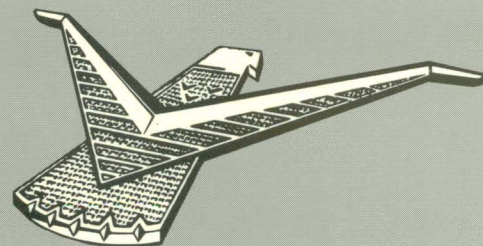


**1961 — 1963**

*Thunderbird*

**CONVERTIBLE TOP  
REPAIR MANUAL**



# 1961 – 1963 CONVERTIBLE TOP MANUAL

## 1961 – 1963 CONVERTIBLE TOP INDEX

ADJUSTMENTS	15-18
ELECTRICAL	11-12
HYDRAULIC CHECKS	12
MANUAL DECK OPENING	10-11

MECHANICAL CHECKS	12
SPECIFICATIONS	18
TOP OPERATION	10
TROUBLE GUIDE	12-15

## 1 TOP OPERATION

The Thunderbird convertible top is lowered into and erected out of the luggage compartment. The cycles are automatic with the exception of manually locking or unlocking the windshield header clamps and opening or closing the rear window. The top operation is divided into the following two cycles:

### A. Top Retract Cycle

1. Deck Lid Unlock
2. Deck Lid Open
3. Package Tray Extend
4. Top Retract
5. Deck Lid Close
6. Deck Lid Lock

### B. Top Erect Cycle

1. Deck Lid Unlock
2. Deck Lid Open
3. Top Erect
4. Package Tray Fold
5. Deck Lid Close
6. Deck Lid Lock

Hydraulic pressure is used to raise and lower both the top and the deck lid (Fig. 1). The hydraulic pressure is produced by a reversible-electric motor and pump assembly and the top and deck lid linkage are actuated by the hydraulic cylinders. Three electric-solenoid valves are placed in the hydraulic lines to control the flow of fluid to the desired cylinders.

The deck lid is unlocked and locked by jack screws (Fig. 2). A reversible-motor is used to operate the 2 jack screws thru drive cables.

The package tray is extended and folded by a motor and transmission mounted to the tray right pivot arm.

The deck lock screw motor and tray motor are protected by a 15-ampere circuit breaker in the ground circuit. The hydraulic-pump motor (and the entire circuit) is protected by a 50-ampere circuit breaker in the feed circuit (Fig. 4).

All circuits are protected by non-cycling circuit breakers. This type of circuit breaker will not reset itself until the control switch is released or the short circuit removed.

The power is supplied to the motors and solenoids thru 8 relays (6 of which are double-contact relays). Fig. 3 details the electrical circuits through the relays to the motors and solenoids. Fig. 4 shows the installation arrangement of the relays in the vehicle. The double-contact relays are used to close the power supply circuit to both a motor and the related solenoids (or the armature and field windings in the shunt-wound tray motor).

The instrument panel top control switch activates the top assembly (Fig. 5). A neutral switch relay is used to prevent top operation unless the transmission selector is placed in the neutral or park position. The ignition switch must be in the ON or ACC position and the neutral switch closed to energize the neutral switch relay, and close the control switch circuit (Fig. 4).

The top mechanism operation is

controlled by 7 limit switches. These switches, actuated mechanically by the various panels or linkage, complete the supply circuit from the main control switch to the control relay coil windings. The switch lead wires may be color coded violet and yellow, or red, white and yellow at the switch itself. However, the wire colors between connectors are as indicated in the circuit diagrams (Figs. 6 thru 17).

A luggage compartment light is mounted on the deck lid and is on whenever the deck lid is unlocked. The power source for this light is at the cigar lighter socket terminal in the console. The lower contacts of the deck lock limit switch control the function of the light (Figs. 6 and 7).

### TOP RETRACT CYCLE

This cycle starts with the top in the erected position and the deck lid closed and both locked. The top is manually unlocked, the rear window unfastened and rolled, and the top control switch is pressed and held.

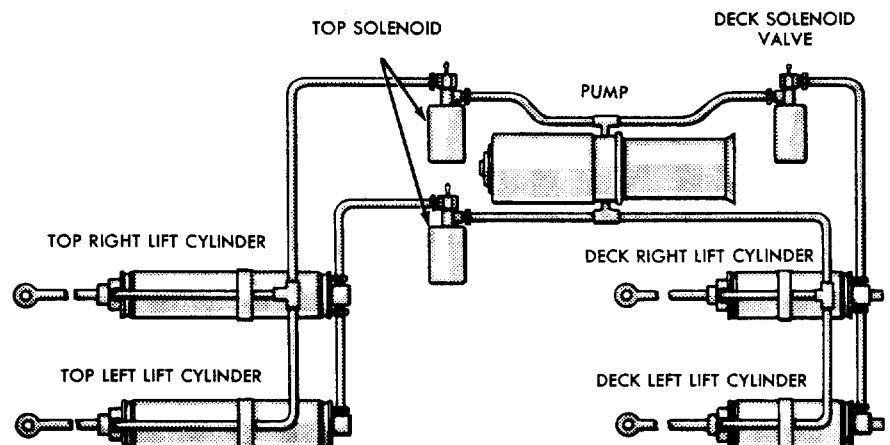
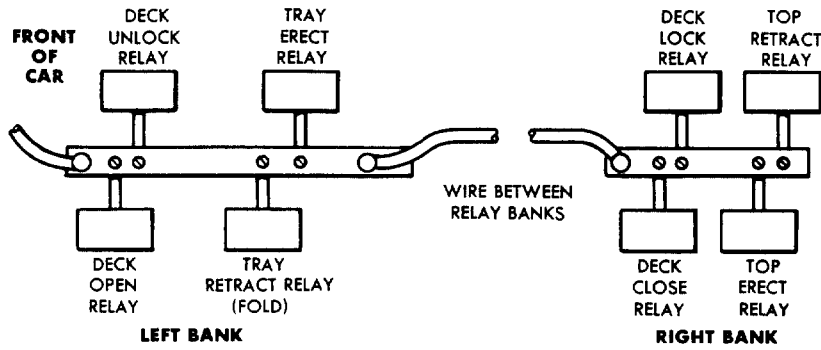


FIG. 1—Hydraulic System



# 1961 – 1963 CONVERTIBLE TOP MANUAL



**FIG. 4—Control Relay Locations**

**DECK LID UNLOCK**

Current flows from the top control switch through the tray retract limit switch (Fig. 6), the left deck open limit switch, and the deck unlock power relay, and actuates the deck lock motor (Fig. 3).

**DECK LID OPENING**

The mechanical motion of unlocking the deck lid actuates the deck lock limit switch. As the switch plunger moves upward, contacts are closed to allow current to flow to the deck open power relay (Fig. 7), actuating the electric-hydraulic pump and deck solenoid valve (Fig. 3). Hydraulic pressure is delivered to the deck solenoid valve and then to the 2 deck cylinders, raising the deck lid.

**PACKAGE TRAY EXTEND**

When the deck lid is fully raised, the left deck open limit switch

plunger is depressed, opening the deck open circuit and closing a second set of contacts (Fig. 8). Current flows through the left deck open limit switch, the tray erect limit switch, to the tray erect power relay. The tray motor is actuated (Fig. 3) and extends the package tray so that it is parallel with the deck lid. The mechanical action of the tray, as it reaches its travel limit, actuates the tray erect limit switch which opens the tray erect relay circuit and closes the top retract circuit (Fig. 9).

**TOP RETRACT**

Current flows from the tray erect limit switch through the top retract limit switch to the top retract power relay, actuating the electric-hydraulic motor and top solenoid valves (Fig. 3). Hydraulic pressure is delivered to the top solenoid valves and then to the 2 top cylinders, lowering

the top. When the top reaches the fully retracted position, it actuates the top retract limit switch and de-energizes the top solenoid valves which shuts off the hydraulic pressure to the top cylinders.

**DECK LID CLOSE AND LOCK**

As the top retract limit switch opens and the top solenoid valves close, another set of contacts in the same switch close (Fig. 10), allowing current to flow to the deck lock relay and through the deck lock limit switch to the deck close power relay. After the deck solenoid valve is actuated, hydraulic pressure is delivered to the 2 deck cylinders, lowering the deck lid. The deck lock motor locks the deck. As the deck lock screws draw the deck lid down, the deck lock limit switch is opened (Fig. 11), stopping the electric-hydraulic pump. Releasing the top control switch cuts off the current to the locking circuit.

**TOP ERECT CYCLE**

This cycle starts with the top in the luggage compartment and the deck lid closed and locked.

