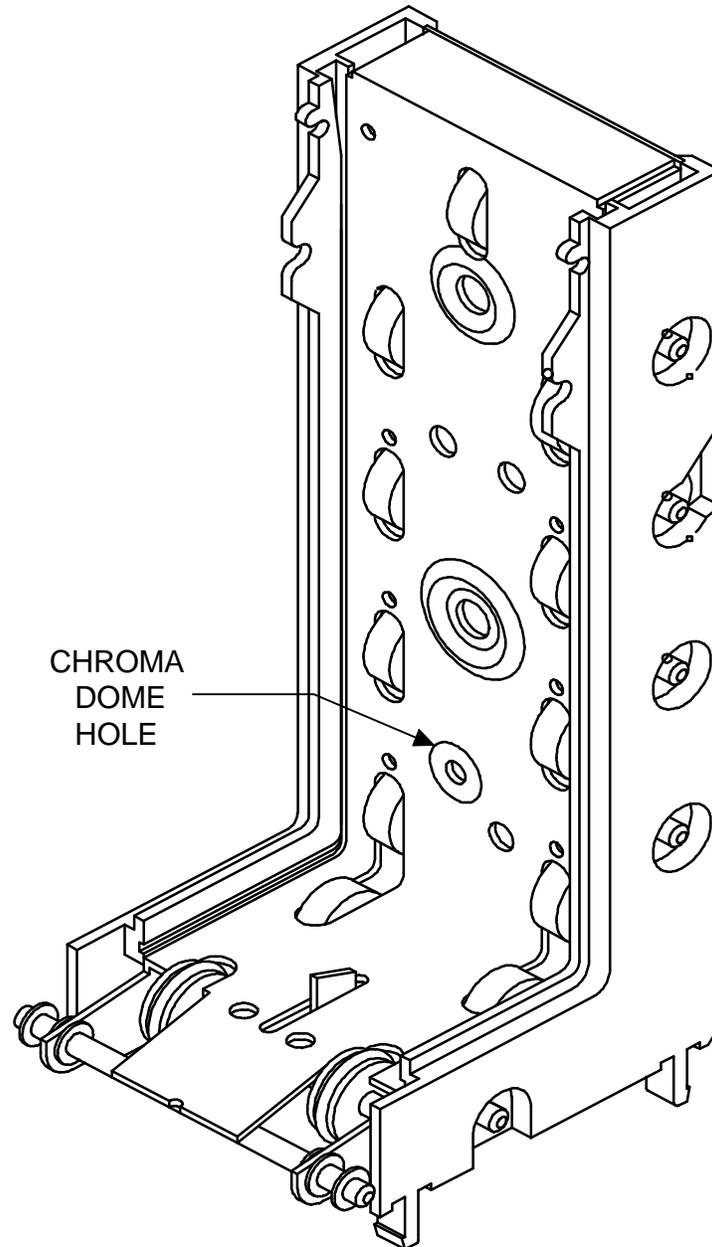


Figure 2
Unattached View of Upper Track

5. Place upper track into position.
6. Turn power back on and test for improved bill acceptance. If acceptance is still poor, proceed to the next section.

STEPS FOR PROPER CALIBRATION

1. Calibration temperature should be between 70°F - 80°F. In the situation where the changer is in a high temperature environment wait until evening when temperatures are cooler. If the unit cannot be set at 70°F - 80°F dismount acceptor and take it to an area that is 70°F - 80°F. Leave for 20-30 minutes unpowered. Mount the acceptor back into the changer cabinet and proceed to step #2.
2. Warm up the transport and sensors by inserting a minimum of 20 bills (any kind). Do not be concerned at this point if the bills are not accepted. It may be helpful to insert these bills upside down to avoid coin payouts.
3. Remove calibration potentiometer cover. This is located on the MCU cover and can be removed by prying off with a small screwdriver. Refer to Figure 3.
4. With power on, insert balance card with arrow up. Card will be accepted by unit and stop in the proper position.

NOTE: Always use a new balance card. A used card will not achieve proper calibration.

5. Starting from the top adjustment potentiometer, either the top MCU status light, or the bottom coin status light will come on. If the top light is on, turn the potentiometer clockwise slowly until both lights are off (remove screwdriver). Wait a few seconds and both lights will come on indicating you have a proper adjustment. Conversely, if the bottom light comes on, turn the adjustment potentiometer counter clockwise until both lights are off. After these adjustments have been made and both lights come on, wait until they again turn off, indicating that the next potentiometer is ready for adjustment. Proceed to the number 2 adjustment and follow the same procedures for all 5 adjustments. After the last adjustment is made, a few seconds will pass and the card will automatically be rejected. The unit is now properly calibrated and should accept all currency the unit has been programmed for. Discard the balance card.
6. Turn off power and replace the potentiometer cover. Never leave the cover off. The unit is now back into operating condition.

CALIBRATION OF MOST NOTE ACCEPTORS WILL RESULT WITH THE POTS APPROXIMATELY IN THESE POSITIONS.

