

# SECTION 23: ACCESSORIES

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### 1. AUDIO AND VIDEO SYSTEM DESCRIPTION

The rack mounted components are gathered on the audio-video panel which is located in the first driver's side overhead compartment (Fig. 1). In addition to the power amplifier, options for AM/FM stereo radio and satellite radio, CD changer, karaoke, wireless microphone, DVD and videocassette player, scenic view and back-up camera system and GPS Navigation System module may be featured.

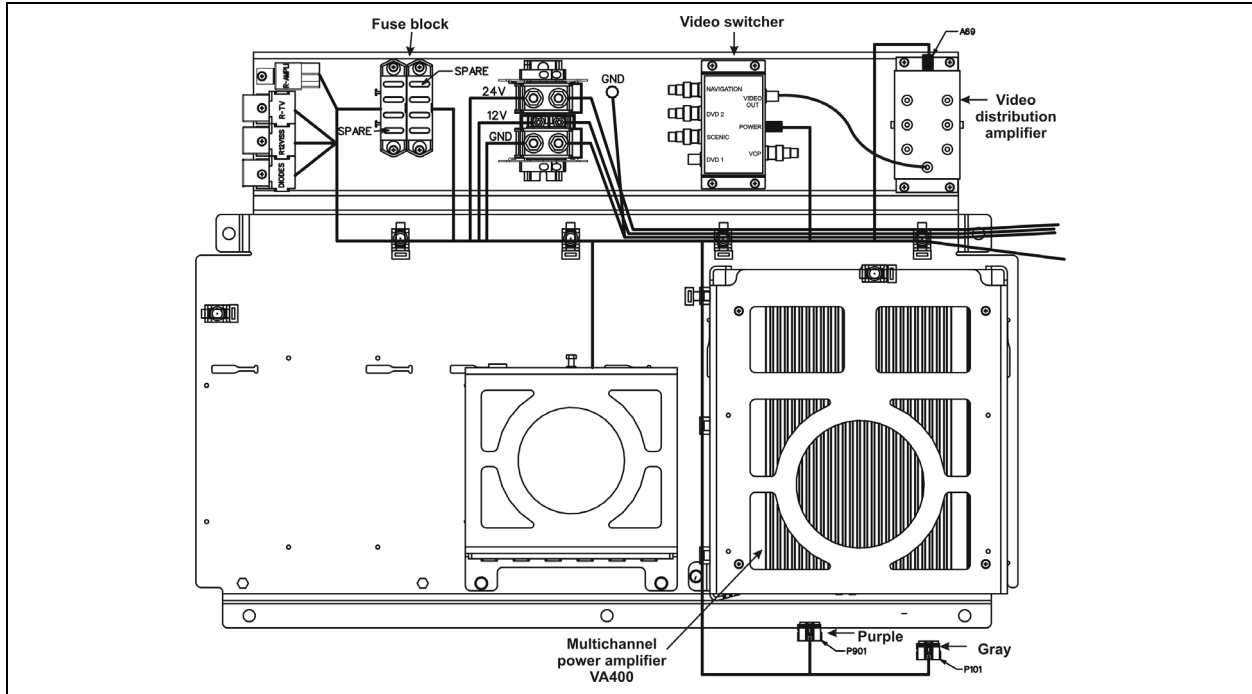


FIGURE 1: AUDIO-VIDEO PANEL

Each service module mounted to the underside of the parcel racks contains a 40-watt speaker. The speakers in the passenger section (twelve in H3-41 or sixteen in H3-45) are wired in stereo and are powered by the amplifier. A microphone outlet mounted in the driver's area is provided as standard equipment.

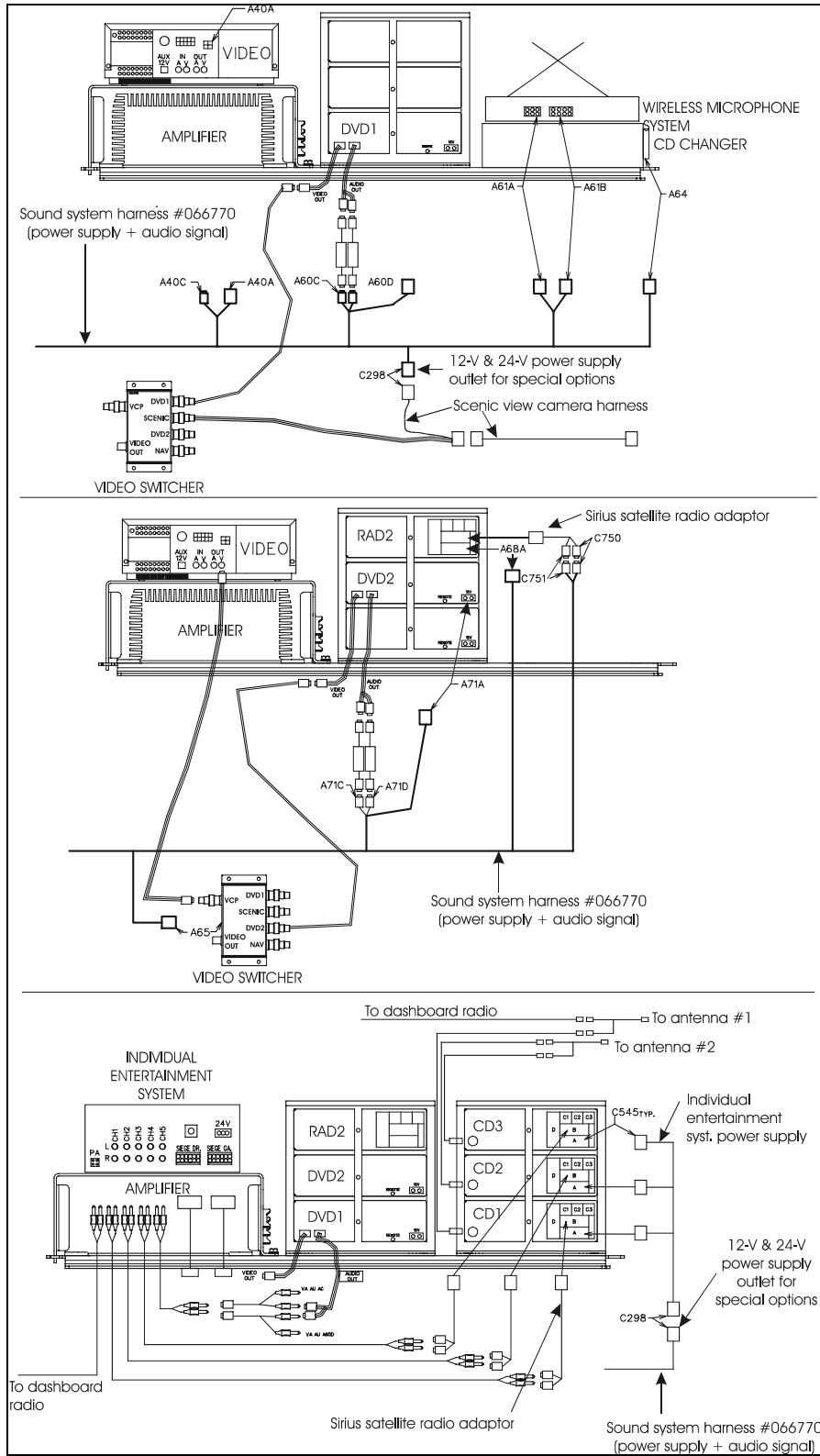


FIGURE 2: AUDIO & VIDEO CONNECTIONS

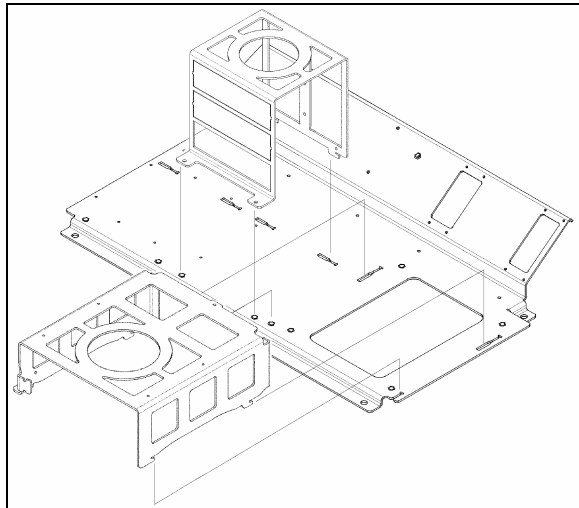


FIGURE 3: RACKS ON AUDIO-VIDEO PANEL

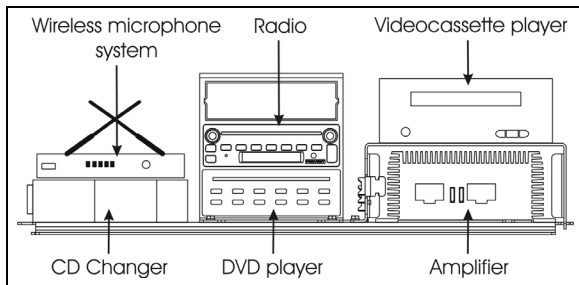


FIGURE 4: AUDIO-VIDEO PANEL

## 1.1 AM/FM RADIO

### 1.1.1 VR300 AM/FM Radio / CD Player

This AM/FM/WX (weather band) radio CD player model has external CD changer capability (Fig. 4).

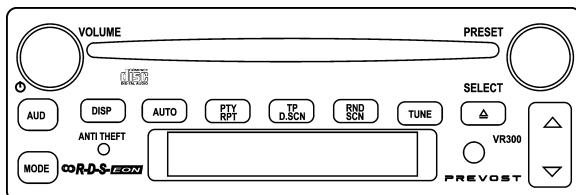


FIGURE 5: VR300 CD/AM/FM STEREO RECEIVER 23351

#### NOTE

Before attempting to solve an electrical problem on the sound system, refer to the wiring diagrams.

“VR300 Operating Instruction” manual is included at the end of this section. The radio is a serviceable component and should only be serviced by a qualified electronics technician.

#### Features:

- CD changer control
- Anti-theft
- Auto preset memory
- LED illumination
- Liquid crystal display
- Amber illumination
- Panel light dimming
- Quartz clock
- Mute function
- Search & repeat
- Track scan
- AUX input
- 4x20W power
- 4 low level outputs

### 1.1.2 Security Code

Your radio is protected by a security code. The security code can be found on a label delivered with the radio. The security code cannot be changed.

When the radio power is first turned on after power has been interrupted, “ID CHECK” and then “LOCK” is displayed for 3 seconds. Then “0000” is displayed.

To unlock the radio, enter the four-digit security code found on the removable label (refer to “VR300 Operating Instruction” manual).

If the code is entered correctly, the radio will switch to the last active mode (i.e. FM, CD, etc.) and is ready to use. If the code is entered incorrectly, you can try 2 more times. After 3 incorrect entries, the radio will display “LOCK.”

You must turn the radio off, while leaving the ignition and battery on, for 1 continuous hour before attempting to unlock the radio again.

### 1.1.3 Removal

To remove the radio from its location, proceed as follows:

1. Place the ignition switch in the “OFF” position.
2. Remove the dashboard panel cover.
3. Disconnect the electrical cable connectors from radio and unfasten back plate securing nut.
4. To separate the radio from its support, insert the U shaped tool in the two pairs of holes found each side of the radio front panel.
5. Push the unit through the front dashboard panel.
6. Install a new unit by reversing the procedure.

**NOTE**

Remember that because power has been interrupted during removal, the radio must be unlocked by entering the four-digit security code after reinstallation.

### 1.1.4 DELPHI Premium Satellite Radio AM/FM/MP3 CD stereo (OPTIONAL)

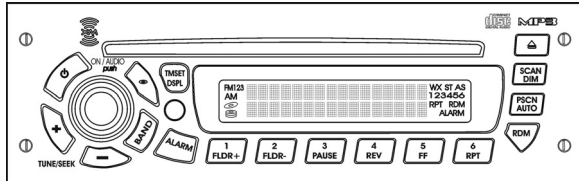


FIGURE 6: DELPHI PREMIUM SATELLITE RADIO 23355

This XM or SIRIUS satellite radio receiver can be located on the dashboard, replacing the standard radio or inside the first driver's side overhead compartment, where many radio can be installed.

#### Features:

- Satellite radio ready with weather band
- 7-channel weather band
- 18 FM & 6 AM presets
- Steering wheel control compatible
- Anti-theft
- Auto preset solutions
- MP3 playback capability
- LED illumination
- Liquid crystal display
- Quartz clock
- Single disc
- Random & repeat play modes
- SDARS receiver compatible
- AUX inputs
- 4x17W power

The complete operating instruction manual is included in your vehicle's *technical publications box*.

## 1.2 VSS-04 SOUND SELECTOR

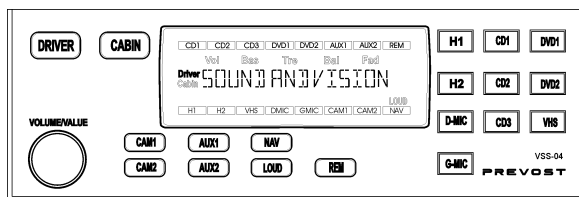


FIGURE 7: VSS-04 SOUND SELECTOR 23350

The VSS-04 Sound Selector enables the driver to select different audio or audio-video enter-

tainment sources for the driver area and the passengers' area. The driver may be listening to the radio and watching the Navigation System route information on the monitor while the passengers may be watching a movie from the DVD player.

With this unit, you can adjust each audio source sound settings (e.g. volume, bass, treble, balance, fade).

#### Features:

##### 7 audio sources

- Radios (2)
- Microphones (2)
- CD players (3)

##### 5 audio-video sources

- DVD players (2)
- VCR (1)
- Auxiliary (2)

##### 3 video sources

- cameras (2)
- GPS Navigation system (1)

### 1.2.1 Removal

To remove the Sound Selector from its location, proceed as follows:

1. Place the battery master switch in the "OFF" position.
2. Remove the dashboard panel cover.
3. Disconnect the electrical cable connectors from unit and unfasten back plate securing nut/screw.
4. To separate the Sound Selector from its support, insert a flat screwdriver each side of the unit front panel.
5. Push the unit through the front dashboard panel.
6. Install a new unit by reversing the procedure.

The operating instructions are included in your Operator's Manual.

## Section 23: ACCESSORIES

### 1.3 VD-404 MOBILE DVD PLAYER



FIGURE 8: VD-404 MOBILE DVD PLAYER

The MOBILE DVD PLAYER is located in the first parcel compartment on the driver's side. Instructions for proper use of this unit are included at the end of this section.

#### Features:

- **POWER**  
Operating voltage: 12-volt DC
- **COMPATIBILITY**  
This DVD player can play the following disc formats:  
DVD, CD, VCD, DVCD, MP3, CD-R, CD-RW
- **SYSTEM FUNCTIONS**  
Video output system: system MULTI, NTSC or PAL switchable.
  - 1 L/R audio output
  - 1 L/R audio input
  - 1 AUX video output
  - 1 rear camera video input
  - 3 video outputs with one dedicated self switching rear view monitor
- **ADDITIONAL VIDEO FEATURES**  
Multi-angle, multi-view, multi-audio function, multi-level forward and backward motion, play position memory, resume stop and repeat function.

