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Latest Revision 22.06.98

Ref. P40p1.cdr

1. PRODUCT PRESENTATION

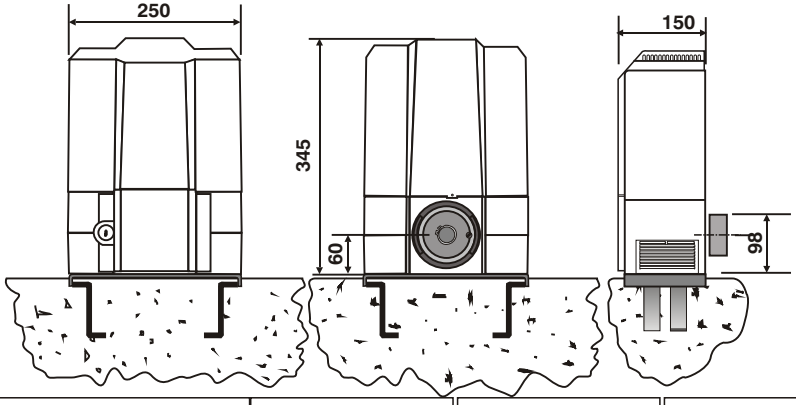
THE *D5* AND *A5* GATE OPERATORS ARE SELF - CONTAINED UNITS CONSISTING OF A WORMGEARED ELECTRIC MOTOR , AN ELECTRONIC CONTROL CARD AND A DIGITAL ORIGIN SEEKING SYSTEM (*DOSS*) WHICH KEEPS TRACK OF THE GATE POSITION.

THE UNITS HAVE A PLEASANT , MODERN DESIGN WHICH INTEGRATE HARMONIOUSLY WITH THE ENVIRONMENT OF HOME OR OFFICE.

THE SERIES 5 RANGE IS A QUALITY PRODUCT MEANT TO GIVE MANY YEARS OF RELIABLE OPERATON.

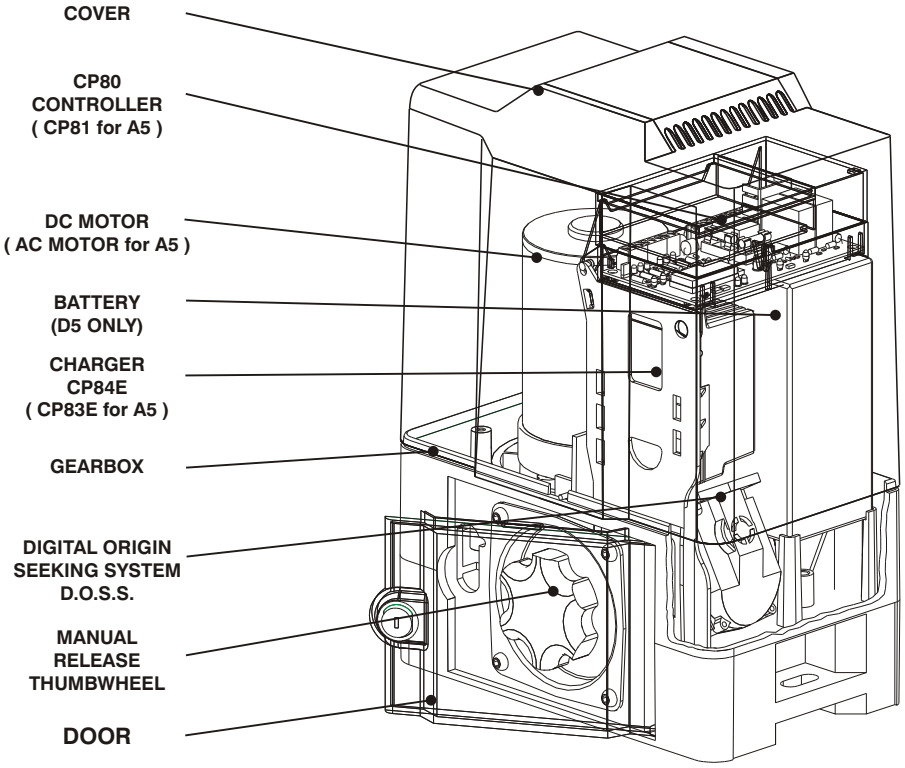
1.1. - General Features

The D5 & A5 models have been designed for sliding gates weighing less than 500 kg., whether already installed or still to be installed.



1.2 Technical Data	D5	A5	A5 + Fan
Power supply	220V,+/-10%, 50Hz	220V,+/-10%, 50Hz	220V,+/-10%, 50Hz
Motor voltage	12V DC	220V AC	220V AC
Maximum absorbed current	160mA	3A	3A
Starting thrust	60kgF	20kgF	20kgF
Rated thrust	25kgF	50kgF	50kgF
Duty cycle	50% (subject to battery capacity)	20%	70%
Speed of motor rotation	2800 r.p.m	2800 r.p.m	2800 r.p.m
Gear Ratio	37 to 1	37 to 1	37 to 1
Ambient Temperature Range	-15 +50 °C	-15 +50 °C	-15 +50 °C
Weight,(including 7A/H battery for D5)	13.5kg	12.75kg	13.25kg
Oil Quantity	75ml	75ml	75ml
Oil Type	75W90	75W90	75W90
Gate Speed (Nominal)	16 m/min	16 m/min	16 m/min
Class of Protection	IP44	IP44	IP22
Maximum Gate Weight	500kg	500kg	500kg

1.3 STANDARD KIT PRESENTATION



NOTE ! D5 OPERATOR IS SHOWN, A5 OPERATOR IS SIMILAR

WARRANTEE

THE SERIES 5 OPERATORS ARE GUARANTEED ONLY IF THE FOLLOWING

CONDITIONS ARE ADHERED TO:

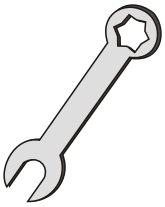
- MASS OF THE GATE IS LESS THAN 500kg;
- PULL ON GATE LESS THAN 25kgF;
- DUTY CYCLE IS NOT EXCEEDED (SEE CURVES);
- MAINTENANCE AS SPECIFIED IS CARRIED OUT.

- CENTURION IS AT THE DISPOSAL OF ITS CUSTOMERS FOR ANY FURTHER EXPLANATION TO OBTAIN BETTER PERFORMANCE OF THE AUTOMATION, BUT IS NOT LIABLE FOR ANY DAMAGES CAUSED BY DISREGARD OF THE ABOVE MENTIONED.

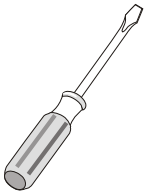
Ref. p38p3.cdr

2. PRODUCT INSTALLATION

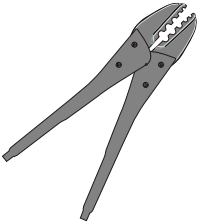
2.1 Recommended Tools



FLAT and RING SPANNER
13mm
16mm
17mm

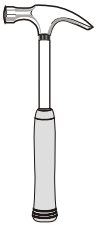


SCREW DRIVER
3,5mm FLAT
No 1. PHILLIPS



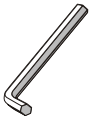
CRIMPING TOOL AND PIN LUGS

PLIERS/SIDE CUTTER

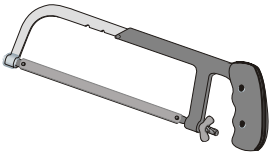


HAMMER

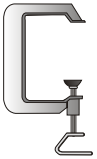
TAPE MEASURE



ALLEN KEYS
6mm ACROSS FLATS

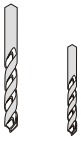


HACKSAW

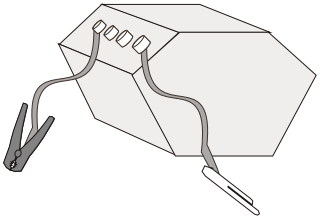


G-CLAMP

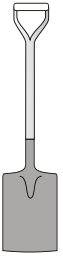
ELECTRIC DRILLING MACHINE



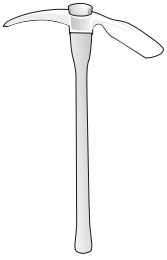
STEEL BITS - 6,5mm



WELDING MACHINE

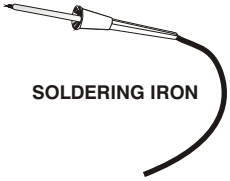


SPADE



PICK

LEVEL



SOLDERING IRON

2.2 Cable Requirements

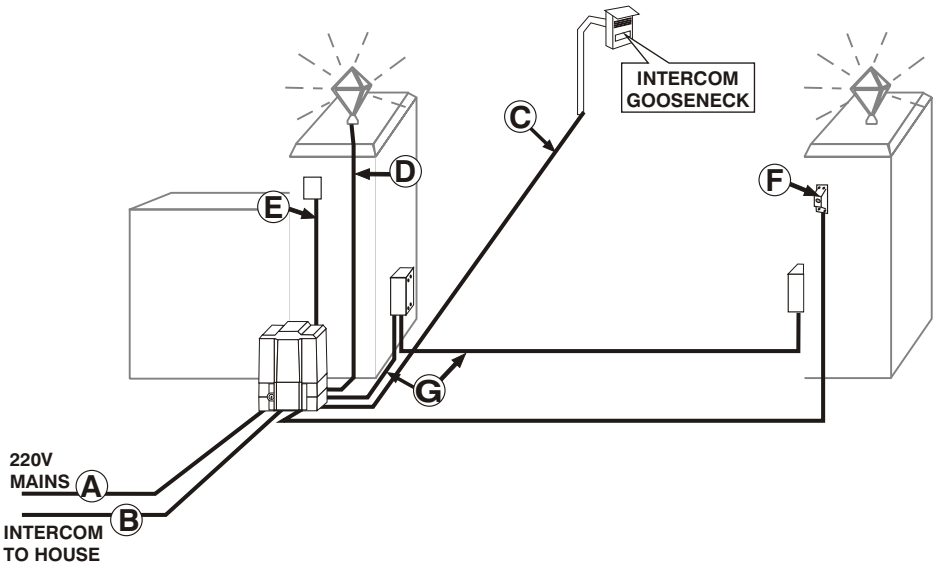


TABLE 1

NO	DESCRIPTION	NO OF CORES	SIZE mm^2	OPTIONAL	* CABLE TYPE
‡A	EITHER: 220V AC SUPPLY CABLE	2 + E	0,5		NORSK IN CONDUIT OR S.W.A.
	OR: 15V AC TRANSFORMER SECONDARY	2 + E	1,5		3 CORE CABTYRE IN CONDUIT
‡ B	INTERCOM IN HOUSE & STATUS SIGNALLING	n1 + 6	0,2	X	INTERCOM IN CONDUIT
C	INTERCOM - GEARBOX TO GOOSENECK	n 2	0,2	X	INTERCOM IN CONDUIT
D	PILLAR LIGHTS	2 + E	0,5	X	NORSK IN CONDUIT OR S.W.A.
E	REMOTE RECEIVER	3	0,2	X	INTERCOM/CABTYRE/ G.P. IN CONDUIT
F	PEDESTRIAN KEYSWITCH	2	0,2	X	INTERCOM/CABTYRE/ G.P. IN CONDUIT
G	INFRA RED BEAM	3	0,2	X	INTERCOM/CABTYRE/ G.P. IN CONDUIT
H	SOLAR PANEL (not shown)	2	1,5	X	CABTYRE OR G.P. IN CONDUIT

