

Model X-66

SUBJECT: X-66 TIBIA SCANNER REPLACEMENT

Reference: X-66 Service Manual, August, 1969

Beginning with Serial No. 421, all X-66 organs use a 16-plate tibia scanner with nine wires in the cable. This scanner replaces the AO-32015-1 32-plate 17-wire scanner, which is no longer available. In replacing this scanner, proceed in the following manner:

1. Open the organ as instructed in Section III and raise the control panel and upper manual.
2. Remove the seven 5/16" screws holding down the animator assembly, four screws on the front side and three on the rear.
3. Remove the shield covering the two conical lug wiring boards on top of the animator assembly.
4. Swing the animator assembly out on the right side for easy access to the vibrato switch terminals.
5. Cut cable wires about ½" below terminal guide strip and remove wire ends from terminals by holding soldering iron on terminal and pushing up on wire.
6. Unsolder three cable leads (brown-red-orange) on vibrato line box.
7. Cut (don't unsolder) two shielded leads and their ground wires from vibrato recovery board on top of animator. These are the two leads on the left side of the board (rear view).
8. Remove four mounting screws holding scanner on animator frame and pull scanner out.

Before mounting new scanner extend the red cable lead to a length about 2 inches longer than the brown cable lead.

1. Mount the scanner with the four 6-32 mounting screws leaving the two top screws loose, these will be tightened when the shield is replaced.

#### CAUTION

Make certain that no cable leads are pinched between scanner housing and animator frame.

(Over)

2. Connect brown cable wire of new scanner to the same terminal on the line box to which the original brown lead was attached.  
Skip one terminal and connect the extended red lead to the terminal where the orange lead of the old scanner was removed. Connect shielded leads to recovery amplifier boards.
3. The remaining leads are connected to the vibrato switch terminals.  
Facing the rear of the organ, leave the first terminal (closest to the rear) open.
4. Refer to Figure 5-13 in referenced manual. Connect leads of new scanner according to the following :

Orange wire to Terminal 4

Yellow wire to Terminal 6

Green wire to Terminal 8

Blue wire to Terminal 10

Violet wire to Terminal 12

Gray wire to Terminal 14

White wire to Terminal 16

5. Fasten animator assembly in place and reattach shield cover.
6. Close organ.