

SERVICE

SK177-31
OCTOBER 16, 1975

Kit

Title NOSE GEAR INDICATOR SWITCH MODIFICATION



MODELS AFFECTED

177RG
F177RG

SERIALS AFFECTED

177RG0283 thru 177RG0787
F177RG0063 thru F177RG0138

PARTS LIST:

QUANTITY	PART NUMBER	NOMENCLATURE
1	AN936A516	Washer
2	MS21045L06	Nut
2	NAS43DD5-4	Spacer
2	NAS601-8	Screw
2	S1635-2	Pin
2	S1636-1	Socket
1	S2035-1	Housing-Cap
1	S2035-2	Housing-Plug
2	S2209-1	Sta-Strap
8	S2209-2	Sta-Strap
1	S292-4-9.00	Sleeving
1	2009010-2	Template
1	2070029-1	Switch Assy
1	2070029-2	Magnet Assy
1		Installation Instructions

CHANGE IN WEIGHT AND BALANCE:

WEIGHT INCREASE	-0.2 pounds
ARM	46.5 inches
RESULTANT MOMENT	-9.3 pound-inches
INDEX	-0.009

1. DESCRIPTION OF INSTALLATION.

a. (Refer to figure 1.) Installation of this kit consists of:

- (1) Removing and discarding existing nose gear up and nose gear down switches, magnets and attaching hardware.
- (2) Using template to locate holes in nose gear lock assembly for installation of new magnet assembly.
- (3) Installing new switch and magnet assemblies on nose gear lock assembly.
- (4) Wiring new switch in accordance with wiring diagram.
- (5) Rigging the new nose gear locking system.

NOTE
 *REFER TO WIRING DIAGRAM
 FOR REQUIREMENTS.

