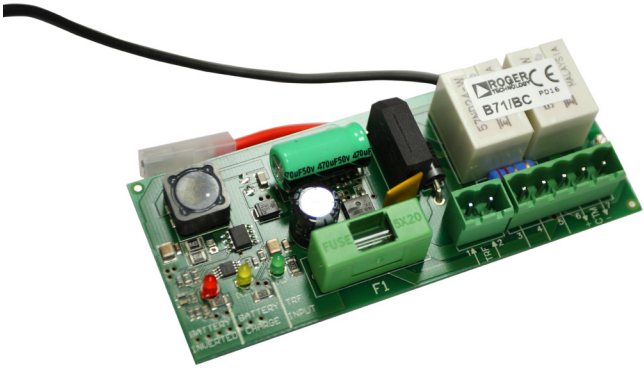


IS85 Rev.04 18/03/2024

ROGER ACCESSORI

batterie e caricabatteria serie B71/BC

Istruzioni originali

ROGER BRUSHLESS

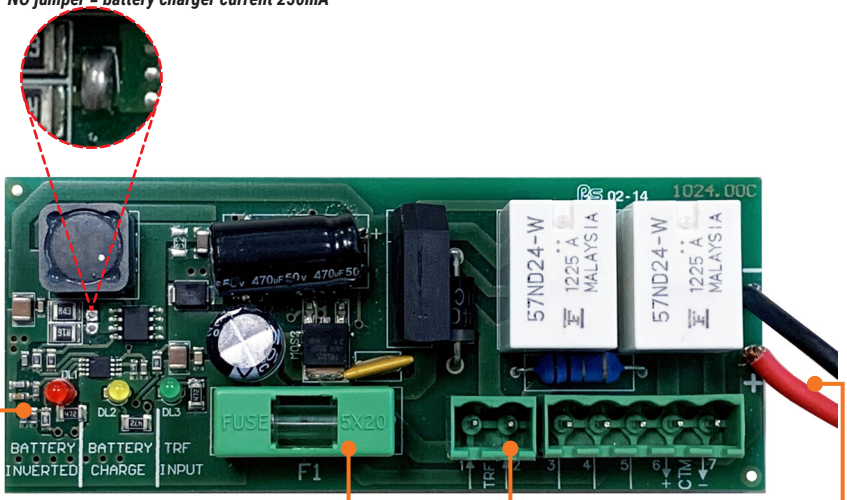
IT - Istruzioni ed avvertenze per l'installatore
EN - Instructions and warnings for the installer
DE - Anweisungen und Hinweise für den Installateur
FR - Instructions et consignes pour l'installateur
ES - Instrucciones y advertencias para el instalador
PT - Instruções e advertências para o instalado
NL - Aanwijzingen en waarschuwingen voor de installateur
PL - Instrukcja i ostrzeżenia dla instalatora

ROGER TECHNOLOGY

Illustrazioni e schemi - Pictures and schemes - Bilder und Pläne
Illustrations et schémas - Ilustraciones y esquemas - Ilustrações e esquemas

1

ponticello OK = corrente di caricabatteria 400mA
ponticello NO = corrente di caricabatteria 250mA
OK jumper = battery charger current 400mA
NO jumper = battery charger current 250mA



DL1: LED rosso
"batteria invertita"
DL1: red LED
"inverted battery"

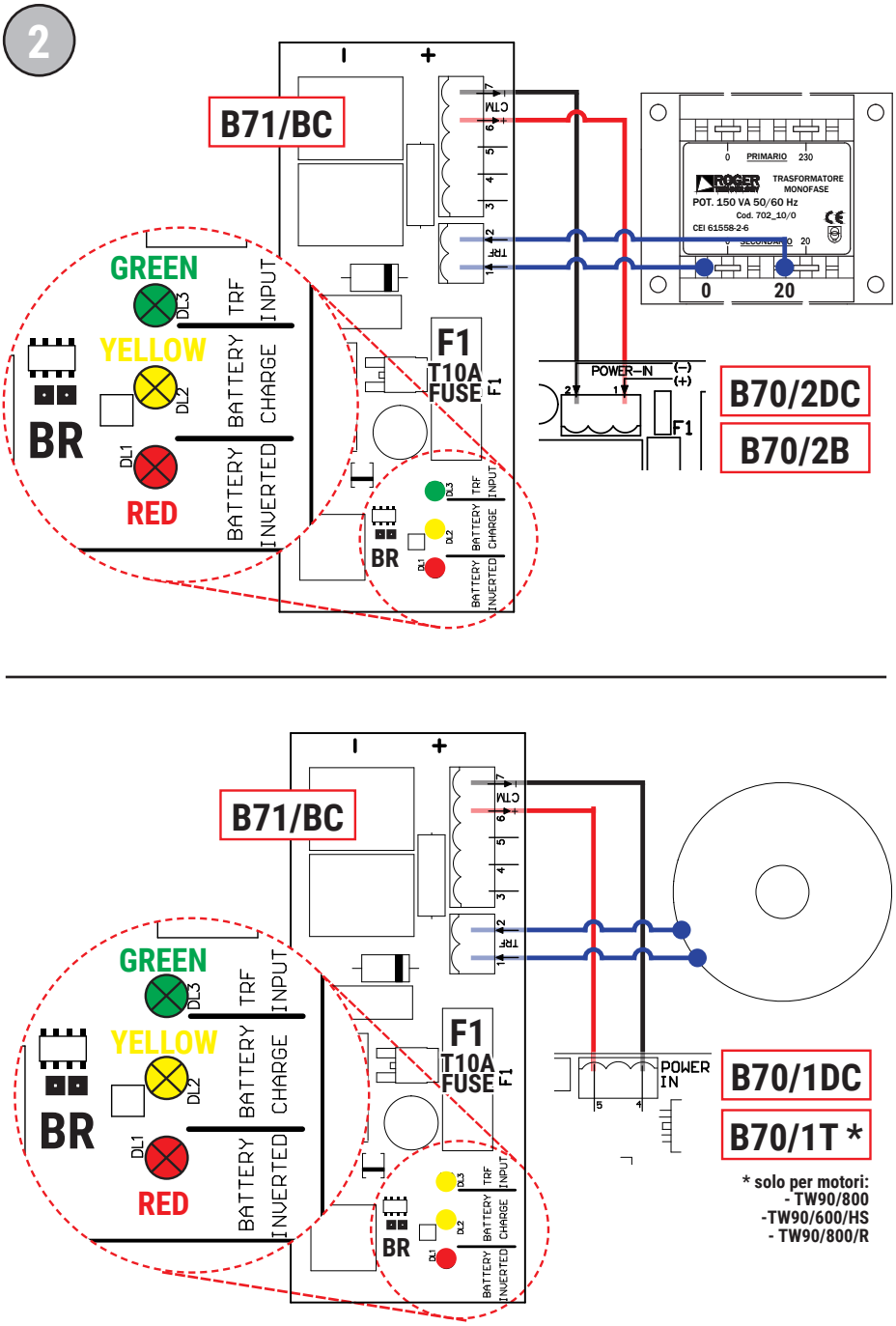
DL2: LED giallo
"batteria in carica"
DL2: yellow LED
"charging battery"

