

Quick reference



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THE AUTOMATIC CHOICE

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R3/R5 SWING GATE SETUP QUICK REFERENCE GUIDE

FUNCTION / TIMER	FACTORY DEFAULT	MAIN MENU (No. times L1 flashes)	TIME / COUNT (No. times STATUS must flash)	OPTION
AUTOCLOSE	OFF	2	1	ON
		2	2	OFF
AUTOCLOSE TIME	15 SEC	3	1 FLASH = 1 SECOND	
MODE	STANDARD	4	1	STANDARD
		4	2	CONDOMINIUM
		4	3	PIRAC
		4	4	REVERSING
PEDESTRIAN AUTOCLOSE TIME	5 SEC	5	1 FLASH = 1 SECOND	
COURTESY LIGHT TIME	120 SEC	6	1 FLASH = 10 SECONDS	
COLLISION SENSITIVITY	HIGH	7	1	HIGH
		7	2	MEDIUM
		7	3	LOW
AUTOCLOSE OVERRIDE	3 SEC	8	1 FLASH = 1 SECOND	
POSITIVE CLOSE MODE	OFF	9	1	ON
		9	2	OFF
PRE-FLASHING MODE	OFF	10	1	1
		10	2	2
		10	3	3
		10	4	OFF
PRE-FLASH TIME	5 SEC	11	1 FLASH = 1 SECOND	
COLLISION COUNTER	4 SEC	12	1 FLASH = 1 COUNT	

LEAF DELAY SELECT	DELAY OFF (DEFAULT)	13	1	DELAY ON SLAVE OPENING
		13	2	DELAY ON MASTER CLOSING
		13	3	DELAY ON SLAVE OPENING & MASTER CLOSING
		13	4	DELAY OFF (DEFAULT)
LEAF DEALY TIME/ SOLENOID STRIKE TIME	2 SEC	14	1 FLASH = 1 SECOND	

R3/R5 Setup

PROBLEM	POSSIBLE CAUSES & SOLUTIONS OF PROBLEM.
Set light is not on:	Check that the set jumper is correctly fitted. Fit and remove the set jumper a few times to ensure good contact.
L2 is not on:	All sources of power on the card must be removed. Check by confirming that all the lights turn off, before reconnecting the power with the set link fitted.
Status light did not flash 5 times:	The controller did not "boot-up" correctly. try to fit the charger plug before reconnecting the battery.
Status light flashes 5 times and I2 turns on:	<p>This could be due to:</p> <p>The gate not being correctly positioned. Move the gate to its 1/2 way position, and restart from step 14.</p> <p>The origin not being set correctly. restart the setup from step 4.</p> <p>A faulty origin PCB or cable. To check, go out of programming mode by removing the set link. Then insert the origin setup tool, turn the tool a full revolution while monitoring L1 and L2. If either L1 or L2 changed state during the adjustment, then the origin system for the motor tested is ok. Restart the setup from step 4. If not, check the status of all the plugs and wiring. If the problem is not resolved then the sensor, cable or controller might be faulty.</p>

PROBLEM	POSSIBLE CAUSES & SOLUTIONS OF PROBLEM.
There is a click but the motor does not turn. The status light flashes rapidly, then flashes 5 times:	<p>This could be due to:</p> <p>The motor not being connected to the controller, or the motor fuse could be blown, or the motor is faulty. Check motor by connecting motor leads directly to the battery.</p> <p>Correct the problem, remove and refit the set link and start from step 17.</p>
There is a click, the motor turns but the gate does not move:	<p>The manual release mechanism is still in manual.</p> <p>The manual release must be unscrewed as in step 10.</p> <p>Not enough time allowed for the manual release to re-engage. To continue setup, press the test button as in step 17.</p>
Motor briefly starts and then stops, and status flashes 5 times:	The battery is not connected. correct the problem, remove and refit the set link and start from step 17.
Motor starts then stops after 1sec. (status flashes 5 times):	The doss sensor system is faulty. Is the doss harness plugged in? If so, there could be a fault on the sensor, cable or controller.
L1 is on when setting the master, or I2 is on when setting the slave motor:	<p>The leaf has not passed through the origin yet. Then:</p> <p>Either keep on pressing and holding the test button until the required gate closed position is reached with I1 off, or mechanically reset the gate origin by restarting from step 4.</p>
The gate keeps on closing:	Then L1 or L2 was not off after step 17. Keep on pressing and holding the test button and complete step 17 first.

