

# OPERATOR MANUAL



# LABRIE AUTOMIZER

Right-Hand™ Arm Edition





## **FOREWORD**

Here is the Operator Manual for the Labrie Automizer Right-Hand™ unit. We sincerely hope that you will find it easy to use.

We have designed it in a way that will allow you to easily make it available to drivers, mechanics, and to parts department personnel.

Any time that you have a problem with a Labrie unit, you should contact your distributor first. He should be able to provide you with the proper help required (parts or technical advice).

### **FIRST THINGS FIRST:**

**DO NOT FORGET TO COMPLETE THE OWNER REGISTRATION FORM AND TO SEND IT TO LABRIE EQUIPMENT, MAKING SURE TO INDICATE THE “IN SERVICE” DATE. THIS DATE WILL BE USED TO START THE WARRANTY PERIOD. OTHERWISE, THE DATE OF DELIVERY FROM THE FACTORY WILL BE USED.**



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## AUTOMIZER RIGHT-HAND™

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## 1.0 INTRODUCTION

### 1.1 OBJECTIVE

The objective of this manual is to provide, to the end user, the essential information on the operation and maintenance requirements for the Automizer™.

The Automizer™ is an automated side loading refuse truck operated by only one person. After many years of experience with side loading units, Labrie has developed the Automizer™. A unit that will achieve excellent performance and reliability with a simpler but rugged construction.

The Operator Manual and general safety instructions introduce the operator to different operating methods of the vehicle as well as the safety precautions to be taken. By the end of reading this manual, the operator should be able to perform all necessary tasks required to be done with the equipment. **IT IS TO BE COMPLETELY UNDERSTOOD BY THE OPERATOR BEFORE HE STARTS WORKING WITH THE AUTOMIZER™ SIDE LOADING GARBAGE TRUCK. ENSURE THAT THE SAFETY REQUIREMENTS ARE STRONGLY EMPHASIZED.**

## 1.2 USEFUL ADDRESS AND PHONE NUMBERS

### Labrie Customer Support Center

Parts, Service and Warranty  
(during business hours)

Technical Support Service  
(24 hours)

1-800-231-2771

54 Park Place (Upper)  
Appleton, WI 54914

**Web Site:** [www.labriegroup.com](http://www.labriegroup.com)


**E-mail:** [sales@labriegroup.com](mailto:sales@labriegroup.com)

The whole information in this manual was up to date at the time of publication. Labrie reserves itself the right to change text and illustration without notice. For further references, this manual should be kept inside the cab.




## 2.0 SAFETY AND OPERATIONAL PRECAUTIONS


DANGER, WARNING, CAUTION notations appear throughout this manual and on labels on and inside of the vehicle.


**DANGER**

The word **DANGER** precedes information, which indicates an imminently hazardous situation, which if not avoided, **WILL** result in death or serious injury of the user or others.


**WARNING**

The word **WARNING** precedes information, which indicates a potentially hazardous situation, which if not avoided, **COULD** result in personal injury or death of the user or others.


**CAUTION**

The word **CAUTION** precedes information, which indicates a potentially hazardous situation or unsafe practice, which if not avoided, **MAY** result in minor to moderate injury to user or damage to the equipment.

The word **NOTE** also appears in this manual and precedes information, which is vital to the proper operation and maintenance of the vehicle equipment.

## 2.1 GENERAL PRECAUTIONS

In spite of our efforts to build a vehicle that is as safe as possible, the operator's safety certainly depends on the precautionary measures taken while operating the vehicle. If in doubt, question your supervisor. Supervisors or Maintenance Department personnel with questions should contact the Labrie Service Center.

It is the employer's responsibility to be assured that their employees are qualified and capable of operating this equipment.

THE FOLLOWING IS GENERAL SAFETY AND OPERATIONAL PRECAUTIONS, WHICH SHOULD BE ADHERED TO BY OPERATORS (AND/OR MAINTENANCE PERSONNEL) AT ALL TIMES.

1. Do not operate this vehicle before having read and completely understood this manual and the safety labels on the vehicle. Maintenance personnel must also read and understand the Parts and Service Manual that applies to this vehicle (and the maintenance related information in this manual). In case of any doubt, see your supervisor for clarification.
2. The Automizer™ units equipped with the Right-Hand™ arm are primarily designed to be operated by only one person.
3. The operator of the Right-Hand™ arm must be in full and clear view of the operation of the lifting arm at all times. The operator must be able to stop the motion of the arm at any time, in order to prevent injury to surrounding people, damage to property or to the lifting arm itself.

4. The operator of the Right-Hand™ arm shall make sure that any people or obstructions are far away from the arm before moving it. **Failure to do so may result in unit and / or property damages, personal injury or even death.**

For additional information, please contact **Labrie Customer Support Center** at **1-800-231-2771**.

5. At the beginning of every working day, inspect the body, the packing system and any system that might endanger the safety of the public and/or the operator.
6. Verify that the mirrors, brakes, accelerator pedal, steering wheel and turn signals are in good working order.
7. Do not operate this equipment if there are any signs of damage or incomplete repairs.
8. Report any doubts and any equipment safety service requirements to your supervisor.
9. Keep both hands on the steering wheel at all times for better control.
10. Do not leave the driving position until the vehicle is completely stopped and the parking brake applied.
11. When the vehicle is parked, the parking brake must be applied.

12. For any work, cleaning or inspecting being done between the body and the chassis, the body safety prop **MUST** be used. The vehicle must also be on level ground.

13. Watch and be sure that there are no people at the rear of the vehicle when opening and closing the tailgate(s) and/ or when raising the body.



**DANGER**

14. Do not get into the hopper compartment or try to repair anything behind the packer when it is working or when the hydraulic pump is still running. Personnel authorized to get into the hopper **MUST** first complete the lockout/tagout procedures required by the employer.
15. **NEVER** stand underneath a raised arm/ grabber, since no arm cylinder is equipped with a holding valve. Should a hydraulic component break, such as an hydraulic hose, failure to stay away from the arm may result in personal injury or even death.

## 2.2 GENERAL RESPONSIBILITIES OF THE EMPLOYER

(Ref. Norm ANSI Z 245.1 1999).

It is the employer's responsibility to be familiar with and ensure that operation is in accordance with safety requirements and codes including all applicable regulations, including the Occupational Safety and Health Act (OSHA) and the American National Standards Institute (ANSI).

It is also the employer's responsibility to properly maintain all mobile equipment to meet provincial/state and federal safety standards. The employer also has the following responsibilities:

1. Supply adequate instructions and training for the safe use of the vehicle before assigning the employee to such equipment.
2. The employer must keep the vehicle maintained and properly adjusted to meet the manufacturer's standards and recommendations. If in doubt, contact the manufacturer or any authorized representative.
3. The employer must keep a record of any breakdowns or malfunctions of the vehicle, and keep records of all inspections and maintenance.
4. Any breaks or malfunctions that can affect the safe usage of the vehicle must be repaired before the vehicle is to be used again.
5. Meet the appropriate lighting requirements for working at night (if permitted).

6. Regularly, accompany the operator of the vehicle and take measures to insure the smooth and safe operation of the vehicle. Respect all safety measures.

7. Make sure that the backup alarm works properly when the vehicle is in reverse, while body is rising up or while the tailgate is opening.

## 2.3 GENERAL RESPONSIBILITIES OF THE EMPLOYEE

1. The employee must enforce all of the safety requirements for mobile equipment supplied by the employer.
2. Equipment is to be operated only after having received instructions and training in accordance to chapter 3.0 .
3. The employee has the responsibility to report any damages or malfunctions of the vehicle to his employer or his supervisor without any delay. The employer will then take the necessary measures before the re-operation of the vehicle to insure its safe operation.
4. The employee must make sure that there is nobody near the vehicle before activating any of the controls and must be prepared to stop anything in case of danger.

## 2.4 LOCKOUT/TAGOUT PROCEDURE

It is the employer's responsibility to establish and apply a "Lockout / Tagout Procedure" for any inspection, repairs or maintenance being done on the vehicle, whether it be on the road or in the employer's establishment.

### SUGGESTED LOCKOUT/TAGOUT PROCEDURE

1. Apply parking brake.
2. Shut off engine.
3. Remove keys from ignition switch.
4. Put keys in a safe controlled area.
5. Tape ignition switch keyhole.
6. Turn off master switch (Figure #2.3) or disconnect batteries.
7. Put an "Off Service" tag on steering wheel(s).
8. Put an "Off-Service" sign in windshield.
9. Block any system that could move by inertia with a proper easy to see safety prop (open tailgate, lifted body, arm, etc.).
10. Move all control handles to release any residual pressure in the system.
11. Chock wheels on both sides.



FIGURE #2.3

## 2.5 LABELS AND LOGOS

### 2.5.1 LABELS ON BODY

#### DANGER, WARNING, AND CAUTION LABELS

See the following figures for the location and content of all safety labels. Labels on the vehicle may change depending on what special feature was installed on the vehicle and the type of body and cab configuration. Refer to Labrie Parts and Service Department for replacement.

- 1) Notes and Warning on these labels must be obeyed at all times.
- 2) These labels must be in place at all times. Report any damaged or missing labels to the proper authority at once.
- 3) Replacement of safety labels can be ordered, free of charge, from Labrie Equipment Ltd., for the duration of the guarantee.

**NOTE: LABELS MAY CHANGE DEPENDING ON WHAT SPECIAL FEATURES WERE INSTALLED ON THE VEHICLE.**

2.5.1 LABELS ON BODY (Continued)

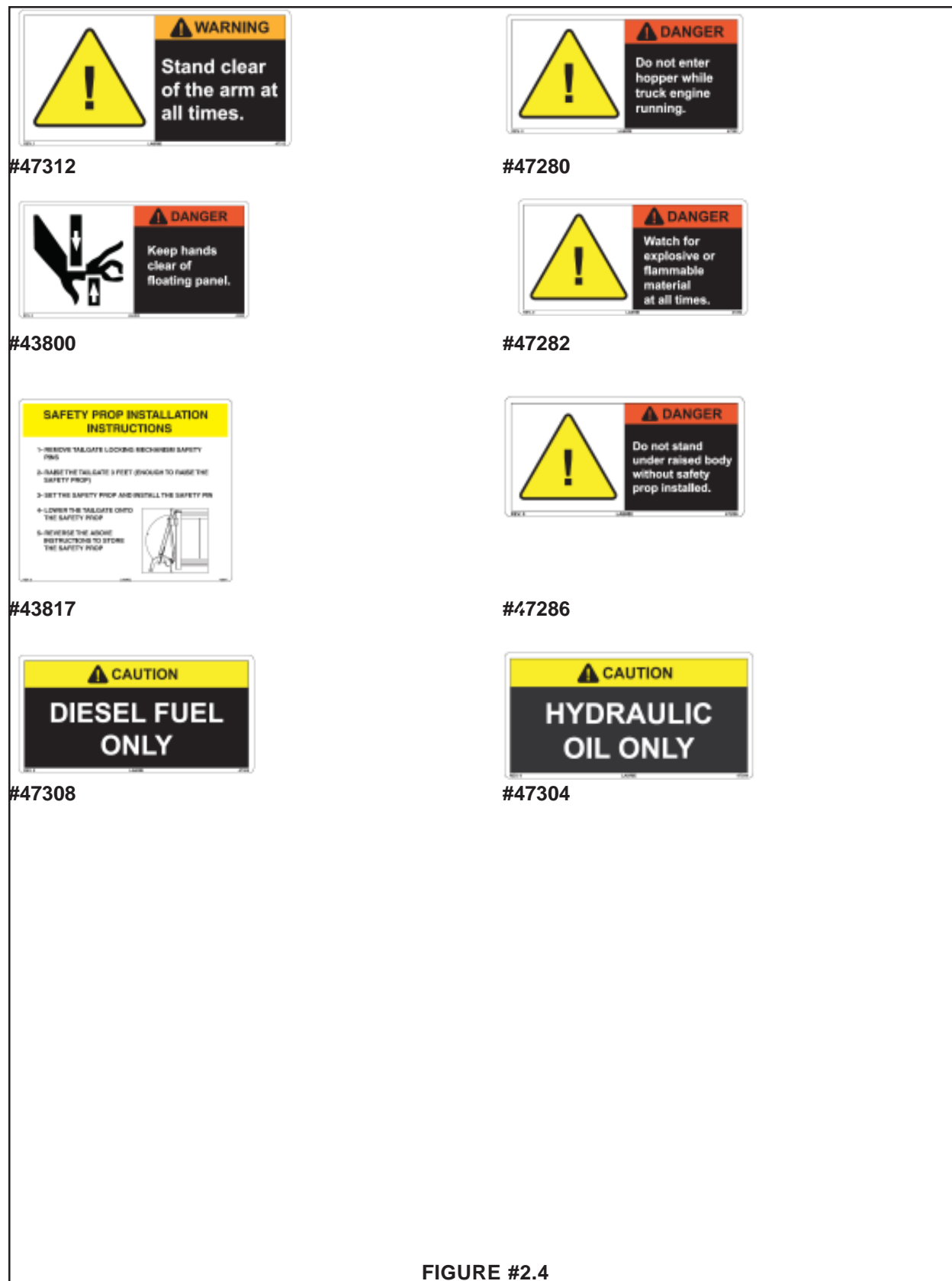


FIGURE #2.4

## 2.5.1 LABELS ON BODY (Continued)





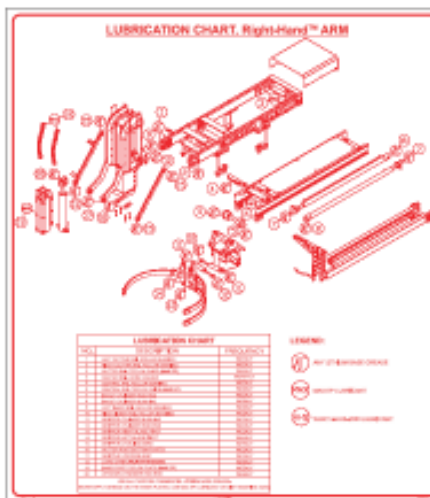
2.5.1 LABELS ON BODY (Continued)



#47424



#47554



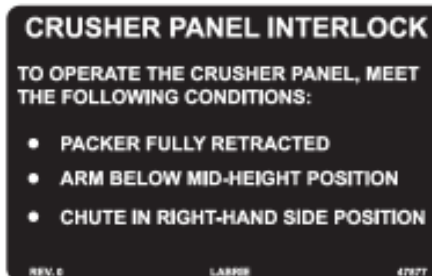
#47702



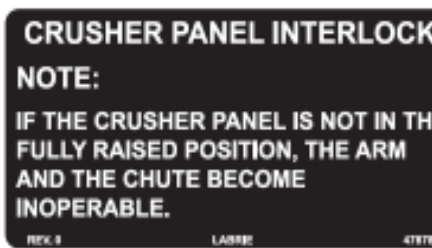
#47562



#47564



#47877 (optional, Co-mingle)



#47878 (optional)

FIGURE #2.4 (continued)