* = CABLE TYPE IS MINIMUM RECOMMENDATION

S.W.A. = STEEL WIRE ARMOURED

G.P. = GENERAL PURPOSE HOUSE WIRING OR PANEL FLEX

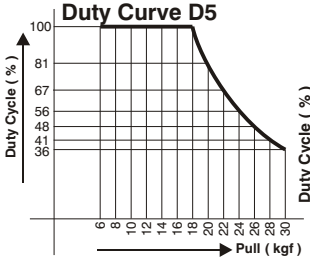
n1 = CONSULT INTERCOM SUPPLIER FOR REQUIRED NO. OF CORES

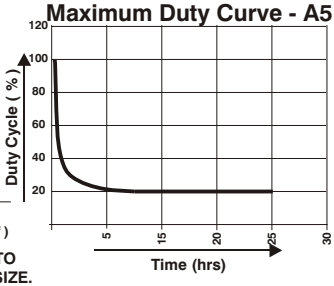
n2 = CONSULT INTERCOM SUPPLIER FOR REQUIRED NO. OF CORES

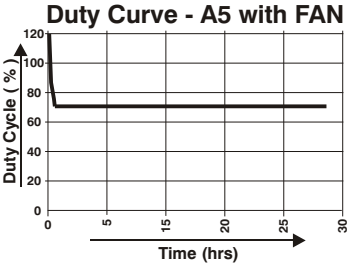
‡ = FOR OPTIMUM LIGHTNING PROTECTION USE SCREENED CABLE EARTHED AT BOTH ENDS

Ref. p36p5.cdr

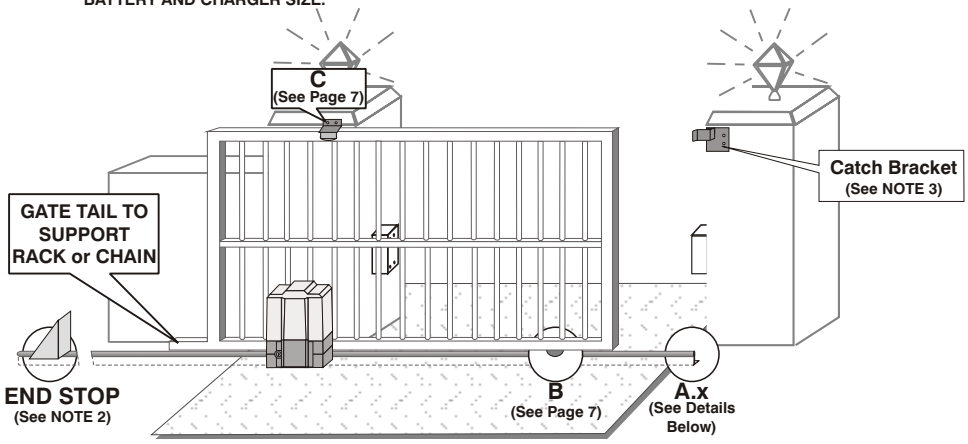
2.3 Gate Requirements

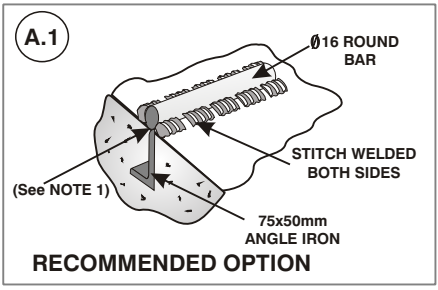


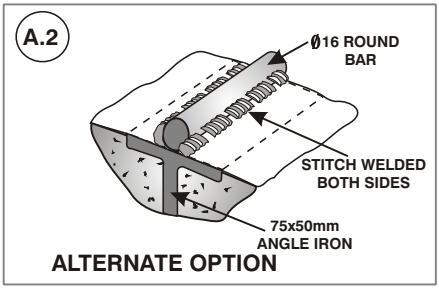


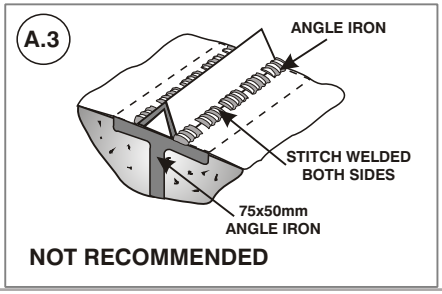


NOTE: DUTY CYCLE IS SUBJECT TO BATTERY AND CHARGER SIZE.









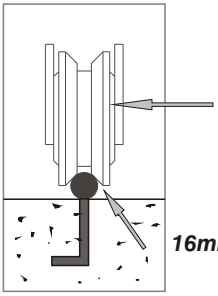
***NOTE 1*: The Bottom of the Round Bar (or the Angle Iron) should be Level with the Ground (or not exceeding 5 mm High).**

***NOTE 2*: Requirements of END STOP:**
- **Stop Gate in Fully Open Position;**
- **Strong Enough to Resist Full Thrust of Motor.**

***NOTE 3*: CATCH BRACKET**
- **Secure Front of Gate When Fully Closed;**
- **Prevent Front of Gate from Being Lifted;**
- **Strong Enough to Resist Full Thrust of Motor;**
- **Gate Must Slide Smoothly into Catch Bracket.**

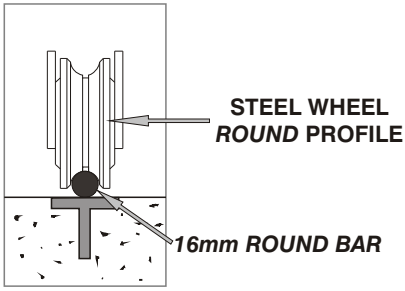
B

OPTION 1



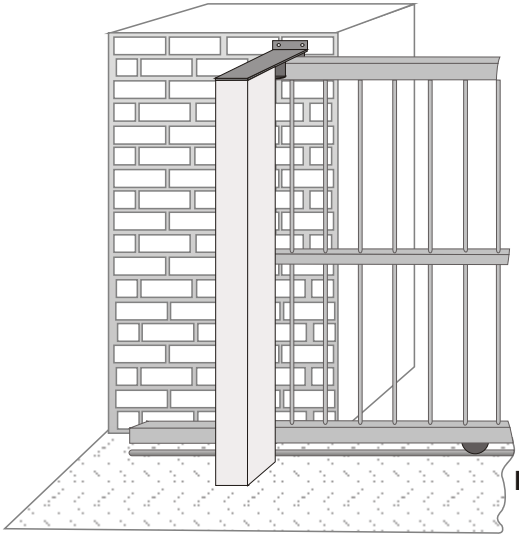
GATE MASS : UP TO 400 KG
LOW USAGE

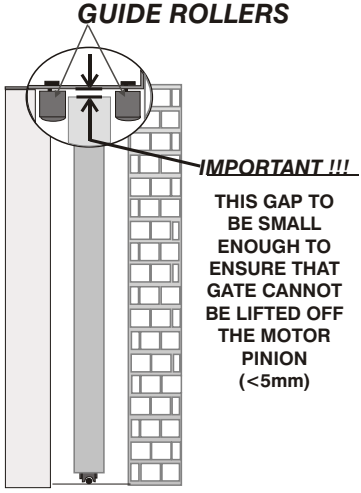
OPTION 2



GATE MASS : UP TO 800 KG
HIGH USAGE

C ***RECOMMENDED ADDITIONAL POST TO PREVENT GATE FROM FALLING OVER IF GUIDE ROLLER FAILS.***

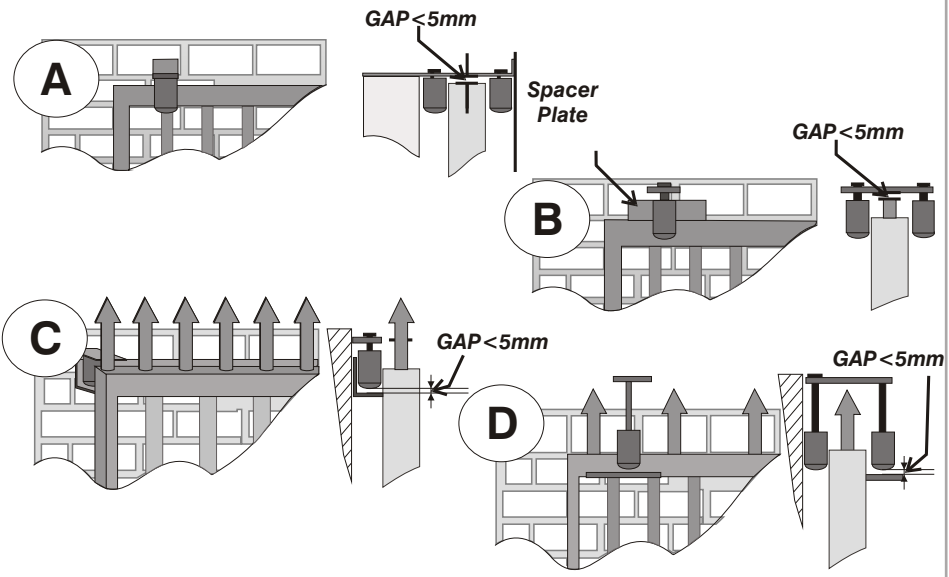




NOTE: See typical designs for anti lift bracket on page 8

Ref. p34p7.cdr

TYPICAL DESIGNS FOR ANTI LIFT BRACKET



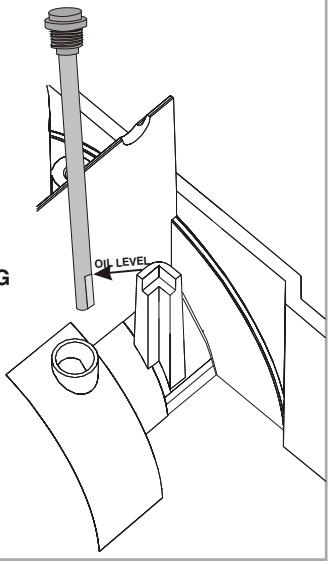
WARNING! - FILL WITH OIL PRIOR TO RUNNING

THE GEARBOX DOES NOT CONTAIN ANY OIL.
DO NOT OPERATE UNTIL OIL HAS BEEN ADDED.

FOR TRANSPORT PURPOSES THIS UNIT HAS BEEN SUPPLIED WITH OIL IN A SEPARATE SEALED CONTAINER.

INSTRUCTION FOR FILLING:

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**

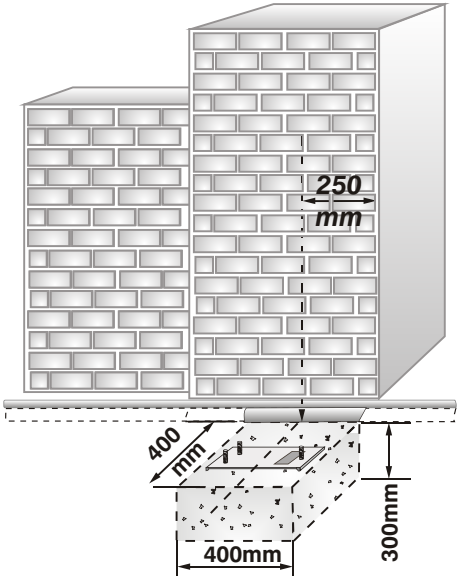


SPECIFICATIONS OF OIL:

GRADE: 75W90
QUANTITY: 75ml

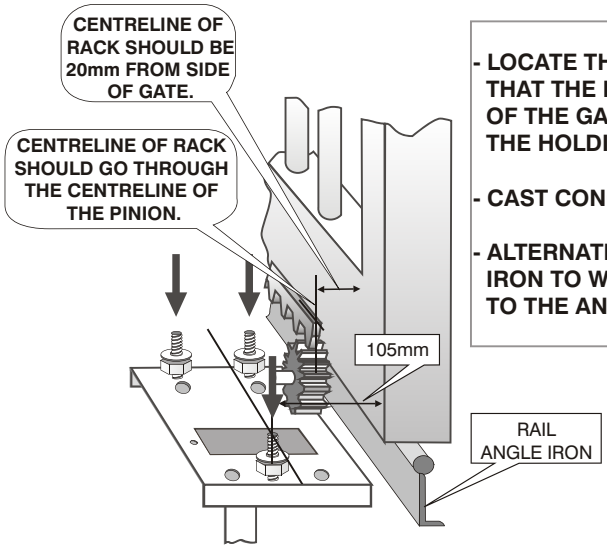
2.4 UNIT INSTALLATION

2.4.1 Preliminary Preparations Plate Mounting



- LOCATE CENTRELINE FOR HOLE AND FOUNDATION PLATE AS SHOWN.
- THERE IS NO DIFFERENCE IF MOUNTING ADJACENT RIGHT HAND PILLAR.
- DIG HOLE FOR FOUNDATION PLATE APPROXIMATELY 400 x 400 x 300mm.