### 1.4 MULTICHANNEL POWER AMPLIFIER VA400.8

This 400-watt, 6-channels brings an added dimension to your stereo equipment and increases the total output of the system.

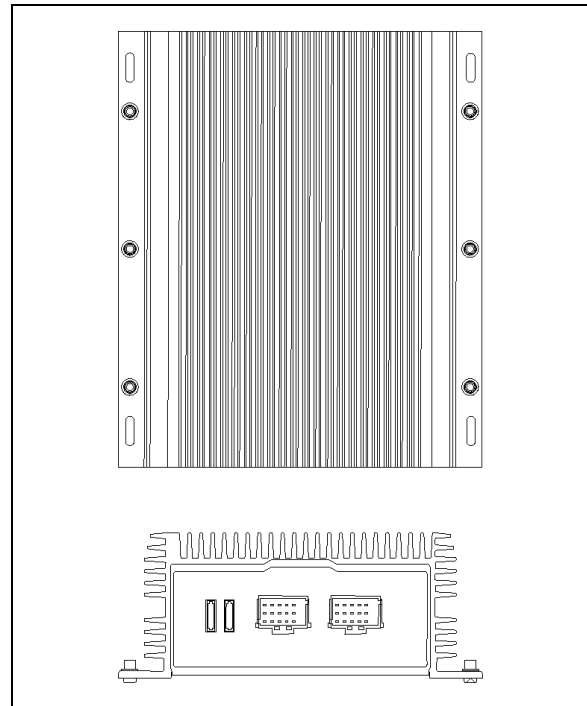


FIGURE 9: MULTICHANNEL POWER AMPLIFIER VA400.8

For optimum sound quality, adjust the subwoofer crossover filter as shown on figure 10. This adjustment is necessary to balance the subwoofers volume in respect to the other speakers and also to cut high frequencies for a better sound quality.

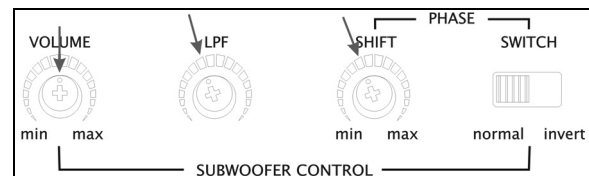


FIGURE 10: CROSSOVER ADJUSTMENT

### 1.5 SPEAKERS

Each passenger's overhead console mounted to the underside of the parcel racks contains a 20-watt Coaxial 10cm speaker. The speakers (24 in H3-41 or 28 in H3-45) in the passenger's section, wired in stereo and arranged in a delta configuration are powered by the amplifier.





FIGURE 11: 10CM COAXIAL SPEAKER

The vehicle may be equipped with two additional Hi-Fi speakers in the driver's area, mounted one on each side. This arrangement provides the driver with clear stereo sound. Controls for the driver's audio allow selection between the radio and the auxiliary audio (independent of the passenger's speakers) or muting the speakers.

Two specially designed subwoofers are fixed under a passenger seat with anti-vibration supports.

### 1.6 VIDEO CASSETTE PLAYER (VCP)

The optional VCP is located on the audio-video panel in the first overhead compartment. Instructions for proper use of the VCP are provided in the technical publication box.



FIGURE 12: V3000 VIDEO CASSETTE PLAYER

#### 1.6.1 Removal

1. Place the ignition switch in the "OFF" position.
2. Remove the VCP/VCR mounting locknuts from rubber mounts.
3. Disconnect wiring.
4. Remove VCP/VCR unit from parcel compartment.

#### 1.6.2 Installation

1. Install VCP/VCR unit into parcel compartment aligning rubber mount studs with mounting holes. Insert mount studs through mounting holes.
2. Install locknuts on mount studs.
3. Reconnect wiring.
5. Place the battery master switch in the "ON" position.

### 1.7 BOOM-TYPE MICROPHONE

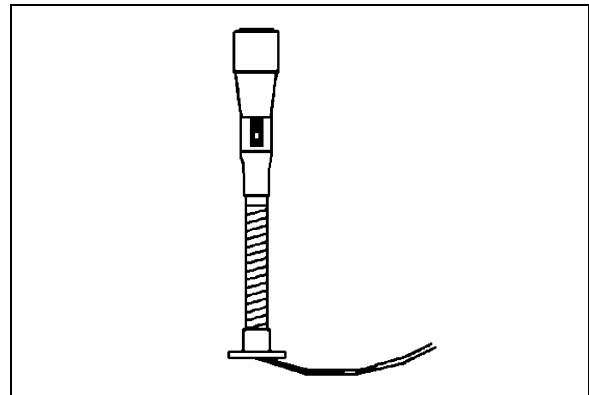


FIGURE 13: BOOM-TYPE MICROPHONE

23083

#### 1.7.1 Removal

1. Place the ignition switch in the "OFF" position.
2. Remove the mounting screws at mounting flange.
3. Disconnect wiring.

#### 1.7.2 Installation

1. Reconnect wiring.
2. Align mounting flange with holes and install screws.
3. Remove spacer block mounting screws.
4. Insert spacer block and install mounting screws.
5. Place the battery master switch in the "ON" position.

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### 1.8 HANDHELD PRIORITY MICROPHONE

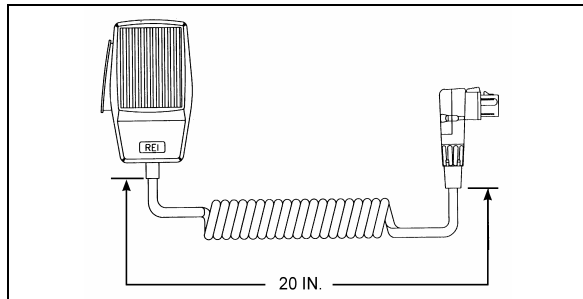


FIGURE 14: HANDHELD PRIORITY MICROPHONE 23216

### 1.9 WIRELESS MICROPHONE

The system 2000 16 channel wireless microphone, Receiver and Charging Cradle are custom designed units that allow for wireless PA communication from anywhere on the coach. The unit consists of a receiver mounted in the parcel area directly behind the driver, and a rechargeable hand-held microphone and charging unit. Instructions for proper use of the microphone are included in the "REI Operating Manual" which is provided in the technical publications box delivered with the vehicle.

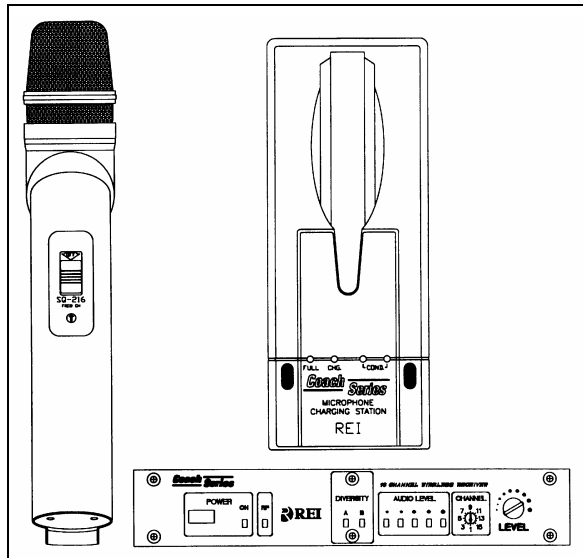


FIGURE 15: WIRELESS MICROPHONE

### 1.10 TV TUNER

For TV tuner control descriptions, refer to fig. 10.

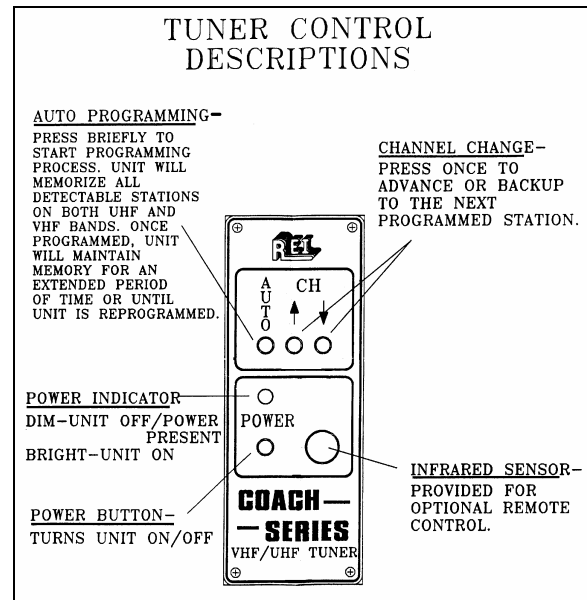


FIGURE 16: TUNER CONTROLS DESCRIPTION

### 1.11 KARAOKE

The modified Panasonic DVD Player powers up automatically when the video system is activated. The unit can be controlled with the plug-in remote control, or the control head, which has access to the PLAY and STOP commands.

If so equipped, instructions for proper use of the Karaoke system are included in the "Operating Manual" that is provided in the technical publications box delivered with the vehicle.

#### 1.11.1 Karaoke Panasonic Sound System – MOBILE DVD PLAYER DV1500

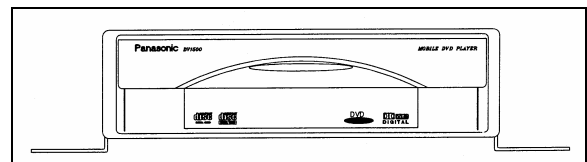


FIGURE 17: PANASONIC DV1500

### 1.12 DRIVER'S SPEAKERS

The driver's speakers are mounted one on each side. This arrangement provides the driver with clear stereo sound. Controls for the driver's audio allow selection between the radio and the auxiliary audio (independent of the passenger's speakers) or muting the speakers.

## 1.13 MONITOR

1. Place the ignition switch in the "OFF" position.
2. Unfasten the retaining screw located on the monitor R.H. side.
3. Slide the monitor to the right to release it from the mounting bracket.

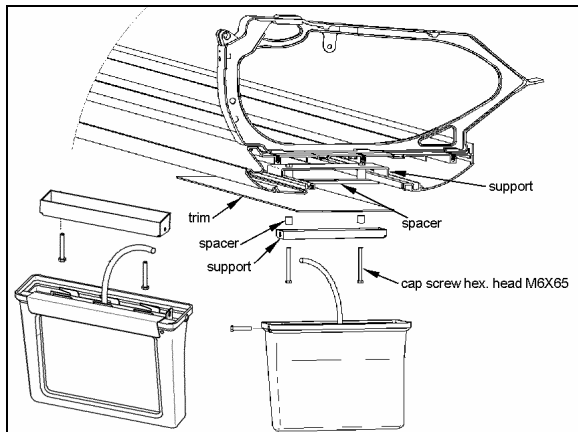


FIGURE 18: MONITOR MOUNTING

23221

## 1.14 SCENIC VIEWING SYSTEM

The scenic viewing system enables the passengers to view the road ahead of the vehicle. This system is composed of a camera, a dashboard mounted ON/OFF switch and the video switcher located on the audio-video panel (Figs. 13 & 14).



FIGURE 19: SCENIC VIEW CAMERA

## 1.15 ROOF ANTENNA INSTALLATION

1. Find the desire location and drill a hole according to specification.
2. To remove dirt and grease, wash hole edge with alcohol.
3. If so equipped, remove foam padding ring from antenna to free the metal surface

(foam can produce air bulbs in new rubber seal).

4. With SIKA 205, wash the vehicle hole edge and the antenna base surface, wait at least two (2) minutes for chemical evaporation.
5. Apply new seal SIKA 221 on both, vehicle hole edge and antenna base.
6. Fix the antenna in place.
7. Remove excess seal and complete a finishing joint all around the antenna base.

## 2. HUBODOMETER

## 2.1 DESCRIPTION

An optional wheel hubodometer (Fig. 15) may have been installed on the R.H. side of the drive axle. It indicates the total distance in miles or kilometers covered by the coach since it has left the factory, including road testing.

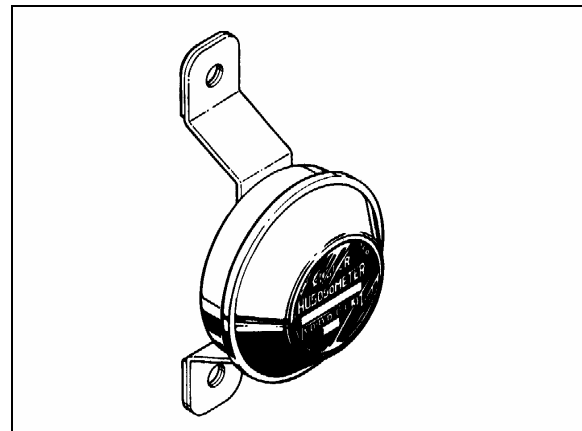


FIGURE 20: HUBODOMETER

23027

## 2.2 OPERATION

The hubodometer is calibrated for a specific wheel size (diameter). Wheel rotation causes a mechanism inside the hubodometer to record distance after a predetermined number of rotations. The unit should be serviced at a competent speedometer repair facility.

**Note:** Do not use paint, solvent or thinner on hubodometer face or on plastic hubcaps. Do not weld on hubodometer.

## 2.3 REMOVAL

To remove the unit, remove the two lock nuts and washers securing it to the wheel hub, and pull the unit off the studs.

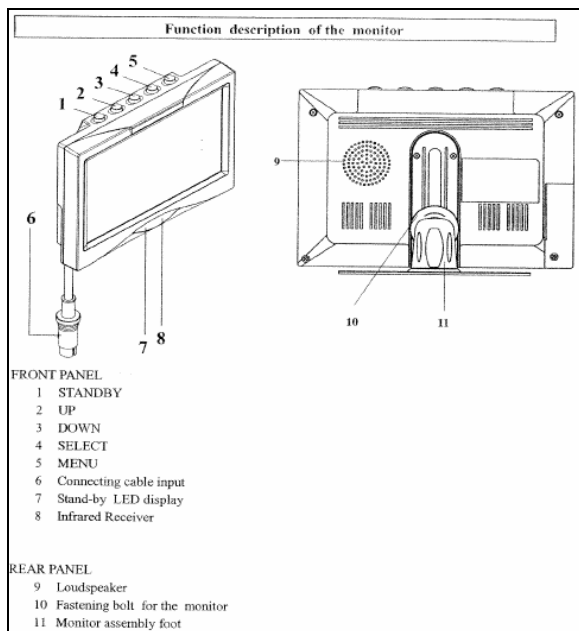
## Section 23: ACCESSORIES

### 2.4 INSTALLATION

Place the hubodometer unit over the wheel hub studs. Replace the lock washers and nuts. Torque stud nuts to 110-165 Lbf-ft (150-225 Nm).

### 3. BACK-UP CAMERA AND MONITOR

An optional back-up camera is available which provides the driver with visual assistance when backing-up. The camera is automatically activated when the transmission is put in reverse gear and the ignition switch is "ON".