SWING GATE STATUS LED

LED State	Indication
ON	GATE IS OPEN
OFF	GATE IS CLOSED
SLOW FLASH	GATE MOVING OPEN
QUICK FLASH	GATE MOVING CLOSED
1 FLASH PER 2 SEC.	COURTESY LIGHT PERMANENTLY ON
2 FLASHES PER 2 SEC.	MAINS SUPPLY FAILURE
3 FLASHES PER 2 SEC.	BATTERY LOW
4 FLASHES PER 2 SEC.	REPEATED OBSTRUCTION

RESTORING FACTORY DEFAULT SETTINGS

1. REMOVE POWER (POWER SUPPLY AND BATTERY IF.
2. FIT THE "SET" LINK.
3. CONNECT "PED" AND "FRX" TO "COM".
4. RECONNECT POWER. L1 AND L2 WILL ILLUMINATE.
5. REMOVE ALL POWER (BATTERY AND POWER SUPPLY).
6. REMOVE THE "SET" LINK AND DISCONNECT "PED" AND "FRX" FROM "COM".
7. THE CARD IS NOW PROGRAMMED TO DEFAULT SETTINGS AS SHOWN IN TABLES 2 AND TABLE 3 OF THE INSTALLATION MANUAL (GATE END POINTS ARE NOT AFFECTED).

IMPORTANT CHECKS TO BE CARRIED OUT

1. GATE IN MANUAL MODE RUNS FREELY.
2. **IRB** AND **LCK** GREEN LED'S ON.
3. BATTERY CHARGING PROPERLY (13.8V)
4. BATTERY VOLTAGE WITH MOTOR RUNNING (>12V).
5. GOOD QUALITY HINGES - BULLET TYPE WITH GREASE NIPPLE.
6. WELL BALANCED - SHOULD REMAIN STATIONARY IN ALL POSITIONS.
7. SECURE FRAME FOR SECURITY.
8. SUFFICIENT SPACE TO MOUNT THE OPERATORS.
9. HAS ADDITIONAL SAFETY EQUIPMENT eg. SAFETY BEAMS BEEN RECOMMENDED TO THE CLIENT.
10. INSTALLATION WILL NOT POSE A HAZARD TO THE PUBLIC.

D3/D5/A10 - SLIDING GATE SETUP QUICK REFERENCE GUIDE

FUNCTION / TIMER	FACTORY DEFAULT	MAIN MENU (No. times L1 flashes)	TIME / COUNT (No. times STATUS must flash)	OPTION
AUTOCLOSE	OFF	2 2	1 2	ON OFF
AUTOCLOSE TIME	15 SEC	3	1 FLASH = 1 SECOND	
MODE	STD	4	1	STANDARD CONDOMINIUM PIRAC REVERSING PLC (A10)
		4	2	
		4	3	
		4	4	
		4	5	
PEDESTRIAN AUTOCLOSE TIME	5 SEC	5	1 FLASH = 1 SECOND	
COURTESY LIGHT TIME	120 SEC	6	1 FLASH = 10 SECONDS	
COLLISION SENSITIVITY	MEDIUM	7	1	HIGH
		7	2	MEDIUM
		7	3	LOW
AUTOCLOSE OVERRIDE	3 SEC	8	1 FLASH = 1 SECOND	
POSITIVE CLOSE MODE	OFF	9	1	ON
		9	2	OFF
PRE-FLASHING MODE	OFF	10	1	1
		10	2	2
		10	3	3
		10	4	OFF
		10	4	OFF
PRE-FLASH TIME	5 SEC	11	1 FLASH = 1 SECOND	
COLLISION COUNT	4	12	1 FLASH = 1 COUNT	
CRAWL DISTANCE (D3/D5)	350mm†	13	1 FLASH = 350mm CRAWL	
(A10) OPENING SPRINT MODE SELECT	1	13	STANDARD SPEED (DEFAULT)	
	2	13	STANDARD SPEED + 30%	
	3	13	STANDARD SPEED + 60%	
	4	13	STANDARD SPEED + 90%	
(A10) CLOSING SPRINT MODE SELECT	1	14	STANDARD SPEED (DEFAULT)	
	2	14	STANDARD SPEED + 30%	
	3	14	STANDARD SPEED + 60%	
	4	14	STANDARD SPEED + 90%	

