

EFFICIENT SLEEPER COMFORT

Volvo's Battery-powered Parking Cooler Option



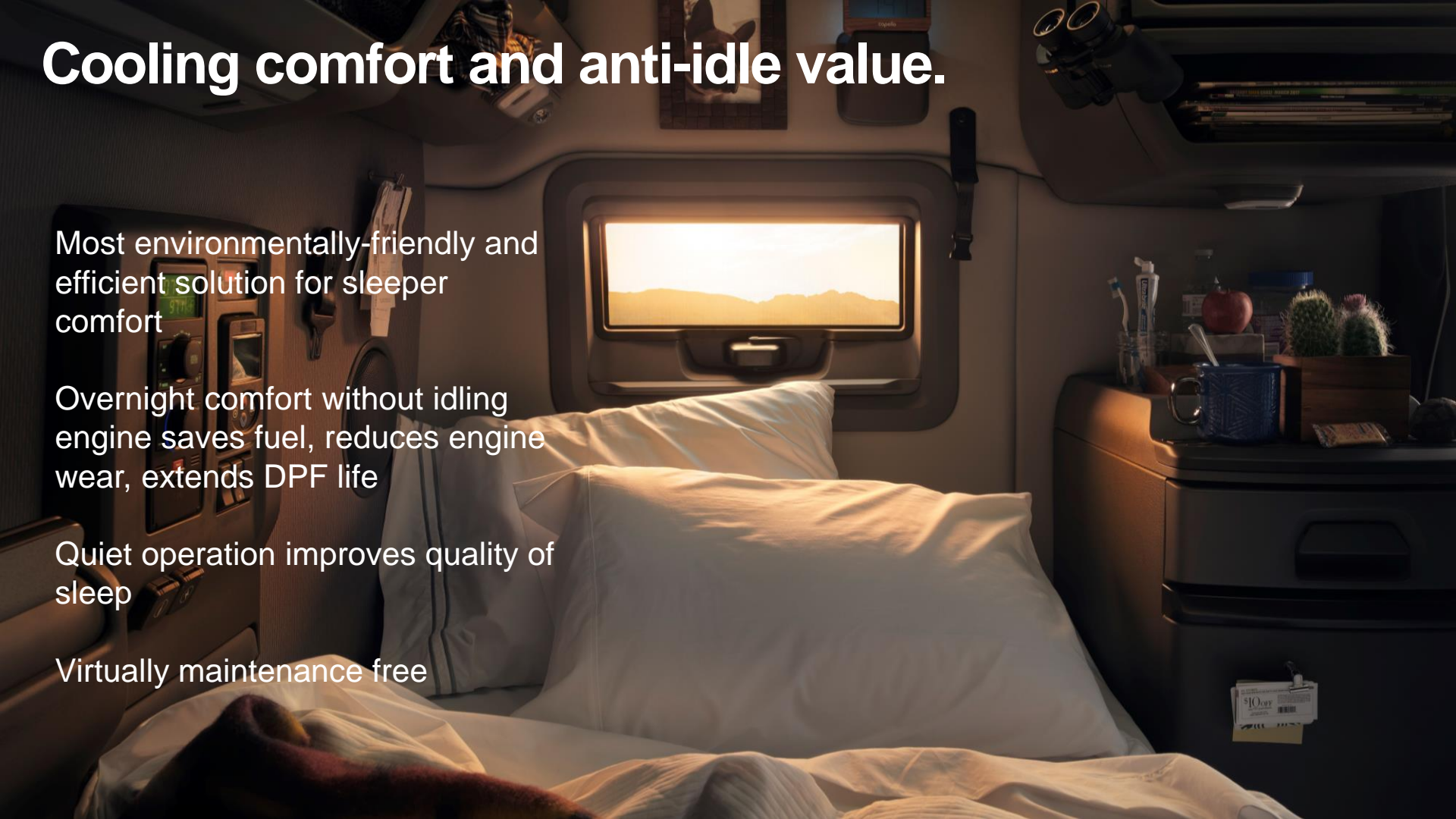
Cooling comfort and anti-idle value.