#### BUTTON DESCRIPTION

##### 1) STANDBY On/Off switch

##### 2) UP This key has 3 functions

- Increase of the volume during normal operation;
- Modification of the setting within a function e.g. contrast (after calling up the menu);
- By pressing this key when putting in the reverse gear, the distance markings move upwards;

##### 3) DOWN This key has 3 functions

- Decrease of the volume during normal operation;
- Modification of the setting within a function e.g. contrast (after calling up the menu);
- By pressing this key when putting in the reverse gear, the distance markings move downwards;

##### 4) SELECT This key has 3 functions

- Selection of the video sources (CA1 → CA2 → AV → CA1). Press less than 1.5 seconds;
- Selection of the functions e.g. picture setting (after calling up the menu);
- Deleting and calling OSD letters of title & time (press longer than 1.5 seconds) during normal operation;

##### 5) MENU This key has 2 functions

- Activation of the dimmer function (press less than 1.5 seconds) during normal operation;
- Calling up the menu (press longer than 1.5 seconds, four menus can be called up). Press the key once again to call up the individual menus;
  - a) PICTURE= Functions for the image setting;
  - b) USER= Selection of the system function;
  - c) TIME= Setting time and date;
  - d) INSTALL= Setting the camera function (e.g. mirror function);

##### 6) BUSH FOR THE MONITOR CABLE OF THE CONNECTION BOX

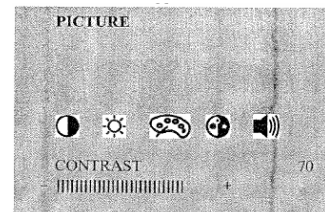
##### 7) STANDBY DISPLAY

##### 8) INFRARED RECEIVER

#### MONITOR MENU DISPLAY

The monitor (RV59 HD) is equipped with an On-Screen Display (OSD) function which displays date, camera, channel, mirror mode and distance markings. These functions can be selected on MENU. To calling up the menu, press longer than 1.5 seconds. Four menus can be called up. Press the key once again to call up the individual menus.

For calling up the menu PICTURE press the key **MENU** longer than 1.5 seconds. The menu PICTURE appears.



Graphic means the followings.

- CONTRAST
- BRIGHTNESS
- COLOR
- TINT
- VOLUME

Select the function (e.g. contrast) by pressing the key **SELECT** repeatedly. The setting within the function can be modified with the keys **UP** and **DOWN**.

For calling up the menu USER press the key **MENU** once again. The menu USER appears. Select the function (e.g. SELECTION) by pressing the key **SELECT** repeatedly as necessary. The setting within the function can be modified with the keys **UP** and **DOWN**.

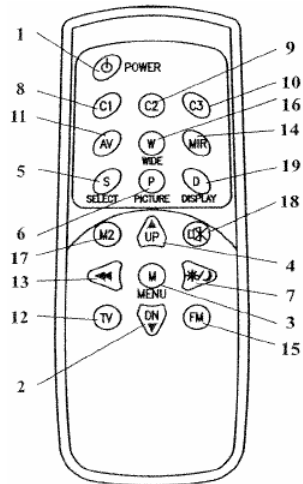
USER		POSSIBLE SETTINGS:
LANGUE	ENG	LANGUAGE: ENGLISH/GERMAN (ENG/DEUT)
SCREEN	WIDE	SCREEN FORMAT: NOR 4:3, picture format 4:3 WIDE, picture format 16:9 FULL, picture format 16:9 middle enlarge
TITLE	ON	TITLE: CAMERA TITLE DISPLAY ON/OFF
TIME	ON	TIME: TIME DISPLAY ON/OFF

For calling up the menu TIME press the key **MENU** once again. The menu TIME appears. Select the function (e.g. DATE) by pressing the key **SELECT** repeatedly as necessary. The setting within the function can be modified with the keys **UP** and **DOWN**.

TIME		POSSIBLE SETTINGS:
TIME	08:25	- Hour-Month adjustable by UP BUTTON - Minute/Date adjustable by DOWN BUTTON
DATE	MAY01	- Year adjustable by UP/DOWN BUTTON
YEAR	2005	

For calling up the menu INSTALL press the key **MENU** once again. The menu TIME appears. Select the function (e.g. SELECTION) by pressing the key **SELECT** repeatedly as necessary. The setting within the function can be modified with the keys **UP** and **DOWN**.

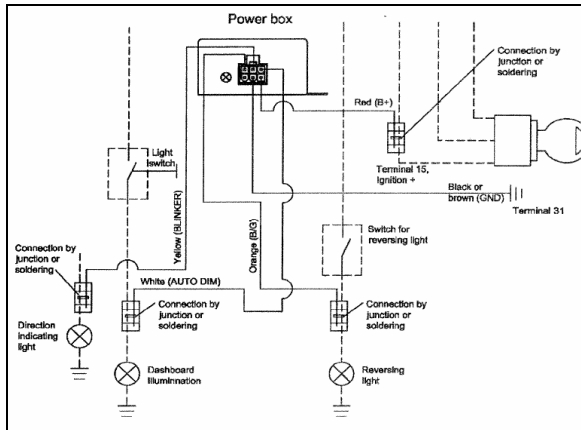
INSTALL		POSSIBLE SETTINGS:
REAR CAM1		REAR: Selection of priority camera (CAM1 or CAM2) which is triggered by rear gear.
CAM1	MIR	CAM1: Selection of real picture or mirrored picture for camera 1
CAM2	NOR	CAM2: Selection of real picture or mirrored picture for camera 2
NOTE 1		The distance mark will appear on the picture of camera which set as MIR (mirrored).
NOTE 2		Engaging the reverse gear, only distance mark will appear on the mirrored camera picture without any OSD. At the moment, no keys are available except UP/DOWN key for moving distance bar.



**BACK-UP CAMERA MODULE (Power box)**

The connection line consists of 6 branch lines as below:

RED	Voltage supply 12-volt to 24-volt (max. 32-volt)
BLACK/BROWN	Earth cable
WHITE	Control wire for switching on the dimmer function (night operation)
YELLOW	Control wire for switching on the side camera. The connection is to be made at the INDICATOR
ORANGE	Control wire for switching on the reversing camera. The connection is to be made at the reversing light



No	Key	Description
1	STANDBY	On/Off switch
2	DOWN ▼	This key has 3 functions. - Decrease of the volume during normal operation. - Modification of the setting within a function e. g. brightness (after calling up the menu). - By pressing this key when putting in the reverse gear the distance markings move downwards.
3	MENU	Calling up the menu on the screen. Three menus can be called up : a: PICTURE = Functions for the image setting b: USER = Selection of the system function c: TIME = Setting time and date d: INSTALL = Setting the camera function (e.g. mirror function)
4	UP ▲	This key has 3 functions. - Increase the volume during normal operation - Modification of the settings within a function e. g. contrast (after calling up the menu) - By pressing this key when putting in the reverse gear the distance markings move upwards.
5	SELECT	This key has 2 functions Selection of the video sources (CA1→CA2→AV) Selection of the functions e.g. picture setting (after calling up the menu)
6	PICTURER	Calls up the functions CONTRAST, BRIGHTNESS etc. directly for the picture setting. Carry out the setting with the key UP or DOWN.
7	DIMMER	Regulates the brightness to night operation temporarily
8	C1	Selection of the camera 1
9	C2	Selection of the camera 2
10	C3	Selection of the camera 3 (camera input 3 is not available)
11	AV	Selection of the video input (RCA)
12	TV	Not available
13	SEARCH	Not available
14	MIRROR	Reversing left and right of picture temporarily
15	FM	Not available
16	WIDE	Setting of the screen format NOR/NOR: 4:3, picture format 4:3 WIDE/WEIT, picture format 16:9 FULL/BREIT, picture format 16:9 middle enlarged
17	MONITOR2	Not available
18	MUTE	Switches off the tone temporarily
19	DISPLAY	This key has 2 functions - Deleting or calling OSD letters of Tile & Time temporarily - Leaving the menu

#### 4. COLD STARTING AID (ETHER)

The vehicle can be equipped with an electrically-operated type ether cold starting aid designed to ease engine starting when temperature is below 35°F (2°C).

On vehicles equipped with cold starting aid, the system consists of the main following parts:

- Ether starting aid switch
- Ether cylinder
- Solenoid valve (24 V)
- Thermal cutout valve
- Atomizer

The control rocker switch is located on the dashboard. This switch is provided with a locking mechanism to avoid accidental use when engine is running. To activate the ether starting aid, proceed as follows:

1. Prior to cranking engine, press down rocker switch for three seconds to fill solenoid valve.
2. Release switch to discharge shot.
3. Allow three seconds for shot to discharge.
4. Start engine, use additional shots if necessary to keep engine running.

**Caution:** This practice should be performed only when absolutely necessary. Excessive use of fluid could result in serious engine damage.

The ether cylinder and solenoid valve assembly are mounted on the engine compartment wall and are accessible from the engine compartment R.H. side door.

The thermal cutout valve is mounted on the engine (radiator side). Its function is to prevent discharge of ether when engine is warm (over 90°F (32°C)). An atomizer is installed on top of the air intake duct (Fig. 16).

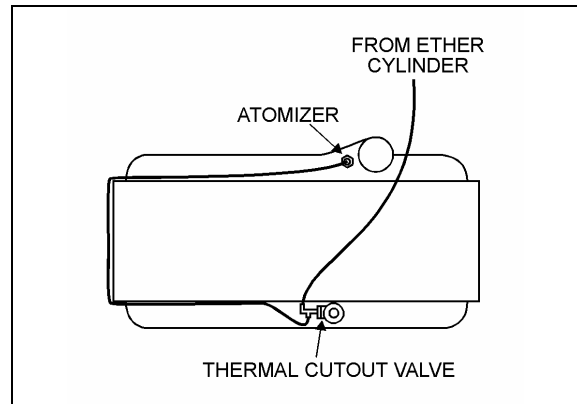


FIGURE 21: ENGINE 23032

#### 4.1 PREVENTIVE MAINTENANCE

During the summer months, remove cylinder to avoid high temperature actuation of the cylinder safety relief device. Always screw valve cap into solenoid valve opening to prevent entrance of road dirt. When removing cylinder, be careful to prevent dirt from entering the valve.

#### 4.2 TROUBLESHOOTING (IF SYSTEM IS NON-FUNCTIONING)

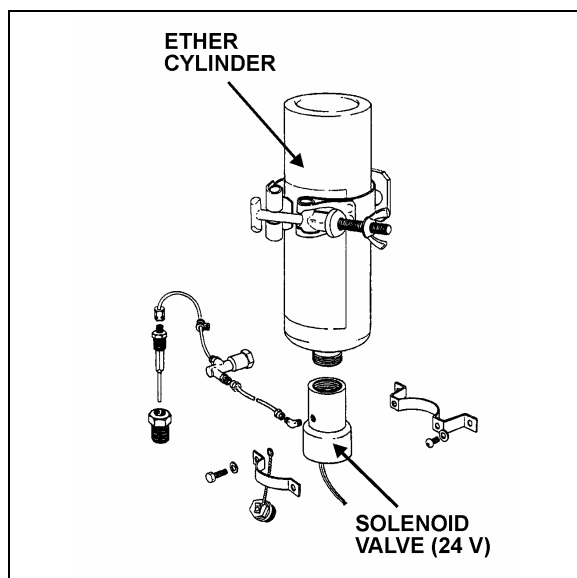


FIGURE 22: COLD STARTING AID 23048

**Warning:** During the following test, direct free end of tube away from personnel and all sources of ignition as this fuel is extremely flammable. Avoid breathing vapors and contacting fuel with skin. Never smoke during test.

1. Check cylinder for hand tightness and fuel supply (Fig. 17). Empty cylinder weight is approximately 17 oz (480 g); full cylinder weight is approximately 35 oz (990 g). If

cylinder is empty, replace it. Before replacing cylinder, install new valve gasket in solenoid valve.

2. If still not functioning, disconnect tubing at solenoid valve fitting. Actuate solenoid valve. (Ask an assistant to actuate solenoid valve using the rocker switch on the dashboard).
  - If solenoid valve is non-functioning, check electric circuit, (refer to wiring diagrams). If sound, remove and replace the solenoid valve. If not, repair electric circuit.
  - If valve is functioning, reassemble valve fitting and connect tube. Disconnect tube at thermal cutout valve from port "Tube from valve".
3. Actuate the solenoid valve.
  - If fuel is not discharged from tube, remove tube and blow out or replace.
  - If fuel is discharged, connect tube to thermal cutout valve, and disconnect other tube.
4. Actuate the solenoid valve.
  - If fuel is not discharged, replace the cut-out valve.

**Note:** If engine coolant temperature is 90 °F (32°C) or over, it is normal that fuel is not discharged as the valve is in closed position.

- If fuel is discharged, connect tube to thermal cutout valve, and disconnect tube from atomizer.
5. Actuate the solenoid valve.
    - If fuel is not discharged from tube, fuel line is clogged. Remove tube and blow out or replace.
    - If fuel is discharged, replace the atomizer.

#### 4.3 THERMAL CUTOUT VALVE QUICK TEST

1. Engine coolant temperature must be below 90 F (32 C).
2. Temporarily disconnect tube at thermal cutout valve from port "Tube to atomizer".
3. Actuate solenoid valve (Ask an assistant to actuate solenoid valve by means of the rocker switch on the dashboard). Fuel

should be discharged through the thermal cutout valve.

**Warning:** Avoid breathing vapors and contacting fuel with skin. Never smoke during test.

4. Reconnect tube to thermal cutout valve.
5. Start engine, using cold starting aid if necessary. Stop engine when it reaches operating temperature.
6. Disconnect tube at thermal cutout valve as in step 2, and repeat step 3. No fuel should be discharged.

## 5. DESTINATION SIGN

### 5.1 DESCRIPTION

The destination sign is located at upper front of the vehicle. Two models are available.

#### ELECTRICAL DESTINATION SIGN (Optional)

The lighting is provided with a fluorescent tube, which is activated by means of a rocker switch located on the dashboard. The destination sign is electrically operated, two rocker switches mounted side by side on the destination sign control its motor. The unwinding speed control switch determines the rolling speed without actuating it. The selecting switch (momentary type) controls and actuates the rolling direction (fig. 18).

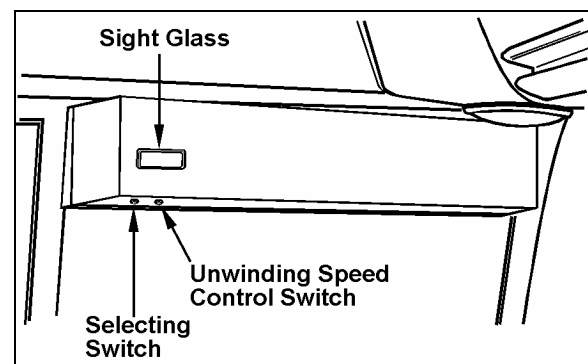


FIGURE 23: DESTINATION SIGN - ELECTRICAL 23122

### 5.2 MAINTENANCE

Inspect the following items regularly:

1. Check for free and easy mechanism movement.

## Section 23: ACCESSORIES

2. Check for loose items on the sign mechanism, such as wire, loose clips, hanging tape, etc.
3. Check tension and condition of the two drive belts and replace as required.
4. Periodic lubrication is **NOT** recommended.