**DECK LID UNLOCK**

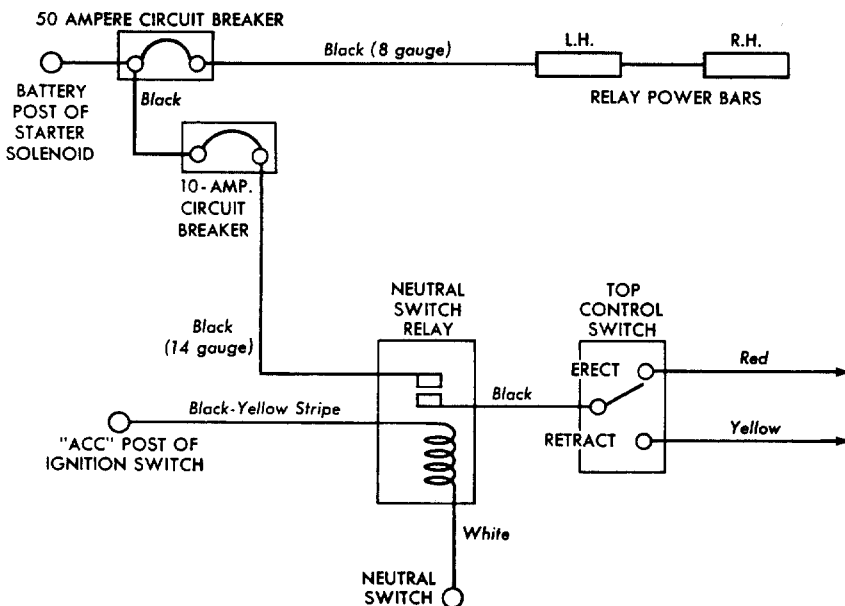
With the top control switch pressed and held, current flows through the top retract limit switch (Fig. 12), and the right deck open limit switch, to the deck unlock power relay, actuating the deck lock motor. The motor drives the deck lock screws and unlocks the deck lid.

**DECK LID OPENING**

The mechanical motion of unlocking the deck lid closes the deck lock limit switch (Fig. 13). Current flows to the deck open power relay, actuating the electric-hydraulic pump and the deck solenoid valve. Hydraulic pressure is delivered to the deck solenoid valve and then to the 2 deck cylinders, raising the deck lid. As the deck lid reaches the fully open position, the right deck open limit switch opens, and stops the deck lock motor and electric-hydraulic pump.

**TOP ERECT**

When the right deck open limit switch opens, another set of contacts in the same switch close (Fig. 14). Current then flows through the top erect limit switch to the top erect power relay, actuating the electric-hydraulic pump and top solenoid valves. Hydraulic pressure is delivered to the top solenoid valves and then to the 2 top cylinders,



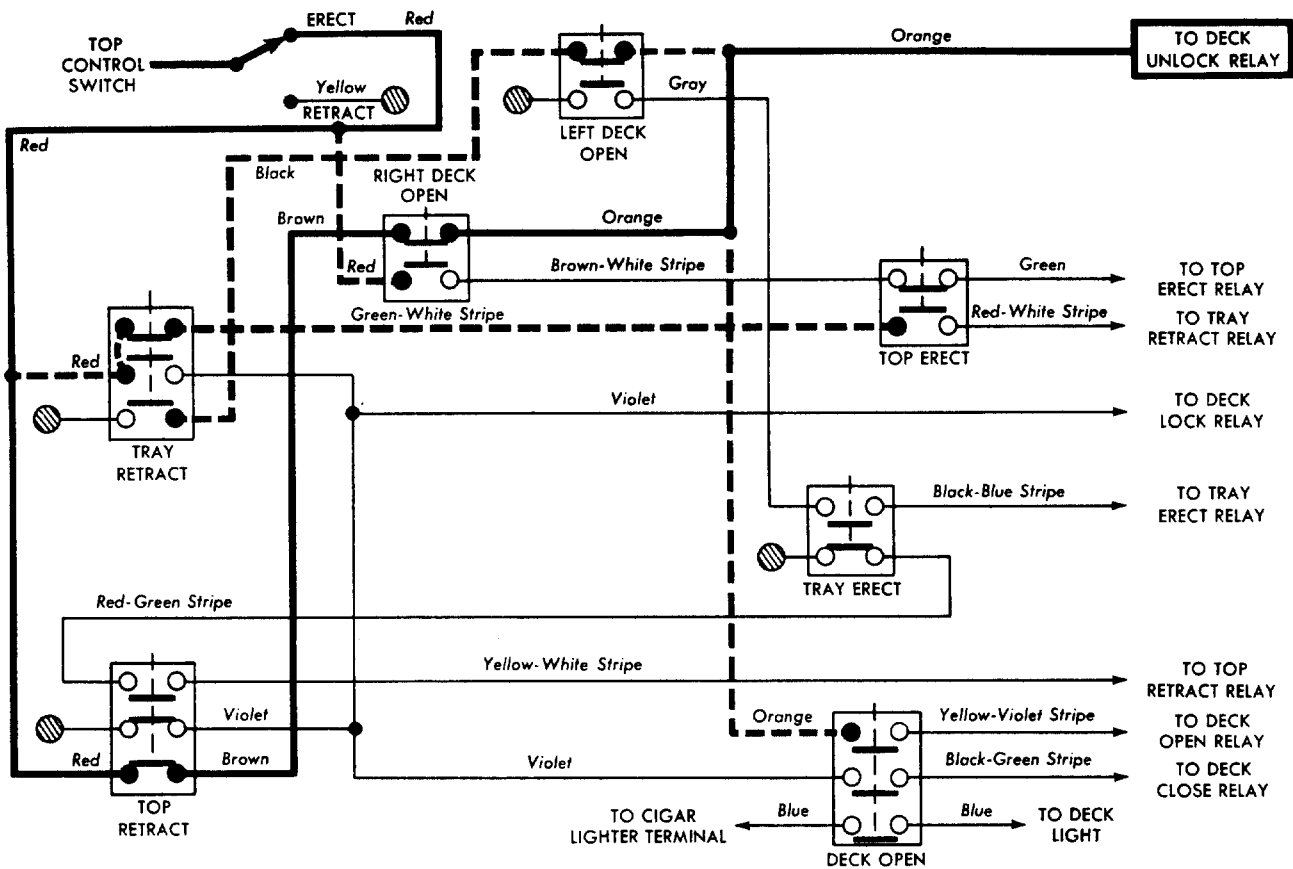
**FIG. 5—Top Control Switch and Relay Power Circuits**



