

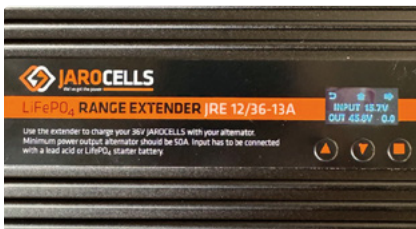
MANUAL RANGE EXTENDER JARO-JRE SERIE



- > JARO-JRE 12/24-20A
- > JARO-JRE 12/36-13A

SPECIFICATIONS JARO-JRE RANGE EXTENDERS

Parameter	JRE 12/24-20A	JRE 12/36-13A
Voltage range input	9,0 - 14,4V	9,0 - 14,4V
Current draw from alternator	40 - 50A max.	40 - 50A max.
Max. current draw adjustment	By JAROCELLS on request (10 - 50A)	By JAROCELLS on request (10 - 50A)
Battery type for input	Wet lead acid, AGM, Gel, LiFePO ₄	Wet lead acid, AGM, Gel, LiFePO ₄
Recommended input circuit breaker	60A	60A
Automatic function start	13,2 - 14,4V adjustable	13,2 - 14,4V adjustable
Automatic function stop	12,0 - 14,4V adjustable	12,0 - 14,4V adjustable
Voltage output	24 - 30V adjustable	36 - 45V adjustable
Current output	20A max.	13A max.
IP rating	IP22	IP22
Environment advised	Protected from moisture and water spray	Protected from moisture and water spray
Weight	0,9kg	0,9kg
Connection ingoing	Anderson SB50 orange	Anderson SB50 orange
Connection outgoing	Anderson SB50 grey	Anderson SB50 red
Certification	CE, EMC	CE, EMC