DL3: LED verde
"tensione di rete presente"
DL3: green LED
"mains voltage present"

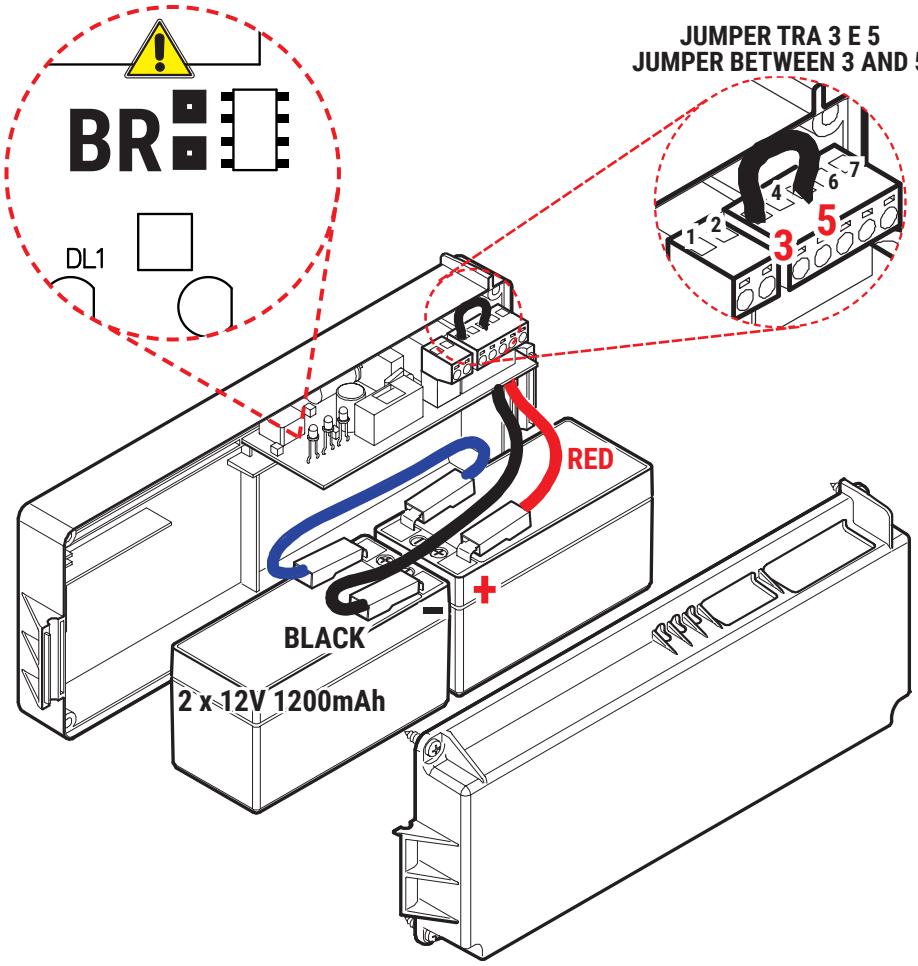
Fusibile T10A
***Fuse* T10A**

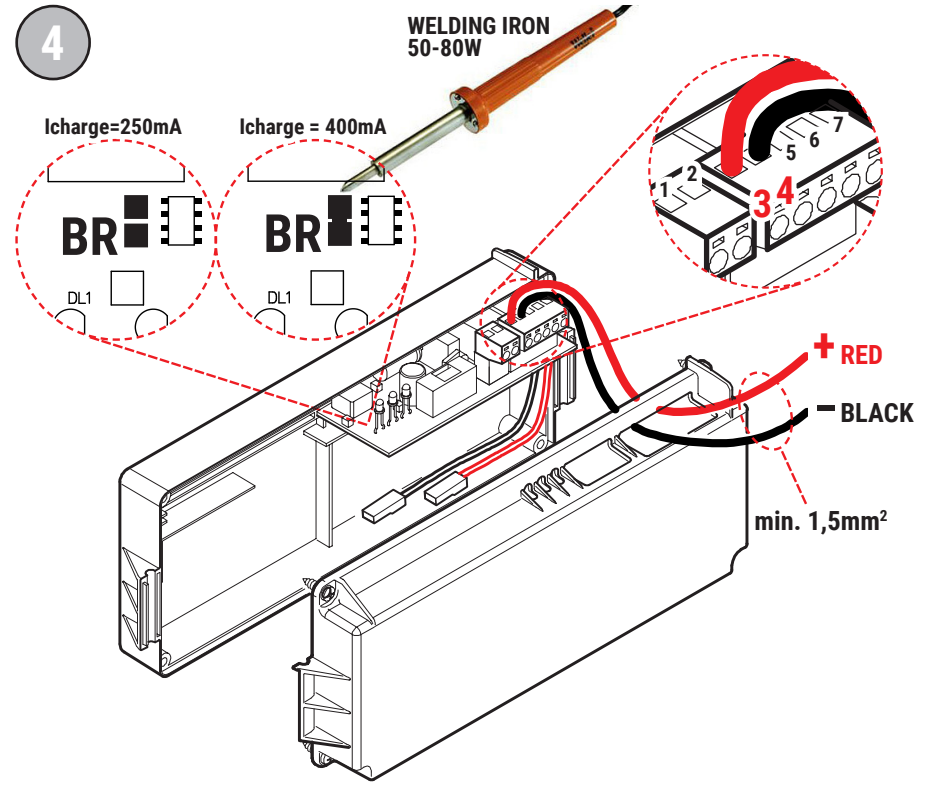
Connessione al secondario del trasformatore
Secondary transformer connection

