



IS160 Rev.02 01/03/2017

EDGE1

centrale di comando per cancelli battenti

Istruzioni originali



IT - Istruzioni ed avvertenze per l'installatore - pag. 11

EN - Instructions and warnings for the installer - pag. 38

DE - Anweisungen und Hinweise für den Installateur - S. 65

FR - Instructions et consignes pour l'installateur - p. 92

ES - Instrucciones y advertencias para el instalador - pág. 119

PT - Instruções e advertências para o instalador - pág. 146



Versione P3.00 - Release P3.00

IT

Questa versione contiene miglioramenti, ed include importanti aggiornamenti relativi alla sicurezza.

- Prima emissione.

EN

This version introduces improvements, and includes important new content regarding safety.

- First emission.

DE

Diese Version enthält Verbesserungen und umfasst wichtige Neuerungen zur Sicherheit.

- Erste Ausgabe

FR

Cette version contient des améliorations et inclut d'importantes mises à jour sur la sécurité.

- Première émission.

ES

Esta versión contiene algunas mejoras, actualizando asimismo varios aspectos concernientes a la seguridad.

- Primera emisión.

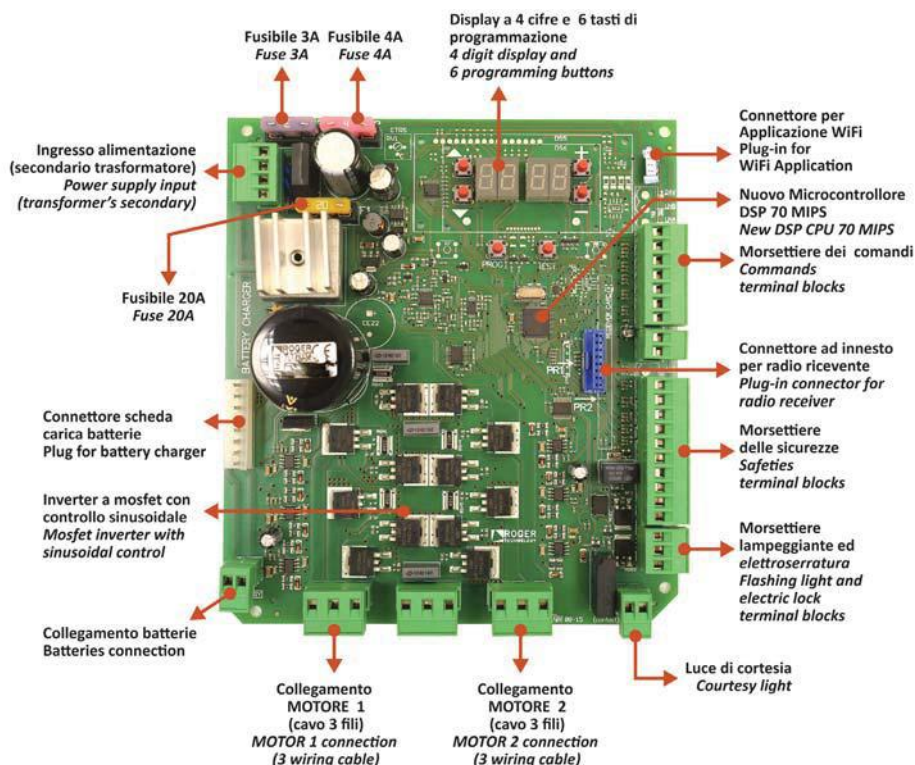
PT

Esta versão contém melhorias e inclui atualizações de segurança importantes.

- Primeira emissão.

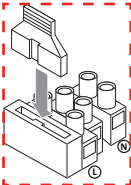
Illustrazioni e schemi - Pictures and schemes - Bilder und Pläne

