

VOTRONIC

Installation and Operating Manual

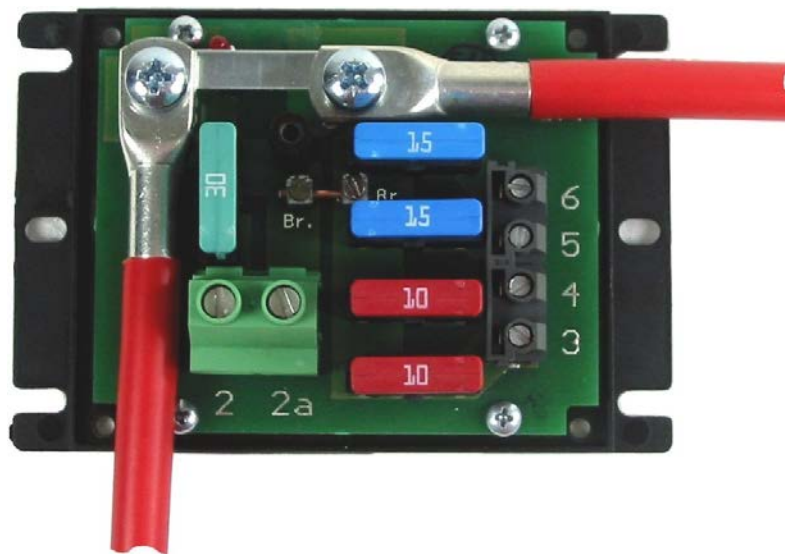
Plus Distributor 8 With Upper Housing 12 V / 24 V No. 3215

Minus Distributor 14 With Upper Housing 12 V / 24 V No. 3218

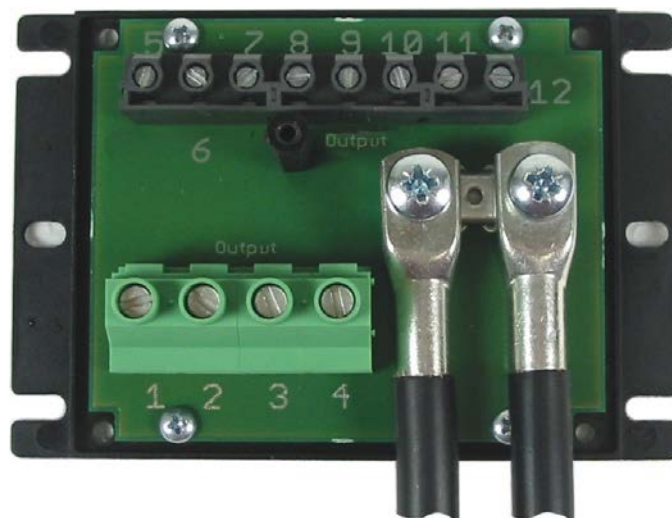
The Votronic Plus Distributor 8 and Minus Distributor 14 are designed for the correct wire connection of 12 V and 24 V electric circuits in caravans, campers, boats and intervention vehicles.



Please read the Safety Regulations, mounting instructions and operating manual completely prior to starting connection and start-up.



Plus Distributor 8 (Interior view)



Minus Distributor 14 (Interior view)

Plus Distributor 8

Distribution and protection of separate electric circuits on the plus side of the battery (see connection plan).

The following **maximum admissible current rates** of the individual cables or terminals and connection blocks should not be exceeded:

Collecting Block "+IN":	Cable 16 mm ² with cable lug	max. 70 A (up to 50 °C) or 96 A (up to 30 °C)
Connection Block "1":	Cable 16 mm ² with cable lug	max. 60 A
Distribution terminals „2, 2a“:	Terminal screws up to 6 mm ²	max. 32 A
Distribution terminals „3-6“:	Terminal screws up to 4 mm ²	max. 20 A

The **plus supply** of the battery is made by the solid connection block (+IN).

Distribution is the following:

Connection „1“:

Together with connection block "1" a strip fuse (40 A, 50 A up to max. 60 A, see picture) will be installed for the supply of a powerful consumer, such as inverters up to 12 V / 600 W or 24 V / 1200 W:

- First, loosely screw down the cable lugs of the connections cables to the connection blocks +IN and "1".
- Then push the strip fuse between block and cable lug.
- After that, screw down the screws tightly.

Failure of this fuse is indicated visually by means of a light-emitting diode, which can also be recognized via an inspection hole in the housing cover.

