

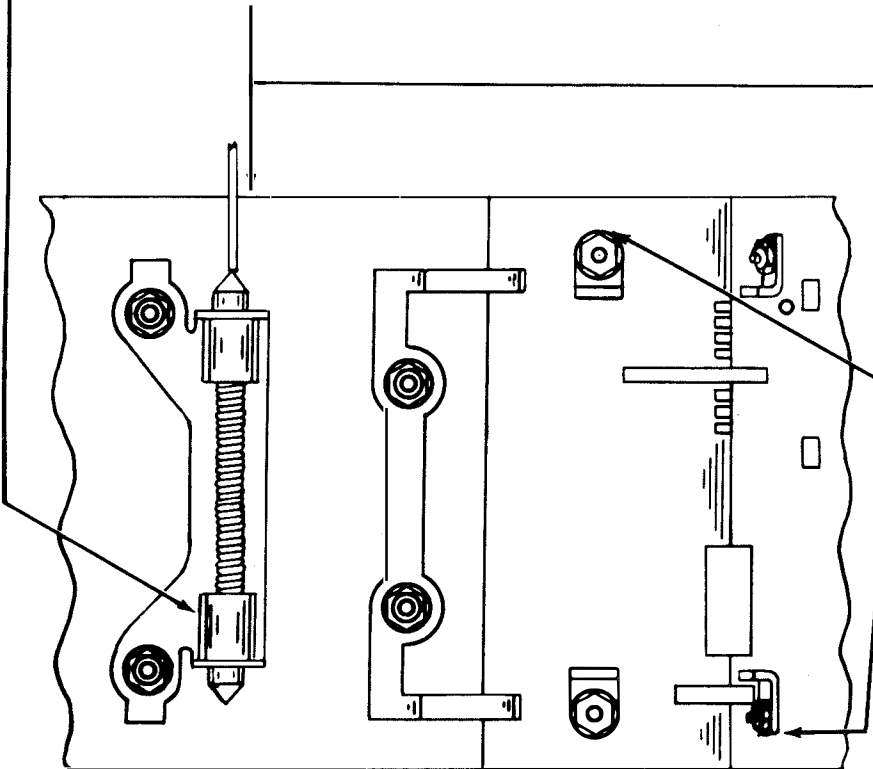
28 SELF-CONTAINED TRANSMITTER-DISTRIBUTOR SETS  
(SINGLE-CONTACT AND MULTICONTACT)  
REQUIREMENTS AND ADJUSTMENTS

| CONTENTS   | PAGE | 1. GENERAL   |
|--|------|--|
| 1. GENERAL .....   | 1    | 1.01 This section contains the requirements and adjusting procedures for maintenance of the fixed-head, single-contact, or multicontact transmitter-distributor sets.  |
| 2. REQUIREMENTS AND ADJUSTMENTS.....                               | 1    | 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.   |
| A. Single-contact Self-contained Transmitter-Distributor Set ..... | 2    | 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.   |
| Cover Plate  |      |  |
| Cover-plate detent spring.....                                     | 2    |  |
| Intermediate Gear Assembly   |      |  |
| Transmitter-distributor gear ..                                    | 3    |  |
| Line-shunt switch .....  | 4    |  |
| B. Multicontact Self-contained Transmitter-Distributor Set .....   | 5    | 2. REQUIREMENTS AND ADJUSTMENTS  |
| Base and Motor Gears   |      | 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). |
| Intermediate gear assembly....                                     | 6    |  |
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A. Single-contact Self-contained Transmitter-Distributor Set

2.02 Cover Plate

COVER PLATE DETENT  
(BOTTOM VIEW)