2.5.2 LABELS ON TAILGATE

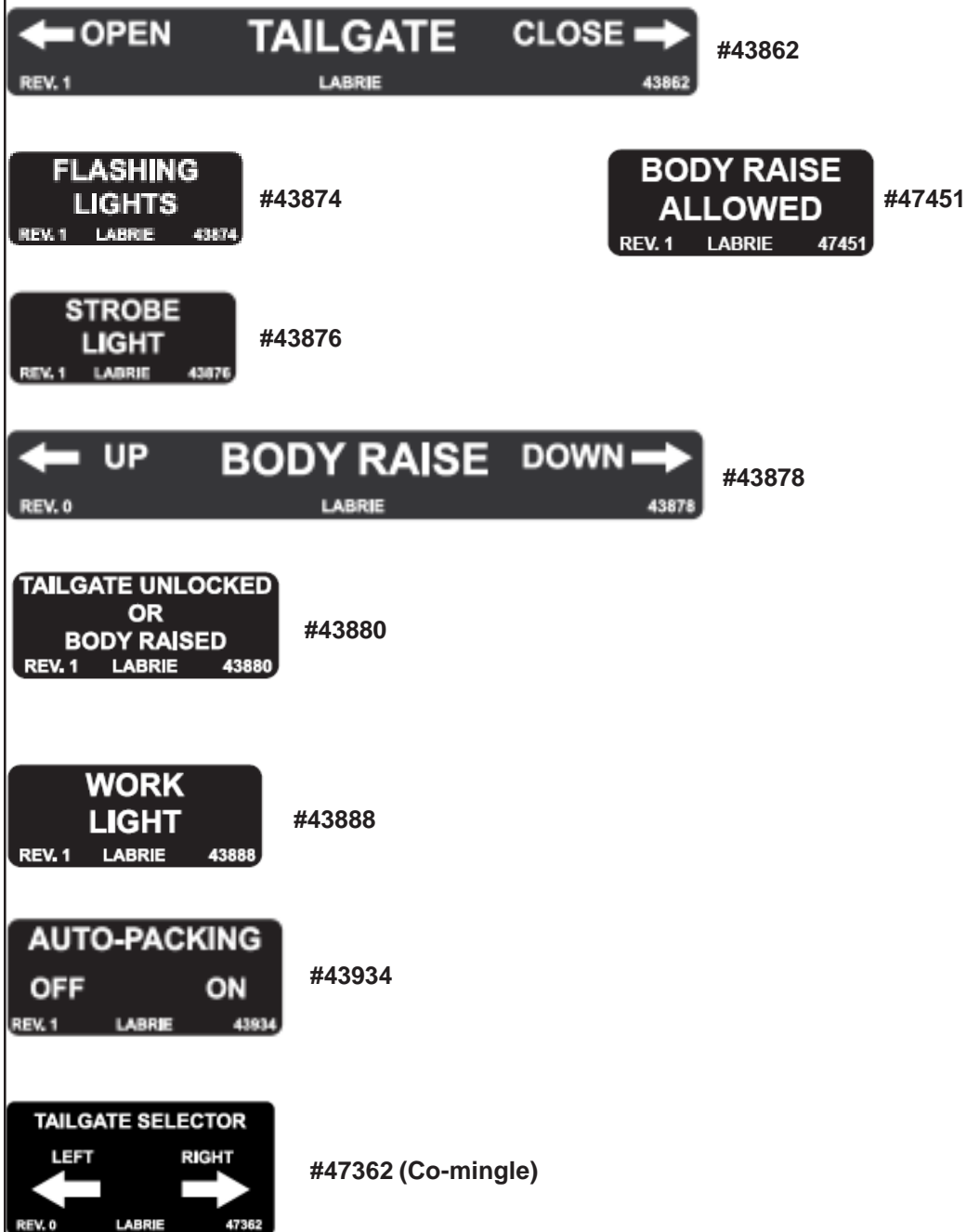


FIGURE #2.5

## 2.5.3 ILLUSTRATION OF LABELS ON CAB CONSOLE

**NOTE:**

LABELS ON CAB CONSOLE MAY CHANGE DEPENDING ON WHAT SPECIAL FEATURES WERE INSTALLED ON THE VEHICLE.



2.5.4 ILLUSTRATION OF LABELS INSIDE CAB

**NOTE:**

THE LABELS INSIDE CAB MAY CHANGE DEPENDING ON WHAT TYPE OF CHASSIS AND/OR SPECIAL FEATURES INSTALLED ON THE VEHICLE.



#47412



#43912



#47440



#43764



#43882



#43798

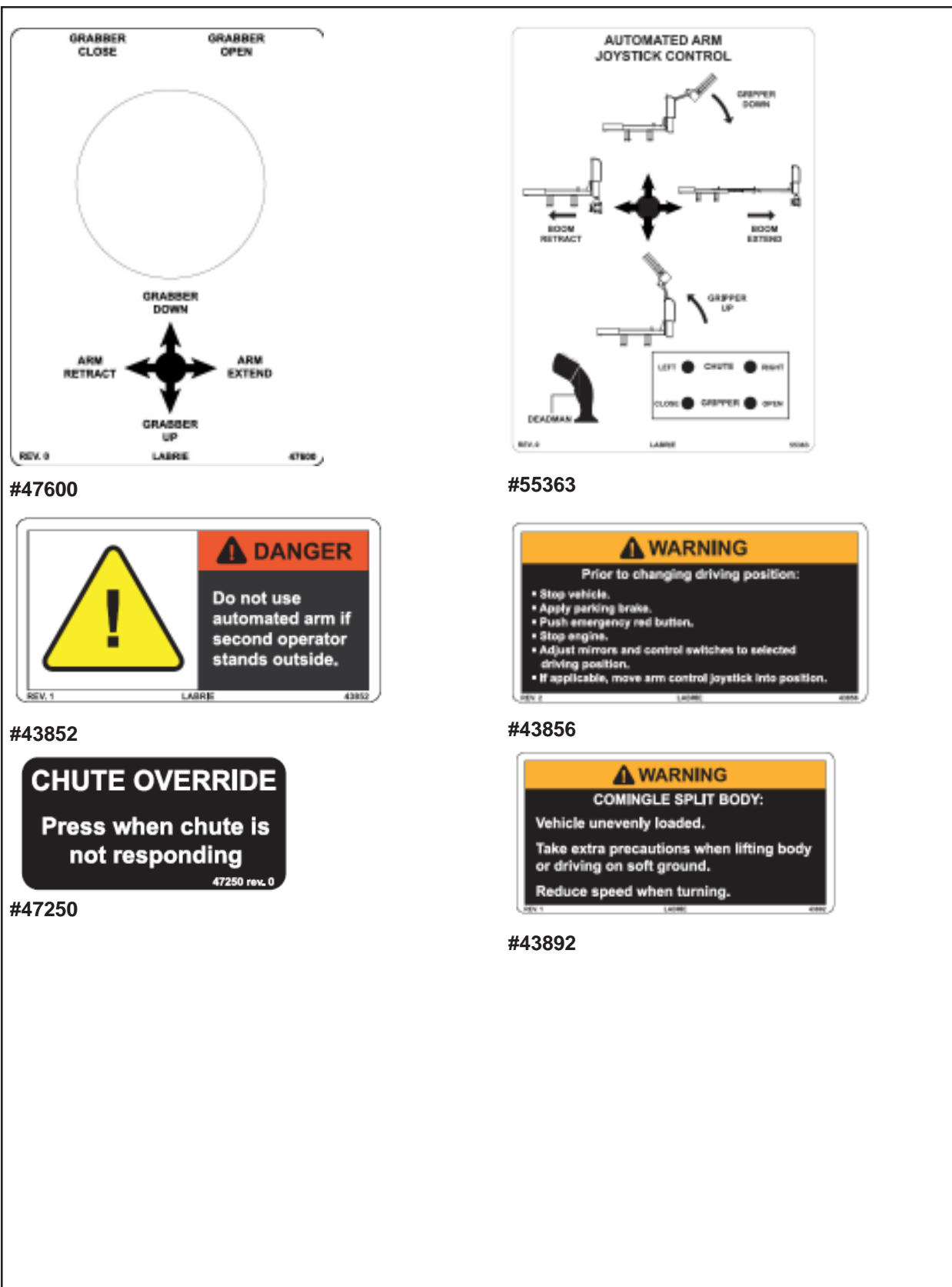


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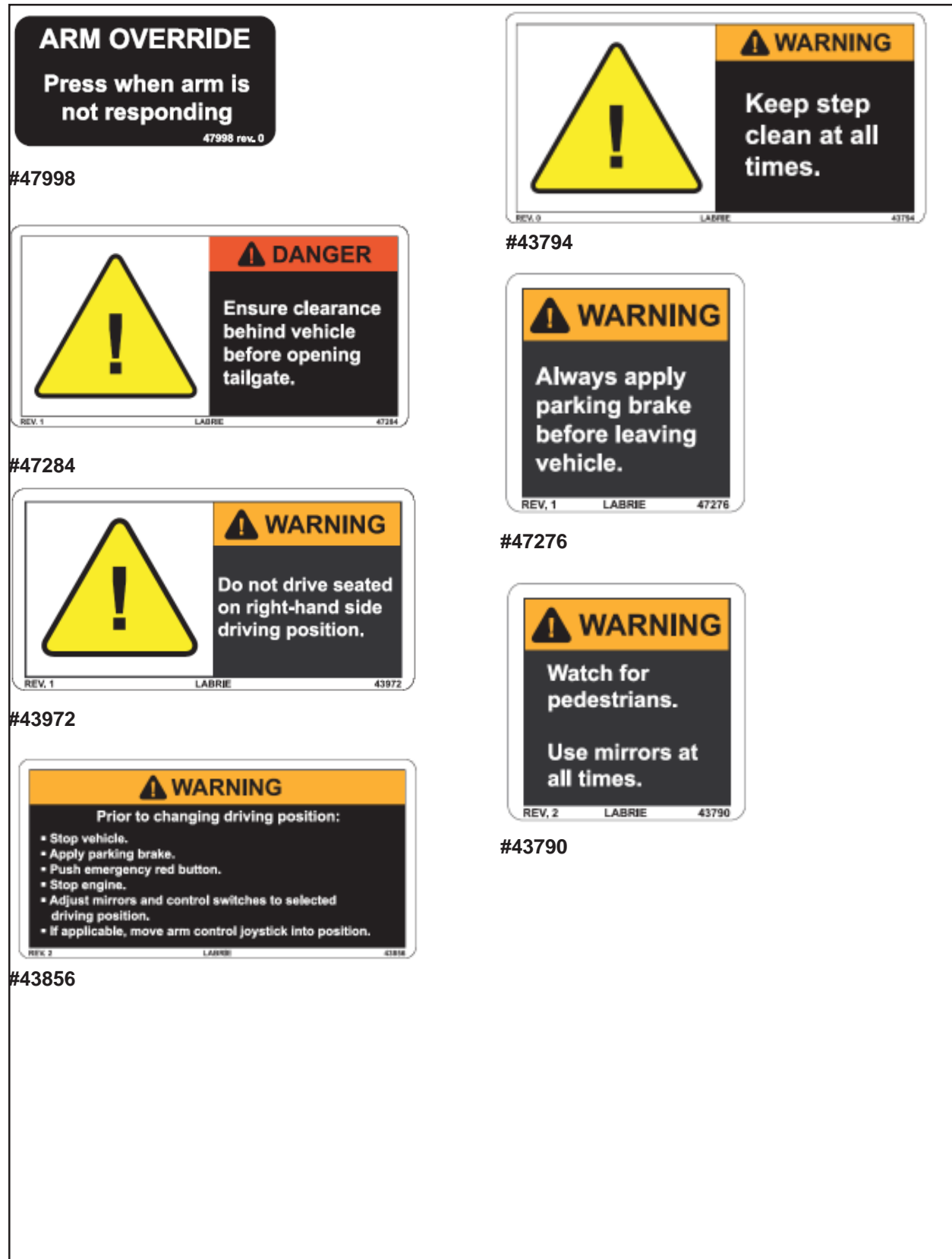


#43816

2.5.4 ILLUSTRATION OF LABELS INSIDE CAB (Continued)



2.5.4 ILLUSTRATION OF LABELS INSIDE CAB (Continued)





### 3.0 OPERATOR MANUAL

#### 3.1 GENERAL SAFETY PRECAUTIONS

The Right-Hand™ automated arm is efficient in its operation but if it is operated incorrectly, it may result in serious damage to property, equipment and even cause injury or death.

For general safety precautions, refer to [chapter 2.0](#) of the Operator Manual.

Never operate machinery wearing jewelry or loose clothing, which may catch on moving parts. Always wear safety equipment as specified by your employer.

**NEVER OPERATE MACHINERY UNDER THE INFLUENCE OF ALCOHOL OR DRUGS.**

Any doubts about the function of a control, refer to [section 3.2](#). “Cab Controls Review”

It is the employer’s responsibility to ensure that the employees are qualified on the equipment’s operations and safety measures before working with this equipment.

It is the employee’s responsibility to apply proper procedures and safety measures at all times.

Nobody should operate the Automizer™ without having read and completely understood the Operator Manual.

Never start, move or operate the equipment without ensuring that the surrounding area is clear of any person or object preventing safe movement or operation.



#### WARNING

**DO NOT OPERATE OR SERVICE THE LIFTING ARM UNTIL YOU HAVE BEEN FULLY TRAINED, AND HAVE READ AND UNDERSTOOD THE ENTIRE OPERATION AND MAINTENANCE MANUAL SUPPLIED WITH THIS EQUIPMENT.**



#### WARNING

**MAKE SURE THAT ALL PEOPLE OR ANY OBSTRUCTIONS ARE SUFFICIENTLY CLEARED FROM THE AUTOMATED ARM BEFORE MOVING IT. FAILURE TO DO SO MAY RESULT IN UNIT AND/OR PROPERTY DAMAGES, PERSONAL INJURY OR DEATH.**



#### WARNING

**MAKE SURE THERE IS ENOUGH CLEARANCE BETWEEN RAISED CONTAINER AND OVERHEAD POWER LINES. THE AUTOMATED ARM OR THE CONTAINER MUST NOT COME IN DIRECT CONTACT WITH THE ELECTRICAL CABLES FOR THE POWER TO GO THROUGH THE UNIT. IF THE UNIT COMES IN CONTACT WITH A POWER LINE, STAY IN THE CAB AND KEEP AWAY FROM ANY METAL PARTS.**



### 3.1 GENERAL SAFETY PRECAUTIONS (cont'd)



#### **DANGER**

NEVER DRIVE THIS VEHICLE IF THE LIFTING ARM IS NOT FULLY RETRACTED ALONGSIDE THE TRUCK. THE UNIT WOULD BE TOO HIGH AND/OR TOO WIDE. FAILURE TO RETRACT THE ARM WILL RESULT IN UNIT AND/OR PROPERTY DAMAGES, PERSONAL INJURY OR DEATH. FLASHING LIGHTS (RED) ON DASHBOARD WILL COME ON, AS THE ARM IS EXTENDING.



#### **WARNING**

REMOVE ALL CONTROL LEVERS FROM THE PROPORTIONAL VALVE. THESE CONTROL LEVERS SHOULD BE USED FOR MAINTENANCE PURPOSES ONLY.



#### **WARNING**

PRIOR TO CHANGING DRIVING POSITION, STOP THE VEHICLE, APPLY PARKING BRAKE, PUSH EMERGENCY RED BUTTON AND STOP THE ENGINE. PROPERLY ADJUST MIRRORS AND SET DRIVING CONTROL SWITCHES INCLUDING ARM CONTROL JOYSTICK (IF APPLICABLE) TO THE NEW DRIVING POSITION BEFORE STARTING THE ENGINE. THIS WILL ENSURE THAT THE AUTOMATED ARM IS COMPLETELY INOPERATIVE.

#### 3.1.1 PRIOR TO START UP

Before starting the vehicle, ensure that no system will engage and start to operate as you are starting the engine. All electrical controls should be turned off and the hydraulic pump disengaged.

The main valve on the hydraulic tank should be open (Figure #3.5). See [section 3.1.8](#) "Engaging the Hydraulic System".

Once the engine is started, wait until the air pressure is **above** 70 PSI; the audible alarm will stop as the air pressure reaches 70 PSI. You can then operate the equipment.

### 3.1.2 FIRE PROTECTION

It is suggested that one ABC type fire extinguisher be easily accessible outside of the truck just behind the cab area (Figure #3.1).



FIGURE #3.1

### 3.1.3 CLEANLINESS

Cleanliness is part of safety. Ensure that the equipment works properly by removing any compacted garbage in the packer area after each body unloading.

