

USER MANUAL



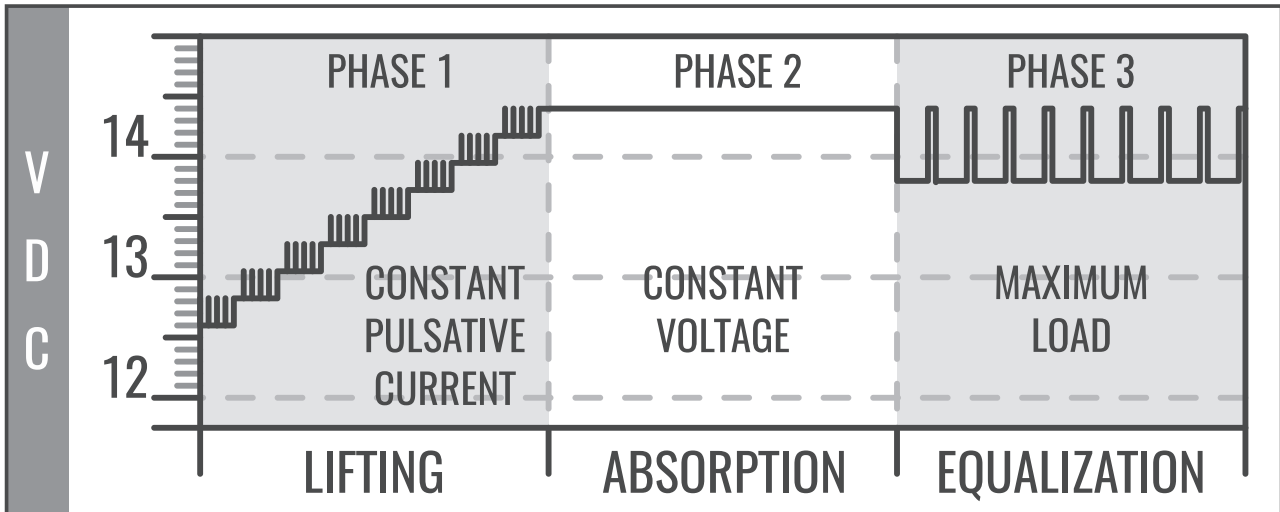
CHARGER

REDLINE

PRESENTATION

The Charging Sources, 60A, 80A, 120A and 200A are high-power power supplies that make it possible to power and charge automotive battery (s), providing a maximum current of 60A, 80A, 120A and 200A respectively at the output and operate in 3 modes:

Slow charge mode: Charges the battery in 3 phases, (Elevation, absorption, equalization). Ideal for recharging batteries when they are low on charge, thus achieving maximum charging efficiency without wearing out, which increases battery life.



Output Voltage Mode (Source): Enables the digital choice of 8 voltage values at the source output (12.6V / 12.8V / 13.0V / 13.2V / 13.8V / 14.0V / 14.2V / 14.4V).

Auto SCI mode: Mode to be used when the system is on or fast charge in the battery (s), as it will maintain maximum power at the output (14.4V) and will enter the pulsed SCI system, when the battery (s) (s) are loaded and stay afloat.

INTELLIGENT SLOW LOAD SYSTEM IN 3 PHASES

LOW LOAD MODE OPERATION:

1- Phase 1 (Elevation): Raises the battery voltage up to 14.4V with a maximum current of 20% of the set battery rating.

This phase has 8 "steps" which are indicated by the frequency of the F1 led lighting from 1 to 8Hz. When the led lights up constantly, it means that this phase has already been executed.

2- Phase 2 (Absorption): The voltage remains constant at 14.4, the battery absorbs the load and when the current decreases to 4% of the set battery rating, led F2 lights up constantly, passed to the next phase.

3- Phase 3 (Equalization): Phase 3 is characterized by the decrease in voltage to 13.8V with pulses of 14.4 every 5 minutes. The battery is charged to its maximum capacity, as the equalization is done in a pulsating manner.

Conclusion: The discharged battery is charged with 100% charge without suffering heating, which will prolong its useful life, in addition to making it possible to put more charge in it.