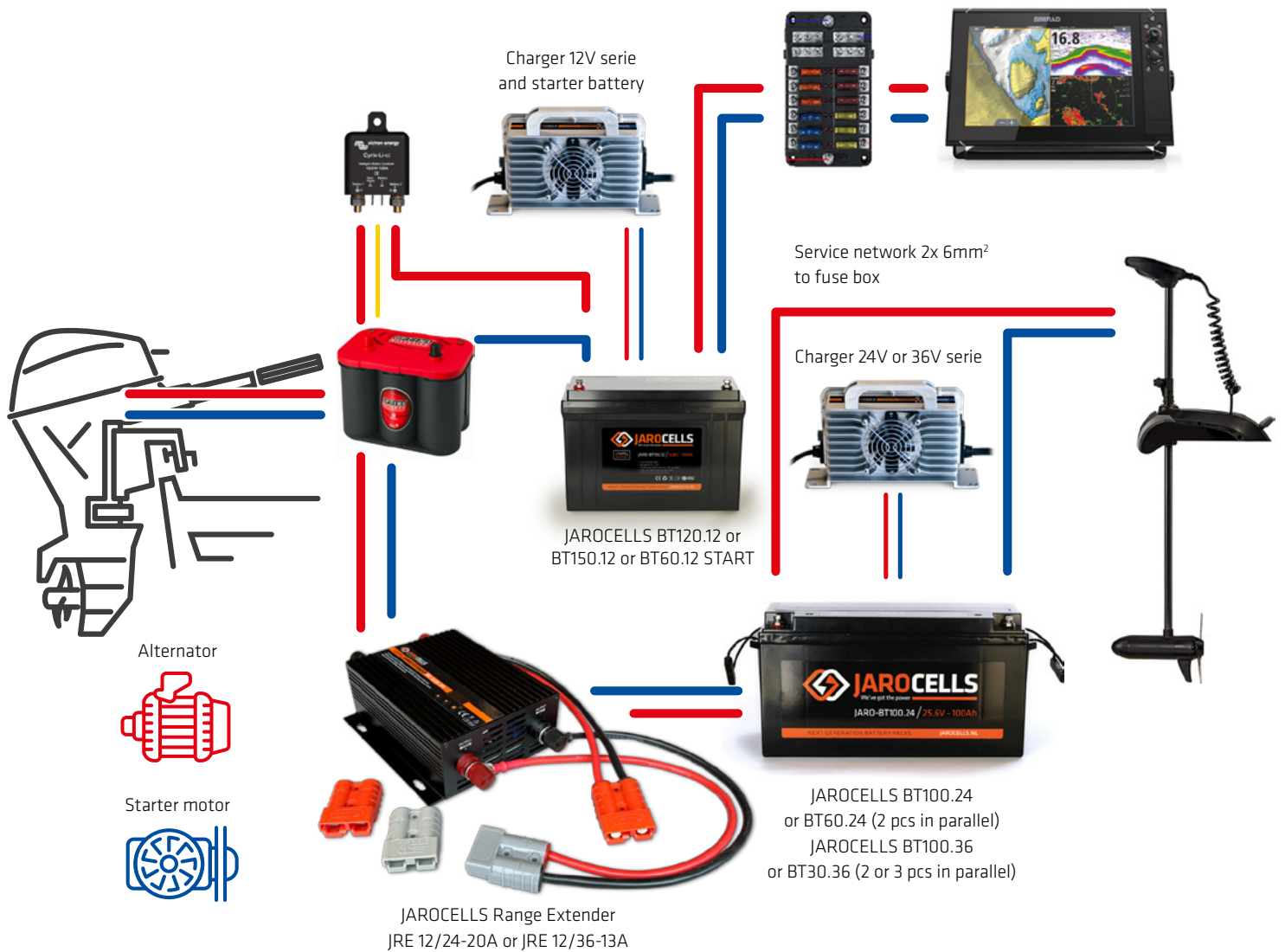
JRE-12/24-20A



JRE-12/36-13A

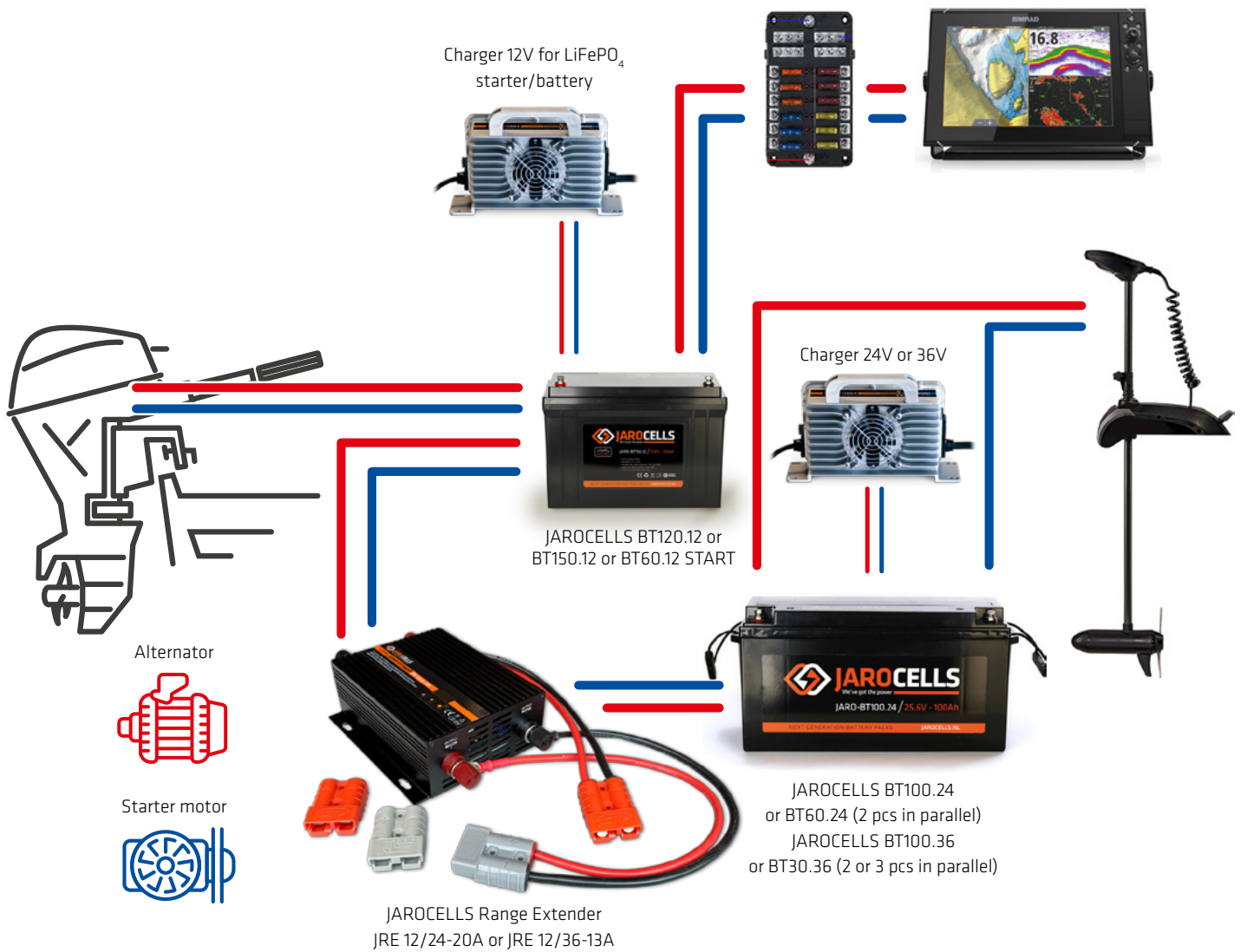
COMBINATION OF A LEAD ACID STARTER BATTERY WITH LiFePO_4 SERVICE BATTERY AND TROLLING BATTERY