Most environmentally-friendly and efficient solution for sleeper comfort

Overnight comfort without idling engine saves fuel, reduces engine wear, extends DPF life

Quiet operation improves quality of sleep

Virtually maintenance free



Power off, comfort on.

Electrically-powered AC operates while truck ignition switch is in OFF position

Can operate wherever vehicle is parked

TMC-approved, rated to keep sleeper at 23°C (74°F) for up to 10 hours*

***TMC RP 432A Criteria**

Factory-installed curtains closed.

Initial sleeper temp 23°C (73°F) +/- 2°C (5°F).

34°C (100°F) ambient outside temp.

50% relative humidity.

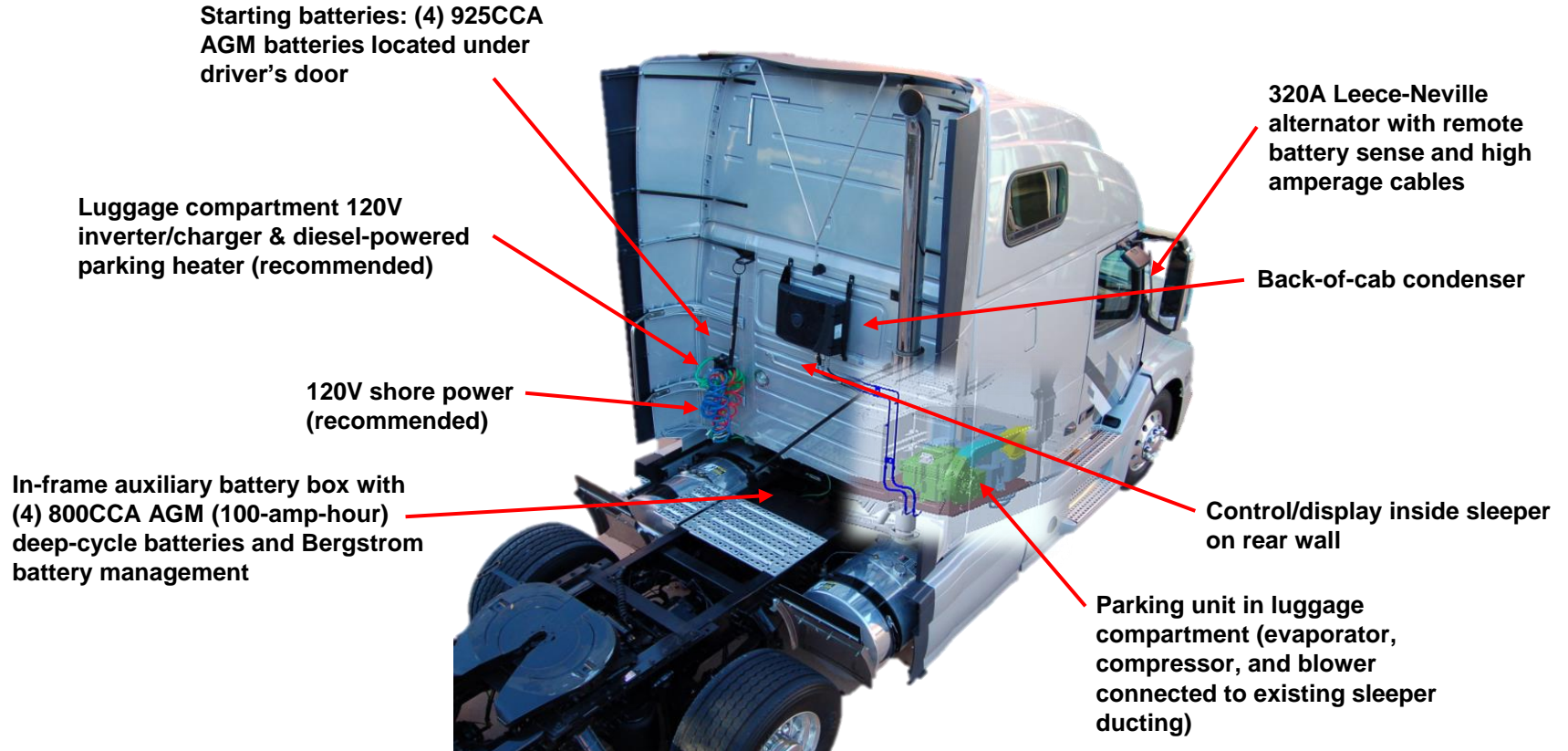
600 W/m² solar load on vehicle roof.