Illustrations et schémas - Ilustraciones y esquemas - Ilustrações e esquemas

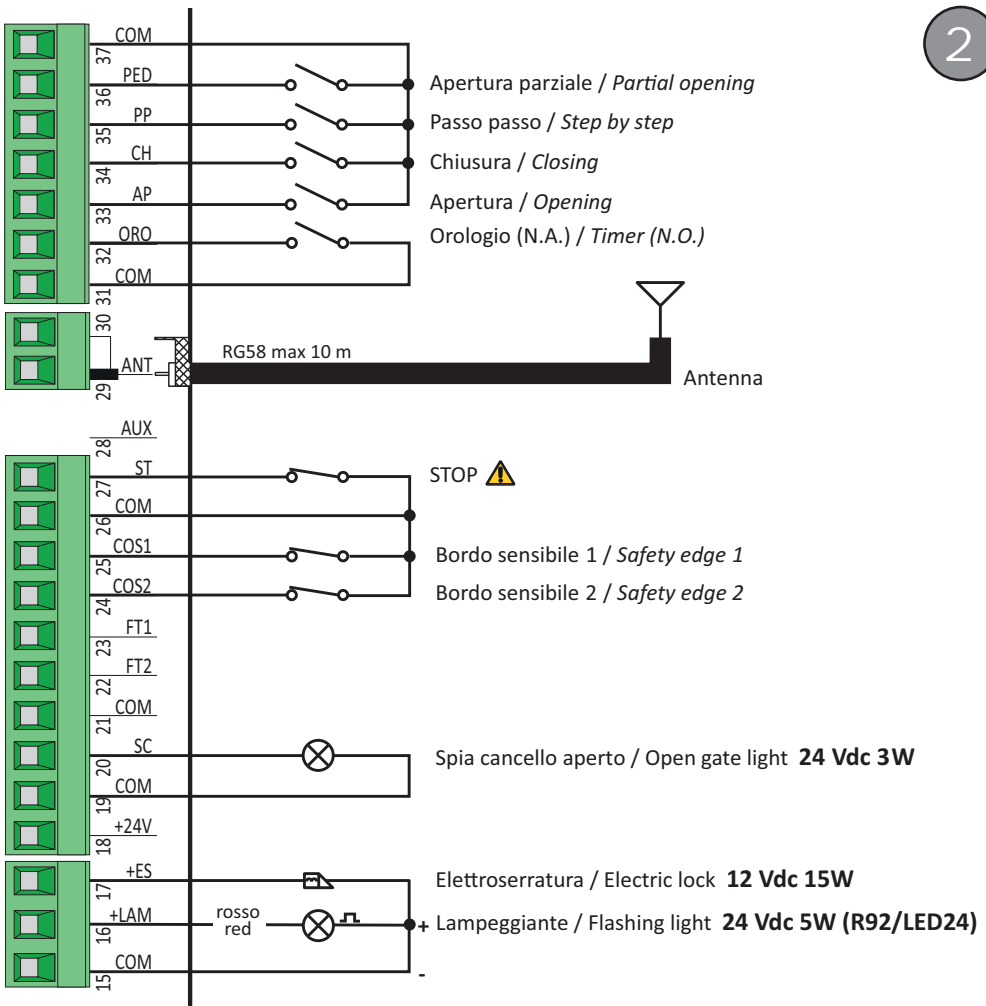


Firmware Rev P3.00

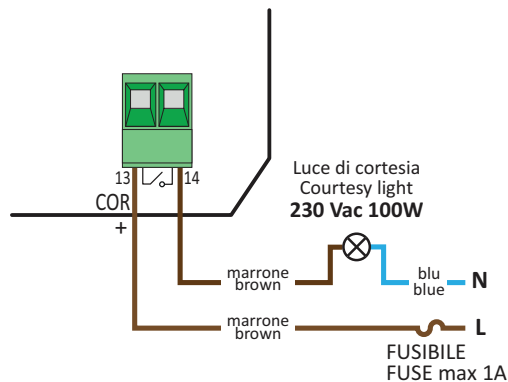
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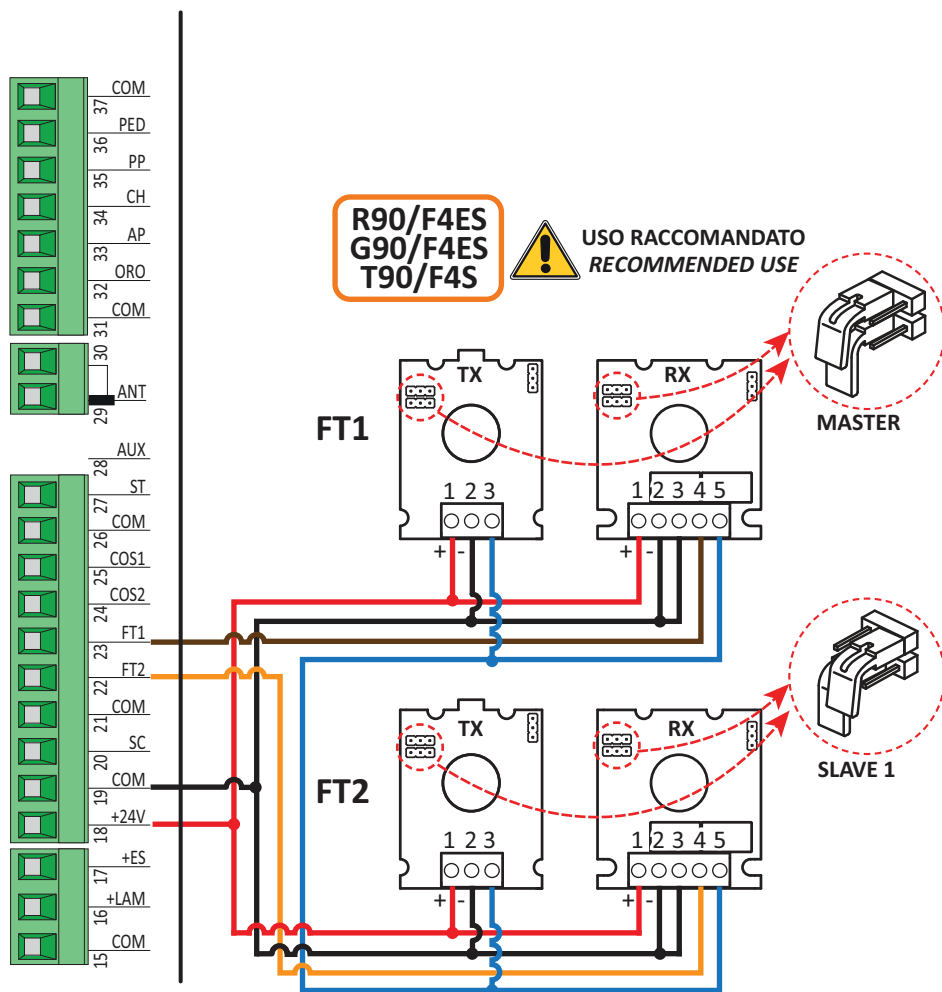