### 5.3 ELECTRIC MOTOR REMOVAL AND INSTALLATION

To remove the electric motor:

1. Remove the six Phillips-head screws and washers retaining the destination sign cover, then carefully remove the cover from its location.
2. Disconnect wires from electrical motor.
  1. Remove both screws retaining motor to destination sign frame (Fig. 19).
  4. Slide motor upwards, then remove the drive belt.
  5. Remove motor through the opening intended for this purpose.

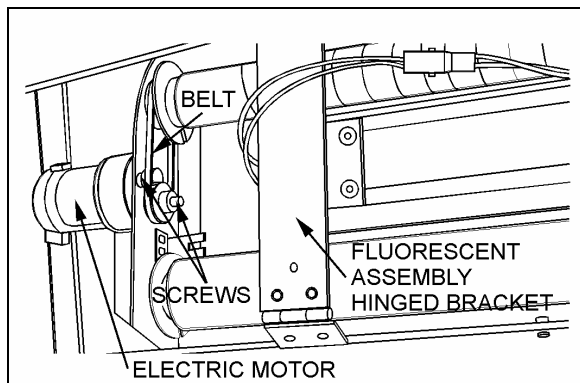


FIGURE 24: DESTINATION SIGN-ELECTRIC MOTOR 23034

6. Install the motor by reversing the above procedure.

### 5.4 SIGN CURTAIN REPAIR

In the event a destination sign curtain is torn, it can be repaired with 3M polyester tape or any equivalent cellophane tape. When repairing a tear, the tape should be used on both sides of the curtain.

### ELECTRONIC DESTINATION SIGN (Optional)

To change the destination, depress the selecting switches until the desired destination appears in the LCD display.

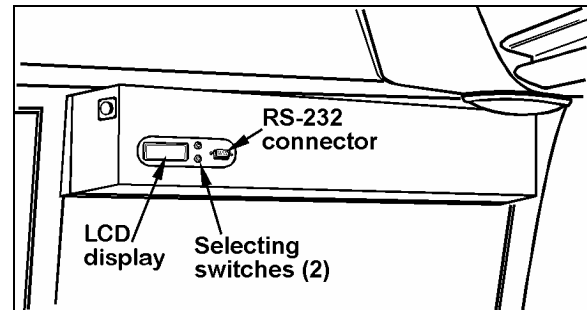


FIGURE 25: DESTINATION SIGN – ELECTRONIC 23123

**Note:** The destination sign must be programmed with a computer connected to the RS-232 connector prior to first use. Follow the instructions on the computer disk to install and run the software.

**Note:** All destination sign models are equipped with lights (bulb light or fluorescent) which illuminates automatically when the headlight or fog light switch is activated.

## 6. WINDSHIELD SUNSHADES

Two electrically-operated sunshades are installed behind the windshields. Two rocker switches on the dashboard operate each shade individually. Refer to Operator's Manual: "Controls and Instruments" chapter for more information.

**Caution:** The electric sunshades should only be operated electrically. Pulling down manually may damage the mechanism.

### 6.1 ADJUSTMENT

The sunshades are pre-adjusted, under no circumstances try to operate by hand. In case adjustments have to be made, proceed as follows:

1. Push the two (black and yellow) buttons into lock position. This cancels the pre-adjusted stop positions.
2. Move the sunshade into the requested upper limit position by using the electric motor (do not operate by hand). Press the button which is shaped like an arrow showing upwards. The upper position is now adjusted.
3. Now move the sunshade into the requested lower limit position by using the electric



motor (do not operate by hand). Press the button shaped like an arrow showing downwards. The lower stop position is now adjusted.

## 7. LAVATORY

### 7.1 DESCRIPTION

The lavatory is located in the rear R.H. corner of the coach. It is equipped with a chemical flush toilet, bathroom tissue dispenser, washbasin, towel dispenser, waste container, mirror, ashtray, and a cleaning cabinet. A liquid soap dispenser and moist towel dispenser are optional.

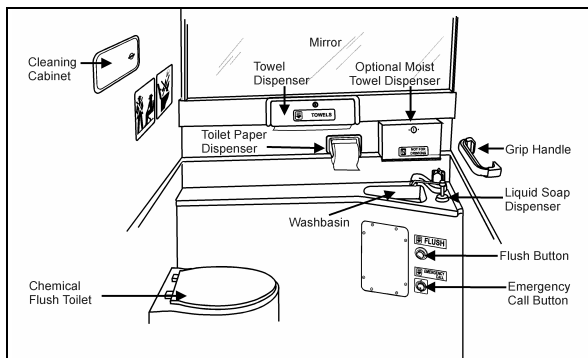


FIGURE 26: LAVATORY

Locking the lavatory door from the inside will illuminate a fluorescent light in the lavatory and two outside signs to indicate occupation. One sign is located on the outer wall of the lavatory and another sign is located over the windshield. An indicator light on the dashboard will illuminate to inform the driver when the lavatory is occupied. A night-light is permanently lit in the lavatory when the ignition switch is in the ON position.

### 7.2 MAINTENANCE

The servicing procedure for the lavatory is described in the "Operator's Manual" included in the technical publications box delivered with the vehicle.

### 7.3 VENTILATION FAN

#### 7.3.1 Description

The lavatory ventilation fan, mounted in engine compartment over the oil reserve tank (Fig. 23), serves two purposes. It exhausts objectionable odors and provides a constant air circulation in the lavatory compartment by heating or cooling

the lavatory with the vehicle ambient air. Air flows in the lavatory compartment through a vent grill located in the upper section of the lavatory door and exhausts through a grill located next to the toilet.

**Note:** This fan runs constantly when the ignition switch located on the dashboard is in the "ON" position.

#### 7.3.2 Maintenance

The frequency of preventive maintenance should be determined according to vehicle mileage and operating conditions. However, it is recommended to check this item every 50,000 miles (80 000 km) or once a year, whichever comes first.

Remove fan and motor assembly. Check for fan housing wheel and motor free operation. When defective motor occurs, new motor must be installed.

#### 7.3.3 Removal and Installation

1. With the engine compartment rear door opened, remove hose clamp securing duct to ventilation fan inlet, and disconnect duct.
2. Disconnect the ventilation motor wiring connector.
3. Remove the two bolts retaining the ventilation fan housing support to the square tubing. Remove the ventilation fan assembly from its location.
4. The unit can now be disassembled and motor replaced.
5. Reverse previous steps to reinstall ventilation fan assembly on vehicle.

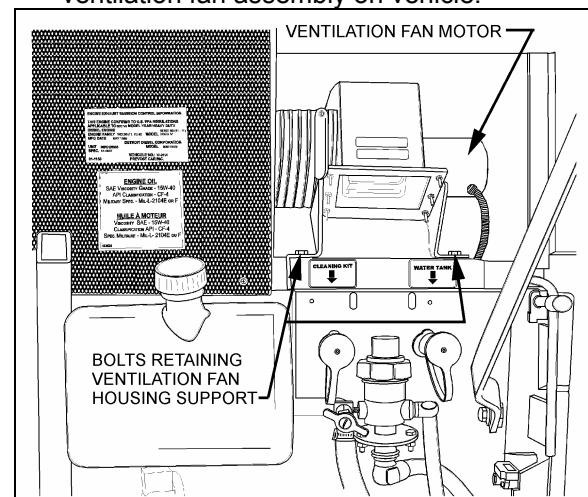


FIGURE 27: VENTILATION FAN INSTALLATION

### 7.4 DOOR LOCK

Lavatory door lock has inside and outside handles, as well as an inside latch to lock door from inside the compartment. If the lock fails to release, the door can be opened from the outside using a special key which is supplied to the driver. Lock assembly can be removed from the door, then readily disassembled and parts replaced, if necessary (Fig. 23). A thin coat of lubricant on all moving parts will ensure trouble-free operation.

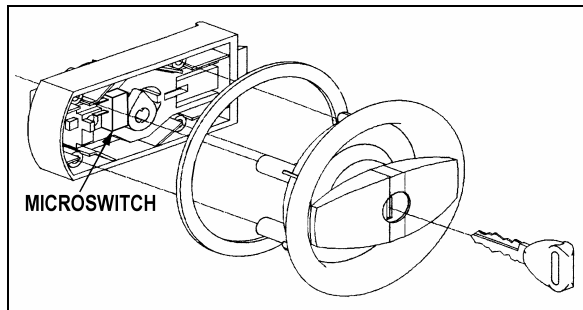


FIGURE 28: DOOR LOCK

23320

### 7.5 LAVATORY LIGHT

The lavatory light is installed on ceiling. A microswitch, which is mounted in the door exterior frame, is activated by the door lock mechanism upon locking to energize the circuit. This switch is readily serviced by removing the two Phillips-head screws securing the mounting plate to the door exterior frame. Proceed as Section 06, Electrical System, paragraph "13.6: Lavatory Light" for light replacement.

### 7.6 LAVATORY NIGHT-LIGHT

The lavatory night-light is illuminated as soon as the ignition switch is set to the "ON" position. See Section 06, Electrical System, paragraph "13.2: Stepwell Light and Lavatory Night-Light - Bulb Removal and Replacement" for lights replacement.

### 7.7 EMERGENCY BUZZER

The lavatory emergency buzzer is mounted on the alarm junction box in the front service compartment and sounds when the emergency call push-button switch in the lavatory compartment is activated. For specific wiring information, refer to wiring diagrams. To remove the emergency call push-button switch, proceed as follows:

1. Remove both Phillips-head screws retaining pushbutton switch plate to wall.

2. Remove steel plate located on L.H. side of pushbutton switch.
3. Remove switch through this opening, taking care to disconnect electric wires.

### 7.8 FRESH WATER TANK

The fresh water tank located at rear of lavatory wall (over cleaning cabinet), supplies water to the washbasin by gravity. Two tubes are connected in the upper section of tank (Fig. 24). One serves as overflow as well as vent tube and runs along the wall to the underside of the lavatory close to the engine air filter housing, while the other tube is connected to the fresh water fill valve which is mounted besides the engine oil reserve tank.

A third tube connected in the lower section of fresh water tank is provided with a T-connector and allows fresh water to flow to the washbasin faucet and to the low temperature water safety valve for automatic or manual draining. An access panel, located at rear of last R.H. side row of seats and secured in place using 6 Phillips-head screws, allow access to the cleaning cabinet and fresh water tank tubing, fresh water tank heater and different wiring connectors.

#### 7.8.1 Fresh Water Tank Heater (Optional)

A 75 watts, 110 volts AC immersion-type water heater may have been installed in the bottom of the fresh water tank. The heated portion of element must be immersed at all times to ensure proper heater life. The 110-120 volts in-station connector mounted on the engine compartment rear door provides the water heater power source.

#### 7.8.2 Fresh Water Tank Draining

The fresh water tank can be drained by simply opening the fresh water drain cock (Fig. 24). Don't forget to close cock when draining is done.

**Caution:** If fresh water tank heater is inoperative or not installed on your vehicle, water should be drained from reservoir under cold weather conditions since it might freeze and damage both reservoir and connecting links.

#### 7.8.3 Fresh Water tank Filling

Plug the fresh water supply hose to the fresh water tank fill connection (Fig. 24); fill the tank

until the overflow tube leaks, signaling that tank is full.

**Warning:** Never put antifreeze in fresh water tank; antifreeze is toxic.

**Warning:** If tank has not been drained for an extended period of time, draining and filling operations must be repeated three (3) times in order to clean tank and eliminate contaminated water.

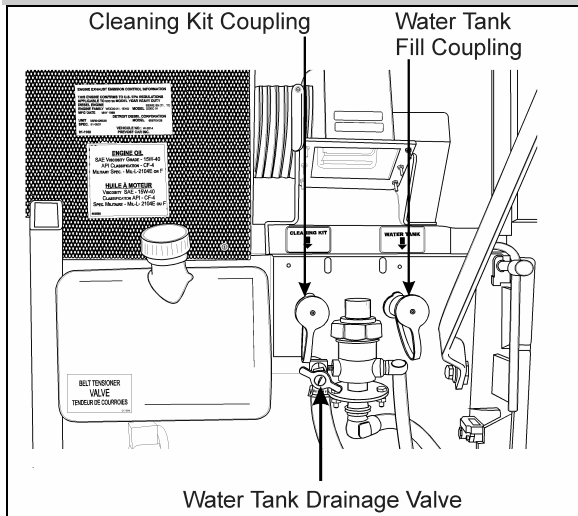


FIGURE 29: FRESH WATER TANK SERVICE VALVES

### 7.9 LIQUID SOAP DISPENSER

A liquid soap dispenser may have been installed as optional equipment. To refill dispenser, proceed as follows:

1. Turn cover slightly clockwise until it stops.
2. Insert projection at end of "BOBRICK" key into rectangular hole in cover (Fig. 25). Push straight in. While holding "BOBRICK" key in, turn cover counterclockwise about 1/8 turn.

**Caution:** Do not use "BOBRICK" key to turn cover.

3. Lift out piston and spout, cover and supply tube.
4. Fill dispenser with soap. This model can dispense vegetable oil soaps, synthetic detergents, and lotion soaps.

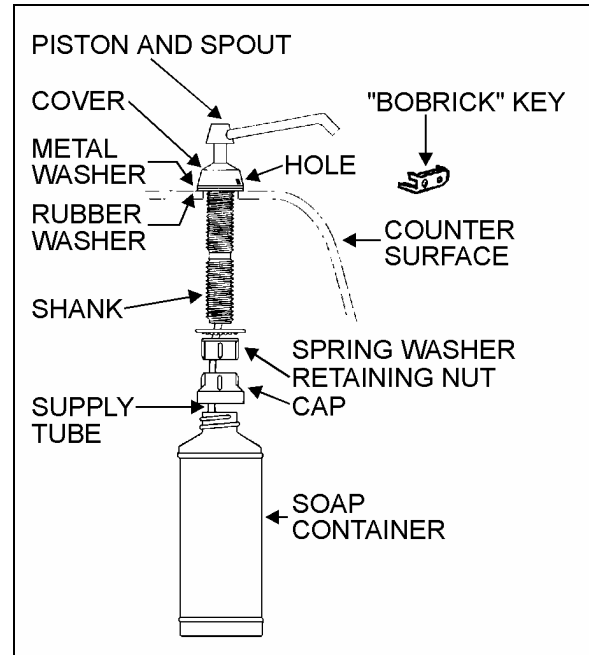


FIGURE 30: LIQUID SOAP DISPENSER 23039

**Caution:** Never use abrasive cleaners.

5. Replace supply tube, piston, and spout mechanism reversing the steps above.
6. Secure the cover by turning clockwise until lock snaps into position.

**Note:** The dispenser requires priming when extremely viscous lotion soaps are used. Remove piston and spout, cover and supply tube assembly. Pump water into assembly, then replace into dispenser.

