

# 21<sup>st</sup> Mechanism Bow Arm Alignment Tech 0009

Check count opto, and tower optos (bottom, middle, and top)

1. Turn machine 'OFF'.

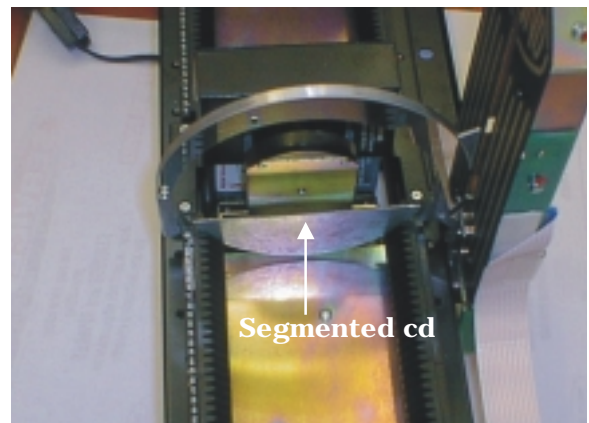
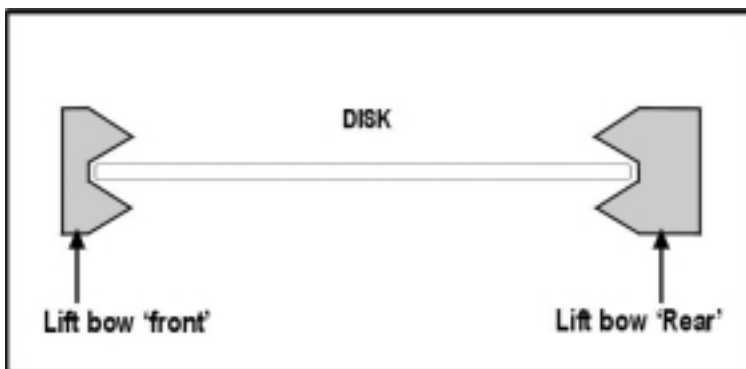
You will need to be in test with switches 1 & 4 'ON' only to carry out the opto test.

2. Turn machine 'ON'.
3. Press cancel button 'C'

This will move the tower to the left sync position (100).

1. Press select button '9' until the Bow Arm is over disc location 130 when using a 60-mech or 140 for the 80-mech.

## Correct Disc and Bow Arm alignment

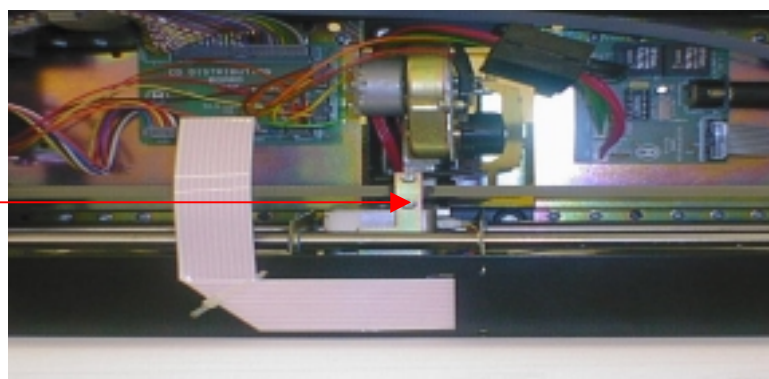


You will need a section of an old CD (see segmented disc below) to view Bow Arm alignment.

2. Place your segmented in your disc location 130/140.

If the Bow Arm and disc are not aligned as shown in the diagram above you will need to follow the instructions below.

Loosen the tower belt clamp.