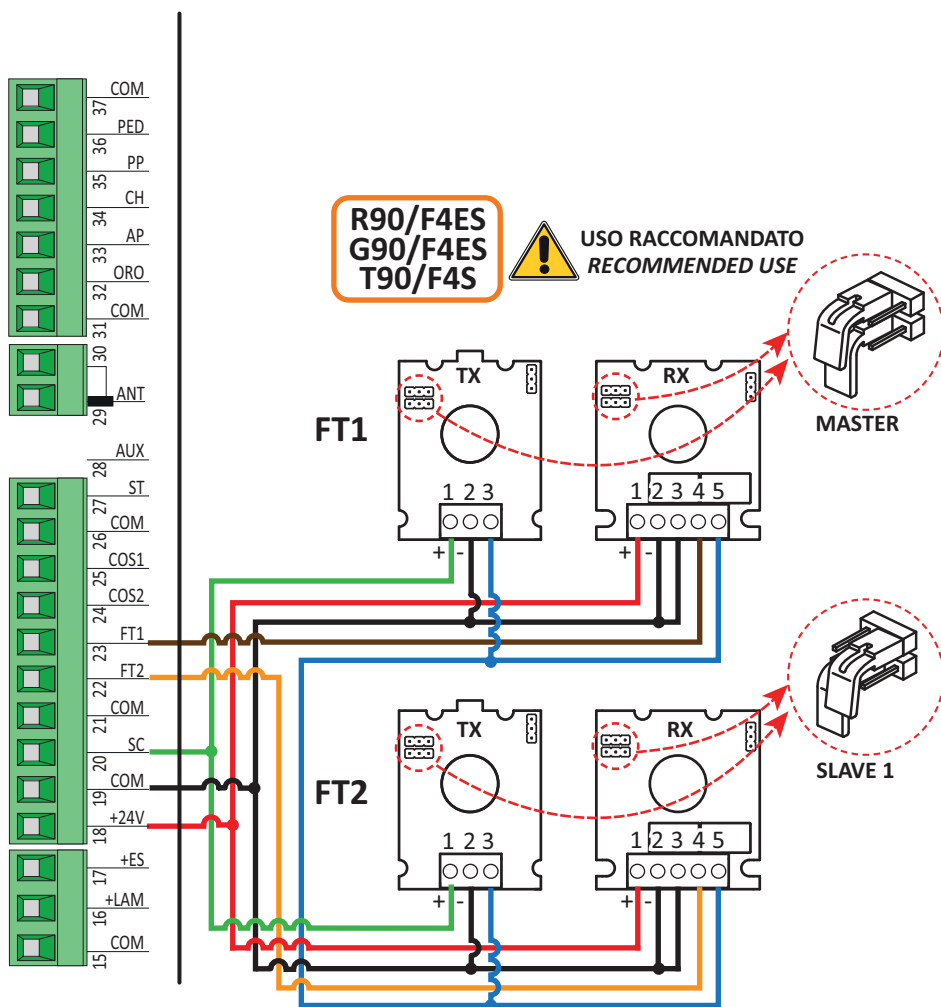
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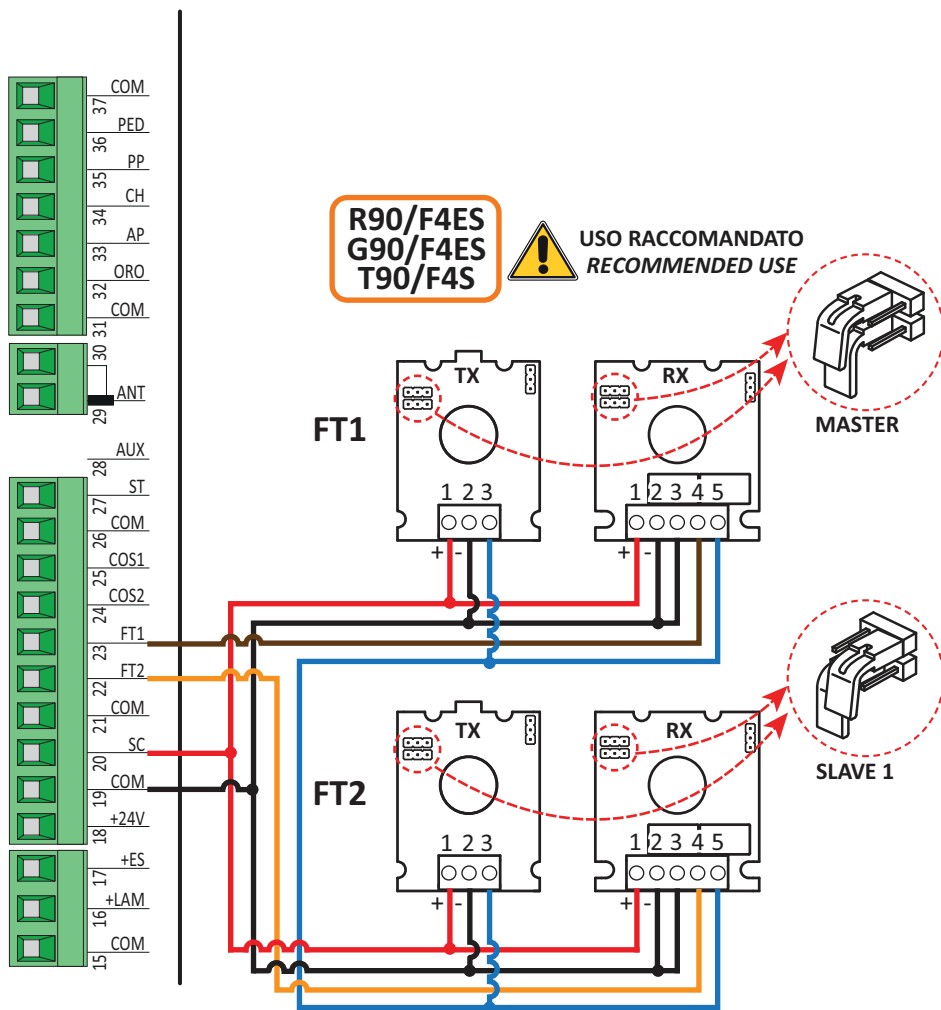