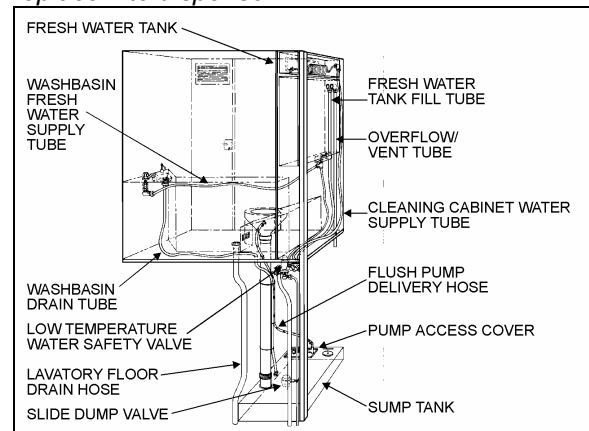


FIGURE 31: FUNCTIONING OF LAVATOR 23038

### 7.10 FLUSH PUSH-BUTTON

The green flush push-button is located near the toilet. Press on push-button to actuate a pneumatic timer located on the other side of wall.

## Section 23: ACCESSORIES

This timer allows an electric current flow during a preset time to a pump into the sump tank.

### 7.10.1 Pneumatic Timer Removal and Installation

1. Unscrew and remove the flush push-button locking ring.
2. Remove steel plate located on L.H. side of pushbutton switch.
3. Remove pneumatic timer through this opening, taking care to disconnect electric wires.

**Note:** Care must be taken to avoid losing the spacers installed on the mounting sleeve.

4. Reverse the above procedure to reinstall timer. The recommended torque for the lock nut is 15 Lbf-ft (21 Nm).

### 7.10.2 Timer Adjustment

Timer can be adjusted from 0.2 second to 3 minutes by turning the time adjustment screw clockwise to increase time, and counterclockwise to decrease time. To gain access to the time adjustment screw, repeat steps 1, 2 and 3 in the previous paragraph "6.10.1 Pneumatic Timer Removal and Installation".

### 7.11 FLUSH PUMP

The submersible-type flush pump is mounted inside an enclosure in the sump tank (Fig. 27). The enclosure is provided with a screened side which, serves as a strainer to prevent solid matters from entering the pump.

The pump requires no periodic maintenance other than cleaning of the strainer side using a water jet introduced through the circular cap opening, once the sump tank is completely drained. The pump can run dry periodically without damage. However, for maximum seal life, the run dry periods should be kept to a minimum.

**Caution:** If vehicle is stored for an extended period of time, make sure to clean the strainer as solid matter will tend to pack, and will necessitate replacement of strainer.

#### 7.11.1 Flush Pump Pressure Adjustment

The flush pump is provided with a manually-adjustable control valve mounted on the flush pump enclosure cover and serves to limit the flush pump output pressure. To adjust, ask an

assistant to activate the flush pushbutton and check the liquid projection while you manually adjust the control valve

### 7.12 SUMP TANK

#### 7.12.1 Sump Tank Draining

To drain sump tank, unscrew cap a few turns then turn drain valve handle CCW. Flush tank and pump cage with clean water. Close drain valve by turning handle CW.

**Caution:** The lavatory should be serviced by maintenance personnel after emergency draining. Lavatory tanks should be serviced only at suitably equipped stations.

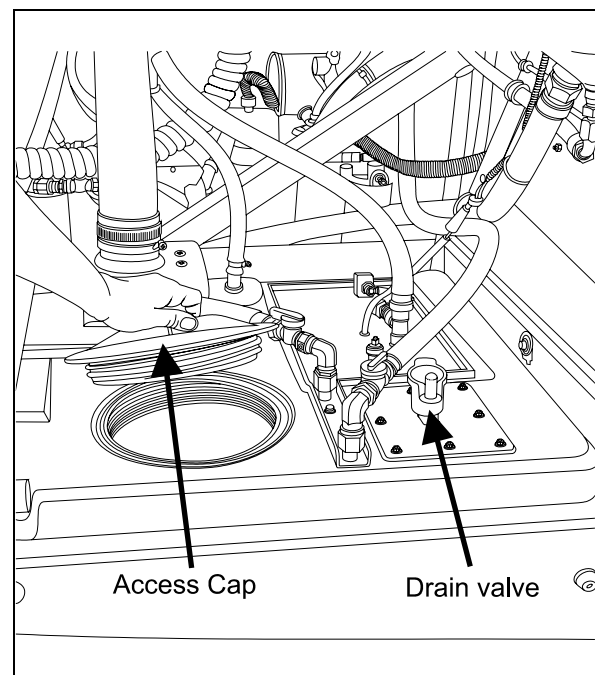


FIGURE 32: SUMP TANK

23294

#### 7.12.2 Sump Tank Filling

Remove cap on sump tank. Fill Tank with 2 gallons (9 liters) of antifreeze and two gallons of water.

**Caution:** Do not overfill sump tank.

**Note:** The antifreeze solution in the sump tank will be diluted by fresh water coming from the lavatory sink. Regular maintenance of the sump tank is required to prevent freezing.

### 7.13 CLEANING CABINET

A coiled hose located in the cleaning cabinet above the toilet can be used during lavatory cleaning. To use, connect a fresh water supply to the "Hansen" quick-release coupling, identified as "Cleaning Kit", located besides the engine oil reserve tank (Fig. 24). To prevent freezing during cold weather, drain the hose after every use. To drain the hose, uncoil and open the nozzle near the lavatory floor drain. Have an assistant push on the spring ball of the quick-release coupling to allow air into the system.

## 8. AIR HORN VALVE

The air horn valve is located in the front service compartment and the air horn valve button is on the steering wheel center.

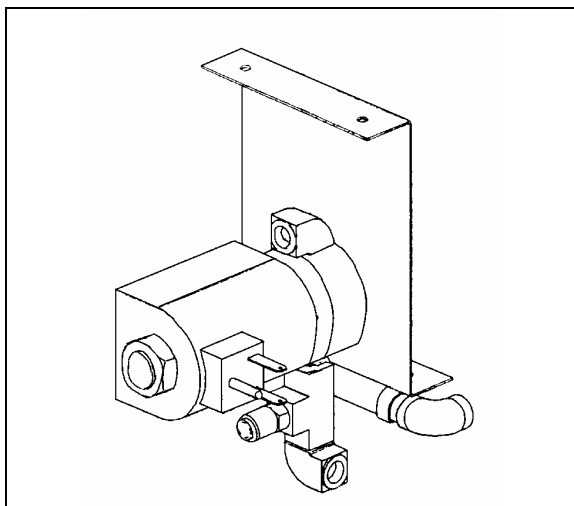


FIGURE 33: AIR HORN VALVE

23230

### 8.1 AIR HORN VALVE MAINTENANCE

When needed, the air horn valve can be serviced or replaced using the following procedure:

1. Unplug the cable connector;
2. Disconnect the air tubes;
3. Loosen the retaining bolts;
4. Service or replace the air horn valve;
5. Reinstall by reversing procedure.

## 9. HEADLIGHTS CLEANING SYSTEM

### 9.1 GENERAL DESCRIPTION

**Note:** When inspecting the headlights cleaning system, check the washer fluid hoses, fittings and connectors to be sure they are properly

connected and seal with no restriction to the flow of washer fluid. Check that the washer nozzles are properly aimed.

The headlights cleaning system is independent from the windshield washer system and has its own washer fluid reservoir located in the front electrical and service compartment. However, this system shares the same switch than the upper windshield washer (refer to Operator or Owner's manual for operation). Each pressing of this switch produces 2 successive 0.7 seconds jets.

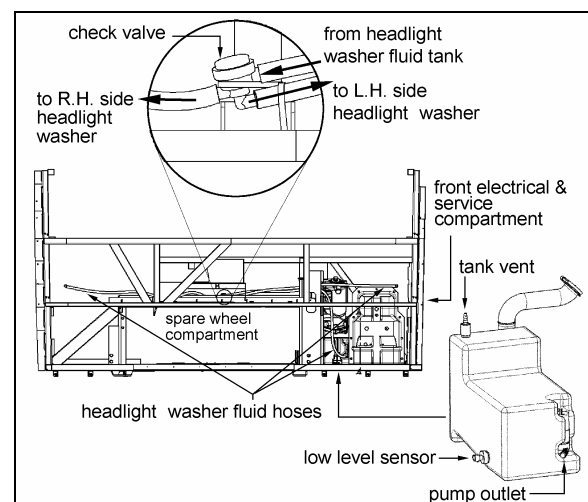
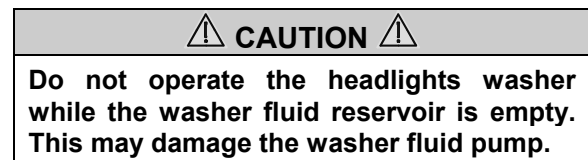


FIGURE 34: HEADLIGHT CLEANING SYSTEM

23361

### 9.2 WASHER FLUID REFILLING

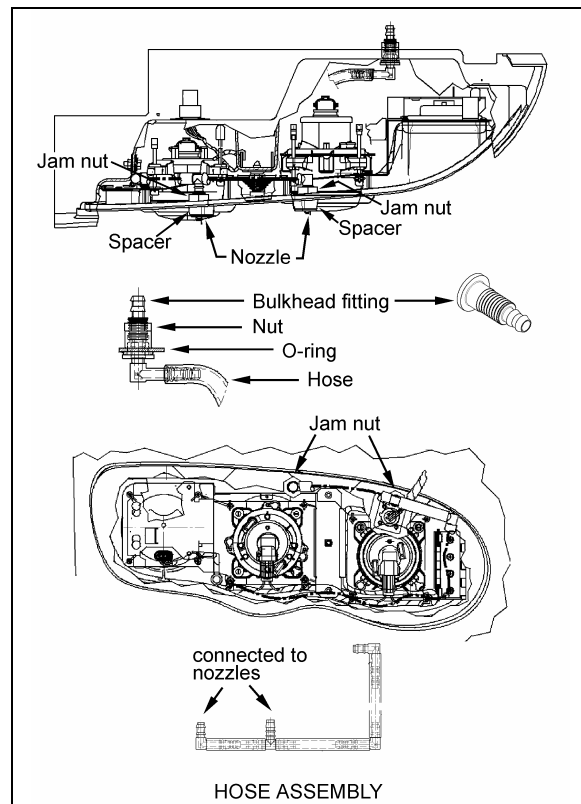
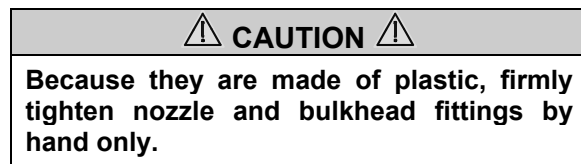
Open the filler neck cap and add regular windshield washer fluid as required. The tank has a capacity of 10 liters (2.6 US gallons). You may use water or windshield washer fluid as well but, during cold weather days, use windshield washer fluid suitable for freezing temperature only.

### 9.3 WASHER NOZZLES ADJUSTMENT

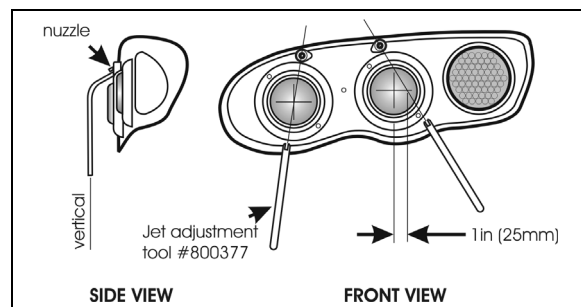
To avoid waste of washer fluid, assure the fluid jets are properly aimed. Adjust nozzles so they aim as described in figure 32. Align the jet adjustment tool #800377 with the reference line shown on the front view detail. As seen on the

## Section 23: ACCESSORIES

side view, position the adjustment tool vertically for proper aiming.



**FIGURE 35: HEADLIGHT HOUSING** 23362



**FIGURE 36: WASHER NOZZLES ADJUSTMENT** 23363

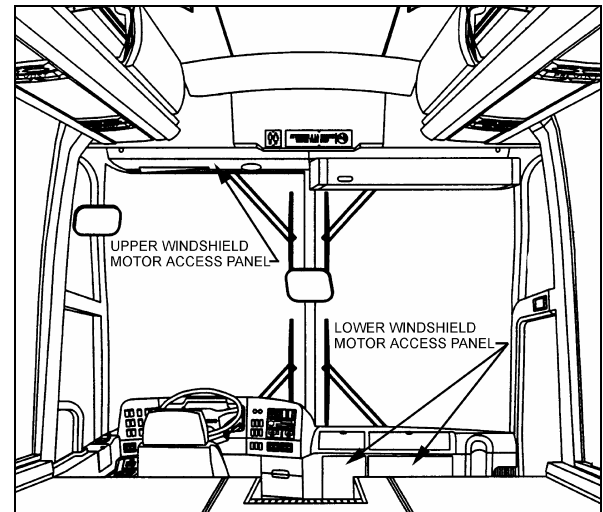
## 10. WINDSHIELD WIPERS AND WASHERS

### 10.1 GENERAL DESCRIPTION

**Note:** When installing a wiper motor, arm or blade, follow recommended procedures to prevent misalignment, binding or malfunction. Check the windshield washer liquid hoses, fittings and connectors to be sure they are

properly connected and seal with no restriction to the flow of washer liquid. Check that wiper arms have the proper sweep position and the washer nozzles are aimed so that spray is within the proper wiper pattern.

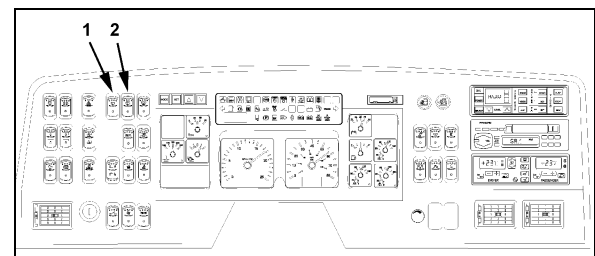
The windshield wipers are controlled by two electric wiper motors that are accessible for maintenance after raising the appropriate access panel at the front of the coach (refer to figure 33).



**FIGURE 37: WIPER MOTORS LOCATION** 23319

Each wiper motor is independently operated:

Depress the upper windshield wiper switch located on the dashboard L.H. side to the first position for intermittent wiping, and to the second position for continuous wiping (item 1, fig. 33).



**FIGURE 38: DASHBOARD**

Turn the multifunction lever forward to activate lower windshield wipers (item 2, fig. 34). The first position operates the wipers at low speed and the second position operates the wipers at high speed. Turning the lever backwards will operate the wipers in the intermittent mode.

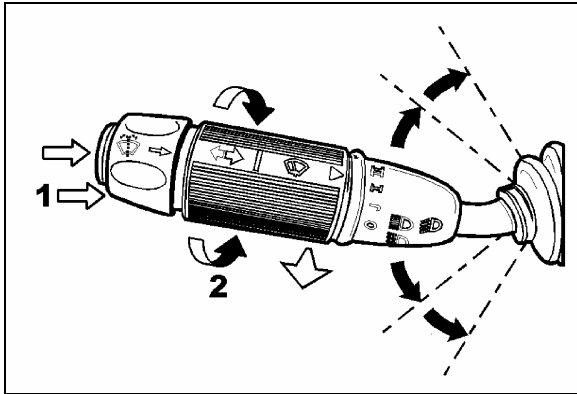


FIGURE 39: MULTIFUNCTION LEVER

23133

Each windshield washer pump is independently operated:

To activate the upper windshield washer pump, depress and hold the rocker switch on dashboard L.H. side (item 2, fig. 34). The upper wipers will come on automatically and will shut off a few seconds after releasing the rocker switch. The lower windshield washer pump is electrically operated and is controlled by a washer control ring on the multifunction lever (item 1, fig. 34).

