

D3, D5, A5 SLIDING GATE AUTOMATION

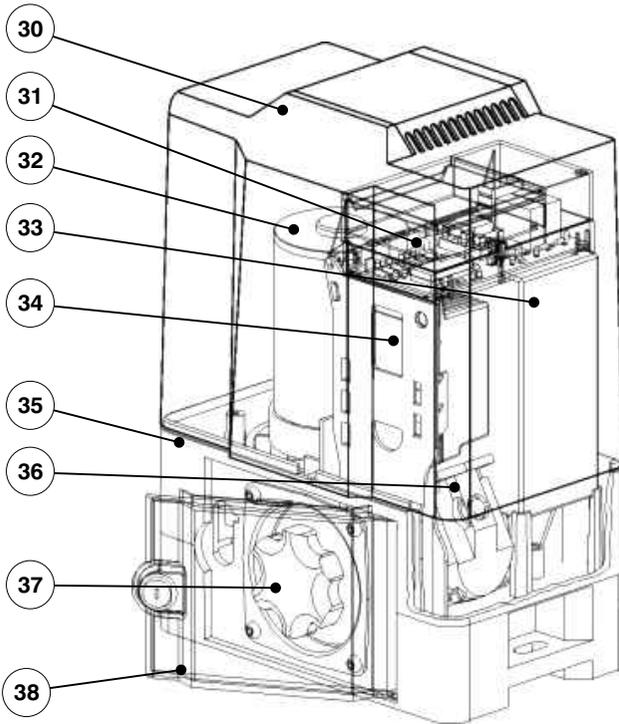
Product Code: CP72SR5

INSTALLATION MANUAL

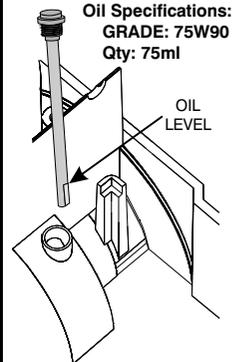
**Latest Revision: 02.02.2005
Document Ref.: 1010.D.01.00136_8**



**CENTURION
THE AUTOMATIC CHOICE**



IMPORTANT



WARNING! (D5/A5 ONLY)

Fill with oil prior to running gearbox.

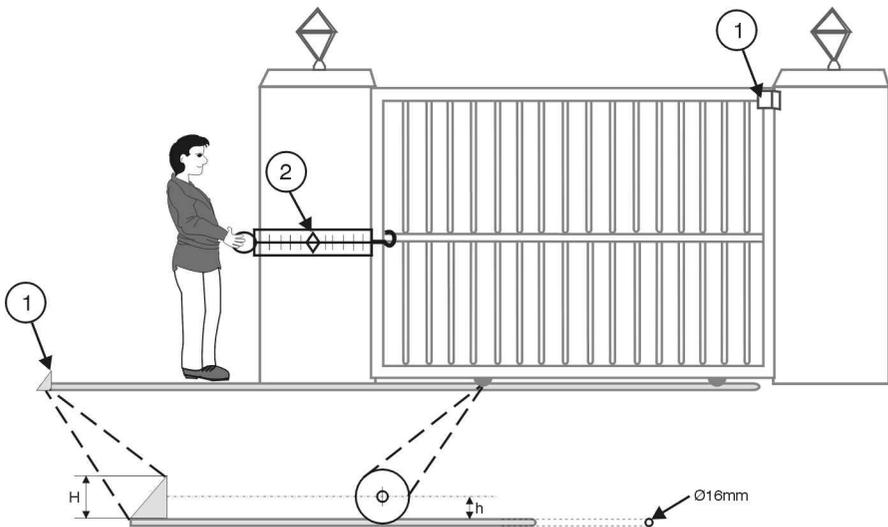
For transport purposes this unit has been supplied with oil in a separate sealed container.

1. Lift off the cover to the operator.
2. Remove the control card and battery so that you can gain access to the filler plug.
3. Unscrew the cap and pour in the oil provided

NB. D3 is pre-filled with fluid grease.

MAJOR COMPONENTS (TYPICAL D5 SHOWN)

- ③0 - COVER
- ③1 - CONTROLLER (CP80 FOR D3/D5; CP81 FOR A5)
- ③2 - MOTOR (12V DC FOR D3/D5; 220V AC FOR A5)
- ③3 - BATTERY (12V DC, 7A/H-D3/D5 ONLY) (OR PSU1/2, IF FITTED)
- ③4 - CHARGER TRANSFORMER/POWER SUPPLY (CP84E for D3/D5 or CP83E for A5) (NOT FITTED WHEN PSU1/2 IS USED).
- ③5 - GEARBOX CASING
- ③6 - INTERNAL LIMIT SWITCH (DOSS)
- ③7 - MANUAL RELEASE THUMBWHEEL
- ③8 - LOCKABLE ACCESS DOOR



NB. - FIT END-STOPS (1) CAPABLE OF WITHSTANDING MAXIMUM MOTOR FORCE ($\geq 100\text{kgF}$)

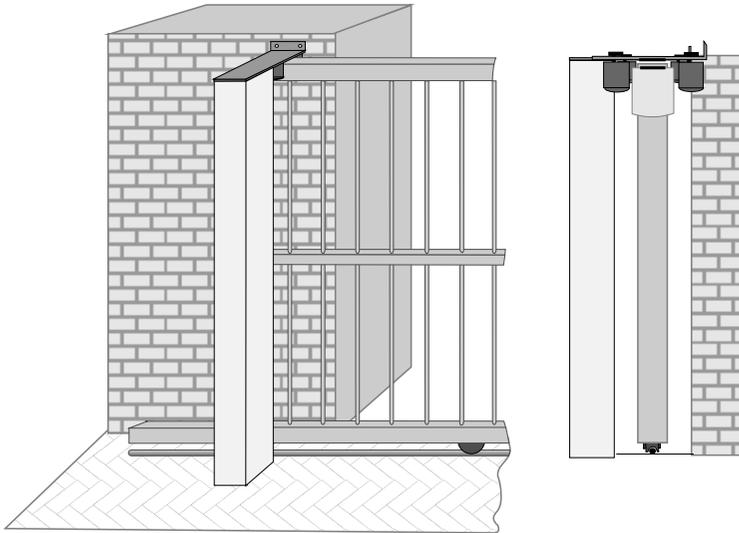
- MAKE $H \geq h$ TO ENSURE GATE WILL NOT JUMP OVER END-STOP.

- WARRANTY WILL BE VALID ONLY IF PULL FORCE (2) DOES NOT EXCEED MOTOR SPECIFICATION (SEE TABLE 1)

TABLE 1

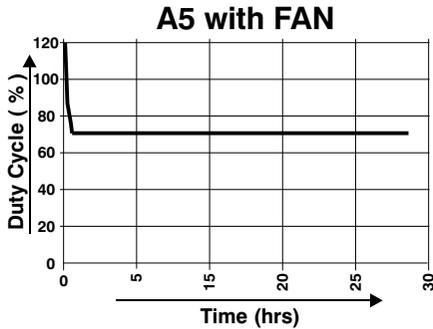
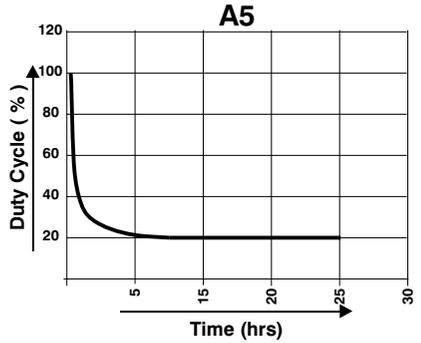
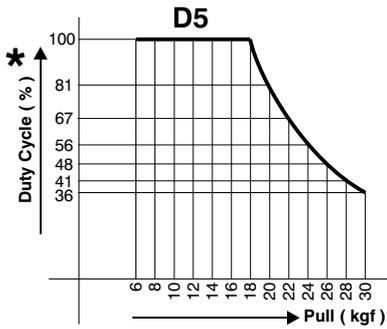
	START (kgF)	RUN (kgF)	GATE MASS (kg)
D3	≤ 25	≤ 12	≤ 300
D5	≤ 60	≤ 20	≤ 500
D5 Light Industrial	$\leq 16^*$	$\leq 16^*$	≤ 500
A5	≤ 22	≤ 22	≤ 500