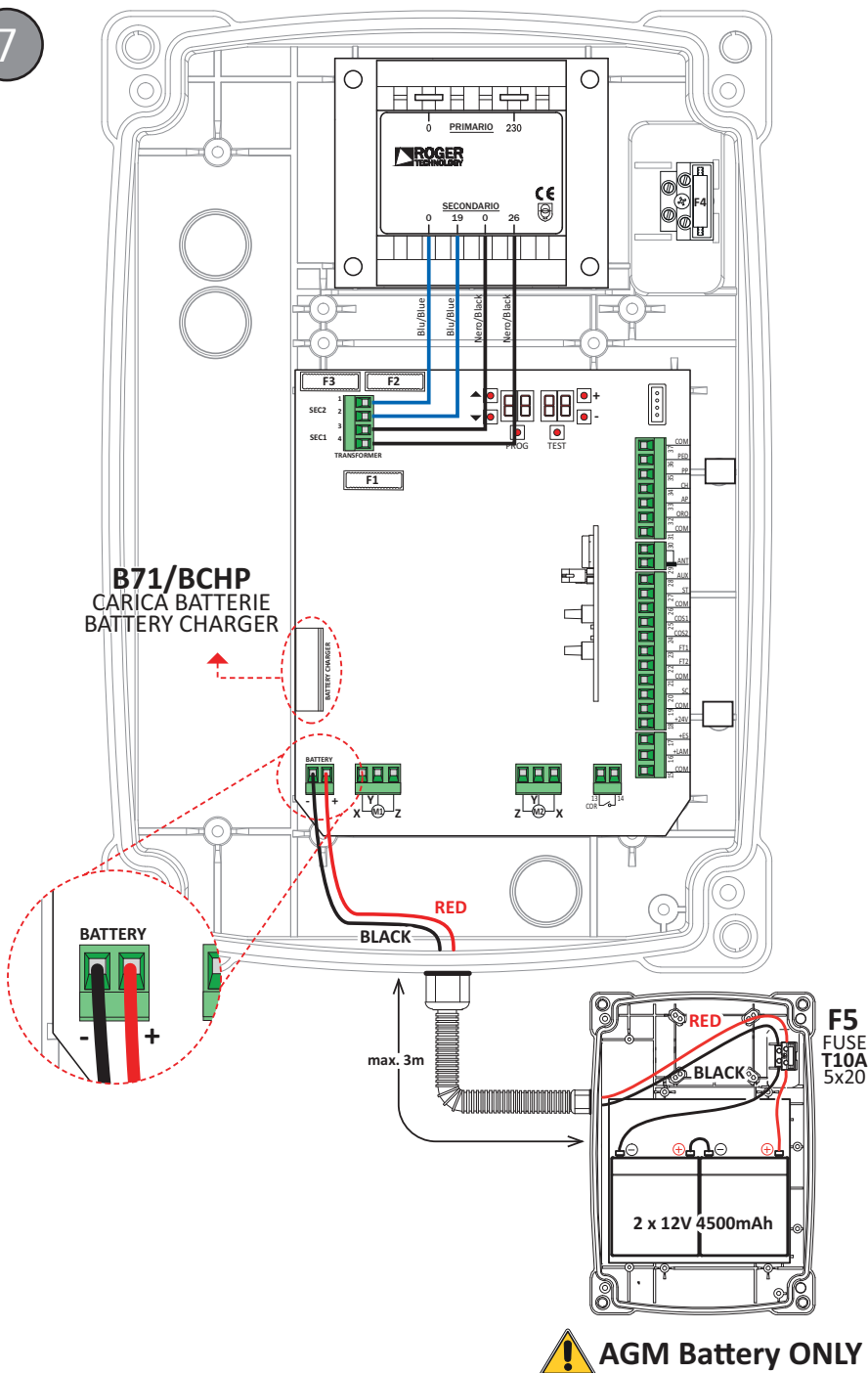


BATTERY SAVING (impostare / set AB 03)

BATTERY SAVING + TEST FOTOCELLULE / PHOTOCELLS TEST
(impostare / set AB 04)



7



View manoeuvre hour counter

The number consists of the values of the parameters from $h0$ to $h1$.

N.B.: The values shown in the table are indicative only.

The maintenance alarm is activated when the value exceeds the hour limit set with parameters $B5$ and $B7$ (Example: each 1500 manoeuvre hours).

The message $R55E$ is shown on the display and the flashing light, with motors stop, flashes with a regular duty cycle (1 s on / 4 s off) until system maintenance is performed and the alarm is reset.

Press and hold TEST for 5 s to reset the alarm. The message $R55E$ is displayed, followed by the messages $UPdE$ flashing for 4 seconds: to reset the alarm, hold down the TEST key until $donE$ is displayed.

If the TEST key is released, $RbrE$ appears on the display and the alarm is not reset.

The number of hours is saved by the control unit and the counter restarts.

If the value $H0=99$ $H1=90$ is exceeded (9990 hours of operation) the maintenance alarm is no longer managed.

$h0$ 01

Manoeuvre hours.

$h1$ 23

Example: 01 23 = 123 hours.

View control unit days on counter

The number consists of the values of the parameters from $d0$ to $d1$.

N.B.: The values shown in the table are indicative only.

$d0$ 01

Days with unit switched on.

$d1$ 23

Example: 01 23 = 123 days.

Password

Setting a password prevents unauthorised persons from accessing the settings.

With password protection active ($CP=01$), parameters may be viewed, but the values CANNOT be modified.

Only a single password is used to control access to the gate automation system.

WARNING: Contact the Technical Support Service if you lose your password.

$P1$ 00

$P2$ 00

$P3$ 00

$P4$ 00

Password activation procedure:

- Enter the desired values for parameters $P1$, $P2$, $P3$ and $P4$.
- Use the UP ▲ and/or DOWN ▼ buttons to view the parameter CP .
- Press and hold the + and - buttons for 4 seconds.
- The display flashes to confirm that the password has been saved.
- Switch the control unit off and on again. Check that password protection is activated ($CP=01$).

Temporary unlock procedure:

- Enter the password.
- Check that $CP=00$.

Password cancellation procedure:

- Enter the password ($CP=00$).
- Save the values $P1$, $P2$, $P3$, $P4 = 00$
- Use the UP ▲ and/or DOWN ▼ buttons to view the parameter CP .
- Press and hold the + and - buttons for 4 seconds.
- The display flashes to confirm that the password has been cancelled (the values $P1$ 00, $P2$ 00, $P3$ 00 and $P4$ 00 indicate that no password is set).
- Switch the control unit off and on again ($CP=00$).

CP 00

Changing password


00

Protection deactivated.


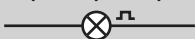






01









Protection activated.

11 Commands and Accessories

 If not installed, safety devices with NC contacts must be jumpered at the COM terminals, or disabled by modifying the parameters **50**, **51**, **53**, **54**, **73** and **74**.

KEY: N.A. (Normally Open) .
N.C. (Normally Closed).

