



CONT-R15

User Manual

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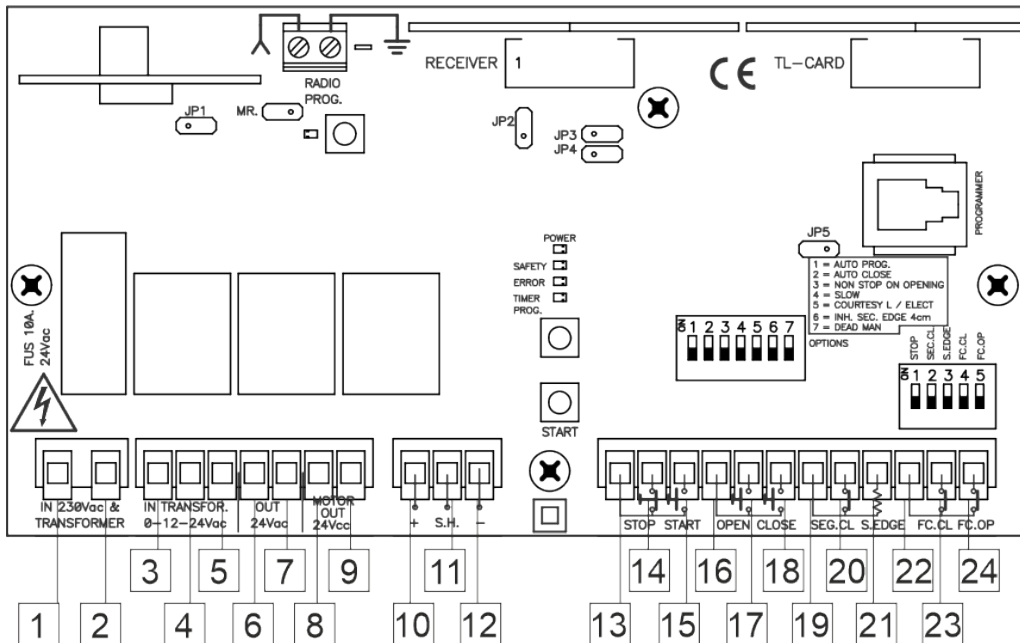
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General description

Control panel for 24 Vdc motors on sectional, swing, folding and sliding doors for residential and communal use.

Basic features:

Self-programming, stoppage by consumption, receiver incorporated pluggable, resistive safety edge input, encoder input (sensor hall), slow-speed start of operations, slow-speed end of operations, connection to portable programmer.



Connection

1	Primary 230V ac Transformer + 230Vac power supply (L)	9	24V dc motor	17	Open (OPEN) (NO)
2	Primary 230V ac Transformer + 230Vac power supply (N)	10	Encoder (+)	18	Close (CLOSE) (NO)
3	Secondary 0V ac Transformer	11	Encoder (S.H.)	19	Common securities
4	Secondary 12V ac Transformer	12	Encoder (-)	20	Close security contact (NC) (SEC.CL)
5	Secondary 24V ac Transformer	13	Common buttons	21	Resistive security edge 8K2 (S.EDGE)
6	24V ac output	14	Stop (STOP) (NC)	22	Common ends of run
7	24V ac output	15	Start (START) (NO)	23	End of run close (NC) (FC.CL)
8	24V dc motor	16	Common buttons	24	End of run open (NC) (FC.OP)

Technical characteristics

Parameter	Value
Panel supply	0-12-24Vac
Transformer	0-12-24Vac / 100VA or 150VA
Receiver	868,35MHz incorporated 15 codes / 433.92 / 868.35 MHz pluggable (depending on version)
Optional cards	Pluggable receiver card (433,92 (bi-channel) / 868,35 MHz) and traffic light card (TL-CARD)
Security device output	24V ac / 400mA
Operating temperature	-20°C to +85°C
Watertightness	IP54
Equipment category	Class II
Base plate size	160x83x27 mm
Box size	225x195x85 mm