2.4.2 POSITIONING OF FOUNDATION PLATE FOR RACK SLIDER



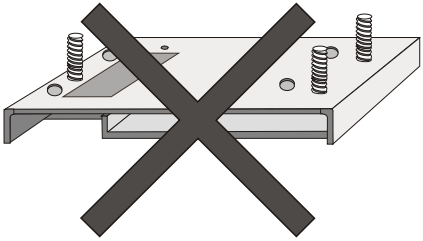
- LOCATE THE FOUNDATION PLATE SUCH THAT THE DISTANCE FROM THE SIDE OF THE GATE TO THE CENTRELINE OF THE HOLDING DOWN STUDS IS 105mm.
- CAST CONCRETE AROUND THE PLATE.
- ALTERNATIVELY USE STRIPS OF ANGLE IRON TO WELD THE FOUNDATION PLATE TO THE ANGLE IRON RAIL.

Ref. p32p9.cdr

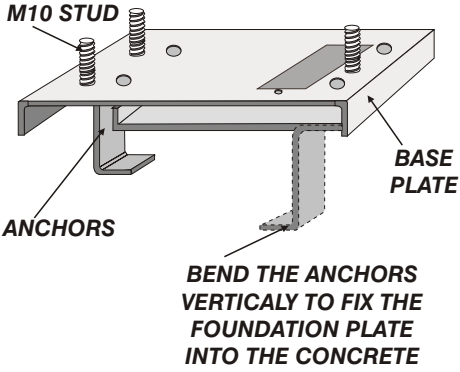
N.B. ! CHECK FOR CORRECT ORIENTATION OF BASEPLATE.

- PREPARE THE PLATE FOR CONCRETING INTO PLACE.

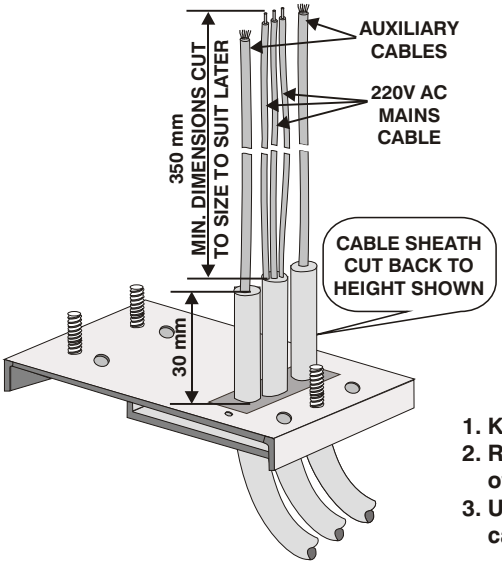
NOT CORRECT !!!

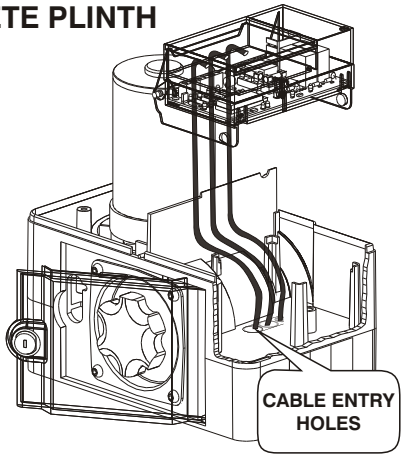


CORRECT !!!



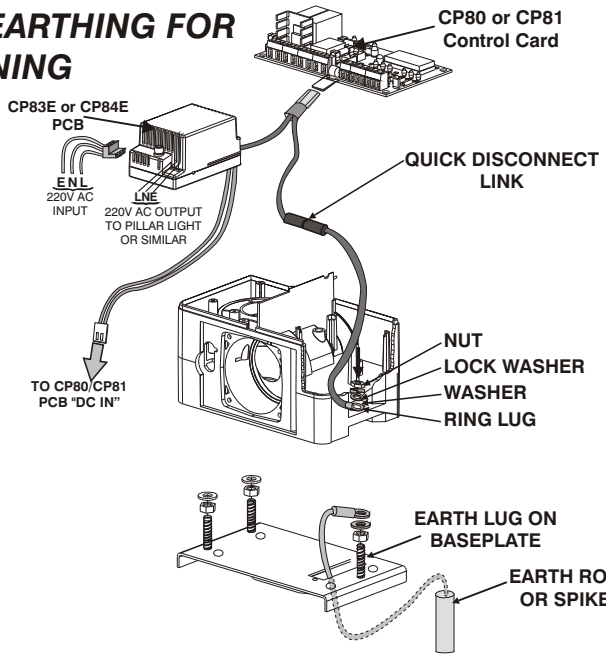
RECOMMENDED CABLE PREPARATION ***BEFORE*** CASTING CONCRETE PLINTH





1. **Knock out the required cable entry holes.**
2. **Recommended cable routing is in front of the battery and into terminals of PCB.**
3. **Use typically silicone sealer to seal off cable entry holes afterwards.**

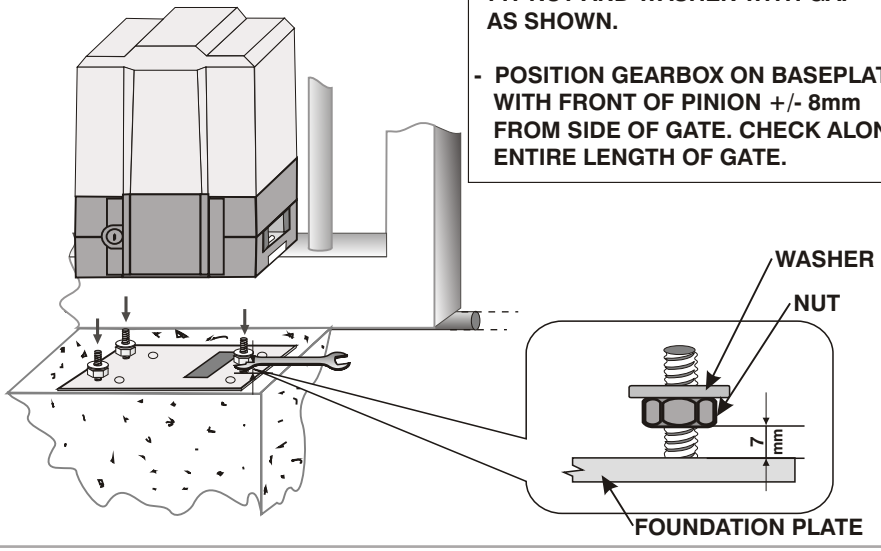
RECOMMENDED EARTHING FOR EFFECTIVE LIGHTNING PROTECTION



Positioning of Gearbox continued

2.4.3 ADJUSTING THE POSITION OF THE UNIT

- FIT NUT AND WASHER WITH GAP AS SHOWN.
- POSITION GEARBOX ON BASEPLATE WITH FRONT OF PINION +/- 8mm FROM SIDE OF GATE. CHECK ALONG ENTIRE LENGTH OF GATE.

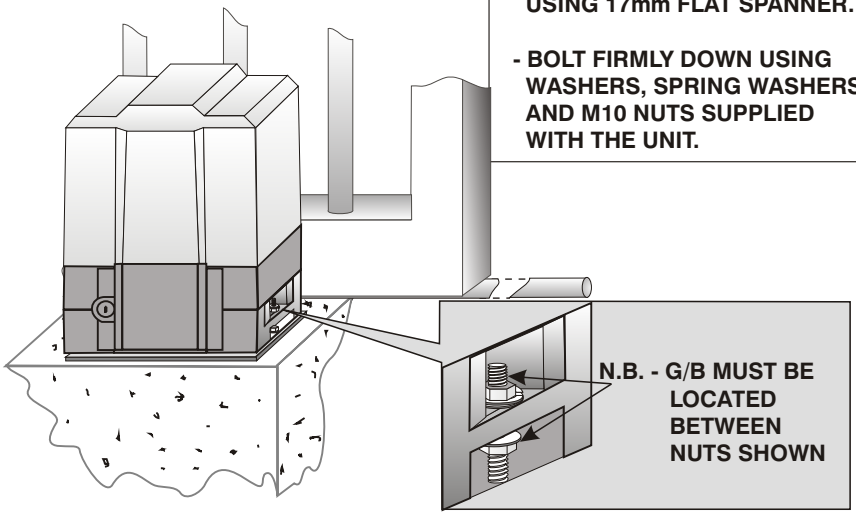


Ref. p30p11.cdr

2.4.4 BOLTING DOWN THE UNIT

- USE NUTS TO ADJUST LEVEL AND HEIGHT OF GEARBOX USING 17mm FLAT SPANNER.

- BOLT FIRMLY DOWN USING WASHERS, SPRING WASHERS AND M10 NUTS SUPPLIED WITH THE UNIT.

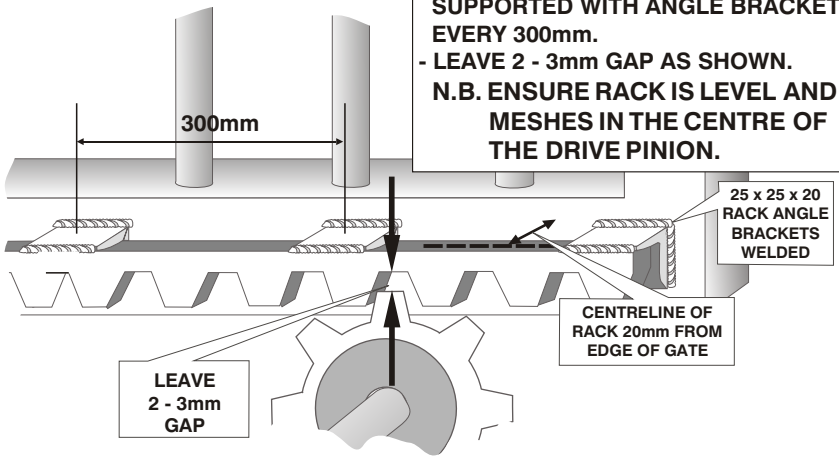


2.4.5 MOUNTING OF RACK

Positioning of steel rack

- WELD RACK INTO PLACE USING ANGLE BRACKETS
- RACK MUST BE SECURELY SUPPORTED WITH ANGLE BRACKETS EVERY 300mm.
- LEAVE 2 - 3mm GAP AS SHOWN.

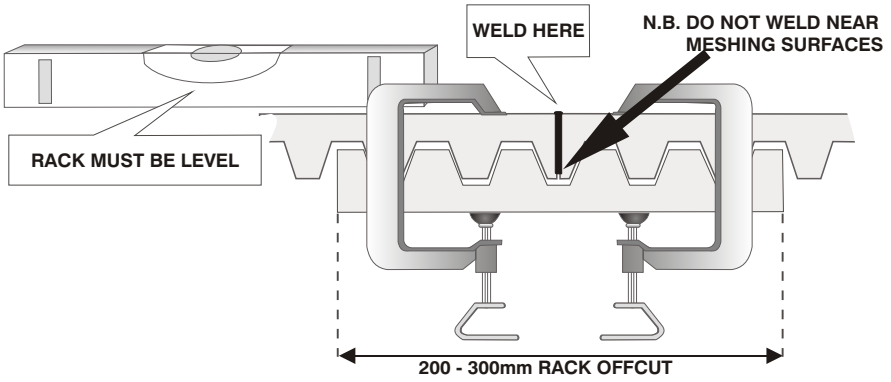
N.B. ENSURE RACK IS LEVEL AND MESHES IN THE CENTRE OF THE DRIVE PINION.