CONTACT	DESCRIPTION
13 (COR) 14 	Output (potential free contact) for connecting courtesy light. 230 Vac 100 W - 24 Vac/dc 40 W (fig. 3).
16(+LAM) 15 (COM) 	Connection for flashing light (24 Vdc - duty cycle 50%) (fig. 2). The settings for the pre-manoeuve flashing warning signal may be selected with parameter R5 , while the flashing mode is set with parameter 7B .
17(+ES) 15 (COM) 	Input for connecting electric lock, 12 Vdc max. 15 W (fig. 2). The function of the electric lock is determined by parameter 29 .
18(+24V) 15 (COM)	Power feed for external devices. See technical characteristics.
20(SC) 19 (COM) 	Connection for gate open indicator lamp. 24 Vdc 3 W (fig. 2). The function of the indicator lamp is determined by parameter AB .
20(SC) 19 (COM) 	Photocell test connection and/or battery saving (fig. 5 and 6). The power feed for the photocell transmitters (TX) may be connected to this. Set the parameter AB 02 to enable the test function. Each time a command is received, the control unit switches the photocells off and on to check that the contact changes state correctly. Power feeds for all external devices may be connected to reduce battery consumption (if batteries are used). Set AB 03 or AB 04 . WARNING! If contact 20 (SC) is used for the photocell test function or battery saving function, a gate open indicator lamp cannot be connected.
22(FT2) 21 (COM) 	Input (N.C. or 8.2 kOhm) for connecting photocells FT2 (fig. 4-5-6). The photocells FT2 are configured by default with the following settings: <ul style="list-style-type: none"> – 53 00 . Photocell FT2 disabled when gate is opening. – 54 00 . Photocell FT2 disabled when gate is closing. – 55 01 . The gate opens when an open command is received if photocell FT2 is obstructed. – 57 00 . NC (normally closed) incoming contact. If the photocells are not installed, jumper the terminals 21 (COM) - 22 (FT2) or set the parameters 53 00 and 54 00 . WARNING! Use R90/F4ES , G90/F4ES or T90/F4S series photocells.
23(FT1) 21 (COM) 	Input (N.C. or 8.2 kOhm) for connecting photocells FT1 (fig. 4-5-6). The photocells FT1 are configured by default with the following settings: <ul style="list-style-type: none"> – 50 00 . Photocell triggers only during gate closure. Photocell is ignored during gate opening. – 51 02 . Movement is reversed if the photocell is triggered during gate closure. – 52 01 . The gate opens when an open command is received if photocell FT1 is obstructed. – 57 00 . NC (normally closed) incoming contact. If the photocells are not installed, jumper the terminals 23 (FT1) - 21 (COM) or set the parameters 50 00 and 51 02 . WARNING! Use R90/F4ES , G90/F4ES or T90/F4S series photocells.
24(COS2) 26 (COM) 	Input (NC or 8 kOhm) for connecting sensing edge COS2 . The sensing edge is configured by default with the following settings: <ul style="list-style-type: none"> – 74 00 . The sensing edge COS2 (NC contact) is disabled. If the sensing edge is not installed, jumper the terminals 24 (COS2) - 26 (COM) or set the parameter 74 00 .

CONTACT	DESCRIPTION
25(COS1) 26(COM) 	Input (NC or 8 kOhm) for connecting sensing edge COS1 (fig. 2). The sensing edge is configured by default with the following settings: – 73 03. If the sensing edge COS1 (NC contact) is enabled, the gate always reverses. If the sensing edge is not installed, jumper the terminals 25(COS1) - 26(COM) or set the parameter 73 00.
27(ST) 26(COM) 	STOP command input (N.C. or 8.2 kOhm). The current manoeuvre is arrested if the safety contact opens. N.B.: the controller is supplied with this contact already jumpered by ROGER TECHNOLOGY. – The contact is configured by default with the following settings: 57 00. (normally closed) incoming contact.
29 (ANT) 30 	Antenna connector for slot-in radio receiver board. Use RG58 if an external antenna is used; maximum recommended length: 10 m. N.B.: do not make joints in cable.
32(ORO) 31(COM) 	Clock timer contact input (N.O.). When the clock function is active, the gate opens and remains open. At the end of the programmed time set with the external device (clock), the gate closes.
33(AP) 37(COM) 	Open control signal input (N.O.).
34(CH) 37(COM) 	Close command input (N.O.).
35(PP) 37(COM) 	Step by step mode command input (N.O.). The function of the control is determined by parameter P4.
36(PED) 37(COM) 	Partial open control signal input (N.O.). On double leaf gate automation systems, by default, the partial opening command opens LEAF 1 completely. With single leaf swing gate installations, by default, partial opening is 50% of total opening.
ABSOLUTE ENCODER (SMARTY EMA)	Absolute encoder installed on SMARTY Series motors (see fig. 8). During travel acquisition, the encoder reading is acquired in the completely open and completely closed positions. During normal operation, the encoder reading is acquired at each motor start, except in the case of direction inversion due to activation of the sensing edge, the obstacle detection system or the photocells, or requested by the user with a command. N.B.: The absolute encoder is connected in parallel with the motor phases. Normally, the encoder will emit a short audible signal (whistle). If no audible signal is heard, the encoder may be disconnected, absent or damaged. For SMARTY REVERSIBLE : the encoder is already assembled and installed in the factory by ROGER TECHNOLOGY. For SMARTY IRREVERSIBLE : product code SMARTY/EMA is available for installing the encoder on the motor. Enable the encoder with the parameter 71 01 and perform the travel acquisition procedure.
RECEIVER CARD	Connector for plug-in radio receiver board. The control unit has two radio remote control functions by default: – PR1 - step mode command (modifiable with parameter 75). – PR2 - partial opening command (modifiable with parameter 77).

CONTACT	DESCRIPTION
BATTERY CHARGER B71/BCHP	(Fig. 7) In the event of a mains power loss, the control unit is powered by the batteries. When battery power is used, <i>bAtE</i> is shown on the display and the flashing light flashes briefly at intervals until mains power is restored or until the battery voltage drops below the minimum permissible limit. In this case, <i>bEL</i> (Battery Low) is shown on the display and the control unit accepts no commands. If mains power is lost while the gate is moving, the gate stops and then automatically resumes the interrupted manoeuvre after 2 seconds.
BATTERY KIT 2x12 Vdc 4,5 Ah (B71/BCHP/EXT)	N.B: in battery power mode, a fixed delay time of 1.5 s is applied even if delay times are disabled with parameters 25 and 26. To reduce battery consumption, the positive power feed wire of the photocell transmitters and receiver may be connected to terminal SC (see fig. 5-6). Set <i>AB</i> 03 or <i>AB</i> 04. In this configuration, the control unit disconnects power from the accessory devices when the gate is completely open or completely closed.
Only AGM type	WARNING! the batteries must always be connected to the electronic control unit in order to charge. Periodically (at least every 6 months), check that the batteries are in good working order.
	For more information, refer to the installation manual for the B71/BCHP battery charger.

