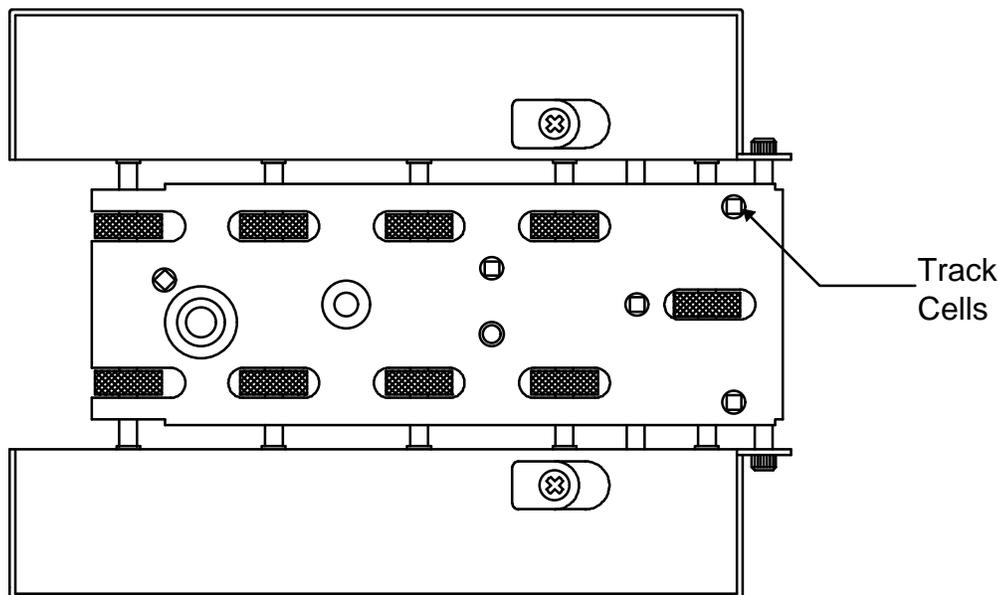


# SYSTEM 500 AND 500E CALIBRATION PROCEDURE

## PRECALIBRATION INSPECTION

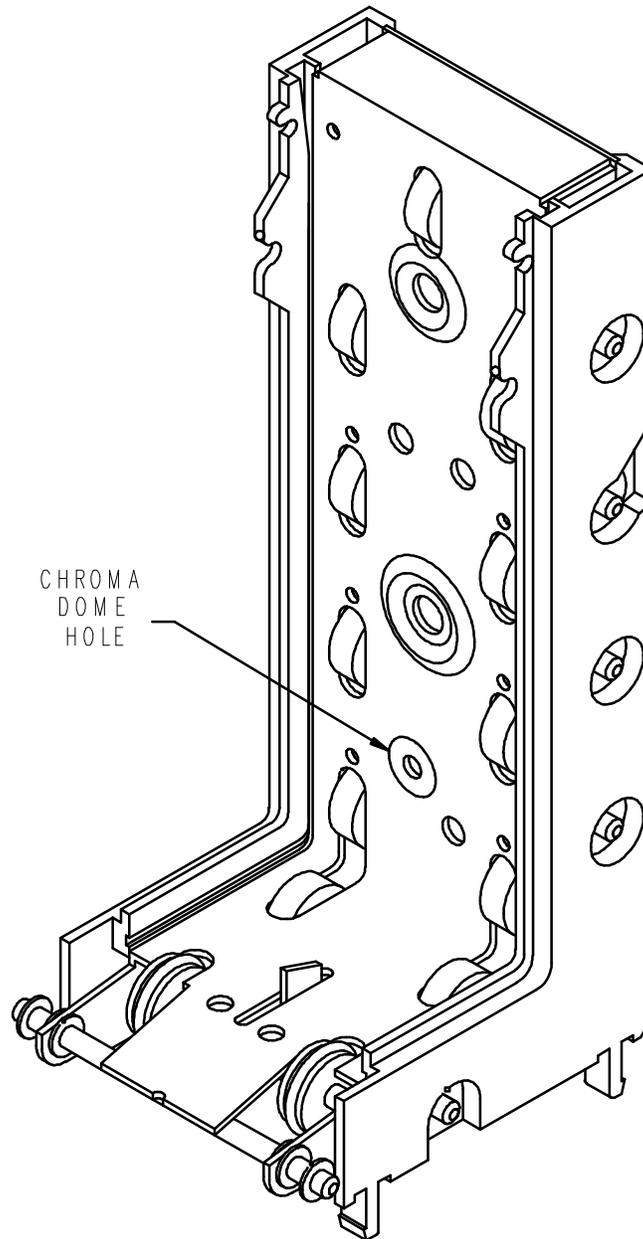
Many times acceptors with poor or no acceptance can be cured by a few easy steps without any calibration. Calibration should only be performed semi-annually or annually. If frequent calibration is required contact your nearest service center.