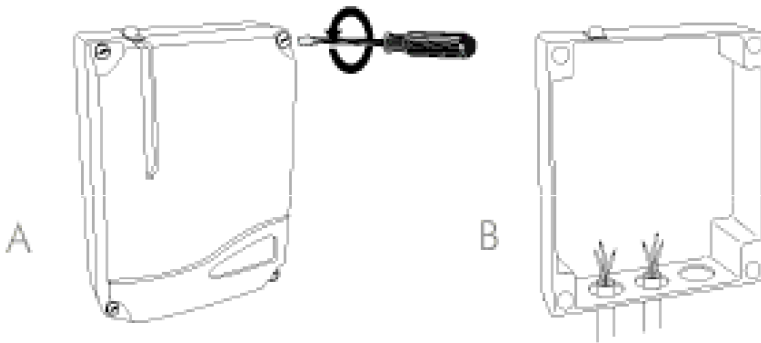
Installation



Disconnect the power supply whenever you proceed to the installation, maintenance or repair of the equipment.

Fitting the casing (only box version)

- Parts: front casing and container box.
- Unscrew the securing points. Insert the cables through the lower holes.



Important considerations for start-up

Where inversions are made, the panel adds time to ensure the door closes.

Any optional cards must be connected to the panel with the power supply disconnected.


Operating

Start	Contact normally open to open and close. First time the button is pressed, it opens; the second time (if it has not reached the end of the run), it stops and the third time it closes. If it is pressed while the door is closing, it will stop and invert the operation
Stop (STOP)	Contact normally closed. This detains the operation on standby for a new order. Where not used, turn option 1 on the input switch to ON
Open (ABR.)	Contact normally open to open. If it is pressed while the door is closing, it will stop and open
Close (CER.)	Contact normally open to close. If it is pressed while the door is closing, it will stop and close
Security contact (SEC.CL)	Contact normally closed, photocell or magnetic detector type. This acts on opening and closing, causing stoppage and inversion. Where not used, turn option 2 on the input switch to ON
Security edges (S.EDGE)	Resistive contact for two parallel resistive security edges. This acts on closing, causing stoppage and inversion. Where not used, turn option 3 on the input switch to ON. Where option 6 of the options switch is turned to ON, the band is inhibited during the last 4 cm of door closure
Ends of run (FC.CL/FC.OP)	Contacts normally closed to mechanically indicate the open and closed end of run. Where not used, turn option 4 or 5 on the input switch to ON
24 Vac output	To power any equipment at a voltage of 24 Vac with a maximum consumption of 400 mA
Encoder input (+, S.H., -)	Allows for an NPN-type encoder (or sensor hall) to be connected at 5 Vdc, necessary for the operation by pulses.necessary for the operation by pulses

Reference search function

If the panel loses power halfway through the operation, on receiving power it goes into reference search mode, in such a way that the door will move until a mechanical stop or the end of the run is reached, with preference given to the opening reference, if it exists. Reference search is indicated by the corresponding flashing of the SAFETY light (see table).

The Aut ref Search parameter (configurable by means of programmer) is selected if the user requires this automatic search or wishes to wait for the START button to be pressed for the reference search.

 **The panel may lose the reference if the power is disconnected halfway through the operation.**

Door operation control function with external clock

By connecting an external clock or timer (normally open) between the common push button terminal (16) and the bridged Open and Close terminals (17 and 18), it is possible to temporize the opening and closing of the door.

Back Jump Function

With this function, the panel causes a small delay in the door at the end of the operation to prevent voltage in the mechanism or to avoid pressure on the safety edge, where applicable. The time of the delay can be defined using advanced programmer parameters.

