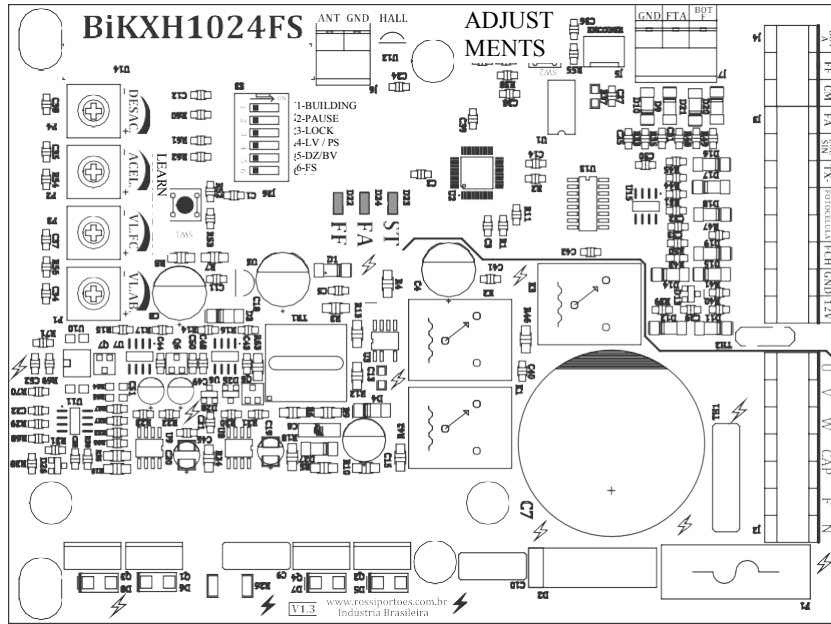


Features

- Automatic source 90V - 240V ~ ac
- Motor with maximum power 520W
- End of stroke sensor HALL and Reed Switch
- Internal memory for 1024 removable buttons
- HCS reception system, anti-cloning
- Frequency of reception 433 Mhz
- Acceleration adjustment
- Deceleration adjustment
- Aperture speed adjustment
- Closing speed adjustment
- Residential and building function
- Automatic electronic clutch
- Clears access key individual code
- Output for traffic light / garage light
- Entry for closing photocell
- Input for opening photocell
- Lock Output
- Adjustable automatic closing
- Opening and closing switch
- Independent closing switch
- Auto reverse function



Layout and Components

N - Neutral / Phase 2
 F - Phase (Electrical Network Input 90 ~ 240VAC)
 CAP - Permanent Capacitor
 U/V/W - Motor wires (U = Common, yellow wire)

12V - Output 12VDC -300mA (for ROSSI accessories)
 GND - Common for 12V Output and Accessories
 FCH - Output for Locking Plate
 PHOTOCCELL - Input Photocell closing - RX TX (-) - Negative Photocell FS
 SIN LIGHT - Traffic Light / Garage
 Light FA - End of opening stroke
 CM - Common for Ends of Strokes and FF
 Switch - Closing End of Stroke
 BOT_A - Opening Switch

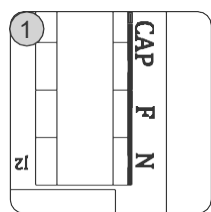
GND - Common for Opening Photocell and FTA Closing Switch - Opening Photocell
 BOT_F - Closing Switch

GND - Coaxial Cable Mesh for External Antenna
 ANT - Coaxial Cable Core for External Antenna / Internal Antenna Wire
 ADJUSTMENTS - Functional Settings Button / Path Recognition LEARN - Learn / Delete Remote Control Button
 ST - Led Event Indicator
 FA - Green Led Open gate indicator
 FF - Red Led Closed Gate Indicator

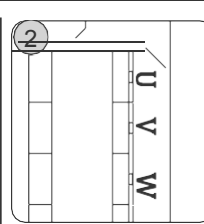
DIP-1 BUILDING- Building= ON / Residential = OFF
 DIP-2 PAUSE - Auto Lock Enabled = ON / Disabled = OFF DIP-3 LOCK - Lock / Lock Enabled = ON / Disabled = OFF DIP-4 LV / PS - Heavy Gate = ON / Light Gate = OFF
 DIP-5 DZ / BV - Vertical Tilting= ON / Slider = OFF
 DIP-6 FS - Fail Safe Function Enabled = ON / Disabled = OFF

ACEL - Acceleration setting DECEL- Deceleration adjustment
 VL.AB - Gate opening speed adjustment. VL.FC - Gate closing speed adjustment.