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.

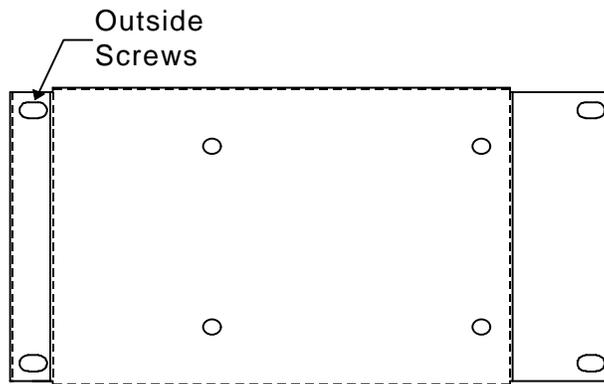


**Figure 2**  
Unattached View of Upper Track

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.

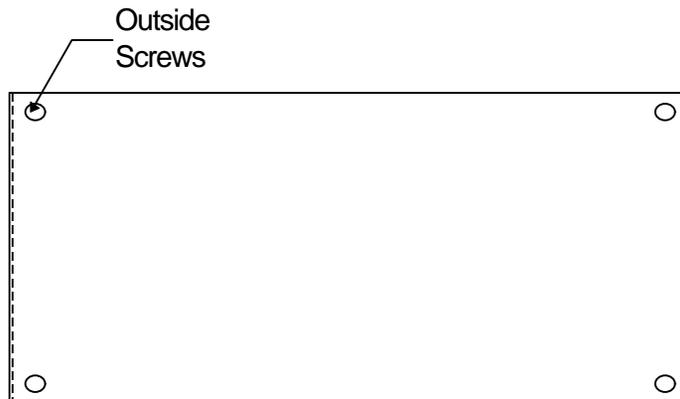
## STEPS FOR PROPER CALIBRATION

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. Turn on power. Run an upside down bill into the acceptor at least 10 times to warm the electronic circuitry. Remove the cover to the CPU board on the note acceptor. This will be done in one of two ways, depending on the style of the note acceptor. Figure 3 shows a 500 note acceptor with the D.C. board located on the right hand side. Remove the four outside phillips screws and swing this board down to reveal the CPU board.



**Figure 3**

Figure 4 shows the side panel of a 500 that the outside screws also need to be removed to reveal the CPU board.

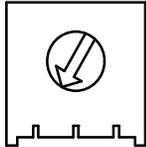
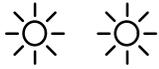


**Figure 4**

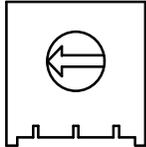
(On 500E systems there is an access cover to the calibration pots.)

3. Once the CPU board is revealed, you are ready to start calibration.

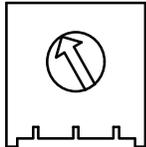
4. Calibration of most note acceptors will result with the pots approximately in these positions.



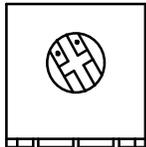
Pot #1 - Typically calibrated in the 7 o'clock position.



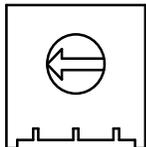
Pot #2 - Typically calibrated in the 9 o'clock position.



Pot #3 - Typically calibrated in the 11 o'clock position.



Pot #4 - Typically calibrated in the 11 o'clock position.  
Do not touch this pot during calibration,  
see note for upper track flex.



Pot #5 - Typically calibrated in the 9 o'clock position.

**Figure 5**  
Typical Calibration Positions

**CALIBRATION NOTE:**

The note acceptor calibration process is identical for each potentiometer. There are two lights (led's) used to indicate the direction the potentiometer must be turned in order to achieve calibration (See Figure 5). The led on the left, when lit indicates that the potentiometer being adjusted should be turned clockwise. If the led on the right 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. The screw driver, used to adjust the potentiometer should be removed during the time that both led's are off. 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 11 o'clock position Remove the upper track cover. This can be accomplished by unsnapping the rear cover panel (black plastic cover on rear of note acceptor) then sliding the upper track cover out of the note acceptor (See Figure 6). Find the potentiometer located closet to the rear cover panel. Adjust the potentiometer using the led indicators on the CPU 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"