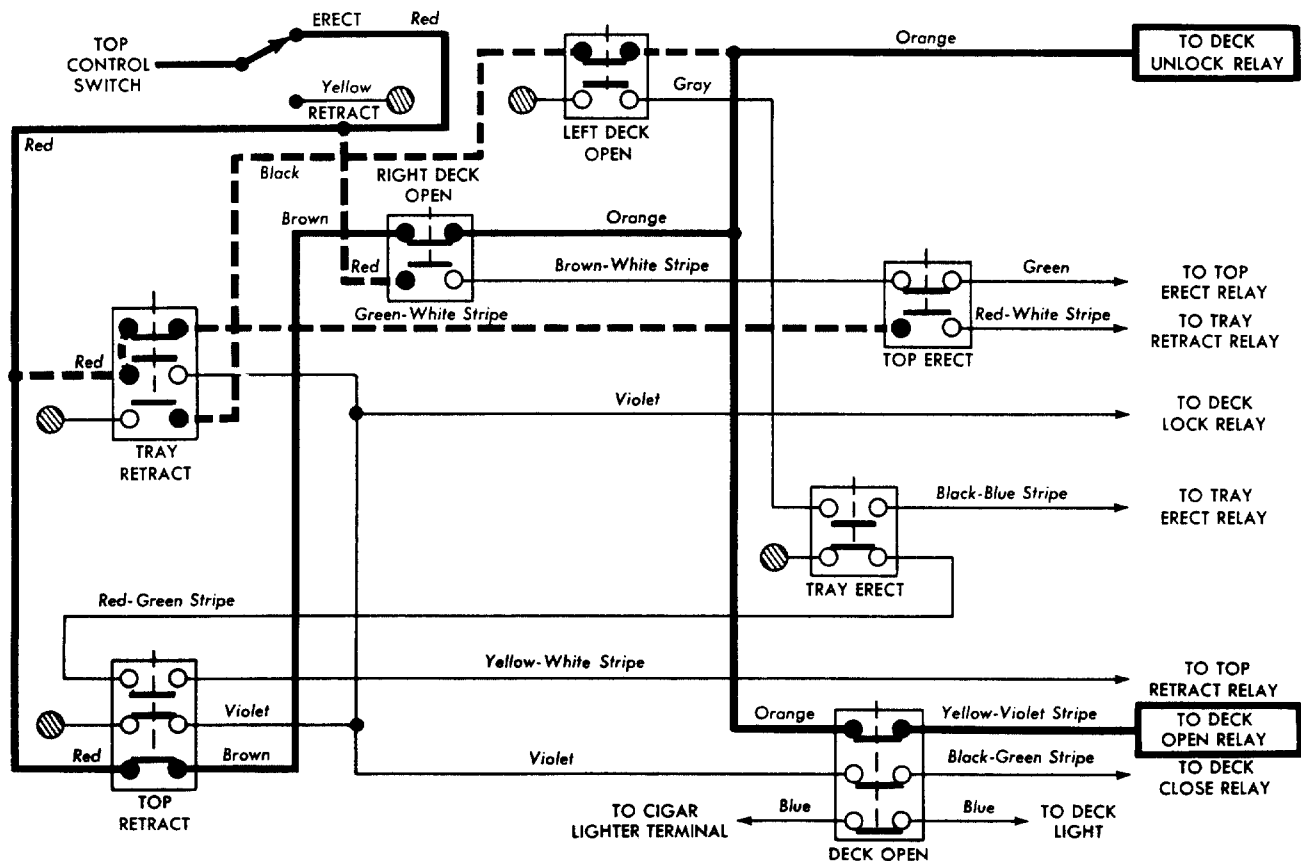




# 1961 - 1963 CONVERTIBLE TOP MANUAL



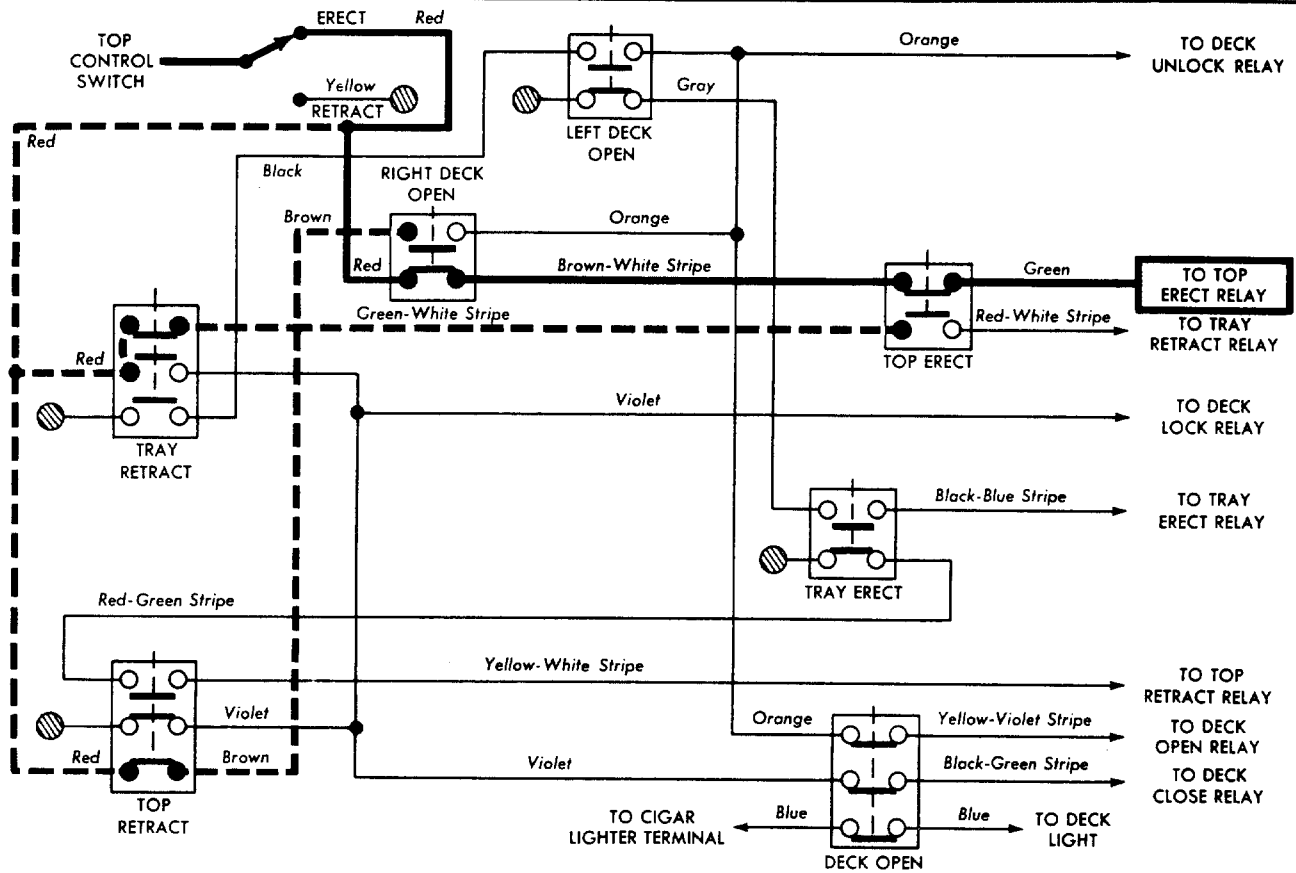
**FIG. 12—Deck Lid Unlock—Top Erect Cycle**



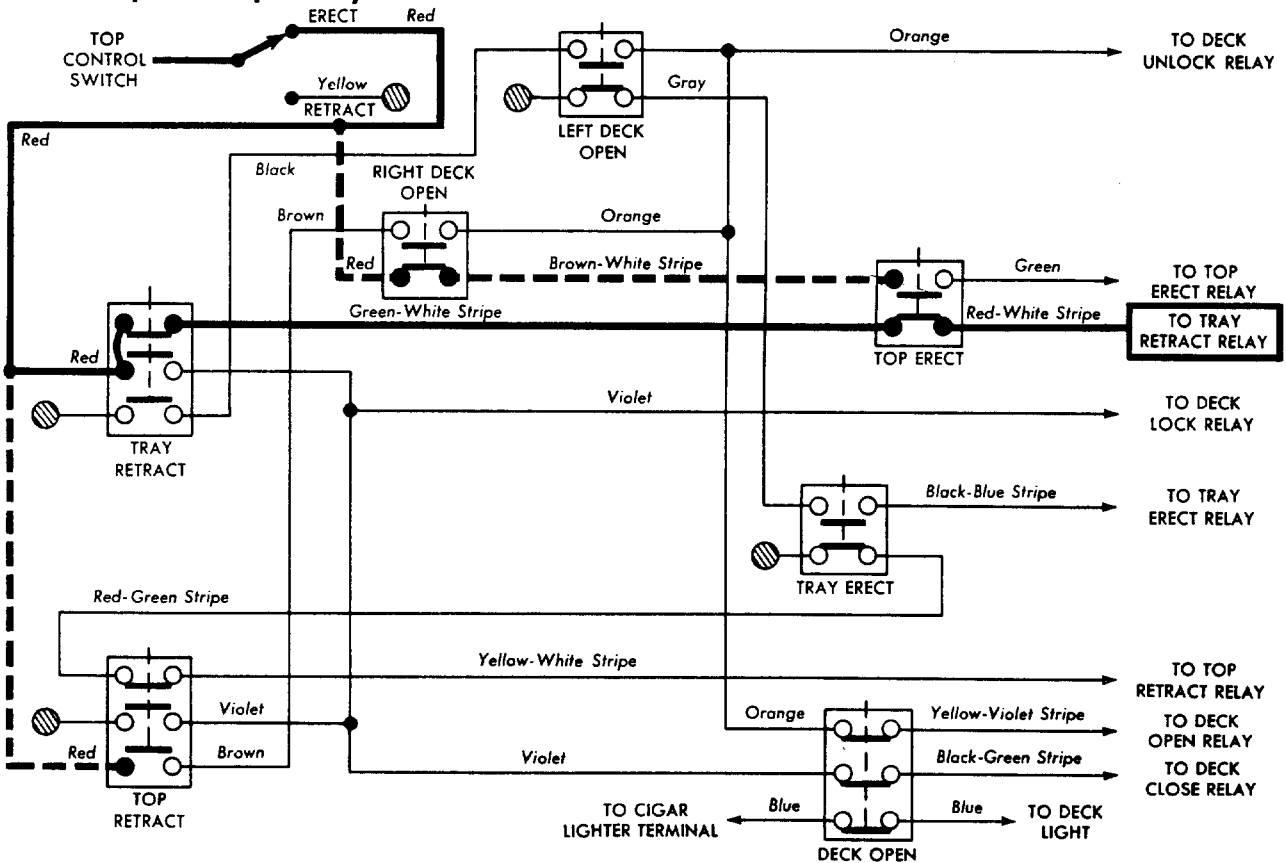
**FIG. 13—Deck Lid Open—Top Erect Cycle**