Installatio

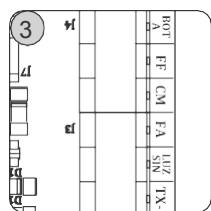


N / F - Input 90 ~ 240VAC
 Voltage input already intercepted by a 10A bipolar circuit breaker and grounding the equipment.
CAP -Permanent Capacitor
 Capacitor according to the motor power, the wires have no polarity.



U - V - W - Motor Wires
Note: Motor with maximum power up to 520W
 The motor has 3 wires. The common (check label on the motor) usually the yellow one must be connected to the U output.
 The outputs V and W determine the motor rotation direction (right - left).

To do this test, leave the gate in the middle of the path (far from the end of the course) and press, the LED FF or FA will flash indicating the direction of rotation of closing or opening.



Ends of stroke:
 The control unit automatically understands the two end-of-course systems, by contact (reed) and/or hall without programming.
NOTE: You should always use your own magnet for hall sensor Ends of Stroke Reed CM-FA-FF
 Randomly pick one end of each row of each end of stroke sensor and one forming a common one.
 The other two ends will be FF (closed) and FA (open). Connect the wires to the respective terminals FF, FA and CM (common).
 Observe the ends of stroke position on the drive so that the closed gate illuminates the red LED FF, and when the green LED FA is opened, it will light up.

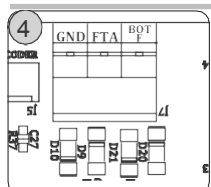
Sensor Hall End of Stroke

The hall sensor identifies the polarity of the magnets, north and south. Before fixing the magnets, identify the FA and FF by moving the magnet on the rack until it passes in front of the hall sensor that will light the green led FA or red FF. (If both magnets light up the same led, reverse the position of the magnet that does not match the chosen Open or Closed side.)

BOT_A/GND, The Opening Button consists of installing a buzzer (bell type) button on the terminal (BOT_A) of the control panel, interconnecting a receiver or an external control system.

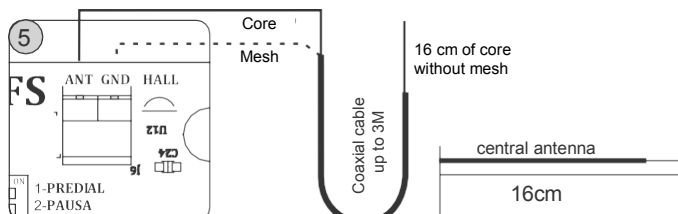
SIN -GND - Traffic light consists of interconnecting a traffic light with the central gate using the terminals SIN and GND.

LIGHT -GND - Garage light. to interconnect garage LIGHT accessory board, using the bornes LIGHT and GND.



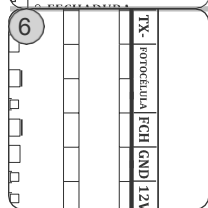
BOT_A/GND, The Opening Button consists of installing a buzzer (bell type) button on the terminal (BOT_A) of the control panel, interconnecting a receiver or an external control system. The single door closing function is activated after pressing and **releasing** the button.
Note: The Switch is used for manual activation in booths, activation by the intercom or possible need for remote activation by external button.
 With SETUP to 1X (default function), BUTTON functions as "open-close" and BOT F only stops and closes.
 With SETUP to 2X the BUTTON only opens and BOT F only closes after releasing the button of the switch.

FTA - Photocell opening
 Photocell must be turned on in Normally NA (Normally Open) mode it only acts on the opening control not reversing the gate.



GND/ANT

Frequency reception antenna, connects the strpped part of the 16cm wire to the ANT borne.
 If you need more range, connect a 2m coaxial cable to the antenna input.
 - At the top of the cable you should find the core at 16cm.
 In the connection part with the control board you must put the core in ANT borne and the mesh in GND, as in the design of the control panel.



