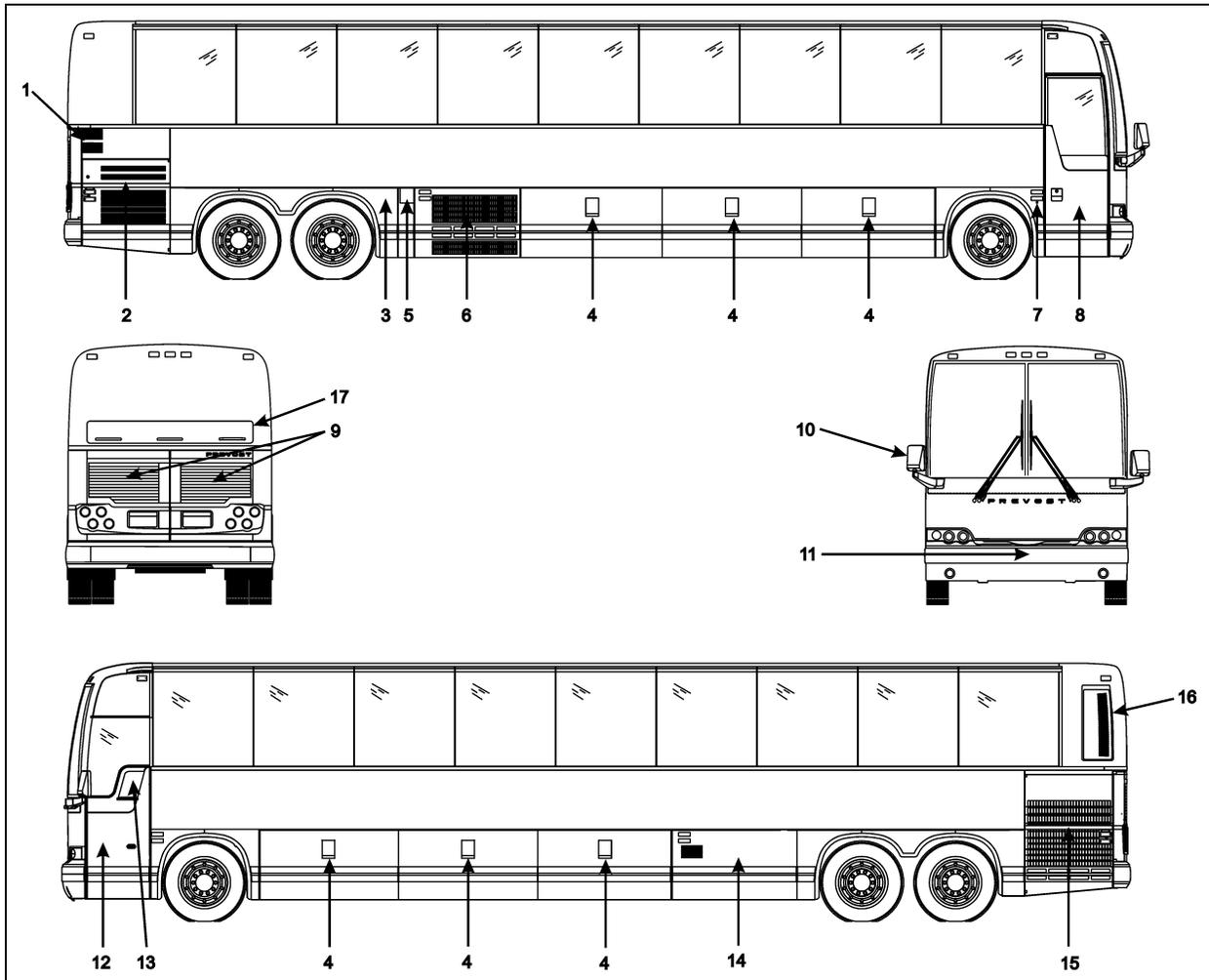


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<b>ENGINE COMPARTMENT REAR DOORS</b> .....	<b>4</b>
<b>EXHAUST AFTERTREATMENT SYSTEM ACCESS DOOR</b> .....	<b>5</b>
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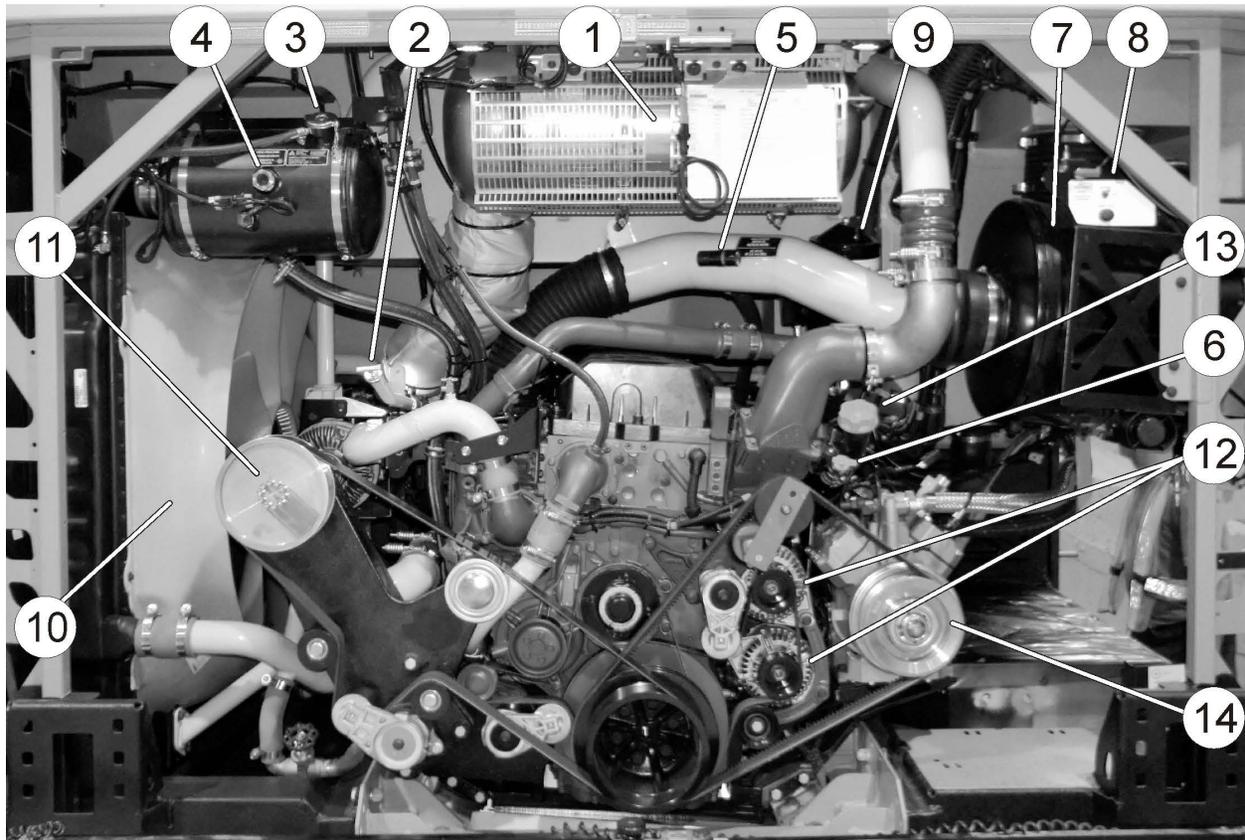
## 2-2 Coach Exterior