# 1961 - 1963 CONVERTIBLE TOP MANUAL

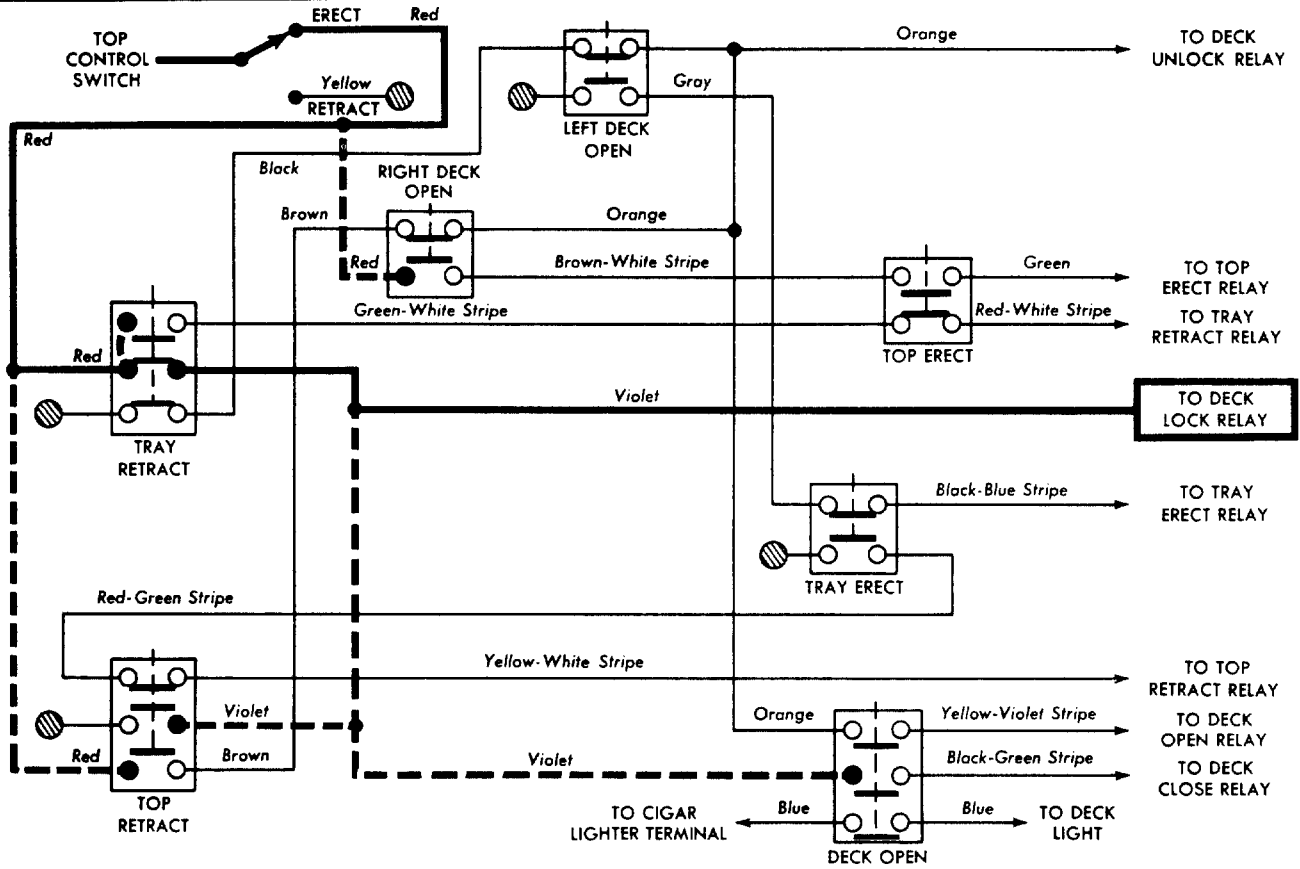


**FIG. 14—Top Erect—Top Erect Cycle**

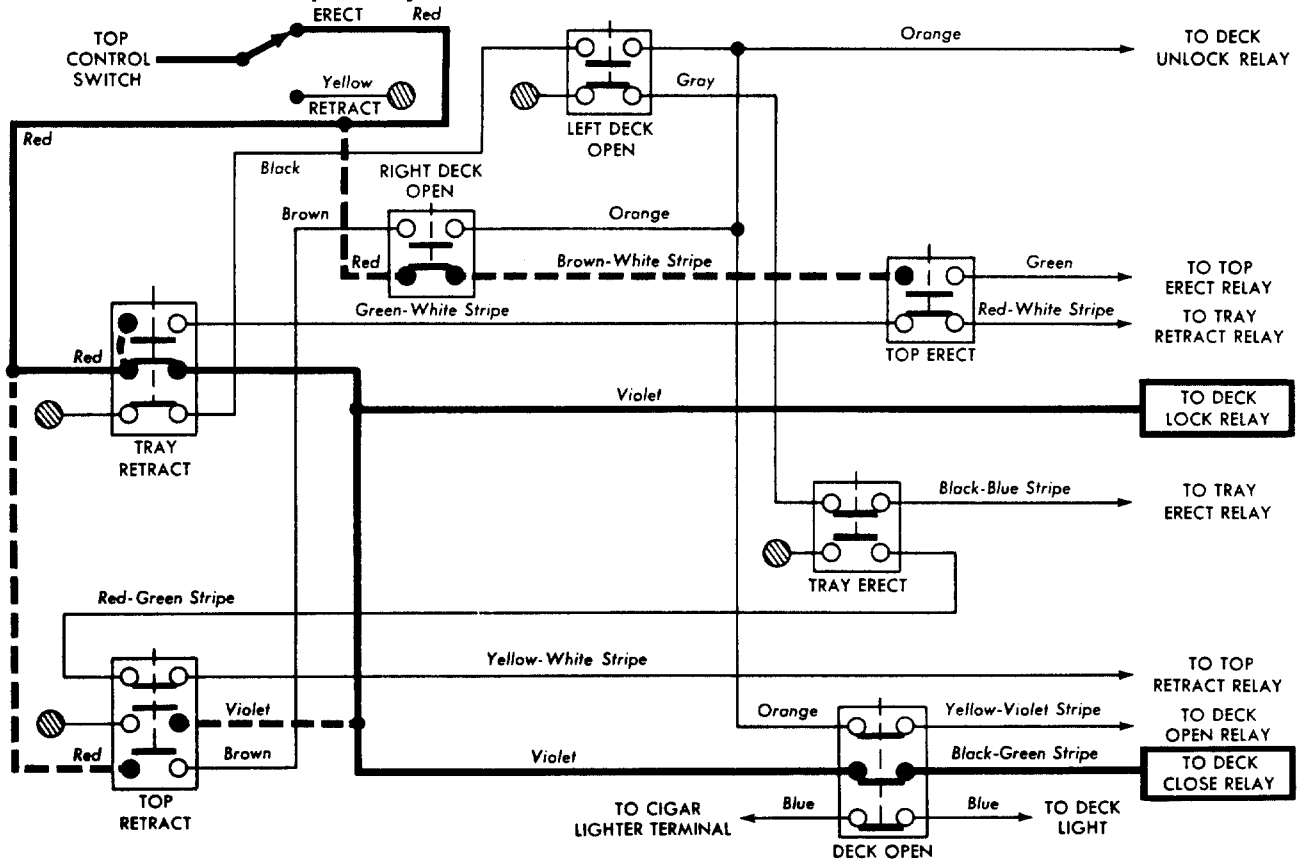


**FIG. 15—Package Tray Fold—Top Erect Cycle**

# 1961 - 1963 CONVERTIBLE TOP MANUAL



**FIG. 16—Deck Lid Close—Top Erect Cycle**



**FIG. 17—Deck Lid Lock—Top Erect Cycle**

# 1961 – 1963 CONVERTIBLE TOP MANUAL

raising the top. When the top reaches the fully erected position, it opens the top erect limit switch which de-energizes the top erect relay and stops the electric-hydraulic pump.

## PACKAGE TRAY FOLD

When the top erect limit switch opens, another set of contacts in the same switch close (Fig. 15). Current then flows through the tray retract limit switch to the top erect limit switch and then to the tray retract power relay which actuates the tray

motor. This motor folds the tray under the deck lid. When the tray is completely folded, the tray retract limit switch opens, and thus stops the tray motor.

## DECK LID CLOSE AND LOCK

As the tray retract limit switch opens, another set of contacts in the same switch close (Fig. 16), allowing current to flow to the deck lock relay and through the deck lock limit switch to the deck close power relay. The electric-hydraulic pump and the

deck solenoid valve are actuated. Hydraulic pressure is delivered to the 2 deck cylinders, lowering the deck lid. The deck lock motor locks the deck. As the deck lock screws draw the deck lid down, the deck lock limit switch is opened (Fig. 17), stopping the electric-hydraulic pump. Releasing the top control switch opens the circuit to the deck lock relay.

Fasten the rear window and lock the windshield header clamps.

## 2 DECK MANUAL OPENING PROCEDURES

If a part of the electrical, mechanical, or hydraulic system of the deck does not work, the following manual procedures may be used to get at the malfunctioning part.

### MANUAL OPENING PROCEDURES

#### UNLOCKING DECK LID USING JUMPER WIRE

When the deck lid will not open

through the use of top control switch, an alternate electrical method can be used to open the deck lid.

1. Remove the rear seat and back cushion to gain access to the deck unlock and open relays.

2. Remove the multiple plug from the deck unlock relay (Fig. 3-18).

3. Fabricate a jumper wire as shown in Figure 3-18. Energize the

deck unlock motor through the disconnected multiple plug and the relay panel bus bar with the jumper wire (Fig. 3-18).

4. If the deck lid will not unlock, there is either an open wire to the motor or a failed motor. The deck will have to be mechanically unlocked.

5. If the deck lid will not open after being unlocked, remove the multiple plug from the deck open relay located behind the rear seat-back. Energize the deck motor and pump assembly through the deck open relay plug with the use of the jumper wire (Fig. 3-18).

6. If the deck will not open, there is an open wire or a failed motor. If the motor operates but is under a heavy load, the solenoid could not be opening. It will be necessary to mechanically open the deck lid.