N.B. RACK MESH IS CRITICAL FOR RELIABLE OPERATION OF SYSTEM.

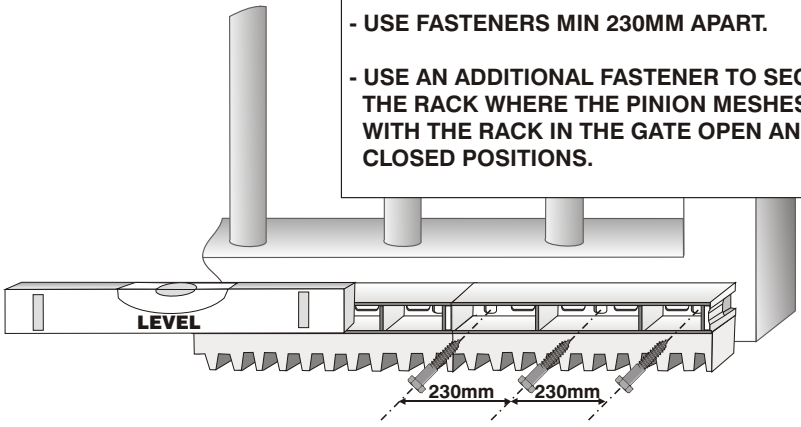
- Joining steel rack

- CUT OFF SHORT LENGTH OF RACK (approx. 200mm).
- CLAMP THE NEW PIECES TO OFFCUT
- WELD PIECES TOGETHER WHERE INDICATED.



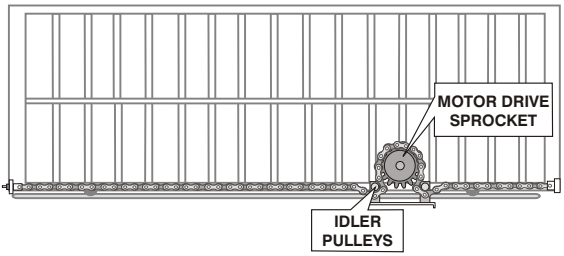
Mounting and Joining of Nylon Rack

- WORK FROM RHS OF THE GATE TO LHS TO ENSURE RACK CLIPS TOGETHER.
- SCREW NYLON RACK ONTO GATE USING FASTENERS PROVIDED.
- USE FASTENERS MIN 230MM APART.
- USE AN ADDITIONAL FASTENER TO SECURE THE RACK WHERE THE PINION MESHES WITH THE RACK IN THE GATE OPEN AND CLOSED POSITIONS.



Ref. p28p13.cdr

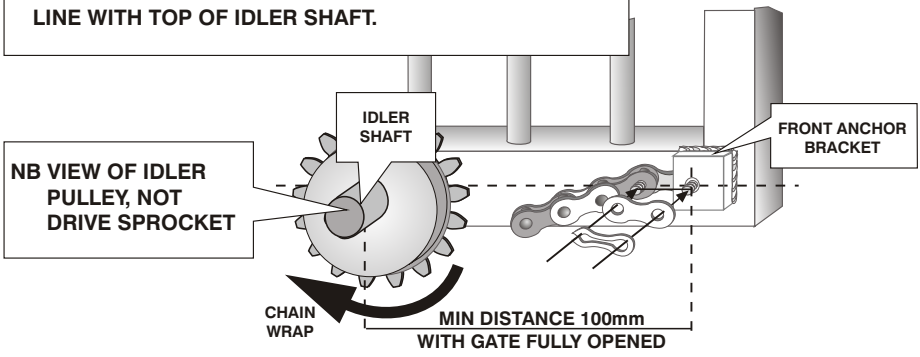
2.4.6 MOUNTING CHAIN

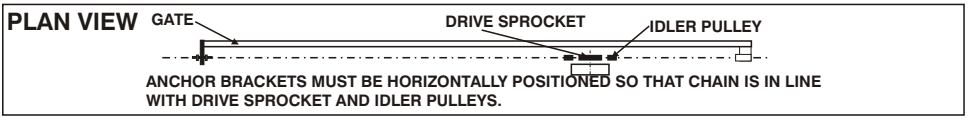


NOTE: Mount chain under idler pulleys and over motor drive sprocket

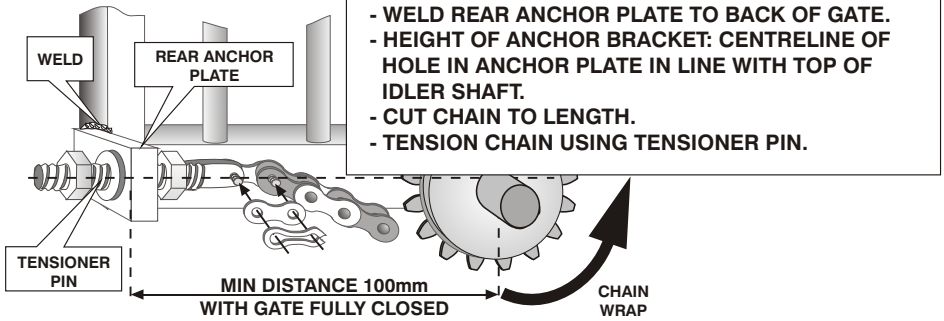
POSITIONING FRONT ANCHOR BRACKET

- WELD FRONT ANCHOR BRACKET TO FRONT OF GATE.
- HEIGHT OF ANCHOR BRACKET: CENTRELINE IN LINE WITH TOP OF IDLER SHAFT.





POSITIONING REAR ANCHOR PLATE WITH TENSIONER



- WELD REAR ANCHOR PLATE TO BACK OF GATE.
- HEIGHT OF ANCHOR BRACKET: CENTRELINE OF HOLE IN ANCHOR PLATE IN LINE WITH TOP OF IDLER SHAFT.
- CUT CHAIN TO LENGTH.
- TENSION CHAIN USING TENSIONER PIN.

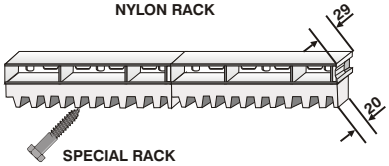
3.0 ACCESSORIES

RACK & ATTACHMENTS

MACHINED STEEL RACK

25 x 25 RACK
ANGLE SUPPORT
BRACKET

NYLON RACK



SPECIAL RACK
FASTENERS

FASTENERS

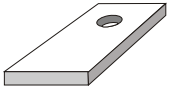
M10 NUT(S)

FLAT WASHER(S)

LOCK WASHER

CHAIN & ATTACHMENTS

M12 x 85mm LONG
CHAIN TENSIONER PIN



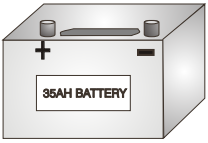
CHAIN
ANCHOR PLATE (REAR)

CHAIN - 4m or 5m LENGTHS

MASTER LINK(S)

CHAIN ANCHOR
BRACKET (FRONT)

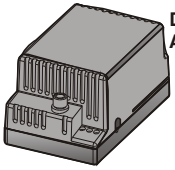
BATTERIES (D5 ONLY)



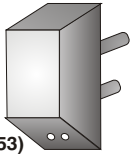
(LIGHT INDUSTRIAL)

(DOMESTIC)

POWER SUPPLY

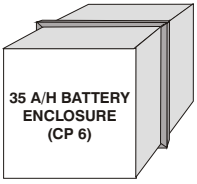


D5 CHARGER - CP84E
A5 POWER SUPPLY - CP83E

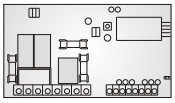


PLUG IN TRANSFORMER (CP53)
(USE WITH CHARGER CP84XTE) D5 ONLY

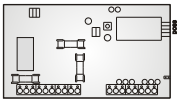
ENCLOSURES (OPTIONAL)



ELECTRONICS



CP80
CONTROL CARD
(D5)



CP81
CONTROL CARD
(A5)

Ref. p26p15.cdr

4. ELECTRICAL CONNECTIONS

NB.

The controllers on the A5 and D5 versions are different. Make sure you are connecting the correct controller:

CONTROLLER TYPES

1) CP80 - USED ON D5 OPERATOR

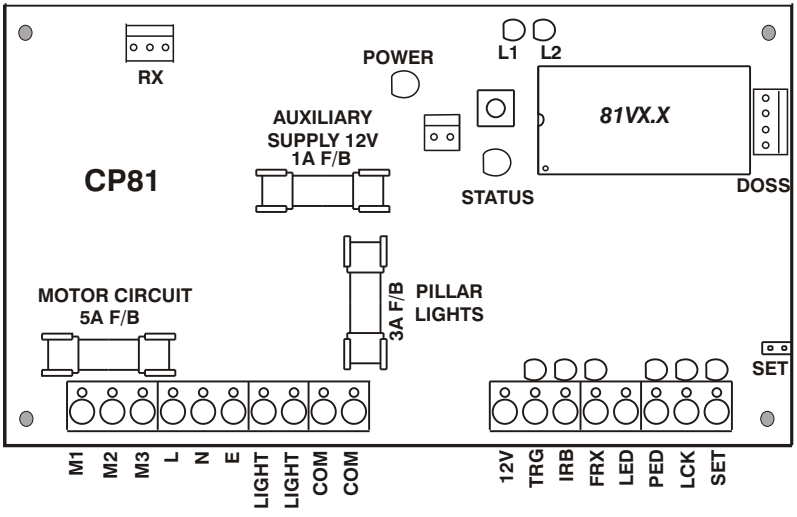
2) CP81 - USED ON A5 OPERATOR

NOTES:

Select which pieces of equipment need to be connected and then link to one of the controllers shown below.