X3-45 EXTERIOR VIEW (TYPICAL)

18606

1. Engine air intake
2. Engine compartment curb-side door
3. Hinged rear fender
4. Baggage compartment
5. Fuel filler door
6. Condenser compartment
7. Entrance door control switch
8. Entrance door
9. Engine compartment rear doors
10. Rear-view mirrors
11. Spare wheel compartment
12. Front electrical and service compartment
13. Driver's power window
14. Evaporator compartment and coolant heater compartment
15. Radiator door
16. Catalytic converter access door
17. Exhaust aftertreatment system access door

**ENGINE COMPARTMENT COMPONENTS**

**ENGINE COMPARTMENT FEATURING VOLVO D13 ENGINE 01184**

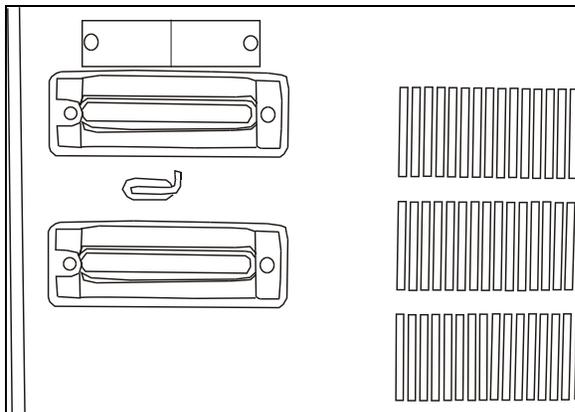
1. Diesel Oxidation Catalyst (DOC) & Diesel Particulate Filter (DPF) Assembly;
2. Transmission fluid dipstick (if equipped with Allison transmission);
3. Coolant fluid surge tank filler cap;
4. Coolant fluid surge tank sight glass;
5. Air filter restriction indicator;
6. Engine oil dipstick;
7. Air filter;
8. Starter selector switch and Engine rear start push-button switch, Engine compartment Lights Switch;
9. Power steering fluid reservoir;
10. Radiator fan;
11. Radiator fan drive mechanism
12. Alternators;
13. Engine oil filler tube;
14. Central A/C compressor;

## 2-4 Coach Exterior

### ENGINE COMPARTMENT CURB-SIDE DOOR

The engine compartment curb-side door provides access to the following (if equipped):

- Engine compartment rear doors release handle;
- Booster terminals;
- Rear electrical panel;
- Rear junction panel;
- Battery compartment;
- Fuel filter/water separator (Optional);
- Air circuit fill valve and drain cock;
- Sump tank access cap;
- 110 - 120 volt connector;
- Lavatory maintenance valve and connectors;
- Fresh water reservoir fill connector;



ENGINE COMPARTMENT CURB-SIDE DOOR 18559

This door can be locked or unlocked using the exterior compartment key or, if so equipped, by the central door locking system. To open, push sideways on the small lever located between the marker lights.

#### **NOTE**

*This compartment can be locked/unlocked using the central locking system by pressing the switch located on the L.H. side dashboard panel.*



ENGINE COMPARTMENT R.H. SIDE 18607

A telltale light illuminates when one or more compartments are unlocked.

### ENGINE COMPARTMENT REAR DOORS

To open the engine compartment rear doors, open the engine compartment curb side door and pull the handle located on the rear door, close to the bottom door hinge.