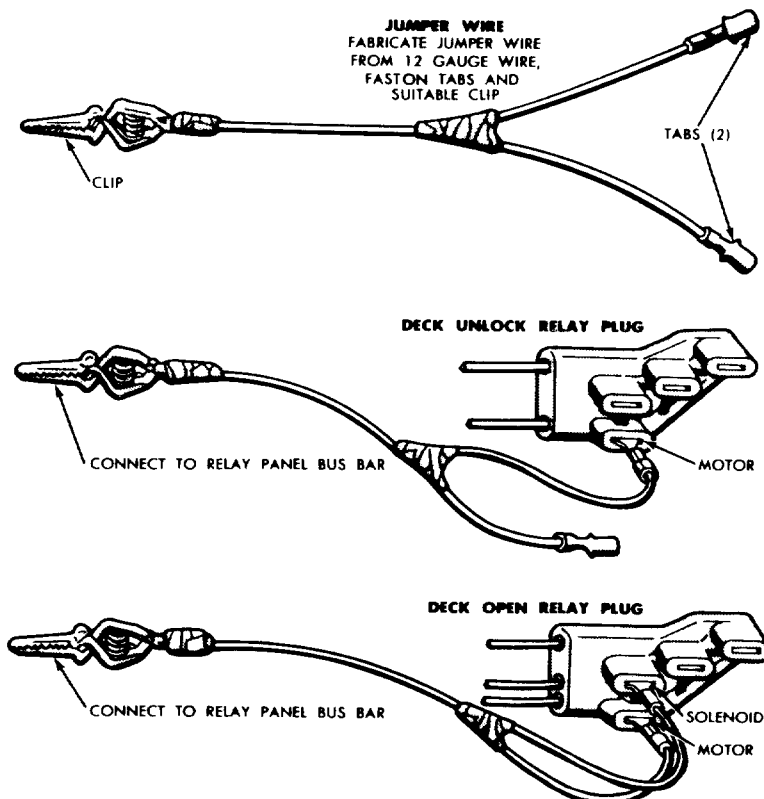


Fig. 3-18—Alternate Electrical Method of Opening Deck Lid

### UNLOCKING DECK LID MECHANICALLY

1. Raise the car approximately 10 inches by placing a floor jack under the underbody rear cross member.

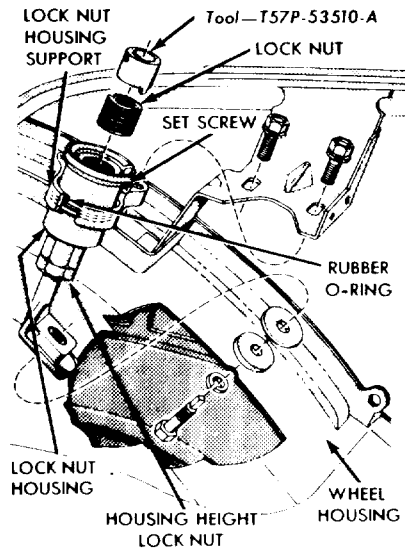
2. From the underside of each wheelbase, remove each deck lid lock retaining screw (Fig 3-19).

3. After lifting the front edge of the deck lid about one inch, operate the top control switch to complete the opening of the deck lid.

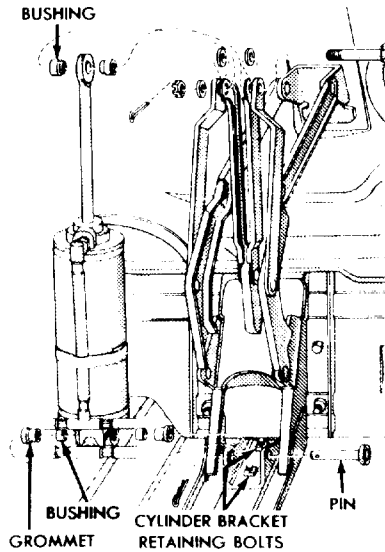
### OPENING DECK LID MANUALLY

1. Unlock the deck lid by operating the top control switch or by using the preceding method for manually unlocking the deck lid.

# 1961 – 1963 CONVERTIBLE TOP MANUAL



**FIG. 3-19—Deck Lid Lock**



**FIG. 3-20—Deck Lift Cylinder**

2. From underneath the lower back panel, remove the deck cylinder bracket retaining bolts from each cylinder (Fig. 3-20).

3. Complete the opening of the deck lid manually. If the deck lid locks have been released from the wheel housings, the nut and housing portion of the locks will remain attached to the deck lid.

## ERECTING TOP MANUALLY

If it becomes necessary to erect the top manually, proceed as follows:

1. Unlock and open the deck lid.
2. Energize both top solenoid valves, using suitable jumper wires and a 12-volt source. If either valve is inoperative, disconnect the hydraulic line(s) connected to the valve(s) so that there will be no hydraulic block in the top cylinders.
3. Manually erect the top.

## 3 ELECTRICAL CHECKS

Before attempting any trouble checks, read Section 1, "Top Operation." The following overall observations and checking procedures will assist in isolating the malfunctioning part.

### SUPPLY CIRCUIT

A continuity light attached between ground and various points in the supply circuit will identify an inoperative or defective component (Fig. 3-5). With the ignition switch in the ON or ACC position and the transmission selector in N or P, checks at the circuit breakers, neutral switch relay, actuator switch and relay power bus bar (in that order) will isolate the problem. Fig. 3-21 will assist in identifying the neutral switch relay terminals.

### SWITCH CIRCUITS

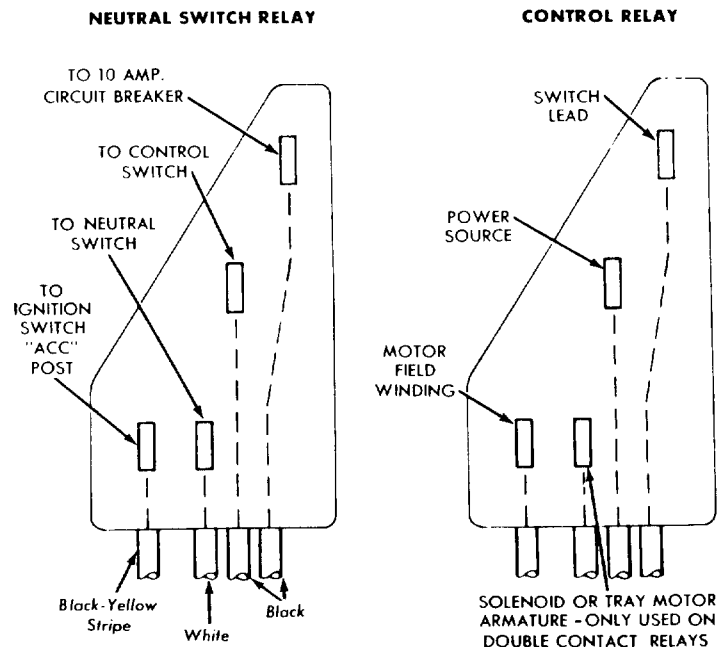
The switch circuits can be checked by by-passing the various components with a jumper wire. A continuity light cannot be used as the current draw required by the light will not allow the relay coils to energize. Figs. 3-3 through 3-17 should be referred to for identification of the wires. Fig. 3-21 will identify the control relay terminals.

Connecting the jumper wire between the relay bus bar and the relay coil terminal will by-pass the switch circuit. If the motor or solenoid

operates, the switch circuit can be checked to locate the inoperative or maladjusted switch, loose wire connector, or defective switch circuit wire. An audible "click" of the relay is another indication of switch circuit problems. If the component fails to operate and the relay is functional

(the relay "clicks"), the motor or solenoid circuits are at fault. Moving a jumper wire to the relay motor terminal will determine if the relay is at fault. Should the motor or solenoid still fail to function, the motor or solenoid should be checked.

When the deck lid is opened, all



**FIG. 3-21—Relay Wire Connector Identification**

# 1961 – 1963 CONVERTIBLE TOP MANUAL

switches are accessible for a direct check of their function. A malfunction of the top can be caused by a defective or improperly adjusted switch. A check for this condition should be made before making further tests. A switch can be checked by depressing the switch stem, if improperly adjusted, or by-passing the switch with a jumper wire directly at the switch contact terminals or wire connectors.

## MOTOR OR SOLENOID CIRCUITS

Application of a 12-volt power

source with a jumper wire directly to the motor or solenoid, or by-passing the motor ground circuit breaker, will isolate the cause of malfunction.

## SWITCH ADJUSTMENT OR FUNCTION CHECKS

An ammeter (100-Amp. scale) inserted in the motor feed circuit will aid in determining which of the electrical components is operating (both normally and abnormally). The ammeter should be connected between the main feed 50-amp. circuit breaker on the starter relay and the motor

supply lead (#8 gauge black wire) which supplies the control relay bus bars.

Should a switch be improperly adjusted and close the relay circuit for any functional cycle and yet not open the cycle just finishing, the ammeter reading will indicate the problem. Use Figs. 3-3 through 3-17 and the Electrical Component Current Draw Table, shown in Section 7 – Specifications, as a guide to the various components in use at each step of the top operation. The ammeter reading can be directly converted to a diagnosis of the problem.

## 4 MECHANICAL AND HYDRAULIC CHECKS

### MECHANICAL CHECKS

Improper top operation can be caused by bent or misaligned linkage, binding linkage pins, and/or broken pivot bushings. Should the electrical and hydraulic systems be functionally correct and unsatisfactory operation of the top persists, check and adjust or replace the mechanical components as required.

### HYDRAULIC CHECKS

Faulty hydraulic system operation can be caused by lack of fluid, leaks, air in the system, obstruction or kinks

in the hoses, or faulty operation of a cylinder or the pump.

### FLUID LEVEL CHECK

1. Erect the top.
2. Place absorbent cloths below the filler plug.
3. Remove the filler plug, and check the fluid level. It should be level with the bottom edge of the hole.
4. If the level is low, check the system for leaks, adding shock absorber or Type "A" automatic transmission fluid as necessary.

### LIFT CYLINDER OPERATION CHECK

Operate the top control switch and observe the operation of the lift cylinders for the following:

If the movement of the piston rods is sluggish or uneven, check the hoses from the pump to the cylinders for kinks.

If one piston rod moves more slowly than the other, the cylinder with the slower rod is defective and should be replaced.

If both rods move slowly, or do not move at all, disassemble and repair the pump.

## 5 TROUBLE DIAGNOSIS GUIDE

The following trouble diagnosis guides, when used in conjunction with the checking procedures detailed in Sections 3 and 4, will assist in determining the possible cause of any malfunction of the top mechanism. The possible causes are listed in the

order of their ease of checking to avoid unnecessary disassembly. The troubles listed for each subsequent part of the cycle are limited to those things which could occur only if the mechanism reaches the subject part of the cycle in a normal manner.

