Specifications

- Motor - Cummins 450 HP
- Front Axle WR - 14,600 lbs
- Intermediate Axle WR - 20,000 lbs
- Rear Axle WR - 20,000 lbs
- Vehicle Height - 13’ 6”
Clearances

This vehicle is the maximum allowable height to travel on public roadways. Beware of any low clearance situations.

In addition to the height, the rollers for the retractable awnings extend beyond the side of the vehicle. They are very high and not visible in the mirrors.
Clearances - Awnings
This unit is equipped with an Exhaust Brake.

The Exhaust Brake will not be used in low traction or slippery conditions.
Transmission Fluid Check

- The Transmission Fluid level may be checked in the cab through the keypad selector.
- The engine must be running at idle and the unit must be on level ground.
- The engine must idle at least five minutes from a cold start.
- The transmission must heat to at least 140 degrees F.
- Push both the up and down arrows simultaneously on the keypad.
After simultaneously pushing both buttons, the symbol “OL” will display on the screen.

OL will be followed by OK, -1 thru -7, or +1 thru +7. The – indicates under filled and the + indicates overfilled. The numeral indicates the number of quarts.

Any other message indicates a problem and CMF should be notified.

Always confirm the digital reading on the dipstick BEFORE adding fluid.

ONLY use Trans-Synd Fluid.
Reverse Camera

- The video screen is located at ceiling level in the center of the unit.

- The camera is located on the AC unit.
Cab Features

ACTUAL VEHICLE HEIGHT 13' 6"
Cab Features

Driver’s Window

Passenger’s Window

Mirror Heat

Door Locks
Use of this switch will lock/unlock the cab ONLY – not the body
Parking Brake

Rear Suspension Dump
(This can be used when the vehicle is off to dump the rear air if the stabilization system fails)
Cab Features

CAUTION!

CHAINS MUST BE ENGAGED AND DISENGAGED WHILE THE VEHICLE IS MOVING.

- CHAINS MUST BE ENGAGED WHEN TRAVELING BETWEEN 2 MPH AND 25 MPH.
- CHAINS MUST BE DISENGAGED WHEN TRAVELING BETWEEN 2 MPH AND 35 MPH.
- VEHICLE MUST NOT EXCEED 35 MPH WITH THE CHAINS ENGAGED.

REAR AIR SUSPENSION
INTERIOR LIGHTS
PORCH LIGHT
CO / SMOKE ALARM
TIRE CHAINS

MARINE 12V
Cab Features

Inter-Axle Lock

Exhaust Brake

Manual Regeneration
Cab Features

- Arrow Stick Control
- Warning Light Controls
- Siren Controls
Cab Features

- Top row are switches
  - Battery Parallel links chassis and coach batteries

- Bottom row are warning lights
  - **DO NOT** move vehicle if any are illuminated
Steering Wheel Adjustment

Step on adjustment pedal for telescoping and tilt functions. Releasing the pedal will lock the steering wheel in place.
This unit is equipped with Automatic Traction Control

- Up turns the system “off” and allows wheels to spin
- Down is the normal position and allows the ATC to brake and transfer power as needed
Cab Features

- On-Spot Tire Chains
  - Not installed yet
Cab Features

- **Mirrors**
  - Both Mirrors are heated
  - Large flat mirror is remotely adjustable
  - Convex mirror is manual

Control located on Driver’s Door
1) All diesel exhaust systems must be fitted with a DPF and a regeneration system.

2) DPF is Diesel Particulate Filter which captures soot and ash from the engine exhaust.

3) Regeneration is the process of burning off the soot and ash.

4) There are two types of regeneration:
   1. Passive which requires no driver involvement.
   2. Active which requires driver involvement.

5) Warning lights in the dash cluster will advise the driver of what action is needed.
Active Parked Regeneration

1) When the DPF lamp is solid a parked regeneration may be needed.

2) When the DPF lamp is flashing a parked regeneration is REQUIRED AS SOON AS POSSIBLE.