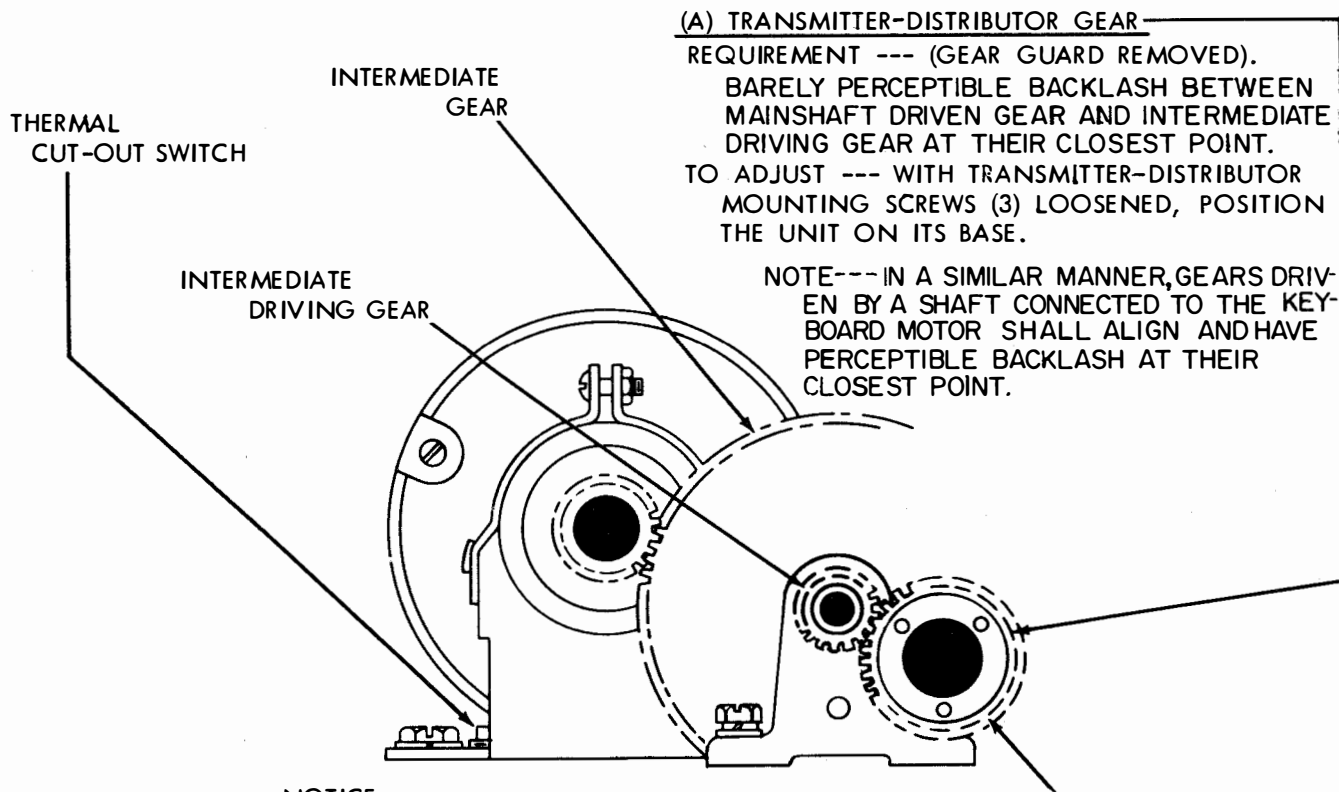


COVER-PLATE DETENT SPRING  
REQUIREMENT --- WITH SPRING  
SCALE APPLIED TO CENTER OF  
ONE DETENT  
MIN. 28 OZS.—MAX. 48 OZS.  
TO START PLUNGER MOVING.

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).

2.03 Intermediate Gear Assembly



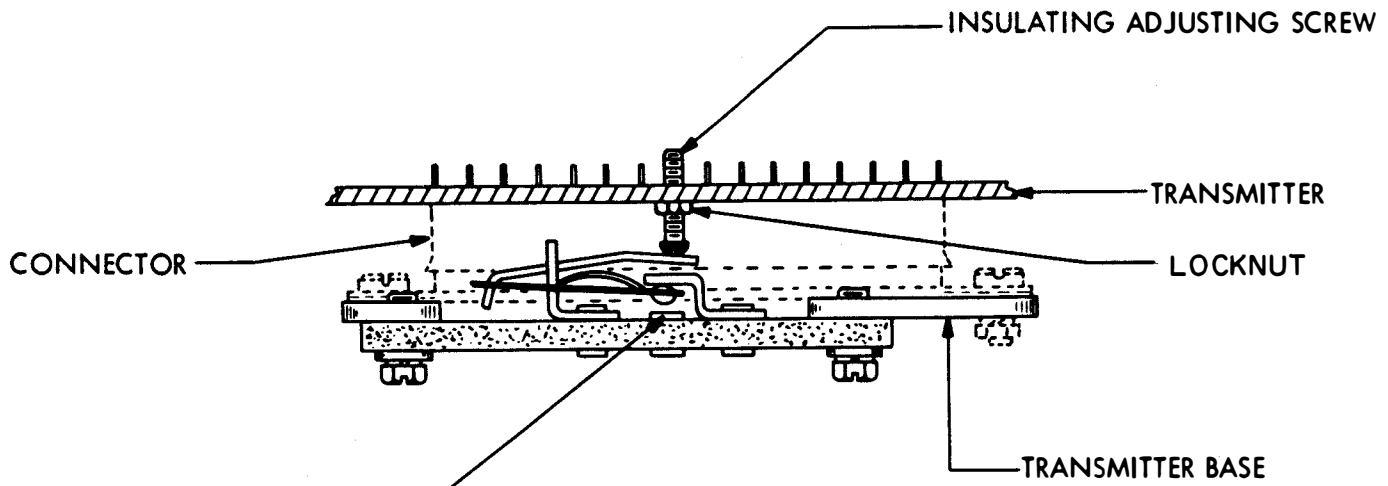
(A) TRANSMITTER-DISTRIBUTOR GEAR  
 REQUIREMENT --- (GEAR GUARD REMOVED).  
 BARELY PERCEPTIBLE BACKLASH BETWEEN  
 MAINSHAFT DRIVEN GEAR AND INTERMEDIATE  
 DRIVING GEAR AT THEIR CLOSEST POINT.  
 TO ADJUST --- WITH TRANSMITTER-DISTRIBUTOR  
 MOUNTING SCREWS (3) LOOSENED, POSITION  
 THE UNIT ON ITS BASE.  
 NOTE--- IN A SIMILAR MANNER, GEARS DRIV-  
 EN BY A SHAFT CONNECTED TO THE KEY-  
 BOARD MOTOR SHALL ALIGN AND HAVE  
 PERCEPTIBLE BACKLASH AT THEIR  
 CLOSEST POINT.