Features

- Quiet operation
- Automatic temperature control
- 7,500 BTU/hour (2.2 kW)
- Start protection with smart battery management
- Integrates with optional Shore Power kit and inverter (additional run time and battery charging)
- Also controls diesel-powered parking heater (option); single thermostat control
- 3-year warranty
- CARB approved
- Exempt from FET



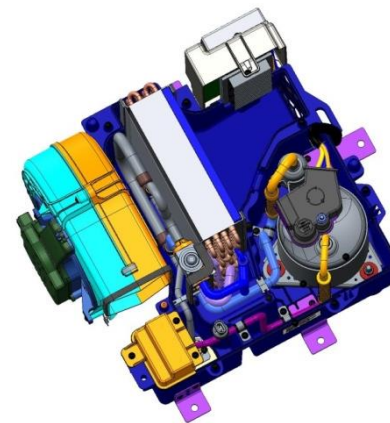
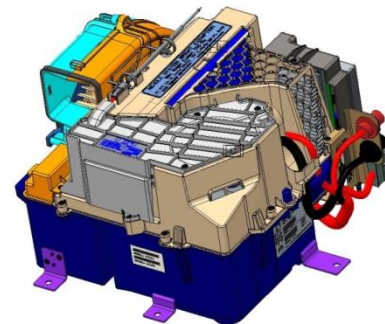
System components



System function

Internal unit (evaporator assembly)

- Located under bunk, passenger side
50.5 x 43.4 x 31.2 cm, 19 kg
(19.9 x 17.1 x 12.3 in, 42 lbs)
- Contents:
 - Evaporator
 - Blower (serviceable)
 - Compressor
 - Controllers (serviceable)
 - Thermostatic Expansion Valve (serviceable)
- Connected to sleeper ducting
- Brushless motors for extended life



System function

External unit (condenser assembly)