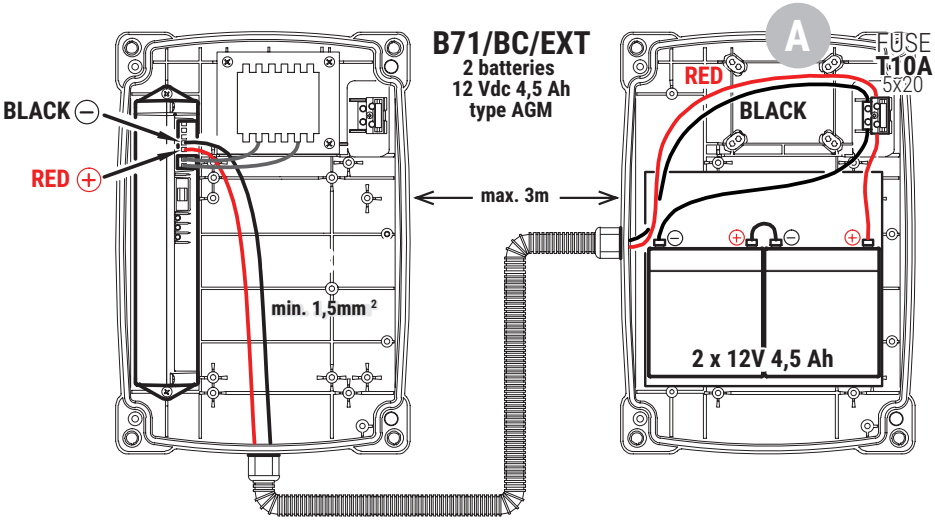
Cavi ROSSO/NERO: utilizzati nel caso di connessione 2x12Vdc 1200mAh
RED/BLACK cables: used in case of 2x12Vdc 1200mAh connection


2
B71/BC
GREEN
YELLOW
RED
BR
DL3
DL2
DL1
TRF INPUT
BATTERY CHARGE
BATTERY INVERTED
F1
T10A
FUSE
F1
CTX
JP1
PRIMARIO 230
TRASFORMATORE MONOFASE
POT. 150 VA 50/60 Hz
Cod. 702_10/0
CEI 61558-2-6
SECONDARIO 20
0
20
POWER-IN
(-)
(+)
B70/2DC
B70/2B
B71/BC
GREEN
YELLOW
RED
BR
F1
T10A
FUSE
POWER IN
B70/1DC
B70/1T *
* solo per motori:
- TW90/800
-TW90/600/HS
- TW90/800/R