Connection „2“:

Terminal "2" (up to 6 mm²) with blade type fuse 30 A, such as for medium consumers or charger, see connection plan. It can be used as

1. simultaneous supply at the battery circuit (bridge "Br. -Br," is inserted, do not use terminal "2a", condition as delivered) or
2. optionally after removal of the bridge "Br. - Br." as independent electric circuit via the terminal "2a" (up to max. 30 A, up to 6 mm²).

Connection „3 - 6“:

For smaller consumers, another four terminals 3, 4, 5 and 6 (up to 4 mm², max. 20 A) with flat blade fuses are available (regular flat blade fuses, rating 1 A up to 20 A are suitable), see connection plan.

After connection of the cables, the housing cover is to be placed on the base plate and will be screwed down hand-tight by means of a knurled screw. Markings concerning the electric circuit, current intensities etc. can be noted down on the white marking surfaces next to the fuses.

Minus Distributor 14

Distribution / Junction of separate electric circuits on the minus side of the battery (see connection plan).

Arrangement of the minus distribution (ground distribution), usefull especially in case of insulated vehicle bodies or insufficient ground ratio. The two solid connection blocks also allow passing distribution of powerful ground cables or double earthing.

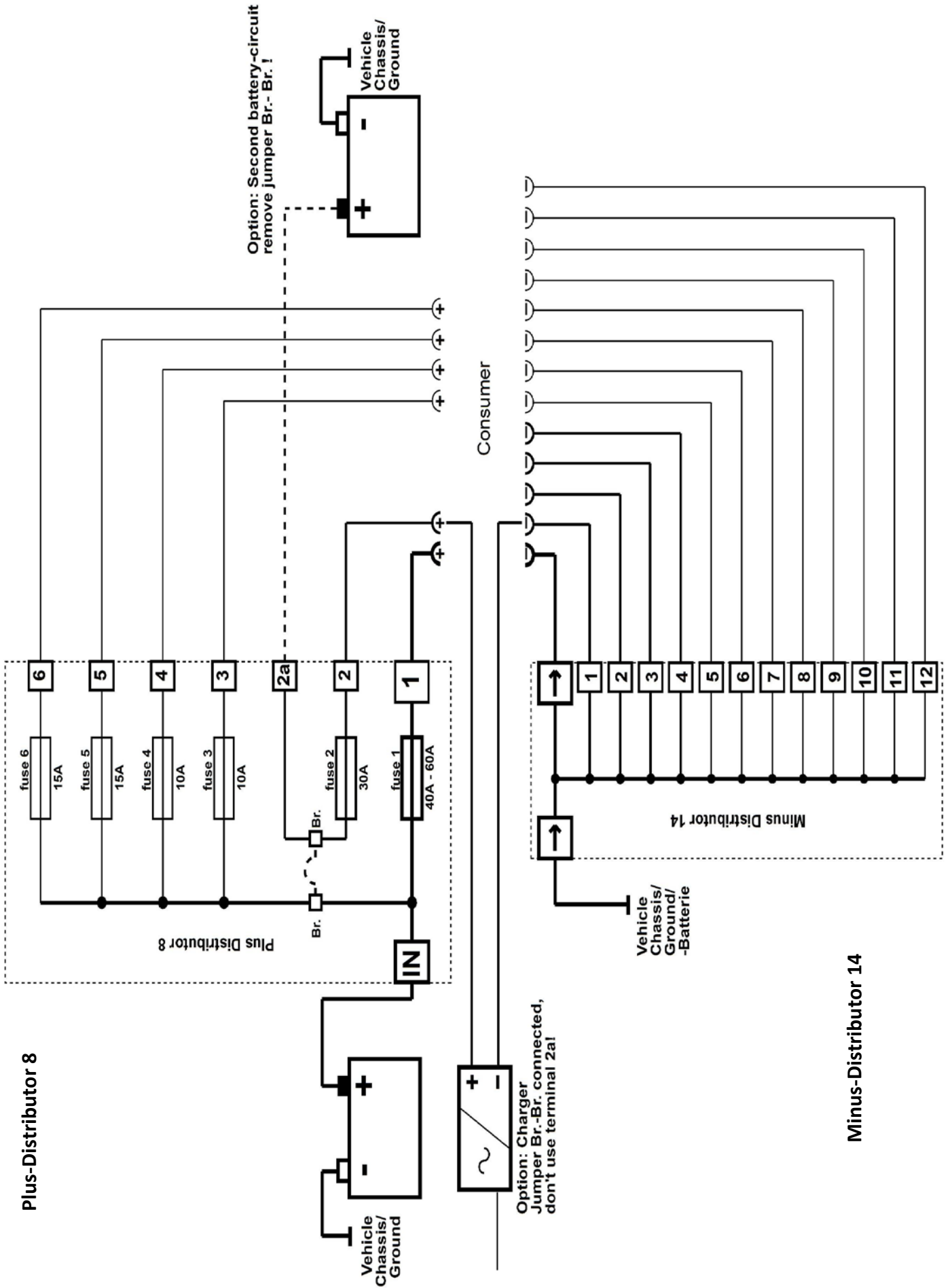
A cable with cable lug is led from a connection block of the distributor to the vehicle ground or battery minus (see connection plan) with the shortest possible distance.