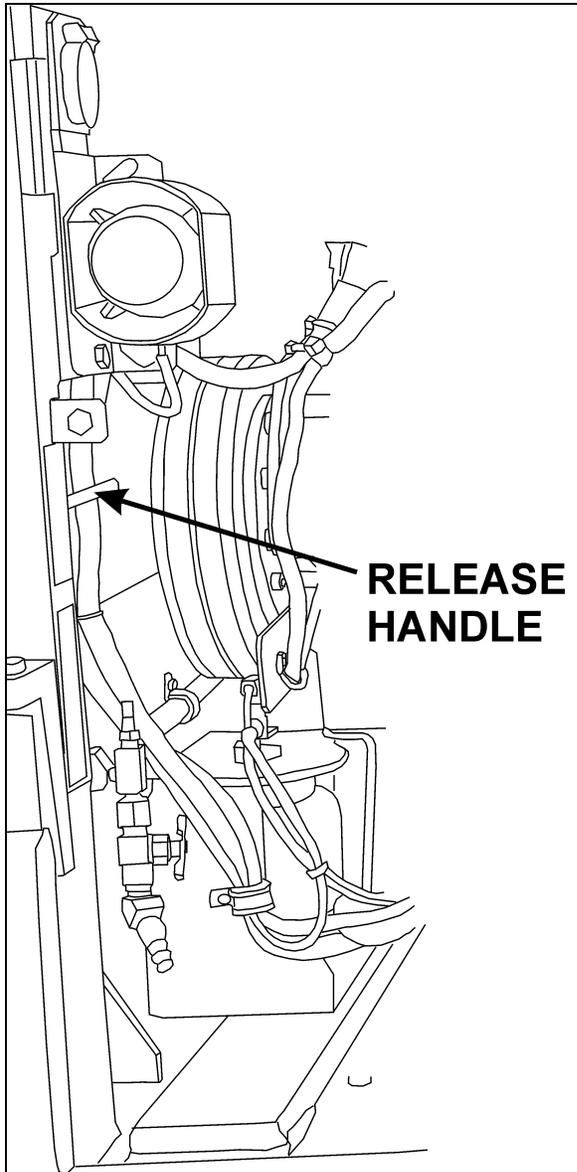
#### **WARNING**

Unless otherwise stated, do not run the engine when the engine compartment is open.

These doors swing out to provide access to the following:

- Engine;
- Alternator(s);
- Compressor(s);
- Belt tension control valve (refer to chapter, Care and Maintenance);
- Engine starting selector (refer to chapter, Starting and Stopping Procedures);
- Coolant line shutoff valves;
- Certification plates;
- Engine coolant surge tank and filler cap;
- Air filter restriction indicator;
- Engine oil dipstick;
- Power steering fluid reserve tank;
- Allison automatic transmission fluid dipstick;

A catch holding each door open engages when the door is fully open. Release the catches before closing the doors. Close the L.H. door first, then firmly shut the R.H. door.



OPENING ENGINE COMPARTMENT REAR DOORS 18608

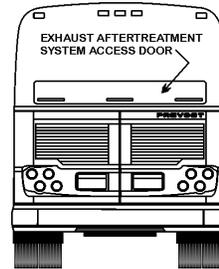
Turn the lights ON in the engine compartment using the switch on the rear start panel.



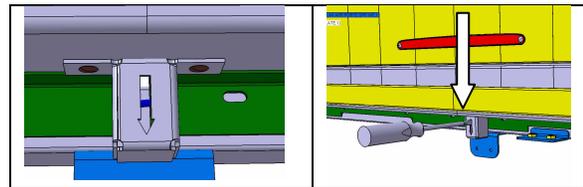
**WARNING**

Unless otherwise specified, do not run engine when the engine compartment rear doors are open. Close the engine compartment rear doors before starting the engine.

**EXHAUST AFTERTREATMENT SYSTEM ACCESS DOOR**



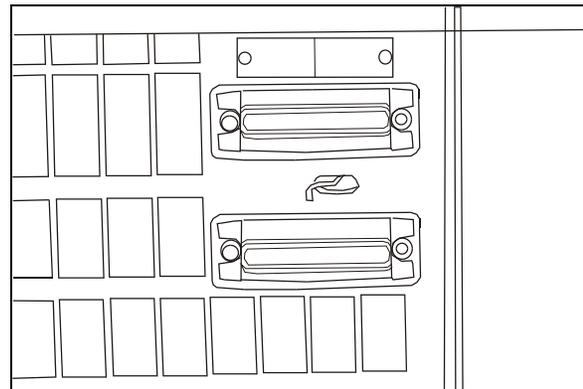
The engine door must be open before opening the exhaust aftertreatment system access door. To open the access door, lower the latch release lever, using a flat tip screwdriver.



To close the door, lower the door and push against the release lever spring to latch the door shut.

**ENGINE RADIATOR DOOR**

Open the engine radiator door by pushing the release lever sideways.



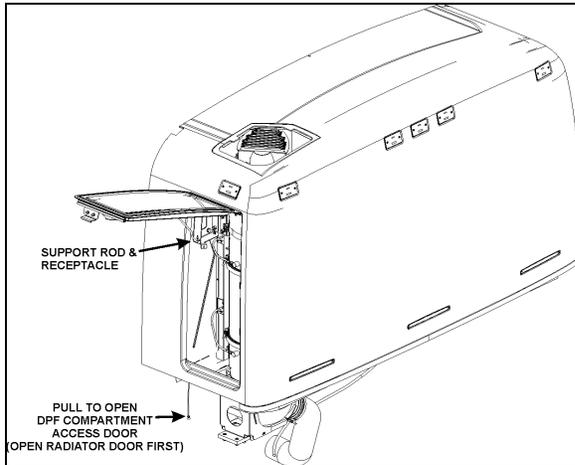
RADIATOR DOOR 18560

**SCR ACCESS DOOR**

To gain access to the SCR, open the radiator door first. At the top of the radiator compartment, pull the catch connecting rod to unlock the catalytic converter access door and lift the door open.

Hold the door open by inserting the support rod free end into the receptacle located on the left side of the DPF.

## 2-6 Coach Exterior



### WARNING

After inserting the support rod into the receptacle, make sure the rod supports the door securely from falling down on to your head or body.