3

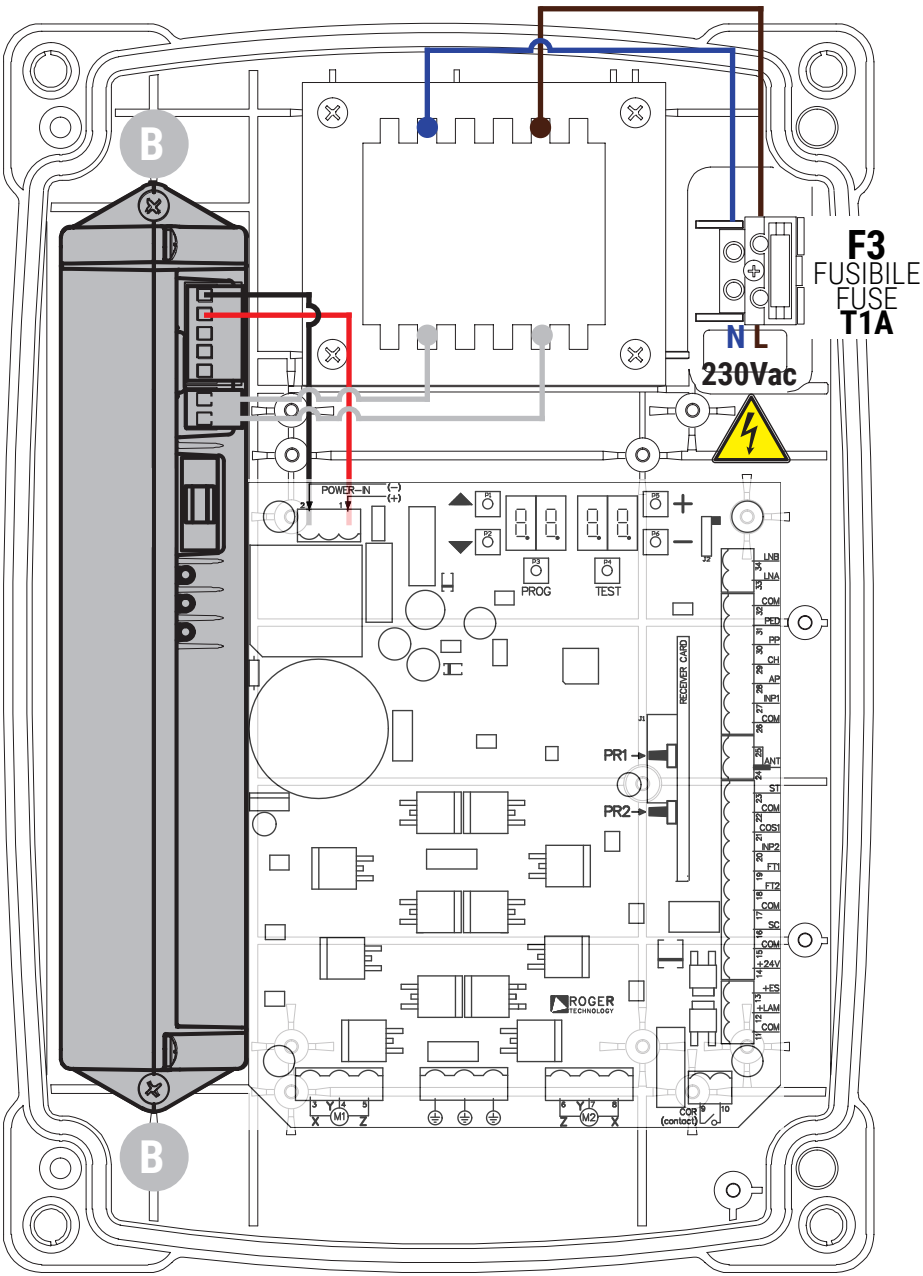

JUMPER TRA 3 E 5
JUMPER BETWEEN 3 AND 5
BR
DL1
1
2
3
4
5
6
7
RED
BLACK
+
-
2 x 12V 1200mAh


4
WELDING IRON
50-80W
Icharge=250mA
Icharge = 400mA
BR
DL1
BR
DL1
1
2
3
4
5
6
7
+ RED
− BLACK
min. 1,5mm²

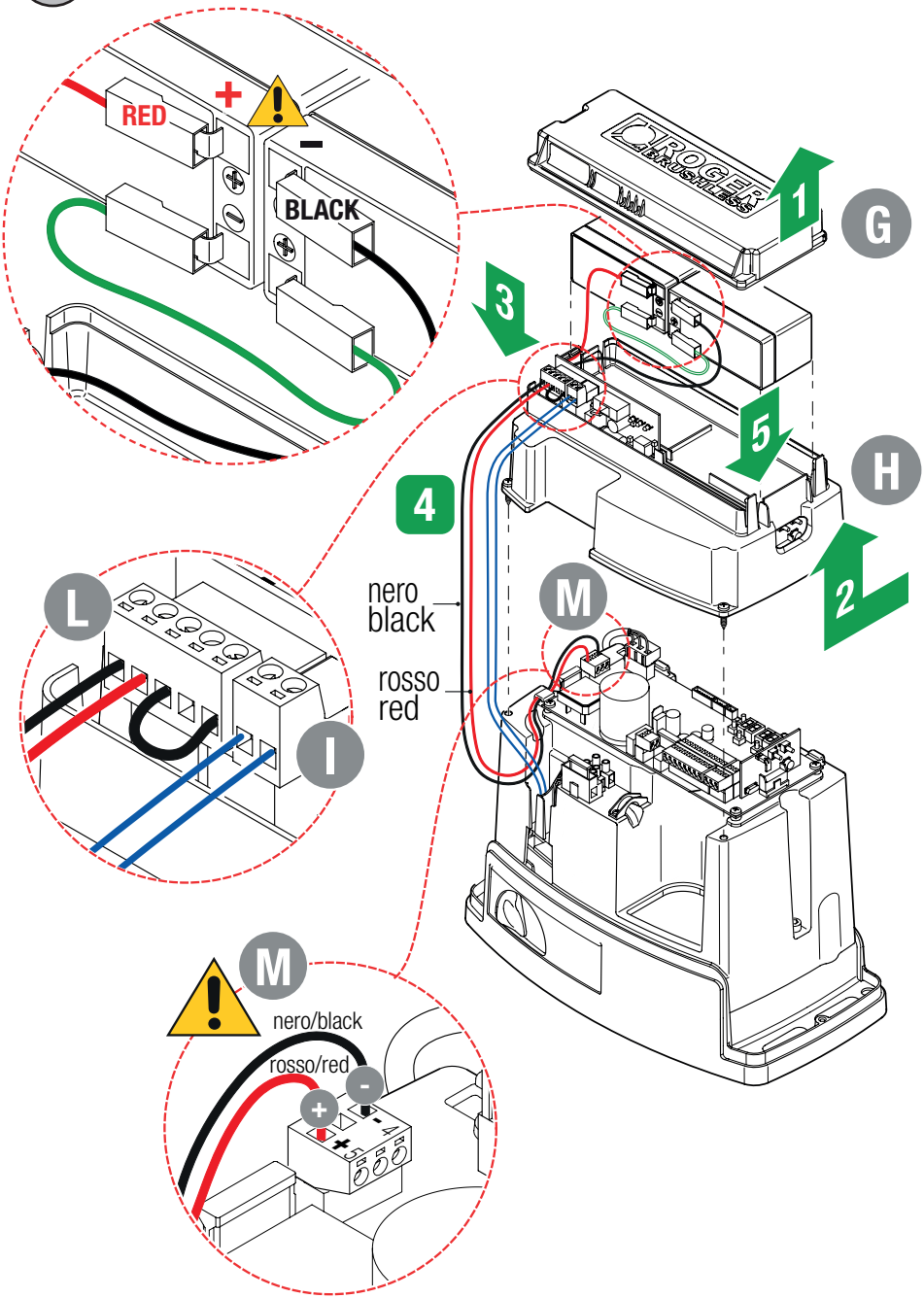

B71/BC/EXT
2 batteries
12 Vdc 4,5 Ah
type AGM
BLACK ⊖
RED ⊕
max. 3m
min. 1,5mm ²
A
RED
BLACK
FUSE
T 10A
5x20
2 x 12V 4,5 Ah

5 COLLEGAMENTI CARICA BATTERIA SU B70/2DC - B70/2B

***BATTERY CHARGER CONNECTION ON* B70/2DC - B70/2B**



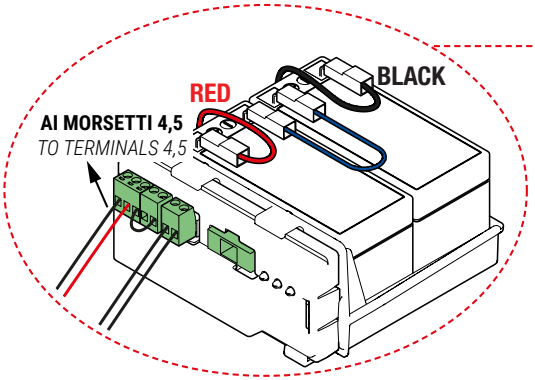
6 COLLEGAMENTI CARICA BATTERIA SU SERIE BH30
BATTERY CHARGER CONNECTION ON BH30 SERIES