† WHEN INCREASING THE CRAWL DISTANCE THE POSITION OF THE ORIGIN MARKER MUST BE MOVED (REFER TO INSTALLATION MANUAL)

R3/R5 Status LED, Default Settings, Checks

SOME TYPICAL FAULTS**1. Gate runs a short distance and stops.**

- 1.1 Multiple collision condition (Status flashing 4 times)
 - 1.1.1 Adjust collision sensitivity (high to medium or to low)
 - 1.1.2 Check for something physically obstructing the movement of gate
 - 1.1.2.1 Rack pressing down onto pinion
 - 1.1.2.2 Bad rack joints
 - 1.1.2.3 Seized or badly running wheels
 - 1.1.2.4 Top guide rollers restricting the gate
 - 1.1.2.5 Dirt on rail
 - 1.1.2.6 Physical damage to the rail
 - 1.1.2.7 Wheel catching side of pinion
 - 1.1.2.8 Gate hitting endstop
- 1.1.3 Doss feedback problem
 - 1.1.3.1 Dirt inside the DOSS
 - 1.1.3.2 Poor connection between the DOSS and the controller (check cable and connector)
 - 1.1.3.3 DOSS not clipped into position correctly.
 - 1.1.3.4 Faulty DOSS controller
- 1.2 Spurious trigger
- 1.3 Faulty controller

2. Gate opens on its own.

- 2.1 Permanent trigger input
 - 2.1.1 Check for latched Rx or latched house pushbutton
- 2.2 Intermittent fault on pushbutton line (underground joint with moisture build-up)
- 2.3 Outside transmitter with the same code (typically only possible with compatible remotes – QD black / TSM etc)
- 2.4 Faulty Rx
- 2.5 Operator sensed an obstruction on the close position

3. Intermittent Auto-close.

- 3.1 Latching Rx overrides auto-close
- 3.2 Long pulse on trigger input overrides auto-close (check pulse time of intercom gate release)
- 3.3 Faulty infra red beam input
- 3.4 Faulty controller
- 3.5 Power loss for short time on controller

4. Gate does not recognise its limits or 3 Flashes on STATUS.

- 4.1 Magnet incorrectly mounted
- 4.2 Faulty magnetic switch
- 4.3 Check connection between switch and controller
- 4.4 Faulty controller

5. Gate does not trigger at all. (Using test pushbutton)

- 5.1 LCK input activated (Check state of LCK)
- 5.2 Latched input on TRG or FRX input
- 5.3 IRB input activated
- 5.4 Faulty controller
- 5.5 Check STATUS, 3 flashes origin failure
- 5.6 Check STATUS, 2 flashes motor over temperature

6. Gate opens to pedestrian and closes.

- 6.1 Faulty key switch
- 6.2 Faulty wiring on pedestrian input.

7. Gate starts closing but stops and re-opens.

- 7.1 Intermittent IRB trigger (Check alignment and that the supply voltage for beams is compatible with the operator)
- 7.2 Collision sensitivity set too sensitively
- 7.3 Spurious signal on FRX (if used) or TRG if in Condo / Pirac / Reverse mode

8. STATUS flashes 2 times (motor over temperature).

- 8.1 Motor Duty Cycle exceeded
- 8.2 Check cable between PCB and temperature sensor (blue cable)
- 8.3 Faulty temperature sensor
- 8.4 Faulty controller

9. When doing the automatic setup; the gate opens completely starts closing and as soon as it reaches the close position it stops. STATUS flashes 5 times and L2 comes on again.