NOTICE

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.

MAINSHAFT  
 DRIVEN GEAR

2.04 Line-shunt Switch



LINE-SHUNT SWITCH  
REQUIREMENT

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

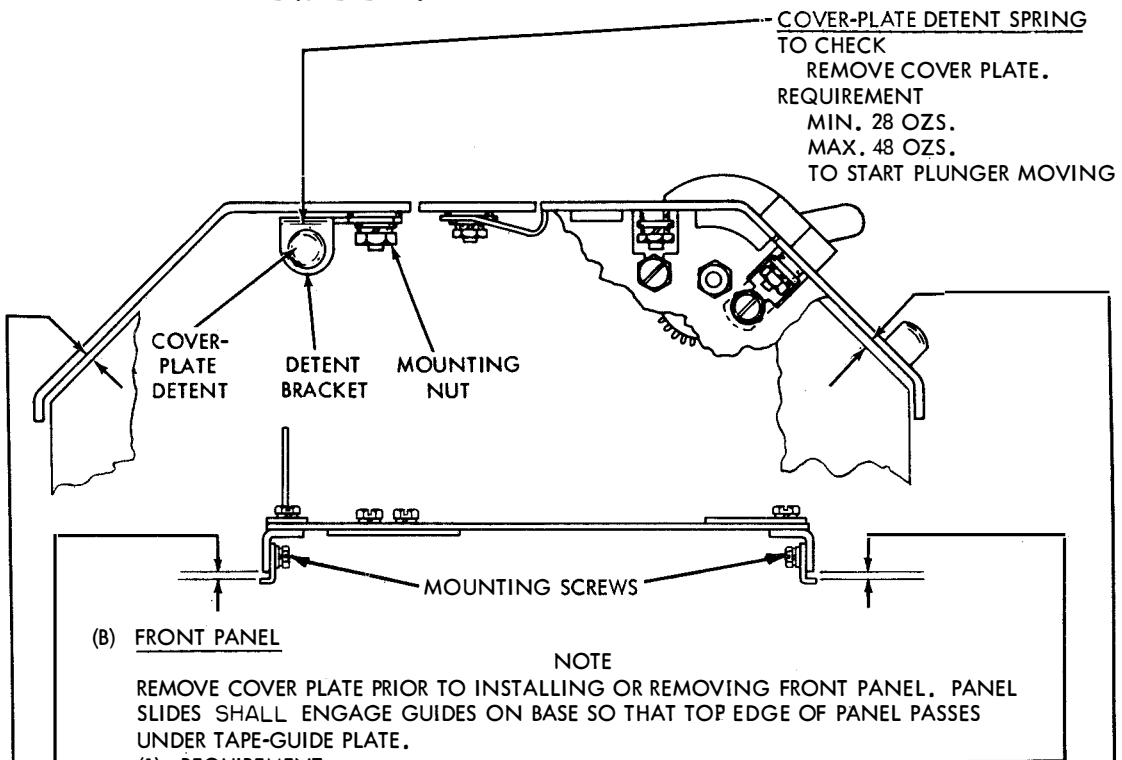
COVER PLATE RESTS ON AT LEAST THREE SIDE-FRAME PROJECTIONS.

(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 REFINE REQUIREMENTS.



(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.