*LIMITED BY CAPACITY OF PSU



ANTI-LIFT BRACKETS

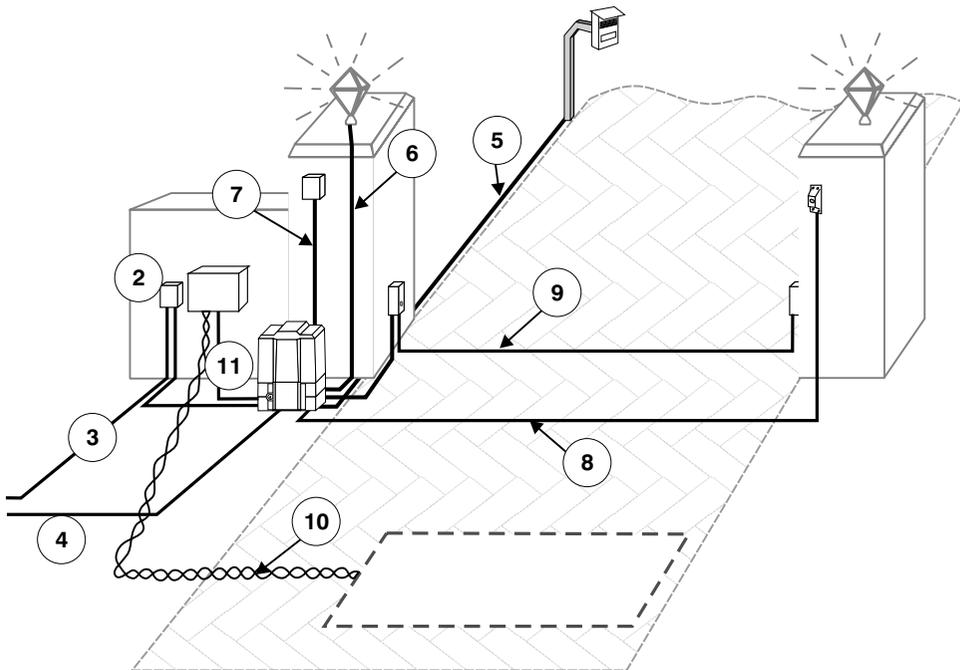
- Guide rollers (39) must ensure that the gate is held vertically.
- Fit suitable anti-lift brackets (42). The gap (40) should be <5mm to ensure the gate cannot be lifted off the motor pinion.
- For improved safety fit additional support post (41) to prevent gate from falling over if guide rollers (39) fail.



DUTY CYCLE CURVES

- FOR THE WARRANTY TO BE VALID, ENSURE THAT THE DUTY CYCLE IS NOT EXCEEDED FOR THE PARTICULAR MOTOR BEING USED.

* - DUTY CYCLE IS SUBJECT TO BATTERY AND CHARGER SIZE.



RECOMMENDED INSTALLATION AND CABLE THICKNESS REQUIREMENTS†

- ② - LOCAL ISOLATOR
- ③ - MAINS SUPPLY (min 0.5mm² ‡, 2 CORE + EARTH)
- ④ - INTERCOM AND STATUS SIGNALING TO HOUSE
(0.2mm², *n1 + 6 CORE)
- ⑤ - INTERCOM TO GATE STATION (0.2mm², #n2 CORES)
- ⑥ - PILLAR LIGHTS (0.5mm², 2 CORE + EARTH)
- ⑦ - RADIO RECEIVER (0.2mm², 3 CORE)
- ⑧ - PEDESTRIAN KEYSWITCH (0.2mm², 2 CORE)
- ⑨ - INFRA RED BEAM (0.2mm², 3 CORE)
- ⑩ - FREE EXIT LOOP (1.5mm², multi stranded cable)
- ⑪ - FREE EXIT CONTACT (0.2mm², 2 CORE)

† For cable types to be used (e.g. SWA, Cabytre, Intercom cable etc.) consult your municipal authority for details.

* n1 = NUMBER OF CORES REQUIRED BY INTERCOM

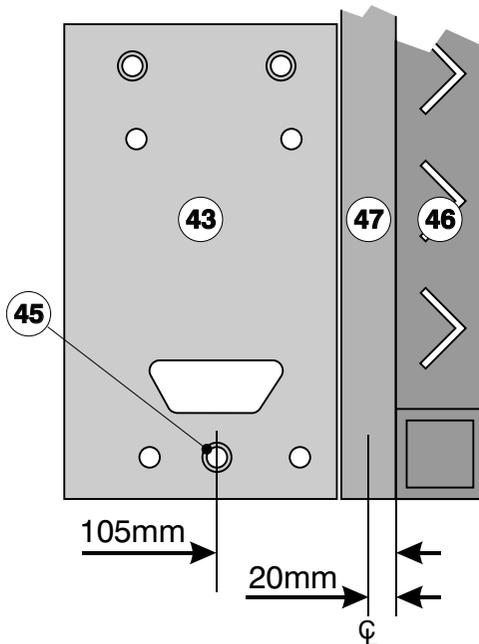
n2 = NUMBER OF CORES REQUIRED BY INTERCOM

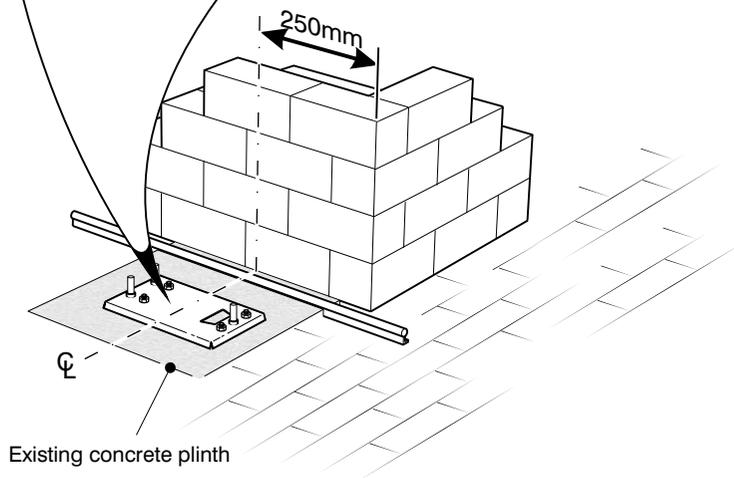
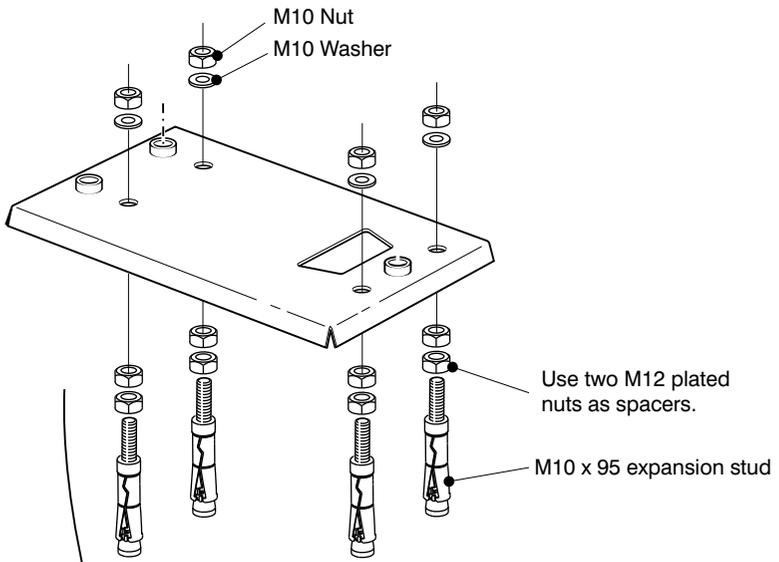
‡ sufficient for motor only, increase to suit total load if pillar lights are fitted