Clean all the truck's lights and safety stickers, so you and the surrounding pedestrians and vehicles will be aware of the truck at all times. Use the hoe to rake dirt in cleaning traps (Figure #3.2) on each side of the vehicle.

See [section 3.5](#) "End of the Day Cleaning and Inspection".

If the truck is equipped with cameras without lens protector, make sure that all lenses are clean.



FIGURE #3.2

### 3.1.4 SHUTDOWN

If the truck is parked for an extended period of time, follow the chassis manufacturer's shutdown procedure as well as maintenance requirements and ensure the following procedure:

#### SHUTDOWN PROCEDURE

1. Park on a hard level ground.
2. Put the parking brake ON.
3. Ensure all moving parts are in stored position (tailgate(s), arm, body, packer, etc.).
4. Disengage hydraulic.
5. Turn OFF electrical.
6. Turn engine OFF.
7. Turn OFF battery master switch (if equipped).

### 3.1.5 DRIVING THE VEHICLE

The Automizer™ side loader may be equipped with two (2) steering wheels, one on the left and the other one on the right. The right-hand side steering wheel is to make waste collection easier by a single person. It is provided along with an accelerator pedal, a foot brake pedal, turn signal control and a horn. Before using the right-hand side driving position make sure that all controls are properly set.

### 3.1.6 DRIVING SPEED

If the cab of the vehicle is modified by LABRIE (right-hand side driving position) for door-to-door waste collection, the maximum speed limit while driving at the right-hand side is, if permitted, 20 mph. (32 km/h). Therefore, it is recommended to drive on the left-hand side for any long distance driving (if the truck is equipped with a left-hand side driving position).

**NOTE:** If the cab is modified by the chassis manufacturer, the operator **MUST** follow the recommendations of the chassis manufacturer.



#### WARNING

**IF THE VEHICLE HAS TO BE PARKED FOR AN EXTENDED PERIOD OF TIME, ALWAYS APPLY THE PARKING BRAKE.**

### 3.1.7 RIGHT-HAND SIDE DRIVING POSITION

The following procedure applies **ONLY** to cabs modified by LABRIE. It must be followed at the beginning, but also at the end of the collection route in order to revert to the left-hand side driving position<sup>1</sup>.

If the cab is modified by the chassis manufacturer, the operator **MUST** forget the following procedure and follow the recommendations of the chassis manufacturer.

#### BEFORE USING THE RIGHT-HAND SIDE STEERING WHEEL

1. Drive the vehicle to the beginning of the waste collection route.
2. Stop the vehicle, and apply the parking brake (Figure #3.2).
3. Press the red button on the console packer control.
4. Turn off engine.
5. Change to proper driving position (left to right).
6. Change the "SHIFT MODE" control switch to the proper driving side (left or right). This switch will enable all electrical accessories on the selected driving side.
7. Move the arm control joystick accordingly.
8. Adjust mirrors as illustrated (Figure #3.3).
9. Start the engine.
10. Check the accelerator pedal and the foot brake.
11. Release parking brake (Figure #3.4).
12. You are now set to begin waste collection.

<sup>1</sup> This procedure applies only on vehicle modified by LABRIE equipped with dual driving position. Some units are designed only with a single driving position.

CAB MODIFIED BY LABRIE



FIGURE #3.2

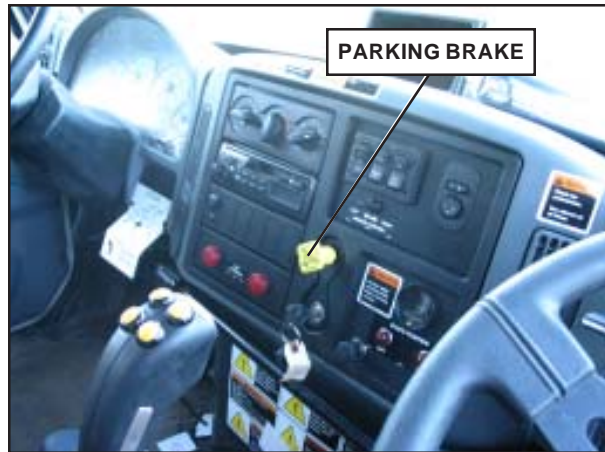


FIGURE #3.4

MIRRORS ADJUSTMENT

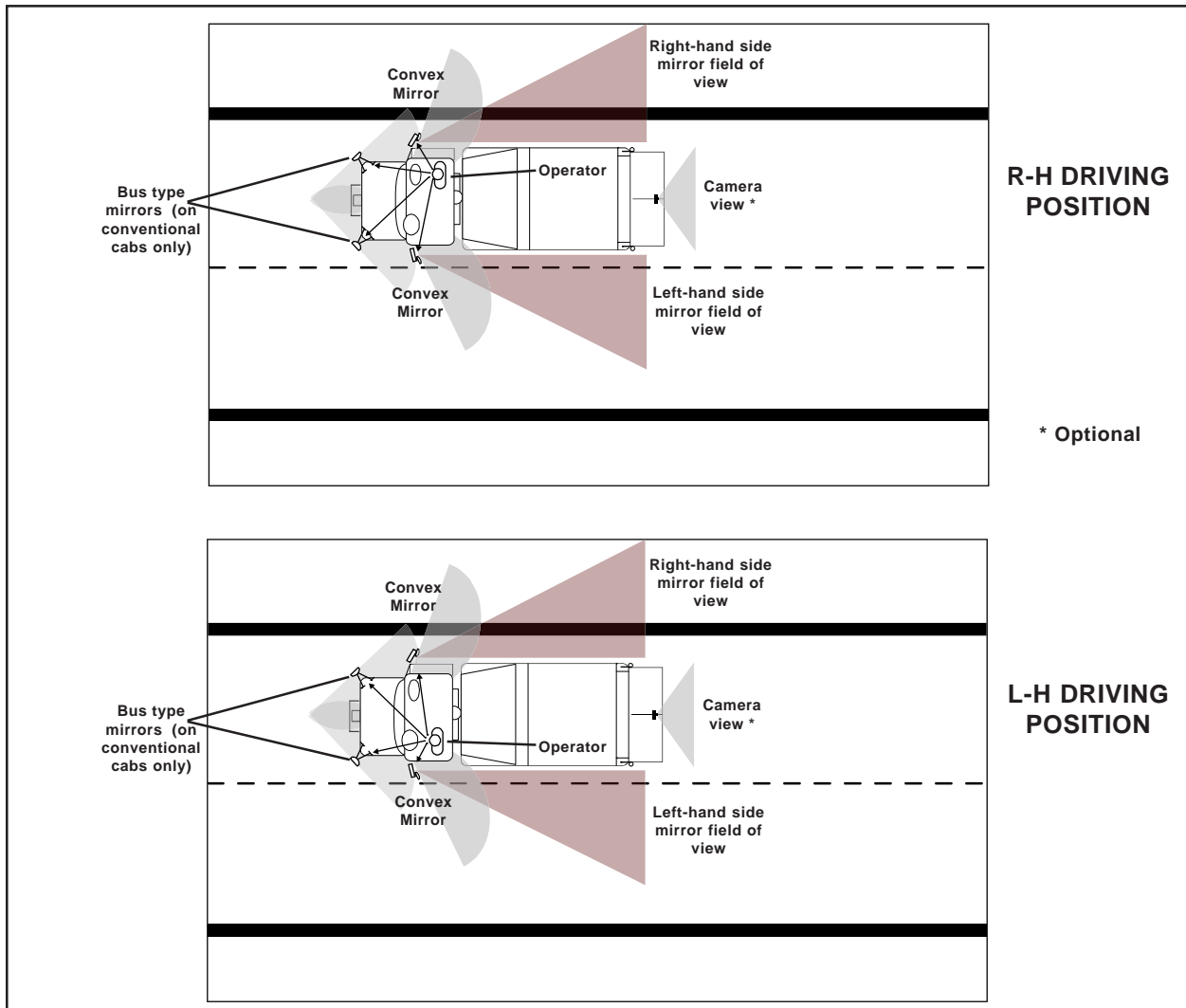


FIGURE 3.3

### 3.1.8 ENGAGING THE HYDRAULIC SYSTEM

The pump is engaged by the rocker switch located on the console. This switch is also called PTO switch (Figure #3.5). When the switch is activated, a pilot light comes on when the hydraulic system is engaged. At this time, all hydraulic functions on the vehicle are enabled and ready to work.

It is important to note that, even if the PTO switch is turned off, the pump is always turning whatever the engine's RPM. IT IS VERY IMPORTANT NOT TO LET THE PUMP RUN DRY OR WITHOUT OIL. OTHERWISE, THE PUMP WILL BE SERIOUSLY DAMAGED OR EVEN DESTROYED.

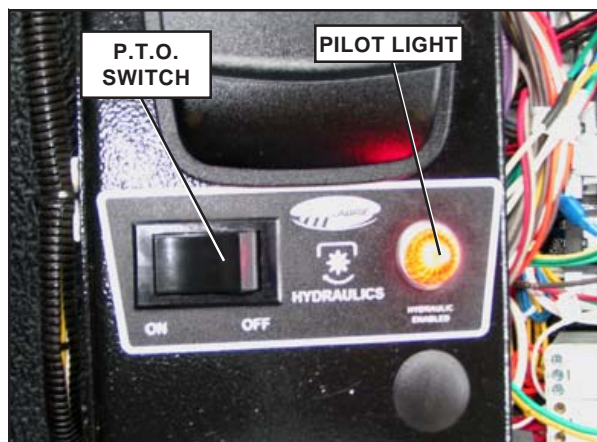


FIGURE #3.5



FIGURE #3.6  
(cylindrical tank shown)



#### WARNING

**DO NOT CLOSE THE MAIN VALVE ON THE HYDRAULIC TANK (FIGURE #3.6), EVEN IF THE PTO SWITCH IS TURNED OFF, THE PUMP IS ALWAYS TURNING WHAT EVER THE ENGINE'S RPM. OTHERWISE, THE PUMP WILL BE SERIOUSLY DAMAGED OR EVEN DESTROYED.**

#### **NOTE:**

In case of a leak in the hydraulic system, and if the vehicle has to be driven somewhere else, take off the drive shaft between the pump and the engine. Call maintenance facility and refer to the Parts and Service Manual.



### 3.1.9 SEARCH EYE SYSTEM

This OPTIONAL safety system is used to detect objects located behind the truck. This system is turned on by placing the transmission in reverse.

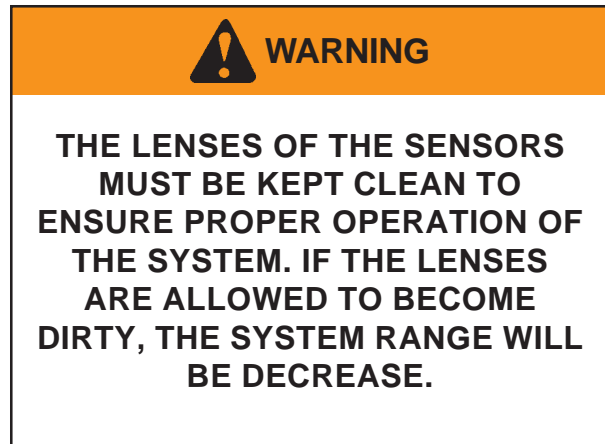


The main components of this system are a control box, located in the cab, sensors, located on the rear bumper and the solenoid valve located on the chassis.

When the system is on, a green light on the cab control box illuminates to indicate that the system is operating. When an object is detected, a yellow light comes on, an audible alarm is heard, and the vehicle brakes are automatically applied. The brakes can be disabled by pressing the AUTO BRAKE OFF switch on the control box. This will cause a red warning light to illuminate indicating the brakes will not automatically engage. The yellow light and audible alarm will still operate in this mode as a safety precaution.



CONTROL BOX



The sensors are installed on the rear bumper and adjusted in order to obtain low coverage to ground.

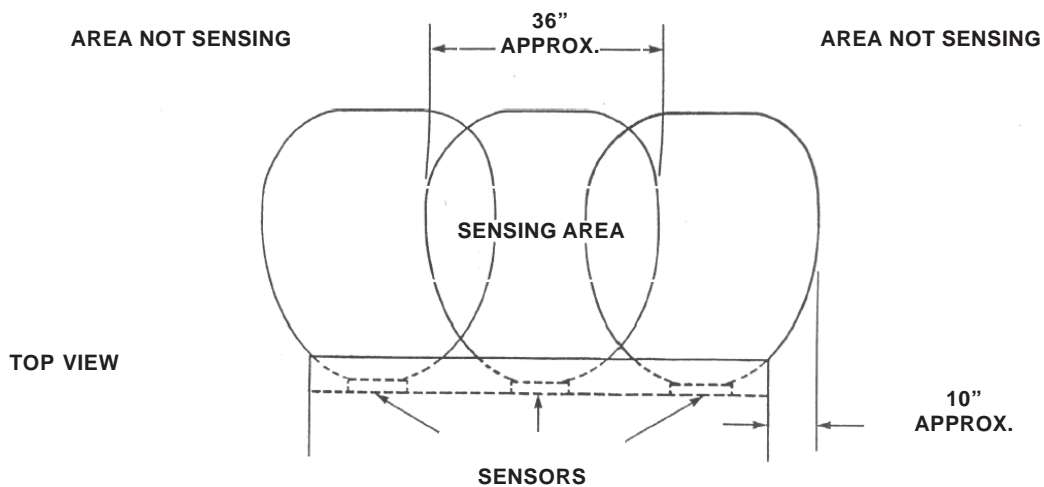
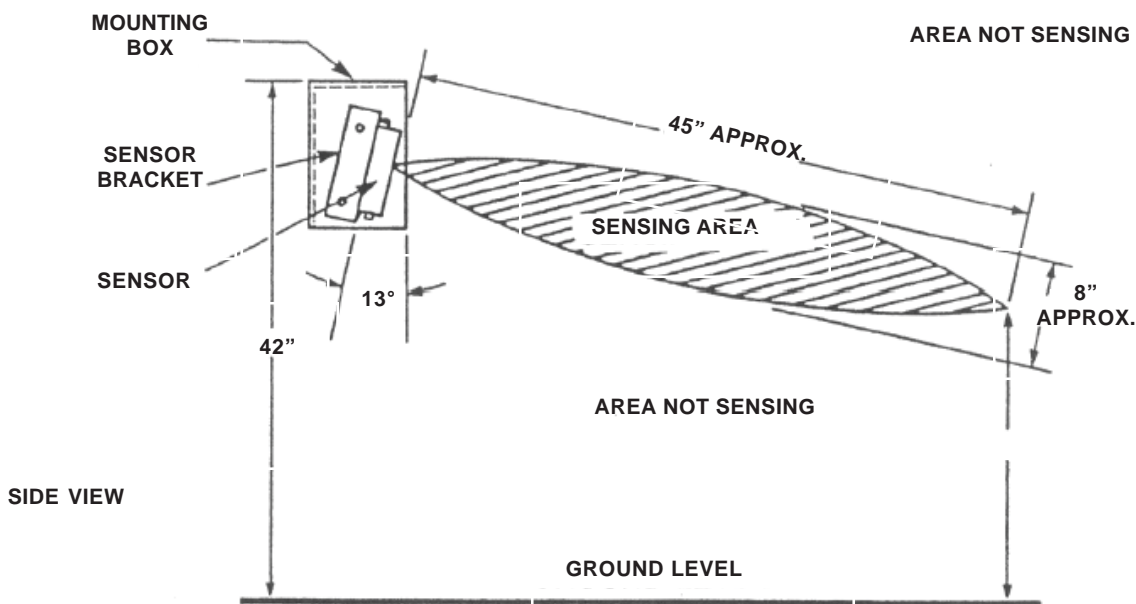
To adjust the sensors, refer to the *Installation Manual* of the manufacturer.

