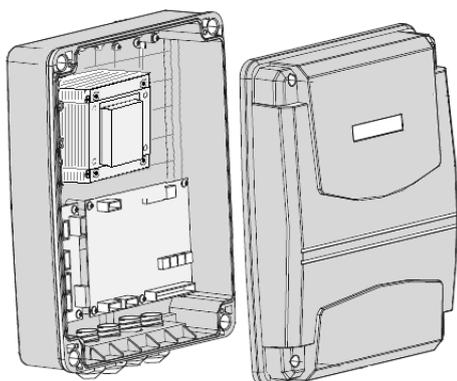


RIO-S installation manual



Double leaf 24V controller

Features

- ✓ Soft start, soft stop
- ✓ Self setting limits
- ✓ Pressure sensitive reversal
- ✓ Rolling code 25 remotes
- ✓ Autoclose & interleaf delay
- ✓ 4 force settings

Specifications

Supply	230Vac 50/60Hz @ 5A
Motors	2x 24Vdc
Aux supply	24Vdc @ 1A
Housing	ABS IP44, 1.8kg
Dimensions	227 x 277 x 108mm
Receiver	433MHz rolling code

1.0 Description

Rio-S is a 24V panel for a light weight double leaf swing gates. There are 2 PCBs and a transformer. Space is reserved for backup batteries.

1.1 Inputs & outputs

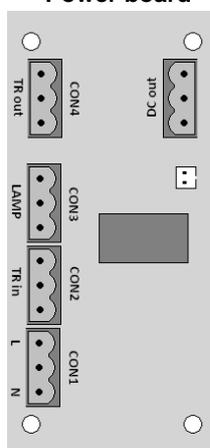
The plug in control connector has 2 safety inputs and 2 control inputs. Control inputs are normally open active low, safety input are normally closed. Open inputs are 5v. All return to common term C

The lock output 'K' & lamp output 'L' are relay contacts switching to +24Vdc. Photobeam supply 'B' switches on when the motor is in motion to conserve power when running on batteries. Output B can be set to 12V or 24V depending on the position of jumper link J1.

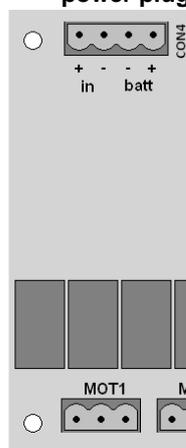
1.2 Terminal functions

- D1)** Full gate opening. Function selected on SW2
6OFF - 4 step auto, open-stop-close-stop
6ON - 2 step auto, open-close function
- D2)** Pedestrian opening opens one leaf.
- F1)** Re-opens the gate during closure. The gate re-closes when the obstacle is removed and following the normal delay or. No action during opening. Delays close if active while open.
- F2)** If activated during opening, the gate stops dead. Stays still until next command. No response while closing.
- M-N)** Motor output. G is protective earth.
- B)** Photobeam supply. On when gate is moving.
- L)** 24Vdc lamp or buzzer output. No flashing is required because the switching is in controller.
- K)** 24Vdc lock output. Pulses the lock for 1 sec before the gate begins to open.
- Con2)** 12Vdc relay output to switch a 230Vac lamp.