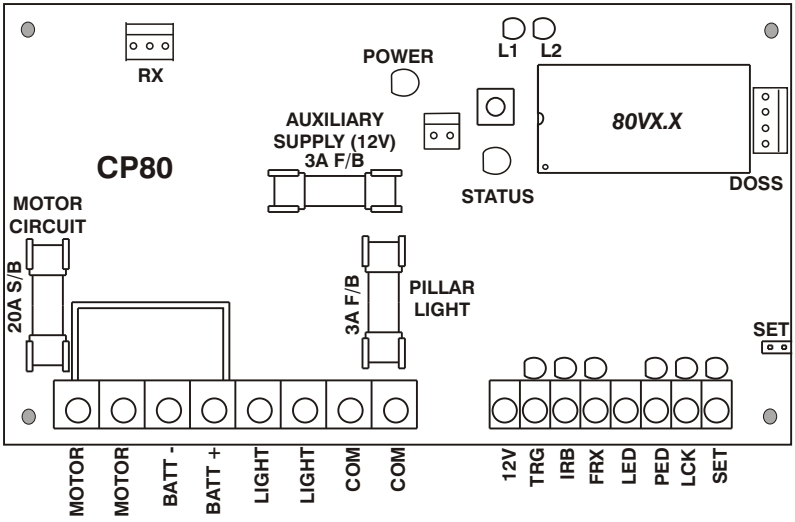
- 220V AC MOTOR CONTROLLER

CP81 CONTROL CARD

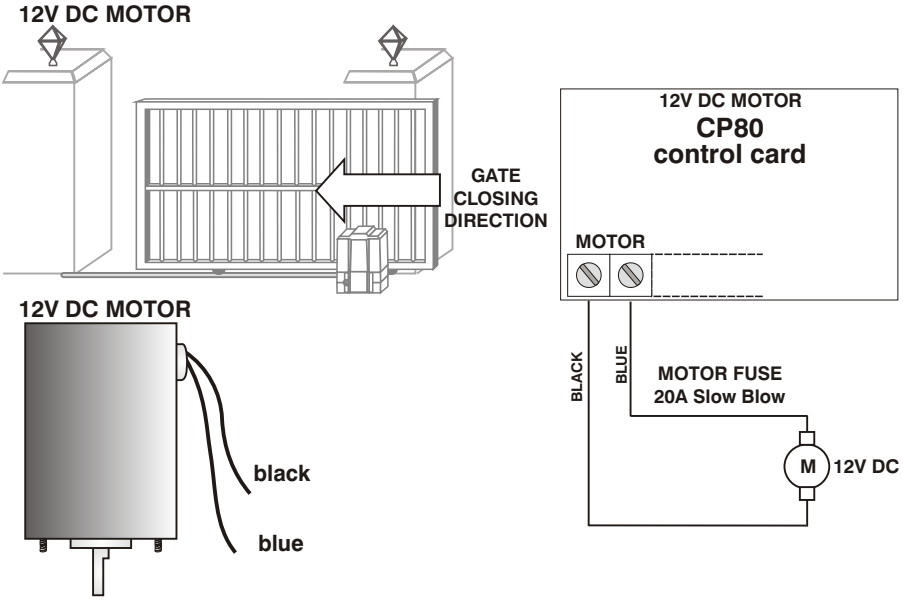


CP80 CONTROLLER - 12V DC MOTOR CONTROLLER

CP80 CONTROL CARD

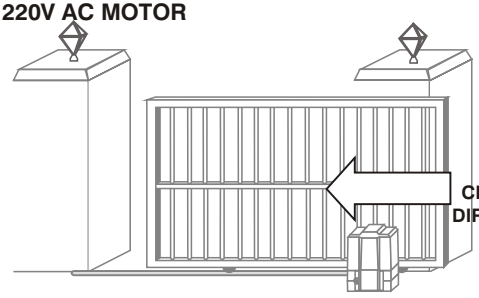


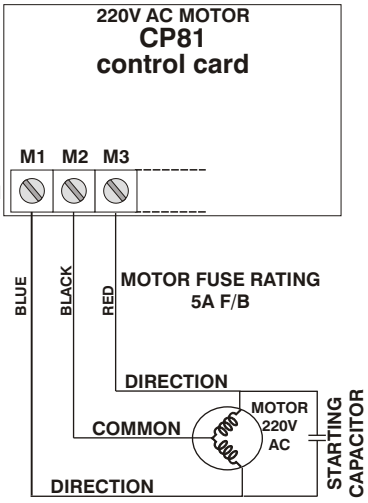
MOTOR CONNECTIONS



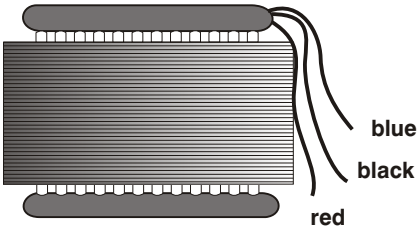
Ref. p24p17.cdr

220V AC MOTOR



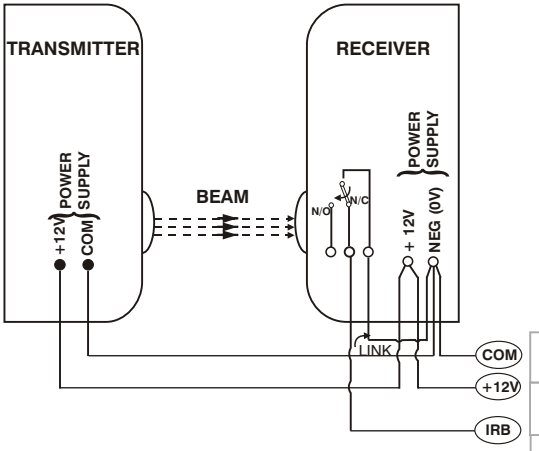


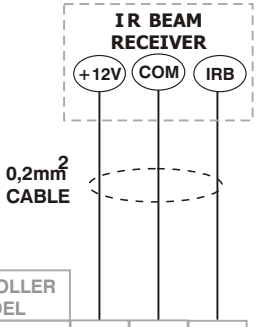
220VAC MOTOR



SAFETY BEAM

N.B. IF BEAMS ARE NOT USED THEN ENSURE THAT A LINK IS FITTED FROM "COM" TO "IRB" TERMINAL ON CONTROL CARD.

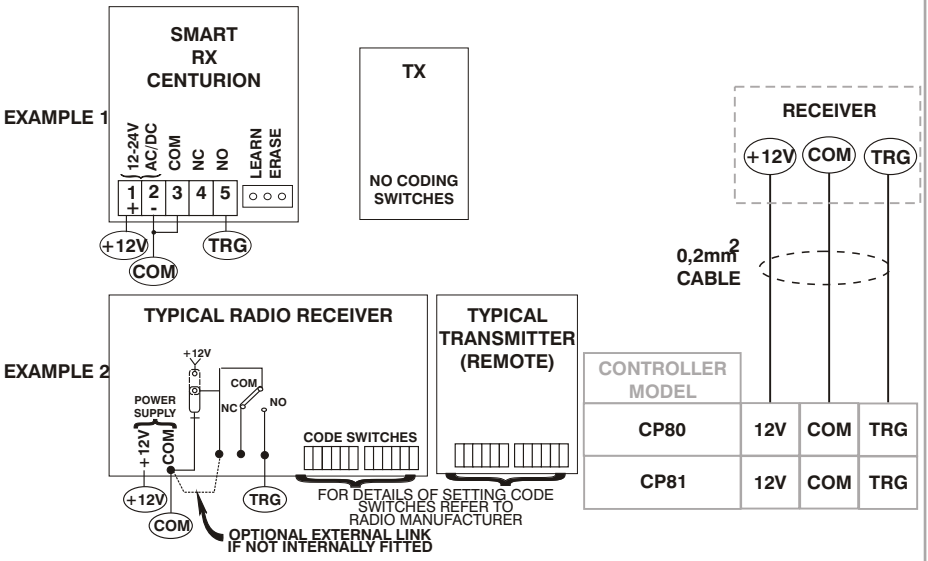




CONTROLLER MODEL			
CP80	12V	COM	IRB
CP81	12V	COM	IRB

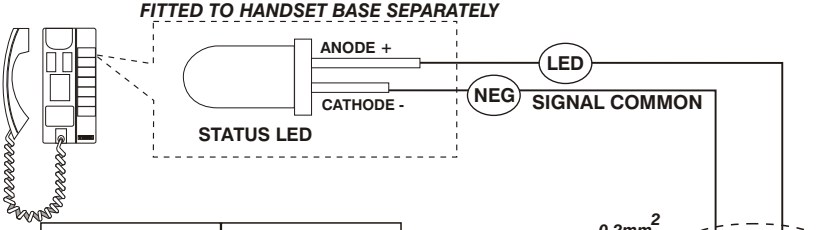
NOTE - TYPICAL SAFETY BEAM IS SHOWN.
REFER TO MANUFACTURER FOR DETAILS

RADIO CONNECTIONS *- (REFER TO CENTURION FOR CODING DETAILS)*



CONTROLLER MODEL			
CP80	12V	COM	TRG
CP81	12V	COM	TRG

REMOTE GATE STATUS LIGHT EMITTING DIODE (LED)



GATE STATUS	LED INDICATION
PILLAR LIGHT ON CONTINUOUSLY	1 FLASH / 2 sec
MAINS LOSS	2 FLASHES / 2 sec
BATTERY LOW	3 FLASHES / 2 sec
COLLISION DETECTION	4 FLASHES / 2 sec
GATE CLOSED	OFF
GATE OPEN	ON
GATE OPENING	SLOW EVEN FLASH
GATE CLOSING	FAST EVEN FLASH

CONTROLLER MODEL		
CP80	COM	LED
CP81	COM	LED

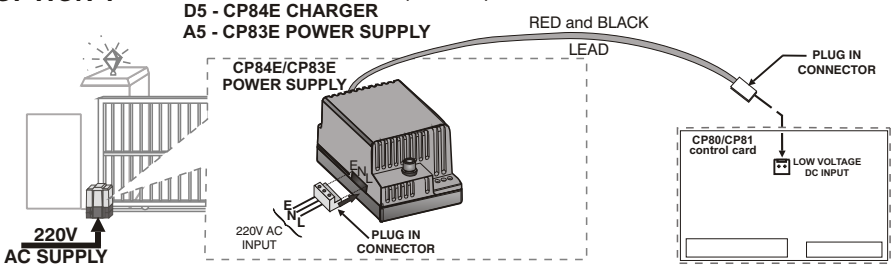
Ref. p22p19.cdr

Electrical Connections continued

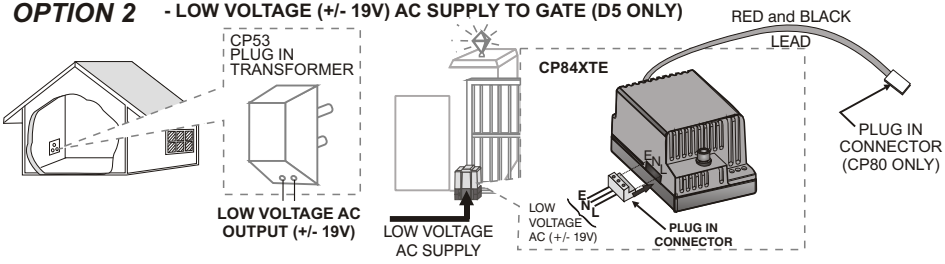
POWER SUPPLY / BATTERY CHARGER

OPTION 1 - 220V AC SUPPLY TO GATE (A5 or D5)

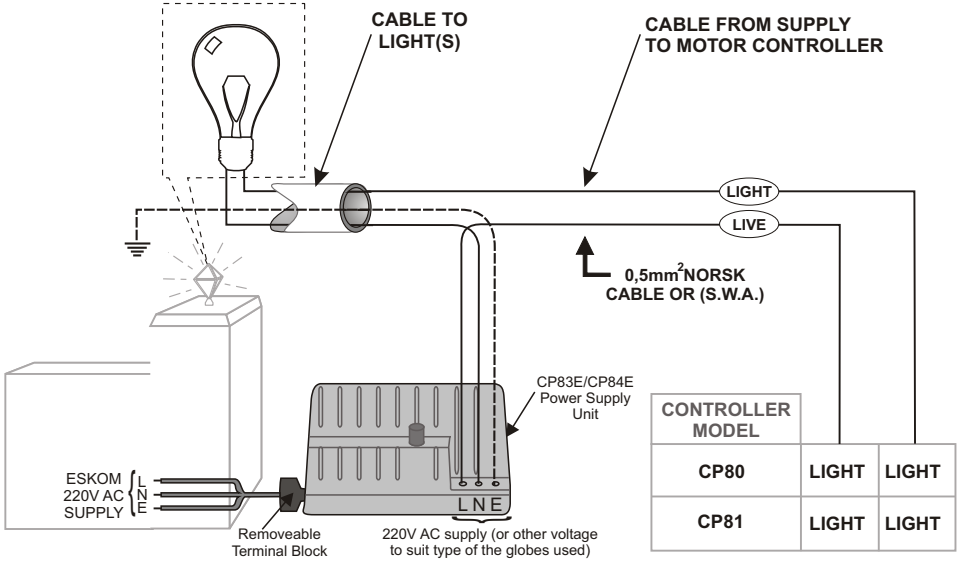
D5 - CP84E CHARGER
A5 - CP83E POWER SUPPLY