12 Safety input and command status (TEST mode)

With no currently active commands, press the TEST button and check the following:

DISPLAY	POSSIBLE CAUSE	ACTION BY SOFTWARE	PHYSICAL CORRECTIVE ACTION
<i>BB</i> 27	The safety STOP contact is open. Incorrect setting of parameter 57.	Check that parameter 57 is set correctly	Install a STOP button (NC) or jumper the ST contact with the COM contact.
<i>BB</i> 25	Sensing edge COS1 not connected or incorrectly connected.	Set the parameter 73 00 if not used or to disable.	Jumper contact COS1 with contact COM , if not used or to disable
<i>BB</i> 24	Sensing edge COS2 not connected or incorrectly connected.	Set the parameter 74 00 if not used or to disable.	Jumper contact COS2 with contact COM , if not used or to disable.
<i>BB</i> 23	Photocell FT1 not connected or incorrectly connected. Incorrect setting of parameter 57.	Set the parameter 50 00 e 51 00 if not used or to disable.	Jumper contact FT1 with contact COM , if not used or to disable. Check connection referring to relative connection diagram (figure 4).
<i>BB</i> 22	Photocell FT2 not connected or incorrectly connected. Incorrect setting of parameter 57.	Set the parameter 53 00 e 54 00 if not used or to disable.	Jumper contact FT2 with contact COM , if not used or to disable. Check connection referring to relative connection diagram (figure 4).
<i>PP</i> 00	If occurs with no voluntary command, the contact (N.O.) may be faulty or one of the buttons may be incorrectly connected.	-	Check PP - COM contacts and connections to buttons.
<i>CH</i> 00		-	Check CH - COM contacts and connections to buttons.
<i>AP</i> 00		-	Check AP - COM contacts and connections to buttons.
<i>PE</i> 00		-	Check PED - COM contacts and connections to buttons.
<i>Or</i> 00	If occurs with no command, the contact (N.O.) may be faulty or the timer may be incorrectly connected.	-	Check ORO - COM contacts. Contact must not be jumpered if not used.

N.B: press TEST to exit TEST mode.

We recommend troubleshooting safety device and input status errors with "corrective action by software" only.

13 Alarms and faults

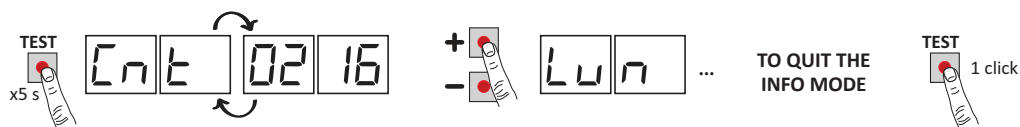
PROBLEM	ALARM	POSSIBLE CAUSE	ACTION
The gate does not open or close.	POWER LED off	No power.	Check power cable.
	POWER LED off	Fuses blown.	Replace fuse. Always disconnect from mains power before removing fuses.
	OF St	Input mains power voltage fault. Control initialisation failed.	Disconnect from mains power, wait 10 seconds then reconnect to the mains and switch on. We recommend replacing the control unit if the problem persists.
	Pr Ot	Overcurrent detected in inverter.	Press the TEST button twice or perform 3 command requests in succession.
	SECO	Incorrect connection between SEC1 and SEC2 of the transformer.	Swap the connection between SEC1 and SEC2.
	dAtA	Incorrect travel length values.	Press the TEST button and check the safety device/s in alarm state and the connections of the safety devices. Check that the mechanical stops of MOTOR 1 and MOTOR 2 are positioned correctly. Repeat acquisition procedure.
		Parameter 71 modified	The error message <i>dAtA</i> is shown on the display whenever this parameter is modified. Press PROG and repeat the acquisition procedure.
	Not 1	Motor 1 not connected.	Check the motor cable.
	Not 2	Motor 2 not connected.	Check the motor cable.
	FUSE	Fuse F1 blown or damaged. This message is not visible if controller is in battery power mode.	Replace fuse. Always disconnect from mains power before removing and refitting fuses.
	Example: 15 EE 21 EE	Configuration parameter error.	Set configuration value correctly and save.
	En 11	MOTOR 1 encoder not responding, absent or faulty.	Check encoder connection. Replacing the encoder is recommended if the problem persists.
	En 21	MOTOR 2 encoder not responding, absent or faulty.	Check encoder connection. Replacing the encoder is recommended if the problem persists.
	En 12	Communication error between controller and MOTOR 1 encoder.	Check connection of MOTOR 1.
	En 22	Communication error between controller and MOTOR 2 encoder.	Check connection of MOTOR 2.
	En 13	Minor malfunction of MOTOR 1 encoder.	Check connection of MOTOR 1. Check power voltage of controller.
	En 23	Minor malfunction of MOTOR 2 encoder.	Check connection of MOTOR 2. Check power voltage of controller.
	En 14	Encoder MOTOR 1 encoder magnet malfunction. Severe encoder error.	Replacing the encoder is recommended if the problem persists.
	En 24	Encoder MOTOR 2 encoder magnet malfunction. Severe encoder error.	Replacing the encoder is recommended if the problem persists.
	En 15	Position detected of MOTOR 1 incongruent with travel length.	Repeat acquisition procedure. Replacing the encoder is recommended if the problem persists.
	En 25	Position detected of MOTOR 2 incongruent with travel length.	Repeat acquisition procedure. Replacing the encoder is recommended if the problem persists.
	bLtLO (btLO)	Flat batteries.	Wait for mains power to be restored.