3) During a regeneration exhaust temperature can reach 1300 degrees. Select an appropriate location.

4) Park unit, place the transmission in neutral, chock the wheel, and toggle the regeneration switch. Engine rpm should increase to approximately 1100rpm.

5) Keep exhaust 5 feet away from all objects and pedestrians.

6) The driver must remain with the vehicle during regeneration.
Regeneration

Active Parked Regeneration

7) During the regeneration process the high exhaust temperature lamp will illuminate.
8) DO NOT complete regeneration in the Station or while connected to a Plymovent.
9) When the ECM determines the DPF has been regenerated engine rpm will decrease to normal rpm signaling the regeneration is over.
10) Remember exhaust components are still very hot.
11) If the regeneration process needs to be interrupted or stopped, depress the brake pedal.
Regeneration

Active Parked Regeneration

The regeneration switch is located in the center of the dash below the Axle Lock switch.
Regeneration

- **DPF/DEF Warning Lights**

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| **DPF Regen Needed** | • Diesel Particulate Filter (DPF) regeneration is needed.  
  • If flashing, regenerate as soon as possible. Engine derate possible. |
| **Hot Exhaust** | • Hot exhaust can cause fire.  
  • Keep flammables and people away from exhaust. |
| **DEF Refill Needed** | • Diesel Exhaust Fluid (DEF) level is low. Engine derate likely.  
  • Refill tank with certified DEF. |

See operator’s manual or glove compartment card for complete instructions.
Passive Regeneration will only occur during highway driving. It is unlikely this unit will drive enough highway miles for Passive Regeneration to complete its cycle.
Diesel Exhaust Fluid

Diesel FUEL Tank

Diesel EXHAUST FLUID Tank
Diesel Exhaust Fluid

DEF Tank located rear of Fuel tank on the driver’s side of the unit.

DEF Tank gauge located below fuel gauge on dash.
The vehicle has 2 banks of batteries
- Chassis Batteries are located under the driver’s seat
- Coach batteries are located in the first driver side compartment
- The systems are separate
- Can be linked by pressing either “Battery Parallel” switch
Coach Batteries
Coach Batteries
Leveling & Stabilization System

- 4 Electric Stabilizer Jacks are under the vehicle
- Control panel located beside entry door
- System is automatic with manual overrides
- Intended to stabilize vehicle and overcome MINOR slope differences
- Vehicle should be parked on solid ground that is as flat and level as possible
- When necessary, cribbing or ground pads may be needed
Leveling & Stabilization System

- Press “System Power” button
- Press “Auto” button
  - Rear air suspension will automatically dump
  - Stabilizers will deploy automatically
- This may take a few minutes
- Stabilization complete when footprint indicator light turns green
- This MUST be done before any slides or accessories are deployed
Stabilization System

Initial Power Up
- System Power lit
- All Up lit – indicates everything is stowed

Vehicle Stabilized
- System Power lit
- Auto lit
- Green Foot lit
Stabilization System
12 Volt DC Control Panel

- Located above door in the coach
- All 12 volt functions
- Passenger side awning
- Slide Room Control Panel
- Generator start
12 Volt DC Control Panel

- Ps SCENE LIGHTS
- Ds SCENE LIGHTS
- REAR SCENE LIGHTS
- PORCH LIGHT
- INTERIOR LIGHTS
- MAST LIGHT
- MAST STROBE LIGHT
- P.S. FLOODS
- D.S SCENE
- REAR FLOODS
- PORCH LIGHT
- INTERIOR LIGHTS
- RIGHT LIGHT
- RIGHT STROBE
- COMPARTMENT LTS
- COMPT LIGHTS
- GEN REMOTE
- BATTERY PARALLEL
- SYSTEM LIGHT
- VEHICLE LIGHT
- FUEL LEVEL
- RACK SERVICE LIGHTS
- SLIDEOUT LIGHT
- SLIDEOUT LIGHTS
- PUSH TO READ FUEL LEVEL
- FUEL LEVEL