### WARNING

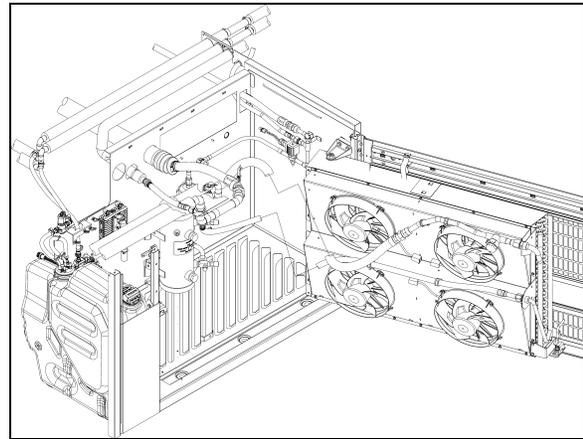
External and internal temperatures remain hot long after engine has been shutdown. Allow the Exhaust Aftertreatment System to cool before handling. Wear protective clothing and glove while servicing.

## CONDENSER COMPARTMENT (A/C)

Pull the release latch located inside the adjacent baggage compartment to open the condenser door.

The condenser compartment provides access to the following:

- Diesel Exhaust Fluid (DEF) Tank
- Condenser;
- Condenser fans and motors;
- Filter dryer and moisture indicator;
- Receiver tank;



CONDENSER COMPARTMENT (A/C) 22299



### CAUTION

Only the strap should be used to pull the condenser-fan assembly open. Damage to condenser could result if pulling by other means.

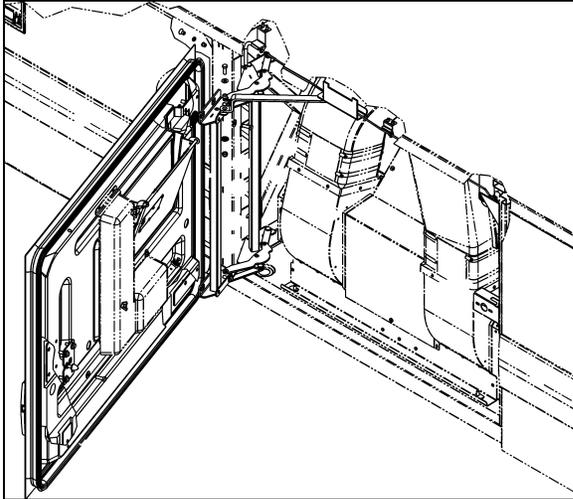


CONDENSER COMPARTMENT STRAP

## EVAPORATOR COMPARTMENT

The HVAC (Heating, Ventilating and Air-Conditioning) evaporator and heater coils are located in this compartment along with the blowers.

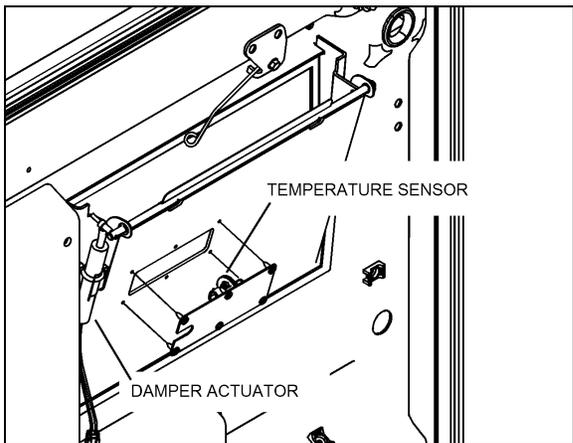
The evaporator compartment door release latch is located on the right wall of the baggage compartment, left of the door. **Pull the release latch then slide your hand in the opening to depress the secondary lock and swing open.**



EVAPORATOR COMPARTMENT



SECONDARY LOCK LEVER

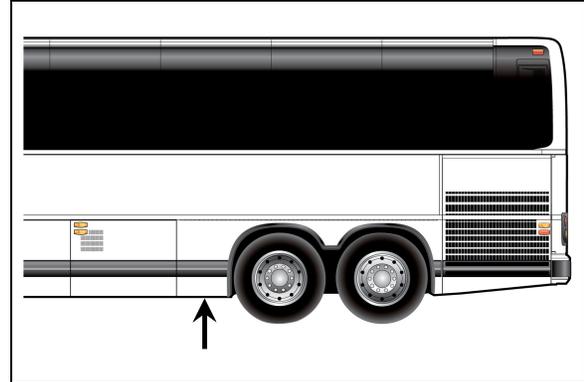


FRESH AIR DAMPER

22302\_A

## COOLANT HEATER

The vehicle may be equipped with the optional preheater located aft of the evaporator compartment, and accessible under left rear fender.



Location of preheater 18607

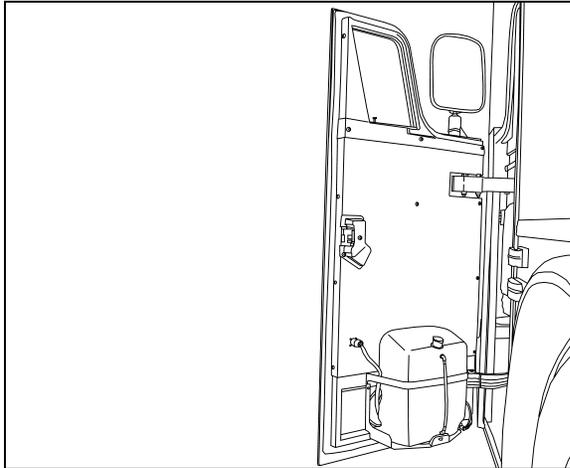
The water recirculating pump is also located in this location.