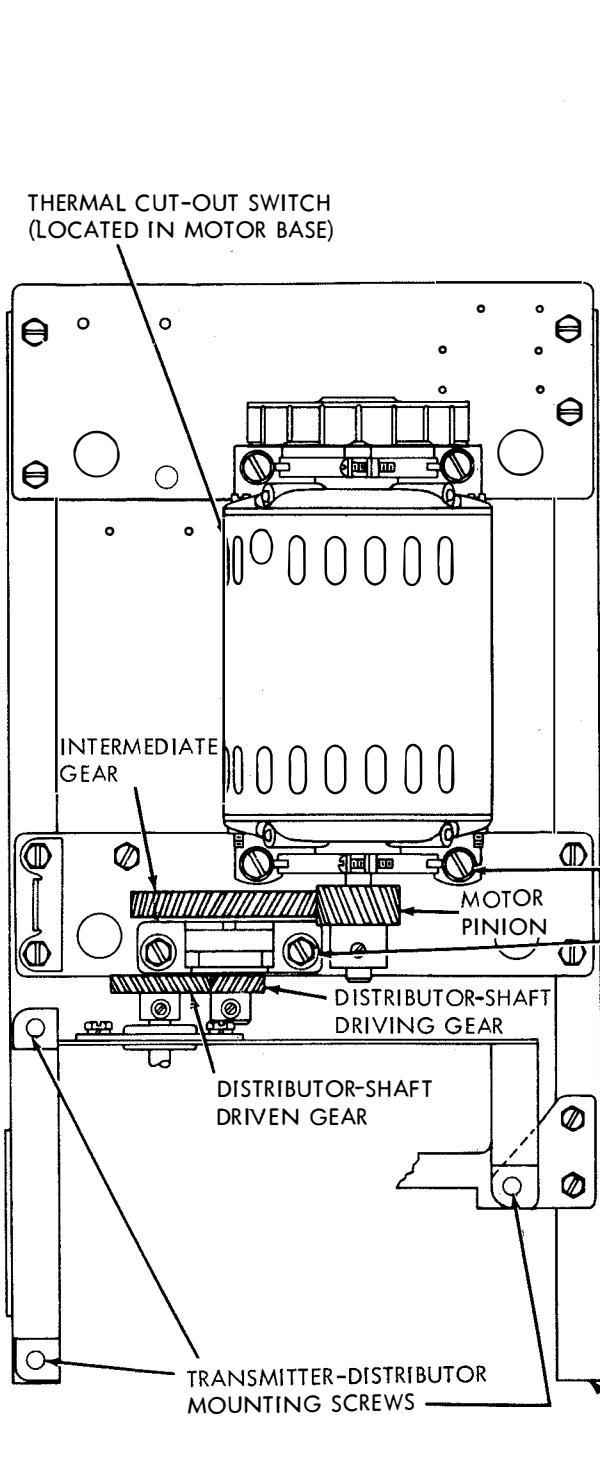
(2) REQUIREMENT

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.

2.06 Base and Motor Gears



(A) INTERMEDIATE GEAR ASSEMBLY

NOTE

REMOVE GEAR GUARD.

- (1) REQUIREMENT  
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 LOOSENED.
- (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 LOOSENED.
- (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 LOOSENED.

MOTOR UNIT MOUNTING SCREWS

INTERMEDIATE GEAR-BRACKET MOUNTING SCREWS

(B) MOTOR PINION

- (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 LOOSENED. TIGHTEN MOUNTING SCREWS. ROTATE SHAFT AND RECHECK REQUIREMENT.

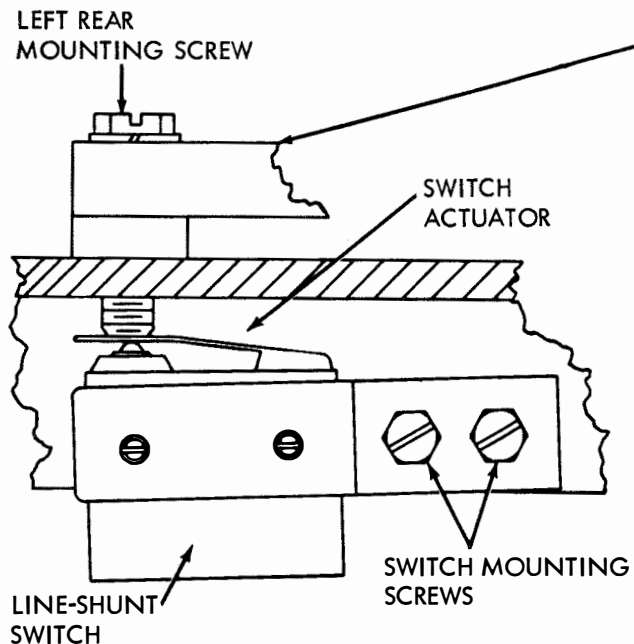
PANEL GUIDE

BASE RAIL

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 FRICTION 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 REFINE ADJUSTMENT IF NECESSARY.