The most used combination is a Lead Acid starter battery and a 12v service battery, often combined with a VSR (Voltage Sensitive Relay) so the alternator can charge the service battery too. In this combination you can also use the Range Extender to charge your 24V or 36V trolling battery by the alternator. When you stop the outboard engine, the Range Extender will switch off to prevent that your starter battery will be drawn empty.



COMBINATION OF TWO LiFePO₄ BATTERIES

Relatively new is the combination of two LiFePO₄ batteries. One LiFePO₄ battery serves as a starter and service battery. The other battery is the 24V or 36V trolling battery. By using a Range Extender the alternator will automatically charge all the batteries without the risk that the starter battery is drawn empty. When the outboard stops the Range Extender will stop too.



SAFETY GUIDELINES

General safety

Attention should be paid to all safety instructions in this manual. Maintenance repair work should be carried out by qualified personnel. A damaged or abnormal functioning Range Extender should not be used. The Range Extender is intended to use for the charging of JAROCELLS LiFePO₄ batteries (24V or 36V range) by an outboard engine which is connected to a Lead Acid starter battery or LiFePO₄ battery.

Safety during installation

You have to connect the Range Extender to batteries under voltage. Make sure you switch off all the users of these batteries before you make the connections. Prevent shortcut of the wiring during installation and fasten the ring terminals.

Use a 60A fuse between your starter battery and the Range Extender, this to prevent damaged wiring in case of a short cut.

Installation and use

Mount the Range Extender close to the starter battery. Make sure the place is free of splashing and dripping water. Keep the ventilator openings 5cm free from surfaces to enable optimal ventilation. Connect the orange SB50 connector of the Range Extender with a matching connector connected to the starter battery (Range Extender IN). Connect the grey or red connector (24V is grey, 36V is red) with a contra connector (included in the package). From this connector wires should be connected to the 24V or 36V battery. For a maximum of 2 meters you can use 2,5mm² wires. For wires from 2 to 6m length you have to use 4mm² or more. As soon as the Range Extender is connected with the starter battery it will be operational. The display will stay black until you push the set button or until the voltage of the starter battery is high enough to allow the Range Extender to start.

If the voltage is high enough the Range Extender will draw current from your starter circuit and increase the voltage to the right charging voltage for your 24V or 36V battery. As soon as the voltage of your starter circuit drops, the Range Extender will stop automatically to keep your starter battery full. As soon as you start the engine again, the Range Extender will start again as soon as the voltage of your starter battery is high enough.

Note: The Range Extender can draw a lot of power from your alternator to charge your 24V or 36V battery quickly. If the Alternator is simultaneously charging your service battery there is a risk that the charging system to your service battery or your 24/36V battery stops. In this case you can mount a switch between the Range Extender and the starter battery or between the starter battery and your service battery. This way you can decide which way the current of your alternator should go, depending on your needs.

WARRANTY

- > The warranty period is two years for the Range Extender.

Warranty provision

- > The warranty applies to normal use according to recommendations and within specifications of the product.
- > Warranty is only given if the purchase invoice can be submitted.
- > The warranty does not go beyond repair or replacement of the delivered goods. Consequential damage is expressly stated excluded.
- > In all cases where the warranty conditions are not clear, an attempt will be made to resolve the complaints within reason unload. This within the provisions of liability.

Liability

- > Besides the warranty provisions on the delivered goods, JAROCELLS B.V. will not accept any liability. JAROCELLS B.V. shall not be liable for any direct, incidental or consequential damages of any nature, or losses or consequential damages or losses or expenses resulting from the use of this product.
- > The user of the product should take all precautions, required to prevent damage.
- > In case JAROCELLS B.V. will be held responsible for damage or losses caused by the product, the compensation paid by JAROCELLS B.V. will not exceed the payments of the assurance company. When the damage is not covered by the insurance, the maximum payment will be equal to the total of the invoice.
- > Liability and right to warranty is in any case excluded with:
 - Damage due to external disasters such as lightning strike
 - Incorrect installation or use
 - Repairs have been carried out by third parties or changes have been made to

We've got the power



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NEXT GENERATION BATTERY PACKS