## FRONT ELECTRICAL AND SERVICE COMPARTMENT

To open the front electrical and service compartment door, pull the rod inside the vehicle, next to the driver's power window or use the key to open from outside the coach. The front electrical and service compartment provides access to the following:

- Front terminal block;
- VECU with Volvo D13 engine;
- Vehicle Electrical Center Front (VECF), CECM and Multiplex Modules;
- Relays and fuses;
- ABS Electronic Control Unit (ECU);
- Emergency door opening unlatch valve;
- Windshield washer reservoir & headlights washer reservoir (optional);
- Accessory system fill valve;
- Accessory air tank drain valve;
- Jack and tools.

## 2-8 Coach Exterior



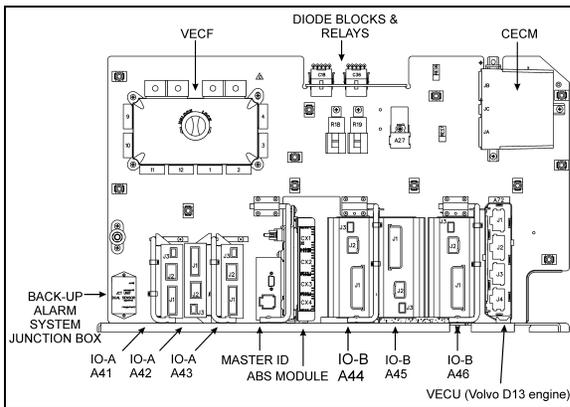
**FRONT SERVICE COMPARTMENT DOOR** 18610

This compartment door can be locked/unlocked using the exterior compartment key.

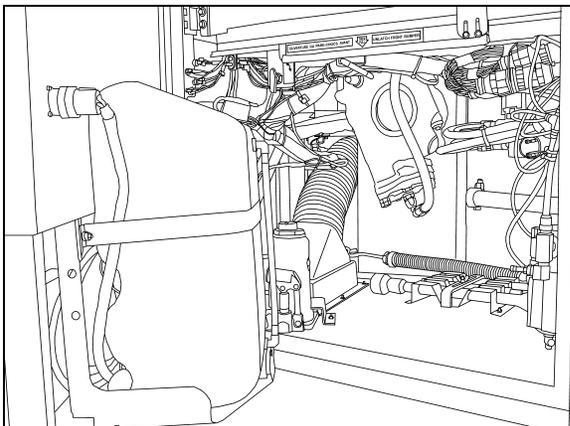
The light in the front electrical and service compartment turns *ON* automatically when the door is opened.

### **NOTE**

*Jack and tools are located inside the front electrical and service compartment.*



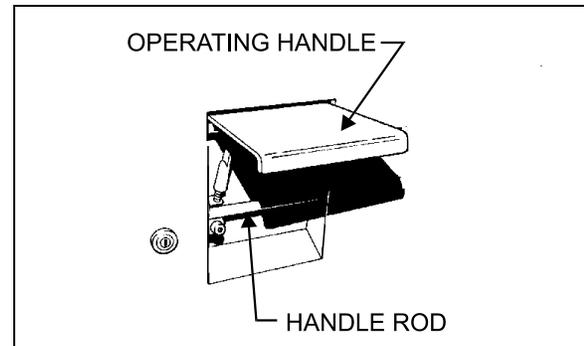
**FRONT ELECTRICAL COMPARTMENT** 06673



**FRONT SERVICE COMPARTMENT** 18611

## **BAGGAGE COMPARTMENTS**

The baggage compartments of the X3-45 Coach provide 406 ft<sup>3</sup> (11.5 m<sup>3</sup>) of storage capacity. The compartments can be locked or unlocked by using the exterior compartment key. Pull up operating handle to release the latch, and then pull the door open. Pressurized cylinders assist the opening and closing of the baggage compartment doors and hold the doors open.



**BAGGAGE DOOR LOCK AND LEVER** 18043

To close, pull the door down by the handle rod. Complete the closing of the door by returning the operating handle to its initial position.



### **CAUTION**

Do not slam shut the baggage compartment doors. Damage to door weather-stripping or locking mechanism could result.

Lights in the baggage compartments turn *ON* automatically when the door is opened.



**BAGGAGE DOOR CATCH** 18612

### **NOTE**

*For added safety, open the door until the catch assist in holding the door in the open position. Lift lever to release door*

**NOTE**

The baggage compartment doors can be locked/unlocked from the driver's position by the optional central locking system. The switch is on the L.H. control panel. Refer to "Controls & Instruments" chapter.

**WARNING**

To avoid injury, keep hands clear of baggage compartment door edge and door frame when closing.

**NOTE**

To prevent theft and vandalism, always lock the baggage compartment doors before leaving the vehicle unattended.

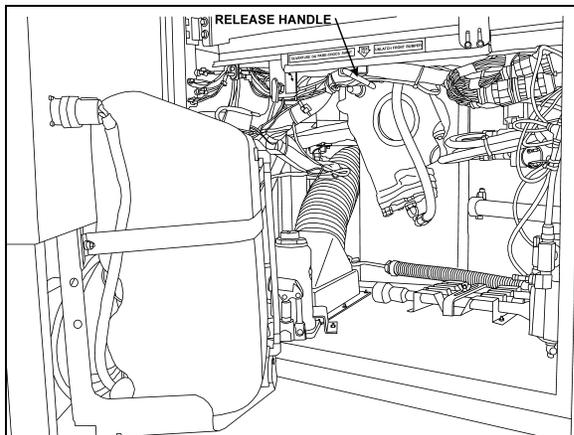
**SPARE WHEEL COMPARTMENT**

The front bumper can be tilted downward to give access to the spare wheel.