#### Troubleshooting and Maintenance:

Refer to the *Troubleshooting Guide* of Goyal Sensor Systems Inc.



SENSORS



NOTE: Illustrations taken from the *Installation Manual* of Global Sensor Systems Inc.

## 3.2 CAB CONTROLS REVIEW

### 3.2.1 CAB CONSOLE

The cab console is located in the middle of the cab for easy access during waste collection and operation. See next page.

The following sections provide an overview of the console controls with some optional features. The layout of the console may change depending on features installed on the vehicle.

The Automizer™ has a single packer control station located **on the cab console** (Figure #3.7). Here is the description of all the controls and buttons found on the packer control station.

### 3.2.2 EMERGENCY STOP CONTROL

The Emergency Stop button (red) will stop all hydraulic functions on the truck (tailgate, arm etc.). By pressing the red button, the packer and the arm will stop where they stand. The red button has to be manually pulled back to reactivate the hydraulic system.

### 3.2.3 PACKER START CYCLE CONTROL

The packer start cycle button (green) activates the packer for one complete cycle. A complete cycle will take about 12 seconds.

### 3.2.4 PACKER RETRACTION CONTROL

The packer retract button (yellow) will retract the packer at the beginning of its stroke. This control is useful when the body is full and the material prevents the packer from reaching the end of its stroke. Manual retraction of the packer is necessary to bring back the packer.

### 3.2.5 MULTI-CYCLE CONTROL

This optional function allows the packer to cycle a preset number of cycles (from 2 to 8, 3 being the standard) by pressing the green button one time. Cycles can be stopped anytime by pressing the red button or if the multi-cycle control button is turned off.

### 3.2.6 HOIST CONTROL

The body hoist control lever is located on the cab console (Figure #3.7). The lever has a spring activated sleeve which locks the handle to prevent any accidental body hoist. This lever has to be pulled towards left or right in order to raise or to lower the body.

If the main valve of the truck is electrical, a 3-position switch (instead of a joystick) allows the operator to control the body. The switch is covered with a plastic cap in order to prevent any accidental body hoist (see picture on next page).



### 3.2.7 TAILGATE CONTROL (SINGLE AND DUAL)

Also on the console, the tailgate control lever has a spring activated sleeve which locks the handle to prevent any accidental opening of the tailgate (Figure #3.7). The sleeve needs to be pulled up before moving the lever to the proper side, no matter if it is to open or close the tailgate.

When the truck is equipped with two tailgates, an electrical switch allows the operator to choose between the right or the left tailgate. The same lever, with a lock, is used for both tailgates.

If the main valve of the truck is electrical, a 3-position switch (instead of a lever) allows the operator to control the tailgate. The switch is covered with a plastic cap in order to prevent any accidental opening of the tailgate and (see the illustration).



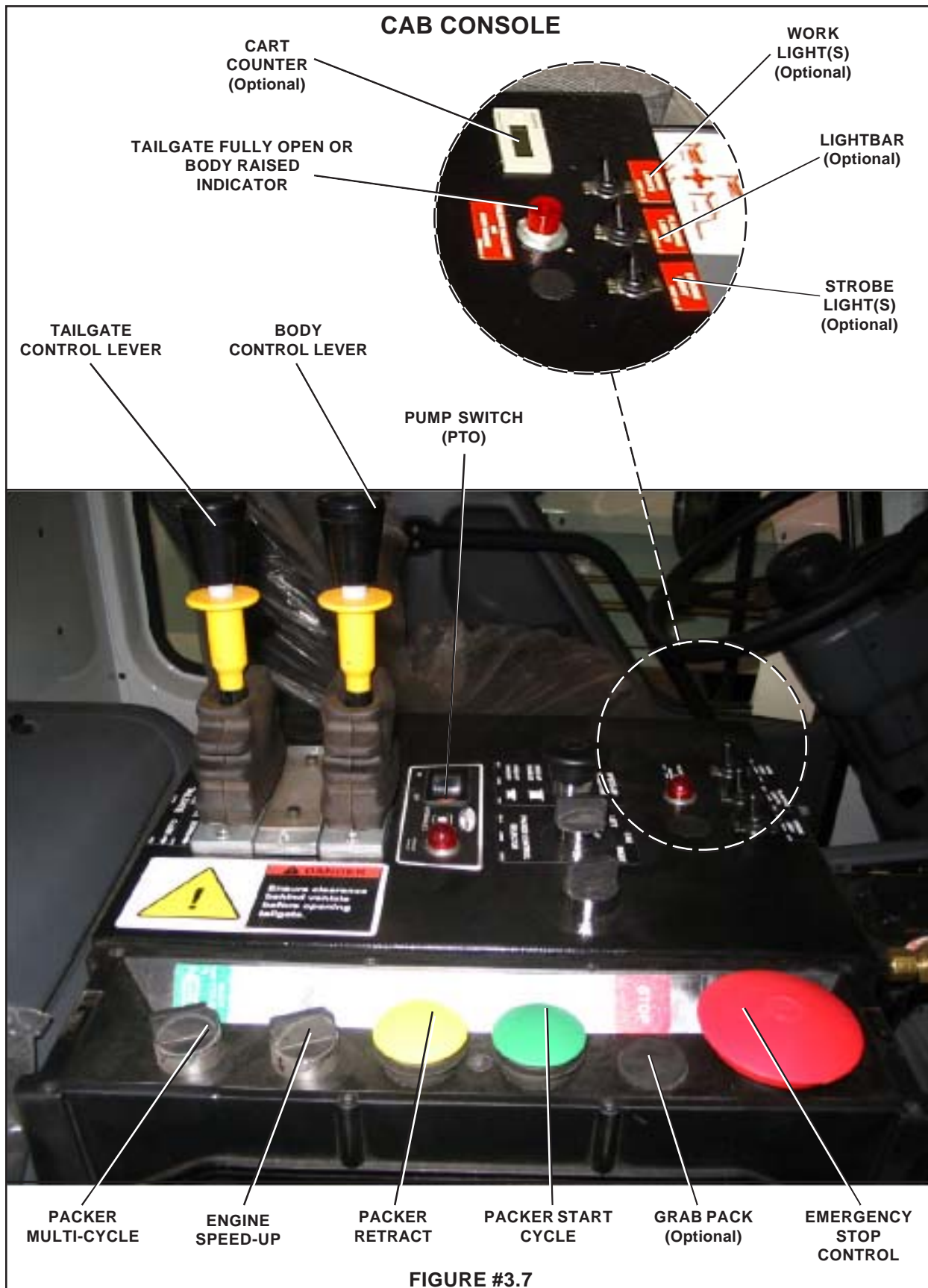
### 3.2.8 GRAB PACK

The Grab Pack switch (see Figure #3.33) enables the packer to automatically start cycling about 4 seconds after the grabber is closed. This will give the arm enough time to reach the hopper and dump the cart before the packer starts to pack.

With a multi-cycle system, if the packer is set to perform three(3) cycles (set in factory to 3 cycles, adjustable from 2 to 8; see section 3.2.5 Multi-Cycle Control), the packer will complete all its cycles until the next time the operator closes the grabber. When the operator closes the grabber, the multi-cycle function is reset.

If the grabber is closed in the middle of a cycle, the packer will interrupt its current cycle, return to its fully retracted position, and then restart the next cycle. When a cycle is interrupted and the packer has returned, there is no delay before the packer restarts the next cycle. The four-second reset will apply only when the packer has completed all its cycles (2 to 8) and when it has returned to its fully retracted position.

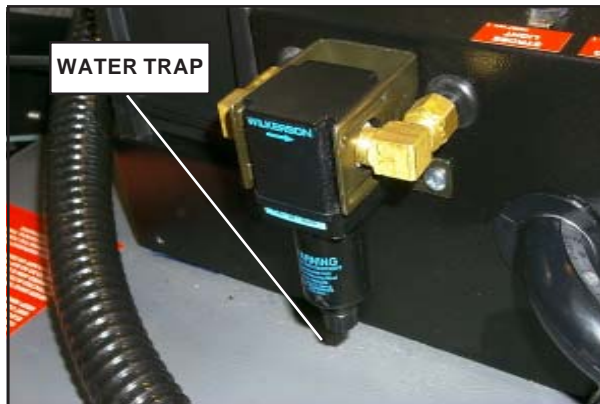
Interrupting a cycle prevents dumping carts directly over the packer. Piled material over the packer could reduce the packer efficiency.



### 3.2.9 WATER TRAP BLEED

Located in front of the console (Figure #3.8), the water trap bleed must be drained at the end of every working day. Using a rag, unscrew the tip to collect the water that will come out. This water trap helps to keep moisture out of the air system.

**NOTE:** If the truck is equipped with an electrical valve, there's no water trap.



**FIGURE #3.8**

### 3.2.10 PUMP SWITCH

The pump switch engages the hydraulic pump and enables all the body functions (packer, tailgate, body hoist) as well as the joystick that controls the arm (See section 3.1.8 “Engaging the hydraulic system”).

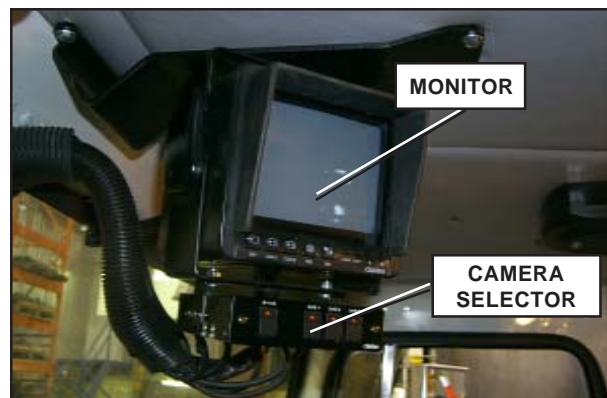
### 3.2.11 MONITOR AND CAMERAS

Optional monitor and cameras can be installed inside the cab and through out the vehicle. The Automizer™ can be equipped with up to three (3) cameras.

The operator can choose between the camera on the tailgate, the one inside the hopper and the one aimed at the arm. The monitor controls each of those cameras using a camera selector switch (Figure #3.9 & #3.10). There's also an automatic mode (when the truck is equipped with 3 cameras) that allows the cameras to switch automatically (rear camera when the truck is in reverse, camera in the hopper when the arm is lifting, camera aimed at the arm when he arm is going down). Since many types of monitors and cameras can be installed on the vehicle, refer to the camera manufacturer manual provided with the vehicle.



**FIGURE #3.9**



**FIGURE #3.10**

### 3.2.12 ARM EXTEND WARNING LIGHTS

Two warning lights on the dashboard (Figure #3.11) indicate to the operator when the arm is out. Do not move the vehicle until these lights stop flashing. The dashboard varies according to the chassis.



FIGURE #3.11

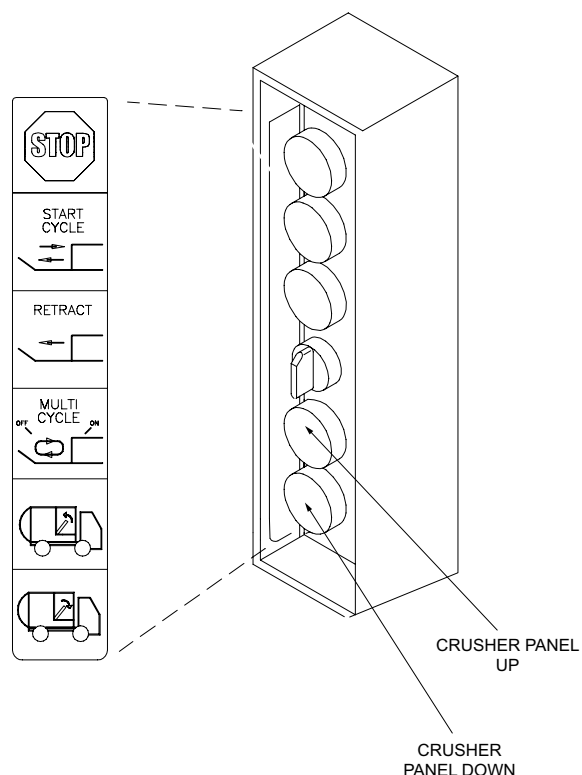


### 3.2.13 CRUSHER PANEL CONTROL (if installed)

The control for the crusher panel is fully manual (standard unit) and is located inside the cab on the packer control station. One button will lower the crusher panel and one button will move it up.

***IMPORTANT:*** The packer must be fully retracted to allow the crusher panel to move down. The crusher panel needs to be in the parked position to let the arm dump a cart.

The following figure presents the control buttons of the crusher panel. The model of the control station varies according to the options installed.



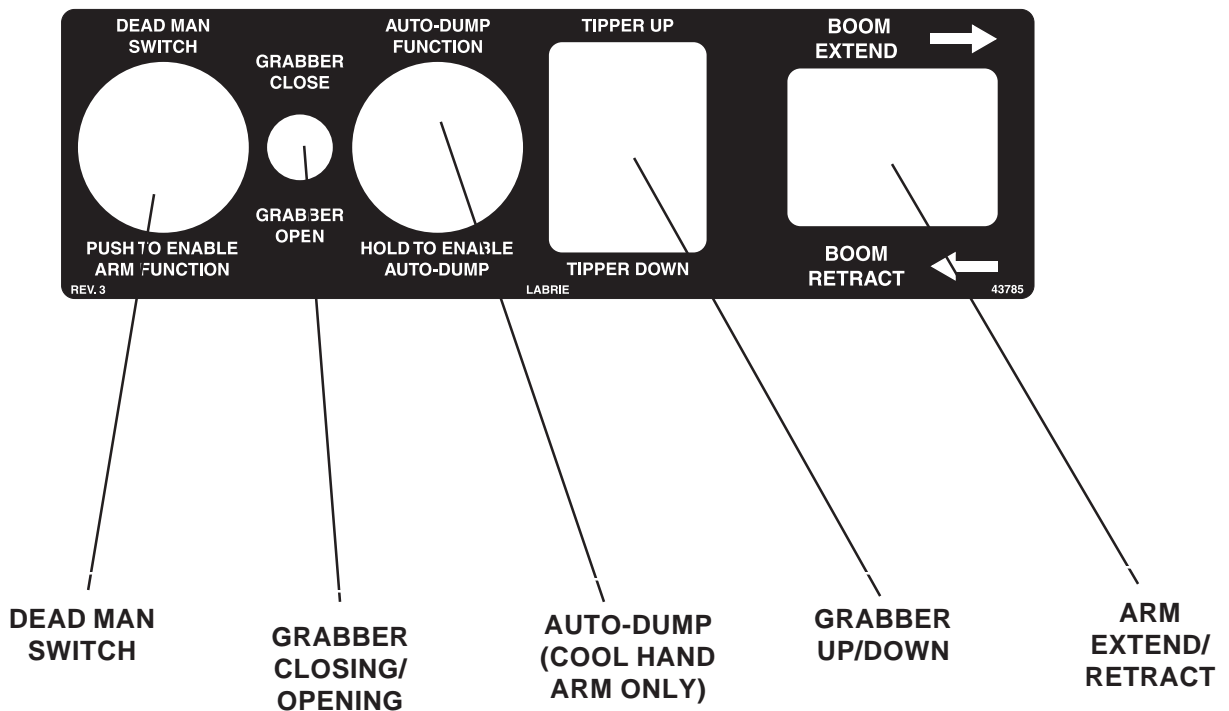


### 3.2.14 ARM AUXILIARY CONTROL

Some trucks are equipped with an auxiliary control under the right-hand side seat, which allows the operator to control the arm from outside the cab.

This auxiliary control has the same functions as the joystick. It contains buttons and switches that allows the operator to control the arm, the grabber and the Auto-Dump function (if equipped). To use this auxiliary control, the operator has to select it (on the console).

Below is the sticker of the auxiliary control, which presents the position of all its buttons and switches.