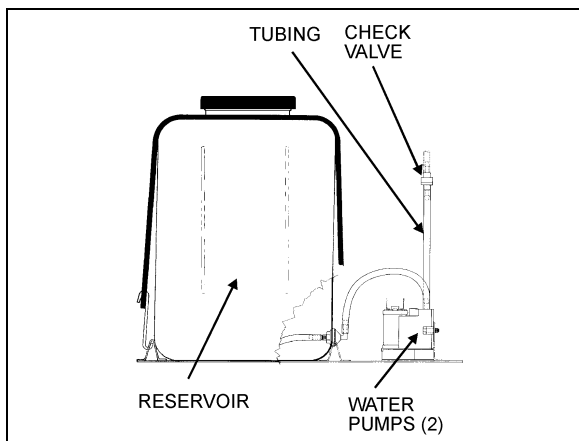


FIGURE 40: WINDSHIELD WASHER RESERVOIR

23085

The windshield washer reservoir is located in the front service compartment (Fig. 35). This unit pumps the washer liquid to the spray nozzles where it is dispersed across the windshield. Adjust nozzles with a flat tip screwdriver as needed to get proper spray coverage.

## 10.2 WIPER ARM

Check operation of the wipers for proper blade sweep and angle.

**Caution:** Do not attempt to manually move the wiper arms to make wiper blade sweep adjustments as damage to the wiper linkage or

motor may occur. If it is necessary to adjust the sweep of blades, remove the arms and make adjustment by positioning the arms using serration on the wiper arm pivot shafts.

### 10.2.1 Sweep Adjustment

On a dry windshield, to avoid possible damage to the arm assembly or wiper motors, hold the wiper arms away from the windshield by inserting a small nail, or other such object, through the holes at the base of each wiper arm specially drilled for this purpose.

Sweep adjustment is a rough adjustment. It must be followed by lower and upper linkage adjustment. See paragraph 10.3 and 10.4.

In order to obtain the sweep adjustment, it may be necessary to remove and reposition the wiper arms, proceed as follows:

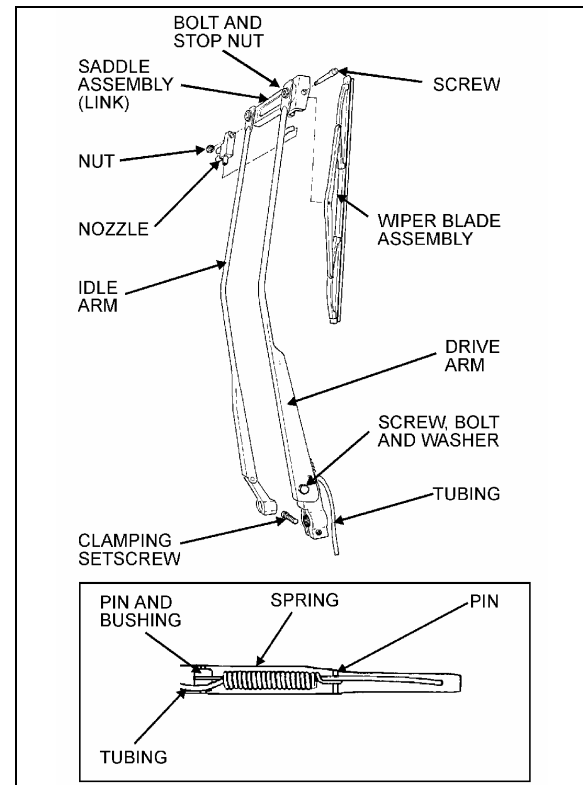


FIGURE 41: LOWER WINDSHIELD WIPER

23086

1. Remove the cap nuts from the wiper arm pivot shafts (Fig. 36 and 37);
2. Disconnect the windshield washer tubing at the base of the wiper arm (Fig 36 and 37);
3. Lower windshield wiper (Fig. 36): loosen the clamping set screw securing the drive arm to the knurled arm pivot shaft;

## Section 23: ACCESSORIES

4. Remove the drive and idler arms (Fig. 36) or arm assembly (Fig. 37);
5. Relocate the drive arm (Fig. 36) or arm assembly (Fig. 37) on its knurled pivot shaft to obtain the desired position;
6. Lower windshield wiper (Fig. 36). Tighten the clamping set screw to secure the drive arm to the knurled shaft. Fit the idler arm onto the idler pivot shaft.
7. Install the cap nut pivot shafts.
8. Connect the windshield washer tubing at the base of the wiper arm (Fig. 33 and 37);
9. Check the adjustment on a wet windshield (Fig. 36 and 37).

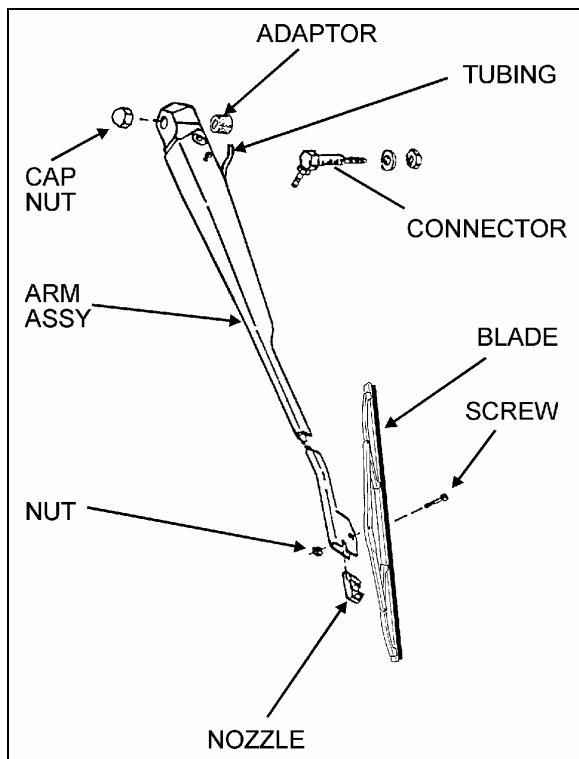


FIGURE 42: UPPER WINDSHIELD WIPER

23087

### 10.2.2 Removal

1. Remove the cap nuts from arms (Fig. 36 and 37);
2. Disconnect the windshield washer tubing at the base of the wiper arm (Fig. 36 and 37);
3. Mark the relationship of the arm head to the end of the knurled drive shaft to ensure the original position if the arm is to be reinstalled;

4. Lower windshield wiper (Fig. 36): loosen the clamping set screw on the base of the drive arm;
5. Remove the wiper arm assembly (Fig. 36 and 37).

### 10.2.3 Installation

1. Make sure the wiper motor is in the stop position. Lower windshield wiper (Fig. 36): position the wiper arm on the knurled drive shaft and idler arm on the pivot shaft. Upper windshield wiper (Fig. 37): position the wiper arm assembly on the knurled drive shaft;
2. If the original arm is reinstalled, align the marks made during removal;
3. Operate the wipers on a wet windshield to check the wiper blade sweep and angle. Readjust as necessary;
4. Lower windshield wiper (Fig. 36): Tighten clamping nut onto the drive arm. Install cap nuts onto the arm shafts (Fig. 36 and 37);
5. Connect the windshield washer tubing at the base of the wiper arm (Fig. 36 and 37);
6. Check the adjustment on a wet windshield (Fig. 36 and 37).

### 10.3 LOWER LINKAGE ADJUSTMENT

1. Make sure the wiper motor is in the stop position prior to working on the linkage.
2. Adjust the two pivot shafts vertically.
3. Adjust the rod length of the connecting pivot shafts. During rod length adjustment, maintain the pivot shafts in the vertical position.
4. Adjust the rod located between right pivot shaft and motor to a 40.5° angle (Fig. 38). The motor lever must be on the same axis as the rod.
5. Install the right wiper arm in its normal position (in the middle of the windshield (Fig. 33)). Refer to paragraph "9.2.1 Sweep Adjustment".
6. The right wiper arm final adjustment is made by adjusting the smallest rod length.
7. Install the left wiper arm in its normal position (in the middle of the windshield (Fig. 32)). Refer to paragraph "10.2.1 Sweep Adjustment".



8. The left wiper arm final adjustment is made by adjusting the longest rod length.
9. Check the adjustment on a wet windshield.
5. Remove the windshield wiper motor (Prevost #800304), reverse removal procedure to reinstall.

#### 10.4 UPPER LINKAGE ADJUSTMENT

1. Make sure the wiper motor is in the stop position prior to working on the linkage.
2. Adjust rods length (Fig. 42).
3. Install the left wiper arm in its normal position (in the middle of the windshield (Fig. 33)). Refer to paragraph "10.2.1 Sweep Adjustment".
4. The left wiper arm final adjustment is made by adjusting the rod length to 8.46 inches (215 mm).
5. Install the right wiper arm in its normal position (in the middle of the windshield (Fig. 33)). Refer to paragraph "10.2.1 Sweep Adjustment".
6. The right wiper arm final adjustment is made by adjusting the rod length to 23.54 inches (598 mm).
7. Check the adjustment on a wet windshield

#### 10.5 WINDSHIELD WIPER MOTORS

##### 10.5.1 Lower Windshield Wiper Motor Replacement

The lower windshield wiper motor is located at lower front of the vehicle, behind the defroster panel. Refer to figure 33 for motor location.

**Warning:** Park vehicle safely, apply parking brake, stop engine and set battery master switch to the "OFF" position prior to working on the vehicle.

1. Remove the two Phillips-head screws retaining the defroster panel, and remove panel.
2. Disconnect wiring connector from the windshield wiper motor.
3. Loosen clamping screw retaining the lever at the end of the motor driving shaft (Fig. 38).
4. Remove the three bolts holding the motor to the steel plate.

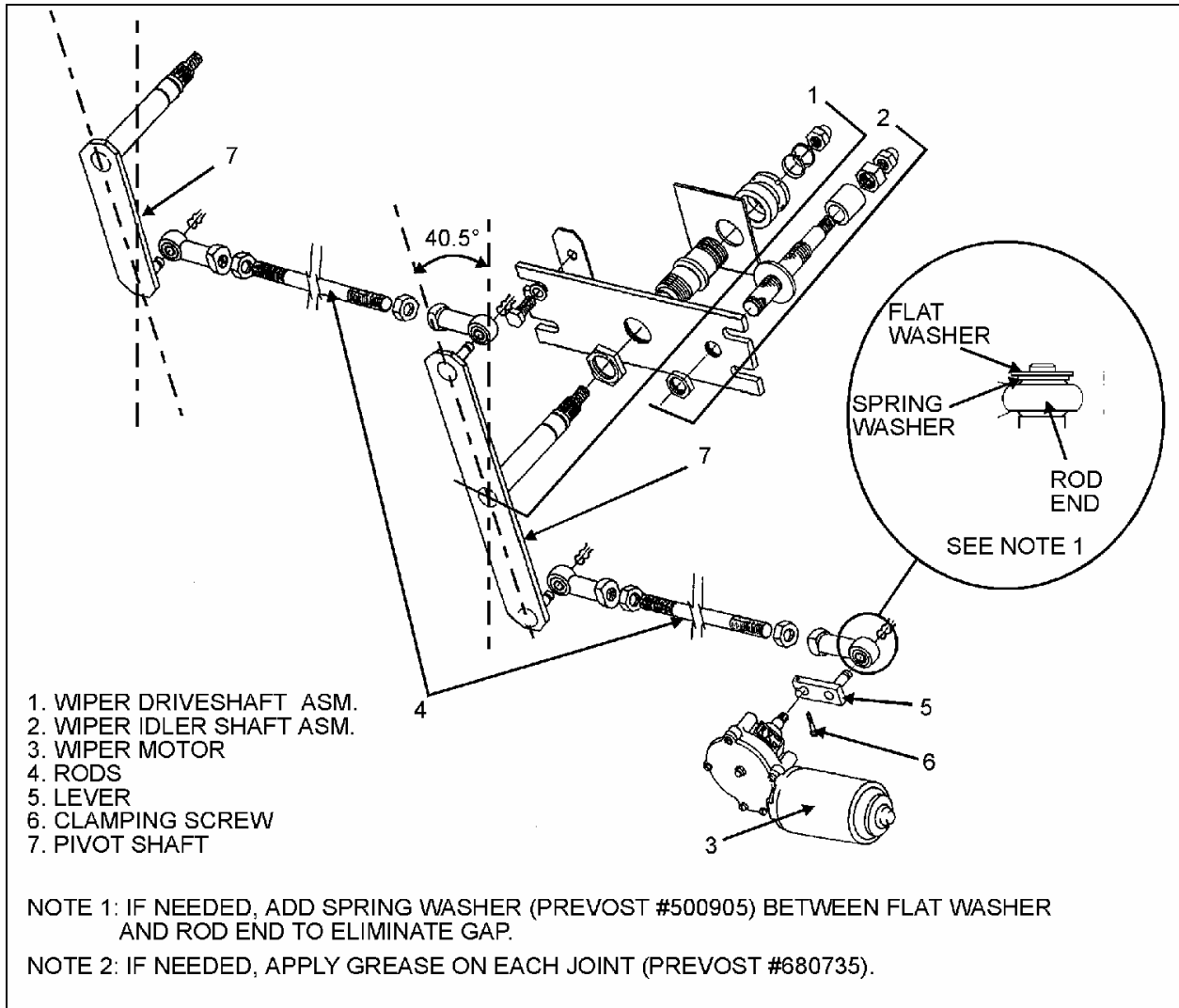


FIGURE 43: LOWER WINDSHIELD WIPER INSTALLATION

23088

### 10.5.2 Upper Windshield Wiper Motor Replacement

The upper windshield wiper motor is located above L.H. upper windshield panel, refer to figure 33 for motor location. To remove the motor, it is necessary to remove left sun visor and upper windshield panel.

**Warning:** Park vehicle safely, apply parking brake, stop engine and set battery master switch to the "OFF" position prior to working on the vehicle.

