



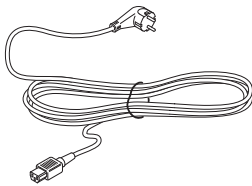
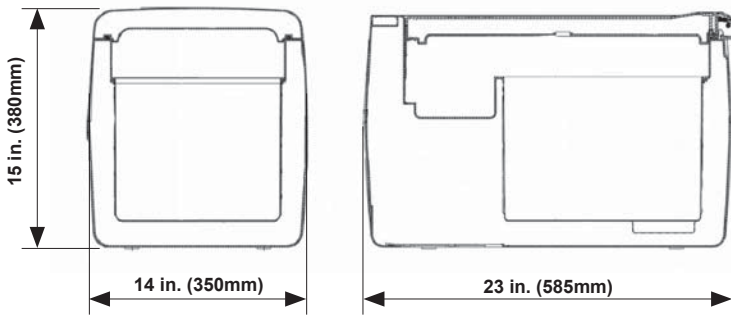
FRIDGE / FREEZER SERIES

OPERATING INSTRUCTIONS

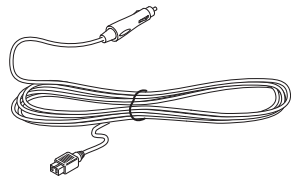


Please read these instructions completely before using your refrigerator.

Model: FF31



AC CONNECTION CABLE



DC CONNECTION CABLE

MODEL	TECHNICAL FEATURES				
	Dimensions HxLxW	Net weight	Product class	Voltage	Cooling gas
FF31	15 x 23 x 14 in. 380 x 585 x 350 mm	35 Lbs. (16 Kg)	8 Gal. (30 L)	DC 12/24V DC AC 100V~240V	R134a

This appliance contains fluorinated greenhouse gas R134a within a hermetically sealed system and its operation depends on the presence of this gas.

INSTALLATION

- Place the refrigerator on a dry, sheltered, flat surface away from any edges. The refrigerator must not be used unsheltered, in the open air or exposed to splashing or rain.
- Your refrigerator requires adequate ventilation, especially around the vents of the refrigerator. Allow a gap of at least 6 in. (15 cm) around the sides, back and top. Never use your refrigerator in the trunk of a car or similar situation where it is completely confined.
- Do not install the refrigerator near heat sources or in direct sunlight.
- Properly secure your refrigerator during transport.

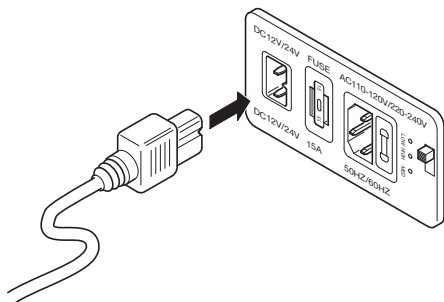
IMPORTANT

If installing the Fridge / Freezer in combination with the Jeep Webasto Slide System, make sure to trim excess tie down strap material on forward most straps to prevent jamming of the slide lock mechanism.

USING THE REFRIGERATOR IN A VEHICLE OR HOME

- Connect the desired power harness as shown on pg 3 to either 12/24 DC power or 100V - 240V AC.

MODEL: FF31



- The refrigerator is equip with an automatic switch function for either AC or DC power.
- Should both be present at the same time, the device will always default to AC power.
- The supply line is protected by a 15 A fuse located near the power harness connections.
- If connected to an existing cigarette/aux plug, carefully check that the power supply is sufficient.
- If the supplied power harness is not used, see the max length specification table below.

CABLE AREA AWG (mm ²)	MAX CABLE LENGTH FEET (METERS)	
	12V	24V
13 AWG (2,5)	8 FT (2,5)	16 FT (5)
11 AWG (4)	13 FT (4)	26 FT (8)
9 AWG (6)	20 FT (6)	40 FT (12)

ELECTRONIC CONTROL

This is an electronic device which has the functionality of controlling the motor / compressor assembly while also handling the electrical protection of the system.

- This refrigerator is equip with battery protection through automatic unit shut down of the compressor when DC supply voltage reaches the minimum threshold (low voltage disconnect). The compressor will restart automatically when the voltage returns to normal values.

Note: These values have been measured at control unit input.



Battery protection (SWITCH POSITION)	Cut-out 12V	Cut-in 12V	Cut-out 24V	Cut-in 24V
LOW	9.6	10.9	21.3	22.7
MED	10.1	11.4	22.3	23.7
HIGH	11.1	12.4	24.3	25.7

CONTROL PANEL



- Connect to power supply. Press the `ON/OFF` button to run the refrigerator. The LED display on the control panel will illuminate and the interior temperature will display.
- Press either the ▲ or ▼ button to adjust the set temperature. Press the ▲ button to increase or the ▼ button to decrease the temperature. Pressing both buttons at the same time allows the user to switch between C° or F°.
- Press the ECO button to enter the "ECONOMY" operating mode: the ECO light turns on and the compressor runs at the minimum speed by keeping a fresh temperature inside the refrigerator. By pressing the ECO button again, the light turns off and the refrigerator enters MAX mode (maximum compressor function). The MAX light will illuminate until the set temperature is achieved.