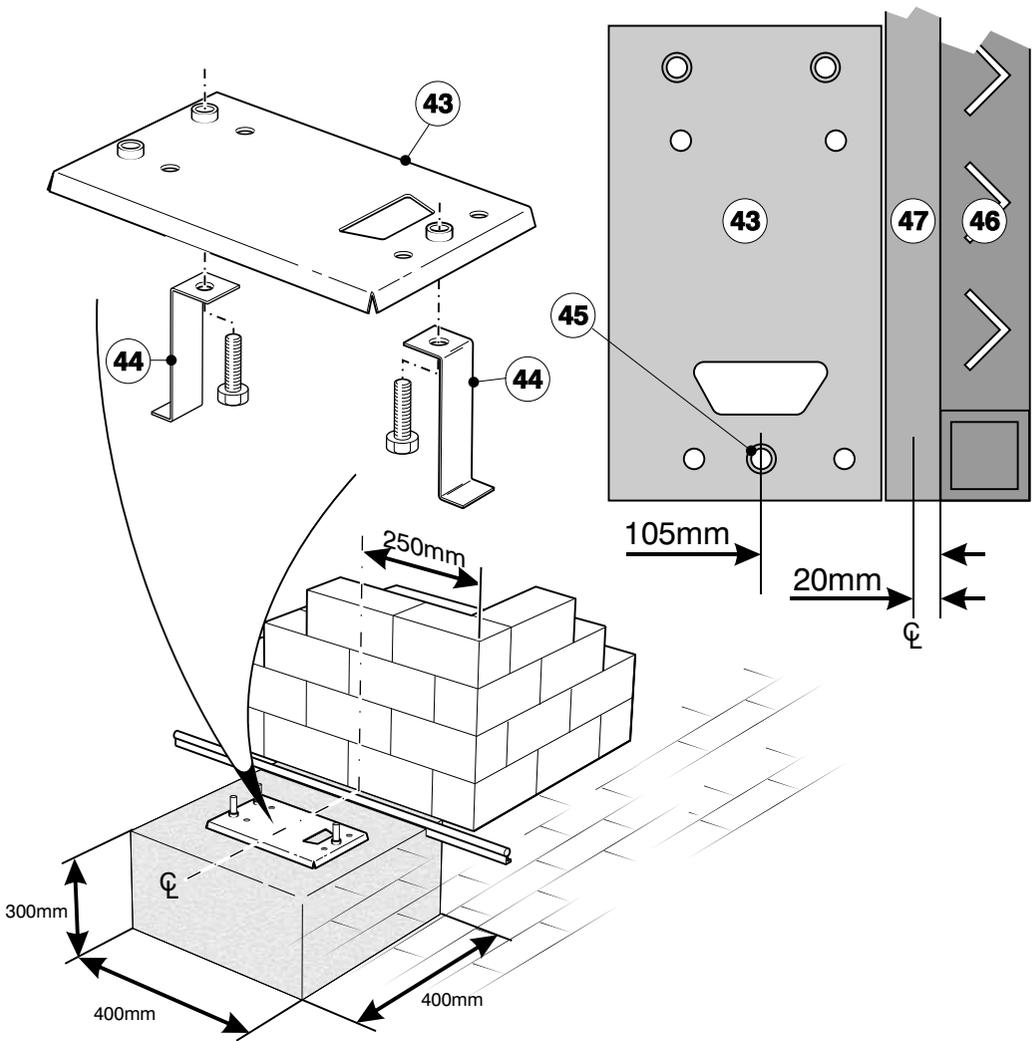
MECHANICAL MOUNTING DETAILS

Option 1 - Bolt down onto concrete plinth

- Ensure motor does not protrude into drive-way install baseplate with centre line 250mm off pillar centre.
- Position baseplate (43) with centre of single support stud (45) 105mm from edge of gate (46). (This dimension assumes centre line of rack (47) is 20mm from edge of gate).
- Using the baseplate as a template mark and drill the 4 mounting holes into the concrete for the four M10 x 95 expansion studs.
- Use two M12 plated nuts per expansion stud as spacers below the foundation plate.
- Secure the baseplate to the expansion studs using one M10 washer and nut per expansion stud.



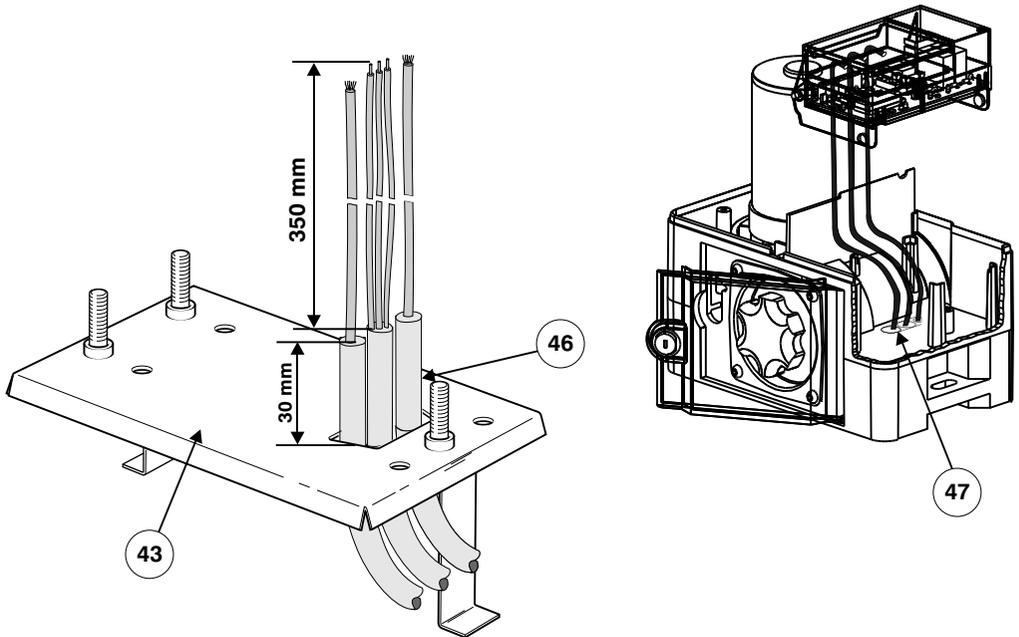




MECHANICAL MOUNTING DETAILS

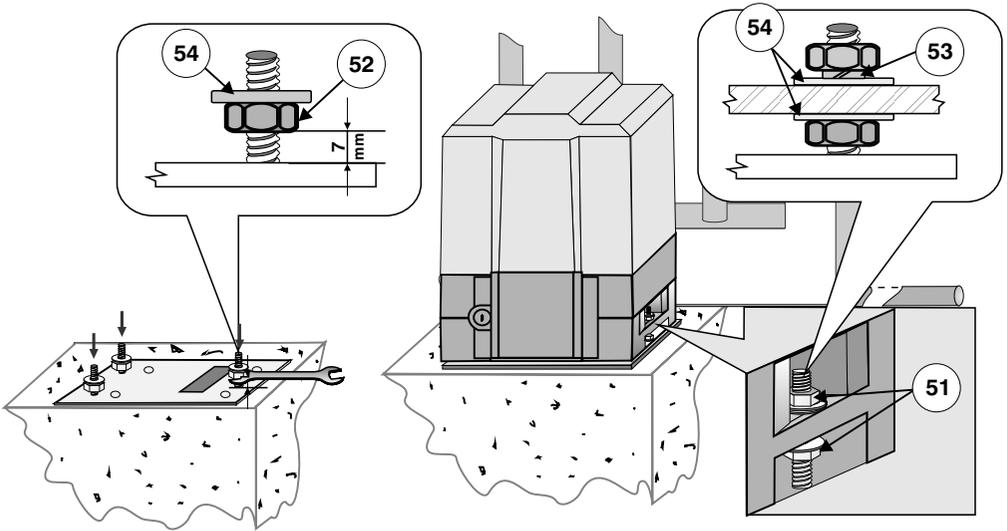
Option 2 - Set into concrete plinth

- Ensure motor does not protrude into drive-way install baseplate with centre line 250mm off pillar centre.
- Fasten concrete anchors (44) to the baseplate (43) using the M10x45 bolts provided. Ensure that the bolts are well tightened.
- Position baseplate (43) with centre of single support stud (45) 105mm from edge of gate (46). (This dimension assumes centre line of rack (47) is 20mm from edge of gate).



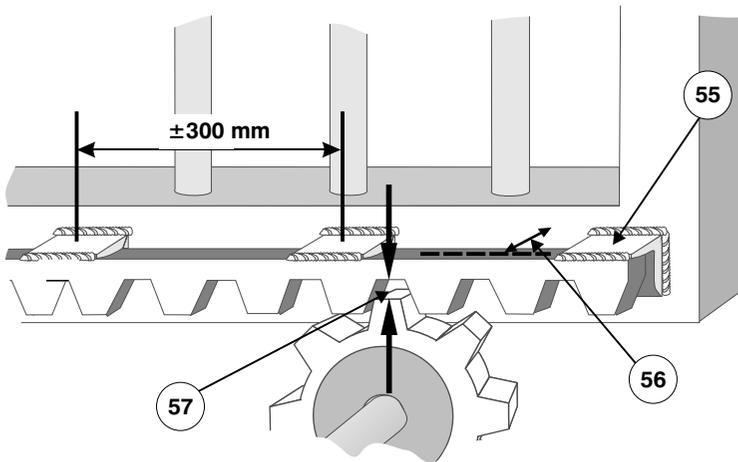
PROVISION FOR CABLES

- Ensure cables (46) are fitted through base plate (43) before concreting in place.
- Remove knock-outs (47) from gearbox to allow for cable entry.
- Route cables in front of battery (D3/D5 motors) as shown above.
- Seal cable entry holes with silicone sealer.