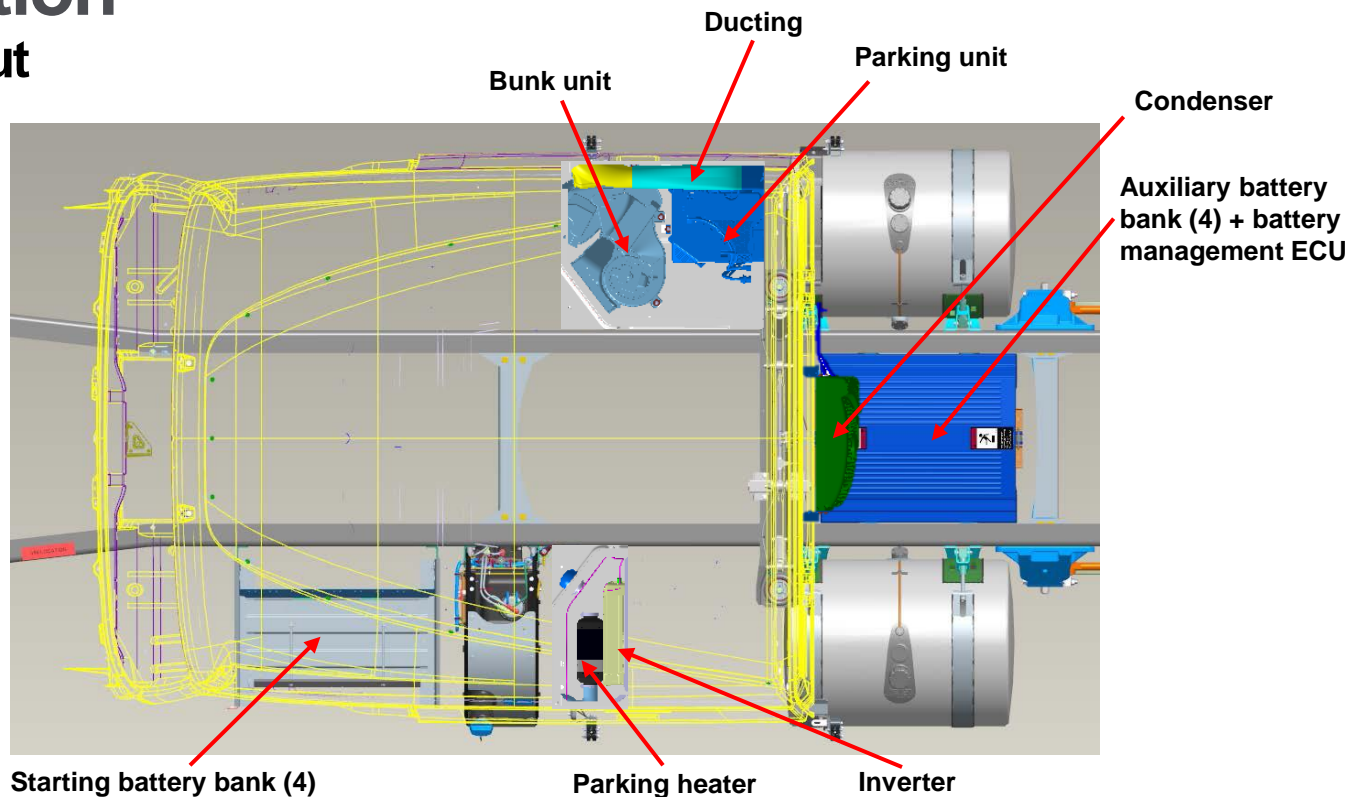
- Located on BOC
52.6 x 14.5 x 35.8 cm, 8 kg
(20.7 x 5.7 x 14.1 in, 18 lbs)
- Contents:
 - Condenser
 - Fan (serviceable)
 - Receiver drier (serviceable)
- Brushless motors for extended life



System function

Components layout

- Parking cooler is powered by both banks (8 batteries) until starting battery voltage level decreases to 12.4V.
- Battery isolator relay then disengages starting batteries to protect truck starting capacity.
- When starting batteries charged up to 13.2V, battery isolator relay re-engages starting batteries to alternator charging circuit.



System function

Battery management

- Auxiliary batteries
 - dedicated to parking cooler
 - 4 deep-cycle AGM batteries, 800 CCA and 100 Ah each
 - in-frame battery box
- Battery management system (BMS)
 - mounted in auxiliary battery box
 - monitors voltage and current in/out of aux batteries
 - monitors battery charge status and health status
 - Controls battery isolator relay to engage/disengage auxiliary batteries from starting batteries.



Operating the system

Starting the system

Push ON/OFF button. This screen is the temperature set point screen.

Display will show current mode/ temperature setting / battery level.

Initial default setting is blower speed 1/ AUTO- MODE /72 °F.

Note: when the control is idle for 5 seconds, the screen will return to this temperature set point screen.



Operating the system

Changing MODE

Press ENTER.

While mode is flashing, use up or down arrows to select
AUTO / COOL / HEAT.

After 5 seconds selection will be set.

*Note: when the control is idle for 5 seconds, the screen will return to
the temperature set point screen.*



Operating the system

Changing blower speed

Press ENTER until display shows FAN and SPEED.

Press up or down arrows to select 1 – 2 – 3 speed.

After 5 seconds selection will be set.

Note: when the control is idle for 5 seconds, the screen will return to the temperature set point screen.



Operating the system

Changing temperature set point

Whenever the temperature set point is displayed on the screen, push the up or down arrows to change.

Temperature range is from 60°F/ 16°C(coolest) to 85°F/29°C (warmest).

NOTE: Control will always default to 72°F when the unit is turned on.