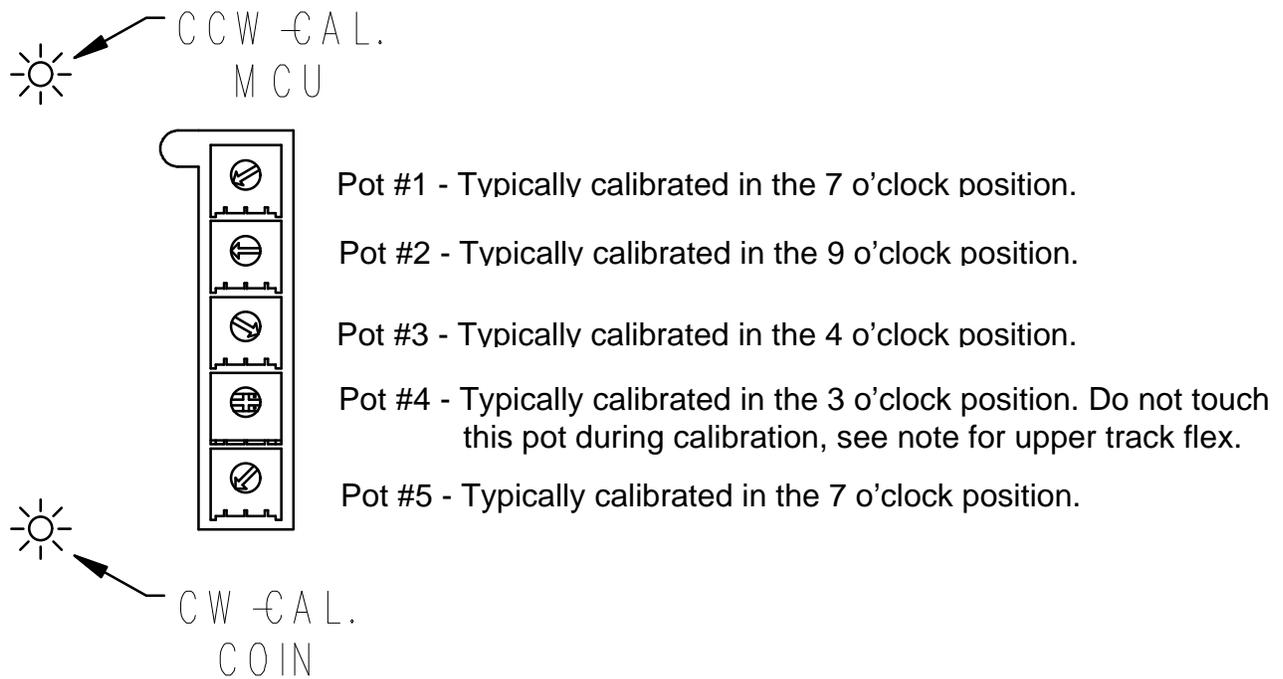


Figure 3
Typical Calibration Positions

CALIBRATION NOTE: The note acceptor calibration process is identical for each potentiometer. There are two lights (MCU - Coin) used to indicate the direction the potentiometer must be turned in order to achieve calibration (See Figure 3). The LED on the bottom, when lit indicates that the potentiometer being adjusted should be turned clockwise. If the LED on the top is lit the potentiometer should be turned counter clockwise.

Proper adjustment of the potentiometer is indicated by both LED's being off at the same time. Advance to the next adjustment when both LED's turn on at the same time. Once more, the calibration process is the same for each potentiometer adjusted. And must be done in sequential order.

1. Insert a new calibration card into the note acceptor.

Adjust Pot #1 - See "CALIBRATION NOTE"

Adjust Pot #2 - See "CALIBRATION NOTE"

Adjust Pot #3 - See "CALIBRATION NOTE"

Adjust Pot #4 - Set this potentiometer to 3 o'clock position. Remove the upper track cover (See Special Notes). Find the potentiometer located closet to the last double rollers (Refer to Figure 5). Adjust the potentiometer using the LED indicators on the MCU board in the same procedure as described in the "CALIBRATION NOTE". When finished move to the potentiometer #5 adjustment. Do not adjust potentiometer #4 at this point.

Adjust Pot #5 - See "CALIBRATION NOTE"

2. The calibration process is now complete and the note acceptor will reject your calibration card. Discard your calibration card after use.

NOTE: Always test unit after completing calibration.