SELECTION OF OPERATING MODES

SLOW LOAD MODE:

- 1- Press the **MODE Selector** switch and select **SLOW LOAD**.
- 2- Press the **BATTERY Selector** switch and select the ampere capacity of the battery to be charged.
If there is more than one battery, add them all together and select the bank's capacity.
The options are as follows:

A	12	17	25	40	45	50	60	70	75	80
H	90	100	105	115	150	200	300	400	600	

Note 1: If your battery does not fit these options, use the closest value.

Note 2: If there is more than one source in the system, **use only one** in slow charge mode.

All others must be turned off.

- 3- When there is a Full Charge indication, the battery (s) will be charged.

F1, F2 and F3 indicate what stage the slow charge process is in.

AUTO SCI MODE:

Press the **MODE Selector** switch and select **Auto SCI** (Intelligent Charge System).

Allows the source output to operate at 14.4V when the system requires more power. In fluctuation, it operates with the output voltage in cycles of 13.8V for 5 minutes and 14.4V for 10 seconds. This system prevents excessive elevation of the potential of the plates, a chemical phenomenon caused by charge stress (electrolysis), increasing the useful life and efficiency of the batteries.

SOURCE MODE:

- 1- Press the **MODE Selector** switch and select **Output Voltage**.
- 2- Press the Voltage Selector switch and select the desired output voltage on the display:

VDC	12,6	12,8	13,0	13,2	13,8	14,0	14,2	14,4
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PERFORMANCE & INTELLIGENCE

CHARGER REDLINE

MODE X APPLICATION X ADVANTAGES TABLE

MODE	APPLICATION	BENEFITS
Slow Load	Charge low battery	Cold batteries in the charging process, so there is no wear and tear. Longer service life.
	Charge batteries 24h before the event	Batteries with maximum charge and greater instantaneous energy. Stronger bass.
SCI	When sound is on or fast charge on battery (s)	Total energy from the source at 14.4V. Pulse system between 13.8 and 14.4V with the sound off, equalizing the battery charge.
Output Voltage	Battery-free systems	You can choose an output voltage between 12.6 and 14.4Vdc to power the amplifier or other device.

TYPES OF READING

Voltage: Informs the voltage sent to the system.