**WARNING**

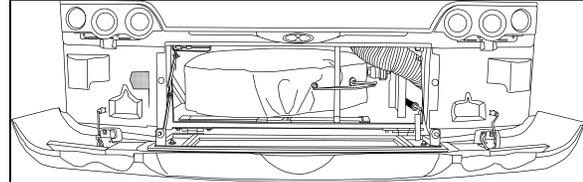
The compartment behind the bumper is not designed for miscellaneous storage. Never store loose objects in this compartment since they can interfere with the steering linkage mechanism.

Pull the release handle located inside front service compartment to tilt down the entire bumper assembly.



RELEASE HANDLE

18613



SPARE WHEEL IN FRONT BUMPER COMPARTMENT 18614

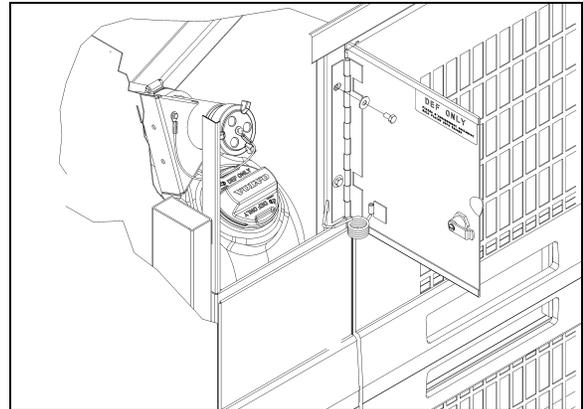
**WARNING**

Although a powerful spring assists in reclining the bumper, it remains heavy and rests low when open. Caution should be used when reclining.

Check that bumper is securely closed shut before driving.

**FUEL AND DIESEL EXHAUST FLUID (DEF) FILLER DOOR**

The fuel and Diesel Exhaust Fluid (DEF) filler door is located on the R.H. side of the coach providing easy filling. A spring keeps the door either open or shut. A key is provided for unlocking the door if the option was chosen.



FUEL &amp; DEF FILLER DOOR

03046

**NOTE**

Provided the vehicle is parked on level ground, an automatic nozzle will automatically shut off when fuel tank is approximately 95% full.

**NOTE**

The fuel & DEF filler door must be in the unlocked position before closing

## 2-10 Coach Exterior



### CAUTION

Diesel exhaust fluid DEF will begin to crystallize and freeze at 12°F (-11°C) and expand by 7% when frozen. To allow expansion without damaging the DEF tank, do not fill the tank with more than 15.9 gallons (60 liters).



### CAUTION

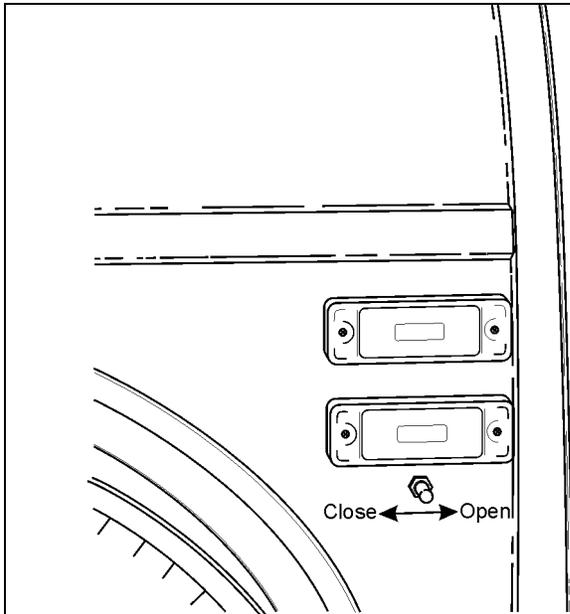
Do not fill to more than 95% of the fuel tank capacity. Do not "top off" the tank, doing so may result in fuel spillage when the fuel expands.

## ENTRANCE DOOR

Lock or unlock the entrance door from outside the vehicle by turning the key in the door lock (counterclockwise to lock, clockwise to unlock).

From outside, open the door by pushing the switch forward, close by pushing the switch rearward.

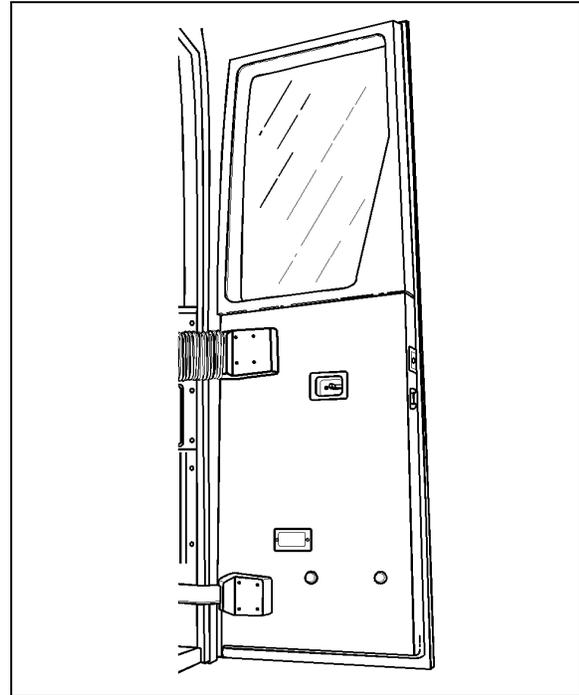
The only way to unlock the entrance door from the inside is by sliding its lock lever to the left. If the orange tab on the door-lock lever is visible, the door is unlocked.



