28 SELF-CONTAINED TRANSMITTER-DISTRIBUTOR SETS
(SINGLE-CONTACT AND MULTICONTACT)

REQUIREMENTS AND ADJUSTMENTS

1. GENERAL

1.01 This section contains the requirements and adjusting procedures for maintenance of the fixed-head, single-contact, or multicontact transmitter-distributor sets.

1.02 This section is reissued to omit instructions for removing the cover plate, front panel, and transmitter-distributor unit, which are being included in the section covering disassembly and reassembly of the self-contained sets, and to bring the requirements and adjustment information up to date.

1.03 For requirements and adjusting procedures for maintenance of the transmitter-distributor units, refer to the sections which contain the requirements and adjustments for the 28H or 28G transmitter-distributor unit.

2. REQUIREMENTS AND ADJUSTMENTS

2.01 The following figures show the adjusting tolerances, positions of moving parts, and spring tensions. The illustrations are arranged so that the adjustments are in the sequence that would be followed if a complete readjustment of the set were being made. In some cases where an illustration shows interrelated parts, the sequence that should be followed in checking the requirements and making the adjustments shown is indicated by the letters (A) and (B).
A. Single-contact Self-contained Transmitter-Distributor Set

2.02 Cover Plate

**NOTE**

Outer edge of each mounting bracket shall be approximately in line with shoulder of its mounting stud, so that projections of front and rear brackets are equal (gauge by eye).
Should the Rotor of the Synchronous Motor become blocked for several seconds by an overload, the thermal cut-out switch will de-energize the motor until the manual reset button is depressed. However, allow at least 5 minutes for the motor to cool before attempting to reset the switch and start the motor.

\[\text{INTERMEDIATE GEARS CUT-OUT SWITCH} \quad \text{INTERMEDIATE DRIVING GEAR} \quad \text{MAINSHAFT DRIVEN GEAR} \]

(A) TRANSMITTER-DISTRIBUTOR GEAR

REQUIREMENT --- (GEAR GUARD REMOVED).

BARELY PERCEPTIBLE BACKLASH BETWEEN MAINSHAFT DRIVEN GEAR AND INTERMEDIATE DRIVING GEAR AT THEIR CLOSEST POINT.

TO ADJUST --- WITH TRANSMITTER-DISTRIBUTOR MOUNTING SCREWS (3) LOOSENED, POSITION THE UNIT ON ITS BASE.

NOTE --- IN A SIMILAR MANNER, GEARS DRIVEN BY A SHAFT CONNECTED TO THE KEYPAD MOTOR SHALL ALIGN AND HAVE PERCEPTIBLE BACKLASH AT THEIR CLOSEST POINT.
2.04 Line-shunt Switch

With the transmitter mounted on the base, the line-shunt switch shall open. When the transmitter is removed from the base, the switch shall close.

To adjust, rotate the insulating adjusting screw with its locknut loosened.
B. Multicontact Self-contained Transmitter-Distributor Set

2.05 Cover and Panel Assembly

(A) COVER PLATE

(1) REQUIREMENT
COVER PLATE HELD FLUSH AGAINST TOP PLATE BY DETENT ACTION.

(2) REQUIREMENT
COVER PLATE RESTS ON AT LEAST THREE SIDE-FRAME PROJECTIONS.

(3) REQUIREMENT
FRONT EDGE OF COVER AND TOP PLATES IN LINE.

TO ADJUST
LOOSEN DETENT NUTS ON SIDE FRAMES, AND MOVE THEM TO EXTREME LOWER RIGHT POSITION. TIGHTEN NUTS. LOOSEN FOUR BRACKET MOUNTING NUTS ON COVER PLATE. PLACE COVER INTO POSITION, AND POSITION TO MEET REQUIREMENTS. TIGHTEN NUTS. RECHECK AND REFINISH REQUIREMENTS.

COVER-PLATE DETENT SPRING
TO CHECK
REMOVE COVER PLATE.
REQUIREMENT
MIN. 28 OZS.
MAX. 48 OZS.
TO START PLUNGER MOVING

(B) FRONT PANEL

NOTE
REMOVE COVER PLATE PRIOR TO INSTALLING OR REMOVING FRONT PANEL. PANEL SLIDES SHALL ENGAGE GUIDES ON BASE SO THAT TOP EDGE OF PANEL PASSES UNDER TAPE-GUIDE PLATE.

(1) REQUIREMENT
FRONT PANEL LATCHES SECURELY AT LOWER RIGHT AND LEFT CORNERS, AND PANEL SLIDES FULLY ENGAGE BASE GUIDES.
MIN. 0.085 INCH
MAX. 0.105 INCH
CLEARANCE BETWEEN BOTTOM EDGE OF BASE RAIL AND PANEL-GUIDE FLANGE.