### **3.3 DAILY INSPECTION**

#### **3.3.1 APPROACHING THE VEHICLE**

As you approach, look for any object under or against the vehicle, the surroundings for people, other vehicles, under and overhead obstructions. Ensure that the truck is parked at the most convenient place where you will have all the clearance required to perform the complete "Start of the Day Inspection". During the daily inspection, look for any structural damage. Inspect the tires and check the hydraulic tank for air leaks (when the hydraulic tank is under the pump level).

#### **3.3.2 TRUCK STARTING PROCEDURE**

Enter the cab and proceed as per the truck manufacturer manual start up procedures.

#### **TRUCK STARTING PROCEDURE:**

- 1. Put the transmission in "NEUTRAL" (Truck using shifter lever only).**
- 2. Parking brake is "ON".**
- 3. Hydraulic system is "OFF".**
- 4. Start engine.**
- 5. Engage the hydraulic system (the air pressure has to be at a minimum of 70 PSI).**
- 6. Turn on all lights, (marker lights, headlights, work lights, flashing light, etc.).**
- 7. If required, move the truck to an appropriate area to perform the daily inspection.**
- 8. Report any defective system to the maintenance personnel.**

### 3.3.3 BODY INSPECTION PROCEDURE

Exit the cab to continue your inspection. Bring a rag along to clean all accessible lights, stickers, camera lens etc. See for mechanical problems: rollers, hinges, door lock mechanisms, wear items etc. Report any defective system to the maintenance personnel.

#### **BODY INSPECTION PROCEDURE:**

1. Activate the packer for a full cycle;
2. Check the automated arm operation.
3. Check if the tailgate safety pins are in place. Put them in place to lock the tailgate properly. If the body is Co-Mingle, apply this procedure for both safety props.
4. As you walk along the side, clean all safety labels.
5. Check the frame area, fuel tank, air tanks (air tanks must be drained every day), cleaning traps and wheels for leaks, cracks or other type of problems.
6. At the front end, check lights, mirrors, and pump.
7. Go around and, check lights, clean camera, labels, lights etc.
8. Check for hydraulic leaks.

### 3.3.4 CAB DRIVING CONTROLS INSPECTION PROCEDURE

Enter the right-hand side extension (if equipped) and operate the right-hand side driving controls: Report any defective system to maintenance personnel.

#### **RIGHT-HAND SIDE DRIVING POSITION INSPECTION PROCEDURE:**

1. Test the steering wheel by turning it left and right as you are slowly moving the truck forward.
2. Move forward and stop the vehicle by applying the foot brake.
3. Apply the parking brake, engage the transmission to "Drive" and try to get the vehicle moving by throttling up with the right-hand side accelerator pedal.
4. Throttle down to idle, apply foot brake and remove parking brake.
5. Reapply the parking brake.



3.3.5 INSPECTION SHEET EXAMPLE

The following is an example of an inspection sheet. The operator **MUST** follow the inspection sheet provided by his employer. If the employer doesn't have any, ask his permission before using this example.

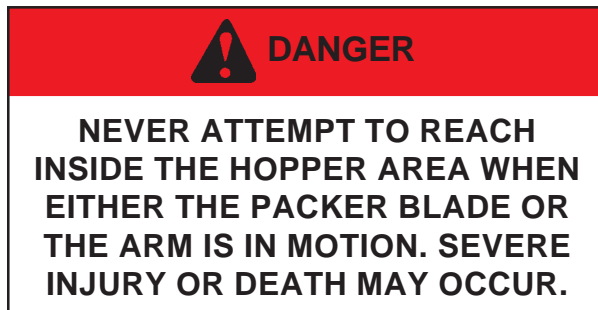
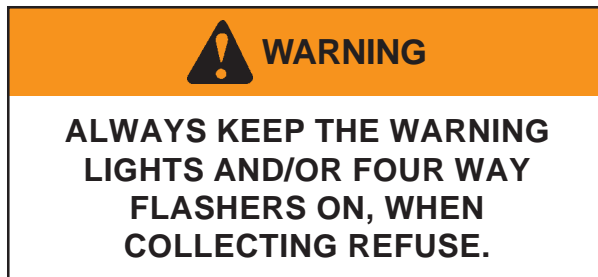
VEHICLE CONDITION REPORT									
Date:		Unit:							
Driver:		Demo:							
Engine Hrs in:		Engine Hrs out:							
Mileage in:		Mileage out:							
Start Time:		Finish Time:							
FLUID LEVELS									
PRE	POST		Amount Added	PRE	POST		Amount Added		
<input type="checkbox"/>	<input type="checkbox"/>	Engine Oil	Qt. _____	<input type="checkbox"/>	<input type="checkbox"/>	Fuel	Gal. _____		
<input type="checkbox"/>	<input type="checkbox"/>	Hydraulic Oil	Qt. _____	<input type="checkbox"/>	<input type="checkbox"/>	Transmission	Qt. _____		
<input type="checkbox"/>	<input type="checkbox"/>	Coolant	Qt. _____	<input type="checkbox"/>	<input type="checkbox"/>	Water	Qt. _____		
CAB INSPECTIONS					TIRES				
If items need repair, check below and describe.									
PRE	POST		PRE	POST	Indicate any defects.				
<input type="checkbox"/>	<input type="checkbox"/>	All gages/gage lights	<input type="checkbox"/>	<input type="checkbox"/>	Cab horn				
<input type="checkbox"/>	<input type="checkbox"/>	Low oil pressure	<input type="checkbox"/>	<input type="checkbox"/>	Exterior back-up horn	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	Low oil warning light/buzzer	<input type="checkbox"/>	<input type="checkbox"/>	Windshield cracks	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	Seat and seat belt	<input type="checkbox"/>	<input type="checkbox"/>	Windshield wipers				
<input type="checkbox"/>	<input type="checkbox"/>	Clutch free play (Juggler)	<input type="checkbox"/>	<input type="checkbox"/>	Heat/Defrost	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	License/registration papers	<input type="checkbox"/>	<input type="checkbox"/>	Reflective triangles	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	Service brakes adjusted	<input type="checkbox"/>	<input type="checkbox"/>	Steering play	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	Parking brakes operational	<input type="checkbox"/>	<input type="checkbox"/>	Radio	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	Low air warning light/buzzer	<input type="checkbox"/>	<input type="checkbox"/>	Camera				
<input type="checkbox"/>	<input type="checkbox"/>	Air compressor adequate							
VISUAL BODY WALK-AROUND									
PRE	POST		PRE	POST	PRE	POST			
<input type="checkbox"/>	<input type="checkbox"/>	Battery disconnect	<input type="checkbox"/>	<input type="checkbox"/>	Electrical wiring	<input type="checkbox"/>	<input type="checkbox"/>	Compactor working	
<input type="checkbox"/>	<input type="checkbox"/>	Body damage	<input type="checkbox"/>	<input type="checkbox"/>	Fire Extinguisher	<input type="checkbox"/>	<input type="checkbox"/>	Hydraulic leaks	
<input type="checkbox"/>	<input type="checkbox"/>	Cab damage	<input type="checkbox"/>	<input type="checkbox"/>	Fuel tank/lines	<input type="checkbox"/>	<input type="checkbox"/>	Hydraulic pressure	
<input type="checkbox"/>	<input type="checkbox"/>	Air lines	<input type="checkbox"/>	<input type="checkbox"/>	Exhaust	<input type="checkbox"/>	<input type="checkbox"/>	Hydraulic hoses	
<input type="checkbox"/>	<input type="checkbox"/>	Air compressor	<input type="checkbox"/>	<input type="checkbox"/>	Engine	<input type="checkbox"/>	<input type="checkbox"/>	Wheel/Rims	
<input type="checkbox"/>	<input type="checkbox"/>	Air dryer	<input type="checkbox"/>	<input type="checkbox"/>	Starter	<input type="checkbox"/>	<input type="checkbox"/>	Seals	
<input type="checkbox"/>	<input type="checkbox"/>	Head lights	<input type="checkbox"/>	<input type="checkbox"/>	Turn signal	<input type="checkbox"/>	<input type="checkbox"/>	Transmission	
<input type="checkbox"/>	<input type="checkbox"/>	Marker lights	<input type="checkbox"/>	<input type="checkbox"/>	Camera	<input type="checkbox"/>	<input type="checkbox"/>	Mirrors	
<input type="checkbox"/>	<input type="checkbox"/>	Brake lights	<input type="checkbox"/>	<input type="checkbox"/>	Cable/Hooks	<input type="checkbox"/>	<input type="checkbox"/>	Radiator	
<input type="checkbox"/>	<input type="checkbox"/>	Suspension	<input type="checkbox"/>	<input type="checkbox"/>	Arm	<input type="checkbox"/>	<input type="checkbox"/>	Safety devices	
<input type="checkbox"/>	<input type="checkbox"/>	Hopper clean	<input type="checkbox"/>	<input type="checkbox"/>	Body clean	<input type="checkbox"/>	<input type="checkbox"/>	Safety decals	
<input type="checkbox"/>	<input type="checkbox"/>	Tailgate	<input type="checkbox"/>	<input type="checkbox"/>	Packer	<input type="checkbox"/>	<input type="checkbox"/>	Cart tipper	
<input type="checkbox"/>	<input type="checkbox"/>	Safety Interlock switches							
PRE	POST								
<input type="checkbox"/>	<input type="checkbox"/>	No Defects – Vehicle Condition Satisfactory							
DEFECT DESCRIPTION									
_____									
_____									
_____									
_____									
_____									
_____									
_____									
<input type="checkbox"/> Above defects corrected <input type="checkbox"/> Above defects need not be corrected for the safe operation of vehicle.									
						Mechanic's Comments :			
DRIVER'S SIGNATURE _____					DATE _____				
DISTRIBUTOR SIGNATURE _____					DATE _____				
DRIVER'S REVIEW SIGNATURE _____					DATE _____				

### 3.4 LOADING, COMPACTING AND UNLOADING

#### 3.4.1 PLANNING YOUR ROUTE

It is important to plan your route in order to be efficient. Planning your route will shorten your collection time, prevent from being caught in traffic jam. Remember that the Automizer™ was designed exclusively to pick up roller carts.

#### 3.4.2 SAFETY WHILE USING THE PACKING SYSTEM



#### SAFETY GLASSES AND GLOVES



SAFETY LABELS

### 3.4.3 HOPPER DESCRIPTION AND LOADING

The Automizer™ side loader refuse truck has a packer swept volume of 1.75 cubic yards (Figure #3.13). The packer swept volume is reached by using a 24-inch height packer blade with a 52-inch stroke.

Using the arm to load the hopper, fill up garbage as high as the packer and then press the green button to get a complete cycle. Be careful of explosive projectile objects and watch for over spill. See [section 3.4.8](#) “Pack on the Go”.

While collecting roller carts, you should start cycle the packer every time you have finished emptying one cart in the hopper. Refer to [section 3.4.5](#) “Loading Procedure”.

#### HOPPER WITH A SWEEP VOLUME OF 1.75 CU.YD.

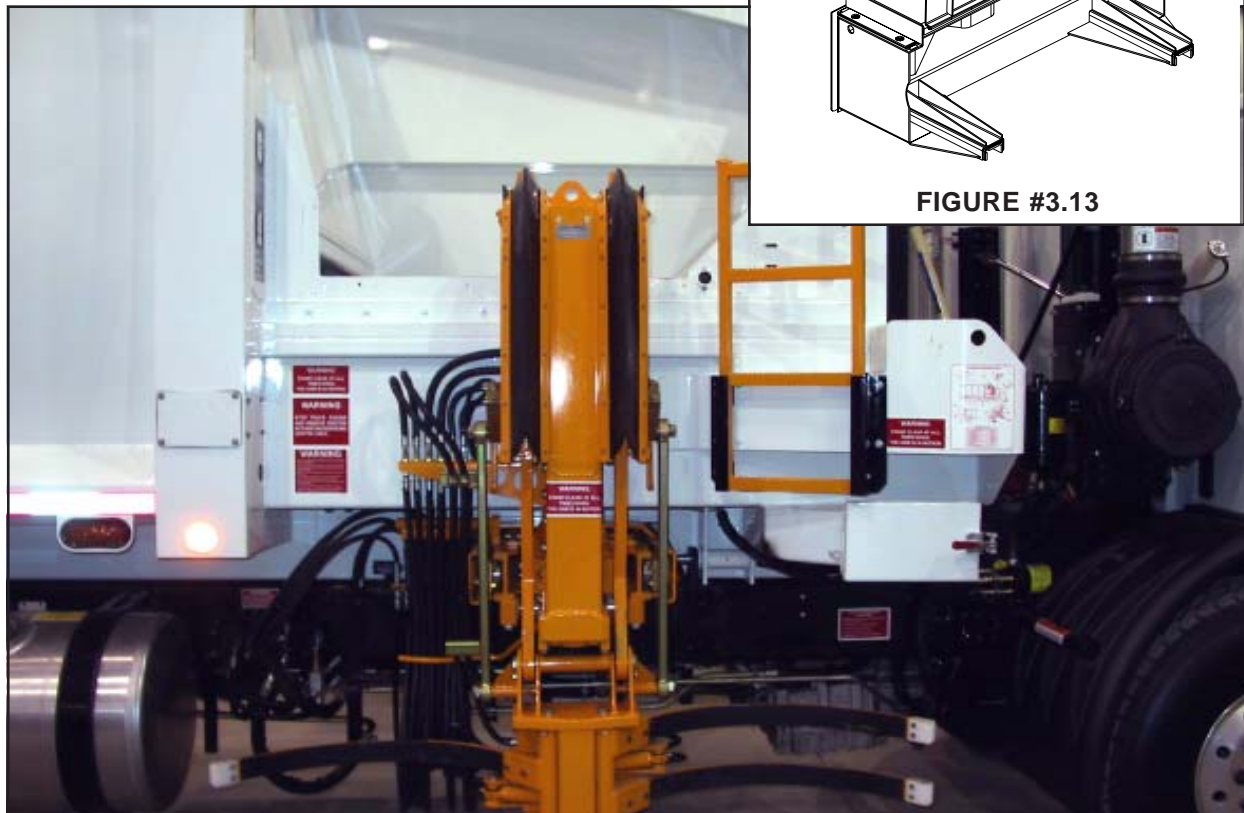
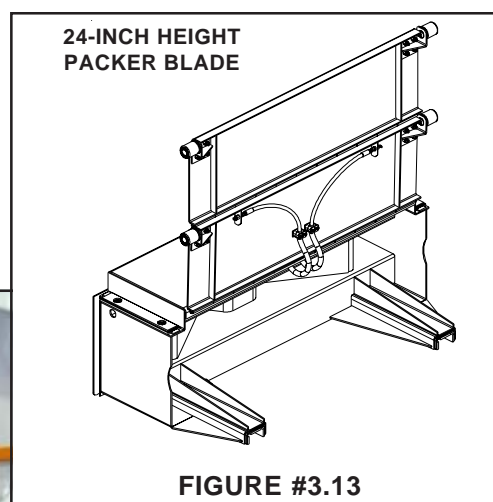


FIGURE #3.14

### 3.4.4 PACKER DESCRIPTION

The packer (Figure #3.13) is made of high strength steel traveling the hopper to push the refuse into the body. If any piece of garbage exceeds above the packer, it will be crushed or bent against the crusher bar, located just above the opening of the body. Whatever it is not push inside the body on a given stroke of the packer, refuse material will fall back in the hopper as the packer will retract. As another cycle is activated by the operator, what was left in the hopper in the previous stroke of the packer will be pushed into the body.



## 3.4.5 LOADING PROCEDURE

**LOADING PROCEDURE**

1. Stop the vehicle so that the arm is lined up with the roller cart.
2. The distance between the vehicle and the roller cart should be at least one foot.
3. With the arm parked along the truck, use the joystick to extend the arm to reach the cart. The operator **MUST** push on the trigger in order to enable the joystick functions.
4. Close the grabber by pressing on the push-button switch (Figure #3.15).
5. Raise the roller cart at about 12 inches above the ground.
6. Fully retract the arm.
7. Pull the joystick to raise the grabber inside the hopper. The garbage should then fall down.
8. Ensure that the roller cart is empty before returning the cart back to the ground.
9. Retract the arm near the vehicle.