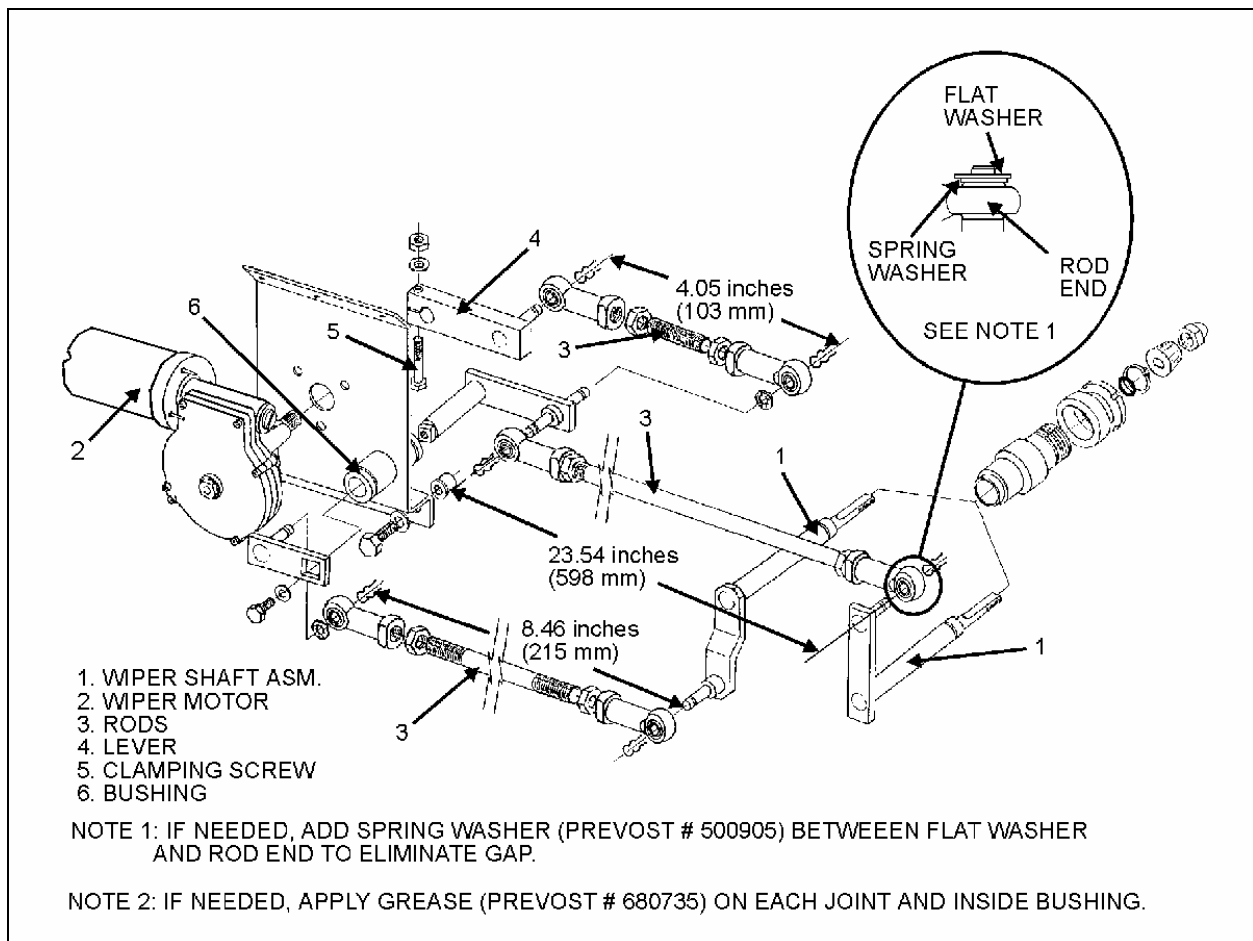


FIGURE 44: UPPER WINDSHIELD WIPER INSTALLATION

23089

1. Pull out the wiring connector (black and red wires) located on sun visor L.H. side and disconnect.
2. Remove the two Phillips-head screws at the bottom end of the sun visor arms.
3. Remove the two Phillips-head screws on each roller side, pull out the sun visor.
4. Remove the Phillips-head screws retaining the upper windshield panel.
5. If equipped with blower defroster, loosen hose clamp to remove air duct from hose.
6. Disconnect wiring connector from the windshield wiper motor.
7. Loosen the bolt retaining the lever at the end of the motor driving shaft (Fig. 39).
8. Remove the three bolts holding the motor to the steel plate.
9. Remove the windshield wiper motor (Prevost #800304), reverse removal procedure to reinstall.

### **11. AUTOMATIC FIRE SUPPRESSION SYSTEM (AFSS) (OPTIONAL ON COACHES ONLY)**

This optional system is used to shut down the engine and to extinguish a fire in the engine compartment or in the vicinity of the preheating system if so equipped.

The system operation is fully automatic and does not require assistance from the operator, however if required, the system can be manually activated by the operator at any time.

Refer to Prevost Operator's Manual for system operation and operational sequence (fire).

If more information is needed on the system, please refer to Kidde Dual Spectrum "Operation & Maintenance Manual annexed at the end of this section.

#### **11.1 PERIODIC MAINTENANCE**

##### **PRE-TRIP**

- Verify that the Protection Panel "SYSTEM OK" lamp is on solid green.

##### **EVERY 3000 MILES OR MONTHLY** (whichever comes first)

###### **General**

- Verify that neither the protected equipment nor the hazard has changed.
- Verify that no obvious physical damage or condition exists that might prevent system operation.

###### **Protection Panel**

- Verify that all warning lamps and the audible alarm are operational by pressing the "TEST/RESET" button.

###### **Manual Activation Switch**

- Verify that the tamper seal is intact and access to the switch is unobstructed.

###### **Fire Detectors**

- Optical
  - Verify that the status lamp on the detector face is on solid green.
  - Verify that nothing is blocking the detector's field of view.
  - Verify that the windows on the face of the detector are free of excess contamination (dirt, oil, grease, etc.) – if necessary, clean using a water soaked non-abrasive towel.
- Linear Thermal
  - Verify that there is no obvious physical damage and that the unit is free of excess contamination (dirt, oil, grease, etc) – if necessary, clean using a water soaked non-abrasive towel.
  - Verify that mounting is secure and taught.

###### **Electrical Harness**

- Verify that electrical connectors and electrical wiring have no visible damage and all connectors are securely seated.

###### **Extinguisher & Distribution System**

- Verify that that the extinguisher pressure gauge pointer is in the green arc at room temperature.
- Verify that distribution piping and nozzles are intact and unobstructed and that nozzle blow-off caps are in place.

##### **EVERY 18000 MILES OR SEMI-ANNUALLY** (whichever comes first)

- Perform a comprehensive fire system test using a Kidde Dual Spectrum System Test Set (Optical Test Kit P/N 420871-2).
- Service the extinguisher in accordance with KDS Document 160296, "KDS Pre-Engineered Fire Suppression System: Installation, Operation and Maintenance Manual".

**EVERY SIX YEARS**

- Have the fire extinguisher rebuilt by a qualified fire protection equipment company familiar with Kidde Dual Spectrum equipment and in accordance with KDS Document 160296, "KDS Pre-Engineered Fire Suppression System: Installation, Operation and Maintenance Manual". Rebuilt shall include actuator, o-ring seals and dry chemical replacement.

**EVERY TWELVE YEARS**

- Have the Extinguisher cylinder hydrostatically tested by a qualified fire protection equipment company familiar with Kidde Dual Spectrum equipment and in accordance with KDS Document 160296, "KDS Pre-Engineered Fire Suppression System: Installation, Operation and Maintenance Manual".

