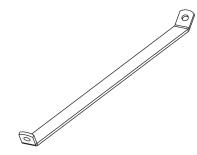
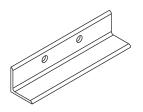
# INSTRUCTIONS, FLATBED, STAKEBED & VAN (BODIES) INSTALLATION KIT (C2 STAKEBED LIFTGATES)

#### KIT P/N 295048-01



REINFORCEMENT STRAP P/N 295047-01 QTY. 2

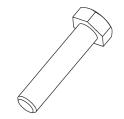


SHIPPING LEG (ANGLE) P/N 289543-02 QTY. 2

## **INCLUDES BOLT KIT, P/N 295046-01**



HEX CAP SCREW 1/2"-13 X 1" LG, GR5 P/N 900781-01 QTY. 8



HEX CAP SCREW 1/2"-13 X 2-1/2" LG, GR5 P/N 900781-07 QTY. 4



LOCK WASHER, 1/2" P/N 902011-6 QTY. 2

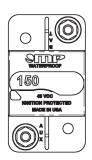


FLAT WASHER, 1/2" P/N 903443-11 QTY. 2



LOCK NUT, 1/2"-13 P/N 040066 QTY. 8 **NOTE:** C2 Liftgates are shipped with the following parts kits for installing the Liftgate. The parts are stored in the main frame housing.

#### C2 LIFTGATE SMALL PARTS & MANUAL KIT P/N 289484-01



CIRCUIT BREAKER, 150 AMP P/N 907207-01 QTY. 1



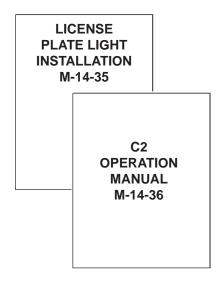
**LICENSE PLATE** LIGHT P/N 907210-01 QTY. 1