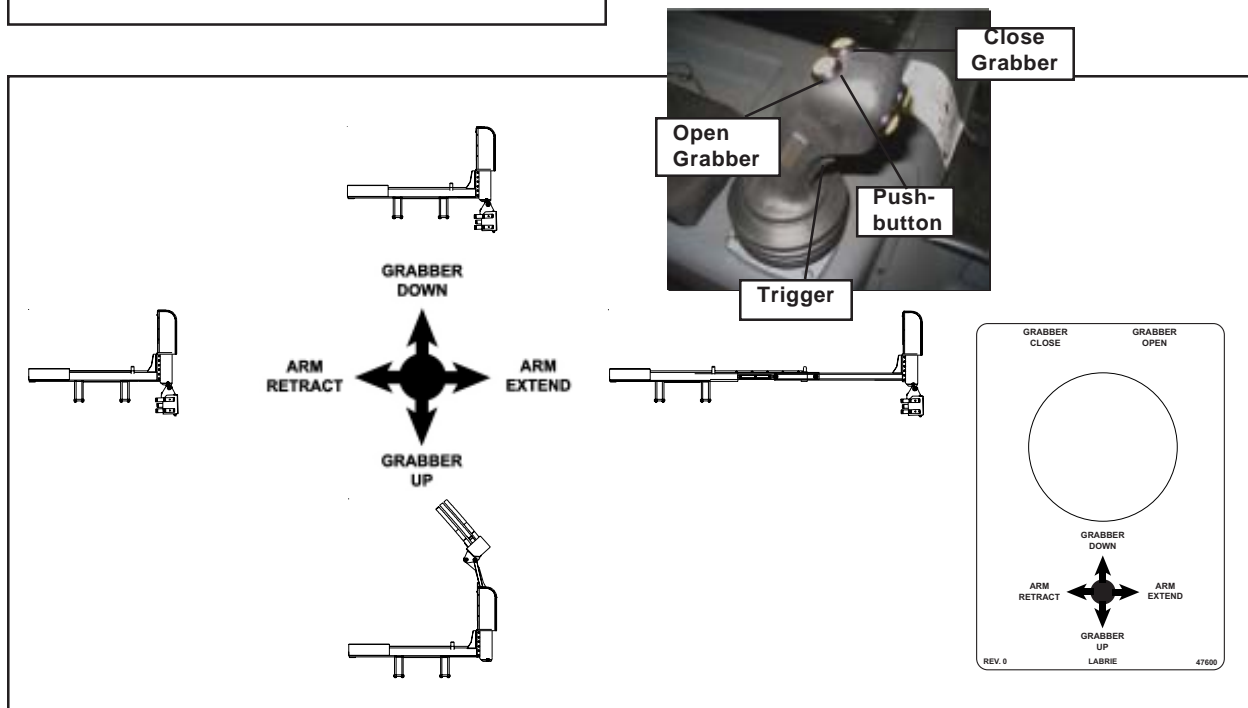
**WARNING**

**DO NOT OPEN THE GRABBER WHILE LIFTING UP THE ROLLER CART; IT WILL FALL DOWN. THIS MAY RESULT IN DAMAGING THE ROLLER CART, THE EQUIPMENT AND/OR CAUSE INJURY.**

**WARNING**

**DO NOT MOVE THE VEHICLE IF THE ARM IS NOT FULLY RETRACTED ALONG THE HOPPER.**

Arm Control joystick



**FIGURE #3.15**

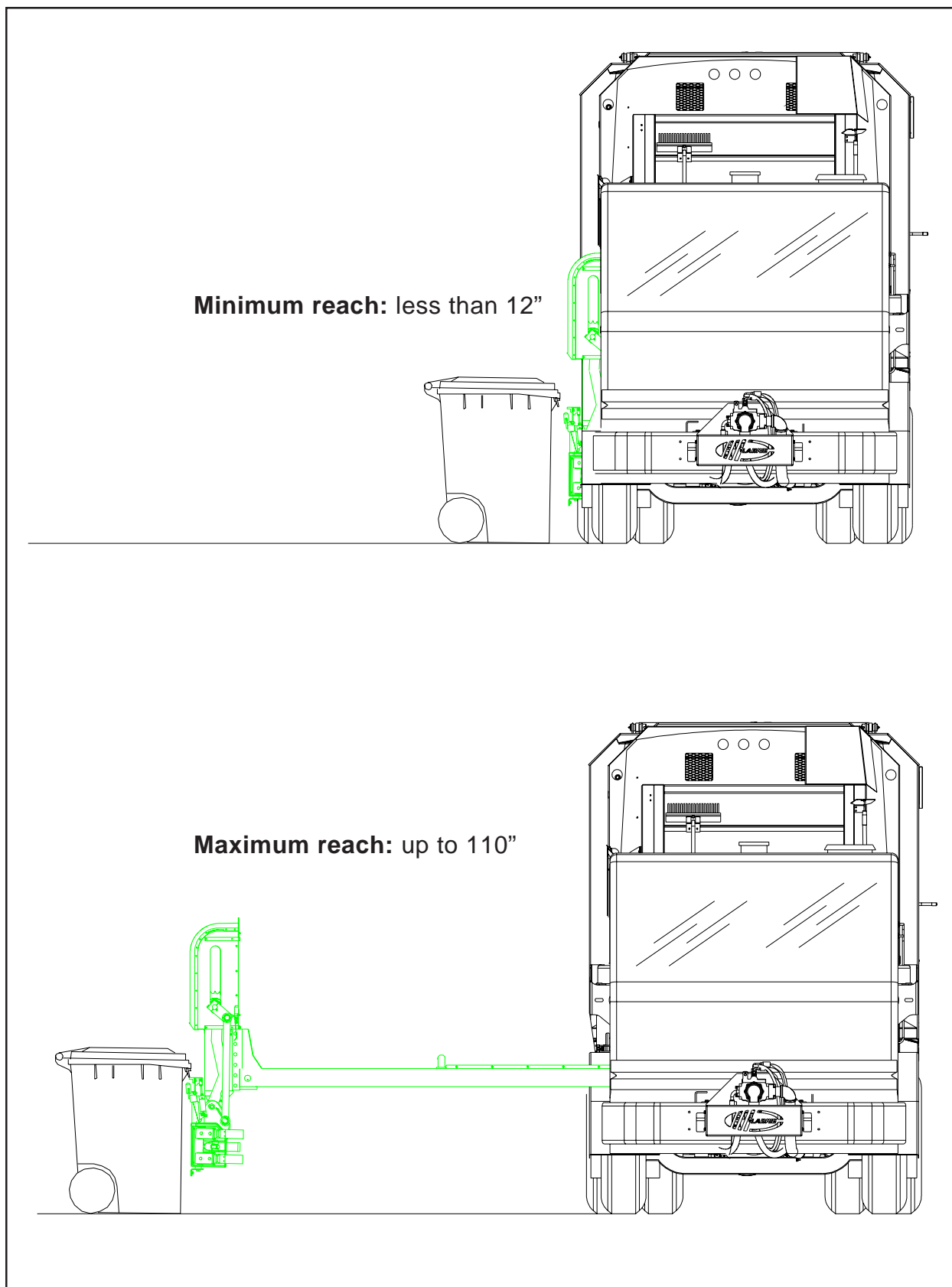


FIGURE #3.16

### 3.4.6 LOADING CORRECTIVE ACTIONS

#### PACKER WILL NOT CYCLE:

1. Ensure the hydraulic system is engaged.
2. Check the emergency red button.
3. Press the yellow button to ensure the packer is completely retracted.
4. Check around the packer for any obstruction preventing it to move freely.
5. Check fuses in the console.
6. Report your findings to the maintenance personnel.

### 3.4.7 EMERGENCY ACTIONS

#### HYDRAULIC OIL SPILL

1. Press the emergency red button.
2. Turn off the pump switch and stop the truck's engine.
3. Close the main valve on the hydraulic tank.
4. Carefully inspect and find the cause of the leak.
5. Call the maintenance facility and report your findings.
6. If the leak cannot be repaired on site, and the vehicle cannot be towed, remove the pump drive shaft before restarting the engine.
7. When the time has come to restart the pump, ensure that the valve on the hydraulic tank is fully open and that there is sufficient oil in the hydraulic tank.



**DANGER**

#### SOMEONE IS TRAPPED IN PACKER SYSTEM

1. Hit the emergency stop button (red).
2. Call for help then proceed with first aid.

### 3.4.8 PACK ON THE GO

It may be useful to expedite your work and be more efficient : “Pack on the go” or make the packer to cycle when driving.

As you are finished loading the hopper, you can activate the Multi-Cycle button ([see section 3.2.5](#)), and press the Start Cycle button (green). This will allow the packer to cycle, even if you are moving the vehicle to the next pick up. When moving the vehicle, the hydraulic pump will turn at engine's RPM, which depends on the truck speed.

The Multi-Cycle electronic module allows the packer to perform up to eight (8) cycles when pressing the Start Cycle button (green). Standard factory preset of the module is three (3) cycles. Refer to General Maintenance for programming parameters table of the module.

### 3.4.9 STANDARD UNLOADING PROCEDURE

Once you have finished your route, make sure that the arm is parked along the truck and that the crusher panel is lowered (if installed). Keep some garbage not compacted in front of the packer in order to help during the “unloading procedure”.

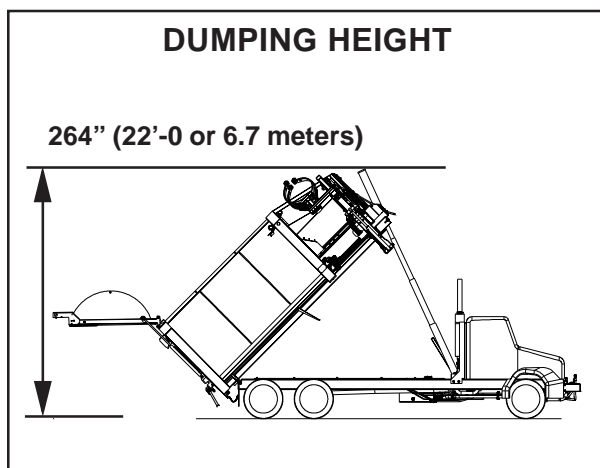
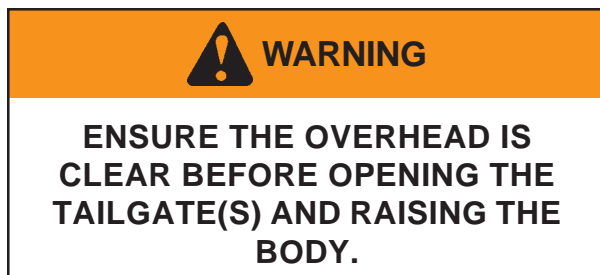


FIGURE #3.17



### STANDARD UNLOADING PROCEDURE<sup>1</sup>

1. Drive the vehicle to the landfill.
2. Ensure the vehicle is on safe, stable and level ground.
3. Check the overhead clearance (22 feet) before opening the tailgate and raising the body. **MAKE SURE THAT THE AIR SUSPENSION IS DROPPED OR THE TAG AXLE IS DOWN (IF EQUIPPED).**
4. Remove tailgate safety pins.
5. Fully open the tailgate.
6. Raise the body.
7. The material should slide out .
8. Slowly move the vehicle forward to prevent the garbage from piling up under the tailgate. This is the only time you can move the truck with body raised. Do it very cautiously and cover the shortest distance possible. Always be aware of the overhead clearance.
9. Cycle the packer blade to help eject the garbage. It may be helpful to have some garbage left in the hopper to enhance the effect of the packer blade cycle on the garbage.
10. Lower the body and close the tailgate.
11. Put safety pins back in place (Figure #3.18).
12. Drive away from the unloading site.
13. See [section 3.5](#) “End of the day cleaning and inspection.”


1. If the truck is equipped with a Co-Mingle body, repeat the procedure for the second compartment.



**⚠ WARNING**

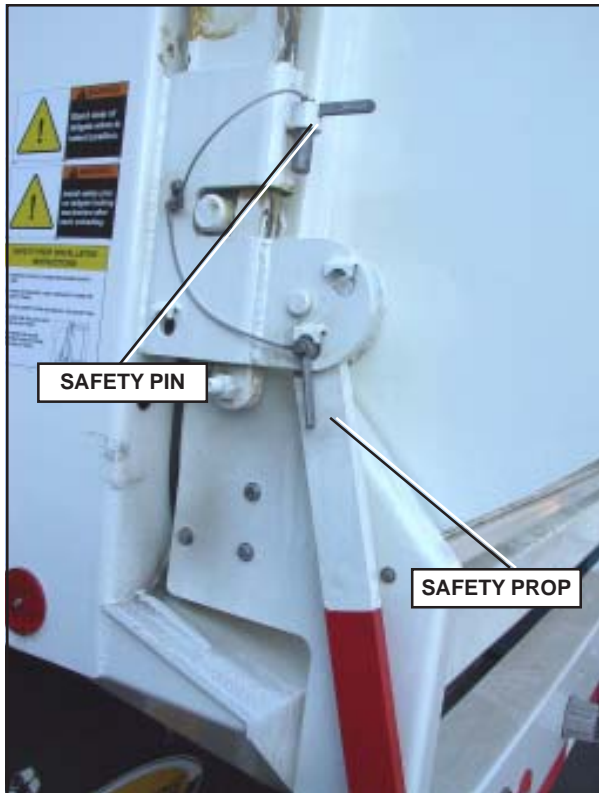
**NEVER MOVE THE TRUCK BACKWARDS WITH THE BODY IN THE RAISED POSITION.**

**NEVER RAISE THE BODY IF THE TAILGATE IS NOT FULLY OPEN.**

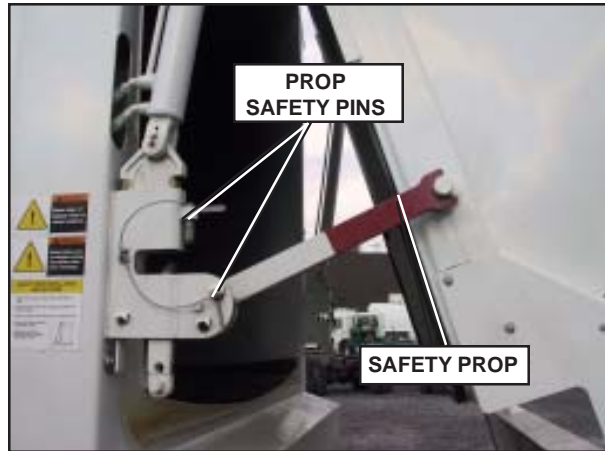


**⚠ DANGER**

**ALWAYS USE THE SAFETY PROP WHILE WORKING UNDER A RAISED TAILGATE. THE SAFETY PROP SHOULD BE INSTALLED EVEN IF THE TAILGATE IS IN THE FULLY RAISED POSITION.**



**FIGURE #3.18**



**FIGURE #3.19**



### 3.4.10 UNLOADING CORRECTIVE ACTIONS

As you are unloading the refuse unit, some garbage may fall or be blown away between the chassis and the body. Apply the following procedure for the remaining garbage stuck on or between the chassis and the body:

#### GARBAGE BETWEEN CHASSIS AND BODY:

1. Lift the body until the safety prop is clear to tilt under the body.
2. Release the safety prop by pulling the handle (Figure #3.20).
3. Then pull down the safety prop (towards the body).
4. Slowly lower the body so it rests on the prop.
5. Proceed with the necessary cleaning of the chassis.
6. Once finished, slightly raise the body; return the safety prop to its vertical position.
7. Lock the safety prop.
8. Lower the body onto the chassis before moving the vehicle.