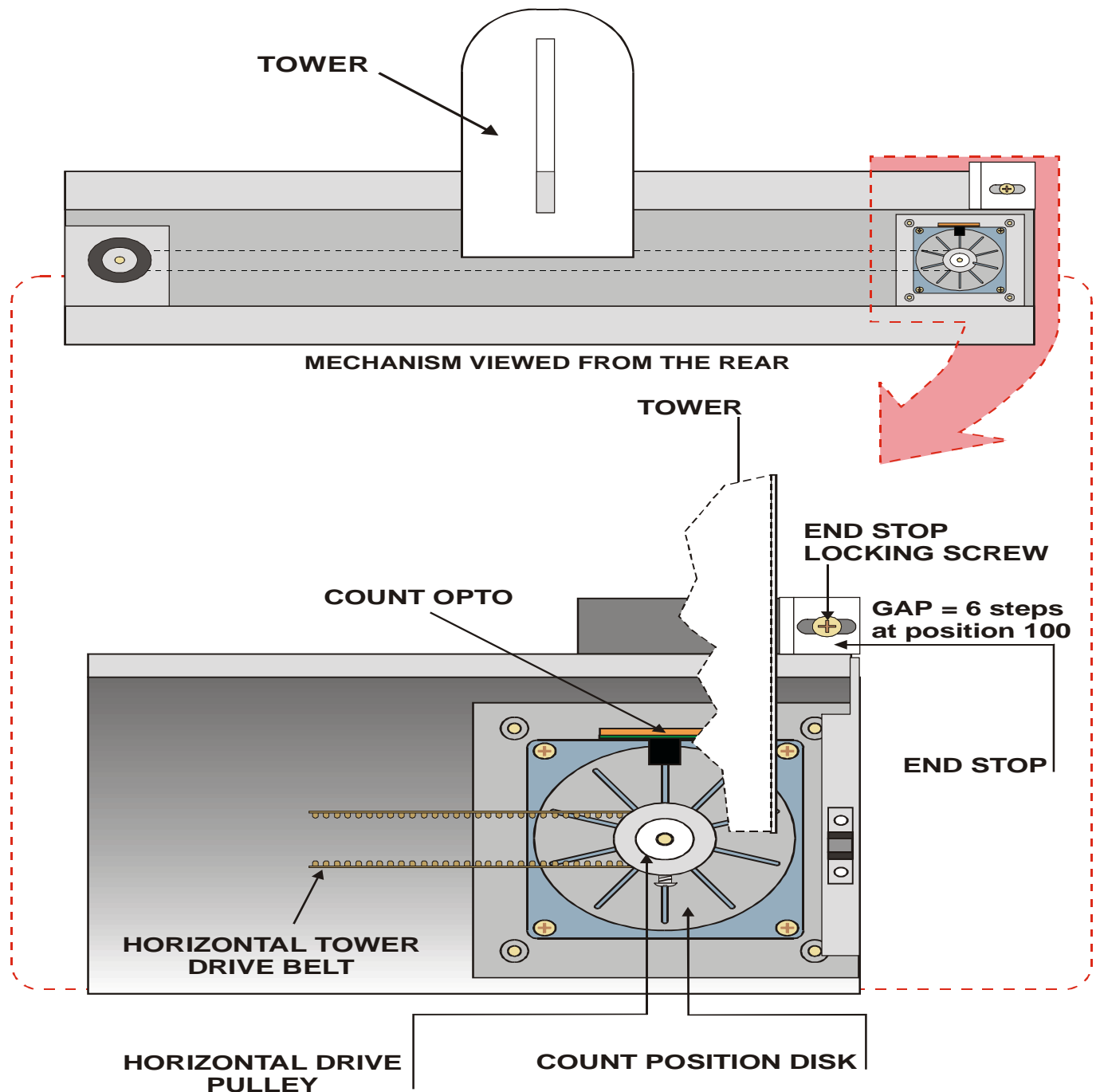
Place one of the count position disc slots in the middle of the count opto.

Display '2' led (**decimal point**) should be illuminated.

Press button '1'.

Move the tower so that the Bow Arm is correctly aligned over the segmented cd.

Without disturbing the tower, resecure the tower belt clamp.



## Check Sync Opto

Press the 'C' button.