GEARBOX MOUNTING DOWN DETAILS

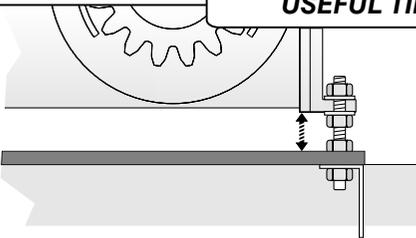
- Leave at least 7mm clearance between the lower gearbox nuts (52) and the baseplate to allow for later adjustment.
- Gearbox MUST be firmly located between top & bottom nuts and washers (54) as shown at (51). Use spring washer (53) to lock top nut in place.
- Slide gearbox forwards or backwards to give $\pm 8\text{mm}$ clearance between front of pinion and edge of gate.



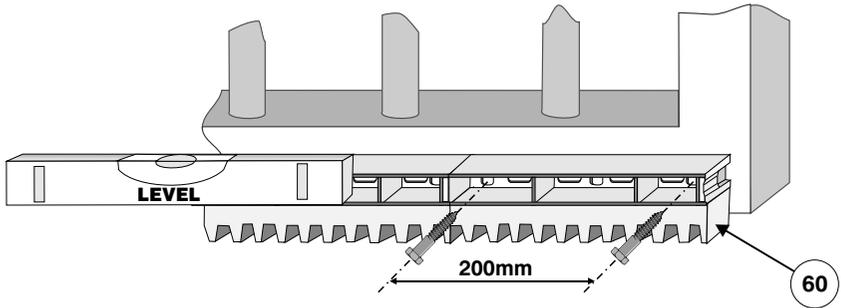
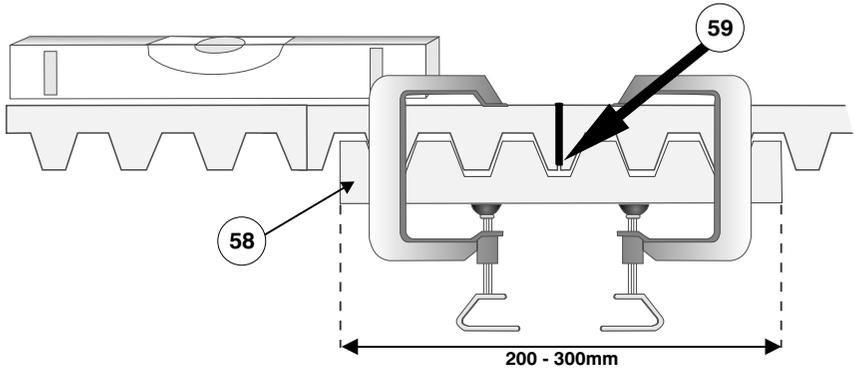
MOUNTING RACK

- Attach steel rack to gate using 25x25x2mm angle brackets (55). Distance between centerline of rack and edge of gate should be 20mm (see (56)).
- For best results support rack every 300mm.
- Rack must be mounted level with a 2 - 3mm clearance (57).

USEFUL TIP

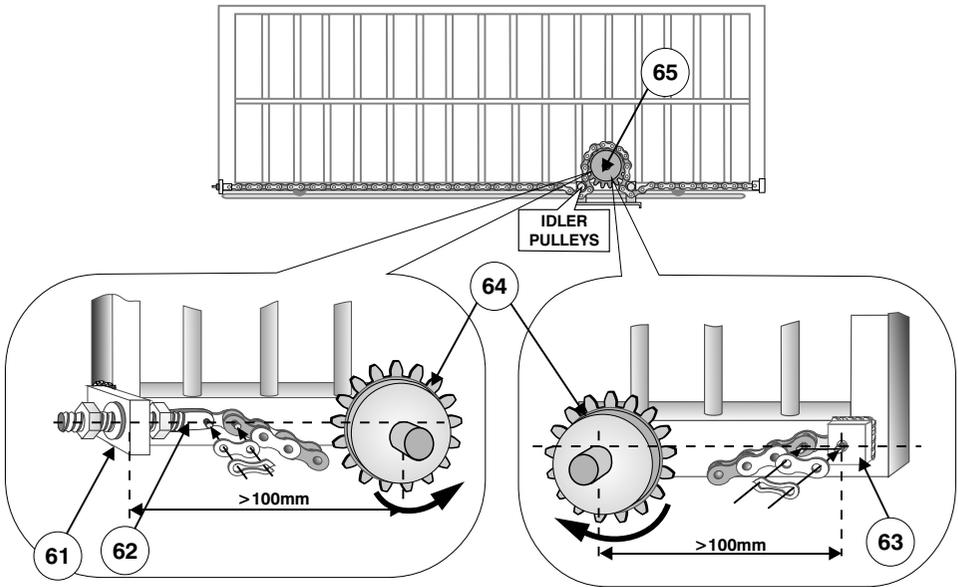


- **Raise gearbox by an additional 3mm.**
- **Put gearbox into manual mode (see (37) on page 22)**
- **Mesh rack and pinion fully and mount rack. Slide gate backwards and forwards ensuring that rack mesh is smooth and never tight.**
- **Drop gearbox by 3mm to create 3mm tooth clearance.**



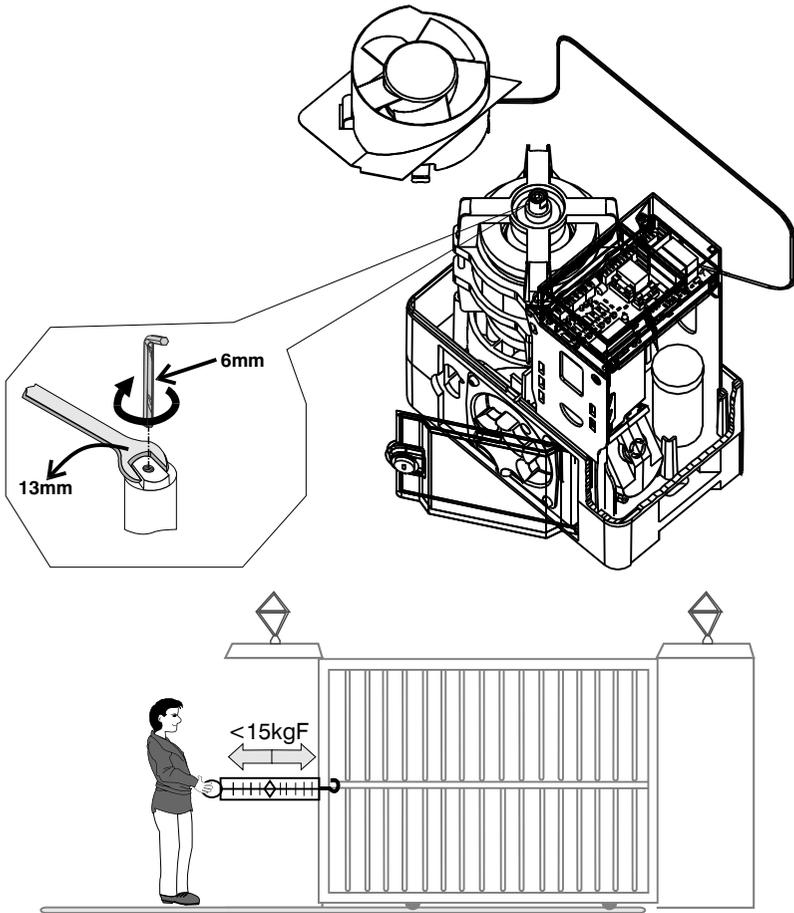
MOUNTING RACK CONTINUED

- A simple way of ensuring correct pitch spacing when joining steel rack is to clamp a small offcut (58) between the two pieces.
- Check that weld (59) does not foul with meshing surfaces.
- If RAZ™ rack (60) is used, then start installing from the right hand side of the gate working towards the LHS. Use fastening screws e.g. “TEK” screws at least every 200mm.