CLOSING PHOTOCELL

Photocell FAIL SAFE function. (Dip 6 to ON) with each operating cycle the photocell is checked. Photocell must be switched on in Normally Closed (NF) mode, connect the photocell 's GND to the "TX-" borner of the control panel.

Wiring diagram WITHOUT FS function

Connection mode compatible with the previous central units or with the Fail Safe function DISABLED (Dip 6 OFF)

The photocell must be switched on in Normally Open mode (NO)

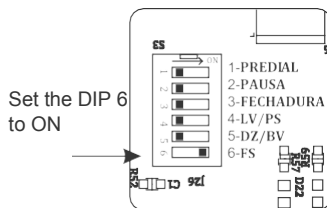
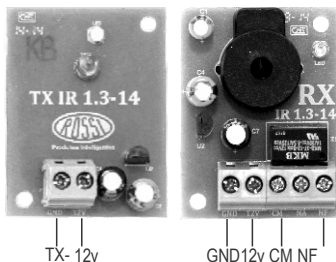
- It must be at the same height and in the same alignment, ideal height for installation in gates is 50cm.
- Installation should be done as close as possible to the gate.
- Certification is only valid with the use of ROSSI approved photocells: SIA 30 FS

NOTE: In the path recognition process, the barrier sensor is disabled.

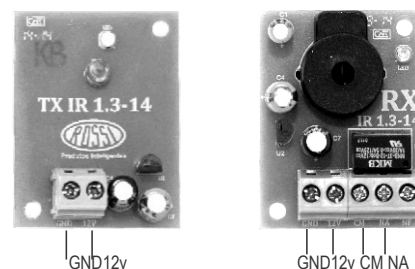
SIA 30 FS.

- Connect the GND of the photocell TX to the central TX-borne

Photocell connection - FAIL SAFE

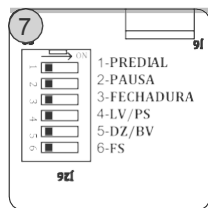


Wiring diagram WITHOUT FS function



Photocell FAIL SAFE function.

The photocell must be switched on in Normally Closed (NF)



Enable DIP functions - To enable the switch to ON position

1- Building - All controls open the gate, that only closes by automatic closing, which will only stop at the open limit, if there is another control during the opening, central will ignore. After the gate reaches the open limit switch it will start the automatic closing time count, the gate will only close after the scheduled time elapses. If there is a remote control or BOT switch, the time will be reset and the count will start again. If the gate is closing, any control will make the gate stop and open again.

Using the BOT F it is possible to close the gate before the break time after **releasing** the contact.

(Note: In building mode the automatic closing is enabled automatically, just adjust the time in the 1st control.)

Residential - Accepts all control and switch commands (1st - control opens, 2nd - to, 3rd - closes).

Using BOT F it is possible to stop and close the gate after **releasing** the contact.

2 - Automatic closing (Pause)

Set the pause switch to ON position and give the opening command. When the open limit switch (FA) is reached, the ST LED will start flashing in 1-second intervals, allow the desired time to elapse for the pause value and give the control again. Each flashing indicates 1 second elapsed until 12h (E.g. If the LED blinks 20 times, the pause time will be 20 seconds. After this operation is completed, the pause will be programmed, every opening that occurs and elapses in the programmed time will automatically close the gate.)

To disable this feature, simply put the pause switch in the OFF position. In the next control the pause will be disabled. (for this setting type, it is of utmost importance, for the user safety, to use barrier sensors 'SIA 30 FS'.)

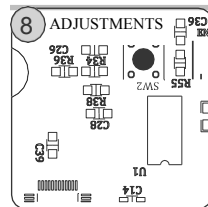
3 - Closure

The lock programming when enabled causes the control panel, after receiving an opening control, first send a pulse to open the lock and after a few seconds starts opening the gate.

4 - LV/PS - For use in gates considered to be of low weight, consequently of less inertia, leave DIP 4 in OFF, for use in heavier and more inertia gates, leave DIP 4 in ON.

5 - DZ/BV - For use in sliding gates leave DIP 5 in OFF, for use in Tilting gates let DIP 5 ON.