A battery which is not in a normal fully charged condition can affect top operation. Be sure of an adequate power supply before making extensive tests of the top circuits.

### TROUBLE DIAGNOSIS GUIDE

<b>DECK UNLOCK</b>	<b>NO UNLOCKING ACTION, NO NOISE</b> While holding the top control switch in the retract position, move the transmission control lever back and forth through the N position. If no audible click is heard from the neutral switch relay, the main 50-ampere circuit breaker, the switch 10-ampere circuit breaker, the neutral switch and the switch relay should be checked as detailed in	Section 3. If the deck lock mechanism begins to function normally, the neutral switch should be checked. An audible noise from the neutral switch relay without any action from the deck lock mechanism indicates that the neutral switch is functional. <b>NO UNLOCKING ACTION, NO NOISE—NEUTRAL SWITCH FUNCTIONAL</b> With the neutral switch relay op-
--------------------	---	---

# 1961 – 1963 CONVERTIBLE TOP MANUAL

## TROUBLE DIAGNOSIS GUIDE (Continued)

<p><b>DECK UNLOCK (Continued)</b></p>	<p>erating, move the top control switch to the opposite position to determine if the deck locks will ratchet. If deck locking occurs, check the following components by by-passing them with a jumper wire.</p> <p><b>A. Retract Cycle.</b> Check the top control switch, tray retract limit switch, right deck open limit switch, and the deck unlock relay.</p> <p><b>B. Erect Cycle.</b> Check the top control switch, top retract limit switch, left deck open limit switch, and the deck unlock relay.</p> <p><b>NO UNLOCKING ACTION, CONTROL RELAY CLICKS</b></p> <p>If a control relay functions, as determined by an audible click, the trouble may be in the tray retract limit switch, the deck lock motor, or motor ground circuit breaker. It will be necessary to manually unlock the deck lid, as detailed in Section 2, to gain access to the components.</p>	<p><b>NO UNLOCKING ACTION, LOCK MOTOR RUNNING</b></p> <p>When the lock motor operates and does not unlock the deck lid, the cause may be broken flexible drive cables or loose lock nuts. Only one side may be inoperative.</p> <p><b>NO UNLOCKING ACTION, DECK LID JUMPS OFF LOCKS</b></p> <p>A maladjusted deck lock limit switch will allow the hydraulic pump to apply pressure to the lift cylinders and cause a bind in the lock screw operation. Adjustment of the switch should correct the trouble.</p> <p><b>DECK UNLOCKS, TOP MOVES—RETRACT CYCLE</b></p> <p>Any movement of the top during deck unlocking indicates a malfunction of the tray erect limit switch.</p> <p><b>DECK UNLOCKS, TRAY BEGINS TO FOLD—ERECT CYCLE</b></p> <p>Any folding action of the tray during deck unlocking indicates a malfunction of the top erect limit switch.</p>
<p><b>DECK LOCK</b></p>	<p><b>SLOW LOCKING ACTION</b></p> <p>A slow, binding action of the lock screws indicates that the deck lid lift pump is operating. Move the top control switch to open the deck lid</p>	<p>and observe the movement of the deck lid as it unlocks. Should the deck lid pop off the lock nuts, the deck lock limit switch adjustment should be checked.</p>
<p><b>DECK OPEN</b></p>	<p><b>DECK UNLOCKS, BUT WILL NOT OPEN— DECK LIGHT OFF</b></p> <p>The deck light contacts of the deck lock limit switch will be closed at the same time as the contacts which control the deck open relay. Lifting up on the deck lid at the deck lock limit switch should allow the switch to move and open the deck lid. If the deck lid does not start to open, the switch may be at fault and by-passing the switch at the deck open relay will verify this condition.</p> <p><b>DECK UNLOCKS, BUT WILL NOT OPEN—DECK LIGHT ON</b></p> <p>If the deck light is on, the deck lock limit switch should be making contact to close the deck open relay circuit. By-passing the switch at the</p>	<p>relay will check the switch. Should the deck still be inoperative, by-pass the relay to check its performance.</p> <p>It will be necessary to manually open the deck lid, as detailed in Section 2, to test the motor and deck solenoid.</p> <p><b>DECK OPENS, ACTION NOT SMOOTH</b></p> <p>A jumpy or slow deck lid motion indicates trouble in the hydraulic system. Check the fluid level in the pump assembly. A low fluid level is an indication of possible leaks which should be corrected before replacing the fluid.</p> <p>Troubles in the deck lift cylinders will also be indicated by a jumpy motion of the deck lid.</p>

# 1961 – 1963 CONVERTIBLE TOP MANUAL

## TROUBLE DIAGNOSIS GUIDE (Continued)

<p><b>DECK CLOSE</b></p>	<p><b>DECK WILL NOT CLOSE—LOCK SCREWS NOT RUNNING</b></p> <p>Check the limit switch adjustment (top retract limit switch or retract cycle or tray retract limit switch on erect cycle) by depressing the switch by hand. If adjustment does not correct the trouble, check the switch contacts with a jumper wire.</p>	<p><b>DECK WILL NOT CLOSE—LOCK SCREWS RUNNING</b></p> <p>Check the deck close relay and the deck lock limit switch for malfunction with a jumper wire.</p> <p><b>DECK CLOSES—LOCK SCREWS NOT RUNNING</b></p> <p>Check the deck lock relay, deck lock motor, and lock motor circuit breaker.</p>
<p><b>TRAY ERECT</b></p>	<p><b>TRAY WILL NOT ERECT—DECK LOCK SCREWS RUNNING</b></p> <p>If the deck lift mechanism does not depress the right deck open limit switch, the deck lock screws and pump motor will still operate. If the correct action can be initiated by depressing the right deck open limit switch plunger, adjust the switch.</p> <p><b>TRAY WILL NOT ERECT—DECK LOCK SCREWS STOPPED</b></p> <p>If all action stops when the deck lid reaches the completely open position, the trouble may be in the right deck open limit switch, tray erect</p>	<p>limit switch, tray motor, or the tray motor ground circuit breaker. The switches can be by-passed by touching the proper terminals with a jumper wire (see the individual circuit diagrams in Section 1). Further testing of the tray erect relay, tray motor and motor ground circuit breaker can then be performed.</p> <p><b>TRAY ERECTS—DECK LOCK SCREWS CONTINUE RUNNING</b></p> <p>Adjust the right deck open limit switch to properly open the deck open relay terminals of the switch and stop the deck screws and pump motor.</p>
<p><b>TRAY RETRACT</b></p>	<p><b>TRAY WILL NOT RETRACT</b></p> <p>Check the adjustment of the top erect limit switch by depressing the switch plunger by hand. If the tray still does not move, check the top erect limit switch, tray retract limit switch, tray motor, and motor ground circuit breaker.</p>	<p><b>TRAY STOPS DURING RETRACTION</b></p> <p>An incorrectly adjusted top erect limit switch will allow the hydraulic-pump and solenoids to be energized during tray movements. This condition will overload the total circuit and open the main 50-ampere circuit breaker.</p>
<p><b>TOP MOVEMENT</b></p>	<p><b>TOP WILL NOT RETRACT</b></p> <p><b>Pump Motor Not Running.</b> When the top will not retract after the tray has extended, check the tray erect limit switch, top retract limit switch, top retract relay, and the pump motor. The tray erect limit switch may be maladjusted, and depressing the switch plunger should start the normal top operation. The tray motor, if stalled at the limit of tray travel,</p>	<p>may have opened the main 50-ampere circuit breaker. Further check of the tray erect limit switch and the top retract limit switch can be made at the switch terminals or connectors. The top retract relay can be checked by by-passing it with a jumper wire.</p> <p><b>Pump Motor Running.</b> A running pump motor indicates that the switch and relay circuits are functional. A</p>

# 1961 – 1963 CONVERTIBLE TOP MANUAL

## TROUBLE DIAGNOSIS GUIDE (Continued)

### TOP MOVEMENT (Continued)

check of the top solenoids should be made. Connecting the solenoid, feed wire momentarily should produce an audible noise as the valve opens and closes.

### TOP STOPS DURING RETRACTING

A stalled tray motor can open the motor supply 50 - ampere circuit breaker and stop the top movement. Check the tray erect limit switch to make certain that the tray motor stops at the end of the tray travel.

### TOP WILL NOT ERECT

**Pump Motor Not Running.** Check the left deck open limit switch, top erect limit switch, top erect relay, and the pump motor. The left deck

open limit switch may be maladjusted and depressing the switch plunger by hand should start the normal top operation. The checking of the other components can be made by bypassing each one with a jumper wire.

**Pump Motor Running.** Check the top solenoid valves to determine if the valves are opening as required. Connecting the solenoid feed wire momentarily should produce an audible noise as the valve opens and closes.

### TOP MOVEMENT NOT SMOOTH

If the top movement is not smooth, check the solenoid valves and top lift cylinders for malfunction. Also check for mechanical problems as detailed in Section 4.

## 6 ADJUSTMENTS

If the top is misaligned, corrections should not be made until after a check has been made for bent linkage.