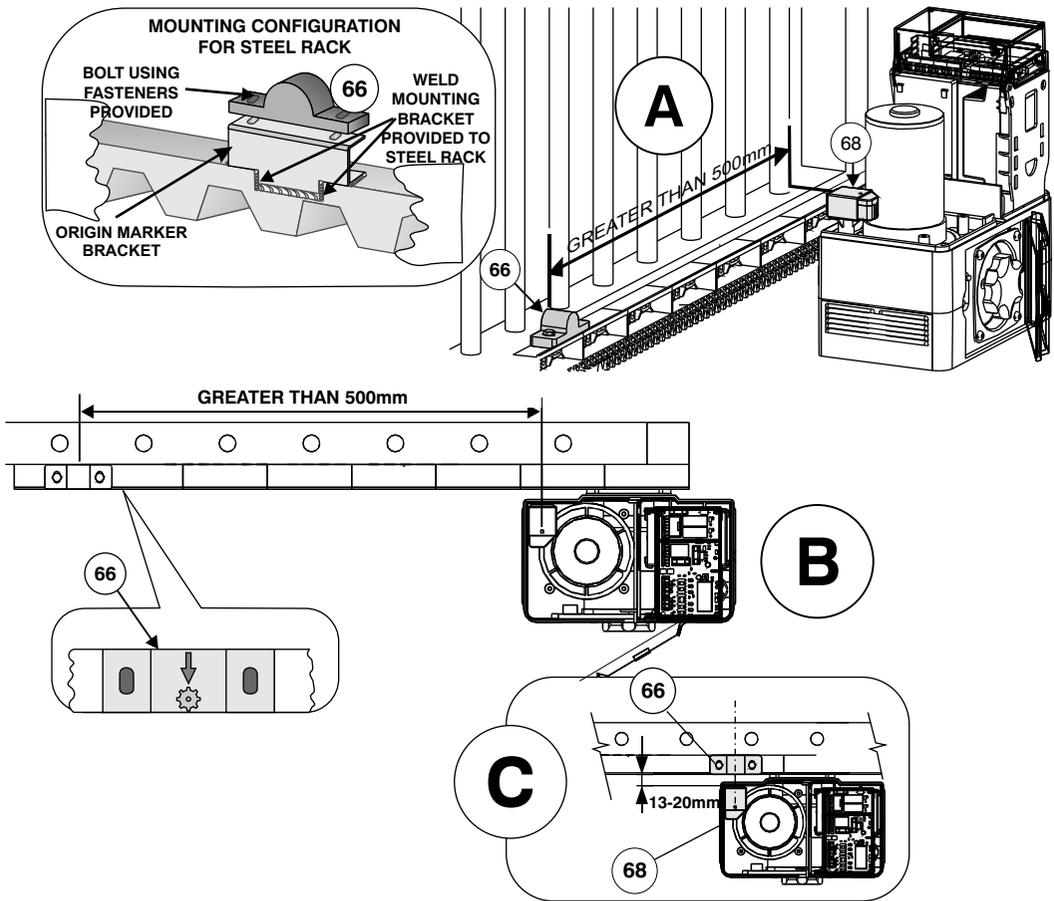
INSTALLING CHAIN DRIVE SYSTEMS

- Weld rear anchor plate (61) onto gate such that centre line of tensioner pin (62) is in line with top of the shaft on the idler pulley (64) . Allow at least 100mm between idler pulleys and anchor brackets.
- Align fixed anchor bracket (63) as for (61) .
- Ensure chain direction over sprocket is as shown (see (65)) .



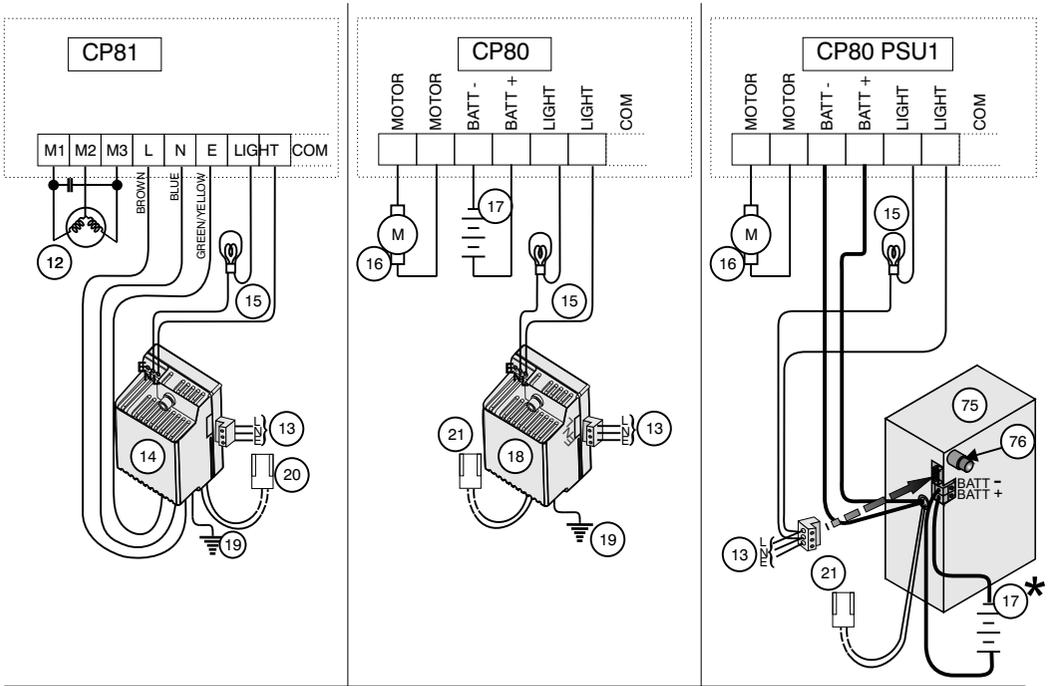
SETTING MECHANICAL CLUTCH (A5 ONLY)

- Isolate MAINS POWER.
- Remove fan from motor to expose the motor shaft (where applicable).
Ensure fan has stopped turning.
- Lock shaft using 13mm spanner and use 6mm allen key to adjust sensitivity - **Clockwise to increase force.**
- Recommended maximum push force should not exceed 15kgF.



MOUNTING OF GATE SENSOR

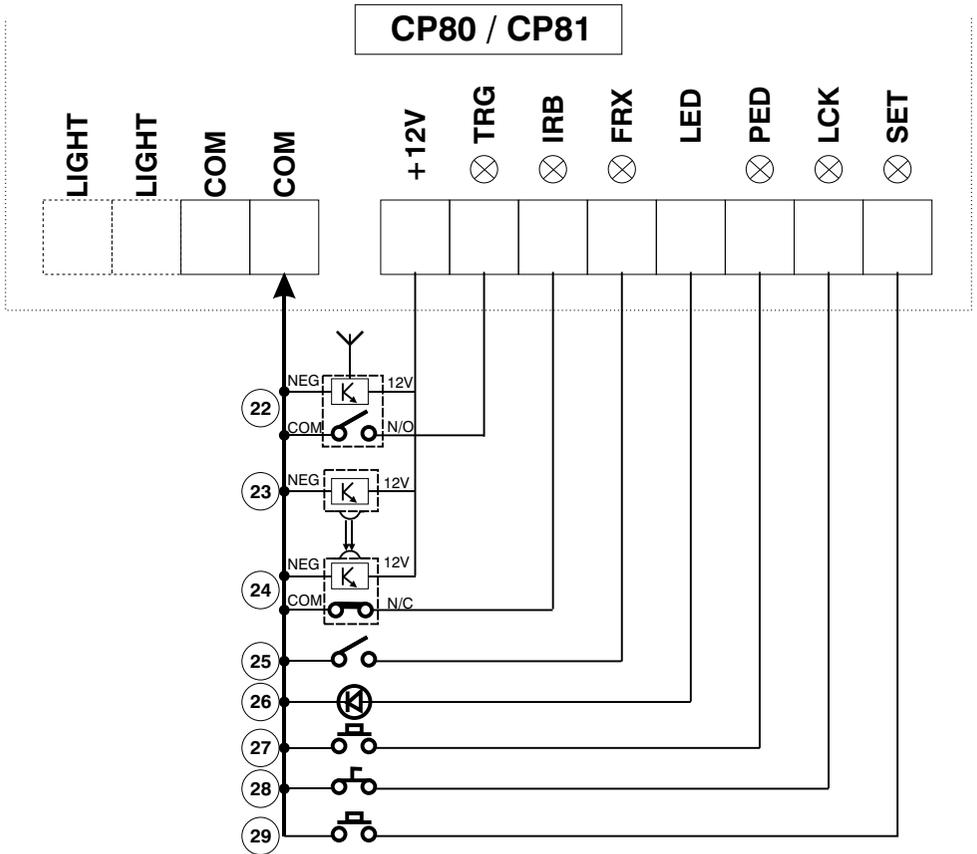
- With the gate in the CLOSED position, mount the origin marker (66) a minimum 500mm from the origin sensor (68). (See isometric view (A) or plan view (B) above). Please note this distance will affect the pedestrian opening distance. For minimum pedestrian opening, mount the origin marker at 500mm. The maximum distance of the origin marker is limited by the marker having to pass the sensor by no less than 500mm before the gate opens fully. If a longer crawling distance is required, the position of the marker needs to be changed (see table 3 on page 30).
- Manually slide gate OPEN until origin marker (66) is in line with the origin sensor (68). Ensure distance between face of marker (66) and front face of sensor (68) is between 13 and 20mm. (See (C) above)
- Adjust distance by sliding the origin marker (66) along the slotted mounting holes until desired distance is achieved.