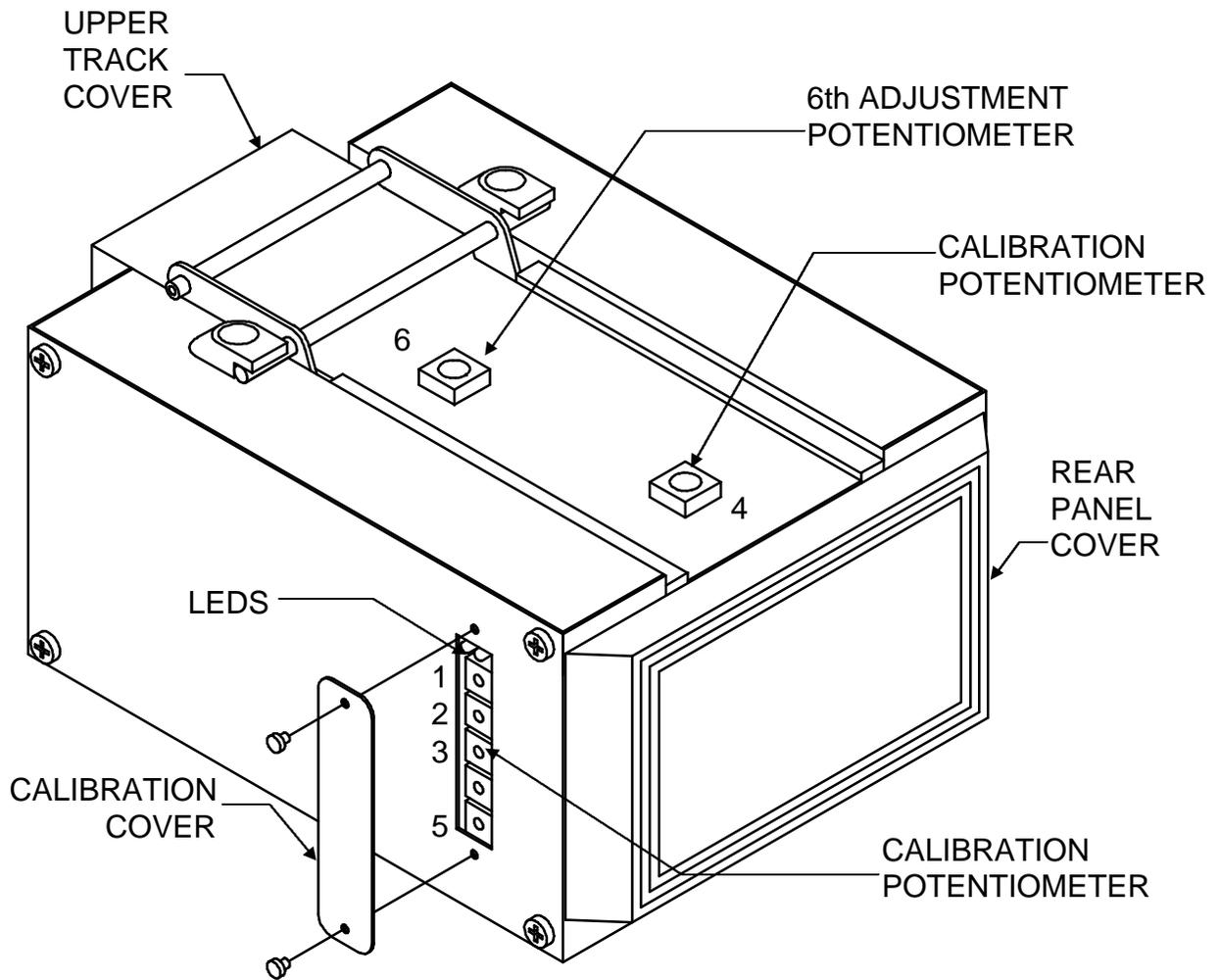
2. The calibration process is now complete and the note acceptor will reject your calibration card. Discard your calibration card after use.

<p><b>Note:</b> Always test unit after completing calibration.</p>
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**SPECIAL NOTES:** Feed a new calibration card into the note acceptor.

Note: If A pot is already in calibration..... Both L.E.D.'s will light. Calibration will then advance to the next lower pot. The calibration pots are the blue or gray squares with the white dot located in the center. Calibration once started must be performed for all five of the pots.

**Note:** On some 500E Note Acceptors there is a 6th adjustment to do during calibration as shown by number sequence 1 thru 6.



**Figure 6**  
Left side of acceptor showing calibration pots.