Note: when the control is idle for 5 seconds, the screen will return to the temperature set point screen.



Operating the system

View system runtime hours

Press ENTER until “Hrs” shows on display. This displays the total runtime of the parking cooler.

To reset, press and hold ENTER for 7 seconds. Hours will be reset to zero.

Note: when the control is idle for 5 seconds, the screen will return to the temperature set point screen.



Operating the system

Change temperature scale (°F to °C)

Press ENTER until temperature symbol only shows.

Push the up or down arrow to change.

After 5 seconds selection will be locked.

Note: when the control is idle for 5 seconds, the screen will return to the temperature set point screen.



Operating the system

Service mode

Push the ON/OFF and ENTER button simultaneously.

Display will show service indicator and a code 00 unless a fault has occurred.

If there is an active fault the display will show it as 01, 02, or 03.

Use up and down arrows to scroll through the Fault Codes.

- (1) Evaporator sensor open or shorted high
- (2) Evaporator sensor shorted low
- (3) High pressure switch open or shorted high



Operating the system

Service mode (continued)

Press the ENTER button to proceed through the available service screens:

1. SV = Starting batteries Voltage
2. AV = Auxiliary batteries Voltage
3. AA = Unit Amperage draw

Pressing ENTER arrow after viewing service screen will return you to the fault code screen.

Pressing the ON/OFF button will return you to the Temperature Display screen.



Operating the system

Check filter

A “Check Filter” screen will notify you that the parking cooler filter must be cleaned or changed.

To reset filter: at screen 1 press and hold enter button for 3 seconds.



Availability

- VNR 640
- VNL 680
- VNL 740
- VNL 760
- VNL 860

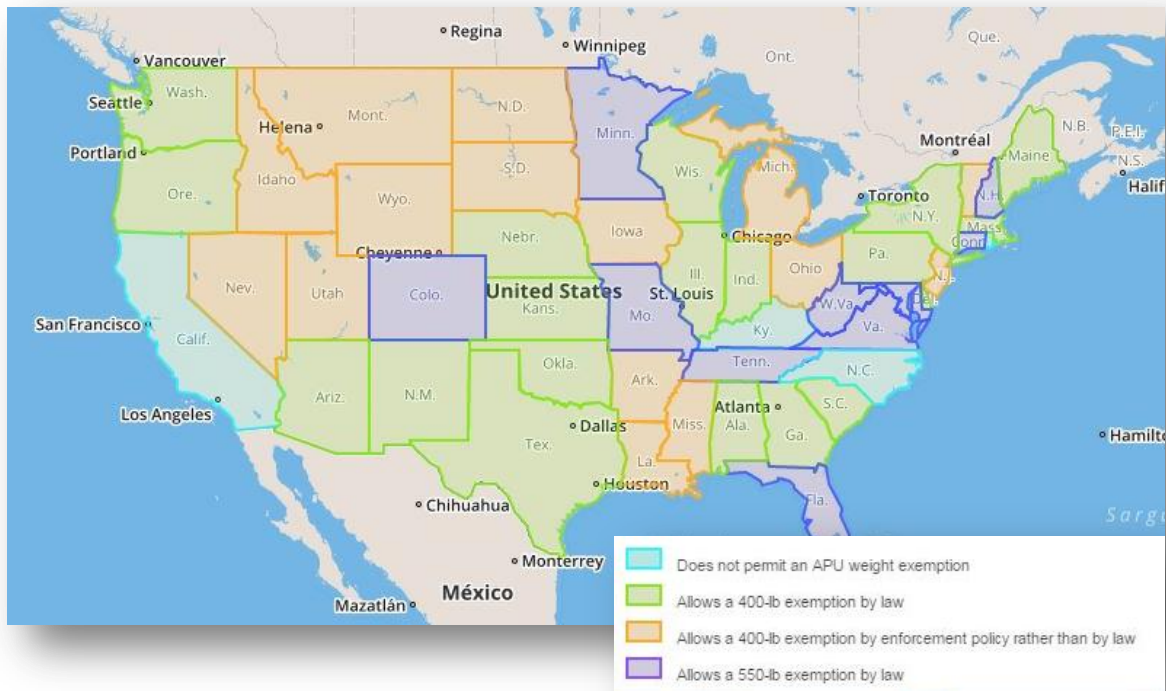


Weight exemptions (US only)

- Exemption varies by state:
181 – 249 kg (400 – 550 lbs.)
- Certified weight, including batteries:
256 kg (565 lbs.)