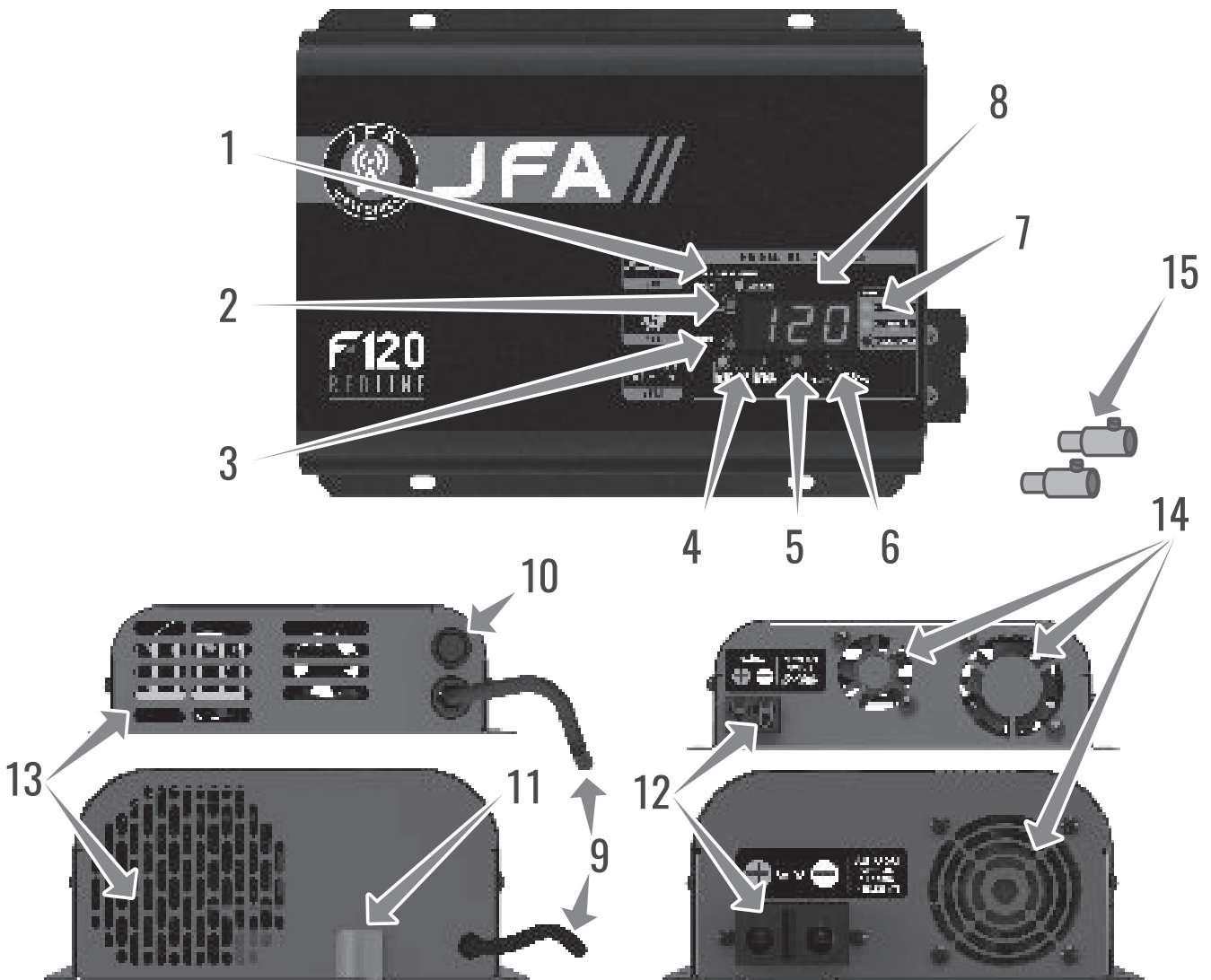
Current: Shows the current consumed by the system.

Battery check-up: Informs you how much charge has been accumulated by the battery during the charging cycle, with this reading it is possible to know if the battery is in good working order.

The counter can be reset by holding the Read key for 5 seconds. Upon reaching 999, it must be reset to continue reading the accumulated charge on the battery.

IMPORTANT TIPS

1. Prioritize charging the batteries in slow charge, this way more charge accumulates, besides increasing its useful life.
2. If the batteries are discharged, charge only in the slow charge mode, thus avoiding wear and excessive heating in them.
3. We advise that when using the sound, immediately connect the Source in AUTO SCI mode. Do not wait for the batteries to discharge before doing so.
4. Use 1 outlet per equipment. Each Power Supply 60A, 80A, 120A, and 200A consumes about 900W, 1260W, 1800W and 3000W of the power grid respectively.
5. Use 10mm² cable at the 60A output, 25mm² at the 80A output, 35mm² at the 120A output, and 70mm² at the 200A output.
6. Do not install in high-vibration environments such as speakers.