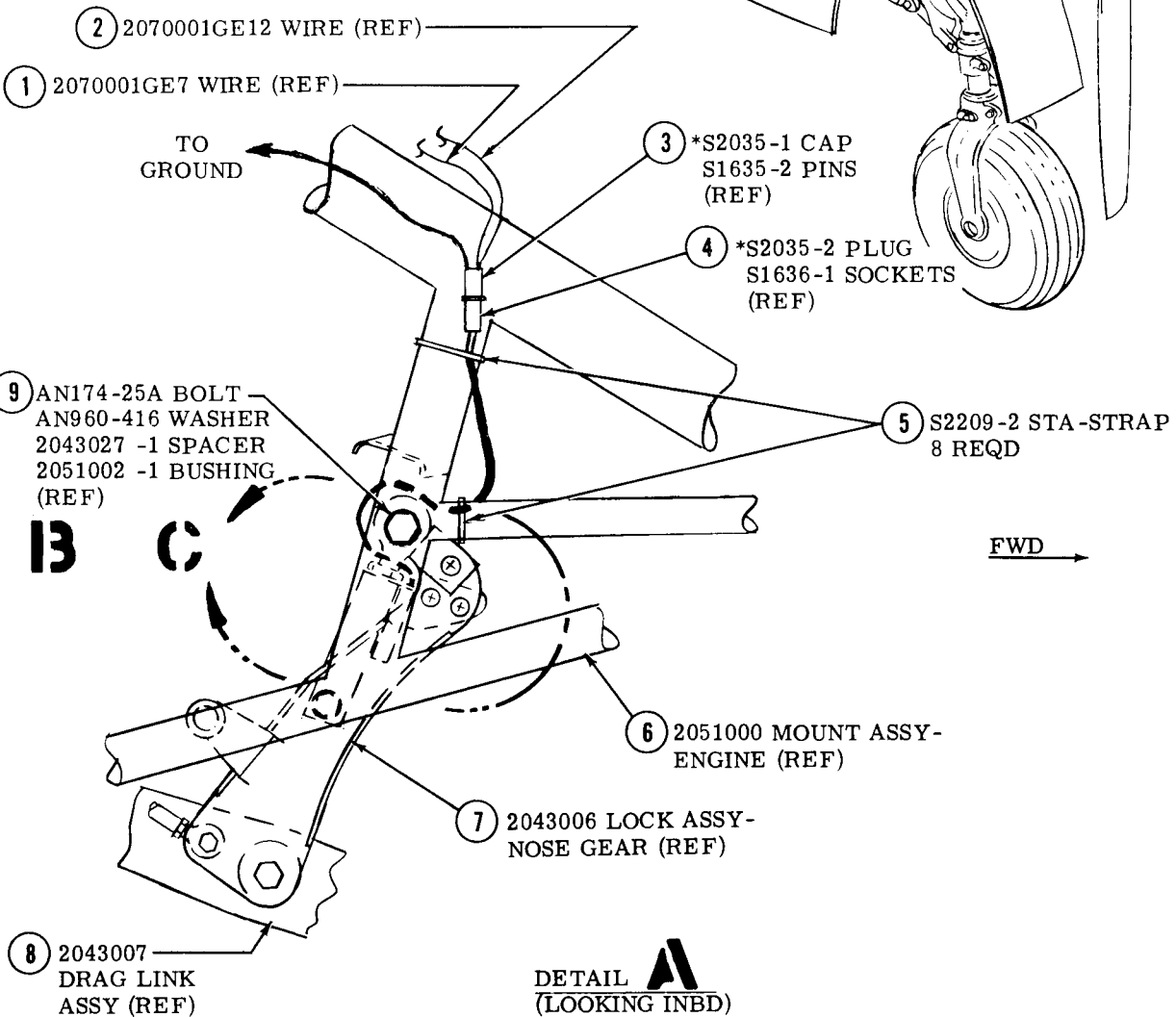
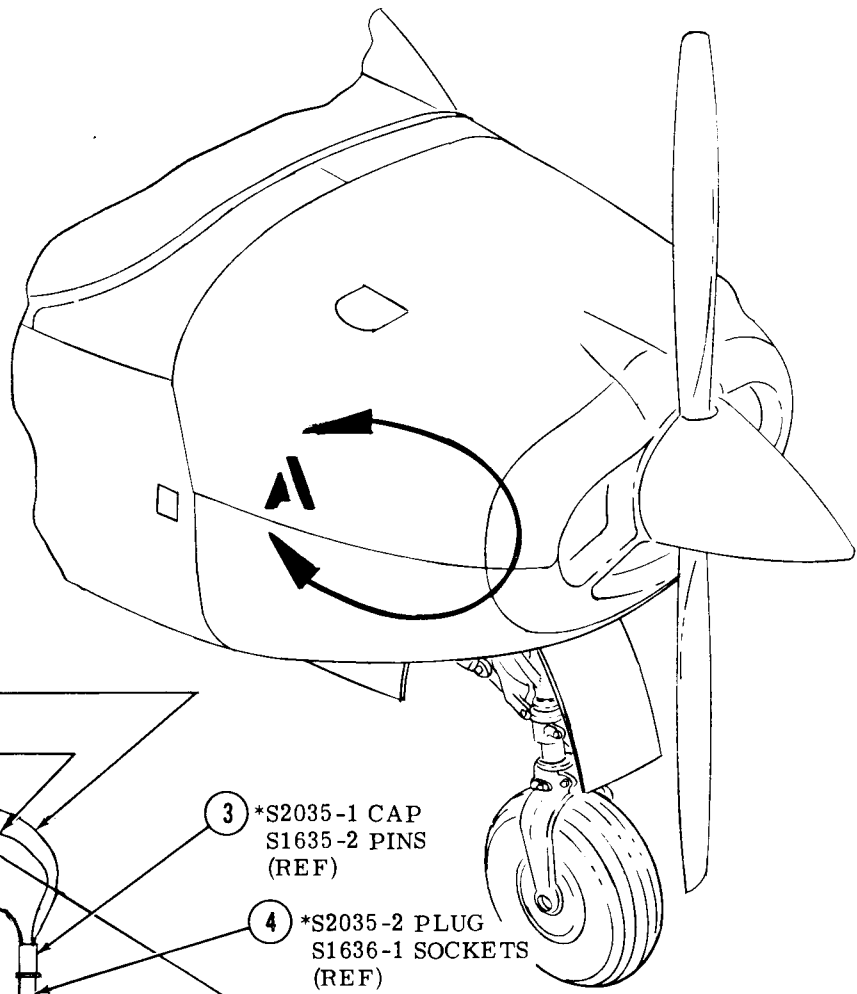