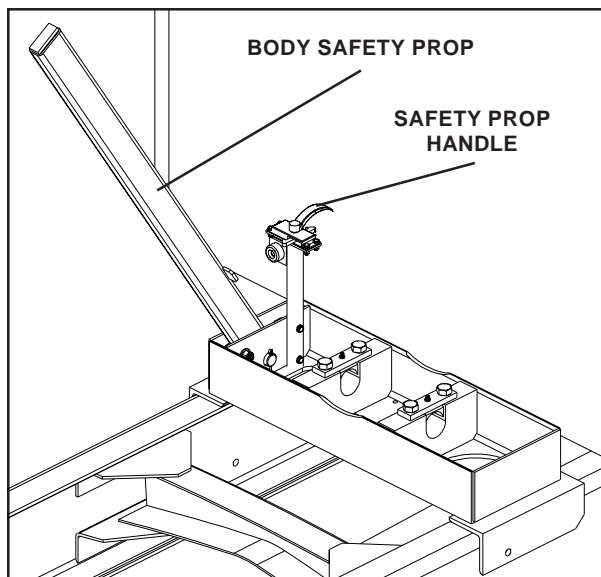


FIGURE #3.20

### 3.4.11 UNLOADING EMERGENCY ACTIONS

If the truck starts to sink on one side as you unload:



**DANGER**

#### UNLOADING EMERGENCY ACTIONS

1. Stop all movement of the equipment.
2. Start or continue lowering the body.
3. If the equipment does not stop sinking, stay inside and protect yourself.



**CAUTION**

#### THE BODY DOES NOT RAISE

1. Ensure the hydraulic system is engaged.
2. Make sure the tailgate is fully open.
3. Make sure the air pressure is above 70 psi.
4. Check all fuses in the console.
5. Contact the maintenance facility if there is no change.
6. If equipped with air suspension, it needs to be dropped.
7. If equipped with a tag axle, it must be lowered.



**DANGER**

**DO NOT USE SAFETY PROP WITH A LOADED BODY. NEVER STAND UNDER A RAISED LOADED BODY.**

### 3.4.12 TROUBLESHOOTING QUICK REFERENCE

If an electrical failure occurs preventing the operator from retracting the arm, the following procedure can be applied.

- a) Apply the parking brake and put the transmission in "Neutral".
- b) Install the control lever on the proportional valve located on the right-hand side of the vehicle (Figure #3.22), on the arm extend/retract section. Using the manual control, retract the arm slowly in order to bring it back to its rest position. **Stand clear of the path of the arm and do not open the grabber in midair.**

Contact your service center and refer to the Troubleshooting section of the Parts and Service Manual.

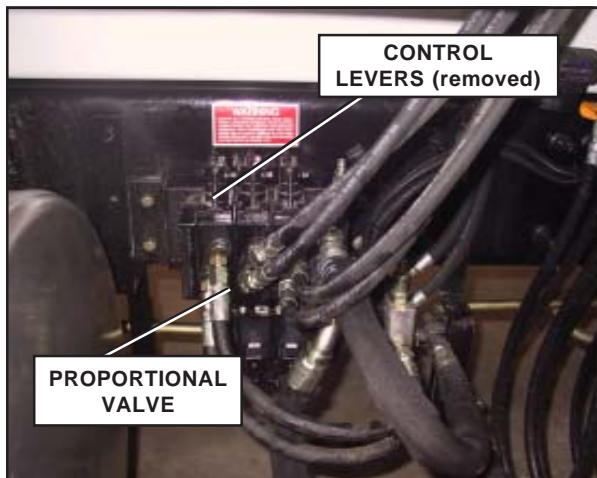
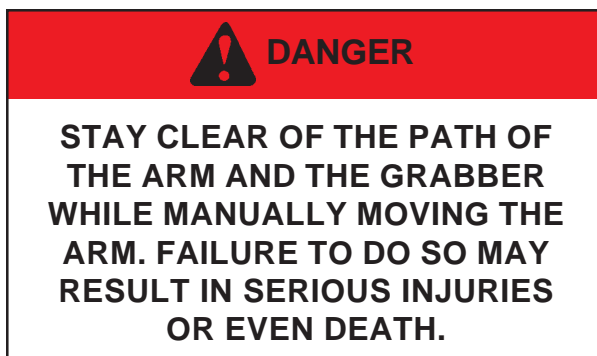


FIGURE #3.21



### PROPORTIONAL VALVE

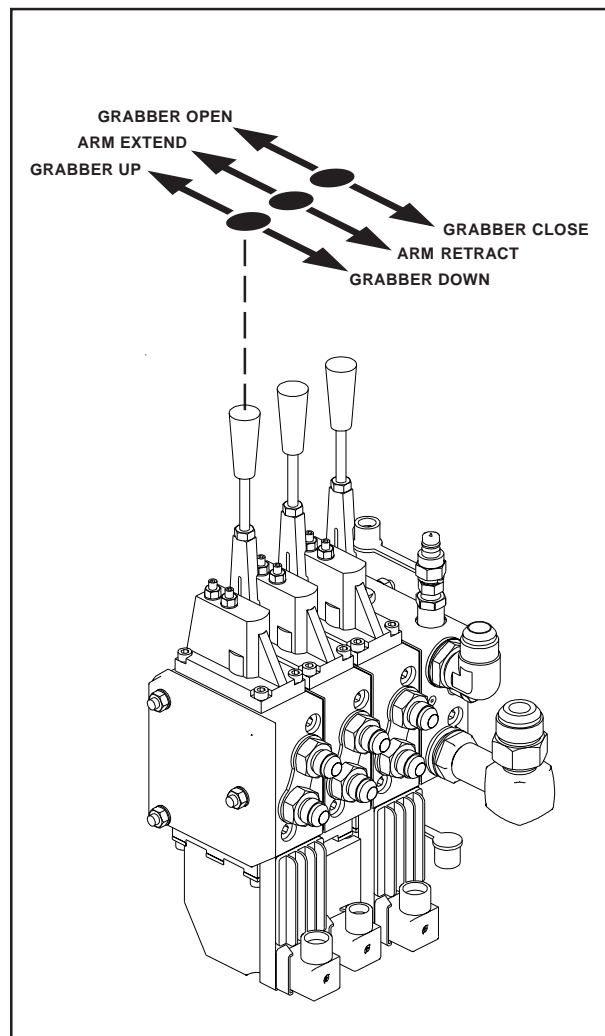


FIGURE #3.22

### 3.4.13 CRUSHER PANEL

The crusher panel is an option that may be installed on the vehicle. If it is installed we suggest you to use it only for bulky items and breaking the load. In many cases, unnecessary use will slow down the operation. Bulky items can be maintained in place with the crusher panel while the packing ram crushes them.

The crusher panel can be lowered upon the refuse to prevent the refuse from popping up in front of the packing ram, increasing the compaction at any time and also during the load breaking sequence

To help during the unloading sequence, you should leave a good amount of garbage in front of the packing ram and under the lowered crusher panel, as you finish your route. Once you are at the landfill and that the body is raised, you can activate the packing ram to help clear whatever could be jammed in the hopper. This procedure can also be done without the crusher panel.

Prior to beginning waste collection, make sure that the crusher panel is fully raised and the right-hand side hopper door is closed and locked in place. An interlock system (proximity switch and/or limit switch) prevents the arm from working if the door is open or if the crusher panel is not up.

### 3.4.14 GRIPPER AUTO-CLOSE OVERRIDE

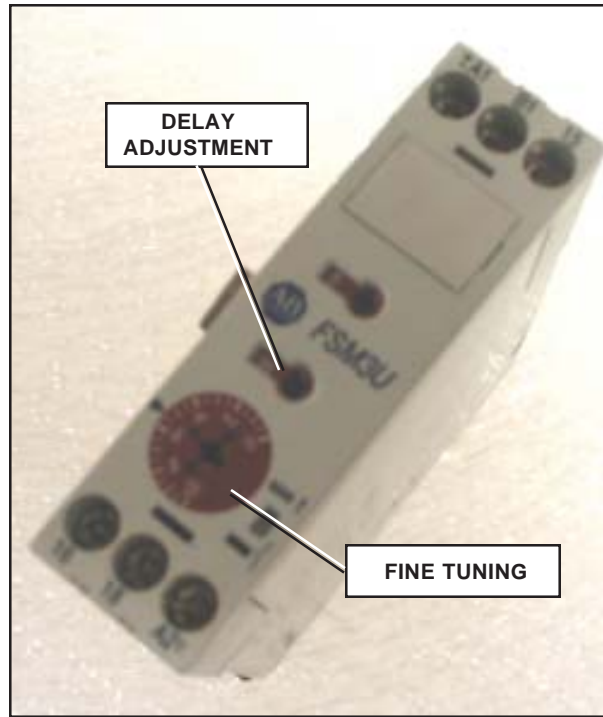
The Gripper Auto-Close Override function (optional) allows the operator to open the gripper in the hopper in order to throw away the grabbed object directly in it.

To enable the Gripper Auto-Close Override function, push on the Gripper Auto-Close Override button on the cab console (see illustration on the next page).

The Gripper Auto-Close Override function allows the gripper to be open during 10 seconds. After 10 seconds, the gripper closes automatically.

To adjust the delay, turn the potentiometer on the corresponding timer relay (located in the console). To know exactly which relay controls the Gripper Auto-Close Override function, see the electrical schematics supplied with the truck.

### TIMER RELAY



## 3.5 END OF THE DAY CLEANING AND INSPECTION

### 3.5.1 HOPPER DAILY CLEANING

Cleanliness is a key part of safety and critical to the vehicle's maintenance.

Daily cleaning of the hopper and chassis is crucial because it will minimize breakdowns and maintenance expenses. Daily wiping down of all truck lights, warning lights and safety stickers will make your vehicle more visible so that surrounding pedestrians and vehicles will be safer around the vehicle.

The procedures described in this section are **necessary** for the vehicle to be well maintained and for the operator to be safe while cleaning the vehicle.

#### HOPPER CLEANING PROCEDURE

1. Park the vehicle on a level ground and apply the parking brake.
2. Fully extend the arm and the packer.
3. Lower the crusher panel and clean all accumulated dirt. Then, raise the crusher panel all way (if installed).
4. Proceed with the lockout/tagout procedure (section 2.4).
5. Open the cleaning trap on each side of the hopper (Figure #3.26).
6. Clean all accumulated dirt under cylinder brackets and inside the side tracks using the hoe and pressurize water if necessary. Be careful with limit switches to prevent misalignment.
7. Perform a visual inspection for leaks or wear in this area.
8. Rake small pieces of garbage out of the cleaning traps using the hoe (Figure #3.26).
9. Finish cleaning the area with pressurized water.

#### CLEAN ALL ACCUMULATED DIRT UNDER CYLINDER BRACKETS UNDER CYLINDER BRACKETS



FIGURE #3.24



### 3.5.1 HOPPER DAILY CLEANING (cont'd) CLEANING TRAP



FIGURE #3.26

**CLEAN ALL ACCUMULATED DIRT  
UNDER CYLINDER BRACKETS**



FIGURE #3.27

### 3.5.2 CHASSIS DAILY CLEANING

#### CHASSIS DAILY CLEANING PROCEDURE

1. Start the engine.
2. Raise the body until the safety prop is free to tilt under the body.
3. Release the safety prop using the prop handle (Figure #3.28).
4. Apply lockout/tagout procedure.
5. Clean with pressurized water between the body and the frame.
6. Clean the rear of cab.
7. Perform a visual inspection for leaks or wear in this area.
8. When finished, start the engine, lift the body and bring the safety prop back to its vertical position, then lower the body.
9. Clean the body all around with water and soap; Rinse.



FIGURE #3.28

## 3.6 CO-MINGLE SPLIT BODY OPERATION

### 3.6.1 INTRODUCTION

The Co-Mingle version of the Automizer™ is a dual compartment unit equipped with a hopper divider and dual tailgate (Figure #3.29). The vehicle was designed to collect different materials on the same route.

A mobile chute located in the middle of the hopper (Figure #3.30) diverts material into either side of the hopper.

The chute is controlled by the operator from inside the cab, using push buttons located on top of the joystick (Figure #3.31). Refer to [section 3.6.2](#) “Joystick Description” and [section 3.6.5](#) “Single Chute Operation”. Also available in option, the split chute operation and description is outlined in [section 3.6.8](#) “Dual chute operation”.



FIGURE #3.29

Mobile chute in the hopper section



FIGURE #3.30

Joystick with chute control



FIGURE #3.31

### 3.6.2 JOYSTICK DESCRIPTION

In this section, you will find the description of the joystick installed on the Automizer™. Other Automizer™ cab controls are outlined too in [section 3.2](#) “Cab Controls Review”.

The joystick, which controls the arm, is equipped with six push buttons (Figure #3.32 and 3.33). Two of these buttons allow the operator to control the position of the chute inside the hopper. There's also two other buttons that allow to open and close the grabber of the arm. Finally, the two buttons located at the front of the joystick are used for the Auto-Dump™ function (on Cool Hand™ only).