PROBLEM	ALARM	POSSIBLE CAUSE	ACTION
Acquisition procedure does not complete correctly.	<i>AP P.E</i>	TEST button pressed accidentally. Safety devices in alarm state.	Repeat acquisition procedure. Press the TEST button and check the safety device/s in alarm state and the connections of the safety devices.
		Excessive voltage drop.	Repeat acquisition procedure. Check mains voltage.
Acquisition procedure does not complete correctly.	<i>AP PL</i>	Travel length error.	Move gate into completely closed position and repeat the procedure.
Remote control has limited range and does not work while automated gate is moving.	-	The radio transmission is impeded by metal structures and reinforced concrete walls.	Install the antenna.
	-	Flat batteries.	Replace the transmitter batteries.
The flashing light is not working.	-	Bulb / LED blown or flashing light wires disconnected.	Check LED circuit and/or connector wires.
With gate stops, the flashing light flashes with a regular duty cycle (1 s on / 4 s off).	<i>ASSt</i> (ASSt)	Maintenance alarm.	Perform a maintenance programm. Press and hold TEST for 5 s to reset the alarm. The message <i>ASSt</i> is displayed, followed by the messages <i>UPdt</i> flashing for 4 seconds: to reset the alarm, hold down the TEST key until <i>donE</i> is displayed. If the TEST key is released, <i>AbtE</i> appears on the display and the alarm is not reset. The manoeuvre counter resets.
Message <i>POS</i> together with audible warning signal.	<i>POS 1</i> (POS1)	Notification that MOTOR 1 position reading is in progress.	At start of each manoeuvre, the control unit acquires the position of MOTOR 1. If the position is not read successfully, the message <i>En 1</i> is shown on the display.
	<i>POS2</i> (POS2)	Notification that MOTOR 2 position reading is in progress.	At start of each manoeuvre, the control unit acquires the position of MOTOR 2. If the position is not read successfully, the message <i>En2</i> is shown on the display.
Gate open indicator lamp does not work.	-	Bulb blown or wires disconnected.	Check the bulb and/or wires.
Gate does not perform desired manoeuvre.	-	Motor leads crossed.	Swap two wires on terminal X-Y-Z or Z-Y-X.

N.B.: Press the TEST button to temporarily cancel the alarm.

The next time a command is received, the alarm reappears on the display if the problem has not been resolved.

14 Procedural verifications - INFO Mode



INFO mode may be used to view certain parameters measured by the **EDGE1** controller.

Press and hold the **TEST** button for 5 seconds from the “View command signals and safety devices” mode with the motor stationary. The control unit displays the following parameters and the corresponding measured values in sequence:

Parameter	Function
<i>P3.00</i>	View for 3 s the firmware version of the control unit.
<i>Cnt 1</i> <i>Cnt 2</i>	Displays the position of MOTOR 1 / MOTOR 2, expressed in revolutions and relative to total length, at the time of the test.
<i>Lun 1</i> <i>Lun 2</i>	View total length of MOTOR 1/ MOTOR 2 programmed travel , in motor revolutions.
<i>rPn 1</i> <i>rPn 2</i>	View MOTOR 1 /MOTOR 2 speed, in revolutions per minute (RPM).
<i>ANP 1</i> <i>ANP 2</i>	View current absorption of MOTOR 1/MOTOR 2, in Amperes (e.g.: 001.1 = 1,1 A 016.5 = 16,5 A). If the MOTOR 1 / MOTOR 2 is stationary, the current absorption value is 0. Activate a command function to test current absorption.
<i>bUS</i>	System OK indicator. To check for overloading (e.g.: too many utilities connected to 24 V output) or if the mains voltage is too low, compare the parameters read with values indicated as follows with the motor stationary: mains voltage= 230 Vac (nominal), bUS= 37.6 mains voltage= 207 Vac (-10%), bUS= 33.6 mains voltage= 253 Vac (+10%), bUS= 41.6
<i>CNP 1</i> <i>CNP 2</i>	Display current, expressed in Amperes, used to compensate for strain detected by MOTOR 1 / MOTOR 2 due, for example, to low external temperatures (e.g.: 0 = 0 A ... 4 = +3 A). At the beginning of a manoeuvre from the completely open or completely closed position, if the control unit detects a strain higher than the value stored in its memory during the travel acquisition cycle, the controller automatically increases the current delivered to MOTOR 1 / MOTOR 2.
<i>ASC 1</i> <i>ASC 2</i>	Display current threshold, expressed in Amperes, at which the obstacle detection function (crush prevention) of MOTOR 1 / MOTOR 2 is triggered. This value is calculated automatically by the controller in relation to the settings of parameters <i>30</i> , <i>31</i> and <i>32</i> . For the motor to function correctly, <i>ANP</i> must always be lower than the value <i>ASC</i> .
<i>tin 1</i> <i>tin 2</i>	Indicates time taken by motor to detect an obstacle, as set with parameter <i>31/32</i> , in seconds. E.g. 1.000 = 1 s / 0.120 = 0.12 s (120 ms). Ensure that the manoeuvre time is more than 0.3 s.
<i>AbS 1</i> <i>AbS 2</i>	MOTOR 1 / MOTOR 2 status OK indicator. In normal conditions, this value is less than 500. If the value exceeds 2000, the controller disables the motor. A value exceeding 500 indicates that the characteristics of the connection cable are inadequate for the installation or that the connection cable is too long or of inadequate cross section, or may indicate an electrical fault of the brushless motor.
<i>UP</i>	If the control unit is capable of identifying the position of the gate leaf when the test is conducted, the following is shown on the display: <i>UP--</i> position known, normal operation. <i>UP L</i> LEAF 1 position unknown, position recovery in progress. <i>UP I</i> LEAF 2 position unknown, position recovery in progress. <i>UP I2</i> positions of both leaves unknown, position recovery in progress.
<i>OC</i>	Indicates the state of the automation system (open/closed). <i>OC OP</i> automation system opening (motor active). <i>OP CL</i> automation system closing (motor active). <i>OP -O</i> automation system completely open (motor not actives). <i>OP -C</i> automation system completely closed (motor not actives).
<i>UF</i>	<i>UF U</i> mains voltage too low or overload. <i>UF H</i> motors overcurrent.
<i>HOU-</i>	Displays the number of hours remaining before the maintenance alarm is activated. The number is preceded by a – (minus) symbol. If the number of remaining hours is a four figure value, the minus symbol (–) is replaced by a point. Example: -1234 hours remaining until maintenance alarm = .1234 • Pressing ↓ (DOWN arrow): view number of hours of last maintenance service. The first service is indicated as 0.0.0.0. • Pressing ↑ (UP arrow): return to remaining hours display.
<i>bLoc</i>	Displays if the motor brake is active <i>01</i> or not active <i>00</i> .

- If only one motor is connected to the control unit, the parameters relative to “MOTOR 1” only are displayed.
- Use the + / – buttons to scroll through the parameters. When the last parameter in the sequence is reached, press the – button to return through the previous parameters.
- In INFO mode, the automation system may be activated to test operation in real time.
- The two motors may be controlled independently in OPERATOR PRESENT mode, ignoring the error “dARa” and bypassing the safety devices installed (photocells, sensing edges and STOP button) with the exception of the obstacle detection system. MOTOR 1 is controllable when the messages: *Cnt 1*, *rPn 1*, *ANP 1* and *AbS 1* appear on the display.

