STROBOSCOPE DIAL TESTER
STATION DIALS

1. GENERAL

1.01 This section covers the procedures for checking speed of 10 pulse dials used at stations.

1.02 The method for adjustment of 2, 4 and 5 type station dials is covered in Section C34.175 and the speed requirements for the 6 and 7 type dials is covered in Section C34.176.

1.03 Do not attempt to adjust 6 and 7 type dials.

2. DESCRIPTION

2.01 The Stroboscope Dial Tester consists of a No. 2A or 2B Target and a No. 11A Tuning Fork and is arranged to mount only on dials with metal finger wheels.

2.02 The targets have disc assemblies with the following speed limits:

Target	Speed Range
No. 2A	8.0 to 11.0 PPS—Test 9.5 to 10.5 PPS—Readjust
No. 2B	9.5 to 10.5 PPS—Test 9.7 to 10.3 PPS—Readjust

2.03 The disc assemblies of the targets are interchangeable and can be ordered separately. To assemble or replace the disc assemblies, loosen the set screw in the knob and remove the knob. To assemble the disc, pin in the base of target shall engage hole in disc. Replace knob and tighten set screw after assembly. The No. 2B Target is used for checking the 5L and 6E Type Dials.

3. PROCEDURE

3.01 Mount the stroboscope equipped with target on the dial to be tested by grasping knurled knob and depressing the push button to expand the prongs as shown in Fig. 1 (use of push button is important when mounting the target to avoid marring the finish).

3.02 Partially insert notched stud and prong into "Zero" hole of finger wheel so that the remaining 3 prongs are above the finger wheel holes associated with Figs. 1, 4 and 7 on the number plate of the dial. While still depressing push button, carefully press target into place and then release push button.

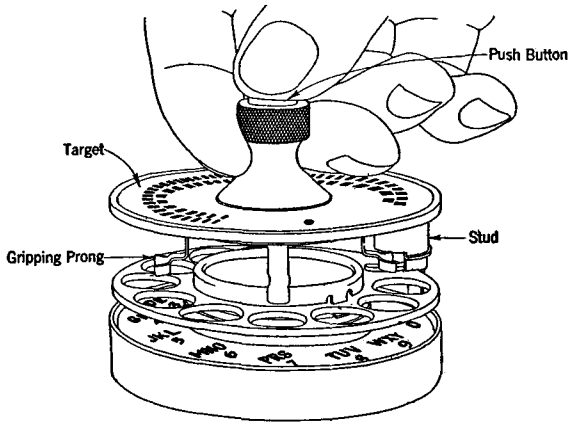

Fig. 1

3.03 If the push button binds, remove the set screw in the knob, then remove knob and clean bearing seat with petroleum spirits, also clean gripping prongs. Do not clean the face of target disc with petroleum spirits. If necessary to clean target disc use cloth dampened with soap and water.

3.04 Make sure that target does not affect dial speed due to lack of clearance between the gripping prongs of target and number plate, clamping ring and finger stop, throughout rotation of finger wheel. Adjust as required. The prongs of the target shall grip finger wheel securely.

3.05 Slide cover of No. 11A Tuning Fork to expose reeds and hold fork temporarily in the palm of one hand with cover projecting beyond the hand and with push button convenient to thumb. Hold dial in the left hand and wind dial by means of target to the stop position with the right hand. When fully wound keep dial from running down by placing a finger of the left hand against the edge of finger wheel. Hold tuning fork over target with one hand steadying the other as shown in Fig. 2.

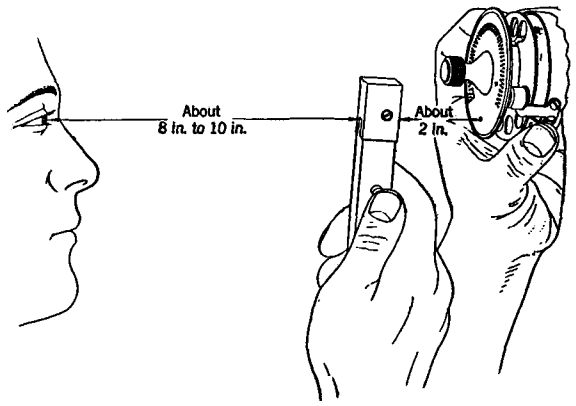

Fig. 2

Operation

3.06 With thumb pressing the button on the No. 11A Tuning Fork far enough to partially open reeds, centrally sight the spot on target marked "Sight Here". (For the average individual the tuning fork should be held about 2" from target and 8" or 10" from the eye.) After sighting, fully press button on tuning fork and then release finger wheel.

3.07 The apparent movement of rows of spots on target as viewed through vibrating reed of the No. 11A Tuning Fork, indicates whether dial speed is within, at, or outside limits marked on target as follows:

Apparent Movement of Spots	Speed Indication
Rows of spots rotate in opposite directions.	Dial speed is within limits indicated on target.
Inside row of spots appear to stand still or rotate opposite of max. arrow.	Dial speed is at, or above its max. speed limit.
Outside row of spots appear to stand still or to rotate opposite of min. arrow.	Dial speed is at, or below its min. speed limit.

Note: When the spots appear to move in opposite directions at the same speed, the speed of the dial is midway between the max. and min. limits.