The following **maximum current rates** of the individual cables or terminals and connection blocks should not be exceeded:

Collecting Blocks:	Cable 16 mm ² with cable lug	max. 70 A (up to 50 °C) or 96 A (up to 30 °C)
Distribution terminals „1-4“:	Terminal screws up to 6 mm ²	max. 32 A
Distribution terminals „5-12“:	Terminal screws up to 4 mm ²	max. 20 A

After connection of the cables, the housing cover is to be placed on the base plate and will be screwed down hand-tight by the knurled screw.

Connection Plan:



Plus-Distributor 8

Minus-Distributor 14



Safety Regulations:

Appropriate Application:

Application of the distributors is restricted to electric circuits with 12 Volts or 24 Volts board mains supply. Appropriate application is restricted to:

1. Consideration of the total current load and the required cable cross-sections.
2. Technically faultless condition.
3. Installation in a well-ventilated room, protected from rain, humidity, dust, aggressive battery gas, as well as in an environment being free from condensation water.
4. **Never use the unit at locations where the risk of gas or dust explosion exists!**
 - Open-air operation of the unit is not allowed.
 - Cables are always to be laid in such a way that damage is excluded. Observe to fasten them tightly. Never lay 12 V (24 V) cables and 230 V mains supply cables into the same cable conduit (empty conduit).
 - Check live cables or leads periodically for insulation faults, points of break or loosened connections. Occurring defects must be remedied immediately.
 - If the non-commercial end-user is not able to recognize the characteristic values being valid for a unit or the regulations to be observed, a specialist is always to be consulted.
 - The user/buyer is obliged to observe any construction and safety regulations.
 - Keep children away from batteries and connections.
 - Observe the safety regulations of the battery manufacturer.
 - Non-observance may result in injury or material damage.
 - The manufacturer's warranty is 60 months from delivery.
 - Improper use, operation outside the technical specifications, improper operation or third-party intervention will void the warranty or manufacturer's guarantee. No liability is accepted for any resulting damage. The exclusion of liability also extends to any services provided by third parties that were not commissioned by us in writing. Services exclusively provided by VOTRONIC Elektronik-Systeme GmbH, Lauterbach.



Declaration of Conformity:

In accordance with the provisions of the statutory requirements and the relevant directives, Electrical Equipment (Safety) Regulations 2016, Electromagnetic Compatibility Regulations 2016, The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 this product complies with the following standards or normative documents:
EN55014-1; BS EN61000-6-1; BS EN61000-4-2; BS EN61000-4-3; BS EN61000-4-4; BS EN62368-1; BS EN60335-2-29; BS EN50498, BS EN IEC 63000.



Declaration of Conformity:

In accordance with the provisions of Directives 2014/35/EU, 2014/30/EU, 2009/19/EC, this product complies with the following standards or normative documents:
EN55014-1; EN61000-6-1; EN61000-4-2; EN61000-4-3; EN61000-4-4; EN62368-1; EN50498.



The product must not be disposed of in the household waste.



The product is RoHS compliant. It complies with the directive 2015/863/EU for Reduction of Hazardous Substances in electrical and electronic equipment.

Quality Management System
DIN EN ISO 9001

Delivery Scope Plus Distributor 8:

- 1 Distributor
- 1 Installation and Operating Manual
- 2 Cable Lug 16 mm²
- 2 Cylinder Head Screws M5 with washers
- 1 Strip Fuse 40 A
- 1 Strip Fuse 50 A
- 1 Strip Fuse 60 A

Delivery Scope Plus Distributor 14:

- 1 Distributor
- 1 Installation and Operating Manual
- 2 Cable Lug 16 mm²
- 2 Cylinder Head Screws M5 with washers

Subject to misprints, errors and technical modification without notice.

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