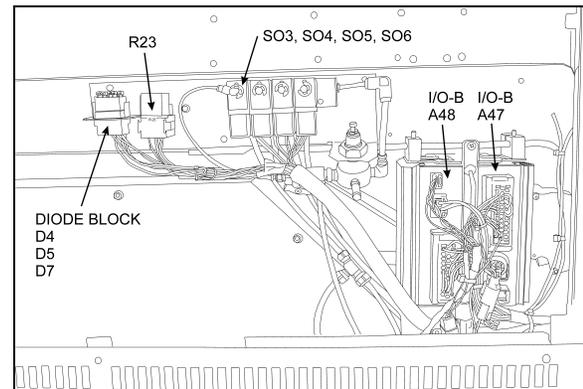
ENTRANCE DOOR EXTERIOR SWITCH 18599

From the inside, open the door by pressing the door opening switch (L.H. button) on the R.H. dashboard panel. Close by pressing the door closing switch (R.H. button) on the dashboard.

Refer to "Controls and Instruments" chapter for more information.



ENTRANCE DOOR 18001



ENTRANCE DOOR & WIPER CONTROL PANEL 06614

## DOOR OPERATION LOGIC

If the switch is held in position until the door is fully open or closed, the system holds pressure in the door cylinder, locking the door in that position. The door can be opened to any position by releasing the switch (or button, if inside) when the desired position is attained. However, the door is not locked in any position other than fully open or fully closed. The door can then be opened or closed further by pushing or pulling on the door.

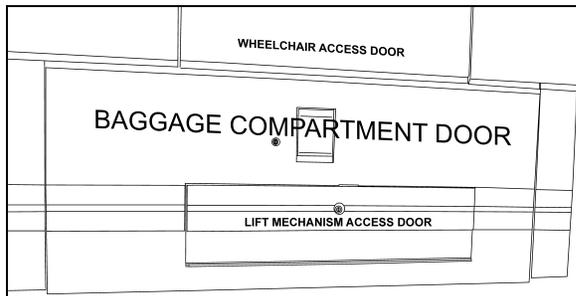
A proximity sensor will finish the closing of the door when it senses the door is almost shut. This works even when the door is shut manually.

**EMERGENCY ENTRANCE DOOR OPENING**

Refer to “Safety Features and Equipment” chapter.

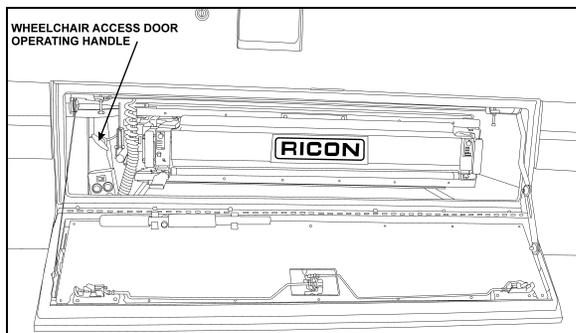
**WHEELCHAIR LIFT ACCESS DOORS**

To open the optional wheelchair lift access doors, the coach must be parked on a flat and level surface with the parking brake on. Using the exterior compartment doors key, unlock and carefully lower the lift mechanism access door which is part of the baggage compartment door. The lift mechanism access door is located directly below the wheelchair access door. A handle at the left of the lift mechanism unlocks and enables opening of the wheelchair access door. If the parking brake is not activated, a switch in the door will activate the parking brake when it detects the door is open.



WHEELCHAIR LIFT ACCESS DOORS 18615

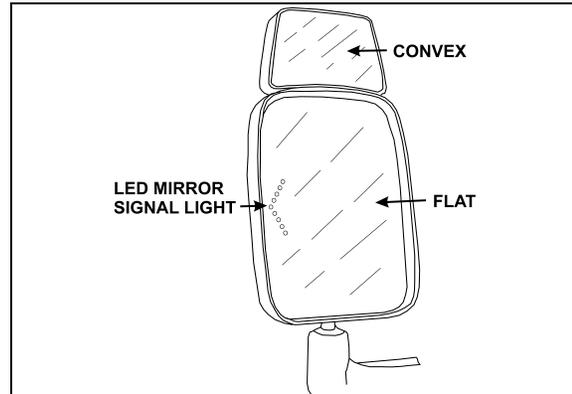
Open the wheelchair access door completely until it locks in the open position. To close the door, pull on the tab located on the inside of the door and slam the door shut. Refer to “Other Features” for more information on operating the optional wheelchair lift.



WHEELCHAIR ACCESS DOOR OPERATING HANDLE 18616

**REAR VIEW MIRRORS**

The vehicle is equipped with flat-type and convex-type rear-view mirrors. Convex mirrors give a wide angle view. Objects viewed in convex-type rear-view mirrors appear smaller and are actually closer than they appear.



REAR VIEW MIRRORS 18668

To provide good visibility in cold weather, the mirrors can be equipped with heating elements. The elements are activated by a rocker switch located on the dashboard. Refer to "Controls & Instruments" chapter. Thermostats are used to prevent continuous operation of the heating elements.



**CAUTION**

Do not attach stick-on type convex mirror accessories to the heated mirror glass. This could impede uniform heat distribution on the mirror surface and could break the mirror glass.

As an option, the mirrors may be equipped with LED turning signal lights to give an additional signal light when turning or changing lane for extra safety or for other drivers to see your signal when driving too close, in rain, fog or when in blind spot.

The mirrors are adjusted using the controls located on the L.H. control panel. Refer to "Controls & Instruments" chapter. Manual adjustment is also possible.

