

# Troubleshooting Mechanical Coin Viewers

Note there are only four components : the battery, coin acceptor, circuit board(encased in black plastic) and shutter

When troubleshooting a mechanical coin acceptor (Beaver) viewer follow these steps every time:

**Note:** *When testing, always listen closely for the noise the shutter makes. This will always tell you something and help in troubleshooting a problem.* As well if you are replacing a shutter or moving one from another machine it is best to do all shutter testing at that time with top of viewing head off and shutter manually turned to half-way position. That way if power mistakenly reversed it will not harm shutter and also it is easy to see if it is going the correct direction)

## Step 1:

**IF the shutter is not opening when a coin is cranked though the coin acceptor (no shutter noise at all):**

ALWAYS **-First:** check battery **voltage** (replace batteries that read below **5.7V**). If it's reading close to zero, it's probably the batteries not making good contact within the battery holder. Push each battery with your fingers in the direction the spring is trying to push them, and recheck voltage. In some cases you may need to wrap electrical tape tightly around the ends of the battery case to hold the ends of the battery holder against the battery terminals, or try a different battery holder. We also recommend using dielectric grease (from car batteries) on battery connections in battery case. Reconnect battery pack, and Re-test. **Also check all the connections –reseat them if necessary.**

**-Second: (this should only apply to a new machine when it first arrives- once connections are correct they should stay correct):** when you open the coin door you will see two sets of connections. One comes from the coin acceptor to the control board, and the other comes from the shutter to the control board. Swap these two sets of connections. Re-test. (If no change, immediately put the connectors back to the way they were previously.

**-Third:** Try another control board. If it works you need to replace the board.

## Step 2:

**IF you hear a noise from the shutter at cycle start, but nothing is moving:**

-Wait for 2 minutes for cycle to time out and watch to see if it opens when the cycle finishes. If it does, you have reverse power for some reason- perhaps your tech has made an error –correct by reverse the connectors on the shutter wires inside of the head.

**Step 3:**

**IF you hear a noise from the shutter at the start AND end of the cycle, and nothing is moving:**

-Servo is probably broken. Replace servo or put in whole shutter with new servo .

**Step 4:**

Check the operation of the micro-switch on the coin acceptor. The micro-switch is a little black plastic switch on the back side of the coin acceptor with a silver lever on it, and two wires coming from it. Press lever down with your fingers and see if shutter opens. If the machine works by doing this, but NOT by cranking a coin through it, then the coin acceptor needs to be replaced because the micro-switch is then not being activated by the coin (and it should be). You can try putting more bend in little silver lever- sometimes that will do it.