6 - FS - To enable FAIL SAFE function, set the DIP to ON; To maintain compatibility with previous versions, leave DIP 6 OFF (If this process is done with the central unit switched on, you must remove the power from the control panel and wait 10 seconds to restart)



ADJUSTMENTS

Press and release the SET button at intervals of less than 1 sec. according to the desired program.

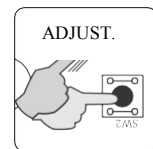
1x - BOT A works as "open-close" exactly as on today's KXH cards and BOT F only stops and closes.

2x - BOT A only to open, and BOT_F only to close after **releasing** the contact.

3x - Disables auto-reverse mode in residential mode

4x - Enables the auto reverse mode of the lock in residential mode, after a command by the button or remote control the gate stops and returns to open even in residential mode.

9x - Set all the settings to factory default, including default. Note: Do not erase the controls.



TRIMPOT SETTING

DECEL. - DECELERATION ADJUSTMENT
 This command will act on the deceleration ramp before the stroke end (the higher the trimpot setting, the lower the ramp).

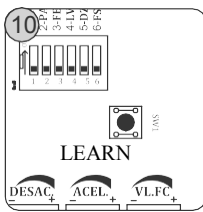
ACCEL. - ACCELERATION ADJUSTMENT
 This control will act on the acceleration ramp at the gate start (the higher the trimpot setting, the lower the ramp).

VL.FC - CLOSING SPEED
 With this control it is possible to separately control the closing speed

VL.AB - OPENING SPEED
 With this control it is possible to separately control the opening speed

NOTE: The setting value is not changed during door movement, only after a complete opening and closing cycle.

RECORD REMOTE CONTROL



Recording of access key:

- Press and release the learn button on the control panel;
- With the **ST LED** lit, pressing one of the control buttons at the end of the recording will blink and go off, indicating that the programming has been accepted.
- Repeat the process to record other buttons.

Deleting individual buttons:

This feature allows you to erase the encoding from the central memory, regardless of key code, without affecting others. For this, the access key must be in hand to perform this procedure.

Hold down learn while pressing the key switch you want to delete.

Note : This operation can not exceed the maximum time of 5 seconds.

Erase memory: Press the **LEARN** button and hold until the **ST LED** goes out, with this procedure you delete all recorded codes.

Removable Memory: This control unit contains a removable memory where it can be replaced or removed in case the control unit is damaged. By inserting the memory IC in another control panel the recording of the controls remains recorded. **NOTE**: Check the fitting position of the Memory Ci with the serigraphy of the board.

Getting Started

To get the system started, follow the next 4 steps:

1- Gate

Set DIPS 4 and 5 between LV/PS (light/heavy) and DZ/BV (sliding/tilting) according to your application and record a Rossi control at the control panel.

2- Setup

Press and hold the **SET** button for 5 seconds until the **ST LED** blinks and releases the button, then starts the automatic route recognition process at a slow opening and closing speed.

3- Optimization

After completion of step 2, complete a opening and closing cycle by the remote control, thus completing the process.

4- Regulation

The parameter settings LV/PS, DZ/BV and the trims ACCEL., DECEL., VLFC, VLAB can be done at any time; after the adjustment make a complete opening and closing cycle by the remote control to confirm the setting value, then repeat step 3.

OBS: (VERY IMPORTANT - READ OUT):

1- Until SETUP step 2 is done, the **ST LED** will flash slowly and the speed will be reduced.

2 - Make sure that the magnets are positioned "Sensor Hall End of Stroke" on the sliding line or the "Reed Switch End of Switch" on the tilting and pivoting line, properly identified (FF and FA) before starting the path recognition process ; if you need to move the magnet or Reed, repeat step 2 **Setup**.

3 - The "Photocell" safety device will be inoperative in step 1 and 2.

4 - The Tx controls, button or SET button have priority over the path recognition process. Therefore, if any of these devices are triggered during the recognition process, the system will be interrupted and the process of step 2 **SETUP** must be restarted.

5 - In step 2, if the gate is not in the end of stroke, the plate moves the gate to a stroke end and then completes a full opening and closing cycle 6 - If the magnet

has to be repositioned, it will be necessary to redo the path of step 2 **SETUP**.