OPTION 2 - LOW VOLTAGE (+/- 19V) AC SUPPLY TO GATE (D5 ONLY)

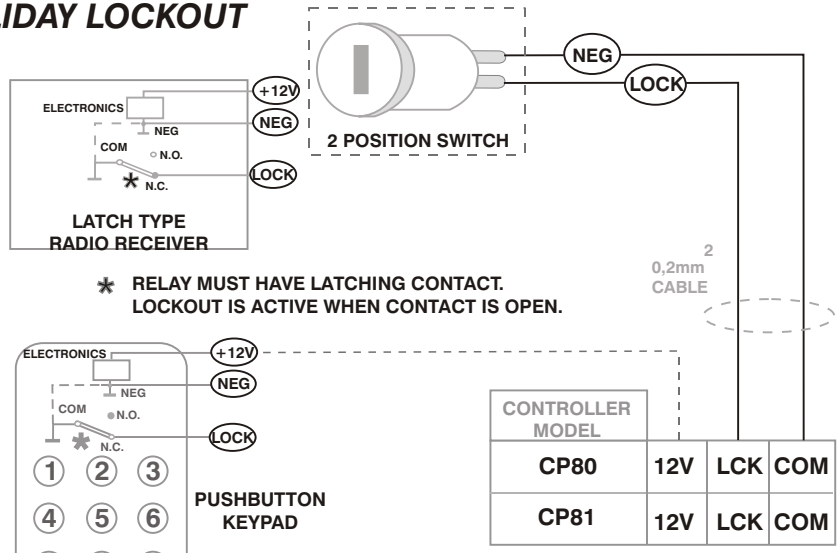


PILLAR LIGHT(S)



CONTROLLER MODEL		
CP80	LIGHT	LIGHT
CP81	LIGHT	LIGHT

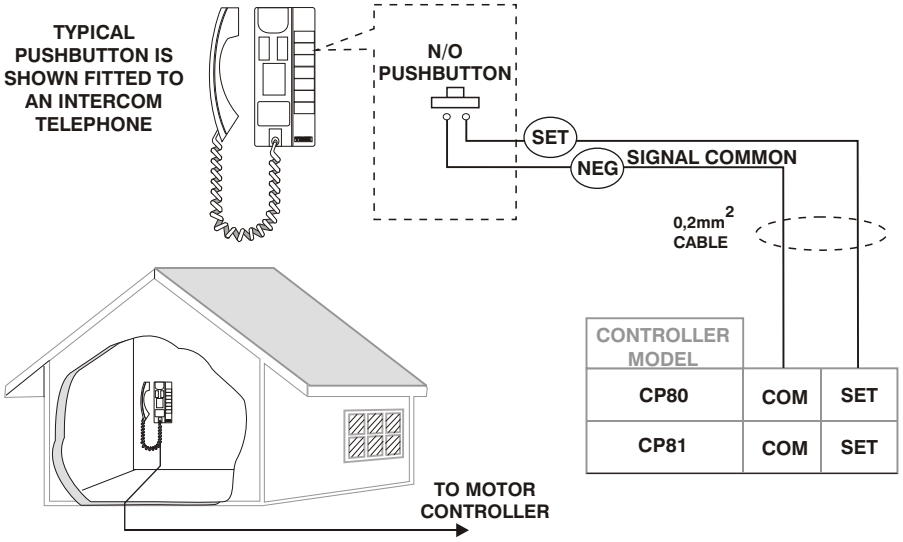
HOLIDAY LOCKOUT



CONTROLLER MODEL			
CP80	12V	LCK	COM
CP81	12V	LCK	COM

NB: IF HOLIDAY LOCKOUT IS NOT USED, ENSURE THAT A LINK IS FITTED FROM "COM" TO "LCK" TERMINAL ON CONTROL CARD.

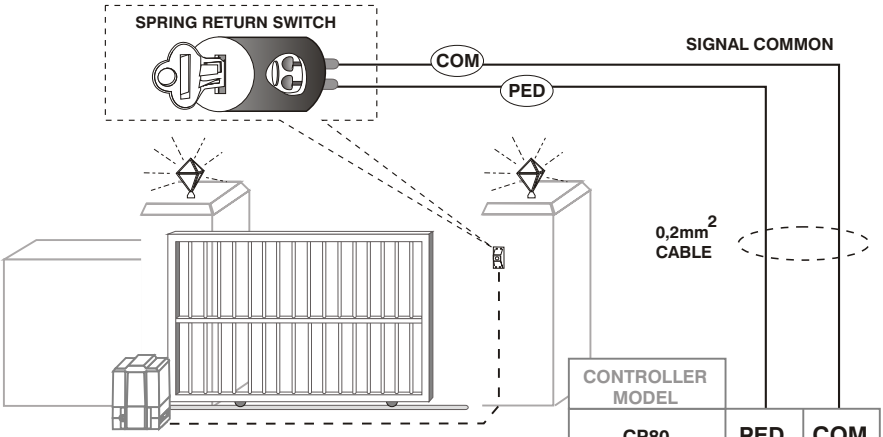
REMOTE PROGRAMME SWITCH (Activate pillar lights)



CONTROLLER MODEL		
CP80	COM	SET
CP81	COM	SET

Ref. p20p21.cdr

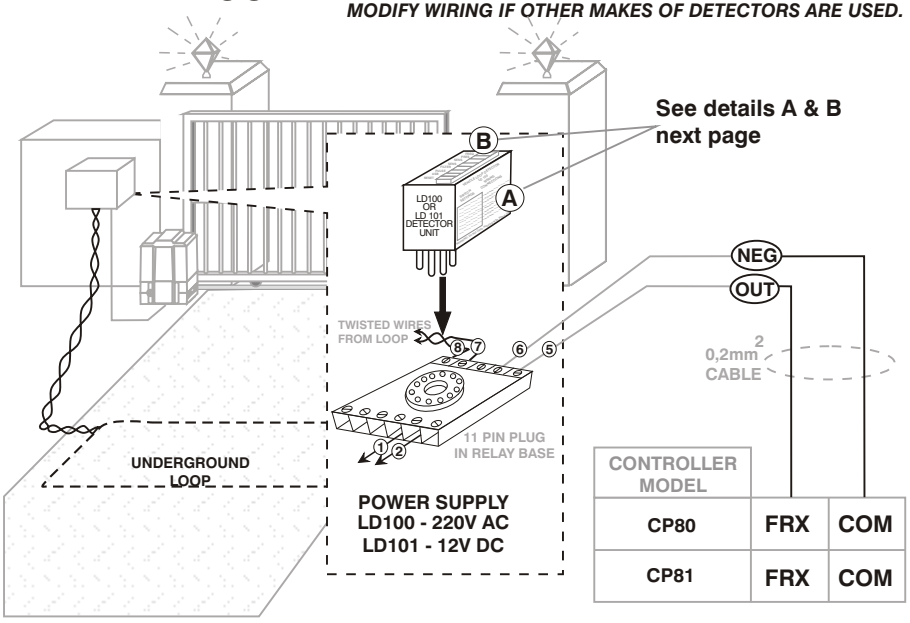
PEDESTRIAN KEYSWITCH



CONTROLLER MODEL		
CP80	PED	COM
CP81	PED	COM

FREE EXIT LOOP -

LD 100 OR 101 INDUCTIVE LOOP DETECTOR IS SHOWN BELOW. MODIFY WIRING IF OTHER MAKES OF DETECTORS ARE USED.



CONTROLLER MODEL		
CP80	FRX	COM
CP81	FRX	COM

LOOP DETAILS

STANDARD FEATURES OF THE DETECTOR ARE:

- Reset Switch.
The reset switch enables the detector to be manually reset during commissioning and testing.
This results in the detector re-tuning the sensing loop and becoming ready for vehicle detection.
- Selectable Pulse Time. This feature sets the length of time that the pulse relay will be energised for.
- Pulse Relay Selection. The Pulse relay may be configured to energise on detection of vehicle leaves the loop.
- Second Presence Relay output.
This option is used to provide a second presence relay output by changing the mode of the pulse relay to presence mode.
- Switch selectable Sensitivity. Four sensitivity settings are available on the switches to allow flexibility in configuration.
High - 0.02% ; Medium High - 0.05%
Medium Low - 0.1% ; Low - 0.5%
- Switch selectable Frequency. Two frequency settings are available to prevent cross-talk between adjacent loops.
- Permanent Presence Option.
This feature ensures detection of the vehicle will be maintained when the vehicle is parked over the loop for extended periods.

DETAIL A

VEHICLE LOOP DETECTOR
LD 101

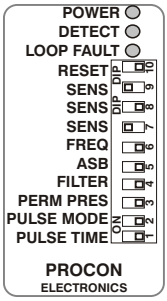
	ON	OFF
RESET	ON	OFF
SENS 0,02%	-	S7/S8/S9
SENS 0.01%	S9	S7/S8
SENS 0.05%	S8	S7/S8
SENS 0.1%	S8/S9	S7
SENS 0.2%	S7	S8/S9
SENS 0.5%	S7/S9	S8
SENS 1%	S7/S8	S9
SENS 2%	S7/S8/S9	-
FREQ	LOW	HI
ASB	ON	OFF
FILTER	2SEC	OFF
PERM.PRES	ON	OFF
PULS MODE	UNDET	DET
PULS TIME	1SEC	0.2SEC

WIRING CONNECTIONS

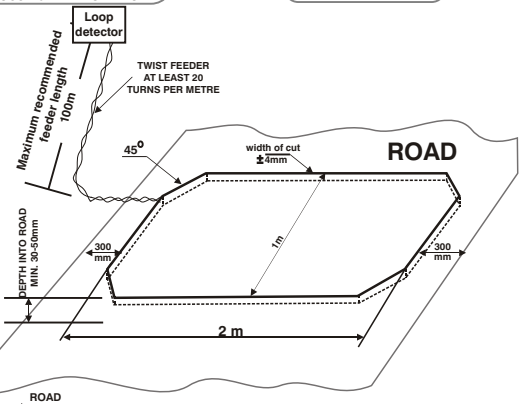
CONNECTION	PIN
+ 10V-14VDC 80mA	1
- 12VAC 50/60Hz	2
PULSE RLY N/O	3
PULSE RLY COM	4
PRESENCE RLY N/O	5
PRESENCE RLY COM	6
LOOP	7
LOOP	8
EARTH	9
PRES. RLY N/C	10
PRES. RLY N/C	11

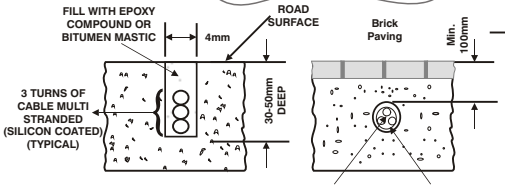
WARNING: DO NOT OPEN HOUSING WITH POWER ON.

DETAIL B (Recommended settings)



Note: If two detectors are used, set different frequencies (S1)





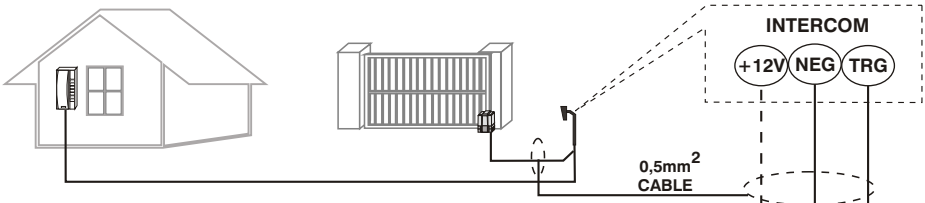
LOOP CIRCUMFERENCE IN METRES	NO. OF TURNS
> 10	2
6 - 10	3
< 6	4

- WIRE: 1.5mm SQUARED MULTI STRANDED CABLE (USE SILICON COATED IF PLACED DIRECTLY INTO THE GROUND)
- SPACING BETWEEN TWO ADJACENT LOOPS > 2 METRES. ALTERNATE ADJACENT LOOPS USING DIFFERENT NUMBERS OF TURNS.
- LOOP AND FEEDER SHOULD COMPRISE ONE LENGTH OF UNJOINED WIRE. IF JOINTS ARE MADE, THEN SOLDER JOINT.
- USE SCREENED FEEDER CABLE IN ELECTRICALLY NOISY ENVIRONMENTS OR WHERE FEEDER RUNS PARALLEL TO POWER CABLES.