PADLOCK (2 KEYS) P/N 908221-01 QTY. 1



NYLON PLUG, 1/2" P/N 908081-01 QTY. 5



LUG, 4GA **COPPER, 3/8"** P/N 907278-01 QTY. 4



**BUTT CONNECTOR,** 14-16 AWG P/N 030491 QTY. 2



1/4"-20 X 5/8" LG. P/N 900705-02 QTY. 2



SELF-TAPPING SCREW, PAN HEAD SCREW, #10-24 X 3/4" LG. P/N 900007-6 QTY. 2



DROP-AWAY PIN P/N 289483-01 QTY. 1



**BREATHER PLUG, 3/8" NPT** P/N 295049 QTY. 1



**GROMMET NUT, 1/4"** P/N 901015-03 QTY. 2



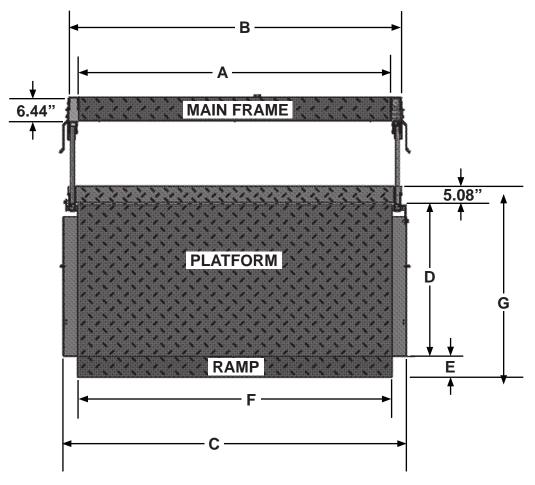
NUT, #10-24 P/N 903163-02 QTY. 2



LOCK NUT, 3/8"-16 P/N 901016-4 QTY. 1



#### **C2 LIFTGATE CLEARANCE DIMENSIONS**

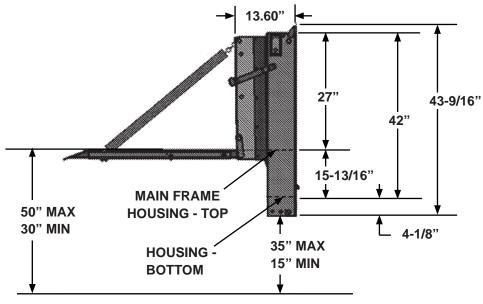


**C2 STAKEBED LIFTGATE WITH PLATFORM UNFOLDED, TOP VIEW** FIG. 3-1

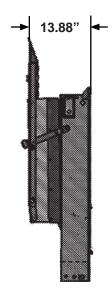
MODEL	PART NUMBER	A OPENING BETWEEN COLUMNS	B MAIN FRAME OVERALL WIDTH	C PLATFORM OVERALL WIDTH	D PLATFORM DEPTH	E RAMP DEPTH	F LOADABLE PLATFORM WIDTH	G LOADABLE PLATFORM DEPTH
C2	295299-01	86-1/2"	92"	95-1/4"	30"	6"	87-1/8"	35"
	295299-02	86-1/2"	92"	95-1/4"	36"	6"	87-1/8"	41"
	295299-03	86-1/2"	92"	95-1/4"	31-1/2"	6-7/32"	87-1/8"	37-11/16"
	295299-04	86-1/2"	92"	95-1/4"	36-1/2"	6-7/32"	87-1/8"	41-7/16"

**C2 PICKUP LIFTGATE DIMENSIONS TABLE 3-1** 

### **C2 LIFTGATE CLEARANCE DIMENSIONS - Continued**



**C2 PICKUP LIFTGATE WITH PLATFORM UNFOLDED, SIDE VIEW** FIG. 4-1



**C2 PICKUP LIFTGATE WITH PLATFORM** STOWED, SIDE VIEW FIG. 4-2

# **MAXON®**

**NOTE:** Installer is responsible for ensuring vehicle meets Federal, State, and Local standards and regulations.

#### **BODY STRENGTH**

### **A** WARNING

Consult vehicle body manufacturer for vehicle body strength data. Make sure the forces created by the Liftgate are within the limits prescribed by the vehicle body manufacturer.

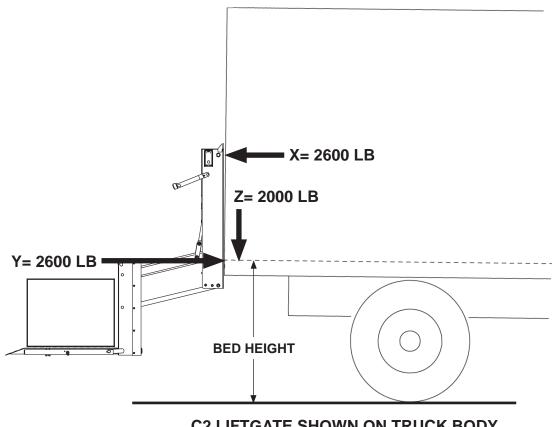
NOTE: Maximum operating bed height for C2 mounted on flatbed or van truck body is 50" (Unloaded). Minimum bed height is 30" (Loaded). Do not install this liftgate on bodies equipped with rear-mounted swing-open doors.

The C2 is a body-mounted liftgate that put forces on the side walls of truck bodies (FIG. 5-1). For correct installation, truck bodies must be strong enough to withstand the tension, compression and shear forces shown in FIG. 5-1.

X= Tension on each sidewall

Y= Compression on each sidewall

Z= Shear on each sidewall



**C2 LIFTGATE SHOWN ON TRUCK BODY** FIG. 5-1

#### PREPARING LIFTGATE

- 1. Measure the truck truck body (FIG. 6-1).
  - Overall width
  - Door opening
  - Maximum bed height (truck unloaded)
- 2. Compare measurements with the dimensions for your liftgate shown on Sheets 3 and 4.
- 3. Remove Liftgate installation kit shipped with Liftgate (Sheet 1). Then, verify the correct parts were shipped with liftgate.