7 COLLEGAMENTI CARICA BATTERIA SU B70/1T
BATTERY CHARGER CONNECTION ON B70/1T

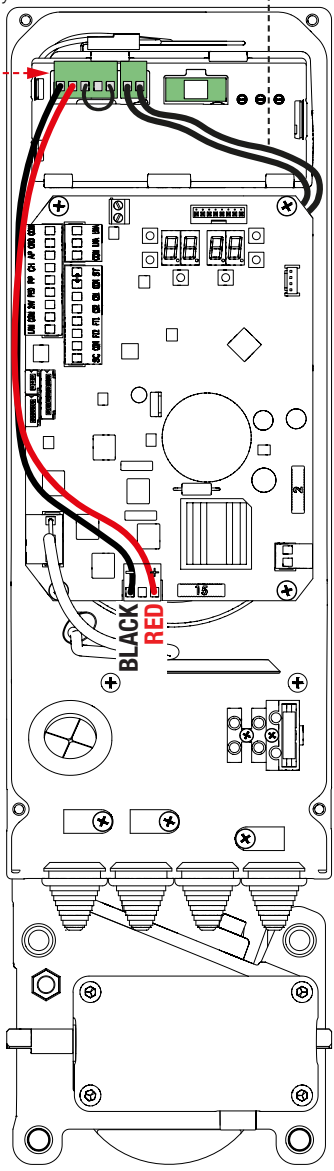
TW90/800
TW90/600/HS
TW90/800/R

dal secondario del trasformatore
from the secondary of the transformer

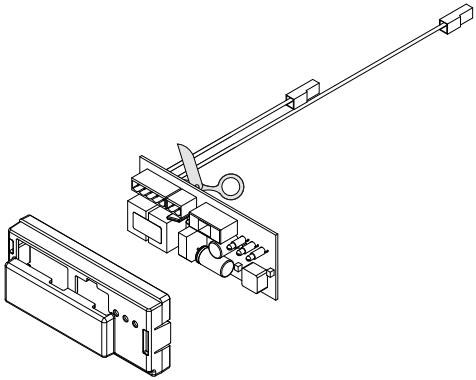


2 x 12V 1,2Ah

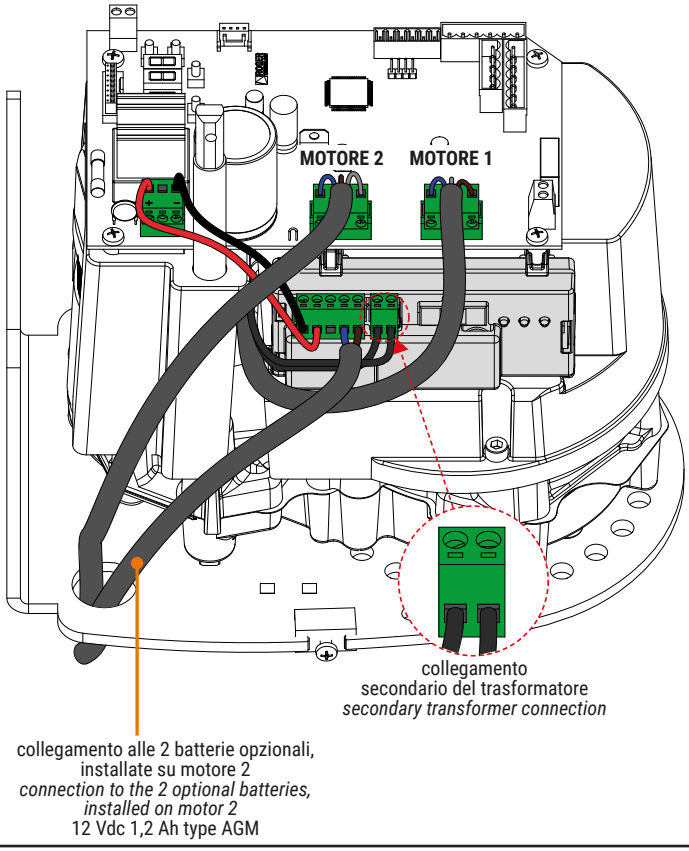
AGM Battery ONLY



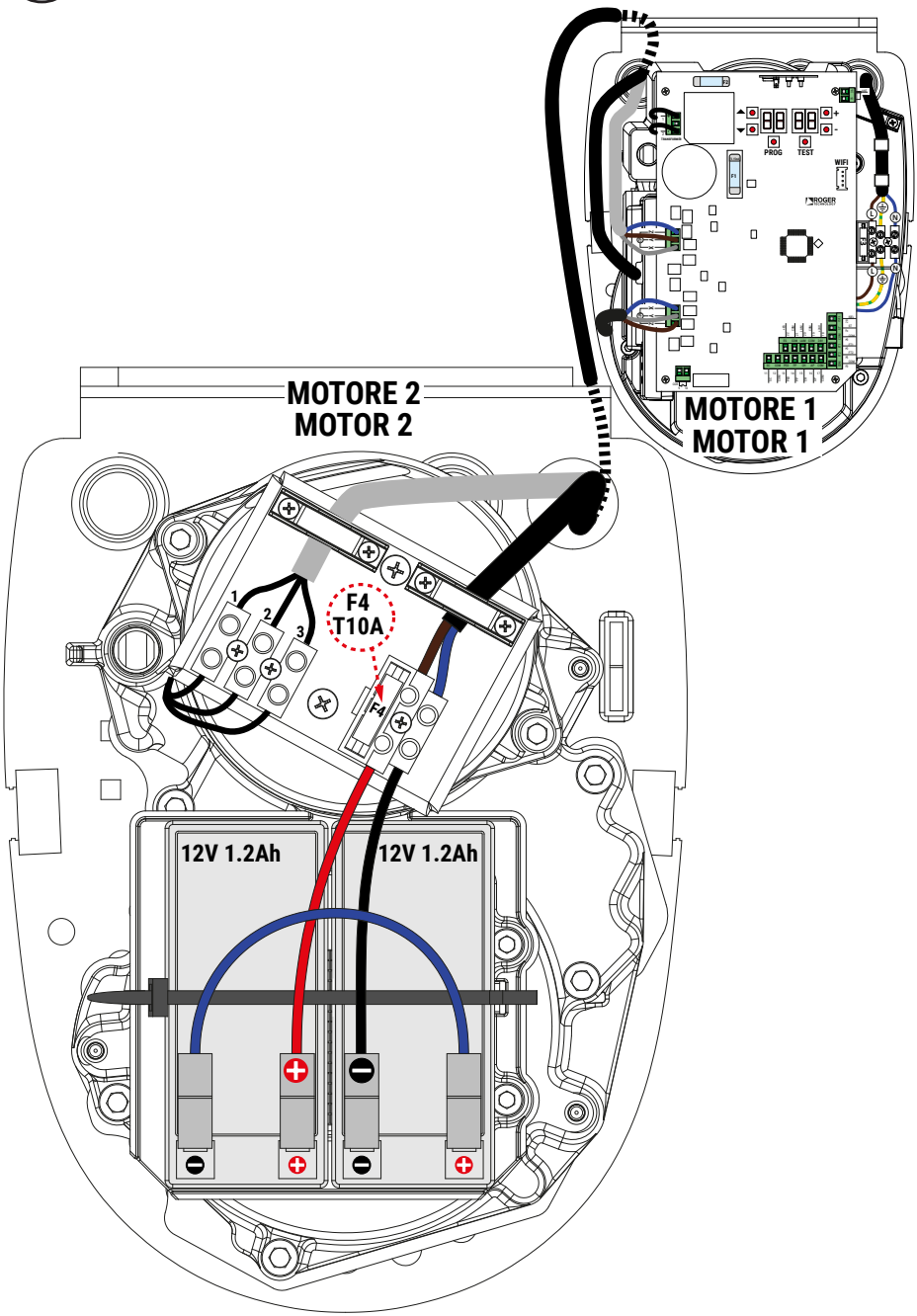
8 B71/BC SU AYRON
B71/BC ON AYRON



9 COLLEGAMENTI CARICA BATTERIA SU B70/2ML
BATTERY CHARGER CONNECTION ON B70/2ML

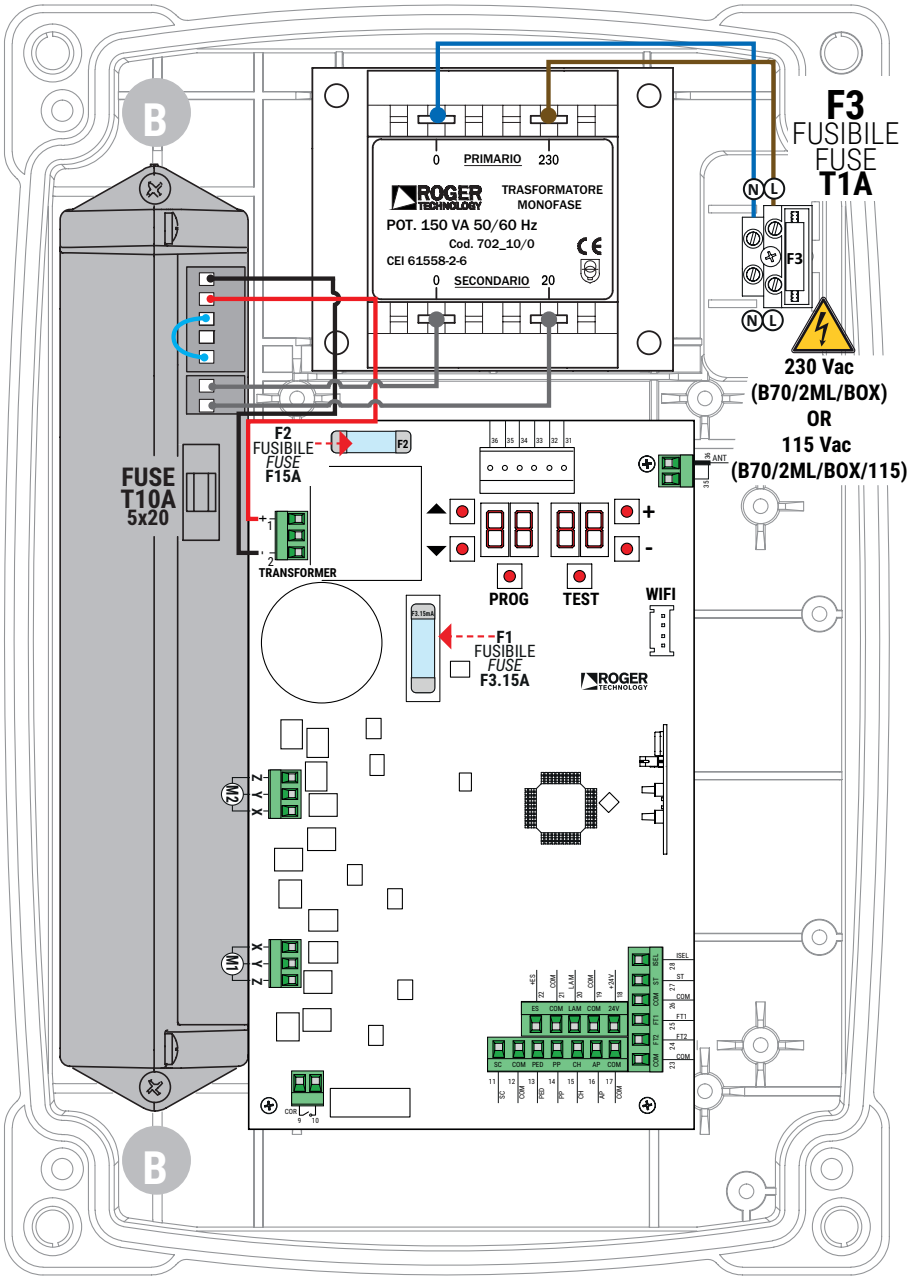


10 COLLEGAMENTI BATTERIE SU B70/2ML
***BATTERY CONNECTION ON* B70/2ML**



11

INSTALLAZIONE IN BOX CON B70/2ML/BOX
BOX INSTALLATION WITH B70/2ML/BOX



1 Introduction to instructions and warnings

This manual is intended only for qualified technical staff in charge with the machine installation.
The informations in this Manual are not intended for the final user.
This manual refers to batteries and battery chargers of B71/BC, B71/BC/INT and B71/BC/EXT series for control units B70/1DC, B70/1T, B70/2DC, B70/2B and B70/2ML and should not be used for other devices.
Carefully read this section before installing the device.
In order to prevent the risk of electrocution and injuries, before performing any intervention on the device, please cut off the power supply and one of the two battery poles. To prevent the risk of burning, be careful to avoid generating short circuits on battery terminals by contact with braces or rings.
The machine must be installed only by qualified staff, following the standards in force.
Perform the connections using appropriate cables for the required current and voltage, respecting the technical features of the product.
When installing cable glands (or fittings) on plastic containers, secure them tightely to prevent water from entering the box.
The battery charger is supplied with the positive terminal of the battery disconnected, to maintain their charging state: the installer is, however, responsible to check that the connectin is correct.
In the event of reversed connection, the red LED "DL1" turns on and the circuit enters in thermal protection mode: disconnect the battery immediately and execute the connection correctly.