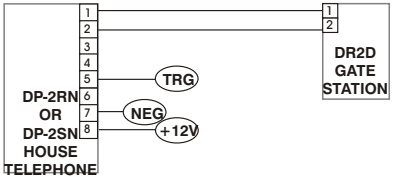
Ref. p18p23.cdr

INTERCOM CONNECTIONS

NOTE: - Many different intercom types are available.
- Only signals necessary to interface intercom to Centurion's controller are shown.

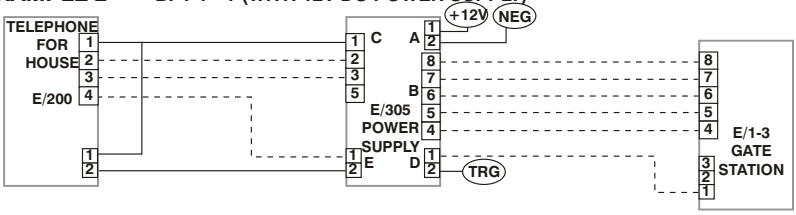


EXAMPLE 1 COMMAX 1 - 1 (12V)



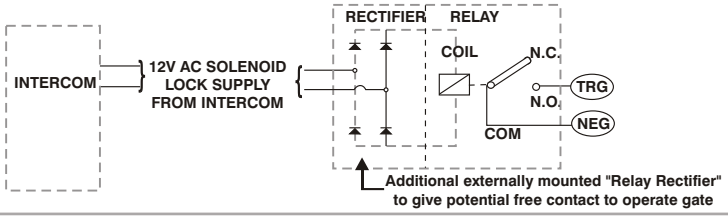
CONTROLLER MODEL			
CP80	12V	COM	TRG
CP81	12V	COM	TRG

EXAMPLE 2 BPT 1 - 1 (WITH 12V DC POWER SUPPLY)



EXAMPLE 3 TEGUI 12V DC INTERCOM (LUX KIT)

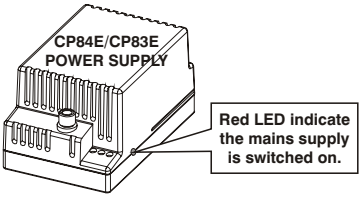
EXAMPLE 4 TYPICAL 220V AC POWERED INTERCOM

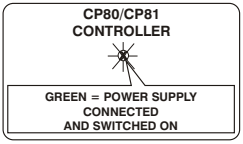


5. COMMISSIONING

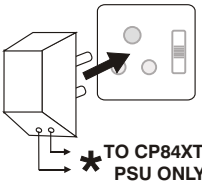
5.1 APPLYING MAINS POWER

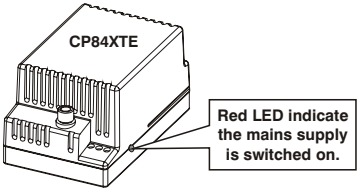
OPTION 1 ***220V AC SUPPLY TO GATE***
- APPLY 220V AC POWER
- CHECK POWER ON INDICATION

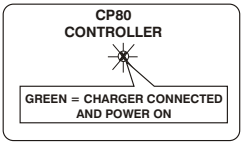




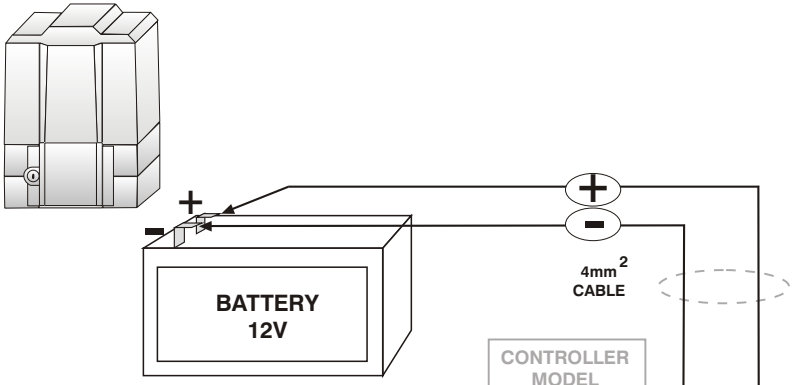
OPTION 2 **LOW VOLTAGE SUPPLY TO GATE (D5 ONLY)**
- PLUG IN TRANSFORMER AND SWITCH ON CIRCUIT
- CHECK POWER ON INDICATION







CONNECTING BATTERY (D5 ONLY)



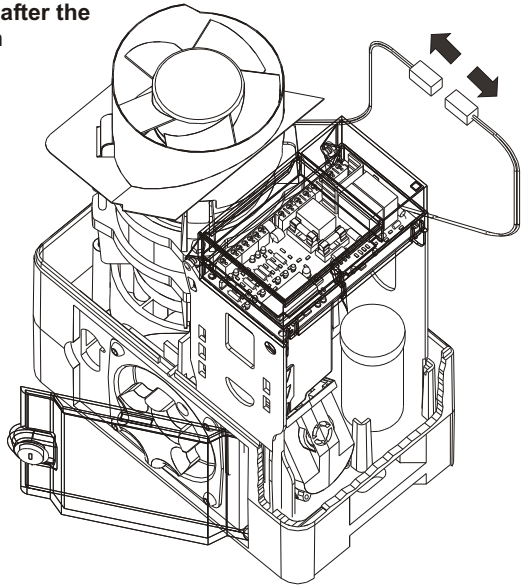
CONTROLLER MODEL	BATT (-)	BATT (+)
CP80		
CP81	N/A	N/A

NOTE: IF A LARGE BATTERY IS USED, THE CABLES CONNECTING THE BATTERY TO THE CP80 CARD SHOULD BE BETWEEN 6 & 10 mm^2 FOR CABLE LENGTHS LESS THAN 5 METRES.

Ref. p16p25.cdr

5.2 SETTING CLUTCH ON A5 MOTOR

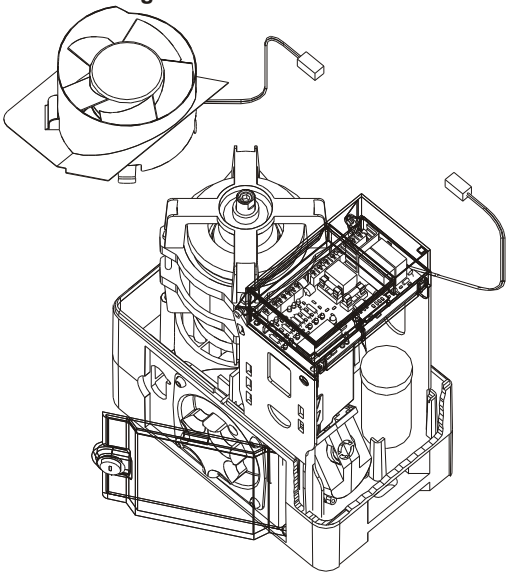
NOTE: This can only be carried out after the control card, CP81, has been programmed.



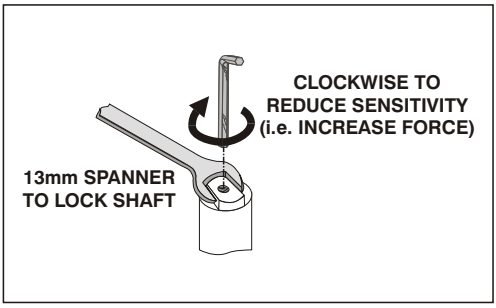
STEP 1

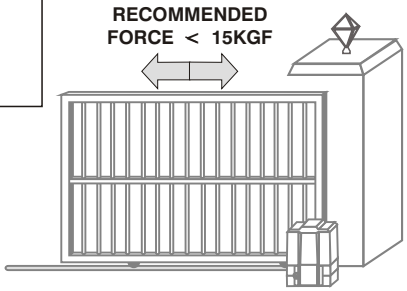
- If fan is fitted, disconnect power cable to fan.

STEP 2 - Remove Fan Cowling from Motor.

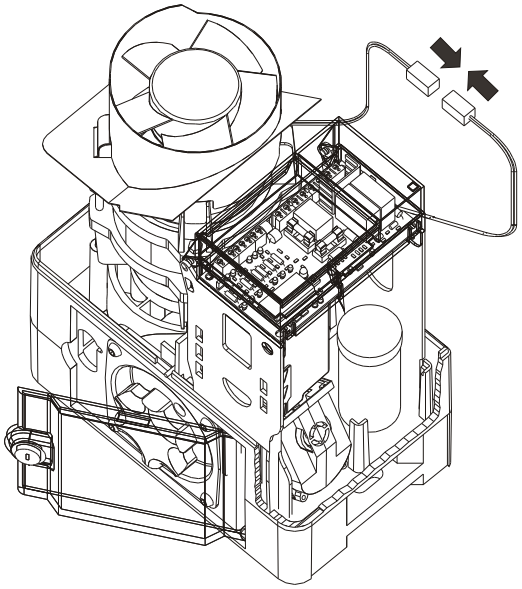


STEP 3 **Adjust grub screw to correct gate pulling / push force.**



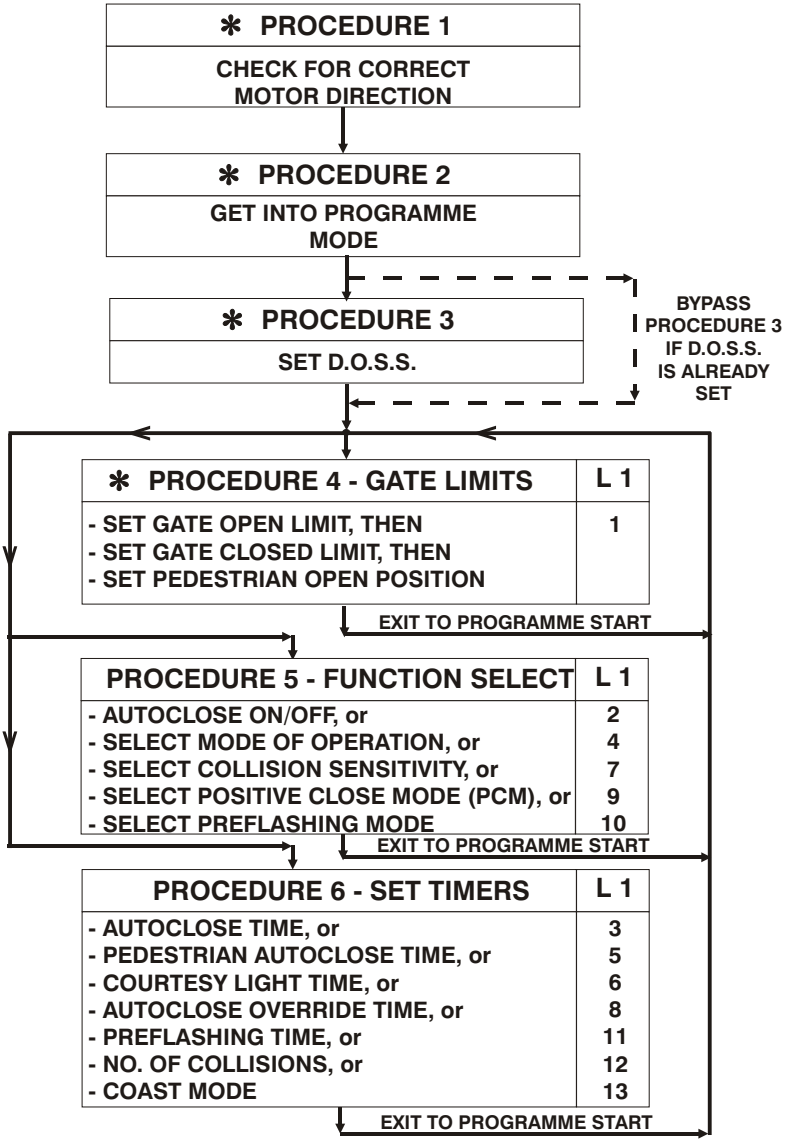


STEP 4 **Remount cooling fan, where applicable, and connect power.**



5.3 PROGRAMMING THE CP80/CP81 CONTROL CARD

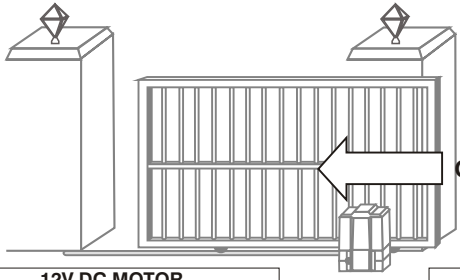
N.B. ∗ Procedure 1 to 4 MUST be performed on initial commissioning.
Procedure 5 & 6 are required ONLY if the default settings on the PCB need to be changed.
The procedure is shown in the following block diagram.