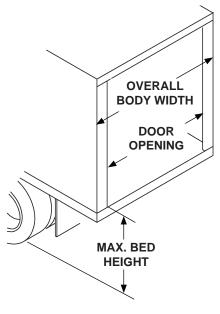
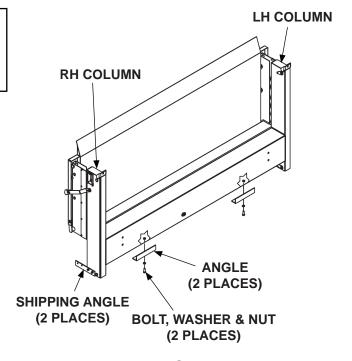


FIG. 6-1

- NOTE: Select the bolt holes, under main frame housing, that put the angles in best position for mounting to frame rails on the truck.
- **4.** Bolt the shipping angles (Kit items), to the bottom of the main frame housing (FIG. **6-2)**. Use the 1/2"-13 x 1" long bolts (Kit items) with mounting holes on the bottom of the main frame houing. Put the angles in best position for mounting on the truck frame rails.



**BOLTING ANGLES TO BOTTOM** OF MAIN FRAME FIG. 6-2

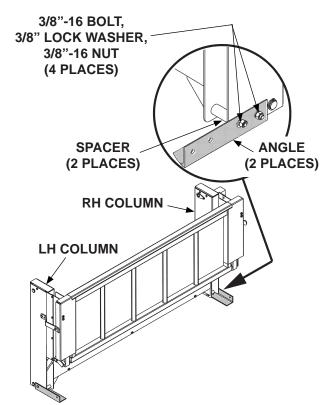


#### **PREPARING LIFTGATE - Continued**

# **A** CAUTION

Liftgate will not stand upright without the shipping angles. Before removing the angles, make sure Liftgate is supported with forklift or pallet jack. Injury & property damage could result if Liftgate falls over.

5. Support Liftgate on shipping pallet with forklift or pallet jack. Then, unbolt shipping angle from each column on the Liftgate (FIG. 7-1). Save shipping angles to use for mounting brackets.



REMOVING SHIPPING ANGLES BOLTED TO COLUMNS OF C2 LIFTGATE FIG. 7-1

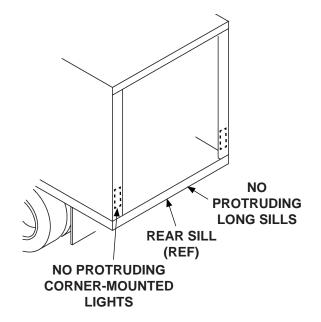
#### PREPARE TRUCK

**NOTE:** Liftgate cannot be fitted to truck bodies equipped with swing-open doors and wrap-around hinges.

**NOTE:** Optional Iftgate-mounted lights kits are available if body-mounted lights have to be removed.

Ensure there are no obstructions on the rear of the truck frame and truck body (FIG. 8-1).

- Remove corner-mounted lights, that protrude (not flush) from truck body.
- If long sill protrudes past the rear sill, cut off the protruding length of long sill.
- If truck is equipped with a liftgate, remove the old liftgate.



TRUCK BODY WITH NO OBSTRUCTIONS & NO LIFTGATE ON THE REAR OPENING FIG. 8-1

#### POSITION LIFTGATE FABRICATE LOWER MOUNTS FOR LIFTGATE

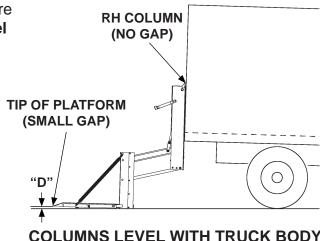
# **MAXON®**

**LIFT CORPORATION** Sht. 9 of 18 DSG# **M-14-34** Rev. - Date: 10/05/15

#### POSITIONING LIFTGATE ON TRUCK BODY

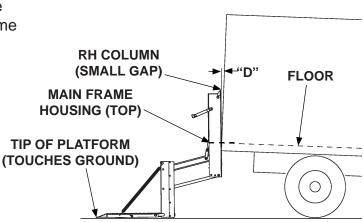
**NOTE:** Ensure vehicle is parked on level ground and parking brake is set before installing liftgate.