Please keep in mind that in the absence of voltage, but with the batteries connected, the output terminals of the battery charger are under voltage; therefore, handle the cables connected to them very carefully.

EN

2 Technical features

SUPPLY VOLTAGE	16Vac … 24Vac
MAXIMUM INPUT POWER	15W
INTERNAL LEAD-ACID BATTERIES - **B71/BC/INT**	2 x 12Vdc 1200mAh, connected in series
OPTIONAL EXTERNAL LEAD-ACID BATTERIES - **B71/BC/EXT**	2 x 12Vdc 4500mAh, connected in series
NOMINAL CHARGE VOLTAGE	27.6 Vdc
MINIMUM SELF-PROTECTION VOLTAGE OF BATTERY	19.5 Vdc
"BR" OPEN JUMPER CHARGE CURRENT	250 mA (for 1200mAh batteries)
"BR" CLOSE JUMPER CHARGE CURRENT	400 mA (optional, for fast charge of 4500mAh batteries)
OPERATING TEMPERATURE	-20°C … +55°C
PROTECTION RATING	IP00
PRODUCT SIZE	dimensions in mm. 243 x 49 x 89 Weight: 1.5Kg

3 Product description

The battery charger **B71/BC/INT** enables charging two lead-acid batteries of 12Vdc, connected in series, and in the absence of mains voltage supplies energy to the power unit **B70/1DC**, **B70/1T**, **B70/2DC** and **B70/2B** activating the motors; it is provided the use of batteries of 1200mAh (inserted into the battery charger container) or batteries of 4500mAh (that should be placed in a separate container, code **BAT/BOX**, optional).
B71/BC/EXT is a kit that includes the battery charger and the outer container complete with 2 batteries of 4500mAh.
The battery should be chosen according to the duration and the frequency of mains blackout: in the event of high frequency and/or duration, we recommend you use the batteries of 4500mAh.

4 Description of connections

The terminals of the battery chargers and the connections to the transformer and the power unit **B70/1DC**, **B70/1T, B70/2DC** and **B70/2B** are shown in **fig. 2**. Below is provided a description of every terminal:
1,2 power input of the secondary circuit of the transformer
3 in the event you use the internal battery (1200mAh): connect to terminal **5** (using the wire jumper, **fig. 3**)
if you use the external battery (4500mAh) connect to the positive pole (see **fig. 4**). The internal batteries should be disconnected
4 in the event you use the internal battery (1200mAh): do not connect
in the event you use the external battery (4500mAh): connect it to the negative pole (see **figure 4**). The internal batteries should be disconnected