Option switch

Option No.	Upper position – ON	Lower position - OFF
1 (AUTO PROG)	Self-programming	Manual programming (default option)
2 (AUTO CLOSE.)	Automatic closure	Does not close automatically (default option)
3 (NON STOP ON OPENING)	Does not allow for radio reverse on opening	Allows for radio reverse on opening (default option)
4 (SLOW)	Allows for slow speed (default option)	Does not allow for slow speed
5 (COURTESY L / ELECT)	Garage light comes on (default option). Garage light contact time = Operating time + 30 seconds.	Works like an electro-lock (1.5 seconds before opening)
6 (INH.SEC.EDGE 4cm)	Inhibits the security edge for the last 4 cm of the run	Does not inhibit the security edge (default option)
7 (DEAD MAN)	Dead-man operations	Semi-automatic or automatic operations (default option)

Input switch

Option No.	Upper position – ON (default option)	Lower position - OFF
1 (STOP)	Stop button not connected	Stop button connected
2 (SEC.CL.)	Security Close contact not connected	Security Close contact connected
3 (S.EDGE)	Security edge not connected	Security edge connected
4 (FC.CL.)	End of run close not connected	End of run close connected
5 (FC.OP.)	End of run open not connected	End of run open connected

Light indicators

Function	Indicates	Default status
POWER	Power	Normally on
SAFETY	Operating alert (see table)	Normally off
ERROR	Operating fault (see table)	Normally off
TIMER PROG.	Operation programming mode	Normally off
RADIO PROG.	Radio programming mode	Normally flashing

Option switch bridging

JP1	Integrated radio disconnection (where a pluggable receiver card is used, the cut bridge provides greater range)
JP2	Pedestrian channel disconnection of the pluggable receiver card (where a single-channel RACK+DCS is used, this bridge must be cut)
JP3	Select if the programming is carried out by pulses or by time. With the jumper at ON the panel will be programmed by pulses and with the jumper removed it will be programmed by time.

Current limit level switch jumpers

JP4 at ON	Normal level of current limit
JP4 cut off	High level of current limit

Buttons

START	Start
TIMER PROG.	Start pulse or time programming
RADIO PROG.	Start transmitter programming

Times

Controlling	Minimum	Maximum
Motor operating	3s	10min
Wait for automatic close	3s	10min

Programming

- If stoppage is required during programming, the control panel exits programming automatically for safety reasons.
- Before starting any type of operation programming, the corresponding options must be correctly selected (option switch, input switch and option switch bridging) and the safety elements must be connected, where applicable.
- Operations can be programmed indifferently using the TEST / START button or through a previously programmed transmitter.
- If in programming mode for 30 seconds without programming, the equipment will exit programming mode and the TIMER PROG. led will switch off.

Self-programming

Press the TIMER PROG button to enter programming. The TIMER PROG. led will light up. Use the TEST or the START button or a transmitter to start programming the run. After the button is pressed for the first time, the door will open slowly (if option 4 of the options switch is turned to ON) until a mechanical stop is reached or the Open limit switch is enabled. It will then close until it reaches a mechanical stop or the Close limit switch is enabled. Immediately afterwards, the panel begins to operate, carrying out all of the operations programmed and memorising the consumption of the runs. Once consumption memorising is complete, the TIMER PROG led will switch off.

The panel is programmed with the following fixed parameters: Slow-speed operations are 15 % of total operations, partial opening is equivalent to 2/3 total opening and the automatic closure standby time is 30 seconds (total opening and partial opening).



Where limit switches or mechanical stops are not used on either of the two ends of the door, the START button must be pressed to indicate the limit of the run at the end of the door without the limit switch or mechanical stop.

Manual programming

Press the TIMER PROG button to enter programming. The TIMER PROG. led will light up. Use the TEST or the START button or a transmitter to programme the run. The first time the button is pressed, it opens. After the button is pressed for the second time, the opening movement will slow down (if option 4 of the options switch is turned to ON) until a mechanical stop is reached or the Open limit switch is enabled and the automatic standby timer will begin. The third time it is pressed, it stops the automatic standby timer and closes. After the button is pressed for the fourth time, the closure movement will slow down (if option 4 of the options switch is turned to ON) until a mechanical stop is reached or the Open limit switch is enabled. Immediately afterwards, the panel then begins to operate, carrying out all of the operations programmed and memorising the consumption of the runs. Once consumption memorising is complete, the TIMER PROG led will switch off.