- **1.** While mounting Liftgate on vehicle body, ensure Liftgate is positioned so platform will land **level** to the ground.
  - If mounting position is incorrect (FIG. 9-1), tip of platform may not touch the ground ground.
  - If mounting position is correct (FIG. 9-2), tip of platform will touch the ground when platform rests on the ground. There may be a small gap be tween top of the columns and truck body.



COLUMNS LEVEL WITH TRUCK BODY (INCORRECT) FIG. 9-1

2. Center Liftgate on the rear opening in the vehicle body. Ensure top of the main frame housing is flush with floor of the vehicle body (FIG. 9-2).

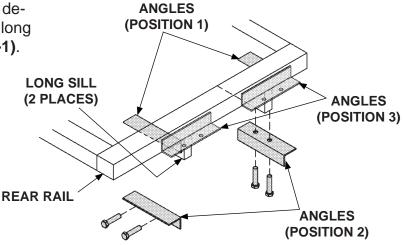


PLATFORM LEVEL WITH THE GROUND (CORRECT) FIG. 9-2

#### **INSTALL LIFTGATE - LOWER MOUNTS**

**NOTE:** Ensure the 2 loose mounting angles are butted against the rear rail of the truck body.

1. Clamp 2 loose mounting angles in desired position on bottom or side of long sills at rear of truck body. (FIG. 10-1).



- 2. Bolt (Kit items) or weld each of a mounting angle to each of the long sills (FIG. 10-1). Then, weld each of the 2 mounting angles on the long sills, to the mounting angles on the bottom of the liftgate main frame housing.
- POSSIBLE POSITIONS FOR MOUNTING ANGLES AT REAR OF TRUCK BODY FIG. 10-1
- 3. Then, weld each of the 2 mounting angles on the long sills (FIG. 10-1), to the mounting angles on the bottom of the liftgate main frame housing.
- 4. Ensure liftgate is level as shown in FIG. 9-2. If levelled correctly, tip of platform will touch the ground and there may be a small gap between the top of each column and the truck body (FIG. 9-2).
- 5. Check the rear of the main frame housing on the liftgate. Ensure the electrical cable strain relief is not obstructed. Electrical power cable for liftgate must be pulled out from main frame through the strain relief.
- **6.** When lower mounts are bolted or welded in place, and liftgate is levelled correctly, continue by installing the upper mounts.

#### **INSTALL LIFTGATE - UPPER MOUNTS**

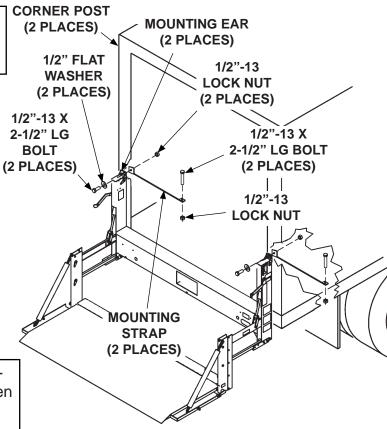
**NOTE:** Refer to Sheet 12 for installtion instructions for stake or flat bed body.

- **1.** Ensure liftgate is level as shown in **FIG. 9-2**.
- 2. Use mounting ear (FIG. 11-2), on top of RH & LH columns, as a template to drill hole for 1/2"-13 bolt, through the RH and LH body corner posts (FIG. 11-1).
- 3. Insert 1/2"-13 x 2-1/2" long bolt with flat washer (Kit items) through each mounting ear (FIG. 11-2) and body corner post (FIG. 11-1).

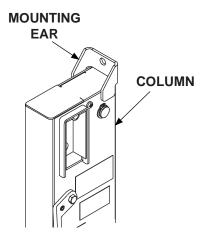
**NOTE:** If the liftgate needs to be leveled, bolt a spacer(s) between each column mounting ear and truck body.