- 9.1 Check motor direction
- 9.2 Inverted rack
- 9.3 Check magnet distance from sensor more than 500mm or equals 500mm

10. When doing the automatic setup; the gate opens completely starts closing hits the end stop, starts opening and as soon as the origin marker passes the operator the gate stops (STATUS flashes 5 times and L2 comes on again).

- 10.1 Check the pull force of the gate
- 10.2 Check for an obstruction as the gate returns from the close position (Catch bracket)

D3/D5/A10 SLIDING GATE SETUP QUICK REFERENCE GUIDE

FUNCTION / TIMER	FACTORY DEFAULT	MAIN MENU (No. times L1 flashes)	TIME / COUNT (No. times STATUS must flash)	OPTION
(A10) MOTOR CUTOUT TIME	1	15	60 SECONDS (DEFAULT)	
(A10) INVERTER RACK	1	16	RACK BELOW PINION	
	2	16	RACK ABOVE PINION (DEFAULT)	

RESTORING FACTORY DEFAULT SETTINGS

LED State	Indication
ON	GATE IS OPEN
OFF	GATE IS CLOSED
SLOW FLASH	GATE MOVING OPEN
QUICK FLASH	GATE MOVING CLOSED
1 FLASH PER SEC.	COURTESY LIGHT PERMANENTLY ON
2 FLASHES PER 2 SEC. (D3/D5)	MAINS SUPPLY FAILURE (D3/D5)
2 FLASHES PER 2 SEC. (A10)	OVER TEMPERATURE (A10)
3 FLASHES PER 2 SEC. (D3/D5)	BATTERY LOW (D3/D5)
3 FLASHES PER 2 SEC. (A10)	ORIGIN FAILURE (A10)
4 FLASHES PER 2 SEC.	REPEATED OBSTRUCTION

RESTORING FACTORY DEFAULT SETTINGS

1. REMOVE POWER (POWER SUPPLY AND BATTERY IF D3/D5 or A10).
2. FIT THE "SET" LINK.
3. CONNECT "PED" AND "FRX" TO "COM".
4. RECONNECT POWER. L1 AND L2 WILL ILLUMINATE.
5. REMOVE POWER (BATTERY AND POWER SUPPLY).
6. REMOVE THE "SET" LINK AND DISCONNECT "PED" AND "FRX" FROM "COM".
7. THE CARD IS NOW PROGRAMMED TO DEFAULT SETTINGS AS SHOWN IN TABLES 2 AND TABLE 3 OF THE INSTALLATION MANUAL (GATE END POINTS ARE NOT AFFECTED).

IMPORTANT CHECKS TO BE CARRIED OUT ON SITE

1. PROPER REAR MECHANICAL END STOP FITTED. (Fig 1)
2. GATE IN MANUAL MODE RUNS FREELY.
3. RACK MESH (2-3MM GAP).
4. IRB AND LCK GREEN LED's ON
5. BATTERY CHARGING PROPERLY (13.8V)
6. BATTERY VOLTAGE WITH MOTOR RUNNING (>12V).