6 connect to terminal **1** of the power unit **B70/2DC**, **B70/2B** connect to terminal **5** of the power unit **B70/1DC** - **B70/1T**
7 connect to terminal **2** of the power unit **B70/2DC**, **B70/2B** connect to terminal **4** of the power unit **B70/1DC** - **B70/1T**

4.1 Use of internal batteries with B70/2DC - B70/2B

In case you use 2 internal batteries of 12Vdc 1200mAh refer to **fig. 3**.
The battery charger should be installed – secured to its compartment – inside the box of the power unit **B70/2DC - B70/2B**; in this compartment are also inserted the two batteries of 12V 1200mAh, connected in series, and connected to the battery charger by means of two red and black cable with standard Faston terminals.
The terminal **3** should be connected to terminal **5** by means of a jumper.
Disconnect the secondary circuit of the transformer of the power unit **B70/2DC - B70/2B**, and connect it to terminals **1** and **2** of the battery charger; connect the output of battery charger (terminals **6** and **7**) to the power terminals of the power unit **B70/2DC - B70/2B** (see **fig. 2**).
Secure the container to the power unit box using the self-locking screws supplied (**fig. 5**, detail **B**).

WARNING! The external batteries should not be connected.

4.2 Use of external batteries with B70/2DC - B70/2B

In case you use 2 external batteries of 12Vdc 4500mAh (**B71/BC/EXT**) see **fig. 4**.
The battery charger should be installed – secured to its compartment – inside the power unit box **B70/2DC - B70/2B**; the batteries should be secured in the container (code **BAT/BOX**) and connected to the charging circuit by means of a cable with cross section of 1.5mm^2 for a maximum length of 3 metres.
Connect the cable that comes out from terminal **3** to the safety fuse installed in the container (**fig. 4**, detail **A**): the positive pole of the battery is connected in series with the fuse. Connect the cable coming out from terminal **4** to the nearby position (negative pole of the battery).
The two areas marked with "**BR**" should be interconnected by means of small piece of tin (see **fig. 4**).
WARNING! The internal batteries should be disconnected.