7 - The control unit has a thermal protection feature: if it reaches a temperature higher than 80°, the control panel will stop the current cycle and stop with the **ST LED lit and FF, FA blinking** until the temperature decreases.

Fault Search

Failure	Cause	Solutions
Doesn't Speed Up	• The ST LED is flashing slowly, it not done the SETUP process.	<input type="checkbox"/> Do the " Getting Started " process
	<input type="checkbox"/> Speed trimpot setting VL.FC and VL.AB low.	<input type="checkbox"/> Set the trimpot levels VL.FC and VL.AB clockwise
	<input type="checkbox"/> Gate is over max. weight or locked	<input type="checkbox"/> Check the weight limit for the driver and the displacement of the gate
Engine makes noise and doesn't move	<input type="checkbox"/> Motor connected at wrong voltage	<input type="checkbox"/> Insert voltage according to motor label
	<input type="checkbox"/> The starter capacitor is not connected to the central CAP borne	<input type="checkbox"/> Insert starting capacitor according to voltage and motor power
Doesn't start SETUP, FF or FA LED blinking	<input type="checkbox"/> The polarity of the magnet is inverted	<input type="checkbox"/> Correctly position the FA and FF magnets
	<input type="checkbox"/> Wires V and W are inverted	<input type="checkbox"/> Reverse the position of wires V and W
	<input type="checkbox"/> The gate is out of the way limit	<input type="checkbox"/> start the SETUP process with the gate in the middle of the course
Do not end SETUP	<input type="checkbox"/> The polarity of the magnet is inverted	<input type="checkbox"/> Correctly position the FA and FF magnets
	<input type="checkbox"/> Wires V and W are inverted	<input type="checkbox"/> Reverse the position of wires V and W
	<input type="checkbox"/> The buttons on the remote control, SETUP or LEARN were pressed before the process was completed.	• Start the process of SETUP with activation button until finishing
Motor does not turn on: ST LED off	<input type="checkbox"/> Motor with power greater than specified.	<input type="checkbox"/> Check engine power, damaged/wrong capacitor, damaged motor or broken wire.
Engine does not start: led ST lit and FF, FA flashing	<input type="checkbox"/> The temperature of the control panel is higher than 80°	<input type="checkbox"/> Wait until the temperature of the components decreases and check the weight, displacement and gate flow.
Engine does not start: ST periodic flashing LED	• FS function enabled a photocell SIA 30FS not installed correctly	• Check Installation of FS mode in item 6 of the manual.
	<input type="checkbox"/> Photocell SIA 30FS with occupied beam (obstacle)	• Unclog the beam and check wiring
Gate hitting the stopper	<input type="checkbox"/> The position of the limit switch has been changed after SETUP	<input type="checkbox"/> Check the magnets position and carry out the " Getting Started" procedure
	<input type="checkbox"/> The acceleration ramp, deceleration or speeds are high for the application	<input type="checkbox"/> To adjust the trimpot of ACCEL., DECEL., VL.FC, VL.AB



For the safety of people, it is important that all instructions are followed.



Follow each one carefully:

- 1 - The installer must follow all instructions contained in this manual.
- 2 - Keep automatic equipment controls (control buttons, remote control etc.) out of reach of children.
- 3 - Perform control operations from points where the automatic gate is visible.
- 4 - Use remote controls only if you can see the automatic gate.
- 5 - Warning: ROSSI assumes no liability for any damage caused by non-observance, at the time of installation, of safety regulations and laws currently in force. NBR 5410:1997 - ABNT - Associação Brasileira de Normas Técnicas.
- 6 - This manual is intended exclusively for specialized personnel who are aware of the manufacturing criteria and the accident protection devices related to motorized gates and doors.
- 7 - If not provided for the switchboard, install beforehand a bipolar disconnect type switch with a minimum contact opening of 3mm, of a mark which complies with international standards and provide for the **equipment grounding**.
- 8- For cables section, ROSSI recommends using a minimum section of 2.5mm and observing the laws in force in the country.
- 9- Keep this manual for future reference
- 10- This appliance is not intended for use by people (including children) with reduced physical, sensory or mental capacities, or people with lack of experience and knowledge, unless they have received instructions regarding the use of the device or are under the supervision of a person responsible for their safety.
- 11- It is recommended that children be supervised to ensure that they are not playing with the device.
- 12- The installer must provide all information regarding automatic operation, emergency unlocking and deliver the user manual with the appropriate information.
- 13- It is mandatory to use the active infrared sensor - SIA 30 FS, to activate the anti-locking protection system and allow the FS control unit to operate, avoiding collision with obstacles and accidents with people or material goods.
- 14- Before installing the unit, check that the driven part is in good mechanical condition, correctly balanced and opens and closes correctly
- 15- Check the installation frequently to detect imbalances and signs of wear or damage to cables, springs and assembly. Do not use in case of repairs or if adjustment is required.
- 16- Disconnect the equipment from the power when cleaning or maintaining.
- 17- Check if the temperature of the equipment is indicated and where it will be used.
- 18- Product for low flow sliding and tilting residential and condominial.