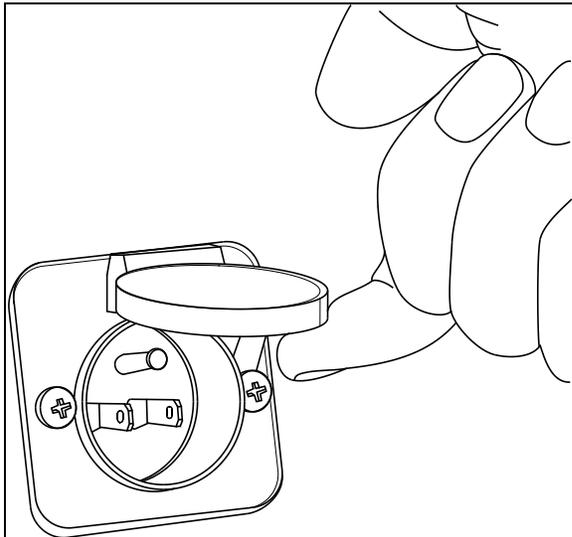
## 2-12 Coach Exterior

### BACK-UP CAMERA

An optional back-up camera is available which provides the driver with visual assistance when backing-up. Camera monitor is installed on the dashboard L.H. side, on the windshield post. For additional information, refer to "Controls & Instruments".

### 110-120 VOLTS CONNECTOR

This connector is connected to the electric block heater and uses a 110-120 VAC power source. It is located near the engine compartment rear doors release handle. (Refer to chapter "Starting and Stopping Procedures").



PRISE DE 110-120 VOLTS

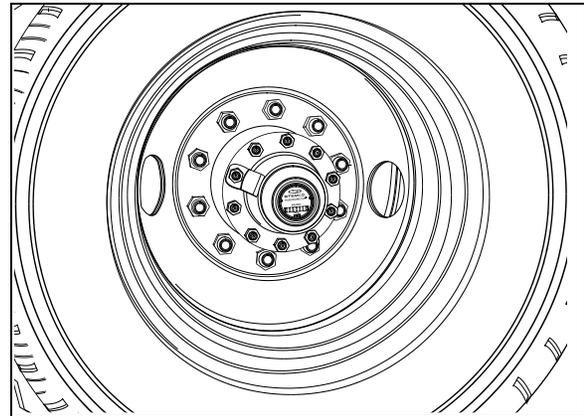
06390

### HUBODOMETER

An odometer is installed on the curb-side drive axle wheel hub. The odometer calculates the total distance in miles or kilometers (depending on model installed) traveled by the coach since manufacture, including factory road testing.

#### **NOTE**

*It is normal for the hubodometer, the engine ECM and the vehicle odometer to disagree on the total mileage.*



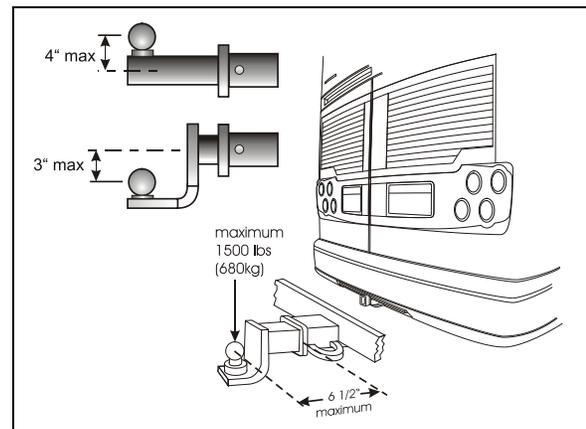
HUBODOMETER

13012

### TRAILER HITCH

#### **20 000 lb max. Gross trailer weight capacity (optional)**

Your vehicle may be equipped with a factory installed trailer hitch which has been designed to meet the following rating:



TRAILER HITCH

23337

- **Maximum gross trailer weight: 20,000 lb (9072 kg)**
- **Maximum tongue weight at 6 1/2 inches (165 mm) or less from coupling receiver: 1,500 lb (680 kg)**



#### **DANGER**

The draw bar and the ball used for towing the trailer should be rated for 20,000 lbs capacity or more.

**WARNING**

Pulling a trailer weighing more than the recommended maximum gross weight may cause engine and transmission overheating, and also possible hitch failure.

**NOTE**

*Pulling a trailer over long distances is considered as a "severe operating condition" for the vehicle and therefore, power plant requires more frequent servicing.*

**NOTE**

*The minimum requirement for a trailer weighing up to 20,000 lbs when coupled to a 20,000 lb PrevoSt Trailer Hitch is as per the following:*

1. Trailer must comply with **Federal Motor Carrier Safety Regulations 393.52** regarding trailer braking capability.
2. The trailer coupling attachments meet the following minimum static test load requirements :
  - Longitudinal tension and compression: (1.5 x GVWR of trailer)
  - Transverse thrust: (0.5 x GVWR of trailer)
  - Vertical tension and compression: (0.5 x GVWR of trailer)

*Loads indicated must be applied without incurring loss of attachments or distortion or failure which could affect the safe towing of trailer.*

3. The ball and trailer coupling should meet the following minimum test load requirements without incurring failure:
  - Longitudinal tension and compression: (Gross Trailer Weight of trailer x 3)
  - Transverse thrust: (Gross Trailer Weight of trailer x 1)
  - Vertical tension and compression: (Gross Trailer Weight of trailer x 1.3)

*In this case, failure is identified as the point at which the coupling or ball will accept no additional test load without separation of the ball from the coupling ball socket, or the occurrence of a metal fracture of either coupling ball or coupling assembly, which results in separation of the ball from the*

*coupling ball socket.*

4. Two lengths of safety chain shall be used. The strength rating (minimum breaking force) of each individual chain and its connecting means shall be equal to, or exceed the trailer GVWR.
5. Towing vehicle must be equipped with engine or transmission retarder. The engine or the transmission retarder on the vehicle must be functional at all time (to be inspected frequently).