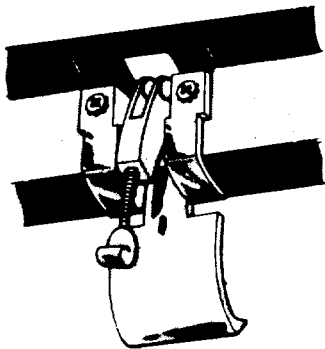


FIG. 3-22—Toggle Clamp

Before aligning the top, visually determine if the trouble results from top misalignment and/or window misalignment. It may be necessary to align both the top and the windows because of the relationship between the two. **ADJUSTMENTS OF THE DOOR AND QUARTER WINDOWS MUST BE CHECKED AND ANY NECESSARY CHANGES MADE BEFORE MAKING TOP ADJUSTMENTS. THESE WINDOWS MUST BE FULLY CLOSED TO INSURE PROPER ADJUSTMENT.**

There are 3 main adjustment areas for the top and the luggage compartment door: the rear rail area, the main pivot bracket area, and the luggage compartment door area.

### DOWEL ADJUSTMENT

The header bow dowels must be aligned with their striker plates in the header bow. After making any top adjustment, check the dowel alignment, and adjust if necessary. After removing the header bow weatherstrip, the dowels can be moved laterally by merely loosening the screws.

### TOGGLE CLAMP ADJUSTMENT

The toggle clamps that hold the header bow against the header can be adjusted to provide a good seal.

1. To determine which side is not sealing, check the weatherstrip between the header bow and the header. Both toggle clamps need not be adjusted unless necessary. (Fig. 3-22)

2. Release the toggle clamps, and thread the toggle hook in or out until adequate sealing pressure is applied at the header weatherstrip.

### REAR RAIL AREA ADJUSTMENTS SIDE RAIL SAG

If the side rail sags above the door glass, adjust as follows, using the top of the door glass and the bottom of the side rail as points for measurement.

1. Release the toggle clamps.
2. Adjust each front intermediate

side rail set screw flush with the end of the rail (Fig. 3-23).

3. Loosen the balance link adjustment bolts (Fig. 3-23) at each side of the car.

4. Lengthen or shorten the balance link (Fig. 3-23) to obtain a parallel condition between the front side rail, the front intermediate side rail, and the top of the door window frame.

5. Tighten the balance link adjustment bolts. **To eliminate a crowning condition, adjust the front intermediate side rail set screw (Fig. 3-23).**

### TOP STACK ADJUSTMENT

1. Stack the top.  
2. If the top stack needs vertical adjustment for clearance, loosen the balance link adjustment bolts shown in Fig. 3-23.

3. Move the balance link to get suitable stack height, and tighten the bolts.

4. Raise the top slowly, checking for fore-and-aft clearance at the rear of the linkage, and fasten the clamps.

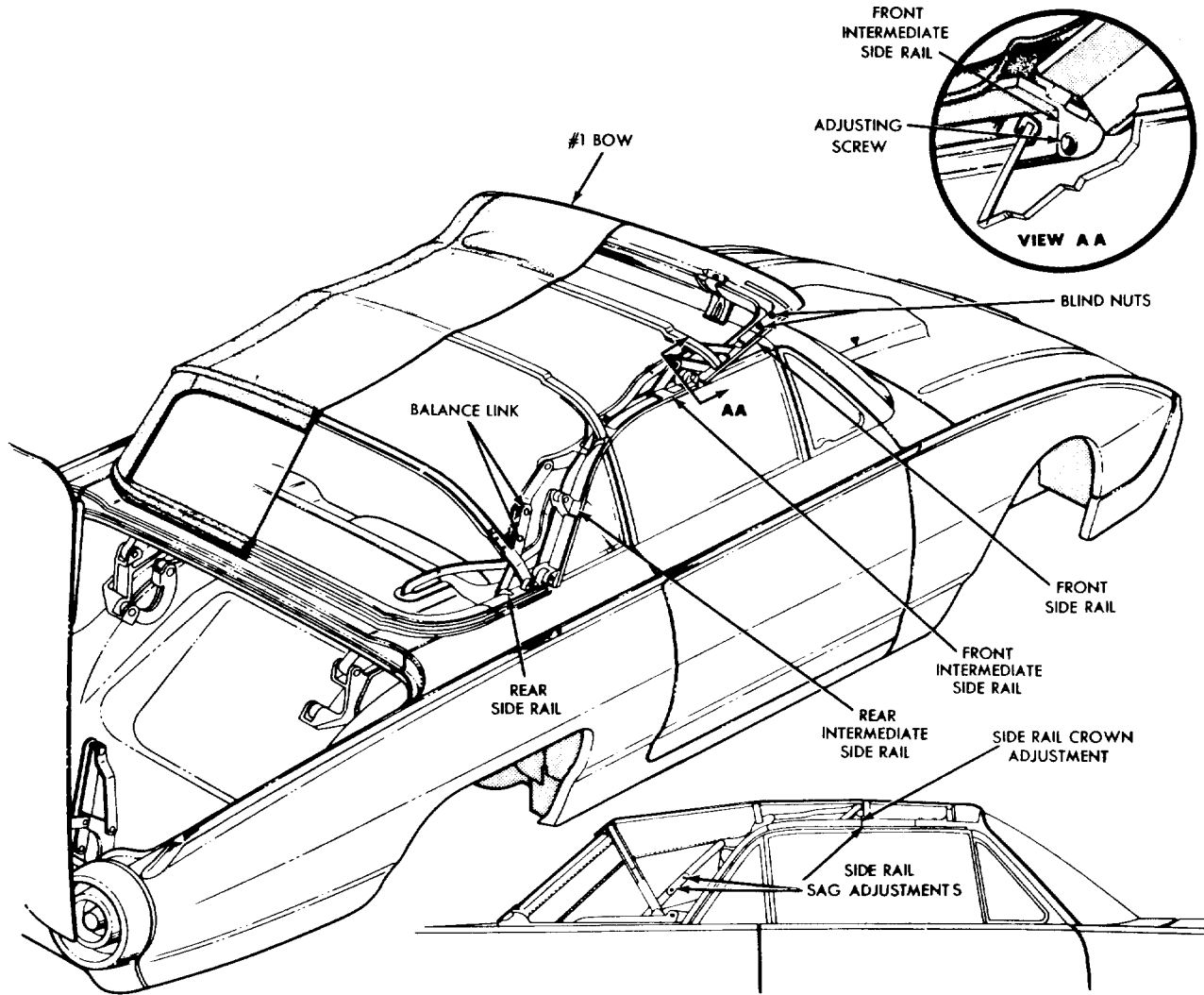
5. Check, and if necessary, adjust side rail sag.

### QUARTER WINDOW CLEARANCE

Loosen the bolts marked "A" in Fig. 3-24, and adjust the serrations to get a snug fit between the rear quarter window and the intermediate side rail. After making this adjustment, check the top sag and the top stack adjustments.



# 1961 – 1963 CONVERTIBLE TOP MANUAL



**FIG. 3-23—Top Linkage**

## MAIN PIVOT BRACKET AREA ADJUSTMENTS

The main pivot bracket and its support provide for shifting the entire top assembly fore and aft, vertically and laterally. **Because movement of the main pivot bracket will disturb several other adjustments, move this bracket only after other adjustments have failed to solve a specific problem.**

### FORE-AND-AFT ADJUSTMENT

This adjustment moves the top forward or rearward for a fit between the rear edge of the package tray and the body opening. This adjustment may also be necessary for proper mating of the header dowels and their strikers.

1. Loosen the main pivot support bracket retaining bolts (Fig. 3-24).

2. Move the top fore or aft to get a fit between the body and the rear edge of the package tray or to mate the header dowels and their strikers.

3. Tighten the bolts, and check other adjustments.

### VERTICAL ADJUSTMENT

This adjustment moves the top for a fit between the rear edge of the package tray and the body opening.

1. Loosen the main pivot support bracket retaining bolts (Fig. 3-24).

2. Move the top up or down until the rear edge of the package tray is level with the body opening. There must be clearance for window movement.

3. Tighten the bolts, and check other adjustments.

### LATERAL ADJUSTMENT

To obtain a centered fit between

the side rail weatherstrips and the top edges of the door glasses and the quarter windows, the top may be moved sideways as follows:

1. At both main pivot brackets loosen the adjustment bolts retaining the main pivot support bracket to the floor pan (Fig. 3-24).

2. Move the top to either side to get a centered fit at the side rail weatherstrips.

3. Tighten the bolts, and check other adjustments.

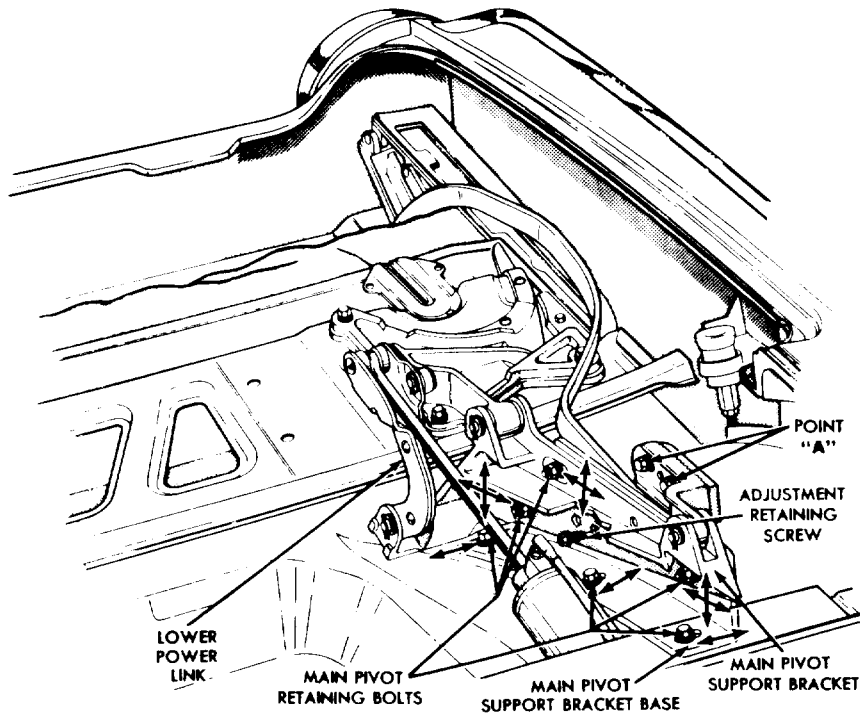
The side rail weatherstrip can also be adjusted after loosening the weatherstrip retaining nuts.