4.3 Use of internal batteries with B70/1DC

To install the battery charger (**B71/BC**) and the 2 batteries of 12Vdc 1200mAh, refer to **fig. 6** and roceed as follows:
- Remove the upper cover **G**.
- Remove the cover **H**.
- Install the **B71/BC** battery charger board in the relative seat.
- Disconnect the wires from the transformer and from the **POWER IN** terminal of the controller unit, and connect them to terminal **I** of the battery charger.
- Connect the red-black wires of cable **L** included with the battery to the POWER IN terminal **M** of the controller unit.
- Close the cover **H** and fasten with the screws.
- Fit the 12 V DC 1.2 Ah batteries in the relative compartment, ensuring that the polarity is correct.
- Close the upper cover **G**.

4.4 Use of internal batteries with B70/1T (only for motors TW90/800 - TW90/600/HS, TW90/800/R)

To install the battery charger (**B71/BC**) and the 2 batteries of 12Vdc 1200mAh, refer to **fig. 6** and roceed as follows:
- Remove the upper cover.
- Pull out the tray located above the control unit.
- Insert the B71/BC charger board into the prepared slot.
- Disconnect the wires from the transformer and from the **POWER IN** terminal of the controller unit, and connect them to terminal of the battery charger.
- Connect the red-black wires of cable included with the charger to the POWER IN terminal of the controller unit.
- Fit the 12 V DC 1.2 Ah batteries in the relative compartment, ensuring that the polarity is correct.
- Close the upper cover.

4.5 Use of internal batteries with B70/2ML

To install the battery charger on the **AYRON** motor it is necessary to cut the red and black cables with faston at the base of the weld, as they are not used and cannot be contained in the seat provided on the motor (see **fig. 8**).
The battery charger must be installed on **MOTOR 1**, which also contains the transformer and control unit, while the two 12Vdc 1200mAh batteries are installed on board **MOTOR 2**.
Disconnect the transformer secondary from the **B70/2ML** control unit and connect it to terminals 1 and 2 of the battery charger; connect the battery charger output (terminals **6** and **7**) to the power supply terminals of the **B70/2ML** control unit (see **fig. 9**).
The connection to the batteries is made through an **F4** fuse (see **fig. 10**). Lock the batteries on their support by means of the supplied clamp.

4.6 Use of external batteries with B70/2ML

In case you use 2 external batteries of 12Vdc 4500mAh (**B71/BC/EXT**) see **fig. 4**.
The battery charger should be installed – secured to its compartment – inside the power unit box **B70/2ML/BOX**; the batteries should be secured in the container (code **BAT/BOX**) and connected to the charging circuit by means of a cable with cross section of 1.5mm^2 for a maximum length of 3 metres.
Connect the cable that comes out from terminal **3** to the safety fuse installed in the container (**fig. 4**, detail **A**): the positive pole of the battery is connected in series with the fuse. Connect the cable coming out from terminal **4** to the nearby position (negative pole of the battery).
The two areas marked with "**BR**" should be interconnected by means of small piece of tin (see **fig. 4**).
WARNING! The internal batteries should be disconnected.

5 Fuses and warning LEDs

The safety fuse and the state signalling LEDs are shown in **fig. 2**.
F1 time delay fuse 5x20 10A (T10A)
DL1 red LED "reversed battery"
DL2 yellow LED "battery charging in progress"
DL3 green LED "mains voltage present"

6 Operating mode

TEMPERATURE MAINTENANCE
In the presence of mains voltage (green LED "**DL3**" lit), the circuit supplies the battery a minimum amount of current that keeps the battery in optimal charge state.

CHARGING
The battery is charged, if required, in the presence of mains voltage (green LED "**DL3**" lit); charging is signalled by the light of yellow LED "**DL2**". The maximum amount of current supplied during charging depends on the parameter set for jumper "**BR**" (see the technical specifications table).
NOTE: if the battery is disconnected, while it is already charged, and is connected again after a few minutes, the yellow LED may turn on, but it turns off shortly after.

DISCONNECTION
In the absence of voltage mains, if the battery is empty down to the safety level (see the technical specifications table), the battery charger is automatically disconnected from the power unit to prevent damages due to overcharge. Be careful during long absences of voltage mains because a minimum discharge still occurs and over time this phenomenon could damage the battery. Therefore, if you intenionally disconnect the power unit source for periods longer than fiftheen days, you should also disconnect the battery from the charging circuit (disconnect the positive pole, the red wire).

REVERSED BATTERY
The red LED "**DL1**" is lit, the circuit is in thermal protection mode; provide a quick solution to the connection error.

7 Testing

Cut off the mains voltage and check whether the battery works.

8 Maintenance

Perform a scheduled maintenance once every 6 months making sure that they are clean and operational.
If there are any signs of dirt, moisture, insects or other, cut off the power, disconnect the battery and clean the board and the support. Run again the Testing procedure.
If there is oxide on the printed circuit evaluate the replacement.
Check the battery charger performing a complete maneuvre and measure the voltage at its terminals: a battery in good charging condition should maintain a minimum voltage of 22Vdc. If the yellow DL2 LED does not turn off even after days of charging, take into consideration to replace the battery.
To achieve the best performance we recommend you replace the batteries every 3 years.

9 Disposal



The product should always be uninstalled by qualified personnel using the appropriate procedures for the proper removal of the product.
This product is made of various kinds of materials, some of them can be recycled, others must be disposed of through recycling or disposal systems according to the local regulations concerning this category of product.
You should not dispose of this product using normal recycle bins. Perform the "separate collection" for disposal in accordance with the methods specified by local regulations; or return the product to the retailer when buying an equivalent new product.
Local regulations may imply heavy penalties for illegal disposal of this product.
Warning: some parts of the product may contain pollutants or toxic substances that if disposed of, could cause harmful effects on the environment and human health.

10 Declaration of Conformity

The undersigned, representing the following manufacturer
Roger Technology, via Botticelli 8, 31020 Bonisiolo di Mogliano V.to (TV)
DECLARES that the equipment described below:
Description: Battery and battery charger
Model: B71/BC
Is in conformity with the legislative provisions that transpose the following directives:
– 2006/42/CE
– 2004/108/CE
– 2011/65/CE
And has been designed and manufactured to all the following standards or technical specifications
EN 61000-6-3
EN 61000-6-2

Place: Mogliano V.to Date: 01-04-2014 Signature

EN

ROGER TECHNOLOGY
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