Where limit switches or mechanical stops are not used on either of the two ends of the door, the START button must be pressed to indicate the limit of the run at the end of the door without the limit switch or mechanical stop.

Partial opening programming

In programming, use the second recorded transmitter channel button to programme partial opening. Then programme as required using the steps described above.

Sensitivity programming

The control panel must be installed on the door and the operation programmed correctly to programme sensitivity. Follow the steps below:

1. Press the programming button for more than 10 seconds until the safety led (or error led, depending on the model) flashes.
2. Release the programming button. The safety (or error) led will flash between 1 and 10 times. This is the sensitivity level selected (crush prevention). 1 indicates very sensitive (little crushing force) and 10 indicates very insensitive (a lot of crushing force). See table.
3. On pressing the START button, the sensitivity level will increase by one to give a stronger crushing force. If pressed again on reaching level 10, it will return to level 1.
4. Press the PROG button to exit sensitivity level programming mode.

No. of flashes	Crushing force (sensitivity margin) (approx. percentage)
1	10% (minimum)
2	20%
3	30%
4	40%
5	50%
6	60%
7	70%
8	80%
9	90%
10	100% (maximum)*



*** Attention! It may not detect obstacles in some cases**

Parameter configuration from programmer

There are different parameters that can be configured by portable programmer. Below is a description of the most basic. Refer to the programmer instruction manual for further information.

Operation by Time	Indicates if the panel is programmed to operate by time
Operation by Pulses	Indicates if the panel is programmed to operate by pulses
Oper. counter limit	Indicates / selects the limit number of operations for the panel
Operation counter	Indicates the number of operations made to date
Autoclosing time	Indicates / selects the seconds of automatic standby time
Equip.	Shows an equipment identifier
Low speed starting open	Indicates / selects slow speed at start of opening operation
Low speed starting clos.	Indicates / selects slow speed at start of closing operation
BackJump Open	Indicates / Selects the back jump function for the opening operation
BackJump Close	Indicates / Selects the back jump function for the closing operation
Last 4cm inh. space	Indicates / selects the seconds or pulses equivalent to 4cm of distance for the disabing of the security band
Sec. C. Close	Indicates whether the panel allows for security contact closure
Time-only close	Indicate / select if the door can be time-closed. If the Sec. C. Close parameter is enabled, closure through activation of the security contact is also possible

Receiver operations

Upon receiving a code, the equipment checks whether it is in its memory, activating the corresponding relay.

Manual programming

Normal programming

Press the RADIO PROG programming button for 1 sec. The programming RADIO PROG pilot light will come on and the equipment will emit an acoustic signal. The equipment will enter normal programming. Send the code and the channel to be programmed by pressing the transmitter.

Every time a transmitter is programmed, the equipment will issue an acoustic signal for 0.5 sec. After 10 seconds without programming or by pressing the programming button, the equipment will exit programming mode, issuing two 1 sec. acoustic signals. If, on programming a transmitter, the equipment memory is full, it will issue seven 0.5 sec. acoustic signals and exit programming.

By pressing the transmitter channel, opening and closure is activated in automatic operating mode.

Programming for pedestrian function

In normal programming, press the RADIO PROG programming button again and keep it pressed down until the RADIO PROG pilot light flashes and the equipment emits a short acoustic signal. The equipment will now have entered programming for pedestrian function. Press the required channel of the transmitter to be programmed. The first channel opens and the second closes (3rd channel opens and 4th channel closes).

Every time a transmitter is programmed, the equipment will issue an acoustic signal for 0.5 sec. After 10 seconds without programming or by pressing the programming button, the equipment will exit programming mode, issuing two 1 sec. acoustic signals. If, on programming a transmitter, the equipment memory is full, it will issue seven 0.5 sec. acoustic signals and exit programming.