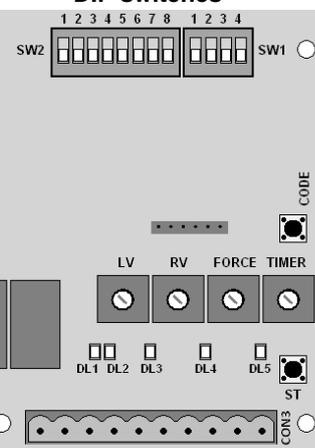
Power board



power plug



DIP switches



Motor connectors

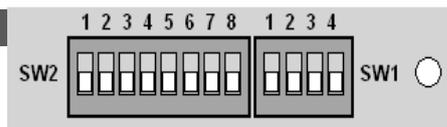


control connector

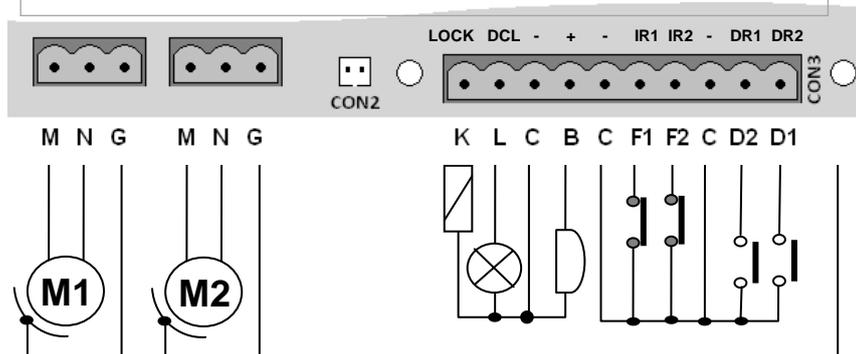


1.3 DIP switches

- SW2** 8 way
- DIP1** Interleaf delay 1 sec
- DIP2** Interleaf delay 2 secs
both on for delay 3 secs
- DIP3** --- not used ---
- DIP4** **OFF**, M1 opens first, **ON** M2 opens first
- DIP5** **OFF** for double leaf, **ON** for single leaf
- DIP6** **OFF** for 4 step auto, **ON** for 2 step auto.
- DIP7** When **ON**, the gate must close fully before a new open signal can be accepted.
- DIP8** Setting limits (release and open fully), turn **DIP8 ON**, use **ST** to close, release then press **ST** to open fully turn **DIP8 OFF**



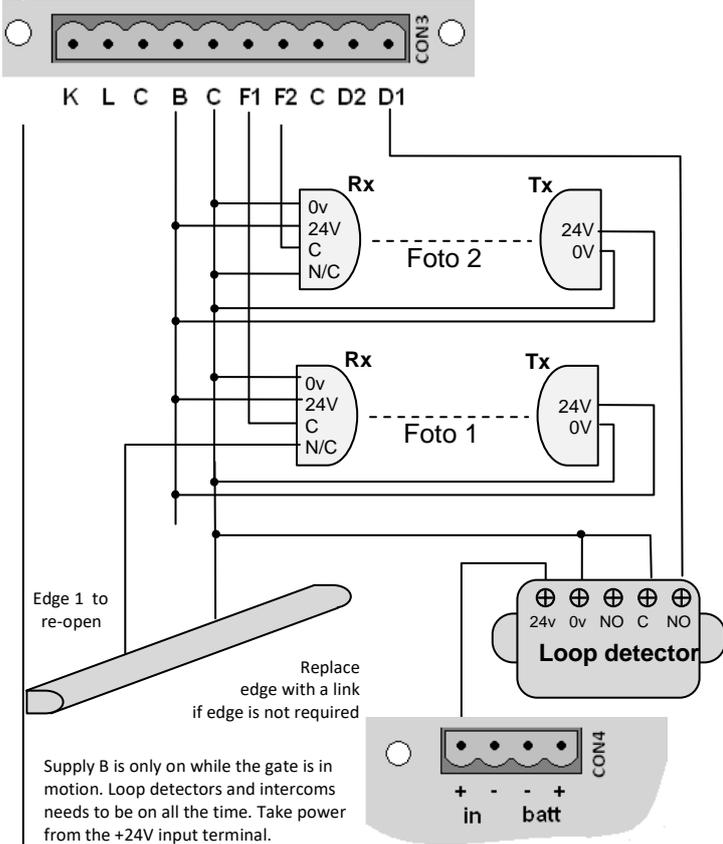
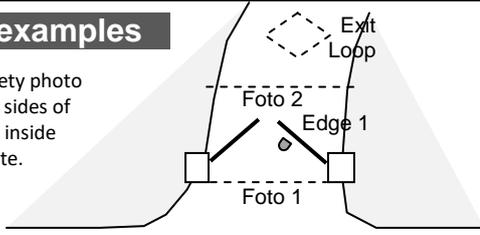
- SW1** auto-close delays add together
- DIP1** + 30 secs
- DIP2** + 60 secs
- DIP3** + 120 secs
- DIP4** code enable



The DC lamp output includes a flasher circuit

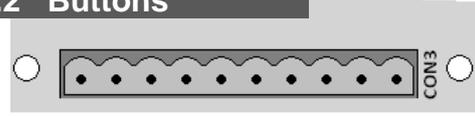
2.1 Safety examples

Scheme shows two safety photo beams protecting both sides of a gate. A loop detector inside is wired to open the gate. One safety edge is on the tip of one gate.