POWER WIRING (SEE PAGE 15 FOR SIGNAL WIRING)

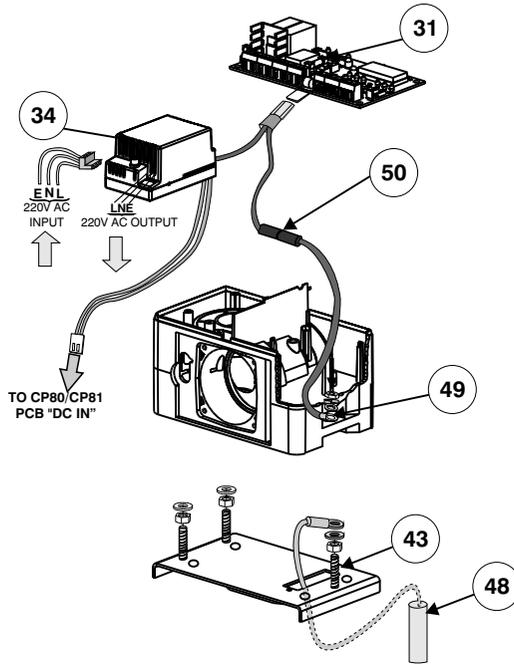
- (12) - 220V AC MOTOR WITH STARTING CAPACITOR
- (13) - 220V AC, 1Ø, MAINS SUPPLY FOR CP84E / CP83E USING REMOVABLE CONNECTORS
- (14) - CP83E POWER SUPPLY TRANSFORMER (A5 MODEL ONLY)
- (15) - 220V AC PILLAR LIGHT (NOT AVAILABLE ON CP84XTE PSU)
- (16) - 12V DC MOTOR
- (17) - 12V DC LEAD ACID BATTERY (Amp/HOUR RATING TO SUIT)
- (18) - CP84E CHARGER TRANSFORMER (D3/D5 MODEL)
(OR CP84XTE WHEN USED WITH PLUG-IN TRANSFORMER)
- (19) - LIGHTNING EARTH POINT
- (20) - 12V DC PLUG TO CP81 CONTROLLER
- (21) - 14.2V DC CHARGE PLUG TO CP80 CONTROLLER
- (75) - PSU1/2 - POWER SUPPLY UNIT
- (76) - MAINS FUSE - PSU1/2

*** NOTE:** External battery not necessary but if fitted then CP80 PSU1 controller must be fitted.



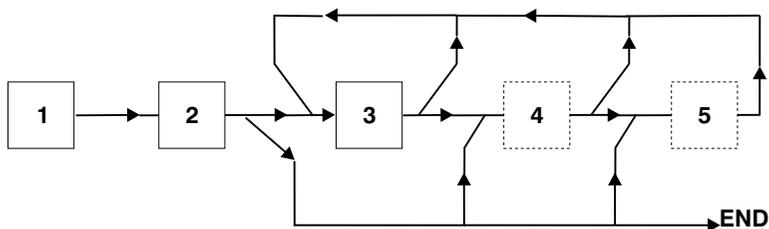
SIGNAL WIRING (CP80 AND CP81)

- ②② - RADIO RECEIVER (OR OTHER TRIGGER e.g. INTERCOM)
 - ②③ - INFRA RED BEAM TRANSMITTER
 - ②④ - INFRA RED BEAM RECEIVER (N/C CONTACT)
 - ②⑤ - FREE EXIT TRIGGER (N/O CONTACT)
 - ②⑥ - REMOTE STATUS LED (MAX 3 IN PARALLEL)[†]
 - ②⑦ - PEDESTRIAN TRIGGER (N/O CONTACT)
 - ②⑧ - HOLIDAY LOCKOUT CONTROL (N/C LATCHING CONTACT)
 - ②⑨ - REMOTE PILLAR LIGHT CONTROL (N/O CONTACT)
- ⊗ = LED INDICATORS ON P.C.B. SHOWING STATUS OF INPUT SIGNALS
 † = USE MULTI LED DRIVER CARD (CP78) FOR MORE LED'S



RECOMMENDED LIGHTNING PROTECTION

- For optimum lightning protection ensure earth cable from charger/PSU unit (34) is adequately earthed.
- Use ring lug (49) to bond to baseplate mounting stud.
- For additional protection bond baseplate (43) to earth spike (48).
- In event of damage to charger/PSU unit (34) disconnect quick release link (50) and push-on connector on controller.



COMMISSIONING BLOCK DIAGRAM

1 - Check correct motor direction (pg. 20)

2 - Select programme mode (pg. 21)

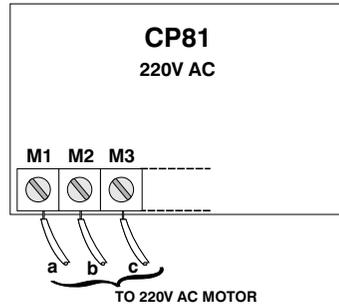
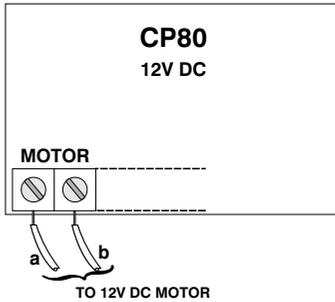
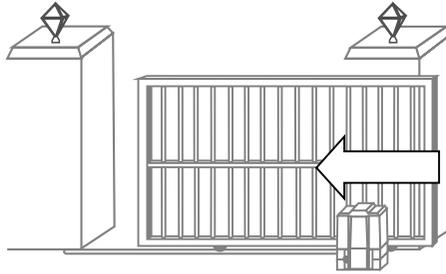
3 - Setting of gate limits (pg. 22-27)

NOTE: D3/D5 LIMITS ARE SET AUTOMATICALLY.
A5 LIMITS ARE SET MANUALLY

4 - Function Selections(optional) (pg. 27-28)

5 - Timer/counter settings (optional) (pg. 29-30)

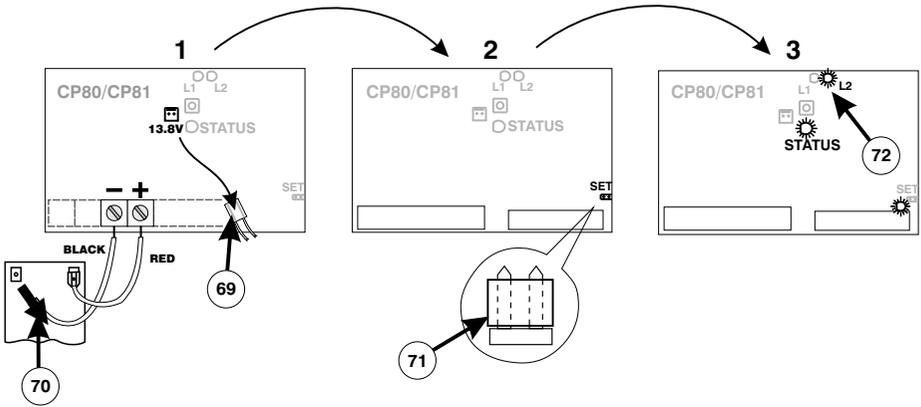
Steps 1 to 3 must be done on initial commissioning.
Steps 4 & 5 are optional.



