1) Temporarily mount turnout using the centering yoke to lock points at center.
2) Use #57 bit (from 942-140 Drill Set) and drill hole in center of throwbar through roadbed and benchwork.
3) Drill two alignment holes on throwbar centerline. For Walthers Code 83, Shinohara, Atlas Code 83, and Peco Code 83 use the two outer holes in the throwbar as a guide. These holes are used to transfer the throwbar alignment to the bottom of the benchwork and later will be covered with ballast or scenery.
4) Remove the turnout, then from under the benchwork, draw a center line between and beyond the alignment holes drilled earlier.
5) Using the #57 bit, a small nail or a map pin, poke a hole thru the center point of the supplied mounting template. Peel the backing from the template and use the pin to locate the center point with the center hole drilled in step two. Orient the template so the alignment line matches the center line drawn in step 4 and press into place.
6) Use #43 bit (from the 942-140 Drill Set) drill pilot holes for the four mounting screws. You may also drill out the center hole with the 3/16” drill from the drill set to facilitate the next step.
7) Drill up from the bottom with the stepped bit from the 942-140 Drill Set to enlarge the center hole to sufficient clearance (3/8” / 9 mm for HO) at the top surface. The hole may be larger on the bottom due to the steps in the bit.
8) Clean up the center hole on the top of the benchwork, then reinstall the turnout leaving the centering yoke in place. (Continued on other side)
For complete details on mounting, electrical connections, switch machine adjustments, options and warranty information, see the Switch Machine Reference Guide at walthers.com/products/walthers-control-system.

(continued from other side)

9) With switch machine in center position, insert actuator wire though subroadbed and up thru the center hole in the throwbar. Center the machine, align with template and secure with screws supplied.

10) With power off, connect power input and fascia control cables to the switch machine as shown. Remove the center jumper. See Switch Machine Reference Guide for complete information on electrical connections.

11) Remove the centering yoke from the turnout and apply power. Switch machine will stay at center on first power up after center jumper is removed.

12) Use the fascia control to cycle the switch machine from Normal to Reverse.

13) Check turnout points for proper travel and holding tension. Adjust output arm as detailed in the Switch Machine Reference Guide if required. The actuator travel is infinitely adjustable from 2 mm to 13 mm (1/16” to 1/2“) to accommodate a wide variety of scales, turnouts, and roadbed dimensions.

14) When satisfied with switch machine operation, finish the turnout mounting. Wear proper eye protection and remove any excess actuator wire above the throwbar with a cut-off disk or hard wire cutting pliers.

15) Make electrical connections to aux switches as desired to complete installation.