TO ADJUST
REMOVE TRANSMITTER FROM BASE. USE SHIMS TO OBTAIN LATERAL POSITION OF PANEL SLIDES, AND POSITION GUIDES VERTICALLY (PLACE UNUSED SHIMS UNDER HEAD OF MOUNTING SCREW). REPLACE TRANSMITTER ON BASE.

(2) REQUIREMENT
MIN. 0.015 INCH
MAX. 0.060 INCH
CLEARANCE BETWEEN PANEL TOP EDGE AND FRONT EDGE OF COVER AND TAPE-GUIDE PLATES. THE UPPER PANEL SIDES SHALL NOT TOUCH THE COVER AND TAPE-GUIDE PLATE EAVES.

TO ADJUST
WITH FRONT PANEL IN PLACE, LOOSEN PANEL-GUIDE MOUNTING SCREWS AND POSITION THE GUIDE. TO FACILITATE ADJUSTMENT, REMOVE THE FOUR VIBRATION MOUNT NUTS AND SWING SUBBASE AWAY.
SECTION 573-105-700

2.06 Base and Motor Gears

(A) INTERMEDIATE GEAR ASSEMBLY

NOTE

(1) REQUIREMENT

REMOVE GEAR GUARD.

INTERMEDIATE GEAR ASSEMBLY

(REQUIRED IN MOTOR BASE)

AT LEAST 0.010 INCH CLEARANCE BETWEEN DISTRIBUTOR-SHAFT DRIVING GEAR AND INTERMEDIATE-GEAR BRACKET BEARING CLAMP.

TO ADJUST POSITION DRIVING GEAR WITH ITS MOUNTING SCREW LOOSE.

(2) REQUIREMENT

SOME CLEARANCE BETWEEN DISTRIBUTOR-SHAFT DRIVEN GEAR AND INTERMEDIATE-GEAR BRACKET BEARING CLAMP.

TO ADJUST POSITION INTERMEDIATE-GEAR BRACKET WITH ITS MOUNTING SCREWS LOOSE.

(3) REQUIREMENT

MIN. SOME MAX. 0.003 INCH CLEARANCE BETWEEN DISTRIBUTOR-SHAFT DRIVING AND DRIVEN GEARS AT POINT WHERE BACKLASH IS MINIMUM.

(4) REQUIREMENT

INTERMEDIATE-GEAR HOUSING PARALLEL TO BASE.

TO ADJUST POSITION INTERMEDIATE-GEAR BRACKET WITH ITS MOUNTING SCREWS LOOSE.

(1) REQUIREMENT

MIN. SOME MAX. 0.003 INCH BACKLASH BETWEEN MOTOR-PINION GEAR AND INTERMEDIATE GEAR.

(2) REQUIREMENT

MOTOR PARALLEL TO BASE.

TO ADJUST POSITION MOTOR WITH ITS MOUNTING SCREWS LOOSE. TIGHTEN MOUNTING SCREWS. ROTATE SHAFT AND RECHECK REQUIREMENT.

CAUTION

IF THE MOTOR SHOULD BECOME BLOCKED FOR SEVERAL SECONDS, THE THERMAL CUT-OUT SWITCH WILL BREAK THE CIRCUIT. SHOULD THIS HAPPEN, ALLOW THE MOTOR TO COOL AT LEAST 5 MINUTES BEFORE MANUALLY DEPRESSING THE
2.07 Line-shunt Switch

LINE-SHUNT SWITCH

(1) REQUIREMENT
LINE-SHUNT SWITCH CONTACTS OPEN WHEN TRANSMITTER-DISTRIBUTOR LEFT REAR MOUNTING SCREW IS TIGHTENED.

(2) REQUIREMENT
LINE-SHUNT SWITCH CONTACTS CLOSED WHEN LEFT REAR MOUNTING SCREW IS LOOSENED.

TO ADJUST
BACK OFF LEFT REAR MOUNTING SCREW 1/2 TURN, POSITION SWITCH ACTUATOR (SWITCH MOUNTING SCREWS FRICITION TIGHT) AGAINST THE TRANSMITTER MOUNTING SCREW UNTIL THE CONTACTS JUST CLOSE (SWITCH ACTUATOR SHOULD BE APPROXIMATELY HORIZONTAL), TIGHTEN SWITCH MOUNTING SCREWS, CHECK SWITCH OPERATION AND REFINISH ADJUSTMENT IF NECESSARY.