SETTING MOTOR DIRECTION

	CP80		CP81		
GATE CLOSES: -	a	b	a	b	c
TOWARDS LEFT (ABOVE)	BLACK	BLUE	BLUE	BLACK	RED
TOWARDS RIGHT	BLUE	BLACK	RED	BLACK	BLUE

ENSURE THAT MOTOR WIRE COLOURS ARE AS PER TABLE ABOVE



SELECTING PROGRAMME MODE

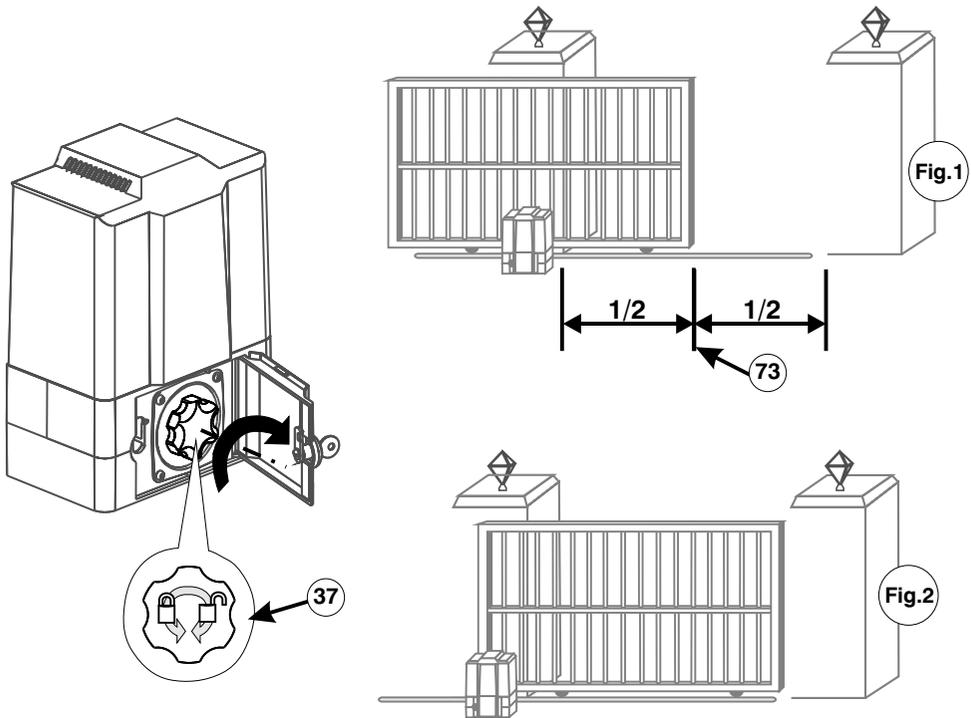
STEP 1 - Remove power from control card:

- for A5 remove electronics power only (69)
- for D3/D5 remove battery power (70) as well as electronics power (69).

STEP 2 - Fit "SET" link (71).

STEP 3 - Reapply power (reversal of STEP 1). STATUS LED will flash 5 times on power up. Check that LED L2 and "SET" are ON.

LED L2 (72) indicates controller is in "programme mode".



SETTING GATE LIMITS

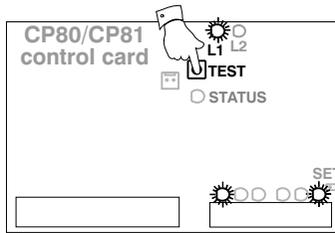
- Rotate manual release thumbwheel (37) fully clockwise, or until clutch is fully dis-engaged and gate can be moved by hand.

D3/D5 ONLY

- Slide gate approximately half way open. See (73) above (FIG. 1).
- Re-engage gearbox.

A5 ONLY

- Slide gate to fully closed position (FIG. 2).
- Leave gearbox dis-engaged.
- Skip to page 25-27 and follow START MANUAL GATE LIMITS ROUTINE.



SETTING GATE LIMITS (continued)

NB. Ensure you follow the correct procedure!

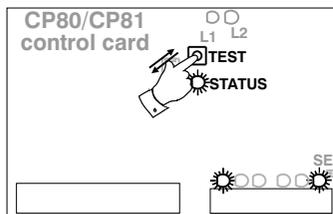
The procedure for setting D3/D5 and A5 motors is **DIFFERENT**. The A5 limits have to be set manually (see page 25 and 26), while the D3/D5 motors set their limits automatically (see page 21 to 23).

D3/D5 ONLY (PAGE 23, 24, 25)

- Press the TEST pushbutton while monitoring LED L1.
- When L1 flashes once, release TEST pushbutton. L2 will go out, L1 will continue to flash once per second. Controller is now in MENU 1 which sets gate limits.

NB. Understand the procedure detailed on page 24 before continuing.

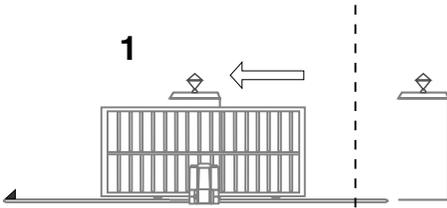
The controller is about to perform the fully automatic setup routine.



START AUTOMATED GATE LIMITS ROUTINE

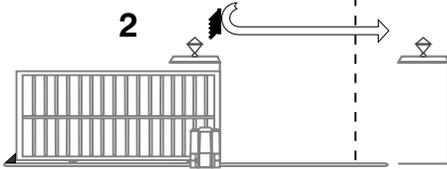
- Press TEST pushbutton until STATUS LED illuminates.
- AUTOMATIC set up routine (described on page 24) starts as soon as TEST button is released.

D3/D5 MOTOR AUTOMATIC SET-UP

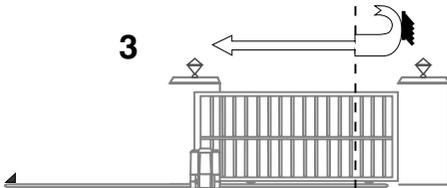


1 - Gate starts at "crawl" speed to open gate.

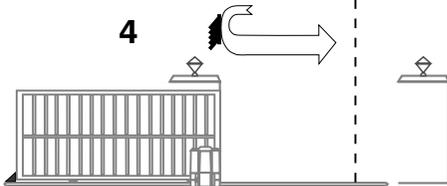
NB. If gate closes, remove power and reverse motor wires (see page 20)



2 - Gate hits "open" end stop and reverses direction running at crawl speed.



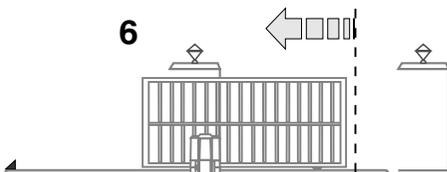
3 - Gate hits "closed" end stop and reverses direction running at "FULL" speed until the marker, then at CRAWL speed to end.



4 - Gate hits "open" end stop and reverses but now runs at "FULL" speed.



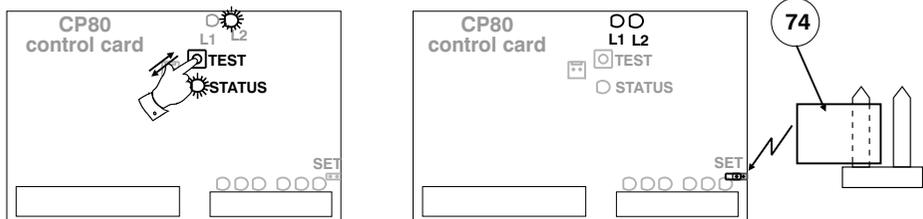
5 - As gate sensor passes the motor, the speed reduces to CRAWL. Gate hits "closed" end stops and reverses at FULL SPEED.



6 - Gate stops at "pedestrian" (PED) position. If required, widen PED opening by pulsing PED input.

TURBO MODE: If desired the set up time can be shortened by manually overriding the automatic “crawl” speed in steps 1, 2, 3 shown on page 24. This is done by pressing and holding the TEST button. The speed increases to FULL speed while the button is depressed.

NB. Do not run the gate into the end stops at full speed.



EXIT GATE LIMITS ROUTINE (D3/D5 ONLY)

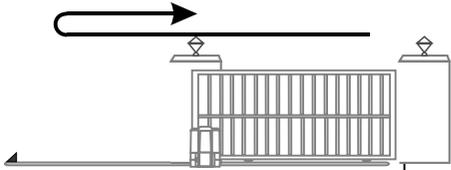
- After the gate stops at the required pedestrian position (see step 6 on page 24) ie either at the automatic minimum or the manually over-ridden position, press the TEST button for a moment and release.
- L2 will illuminate when TEST button is released.
- Remove SET link and position as shown above, (74), to exit programming unless proceeding to other menus.