### DECK LID AREA ADJUSTMENTS

#### FORE-AND-AFT ADJUSTMENT OF THE FINISH PANEL

Adjust the space between the

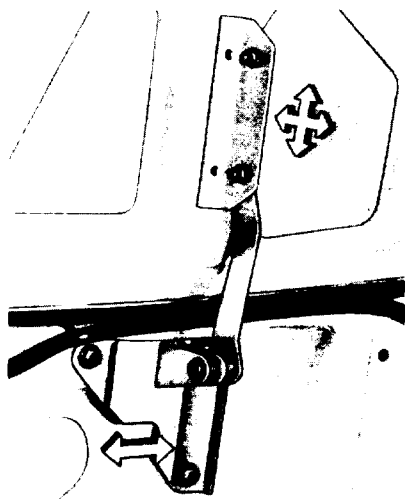
# 1961 – 1963 CONVERTIBLE TOP MANUAL



**FIG. 3-24—Main Pivot Support Bracket**

edges of the finish panel and the deck lid and/or the body as follows:

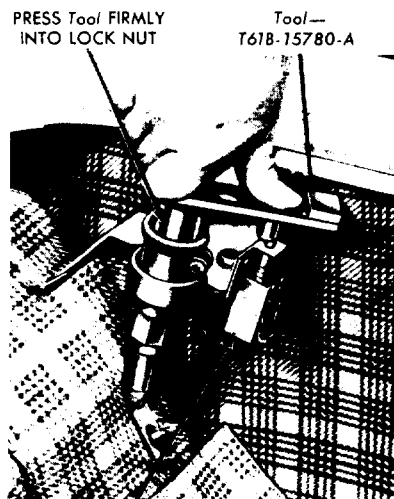
1. Slightly loosen the screws that attach the finish panel hinge to the deck lid (Fig. 3-25).
2. Shift the finish panel so that there is equal space between the edges of the finish panel and the deck lid.
3. Tighten the retaining screws securely.



**FIG. 3-25—Deck Lid Finish Panel Adjustments**

## UP-AND-DOWN ADJUSTMENT OF THE FINISH PANEL

1. Slightly loosen the hinge arm retaining bolts at the finish panel (Fig. 3-25).
2. Raise or lower the finish panel until the finish panel is flush with the surface of the deck lid. Make certain that the weatherstrip seal is not disturbed.



**FIG. 3-26—Deck Lock Switch Adjustment**

3. Tighten the retaining bolts securely.

## LATERAL OR FORE-AND-AFT DECK LID ADJUSTMENT

1. Slightly loosen the hinge support bracket retaining bolts at the lower back panel.
2. Shift the deck lid either laterally, fore, or aft, in the enlarged holes, until there is equal clearance along the sides and rear edges of the deck lid.
3. Tighten the hinge support bracket retaining bolts securely.

## SWITCH ADJUSTMENTS

The locations of the various limit switches are shown in Fig. 3-2.

### TOP RETRACT LIMIT SWITCH

1. Adjust the top retract limit switch to the midpoint of the adjustment slots.
2. Lower the top to the full down position.
3. Readjust the top retract limit switch as necessary. A slight adjustment of the switch will either delay or advance the deck lid close operation.

### DECK LOCK SWITCH ADJUSTMENT

1. Use tool T61B-15780-A (Fig. 3-26).
2. Pull apart the switch quick-disconnect and attach a continuity test light to the wires that go to the bottom set of contact terminals.
3. Press the tool firmly into the lock nut. Adjust the switch upward until the test light attached to the bottom set of contacts just goes on. Tighten the switch mounting screws and remove the tool.

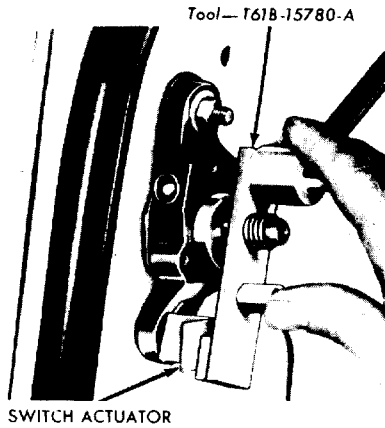
### DECK LOCK SWITCH ACTUATOR ADJUSTMENT

1. Use tool T61B-15780-A (Fig. 3-27).
2. Position the tool over the lock screw (Fig. 3-27). Press the tool firmly against the lock screw shoulder.
3. Pivot the tool to line up with the switch actuator. Bend the actuator until it just touches the raised portion of the tool.
4. If the operation of the deck lid discloses that the deck lid pops up when opening, the switch actuator may be bent very slightly away from the deck lid.

### TOP ERECT LIMIT SWITCH

1. Raise the top to the full up position.

# 1961 – 1963 CONVERTIBLE TOP MANUAL



**FIG. 3-27—Deck Lock Actuator Adjustment**

2. Place an 0.060 inch shim between the end of the switch shaft and the actuator.

3. Adjust the switch actuator until the switch is firmly to the end of its travel against the shim. Tighten the switch actuator mounting screws, and remove the shim.

### TRAY ERECT LIMIT SWITCH

1. Extend the package tray on the deck lid to the end of its travel.

2. Place an 0.060 inch shim between the end of the switch shaft and the switch actuator on the tray support arm.

3. Adjust the switch actuator until the switch is firmly to the end of its travel against the shim. Tighten the switch actuator mounting screws, and remove the shim.

### TRAY RETRACT LIMIT SWITCH

1. Retract the package tray on the deck lid to the end of its design travel.

2. Place an 0.060 inch shim between the end of the switch shaft and the switch actuator on the tray support arm.

3. Adjust the switch actuator until the switch is firmly to the end of its travel against the shim. Tighten the switch actuator mounting screws, and remove the shim.

### DECK OPEN LIMIT SWITCHES

Both right and left deck open switches are adjusted as follows:

1. Raise the deck lid to the full open position.

2. Place a 0.060 inch shim between the end of the switch shaft and the actuator.

3. Adjust the actuator so that the switch shaft is fully depressed. Tighten the actuator mounting screws and remove the shim.

### DECK LOCK ADJUSTMENT

For an adequate seal, the deck lock screw assembly must be adjusted to engage properly with the lock nut assembly.

### DECK LOCK SCREW ASSEMBLY

Loosen the 2 nuts retaining the lock screw assembly to the deck lid and adjust the assembly fore or aft to align with the lock nut assembly.

### DECK LOCK NUT HOUSING SUPPORT

Loosen the 2 screws retaining the lock nut housing support to the quarter panel and adjust the support side to side to align with the lock screw (Fig. 3-19).

### DECK LOCK NUT SET SCREW

Loosen the set screw retaining the lock nut in the housing assembly and turn the lock nut in or out to the required position. Turn the lock nut, using tool T57P-53510-A (Fig. 3-19), so that the lock screw will ratchet and the deck lid weatherstrip is compressed.

**Do not attempt any trial locking of the deck unless the set screw is properly tightened.**

### DECK LOCK NUT HOUSING HEIGHT

The foot of the lock nut housing assembly may be adjusted up or down from the wheelhouse to insure the correct positioning of the O-ring. The O-ring should be centrally located in the housing support (Fig. 3-19).

## 7 SPECIFICATIONS

### CIRCUIT BREAKER CHART

Circuit	Protective Device	Location
Convertible Top Control		
Relay Feed	50-amp. Circuit Breaker	On Starter Relay
Switch Feed	10-amp. Circuit Breaker	Fuse Panel R. H. Cowl
Package Tray Motor	15-amp. Circuit Breaker	On Deck Lid
Deck Lock Motor	15-amp. Circuit Breaker	On Deck Lid

### ELECTRICAL COMPONENT CURRENT DRAW

Component	Amperes*
Pump Motor—Normal	54-60
—By-passing	42-50
Tray Motor—Normal	18-32
—No Load	14-18
—Stalled	45-58
Lock Motor—Normal	16-20
—No Load	12-15
—Stalled	32-40
Solenoids—Each	10

\*100-amp. scale ammeter connected between 50-amp. circuit breaker and relay feed wire.

### TOP MAXIMUM AMPERAGE DRAW

Operation	Amperes*
Top Retract Cycle	
Deck Lid Unlock	20
Deck Lid Open	63
Package Tray Extend	32
Top Retract	65
Deck Lid Close	60
Deck Lid Lock	22
Top Erect Cycle	
Deck Lid Unlock	20
Deck Lid Open	63
Top Erect	65
Package Tray Fold	20
Deck Lid Close	60
Deck Lid Lock	22

\*While making amperage draw tests, a battery reading of 11.5-12.5 volts must be maintained. Momentary peak currents above specifications are not significant.