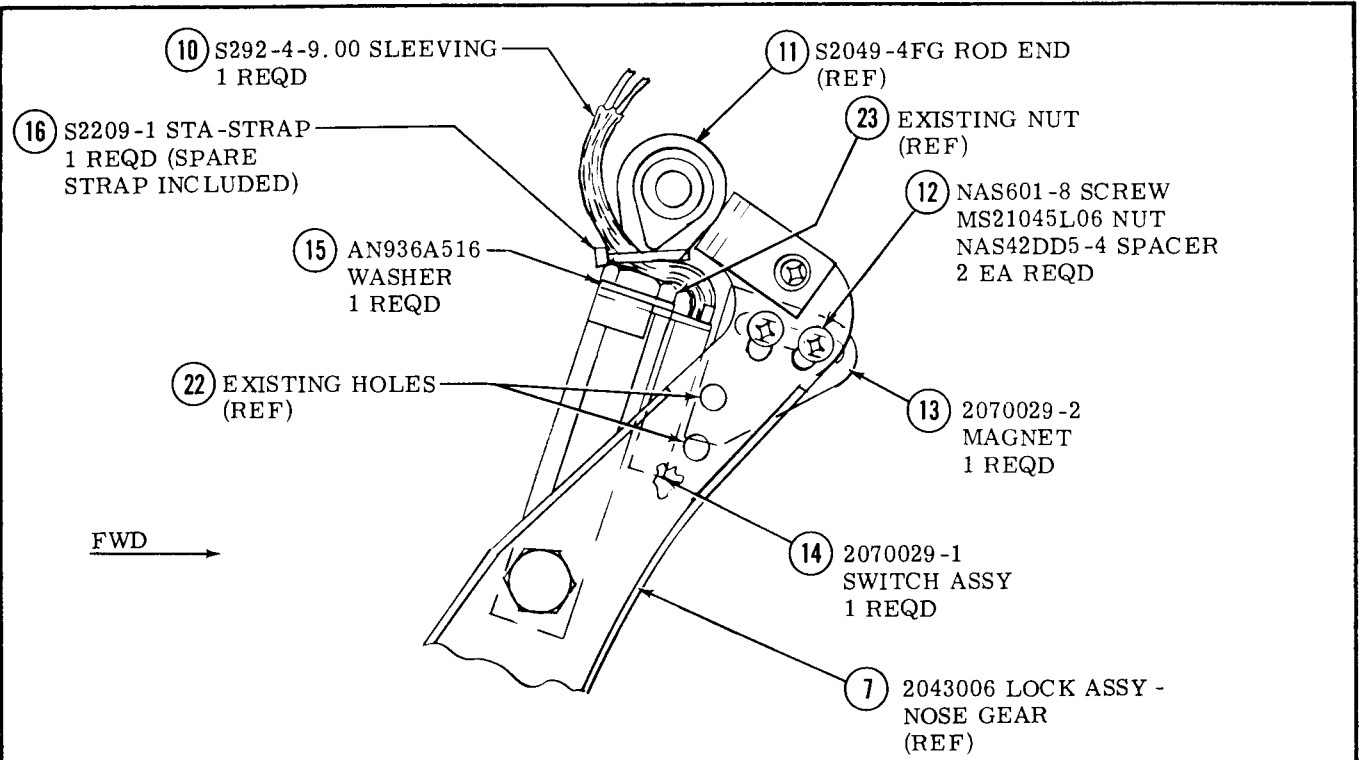
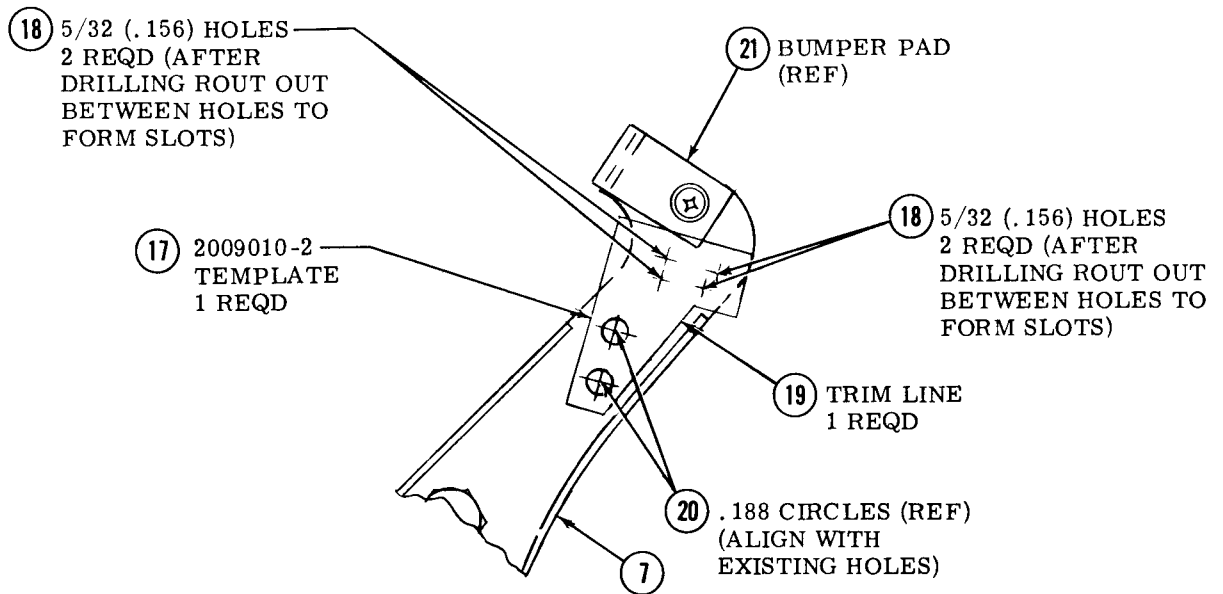