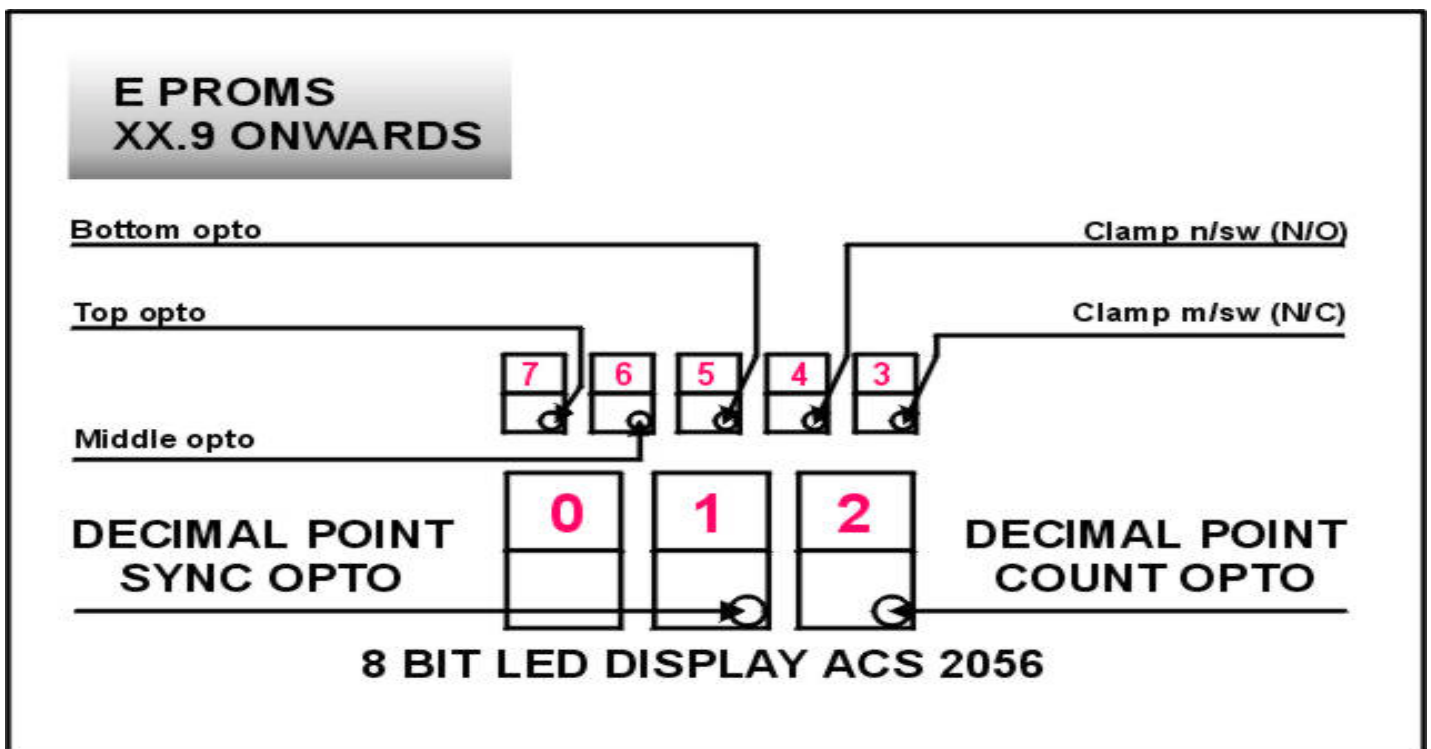
The tower should move all the way to the left and position itself at 100.

The tower can be moved one step at a time to the right by using the buttons '1' to '4' in the following sequence.

1,2,3,4,1,2,3,4,1,2,3,4, etc

This sequence will move the tower '12' steps to the right.

The sync opto led (**decimal point**) on the front display should extinguish between the steps '6' to '12'



## Check Tower Optos

### *Bottom Opto*

Press button '6' and the Bow Arm will move to the down position, display '5' opto led (**decimal point**) should be extinguished.

In this position displays '6' & '7' (**decimal point**) should be illuminated.

### *Middle Opto*

Press button '7' and the Bow Arm will move to the middle opto position, display '6' opto led (**decimal point**) should be extinguished.

In this position displays '7' & '5' (**decimal point**) should be illuminated.

### *Top Opto*

Press button '5' and the Bow Arm will move to the top of the tower, display '7' (**decimal point**) should be extinguished.

In this position displays '6' & '5' (**decimal point**) should be illuminated.

### Segmented Disc