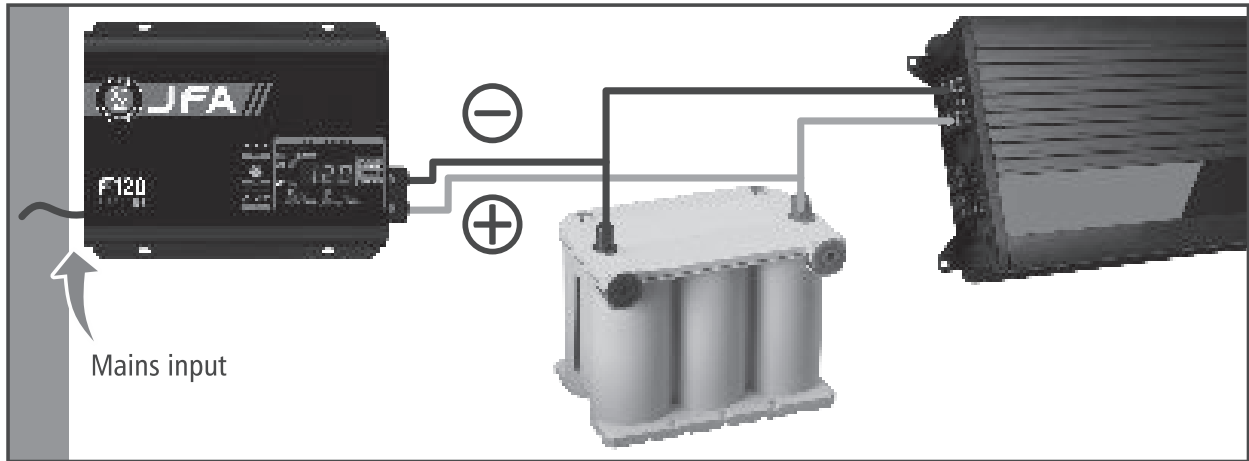


DESCRIPTIONS

- 1- Leds that indicate the monitoring of the Voltage or Current or Check-up of the battery "2 led accesses";
- 2- Selector switch for the voltage, current and ampere hour counter reading mode;
- 3- Selector switch for the Slow Load, Auto SCI and Output Voltage modes;
- 4- LEDs for Slow Charge, Auto SCI and Output Voltage modes;
- 5- Battery capacity selector switch (Slow charge mode) or Output voltage (Output voltage mode);
- 6- Led indicator for full charge;
- 7- LEDs indicating the 3 phases of loading;
- 8- Voltage or Current indicator display or Ampere Hour Counter;
- 9- Energy entry tail;
- 10- Input fuse 15A for the 60A model;
- 11- Circuit breaker acting as an on / off switch (models 80A, 120A and 200A);
- 12- Output connector;
- 13- Air outlet (never obstruct);
- 14- Air intake (never obstruct);
- 15- 10mm² gauge cable adapter (exclusive for 60A power supply).

CONNECTION DIAGRAM

Each CHARGER 60A, 80A, 120A, and 200A can feed about 3,000, 4,000, 6,000 and 10,000 Wrms of sound playing respectively, provided that, using a battery in parallel to supply peak consumption.