MOTOR 2 is controllable when the messages CnE2 , $rPN2$, $ANP2$ and $AbS2$ appear on the display.

- Press the ▲ "UP ARROW" and ▼ "DOWN ARROW" respectively to open or close the currently selected motor.
- For safety, the open and close functions are only available in continuous control (operator present) mode: press the button, release within 1 second and then press and hold. The motor stops as soon as the button is released.

WARNING: When testing motor operation, the motor revolutions count (position) remains the same but the gate leaf alignment control function may cause problems. Before exiting INFO, make sure that the gate leaves are correctly aligned.

- Press and hold the TEST button for a few seconds to exit INFO mode.

15 Mechanical release

In the event of power failure, the gate may be unlocked by following the instructions given in the use and maintenance manual of the automation system. On receiving the first command signal after mains power is restored, the control unit starts an opening manoeuvre in position recovery mode (see chapter 16-17).

For **SMARTY REVERSIBLE**: In the event of loss of power or E4 \square \square , the gate may be opened and closed manually without unlocking the motor.

The **SMARTY/EMA** absolute encoder (installed as standard on **SMARTY REVERSIBLE** units and optional on **SMARTY IRREVERSIBLE** units) allows the controller to reacquire the position immediately after each new command signal received.

16 Position recovery mode (BM20-BR20-BH23-BR21)

On receiving the first command signal after a power failure or after detecting an obstacle in the same position three consecutive times, the control unit starts a manoeuvre in position recovery mode.

On receiving a command signal, the gate starts a manoeuvre at low speed. The flashing light flashes with a different duty cycle than normal (3 s on, 1.5 s off).

The control unit recovers the installation data during this procedure. **Warning:** Do not use any controls until the gate has performed a complete manoeuvre for both leaves.

If the gate is released in the completely open or completely closed position with the control unit powered, always return the gate leaves into their original positions before locking the gate release again. The gate will resume normal operation on receipt of the first control command.

WARNING: Releasing the gate in an intermediate position is not recommended, as it may cause the leaf position parameters to be lost (see parameters CnE1 / CnE2 in INFO mode). In this case, a position recovery procedure is necessary.

17 Position recovery mode with absolute encoder (SMARTY Series only)

Upon receipt of the first command after a power failure or after the gate is unlocked, the controller uses the absolute encoder to reacquire the position of the gate leaf immediately.

If the control unit detects that the gate leaves are not positioned correctly, it corrects the error automatically.

For example: if the control unit receives a close request but the gate leaves cannot close, the unit executes a complete open cycle and then closes the leaves after 1 s (even if automatic closure is not enabled) to restore the correct alignment.

Warning: Do not use any controls until the gate has performed a complete manoeuvre for both leaves.

18 Initial testing

- Turn on the power supply.
- Check that the automation system motors rotate in the correct direction. If the leaves do not move correctly, swap any two of the wires on the X-Y-Z terminal.
- Check that all connected controls are working correctly.
- Check travel and deceleration.
- Check that the impact force is correct, in compliance with EN 12453 and EN12445.
- Check that the safety devices are activated correctly.
- If the battery kit is installed, disconnect from mains and check that the batteries are working.
- Disconnect from mains power and disconnect the batteries (if used), then reconnect. Check the correct completion of the position recovery phase when opening and when closing.
- For SMARTY Series automation systems with absolute encoder installed, disconnect and reconnect power. Perform a manoeuvre with the controls and check that the speed and deceleration values are correct. The position recovery manoeuvre is not performed.
- If E4 \square \square (SMARTY REVERSIBLE only), check that the gate leaves are locked when the motors are stopped.

19 Maintenance

Perform scheduled maintenance every 6 months.

Check cleanliness and function.

If the unit contains dirt, moisture, insects or other foreign matter, disconnect from mains power and clean the board and the housing.

Repeat the initial installation test procedure after cleaning.

If any corrosion is found on the printed circuit board, evaluate if it is necessary to replace the board itself.

Check that the battery is in good working order.

20 Disposal



The product may only be uninstalled by qualified technical personnel, following suitable procedures for removing the product correctly and safely. This product consists of numerous different materials. Some of these materials may be recycled, while others must be disposed of correctly at the specific recycling or waste management facilities indicated by local legislation applicable for this category of product.

Do not dispose of this product as domestic refuse. Observe local legislation for differentiated refuse collection, or hand the product over to the vendor when purchasing an equivalent new product.

Local legislation may envisage severe fines for the incorrect disposal of this product.

Warning! Some parts of this product may contain substances that are harmful to the environment or dangerous and which may cause damage to the environment or health risks if disposed of incorrectly.

21 Additional information and contact details

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This instruction manual and the warnings for the installer are given in printed form and included in the box containing the product.

The digital version of this documentation (in PDF format) and all future revisions are available from the reserved area of our website www.rogertechnology.com/B2B, in the section 'Self Service'.

ROGER TECHNOLOGY CUSTOMER SERVICE:

business hours: Monday to Friday
08:00 to 12:00 - 13:30 to 17:30
Telephone no: +39 041 5937023
E-mail: service@rogertechnology.it
Skype: service_rogertechnology

To request support for any problems or for any other queries regarding the automation system, please compile the online form "REPAIRS" in the 'Self Service' area of our website www.rogertechnology.com/B2B.

22 Declaration of Conformity

I the undersigned, as acting legal representative of the manufacturer

Roger Technology - Via Botticelli 8, 31021 Bonisiolo di Mogliano V.to (TV)

hereby DECLARE that the appliance described below:

Description: Controller unit for automatic gates

Model: **EDGE1**

Is conformant with the legal requisites of the following directives:

- 2006/42/EC

- 2004/108 /EU

- 2011/65/EC

and that all the standards and/or technical requirements indicated as follows have been applied:

EN 61000-6-3

EN 61000-6-2

Last two figures of year in which marking was applied **CE 17**.

Place: Mogliano V.to

Date: 01-03-2017

Signature