NOTE: If mounting straps will not fit inside the body, reinforce the RH and LH body corner posts where liftgate mounting ears bolt to the body.

- 4. On the inside of each body corner post, use 1/2"-13 lock nut (Kit item) to secure top of mounting strap (Kit item) to corner post (FIG. 11-1). Position the bottom of each strap to the floor.
- **5.** Use bottom hole of the strap, as a template to drill hole for 1/2"-13 bolt, through the floor of the truck body **(FIG. 11-1)**.
- **6.** Bolt the bottom of each strap to the floor of the truck body with 1/2"-13 bolt and 1/2"-13 lock nut (Kit items) **(FIG. 11-1)**.



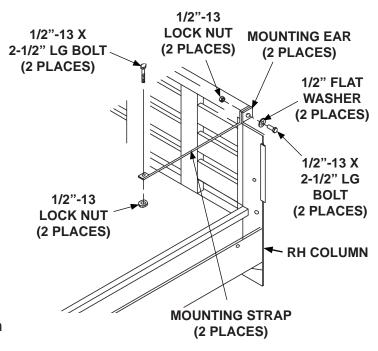
BOLTING ON UPPER MOUNTS (VAN TRUCK BODY SHOWN) FIG. 11-1



MOUNTING EAR (RH COLUMN SHOWN) FIG. 11-2

#### **INSTALL LIFTGATE - UPPER MOUNTS - Continued**

- 1. Ensure liftgate is level as shown in FIG. 9-2.
- 2. Insert 1/2"-13 x 2-1/2" long bolt with flat washer (Kit items) through mounting ear (FIG. 12-1) on top of RH and LH columns.
- 3. On the back of each column, use 1/2"-13 lock nut (Kit item) to secure top of mounting strap (Kit item) to corner post (FIG. 12-1). Position the bottom of each strap to the floor.
- **4.** Use bottom hole of the strap, as a template to drill hole for 1/2"-13 bolt, through the floor of the truck body (**FIG. 12-1**).
- **5.** Bolt the bottom of each strap to the floor of the truck body with 1/2"-13 bolt and 1/2"-13 lock nut (Kit items) **(FIG. 12-1)**.



BOLTING ON UPPER MOUNTS (STAKE/FLAT BED SHOWN) FIG. 12-1

#### PREPARE LIFTGATE FOR WIRING

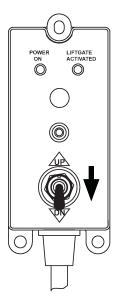
# CAUTION

Do not use a battery charger for connecting power to Liftgate power cables.

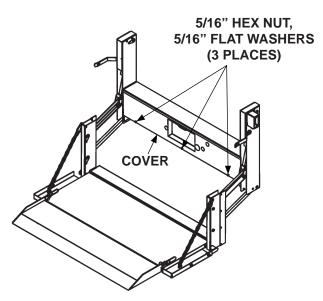
- 1. Connect power from a 12 volt truck battery to the Liftgate power cables extending from the back of main frame housing.
- 2. Refer to operating instructions, in C2
  Operation Manual, to unfold platform and activate the Liftgate.

NOTE: With the POWER ON and
LIFTGATE ACTIVATED lights
on, the Liftgate can be raised
or lowered. If the Liftgate is not
used for 90 seconds, the control
will automatically deactivate.

- **3.** Use the control switch to lower **(DN)** the platform to the ground **(FIG. 13-1)**.
- **4.** Unbolt and remove main frame housing cover **(FIG. 13-2)**.
- Remove the small parts and manual kit from the housing. Refer to Sheet
   for contents of the kits.