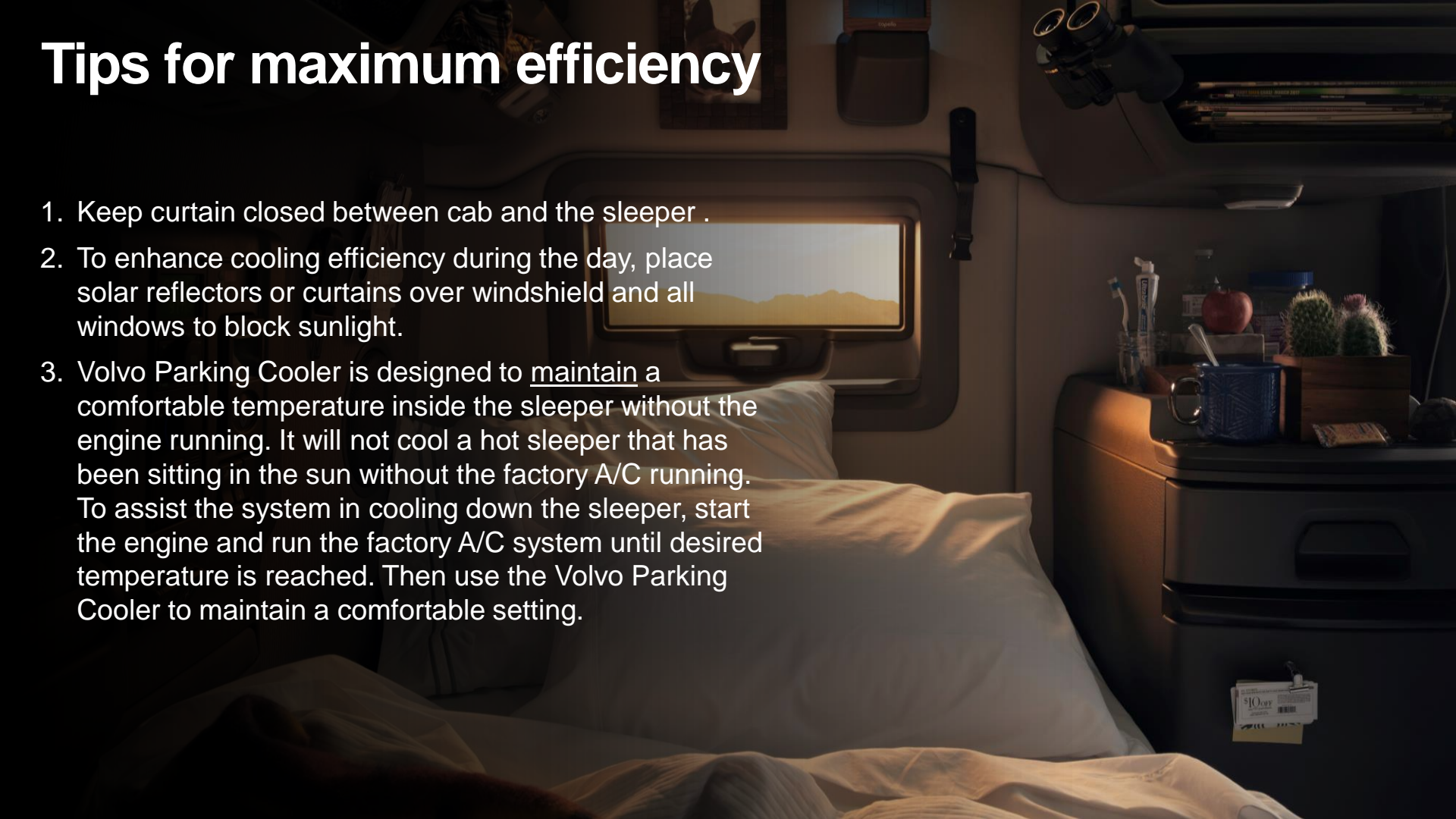


State Recognition of Auxiliary Power Weight Exemption to GVW: 23 CFR 658.17(n)