Figure 1. Nose Gear Indicator Switch Modification. (sheet 1 of 2)



DETAIL 13
(STRUCTURE NOT SHOWN FOR CLARITY)



DETAIL C
(STRUCTURE NOT SHOWN FOR CLARITY)

Figure 1. Nose Gear Indicator Switch Modification. (sheet 2 of 2)

2. INSTALLATION INSTRUCTIONS.

NOTE

Refer to the applicable Cessna Service Manual as a guide while making this modification.

- a. (Refer to figure 1.) Removing existing nose gear lock switches.
- (1) Jack aircraft so that gear can be cycled.
 - (2) Remove cowling from aircraft.
 - (3) Relieve pressure on hydraulic system.
 - (4) Disconnect nose gear lock spring 2043010-2 and retain.
 - (5) Remove and retain bolt, washer, spacer and bushing (9) marking bushing position in relation to engine mount.
 - (6) Remove and discard nose gear up magnet 2070022-1, nose gear down magnet 2070020-1 and attaching hardware.
 - (7) Disconnect, remove and discard nose gear up switch 2070023-1 and nose gear down switch 2070021-1 from brackets.
 - (8) Remove and discard switch brackets 2070024-4, 2070024-1 and attaching hardware from engine mount.
- b. (Refer to figure 1.) Nose Gear Switch and Magnet Installation.
- (1) (Refer to detail c.) Trim template (17) along trim line (19) to clear flange of lock assembly (7).
 - (2) Loosen bumper pad (21) on RH side of lock assembly (7) and align circles (20) with holes (22) as shown.
 - (3) Secure template (17) to lock assembly with clear tape and with sharp pointed tool mark locations for four holes (18). Remove template.
 - (4) Drill holes (18) then rout or file out material between appropriate holes to form slots. Tighten bumper pad (21).
 - (5) (Refer to detail B.) Remove and retain rod end (11) and existing nut (23) from lock assembly (7). Note number of turns into lock link.
 - (6) Install switch (14) and lock washer (15) under existing nut (23) replacing rod end (11) same number of turns as noted in step (5).
 - (7) Install sleeving (10) over lead wires of switch (14) and secure to rod end (11) with sta-strap (16) as shown. Do not sharply crimp or tug lead wires near switch case.
 - (8) (Refer to figure 2.) Loosen wire bundle from lock assembly to firewall, clip off existing housing from wires GE7 and GE12 to which gear up and gear down switches were removed. Install both wires in housing-cap (1) (S2035-1) using one pin (1) (S1635-2). Install one existing ground wire from either removed gear up or gear down switch in housing-cap (1) (S2035-1) using one pin (1) (S1635-2).
 - (9) (Refer to figure 2.) Install housing-plug (1) (S2035-2) on lead wires of switch (7) with the two sockets (1) (S1636-1).
 - (10) (Refer to figure 1, detail A.) Connect housings (3 & 4) and secure with sta-straps (5) as shown. Assure that wires do not chafe during cycling.
 - (11) (Refer to figure 1, detail B.) Install magnet (13) with screws nuts & spacers (12).

c. (Refer to figure 1.) Rigging.

- (1) While lock assembly (7) is still free, set magnet (13) to activate switch (14) with .06" to .09" overtravel before rod end (11) contacts bumper pad (21).

NOTE

If switch (14) and magnet (13) fail to operate properly when attached to lock assembly (7) but operate properly with magnet detached from lock assembly, remove lock assembly and demagnetize without switch and magnet attached. If installation still will not operate properly it may be necessary to order and install a new lock assembly (7).