Each transmitter channel can be configured independently on the equipment, occupying only one memory position.

Programming by radio

To enter programming, press the first two buttons on a transmitter that has already been registered on the equipment. The equipment will issue a 1 sec. acoustic signal. On pressing any button on the new transmitter, the equipment will issue another 1 sec. acoustic signal to indicate that it has been memorised. The new transmitter will maintain the same channel configuration as the transmitter registered.

After 10 seconds without programming or by quickly pressing the programming button or pressing the first two transmitter buttons, the equipment will exit programming mode, issuing two 1 sec. acoustic signals.

Code cancellation (Total reset)

In programming mode, the programming button is held down and the “MR” reset jumper is bridged for 3 secs. The equipment will issue 10 short acoustic warning signals followed by others at a faster pace to indicate that the operation has been successful. The equipment is now in programming mode. The pilot programming light will also follow the acoustic indications by flashing.

After 10 seconds without programming or quickly pressing the programming button, the equipment will exit programming mode, issuing two 1 sec. acoustic signals.

Optional cards

Receiver card 433MHz / 868 MHz

This acts on the panel with transmitters, proximity keys or smart cards in the same way as the start button.

Traffic light card / Flash card (TL-CARD)

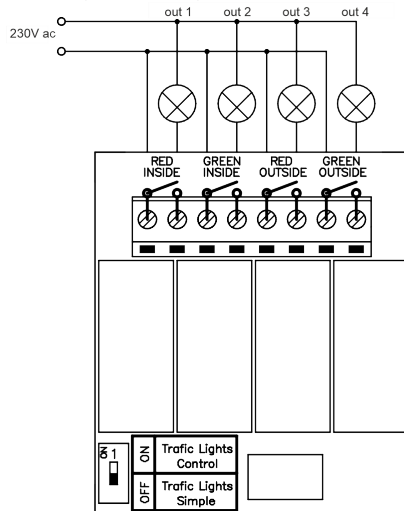
Traffic light card

This carries out two different functions according to the outlets:

Outlet 1	signal
Outlet 2	courtesy light contact; it operates during all the operating time plus 30 seconds. If option 5 of the option switch is turned to OFF, it will carry out the function of an electro-lock
Outlet 3 and 4	traffic lights. Outlet 3 activates the red traffic light that works during door movement. Outlet 4 activates the green traffic light that is only lit when the door is fully open

Flash card

Of door movement through the contact of a relay intermittently activated.



The traffic light selector carries out no function.

Troubleshooting

The following table indicates the possible causes of operating failures in the control panel through the ERROR and SAFETY LEDs.

Code	ERROR led	SAFETY led	Description
255	on	on	Stop enabled
17	1 flash	1 flash	Security band enabled
34	2 flashes	2 flashes	Safety contact enabled
16	off	1 flash	Excess consumption on closure
32	off	2 flashes	Excess consumption on opening
48	off	3 flashes	Panel programmed by times
64	off	4 flashes	Panel not referenced or waiting to start reference search
1	1 flash	off	Security band not connected
2	2 flashes	off	Maximum current limit exceeded
3	3 flashes	off	End of run or programmed reference not reached
4	4 flashes	off	No encoder pulses
5	5 flashes	off	Panel programmed without references
6	6 flashes	off	Internal error

Use of the equipment

This equipment is designed to automate garage doors following the general description. It is not guaranteed for other uses. The manufacturer reserves the right to modify equipment specifications without prior notice.

Regulatory Data

EU Declaration of conformity

JCM TECHNOLOGIES, S.A. hereby declares that the product **CONT-R15** complies with the relevant fundamental requirements of the RED Directive 2014/53/EU, as well as with the Machine Directive 2006/42/EC whenever its usage is foreseen; and with the 2011/65/EU RoHS Directive.

See website www.jcm-tech.com/declarations/

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