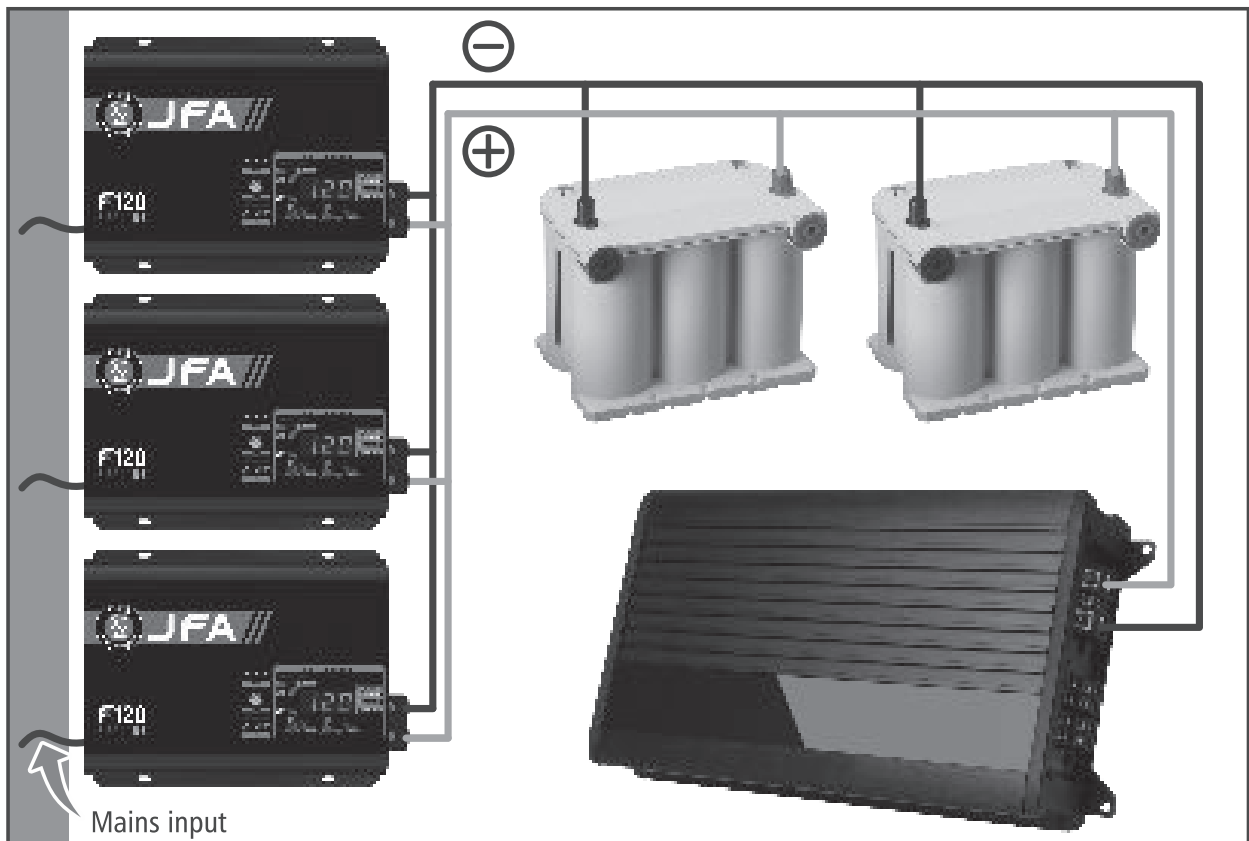


You can use as many Sources 60A, 80A, 120A and 200A as necessary to feed the sound, having as reference that each one keeps about 3,000, 4,000, 6,000, and 10,000 Wrms of sound playing respectively, it is important to note that when operating in parallel, the sources must operate in the same MODES as follows:

Auto SCI: All sources must be in SCI.

Output voltage (Source): All sources must have the same output voltage.

Slow Load: Only one source is turned on, the other sources must be turned off.



SPECIFICATIONS F50	Input (automatic Bi-volt)	90 a 140Vac / 170 a 240Vac
	Consumption with maximum load	750W
	Maximum output current	50 Amperes
	Selectable output voltage	12,6V / 12,8V / 13,0V / 13,2V / 13,8V / 14,0V / 14,2V / 14,4V
	Intelligent charging system	13,8 / 14,4 cyclic
	3-phase slow charge system	Lifting / Absorption / Equalization
	Intelligent ventilation system	Dynamic PWM control
	Voltmeter accuracy	99%
	Ammeter accuracy	96%
	Protections	Overload / Short at output / Temperature
	Dimensions W x H x D (mm)	195 x 163 x 48
	Weight Kg	1,175

SPECIFICATIONS F60	Input (automatic Bi-volt)	90 a 140Vac / 170 a 240Vac
	Consumption with maximum load	900W
	Maximum output current	60 Amperes
	Selectable output voltage	12,6V / 12,8V / 13,0V / 13,2V / 13,8V / 14,0V / 14,2V / 14,4V
	Intelligent charging system	13,8 / 14,4 cyclic
	3-phase slow charge system	Lifting / Absorption / Equalization
	Intelligent ventilation system	Dynamic PWM control
	Voltmeter accuracy	99%
	Ammeter accuracy	96%
	Protections	Overload / Short at output / Temperature
	Dimensions W x H x D (mm)	212 x 163 x 48
	Weight Kg	1,268