NB. If automatic routine does not complete (indicated by STATUS flashing 5 times & L2 illuminating) then it may be necessary to set collision sensitivity to MED or LOW (see page 28)

START MANUAL GATE LIMITS ROUTINE

A5 ONLY (PAGE 26 & 27)

A5 MOTOR MANUAL SET-UP



STEP 1 ALIGN ORIGIN SWITCH

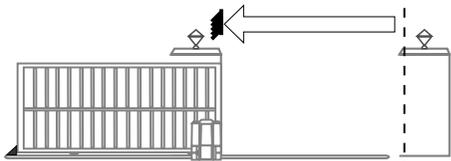
- Start with gate fully closed.
- Push gate open (origin marker must have moved well past origin switch).
- Push gate closed again.



STEP 2 - ENSURE PCB IS IN PROGRAMME MODE (refer procedure page 21)

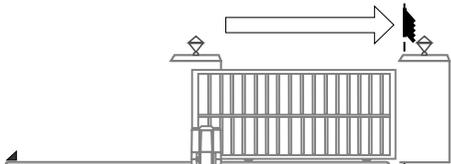
STEP 3 - SET LIMITS

- Press TEST pushbutton until LED L1 flashes once and release.
- L1 will continue to flash once and L2 will go out.
- Press TEST pushbutton until STATUS LED comes ON and release (check that L1, L2 & STATUS are OFF)



STEP 4

- Push gate to fully "OPEN" position and do not allow gate to reverse.
- Press TEST pushbutton until STATUS LED comes ON and release.



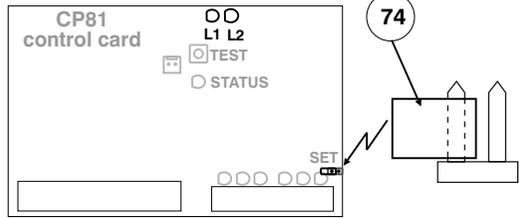
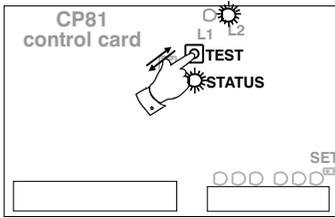
STEP 5

- Push gate to fully "CLOSED" position hard up against endstop and do not allow gate to reverse.
- Press TEST pushbutton until STATUS LED comes ON and release.



STEP 6

- Push gate to "PEDESTRIAN" open position.
- Press TEST pushbutton until STATUS LED comes ON and release. If STATUS LED does not come ON, increase pedestrian opening until it does.



EXIT GATE LIMITS ROUTINE (A5 ONLY)

If the gate limits described on page 26 are successfully completed, then LED L2 will be ON.

- Position SET link as shown above (74) to exit programming unless proceeding to other menus.

FUNCTIONS SELECT

Several different functions can be programmed. The procedure which is similar for all functions is described below in conjunction with TABLE 2 on page 28

- STEP 1 - Ensure controller is in Programme Mode (see page 21).
- STEP 2 - Press and hold the TEST pushbutton while monitoring LED L1.
- STEP 3 - L1 will flash once then go off, twice in short succession then go off, 3 times then go off, etc. The number of flashes represents the menu number.
- STEP 4 - Release TEST button when the required main menu (see Table 2, page 28) is selected.
- STEP 5 - To select the sub-division of the main menu (see RHS of Table 2), press and hold the TEST pushbutton, while monitoring the STATUS LED to count flashes. The number of times the STATUS LED flashes represents the sub menu number.
- STEP 6 - Release TEST pushbutton when the required subdivision is selected. L2 will come ON to indicate that the controller is back in PROGRAMME MODE and another FUNCTION or TIMER (refer to procedure on page 29) can be programmed.
- STEP 7 - Remove SET link when all programming is complete.

TABLE 2

	MAIN MENU		SUB DIVISION OF MAIN MENU	
		No of times L1 flashes		No of times STATUS must flash
		↓		↓
AUTO CLOSE	2	→	1	ON
			2	OFF
MODE	4	→	1	STANDARD
			2	CONDOMINIUM
			3	PIRAC
			4	REVERSING
COLLISION SENSITIVITY	7	→	1	HIGH
			2	MEDIUM
			3	LOW
POSITIVE CLOSE MODE	9	→	1	ON
			2	OFF
PREFLASHING*	10	→	1	MODE1
			2	MODE 2
			3	MODE 3
			4	OFF

FACTORY DEFAULTS HIGHLIGHTED

*The **PREFLASHING MODES** mentioned on page 28 are described below:

MODE 1 - COURTESY LIGHT PREFLASHES AT 1 HZ, THEN ACTS AS COURTESY LIGHT.

MODE 2 - COURTESY LIGHT FLASHES AT 1 HZ FOR PREFLASH TIME AND THEN FLASHES IN SYNCHRONISM WITH THE STATUS LED WHILE THE MOTOR RUNS.

MODE 3 - COURTESY LIGHT ON CONTINUOUSLY FOR PREFLASH TIME AND MOTOR RUN TIME ONLY.

TIMER and COUNTER SETTING

Various timers and counters can be programmed. The procedure is described below in conjunction with Table 3, page 30.

STEP 1 - Ensure controller is in Programme Mode (see page 21).

STEP 2 - Press and hold the TEST pushbutton while monitoring LED L1.

STEP 3 - L1 will flash once then go off, twice in short succession then go off, 3 times then go off, etc.

STEP 4 - Release TEST pushbutton when the desired MAIN MENU item in Table 3 is required.

STEP 5 - To select required time (or count) hold TEST pushbutton while monitoring STATUS LED. After a short time STATUS will flash continuously and regularly. Each flash represents a unit of measure (i.e. time, distance or count).

Release TEST pushbutton when the required subdivision is selected. L2 will come ON to indicate that the controller is back in PROGRAMME MODE and another TIMER or FUNCTION (refer to procedure on page 27) can be programmed.

STEP 6 - Remove SET link when all programming is complete.

TABLE 3

	MAIN MENU	UNIT OF MEASURE	
	No of times L1 flashes	Each flash of STATUS represents	FACTORY DEFAULTS
	↓	↓	
NORMAL AUTOCLOSE	3	1 SEC	15 SEC
PEDESTRIAN AUTOCLOSE	5	1 SEC	5 SEC
COURTESY LIGHT	6	10 SEC	12x10 SEC
AUTOCLOSE OVERRIDE	8	1 SEC	3 SEC
PREFLASH TIME	11	1 SEC	5 SEC
COLLISION COUNTER	12	1 COUNT	4 COUNTS
CRAWL DISTANCE (D3/D5)	13	350 MM †	1x350mm
COAST MODE (A5)	13	10 MM	30mm

† THE CRAWL DISTANCE IS A LENGTH OF TRAVEL WHICH ALLOWS THE GATE TO SLOW DOWN BEFORE REACHING THE END STOP. FOR HEAVIER GATES WITH LESS FRICTION, THE CRAWL DISTANCE MAY HAVE TO BE INCREASED. WHEN INCREASING THE CRAWL DISTANCE, THE POSITION OF THE ORIGIN MARKER (ITEM 66 PAGE 15) MUST BE MOVED.

	CRAWL DISTANCE	STATUS FLASH COUNT	DISTANCE BETWEEN MARKER AND PINION
DEFAULT	350mm	1	500mm
	700mm	2	750mm
	1050mm	3	1100mm

TURBO MODE: TO SPEED UP THE COUNTING WHILE SELECTING MAIN MENU ITEMS TEMPORARILY CONNECT “PED” TERMINAL TO “COM”

PROCEDURE TO PROGRAMME CONTROLLER BACK TO FACTORY SETTINGS

1. REMOVE POWER (POWER SUPPLY AND BATTERY IF **D3** or **D5**).
2. FIT THE "**SET**" LINK.
3. CONNECT "**PED**" AND "**FRX**" TO "**COM**".
4. RECONNECT POWER. **L1** AND **L2** WILL ILLUMINATE.
5. REMOVE THE 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 (see page 28) AND TABLE 3 (see page 30) (GATE END POINTS ARE NOT AFFECTED).

FAULT FINDERS GUIDE D3 / D5 OPERATORS

REF: CP157

EFFECTIVE: 19/09/2001

SUPERCEDE: 29/11/2000

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 charger
 - 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 AUTO-CLOSE.

- 4.1 Latching Rx overrides auto-close
- 4.2 Long pulse on trigger input overrides auto-close (check pulse time of intercom gate release)
- 4.3 Faulty infra red 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 sensitive
- 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 CLOSE 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 16/20A slow blow 5x20mm)
- 11.3 Check battery connections are 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 that origin marker (magnet) is correctly positioned for the "Crawl Distance" selected (main menu item 13). If in doubt restore controller factory default settings. Refer to the Installation Manual, Table 3 for table of distances.
- 12.2 On an upgraded system, ensure that controller has been restored back to Factory default settings



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