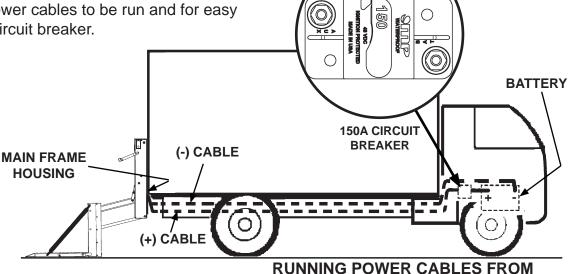
USING CONTROL SWITCH TO LOWER LIFTGATE FIG. 13-1



REMOVING HOUSING COVER FROM C2 LIFTGATE FIG. 13-2

#### **ROUTE POWER CABLES**

Install circuit breaker (FIG. 14-1) inside the engine compartment near truck battery (+) terminal and away from moving parts. Allow enough room for power cables to be run and for easy access to circuit breaker.

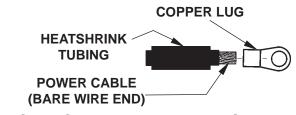


2. Pull the (+) and (-) power cables through the cord grip on back of main frame housing. Leave about 2" of slack, for power cables, inside main frame housing.

FIG. 14-1

LIFTGATE TO BATTERY

- Route power cables along truck frame to truck battery (FIG. 14-1). Pull extra cable beyond the battery terminals. Then, separate positive (+) cable from negative (-) cable.
- 4. Cut positive (+) cable to the length required to reach the AUX terminal of the circuit breaker (FIG. 14-1), without putting strain on the connection. Install copper lug (Kit item) (FIGS. 14-2 and 14-3). Then, connect to AUX terminal on 150A circuit breaker.
- 5. Cut remaining positive (+) cable long enough to reach from the circuit breaker BAT terminal to the positive (+) battery terminal (FIG. 14-1) without putting strain on the connection. Install copper lugs (Kit item) on both ends of cable (FIGS. 14-2 and 14-3). Then, connect cable to BAT terminal on 150A circuit breaker and positive (+) terminal on battery.



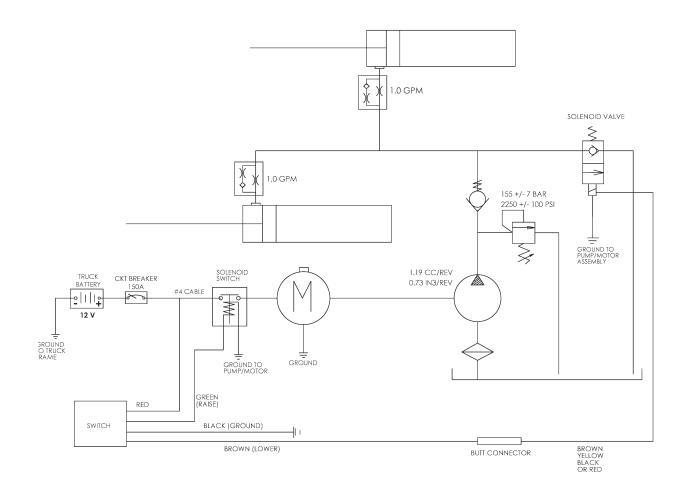
PLACING COPPER LUG & HEATSHRINK TUBING ON POWER CABLE FIG. 14-2



TYPICAL POWER CABLE WITH COPPER LUG INSTALLED FIG. 14-3

6. Cut negative (-) cable to length required to reach negative (-) battery terminal without putting strain on the connection. Install copper lug (Kit item) (FIGS. 14-2 and 14-3). Then, connect cable to negative (-) terminal on battery.