SPECIFICATIONS F80	Input (automatic Bi-volt)	90 a 140Vac / 170 a 240Vac
	Consumption with maximum load	1200W
	Maximum output current	80 Amperes
	Selectable output voltage	12,6V / 12,8V / 13,0V / 13,2V / 13,8V / 14,0V / 14,2V / 14,4V
	Intelligent charging system	13,8 / 14,4 cyclic
	3-phase slow charge system	Lifting / Absorption / Equalization
	Intelligent ventilation system	Dynamic PWM control
	Voltmeter accuracy	99%
	Ammeter accuracy	96%
	Protections	Overload / Short at output / Temperature
	Dimensions W x H x D (mm)	250 x 190 x 85
	Weight Kg	1,900

SPECIFICATIONS F100	Input (automatic Bi-volt)	90 a 140Vac / 170 a 240Vac
	Consumption with maximum load	1500W
	Maximum output current	100 Amperes
	Selectable output voltage	12,6V / 12,8V / 13,0V / 13,2V / 13,8V / 14,0V / 14,2V / 14,4V
	Intelligent charging system	13,8 / 14,4 cyclic
	3-phase slow charge system	Lifting / Absorption / Equalization
	Intelligent ventilation system	Dynamic PWM control
	Voltmeter accuracy	99%
	Ammeter accuracy	96%
	Protections	Overload / Short at output / Temperature
	Dimensions W x H x D (mm)	250 x 190 x 85
	Weight Kg	2,040

SPECIFICATIONS F120	Input (automatic Bi-volt)	90 a 140Vac / 170 a 240Vac
	Consumption with maximum load	1800W
	Maximum output current	120 Amperes
	Selectable output voltage	12,6V / 12,8V / 13,0V / 13,2V / 13,8V / 14,0V / 14,2V / 14,4V
	Intelligent charging system	13,8 / 14,4 cyclic
	3-phase slow charge system	Lifting / Absorption / Equalization
	Intelligent ventilation system	Dynamic PWM control
	Voltmeter accuracy	99%
	Ammeter accuracy	96%
	Protections	Overload / Short at output / Temperature
	Dimensions W x H x D (mm)	250 x 190 x 85
	Weight Kg	2,180

SPECIFICATIONS F150	Input (automatic Bi-volt)	90 a 140Vac / 170 a 240Vac
	Consumption with maximum load	2250W
	Maximum output current	150 Amperes
	Selectable output voltage	12,6V / 12,8V / 13,0V / 13,2V / 13,8V / 14,0V / 14,2V / 14,4V
	Intelligent charging system	13,8 / 14,4 cyclic
	3-phase slow charge system	Lifting / Absorption / Equalization
	Intelligent ventilation system	Dynamic PWM control
	Voltmeter accuracy	99%
	Ammeter accuracy	96%
	Protections	Overload / Short at output / Temperature
	Dimensions W x H x D (mm)	250 x 190 x 90
	Weight Kg	2,400

SPECIFICATIONS F200	Input (automatic Bi-volt)	90 a 140Vac / 170 a 240Vac
	Consumption with maximum load	3000W
	Maximum output current	200 Amperes
	Selectable output voltage	12,6V / 12,8V / 13,0V / 13,2V / 13,8V / 14,0V / 14,2V / 14,4V
	Intelligent charging system	13,8 / 14,4 cyclic
	3-phase slow charge system	Lifting / Absorption / Equalization
	Intelligent ventilation system	Dynamic PWM control
	Voltmeter accuracy	99%
	Ammeter accuracy	96%
	Protections	Overload / Short at output / Temperature
	Dimensions W x H x D (mm)	295 x 190 x 90
	Weight Kg	2,750

SPECIFICATIONS F200 MONOVOLT	Input	170 a 240Vac
	Consumption with maximum load	3000W
	Maximum output current	200 Amperes
	Selectable output voltage	12,6V / 12,8V / 13,0V / 13,2V / 13,8V / 14,0V / 14,2V / 14,4V
	Intelligent charging system	13,8 / 14,4 cyclic
	3-phase slow charge system	Lifting / Absorption / Equalization
	Intelligent ventilation system	Dynamic PWM control
	Voltmeter accuracy	99%
	Ammeter accuracy	96%
	Protections	Overload / Short at output / Temperature
	Dimensions W x H x D (mm)	295 x 190 x 90
	Weight Kg	2,750