- (2) Reattach rod end (11) to engine mount reinstalling bushing (9) in marked position. Secure with remaining hardware (9) and reconnect lock spring 2043010-2 to lock assembly (7).
- (3) Assure that nose gear is rigged as outlined in service manual, except for magnetic switch adjustment above. With gear up and locked assure that roller on lock assembly (7) contacts bellcrank assembly which actuates uplock roller as shown in manual.
- (4) Cycle gear 25 times and check gear position indicator lights and gear operation. Recheck lock switch adjustment.
- (5) Reinstall cowling and remove aircraft from jacks.

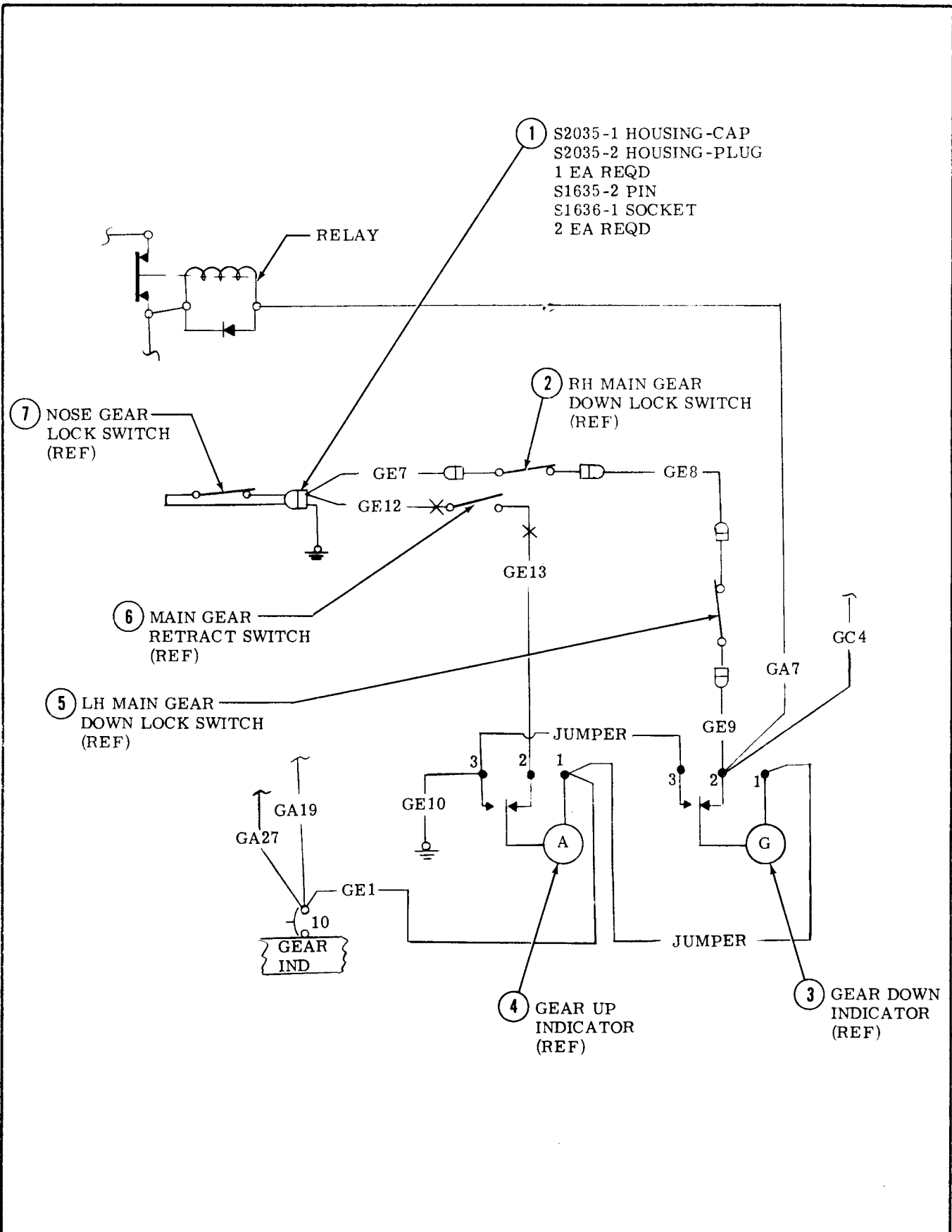


Figure 2. Wiring Diagram.