Tips for maximum efficiency

1. Keep curtain closed between cab and the sleeper .
2. To enhance cooling efficiency during the day, place solar reflectors or curtains over windshield and all windows to block sunlight.
3. Volvo Parking Cooler is designed to maintain a comfortable temperature inside the sleeper without the engine running. It will not cool a hot sleeper that has been sitting in the sun without the factory A/C running. To assist the system in cooling down the sleeper, start the engine and run the factory A/C system until desired temperature is reached. Then use the Volvo Parking Cooler to maintain a comfortable setting.



Technical questions?



Bergstrom North American Sales Managers



UNITED STATES SALES MANAGERS

Nick Martin West Region	Jeff Engel Midwest Region	Larry Landreth Southeast Region
Vic Gontero Northeast Region	Robert Gardiner Southwest Region	

UNITED STATES CUSTOMER SERVICE

Claudia Hernandez West, Midwest and Southeast Region	Yolanda Moline Northeast and Southwest USA Region and Canada
--	--

CANADA SALES MANAGERS

Pat Quaghebeur / Marsh Franchuk British Columbia and Alberta	Colin Toews / Chuck Fritsch Saskatchewan and Manitoba	Mark Burns / Jim Lane Ontario
Yves Lamoureux / Jean Labrie Quebec	Jim Lane Atlantic Canada	

CANADA CUSTOMER SERVICE

Tracey Toews British Columbia, Alberta, Saskatchewan and Manitoba	Lynda Gauvreau Ontario, Quebec and Atlantic Canada
---	--

NORTH AMERICAN SALES LEADERSHIP TEAM

Bus

Mike Bratton
Director, Bus Air Conditioning
815.218.9100

Fleet Sales

Joe Kirby
Director of Fleet Sales
815.209.7389

Canada

Chuck Fritsch
Pro Force General Manager
204.291.2080

Kysor Aftermarket Parts

Robert Gardiner
Director, Kysor Aftermarket Parts
815.209.7389

Solar Systems

Toby Tuckley
Global Business Development,
Solar
815.218.9100

No-Idle Systems

Victor Gontero
Director, Idle Reduction Product
Sales
815.721.7499

Bergstrom Standard Products (BSP)

Larry Landreth
Director, Bergstrom Standard
Products (BSP)
815.222.9804

Mike Aldred
Business Development Manager,
Bergstrom Standard Products (BSP)
779.200.2328

UNITED STATES TEAM

Claudia Hernandez, West, Midwest and Southeast Region, 800.499.6849

Jeff Engel, Midwest Region, 630.235.1289

Larry Landreth, Southeast Region, 815.222.9804

Nick Martin, West Region, 209.678.8526

Robert Gardiner, Southwest Region, 815.209.7389

Vic Gontero, Northeast Region, 815.721.7499

Yolanda Moline, Northeast and Southwest USA Region and Canada, 800.499.6849

CANADA TEAM

Chuck Fritsch, Saskatchewan and Manitoba, 204.291.2080

Colin Toews, Saskatchewan and Manitoba, 204.890.3011

Jean Labrie, Quebec, 514.347.0946

Jim Lane, Atlantic Canada, 647.274.3251

Lynda Gauvreau, Ontario, Quebec and Atlantic Canada, 450.677.6969

Marsh Franchuk, British Columbia and Alberta, 780.721.2122

Mark Burns, Ontario, 647.284.8667

Pat Quaghebeur, British Columbia and Alberta, 403.612.6998

Tracey Toews, British Columbia, Alberta, Saskatchewan and Manitoba, 204.291.0063

Yves Lamoureux, Quebec, 514.893.5021