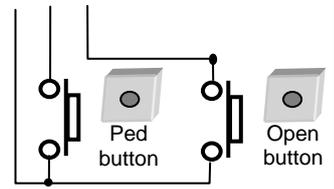


Supply B is only on while the gate is in motion. Loop detectors and intercoms needs to be on all the time. Take power from the +24V input terminal.

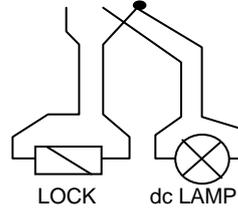
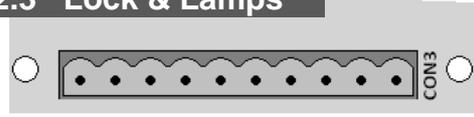
2.2 Buttons



Connect buttons to D inputs. Use these inputs for access controls as well, like keypads or an intercom. The wireless button FR11 and the wireless keypad FA62 are simple to fit.



2.3 Lock & Lamps



Electric gate locks may draw high peak currents. Check minimum cable requirements. We would suggest at least 0.75mm. Lamps are usually less than 1A each, A dc sounder inside the control box is a lamp alternative to provide a gate in motion warning for users.

3.1 Programming remotes

Top remote button is for full opening. Lower button is to open M1 leaf only

Adding



Switch on SW1/4. Press **Code** button for 2 sec. Coding LED DL6 will come on. Press **Code** again. DL6 flashes. Press the new remote top button twice for full opening, or bottom button twice for single leaf opening. Switch off SW1/4.

Deleting

Switch on SW1/4. Press and hold the **Code** for 10 secs. All remotes in memory are now deleted. Switch off SW1/4.

3.2 Settings

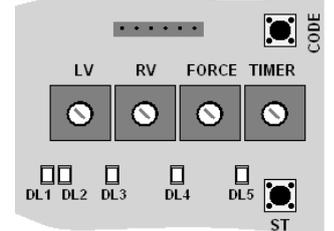
RIO-S has a self setting routine. You will need a coded in remote. Set the 4 adjustments to half way, then set the gates to almost closed. Press the XXXX button to initiate the setting routine. The gates will first close, then they will open. The next remote signal closes.

Adjustments

The 4 adjustments are now set while the gates are run open and closed.

'LV' is the slow down speed. Correctly set, LV is adjusted to decelerate the gate neatly up to the limits or physical stops without banging or wobbling.

'RV' is the mid run speed. Set RV for a smooth acceleration and slow down to the LV point. Be sure to test the immediate stop when a photobeam is interrupted. Heavy gates may damage the motor on immediate stop.



FORCE sets the trip force for the gate to stop and reverse direction. Set the FORCE to lowest setting needed to move gates repeatedly. Clockwise is weaker, CCW stronger.

TIMER is set to cut motor power a few secs after the normal run time, before pressure sensitive reversal.

LEDs indicating in / out states.

- DL1** Lock output
- DL2** F1 input, on is normal
- DL3** F2 input, on is normal
- DL4** D2 input, off is normal
- DL5** D1 input, off is normal

2.4 Universal wiring scheme

This wiring system allocates a wire colour to each gate control function. All gate components are wired together. 8 core alarm cable is recommended.

Core	Function	Terminal
Red	Accessory supply	+in
Black	Supply & input common	C
Yellow	Safety input 1	F1
Orange	Safety input 2	F2
White	Switched accessory supply	B
Green	Open button	D1
Blue	Audio2 or pedestrian input or safety link	
Brown	Audio1 or lock or DC lamp	

We hereby declare, that gate openers F-550 has been manufactured in accordance with the following standards or normative documents

- EN 60335-2-95: 2004
- EN 60335-1/A13: 2008/A2: 2006
- EN 62233: 2008
- EN 61000-3-2: 2006, + A1: 2009 +A2: 2009
- EN 61000-3-3: 2008
- EN 55014-1: 2006 +A1: 2009
- EN 55014-2: 1997 +A1: 2008

Forematic

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Y

base warranty covers defective manufacture and material. The warranty does not cover misuse, or abnormal wear. Warranty is conditional on good installation, maintenance and used in this manual. Warranty is void if subject of unauthorised modification or repair, or abnormal input voltage. This does not affect your statutory rights