FIGURE #3.32

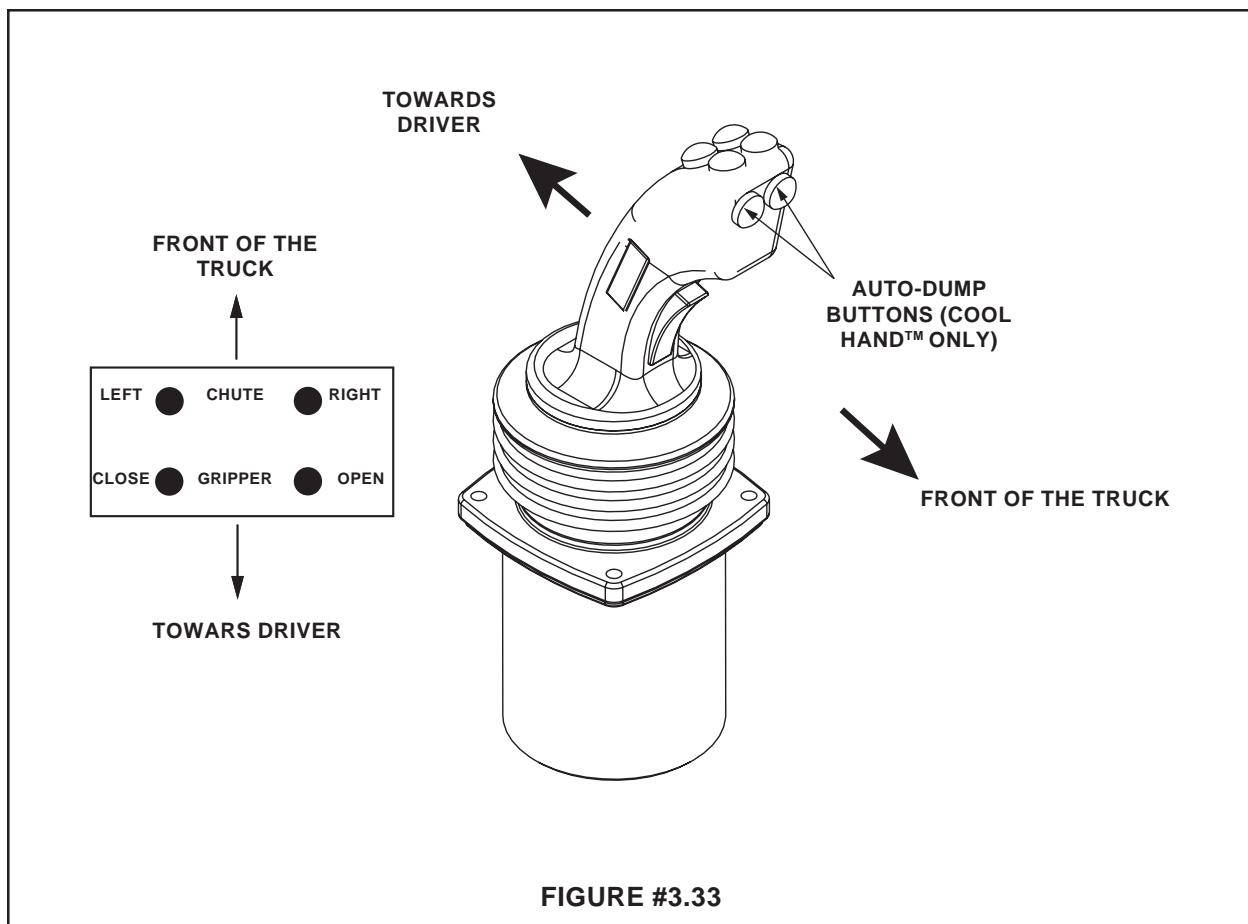


FIGURE #3.33



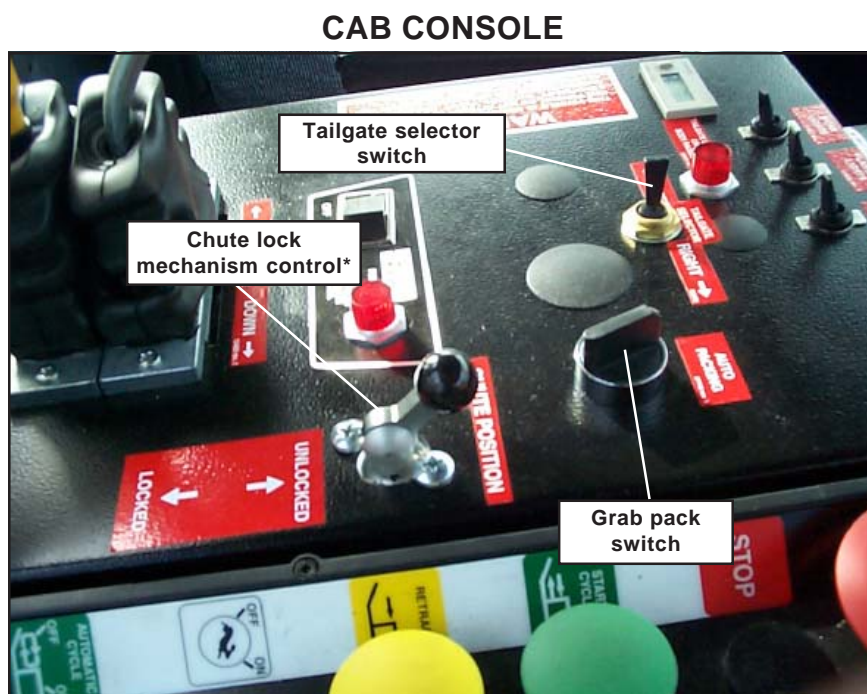
### 3.6.3 TAILGATE SELECTOR SWITCH

Located on the console, the tailgate selector switch (Figure #3.34) enables the operator to choose between unloading the right or the left side of the body. Before opening one tailgate, the operator moves the switch towards the left or right and then uses the tailgate control lever, also located on the console.

Note that only one tailgate can be open at a time. Refer to [section 3.4.9](#) “Standard Unloading procedure”.

**Note:**

For some units equipped with an optional split chute, a lock mechanism switch is added on the console (Figure #3.34). Refer to [section 3.6.8](#) “Dual chute operation”.



**FIGURE #3.34**

\* Available only with dual chute. See section 3.6.8 “Dual Chute Operation”.

### 3.6.4 SAFETY SYSTEM

The Automizer™ Co-Mingle is equipped with an interlock system designed to prevent the arm from colliding with the chute. The system uses proximity switches to detect the position of the chute and the arm.

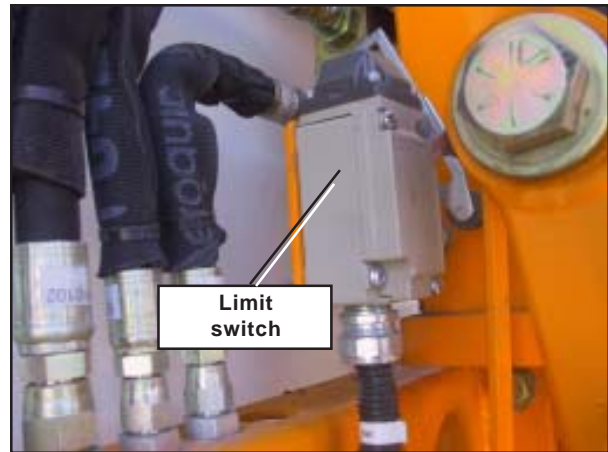
If the chute is not in the proper position (Figure #3.35), the proximity switch in the hopper (Figure # 3.37) will stop the arm before the collision occurs with the chute.

The limit switch on the side of the Right-Hand™ arm for auto-closing and camera switching will stop the arm from dumping if the chute is not in the proper position.

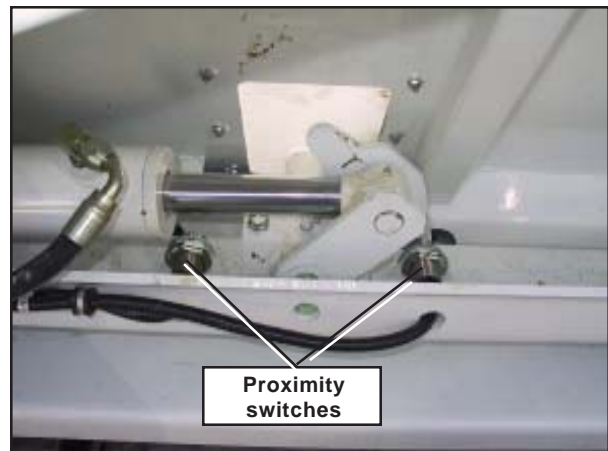
Two other proximity switches are used to detect the position of the chute (left and right position). They are located behind the hopper front wall (Figure #3.37). Refer to the Parts and Service Manual for limit switch adjustment procedure.



**FIGURE #3.35**



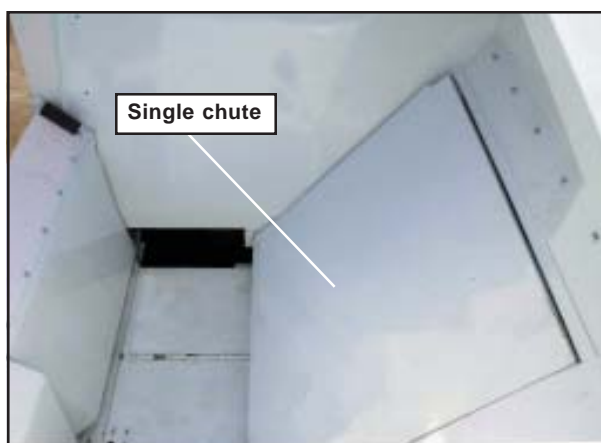
**FIGURE #3.36**



**FIGURE #3.37**

### 3.6.5 SINGLE CHUTE OPERATION

The chute located in the middle of the hopper diverts material to the left or the right side of the hopper (Figure #3.38). Before collecting material, the operator must know exactly what type of material to load in, and to change the position of the chute accordingly. Loading material on the wrong side of the hopper can contaminate recycling material with unwanted substance.



**FIGURE #3.38**

Before dumping a cart, change the position of the chute to the proper side of the hopper using one of the yellow buttons on top of the joystick (Figure #3.39).

Push the button once and wait until the warning light on the dashboard lights up (Figure #3.40). There is no need to hold the button until the chute comes into position.

The time required by the chute to change from one side to another is about 3 to 4 seconds. Afterwards the warning light on the dashboard lights up indicating the chute has reached its position. If the warning

light does not light up after that delay, this indicates that the chute is stuck somewhere along piled material in the hopper and that it cannot reach the desired position.



**FIGURE #3.39**

If that happens, it will NOT be possible to bring back the chute to the other side unless overriding the chute.

Note that if the chute is not positioned properly, the arm is no longer capable of reaching the hopper. An interlock system prevents the grabber from colliding with the chute inside the hopper. Refer to [section 3.6.4](#) "Safety System".

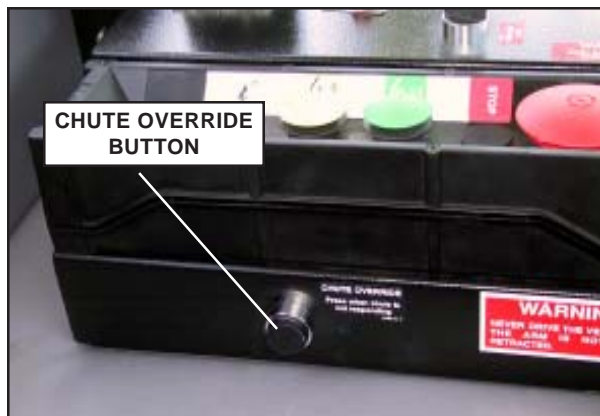


**FIGURE #3.40**

### 3.6.6 CHUTE OVERRIDE

The chute override button is used when the chute cannot reach its position (Caused by piled material in the hopper). It is possible to operate the chute manually by pressing the chute override button on the console (Figure #3.41).

When the override button is pressed, the operator can return the chute back to its original position by pressing one of the two yellow buttons on the joystick and wait until the packer finished packing material allowing the chute to move freely.



**FIGURE #3.41**

The push button on the console is spring return and must be held to give full control of the chute in both directions. When holding the override, the operator can move the chute back and forth to help unblock piled material.

### 3.6.7 SPLIT-CART

The split cart has a center divider that allows collection of two different types of material.

For that purpose, the vehicle is equipped with a dual chute system (Figure #3.42) that enables the operator to collect split-cart and put different types of recyclable material simultaneously in both sides of the hopper without moving the chute (Refer to [section 3.6.8](#) “Dual Chute Operation”).

#### DUAL CHUTE

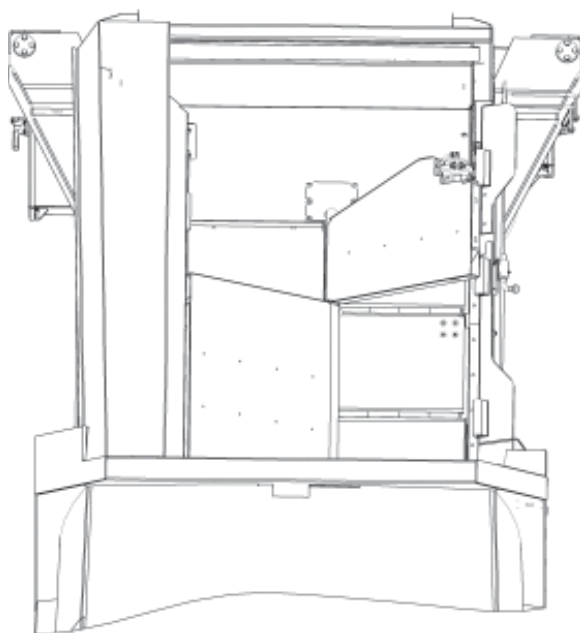


FIGURE #3.42

### 3.6.8 DUAL CHUTE OPERATION

When recycling material requires being loaded in both side of the hopper at the same time (when dumping split-cart), an air locking mechanism is used to release the rear section of the chute allowing the operator to move front section of the chute to the opposite side of the hopper.

One half of the chute will divert material curbside and the other section to the street side. The lock mechanism is controlled from inside the cab, using the toggle switch located on the console (Figure #3.43).

#### CAB CONSOLE



FIGURE #3.43



### 3.6.8 DUAL CHUTE OPERATION (cont'd)

Note that the chute can be unlocked whether it is positioned on the left or the right side of the hopper.

The dual chute is operated using two yellow buttons on top of the joystick (Figure #3.44). Before dumping a cart, change the position of the chute to the proper side of the hopper. Push the button once and wait until the warning light on the dashboard lights up. There is no need to hold the button until the chute comes into position.



FIGURE #3.44

The time required by the chute to change from one side to the other is about 3 seconds. Afterwards the warning light on the dashboard lights up, indicating that the chute has reached its position (Figure #3.45). If the warning light did not light up after that delay, this indicates that the chute is stuck somewhere with piled material in the hopper and cannot reach the desired position.

If that happens, it will NOT be possible to bring back the chute to the other side unless overriding the chute. Refer to [section 3.6.6](#) "Chute Override".

Note that if the chute is not positioned properly, the arm is no longer capable of reaching the hopper. An interlock system prevents the grabber from colliding with the chute inside the hopper. Refer to [section 3.6.4](#) "Safety System".



FIGURE #3.45

### 3.6.9 SEPARATING THE CHUTE

To separate the chute, bring it to the proper side of the hopper (either street side or curbside), flip the rocker switch on the console (Figure #3.43). Move back the front part of the chute to the other side. Releasing the rear part of the chute enables the operator to load split-cart simultaneously into both sides of the hopper. When the chute is separated, the warning light on the dashboard will indicate only the position of the forward part of the chute. Make sure to align the front part of the chute with the rear part before locking both sections.



**FIGURE #3.46**

### 3.6.10 CO-MINGLE UNLOADING PROCEDURE

Once you have finished your route, make sure that the arm is parked along the truck. Keep some garbage not compacted in front of the packer in order to help you during “unloading procedure”.

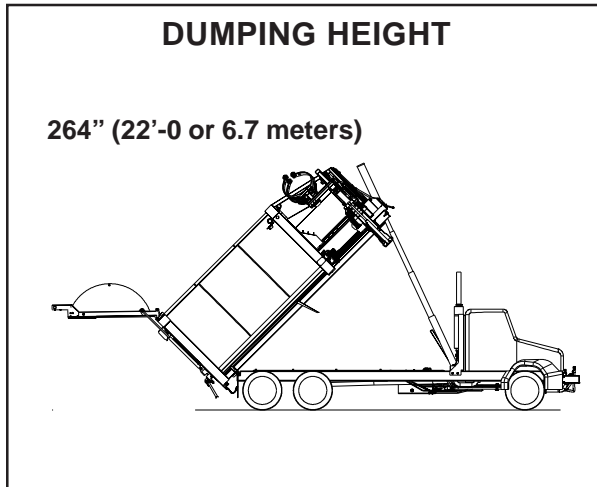


FIGURE #3.47

### CO-MINGLE UNLOADING PROCEDURE

#### Step 1

- Drive the vehicle to the landfill or the material recycling facility;
- Make sure that the vehicle is on a safe, stable and level ground;
- Check the overhead clearance and the back of the vehicle before opening the tailgate and raising the body;
- Remove both tailgate safety pins (Figure #3.47);
- Select the proper tailgate (Left or right) using the tailgate selector switch on the console;
- Fully open the tailgate;



#### WARNING

**ENSURE THE OVERHEAD IS CLEAR BEFORE OPENING THE TAILGATE AND RAISING THE BODY.**





FIGURE #3.48



FIGURE #3.49

### CO-MINGLE UNLOADING PROCEDURE

#### Step 2

- Raise the body (Figure #3.48);
- The material should slide out;
- Move slowly the vehicle forward to prevent the garbage from piling up under the tailgate (Figure #3.48). This is the only time you can move the truck with body raised. Do it very cautiously and cover the shortest distance possible. Always be aware of the overhead clearance;
- Cycle the packer blade to help eject the garbage. It may be helpful to have some garbage left in the hopper to enhance the effect of the packer pushing on the garbage;
- Lower the body and close the tailgate;

### CO-MINGLE UNLOADING PROCEDURE

#### Step 3

- Repeat the procedure for the other side of the body;
- Put safety pins back in place (Figure #3.19);
- Drive away from the unloading site;
- See [section 3.5](#) “End of the day cleaning and inspection”.