DC VOLTS

COMM 1

COMM 2

COMM 3
Generator

- Unit is equipped with a 30kW diesel powered generator
- Shares fuel tank with chassis
- Can power ALL functions of unit simultaneously
- Located in second compartment on driver’s side
- Compartment is completely enclosed allowing the generator to be run while driving
- Started on the 12 Volt Control Panel in the back
To start generator go to DC Control Panel
Press Generator Remote switch
Generator will start after glow plugs have cycled
120 Volt Power Distribution System

- Located opposite door in the coach
- Controls all 120 volt AC functions
The following steps MUST be completed exactly as shown. Failure to follow the proper order can cause significant damage to the electrical system.
120 Volt Power Distribution System
Startup Step 1

- Start the generator – green light illuminated
- Check the right side of the 120 Volt panel
- The panel should appear as shown
- Power Select OFF
- Main Breaker OFF
120 Volt Power Distribution System

Startup Step 2

- Turn the POWER SELECT switch to GEN
- The panel should appear as shown
- Power Select GEN
- Main Breaker OFF

Before proceeding confirm that the L1 and L2 gauges both show 120 volts and the center gauge shows 60 hertz
120 Volt Power Distribution System
Startup Step 3

- Turn the MAIN breaker on (UP)
- The panel should appear as shown
- Power Select GEN
- Main Breaker ON
- L1 & L2 120 volts
- Center 60 hertz

With the L1 and L2 gauges at 120 volts and the center gauge at 60 hertz you can proceed.
Individual breakers can now be turned on for desired components
HVAC System

- Air conditioning unit is on rear of vehicle
- HVAC Breaker must be on
- Thermostat next to breaker panel
HVAC System

- Electric heaters located in front and rear rooms
- Corresponding Wall Heater Breaker must be on
- Thermostat located on heater
Hydraulic Room Extensions

There are 4 hydraulic room extensions
- 2 in the front conference room
- 2 in the rear workstation area

Powered by 12 volt hydraulic pump

Pump and reservoir located in the left rear compartment

Rooms extend roughly 3 feet

Check for obstructions BEFORE extending the rooms.
Position a spotter during extension if in doubt!
Hydraulic Room Extensions

- The reservoir FULL line is for when ALL 4 rooms are deployed
  - Plans to mark reservoir with retracted fluid level
- Manual pump also located here

Full level with all 4 rooms deployed

Manual Pump
Hydraulic Room Extensions

- Controls for room extensions located on 12 volt DC control panel above entry door
  - Turn system ON
  - Select extension
  - Press extend to deploy or retract to stow

Check for obstructions on the exterior BEFORE extending the rooms. Position a spotter during extension if in doubt!
Check for interior obstructions BEFORE retracting.
Awnings

- Electric awning on both sides above extensions
  - Require 120 volt power
  - Can be stopped at desired length
  - Have wind sensors to automatically retract
Awnings

- Passenger side awning controls located on 12 volt DC control panel above entry door
  - Turn on awning breaker on 120 volt panel
  - Turn on awning control
  - Ensure no obstructions
  - Extend awning to desired length
  - Adjust motion (wind) sensitivity as desired

Check for obstructions BEFORE extending the awnings. Position a spotter during extension if in doubt!
Pneumatic Mast

ALWAYS check for overhead obstructions before deploying mast

NEVER operate mast within 10 feet of power lines
Pneumatic Mast

- 40’ Pneumatic Mast located on driver’s side rear of unit
  - Controls and 120v air compressor located in driver’s rear compartment
  - Level the vehicle before deploying
Pneumatic Mast

- Handheld spotlight provided for checking for overhead obstructions
In the event of a failure of the handheld controller, there is a dump valve to allow manual retraction of the mast.
Separate documents have been created to provide step-by-step instructions for basic setup upon arrival at a scene and demobilizing from a scene.

Questions regarding the vehicle should be directed to Special Operations.