FIG. 1

SOME TYPICAL FAULTS**1. Gate runs a short distance and stops.**

- 1.1 Battery low condition (Status flashing 3 times)
 - 1.1.1 Old battery
 - 1.1.2 Check battery charge
 - 1.1.2.1 Charge voltage (13.8V – no battery connected)
 - 1.1.2.2 Charge rate (Check recovery rate of charger)
 - 1.1.3 Check duty cycle of system (battery capacity sufficient)
 - 1.1.4 Check condition of battery leads and connectors.
- 1.2 Multiple collision condition (Status flashing 4 times)
 - 1.2.1 Adjust collision sensitivity (high to medium or to low)
 - 1.2.2 Check for something physically obstructing the movement of gate
 - 1.2.2.1 Rack pressing down onto pinion
 - 1.2.2.2 Bad rack joints
 - 1.2.2.3 Seized or badly running wheels
 - 1.2.2.4 Top guide rollers restricting the gate
 - 1.2.2.5 Dirt on rail
 - 1.2.2.6 Physical damage to the rail
 - 1.2.2.7 Wheel catching side of pinion
 - 1.2.2.8 Gate hitting endstop
- 1.2.3 DOSS feedback problem
 - 1.2.3.1 Dirt inside the DOSS
 - 1.2.3.2 Poor connection between the DOSS and the controller (check cable and connector)
 - 1.2.3.3 DOSS cable fitted back to front
 - 1.2.3.4 DOSS not being driven due to missing coupling or faulty bevel drive.
 - 1.2.3.5 Faulty DOSS controller
- 1.2.4 Faulty motor circuit
 - 1.2.4.1 Motor fuseholder making intermittent contact.
- 1.3 Spurious trigger
- 1.4 Faulty controller

2. Gate does not run but the relays energise when the unit is activated.

- 2.1 Faulty motor circuit
 - 2.1.1 Faulty motor relay / FET
 - 2.1.2 Motor fuse blown (replace with 16/20A slow blow 5x20mm)
 - 2.1.3 Fuseholder making bad contact.
 - 2.1.4 Worn motor brushes
 - 2.1.5 Loose motor wire
 - 2.1.6 Faulty controller

3. Gate opens on its own.

- 3.1 Permanent trigger input
 - 3.1.1 Check for latched Rx or latched house pushbutton

- 3.2 Intermittent fault on pushbutton line (underground joint with moisture build-up)
- 3.3 Outside transmitter with the same code (typically only possible with compatible remotes – QD black / TSM etc)
- 3.4 Faulty Rx

4. Intermittent Autoclose.

- 4.1 Latching Rx overrides autoclose
- 4.2 Long pulse on trigger input overrides auto-close (check pulse time of intercom gate release)
- 4.3 Faulty infrared beam input
- 4.4 Faulty controller

5. Gate does not recognise its limits.

- 5.1 Magnet incorrectly mounted (Check page 13 of installation manual)
- 5.2 Faulty magnetic switch
- 5.3 Check connection between switch and controller via DOSS.
- 5.4 Faulty controller

6. Gate does not trigger at all. (Using test pushbutton)

- 6.1 LCK input activated (Check state of LCK)
- 6.2 Latched input on TRG or FRX input
- 6.3 IRB input activated
- 6.4 Faulty controller

7. Gate opens to pedestrian and closes.

- 7.1 Faulty key switch
- 7.2 Faulty wiring on pedestrian input.

8. Gate starts closing but stops and re-opens.

- 8.1 Intermittent IRB trigger (Check alignment and that the supply voltage for beams is compatible with the operator.)
- 8.2 Collision sensitivity set too sensitively.
- 8.3 Spurious signal on FRX (if used) or TRG if in Condo / Pirac / Reverse mode

WHILE COMMISSIONING (Automatic Setup Routine):**9. Gate opens to the fully open position and does not return.**

- 9.1 Check the battery. (Battery voltage should stay above 11.0V while gate is Running)

10. Gate does short open and closed cycles (L2 comes ON again)

- 10.1 Poor connection between the DOSS and the controller (check cable and Connector).
- 10.2 DOSS not being driven due to missing coupling.
- 10.3 Adjust collision sensitivity (high to medium or to low)

11. Gate does not run but the relays energise when the unit is activated.

- 11.1 Check motor wires are securely terminated.
- 11.2 Check motor fuse (replace with 12/20A slow blow 5x20mm)
- 11.3 Check battery connections and leads.
- 11.4 Check that battery is not flat.

12. The operator completes setup routine correctly. However, when

- activated afterwards, drives at full speed into mechanical end stop.**
- 12.1 Check position of origin marker (magnet) is correctly positioned for the "Crawl Distance" selected (main menu item 13).
If in doubt restore controller factory default settings.
- 12.2 On an upgraded system, ensure that controller has been restored back to Factory default settings.