MODE EXAMPLES

1) Use the product in MAX mode in these cases:

- use the product as a refrigerator with high ambient temperature.
- when the desired temperature must be achieved in a short time-frame.

2) Use the product in ECO mode in these cases:

- use the product as a refrigerator and, in particular with low ambient temperature.
- when the vehicle is parked for long periods of time (with engine switched off)

FILLING

- Do not place liquids or ice directly in refrigerator. These items must be in a sealed container.
- Do not set hot food items in the refrigerator as this could damage the interior.
- Make sure the the lid is properly closed and never leave lid open for long periods of time.

DEFROSTING

Defrosting is required when a layer of frost is thicker than .16 in. (4 mm). To carry out this operation, turn off the refrigerator until the frost has dissipated.

IMPORTANT

Do not use sharp tools to remove the layer of frost or ice. Wait until freezer has completely defrosted before turning on again.

IMPORTANT

Avoid tipping the fridge / freezer more than 25° degrees in any direction. If this does occur immediately disconnect power and refrain from powering on the unit until it has been upright for a minimum of 60 minutes.

MAINTENANCE



Before carrying out any maintenance operation on the refrigerator, remove power from the unit.

CLEANING

- Regularly clean the inside and outside of the refrigerator using only warm water and a neutral detergent.
- Subsequent to washing, rinse with clean water and dry thoroughly using a soft cloth.
- Do not use the following: special glass and mirror cleaning products, liquid, powder, or spray detergents, alcohol, ammonia or abrasive products.
- If you are not using the refrigerator, we suggest cleaning it well and leaving the door ajar to ventilate the interior.

IMPORTANT

When cleaning avoid tipping the fridge / freezer more than 25° degrees in any direction.

SUGGESTIONS

Should the device fail to function as expected, before referring to our after-sales service, make sure that:

- a) there is proper supply voltage;
- b) there is proper power harness connections;
- c) the ventilation grid is not blocked;
- d) the refrigerator unit is not located near a heat source;
- e) the fuse near the power connections is not blown.

CAUTION: Children should be supervised to ensure that they do not play with this appliance.

FAULTS

Number of flashes	Error type
E1	Battery protection cut-out (The voltage is outside the cut-out setting).
E2	Fan over-current cut-out (The fan loads the electronic unit with more than 1A _{peak}).
E3	Motor start error The rotor is blocked or the differential pressure in the refrigeration system is too high (>5 bar).
E4	Minimum motor speed error (If the refrigeration system is too heavily loaded, the motor cannot maintain minimum speed 1,850 rpm).
E5	Thermal cut-out of electronic unit (If the refrigeration system has been too heavily loaded, or if the ambient temperature is high, the electronic unit will run too hot).

LIMITED NON-TRANSFERABLE WARRANTY

Webasto Thermo & Comfort North America, Inc. (hereinafter referred to as Webasto) warrants their Fridge / Freezer Product against defects in material and workmanship for three (3) years from date of purchase.

Replacement parts are covered for six (6) months or the remainder of the original warranty period, whichever is longer.

The intent of the Webasto warranty is to protect the original end-user of a Fridge / Freezer Product from defects and provide free repair and replacement of defective parts in the manner provided herein. During the warranty period, the exclusive remedy will be for Webasto, at their discretion, to repair or replace those parts which are demonstrated to be defective in material or workmanship.

For warranty claims or returns please contact Webasto at:

Phone: (800) 860-7866 in USA | (800) 667-8900 in Canada

Limitations: Webasto specifically excludes and limits warranty from the following:

- Damage to product in transit. All claims must be filed with carrier.
- Improper installation, which is not in accordance with valid, supplied installation instructions.
- Deterioration due to normal wear, corrosion, abuse, damage, accident, improper storage or operation, lack of reasonable and necessary maintenance.
- Modification of product by alteration, use of non-genuine parts or repair by unauthorized personnel.
- Economic loss for expenses related to travel, vehicle disability, personal injury or other incidental or consequential damages arising from any breach of this expressed warranty.

Product Registration:

The Fridge / Freezer Product can be registered by visiting www.techwebasto.com or by completing the Warranty Registration Card if included with your product. A proof of purchase is required for all products that are not registered.

THIS WARRANTY IS NON-TRANSFERABLE. IMPLIED WARRANTIES INCLUDING THAT OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY LIMITED TO THE DURATION OF THIS WARRANTY. WEBASTO DISCLAIMS ANY LIABILITY FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

SOME STATES AND CANADIAN PROVINCES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY AMONG STATES AND CANADIAN PROVINCES.

WEBASTO RETAINS THE RIGHT TO MODIFY THESE WARRANTY TERMS WITHOUT NOTICE IN ORDER TO COMPLY WITH POLICY OR LAWS GOVERNING WARRANTY ISSUES IN STATES OR COUNTRIES HAVING SPECIFIC REMEDIES DIFFERING OR ADDITIONAL TO THOSE DESCRIBED WITHIN THIS DOCUMENT.

Notes

Notes



Webasto Thermo & Comfort N.A., Inc
15083 North Road
Fenton MI 48430

USA: (800) 860-7866
Canada: (800) 667-8900

www.blackforestgear.com
info-us@webasto.com