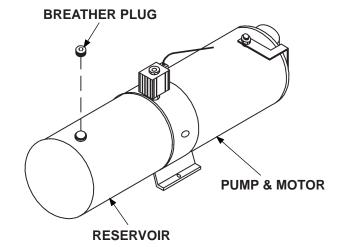




**C2 PICKUP LIFTGATE HYDRAULIC & ELECTRICAL SYSTEMS DIAGRAM** FIG. 15-1

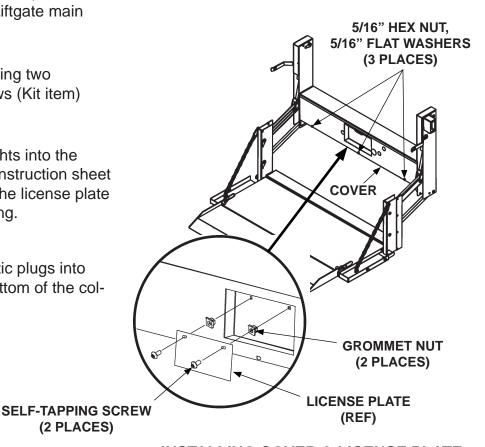
#### COMPLETE LIFTGATE INSTALLATION

**1.** Remove the solid plug from the pump reservoir (FIG. 16-1). Install breather plug (Kit item) in pump reservoir.



- 2. Bolt on main frame cover (FIG. 16-2).
- 3. Install the two square plastic grommet nuts (Kit item), for the license plate, into the square holes on the Liftgate main frame cover (FIG. 16-2).
- **4.** Install the license plate using two 1/4"-20 self-tapping screws (Kit item) (FIG. 16-2).
- 5. Install the license plate lights into the holes provided. Refer to instruction sheet M-14-35. Then, connect the license plate lights to the vehicle's wiring.
- 6. Install the 3/8" round plastic plugs into the empty holes in the bottom of the columns.

INSTALLING VENT PLUG ON PUMP RESERVOIR FIG. 16-1



**INSTALLING COVER & LICENSE PLATE** (C2 LIFTGATE SHOWN) FIG. 16-2

7. If previously removed, reinstall spare tire.

(2 PLACES)

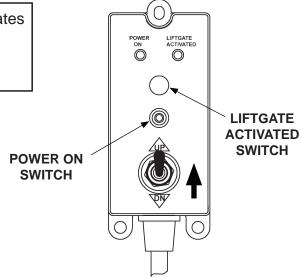
#### **TEST OPERATION OF LIFTGATE**

## **A** WARNING

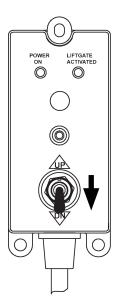
Keep all foreign objects out of the Liftgate mainframe and away from pinch points at all times when operating Liftgate.

**NOTE:** The **LIFTGATE ACTIVATED** LED illuminates when Liftgate power is on. Control switch should deactivate after 90 seconds of not being used.

- Check operation of control switch for proper operation by pressing POWER ON button once to activate. Next, press POWER ON button again to deactivate Liftgate power. Then, press the POWER ON button twice to reset low voltage (FIG. 17-1).
- 2. Press the LIFTGATE ACTIVATED switch within 1 second to activate the timer (FIG. 21-1).
- 3. Raise (UP) and lower (DN) the unloaded platform (FIGS. 17-1 and 17-2) on a flat surface. Check for proper operating speed and alignment with the ground.
- **4.** Load the platform with the rated capacity and measure the time to **RAISE** the platform (**FIG. 17-1**). The platform should raise approximately 2" to 3" per second.
- **5.** Examine the platform for any downward creep.
- **6.** Measure the time to **LOWER** the platform still loaded **(FIG. 17-2)**. The load should descend approximately 7" to 9" per second.
- 7. Remove the load from the platform and examine the Liftgate and vehicle for hydraulic oil leaks, loose wiring, and any other problems.
- **8.** Reinstall the main frame housing cover. Then, close and latch platform.



CHECKING OPERATION OF CONTROL SWITCH AND RAISING PLATFORM FIG. 17-1



USING CONTROL SWITCH TO LOWER PLATFORM FIG. 17-2



### **TEST OPERATION OF LIFTGATE - Continued**

9. Lock the latch on LH side or RH side through the hole in the latch pin (FIG. 18-1).

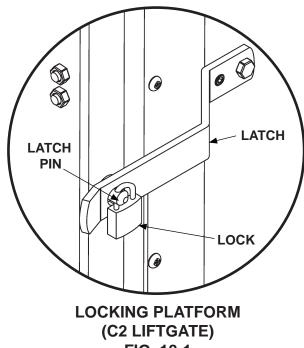


FIG. 18-1