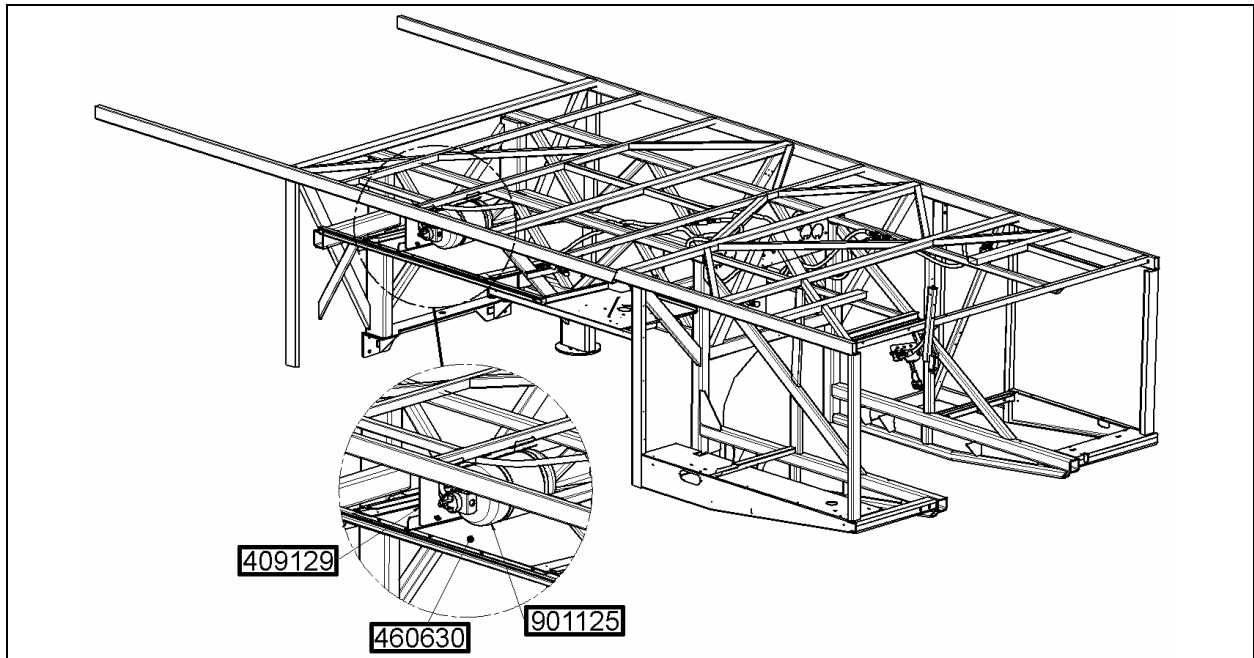


FIGURE 45: FIRE EXTINGUISHER INSTALLATION

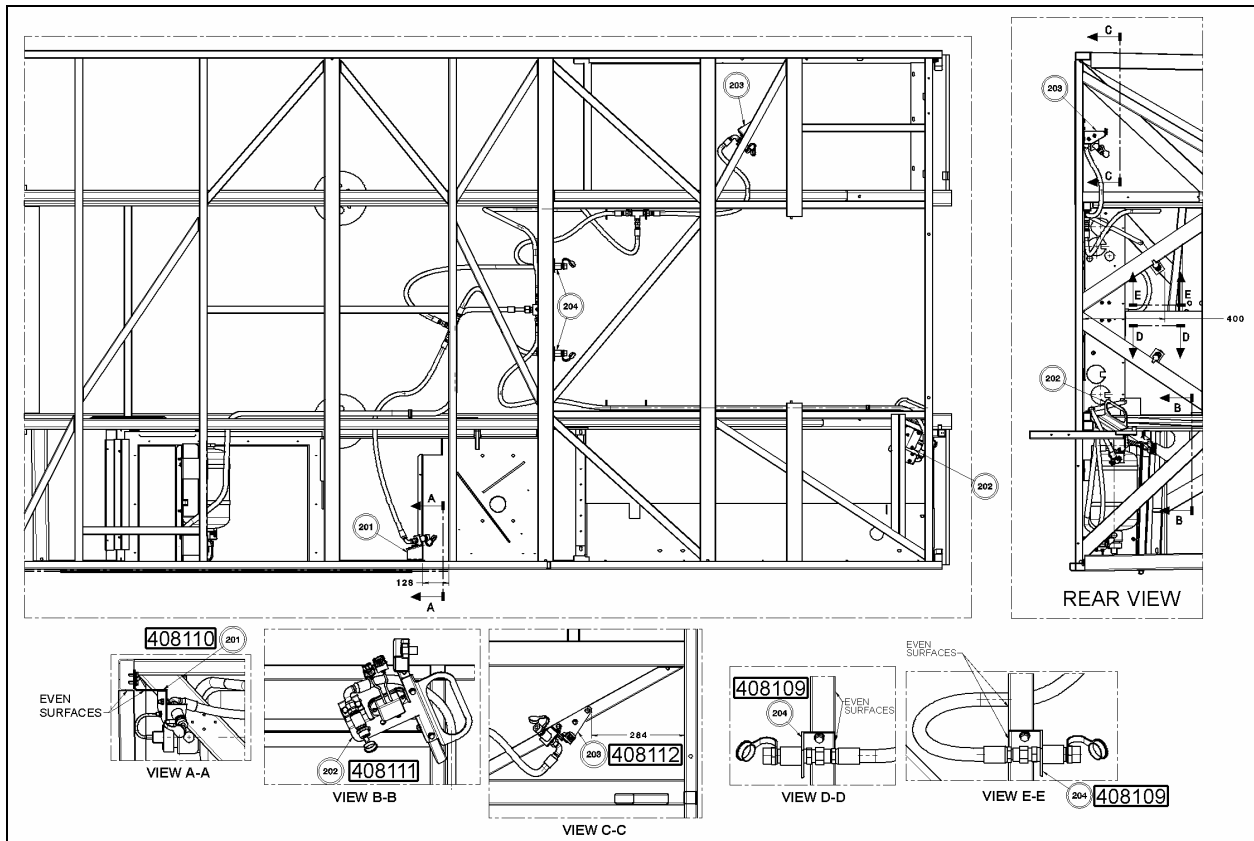


FIGURE 46: NOZZLE BRACKETS IDENTIFICATION AND INSTALLATION

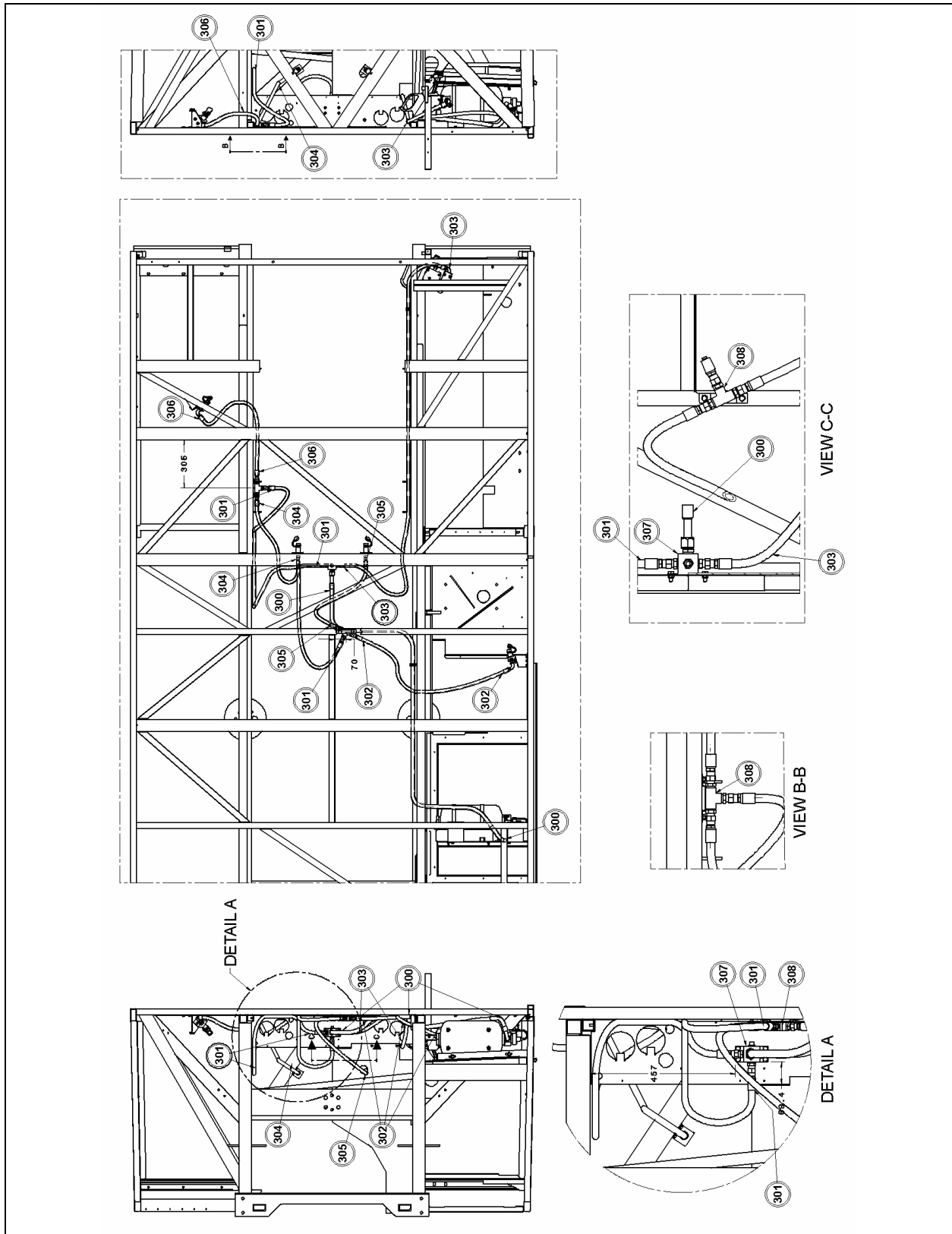


FIGURE 47: HOSES IDENTIFICATION AND ROUTING

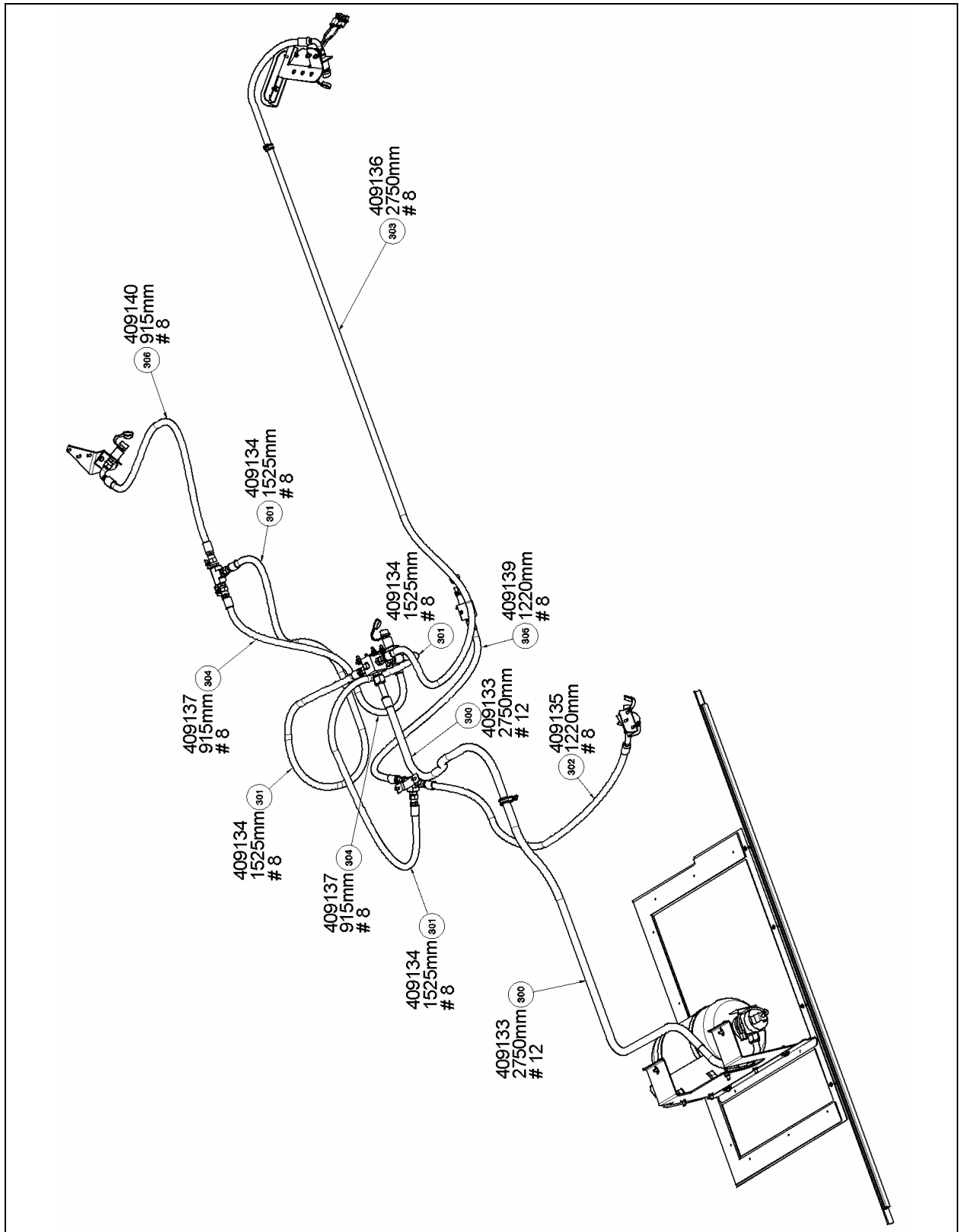


FIGURE 48: AFSS SYSTEM OVERVIEW

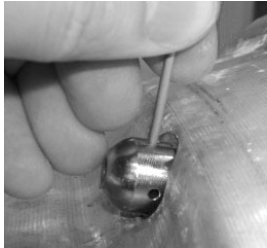


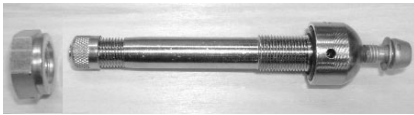
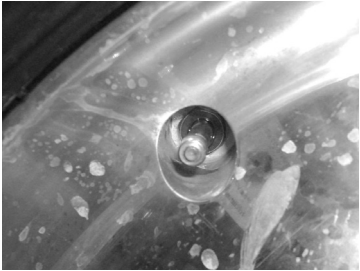
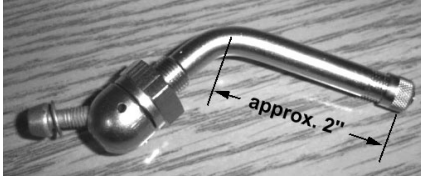
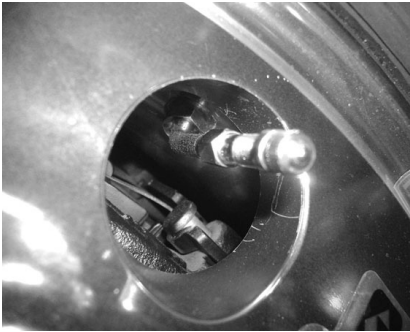


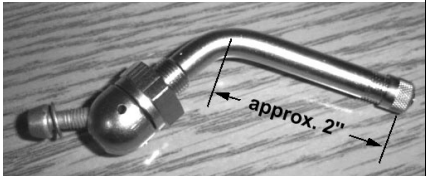

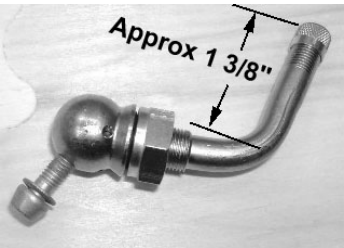


**12. TIRE PRESSURE MONITORING SYSTEM (TPMS)**

The optional active tire pressure and temperature monitoring system is a sensing device designed to identify and display tire operating data and activate an alert or warning when pressure or temperature irregularities are detected.

For more information on the operation and troubleshooting of the system, refer to the Operator's Manual, chapters "Controls and Instruments", "Safety Features and Equipment" and also "Appendix G".

**12.1 TIRE VALVE INSTALLATION**

<p><b>Use as required a small rod to hold the valve in place when tightening.</b></p>			
<p><b>Steel Wheels</b></p>	<p><u>All wheels</u>                      a) Install Beru valve                      Torque valve to 44.5lb-in +/- 9.5                      b) no extension piece</p>	 #Prevost 681083	
	<p><u>Front axle and tag axle wheels with 365 tires</u>                      a) Remove Alcoa valve                      b) Install Beru valve                      Torque valve to 102lb-in +/- 22                      c) No extension piece</p>	 #Prevost 651080	
<p><b>Aluminum Wheels (new CPM wheels)</b></p>	<p><u>Front axle and tag axle wheels with 315 tires</u>                      a) Remove Alcoa valve                      b) Install Beru valve                      Torque valve to 102lb-po +/- 22                      c) Small extension piece (approx 50mm)</p>	 #Prevost 651081	

Aluminum wheels (new CPM wheels)	<p><b><u>Drive axle inner and outer wheels with 315 tires-</u></b></p> <p>a) Remove Alco valve                  b) Install Beru valve                  Torque valve to 102lb-in +/- 22                  c) no extension piece</p>	 <p>#Prevost 651081</p>	
	<p><b><u>"Super Single" Tires</u></b></p> <p>a) Remove Alcoa valve                  b) Install Beru valve                  Torque valve to 102lb-in +/- 22                  c) no extension piece</p>	 <p>#Prevost 651079</p>	
Aluminum wheels (former CPG wheels)	<p><b><u>All wheels</u></b></p> <p>a) Remove Alcoa valve                  b) Install Beru valve                  Torque valve to 102lb-in +/- 22                  c) no extension piece</p>	 <p>#Prevost 651082</p>	

12.2 BERU SENSORS INSTALLATION

**IMPORTANT NOTE**

*Beru sensors have a limited lifespan (5 years on average)*


Install sensor onto valve. Torx screw T-20. Torque to 35lb-in (4Nm) (supplier specification for the screw).

Make sure sensor rests against rim flange.

**IMPORTANT**

Use the screw only once. This screw uses a thread lock. Replacement screw #651084.



<p>Note bar code and tie it up using wheel holes. Use supplied removable tie-rop.</p>	
<p><b>Decal</b> Glue decal facing the valve.</p>	<p>#651091 ENGLISH #651090 BILINGUAL</p>

**13. SPECIFICATIONS**

**AMPLIFIER**

Model..... VA400-8  
 Output..... 400 watts, 6 channel RMS at 4 ohm @ 0.5 T.H.D.  
 Prevost number..... 901191

**SOUND SELECTOR**

Model..... VSS-04  
 Power source ..... 12 volts  
 Prevost number..... 901192

**AM/FM/CD PLAYER RADIO (standard)**

Model..... VR300  
 Power source ..... 12 volts  
 Prevost number..... 901190

**AM/FM/CD SATELLITE RADIO (optional)**

Power source ..... 12 volts  
 Prevost number..... 901189

**6 DISC CD CHANGER**

Prevost number..... 901196

**MOBILE DVD PLAYER**

Power source ..... 12 volts  
 Prevost number..... 901198

**SPEAKER (standard)**

Model..... Dual Cone  
 Impedance ..... 4 ohms  
 Prevost number..... 901194

**SPEAKER (optional)**

Model..... Coaxial  
 Impedance ..... 4 ohms  
 Prevost number..... 901195

**SUBWOOFERS (optional)**

Model..... J Drive VB170  
 Impedance ..... 4 ohms  
 Prevost number..... 901193

**VIDEO CASSETTE PLAYER (VCP)**

Model..... V-3000  
 Prevost number..... 901030

**VIDEO SWITCHER**

Model..... V-3000  
 Prevost number..... 901030

**BOOM-TYPE MICROPHONE**

Prevost number..... 900763

**HANDHELD PRIORITY MICROPHONE**

Prevost number..... 900808

**RUBBER COATED MICROPHONE**

Prevost number ..... 900745

**16 CHANNEL WIRELESS MICROPHONE**

Make ..... R.E.I.

Prevost number ..... 900954

**16 CHANNEL WIRELESS MICROPHONE CHARGING STATION**

Make ..... R.E.I.

Prevost number ..... 900953

**16 CHANNEL WIRELESS MICROPHONE RECEIVER**

Make ..... R.E.I.

Prevost number ..... 900952

**KARAOKE**

Make ..... Panasonic

Model ..... MOBILE DVD PLAYER DV1500

Prevost number ..... 901033

**TV RECEIVER**

Power source ..... 24V

Prevost number ..... 901054

**VIDEO DISTRIBUTION AMPLIFIER**

Power source ..... 24V

Prevost number ..... 901117

**TV MONITOR**

Type ..... 10.4" LCD

Power source ..... 24V

Prevost number ..... 901130

**HUBODOMETER (US model: miles)**

Make ..... Stemco

Prevost number ..... 650002

**HUBODOMETER (Canada model: km)**

Make ..... Stemco

Prevost number ..... 650117

**ELECTRIC DESTINATION SIGN (FLUORESCENT TUBE)**

Make ..... General Electric

Length ..... 30" (76 cm)

Outside diameter ..... 1" (25 mm)

Wattage ..... 20

Color ..... Cool white

Quantity ..... 1

Prevost number ..... 830120

**ELECTRONIC DESTINATION SIGN**

Make ..... Pocatec

Prevost number ..... 940050

**LAVATORY VENTILATION FAN MOTOR**

Make ..... Aurora

**Section 23: ACCESSORIES**

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Type ..... RG500EF  
Voltage ..... 24 volts DC  
Rotation ..... R.H.  
Prevost number ..... 870844

**EMERGENCY BUZZER SWITCH (PUSH BUTTON)**

Make ..... Cole Hersee Co.  
Voltage ..... 24 V  
Prevost number ..... 562117

**FRESH WATER TANK**

Make ..... Prevost  
Capacity ..... 18 US gal (68 liters)  
Prevost number ..... 403030

**FRESH WATER TANK HEATER**

Make ..... Hot Watt  
Wattage ..... 75 watts  
Voltage ..... 115 volts AC  
Prevost number ..... 562018

**FLUSH PUSH BUTTON PNEUMATIC TIMER**

Make ..... McGill  
Type ..... Resettable  
Time ..... 0,2 to 180 seconds  
Timer ..... 563327

**FLUSH PUMP**

Make ..... Jabsco  
Model number ..... 30240-1024 24 V  
Power source ..... 24 volts DC  
Capacity ..... 1452 GPH  
Prevost number ..... 900496

**AIR HORN**

Make ..... Allied Signal Inc.  
Prevost number ..... 640093

**AIR HORN VALVE**

Make ..... Allied Signal Inc.  
Prevost number ..... 640128

**WINDSHIELD WIPER MOTOR**

Make ..... SWF  
Prevost number ..... 800304

**LOWER WIPER (BLADE)**

Make ..... Sprague device inc.  
Prevost number ..... 800284

**UPPER WIPER (BLADE)**

Make ..... Sprague device inc.  
Prevost number ..... 800234