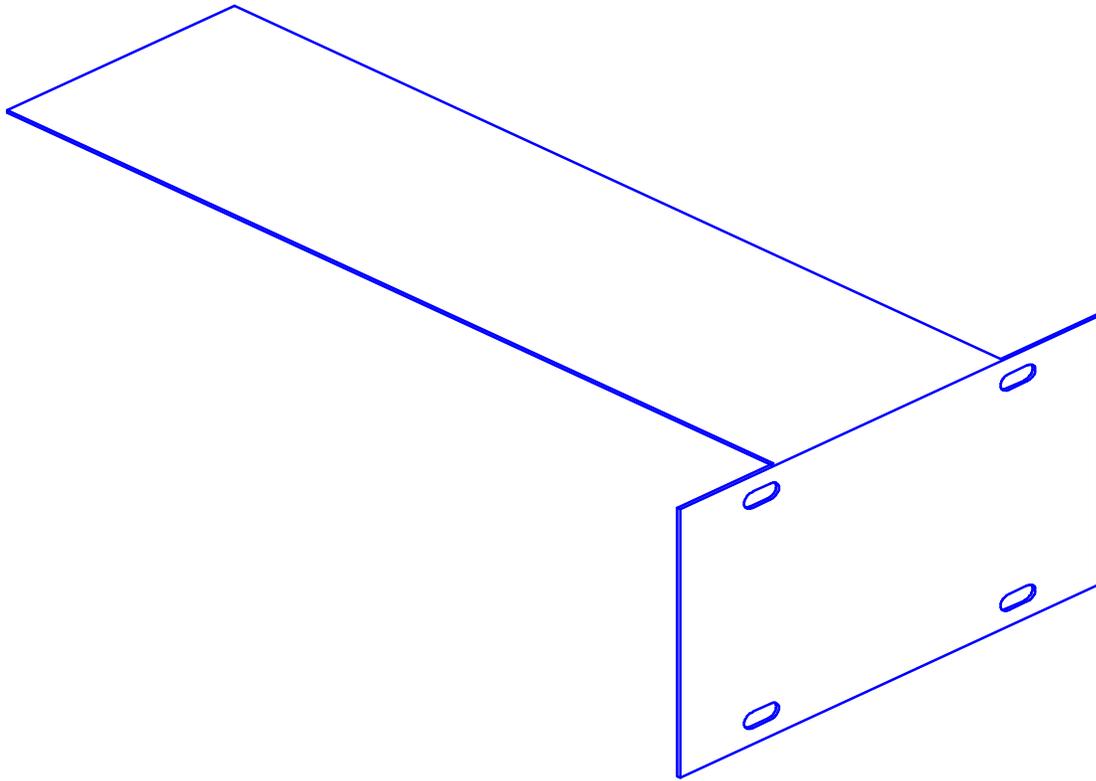


Figure 4

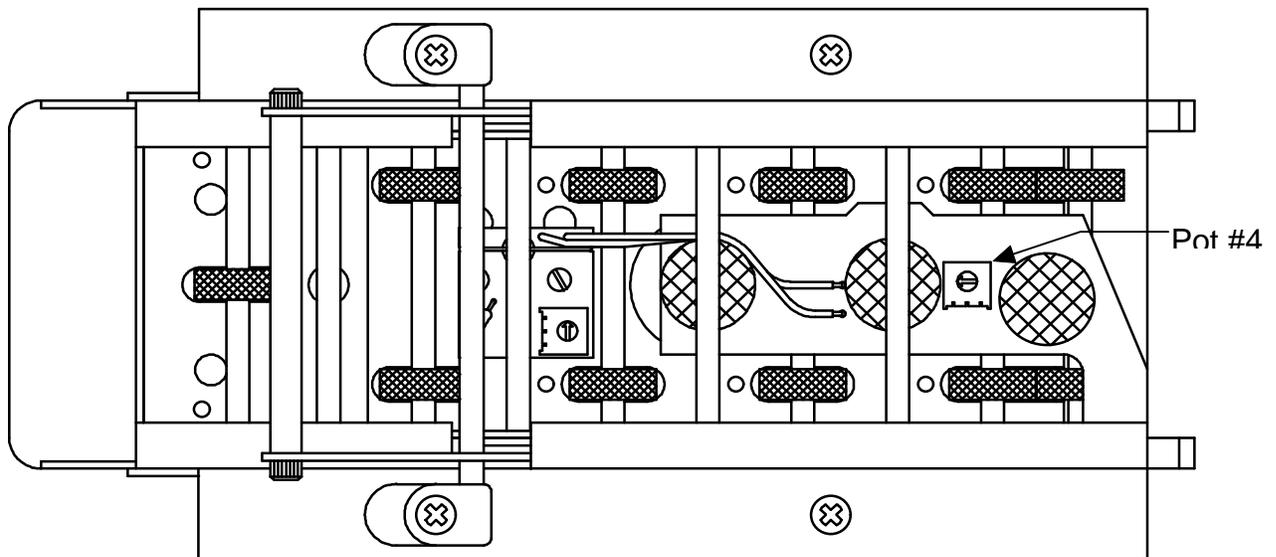


Figure 5

SPECIAL NOTES: To get to the upper track adjustment, it is most easily done by removing the upper track cover (See Figure 4) and place it back on top temporarily under the acceptor handle (See Figure 5). Do not reinsert into the grooves until calibration is complete.