Warranty term

This product has been designed and manufactured to fully meet the technical specifications described in the booklet that comes with it.

It is IMPORTANT that this term is read, as well as the entire User Manual and the technical specifications of the product and instructions for its correct installation.

INDÚSTRIAS ROSSI ELETROMECÂNICA LTDA, in accordance with Law 8078/90, certifies that the product is in perfect conditions of use and suitable for its intended purpose, ensuring it against any defect in the design, manufacture or quality defect of the material that makes it improper or inappropriate to the use for which it is intended, for a period of one (1) year, including the legal warranty period of 90 days, counted from the issue date of the Invoice to the consumer.

|||UNTRANSLATED_CONTENT_START|||Quando o consumidor se deparar com algum eventual defeito de fabricação dentro do prazo de garantia, deverá entrar em contato com os dados da Nota Fiscal de compra, podendo também localizar no site um distribuidor: <http://www.rossiportoes.com.br/ondeencontrar> para que seja realizada a avaliação do produto.|||UNTRANSLATED_CONTENT_END|||

The warranty will be totally invalid if any of the following situations occurs:

- a) If it is found that the defect is not of manufacture;
- b) If it is found that the defect of the product was caused by misuse or improper use, fortuitous or force majeure (lightning, flooding, flooding, landslides, etc.), a defect in the electrical network.
- c) If it is found that the defect of the product is due to exposure to chemicals,

electromagnetic interference, air pollution, excessive humidity and/or intense heat and cold;

d) If it is found that the product defect was caused by accidents, falls, attacks by pests or agents of nature;

e) If the manufacturing label has been removed from the product;

f) If the product has been violated and/or suffered modifications made by third parties not authorized by INDÚSTRIAS ROSSI ELETROMECÂNICA LTDA;

g) If the product undergoes natural wear, due to failure to follow the instructions for use and maintenance in the User Manual;

h) If it is found that the product's unsatisfactory performance originates from an improper installation, in disagreement with NBR 5410: 1997 - ABNT - Brazilian Association of Technical Standards (Associação Brasileira de Normas Técnicas) and with the instructions accompanying the product, or the electrical network where it is connected (see technical specifications of the equipment)

i) If the product is being used in an application for which it has not been designed or exceeds the maximum operating cycle causing the engine to burn or the wear of internal components;

ATTENTION! The product installation must follow the instructions that accompany the product, under penalty of invalidation of this guarantee. The expenses necessary for the installation, as well as the purchase of materials necessary for the installation, besides optional resources, will be the responsibility of the consumer.

ATTENTION! It is indispensable, under penalty of invalidation of this guarantee, the use of the Active - SIA 30 infrared sensor to activate the anti - locking protection system. The absence of this sensor can lead to collision with obstacles, accidents with

people, animals or property.

ATTENTION! Keep children and pets away from the gate at the time of its operation. ATTENTION! The product has been developed for generic use, not for the specific purpose of each consumer. Therefore, this warranty is limited to meeting the purposes set forth in the User Manual. ATTENTION! If the equipment is defective, immediately seek the technician who installed the equipment through the address and telephone number filled in or stamped on this certificate. INDÚSTRIAS ROSSI ELETROMECÂNICA LTDA, reserves the right at any time to modify and/or introduce improvements to this product without incurring an obligation to do the same for products in stock or already sold.



Customer service:

www.rossiportoes.com.br

Resale Stamp