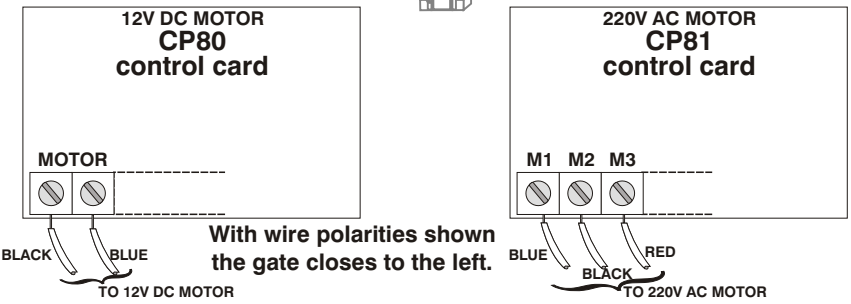


PROCEDURE 1- CHECK FOR CORRECT MOTOR DIRECTION

N.B. Procedure 1 to 4 MUST be performed on initial commissioning:

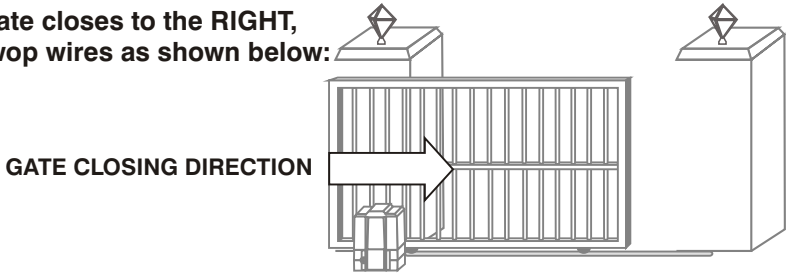
1. Check motor direction

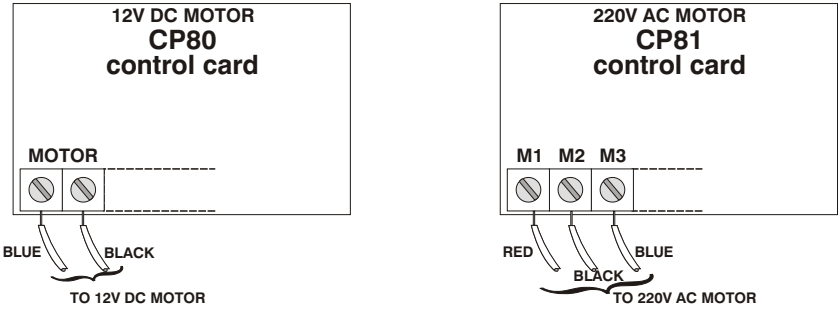




With wire polarities shown the gate closes to the left.

If the gate closes to the RIGHT, then swop wires as shown below:

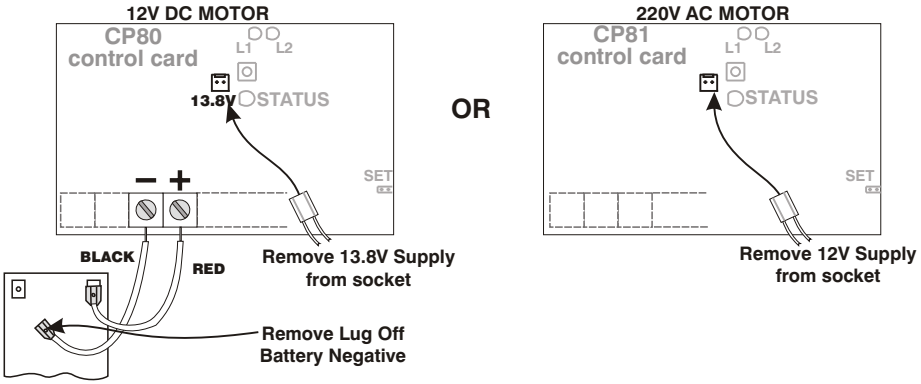




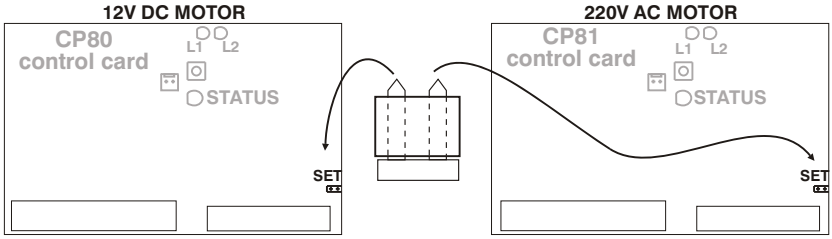
Ref. P12p29.cdr

PROCEDURE 2 - GETTING INTO PROGRAMME MODE

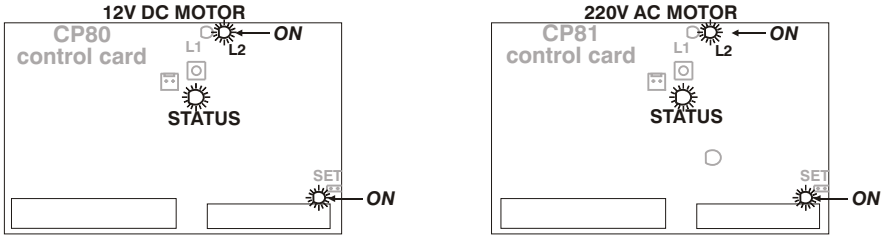
STEP 1 **Remove the electronics power from the PCB.**



STEP 2 **Fit SET link to PCB**

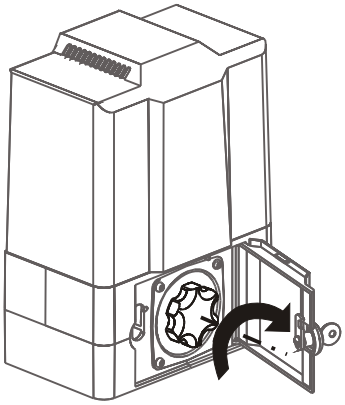


STEP 3 **Reapply power (Reversal of STEP 1 above).**
Check that STATUS LED flashes 5 times and then " L 2 " LED must be illuminated indicating PROGRAMME MODE.



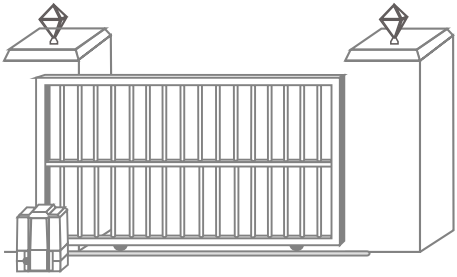
PROCEDURE 3 - SETTING DOSS

STEP 1 **- Put the gate into manual mode.**

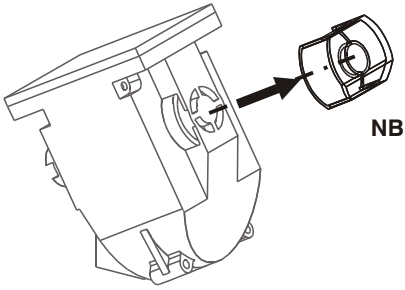


ROTATE MANUAL DISCONNECT THUMBWHEEL CLOCKWISE UNTIL GATE IS RELEASED.

STEP 2 **- Manually push the gate fully closed.**

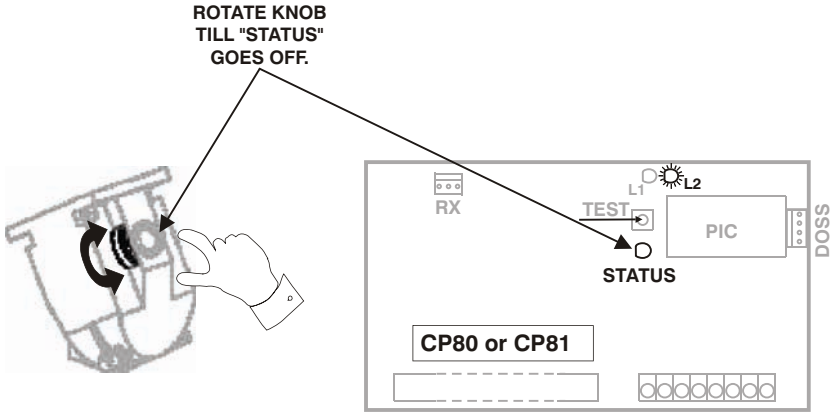


STEP 3 **- Remove the protective cap from the DOSS.**



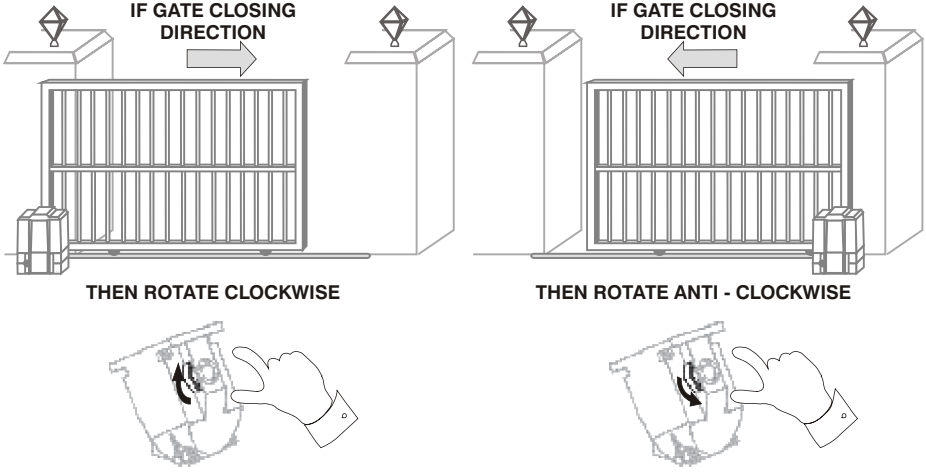
NB - Do not throw away the cap, it must be replaced after setting the DOSS.

STEP 4 **- Rotate DOSS wheel in either direction until STATUS LED, is OFF (if already off then proceed to STEP 5).**



STEP 5 **Rotate DOSS wheel, click by click, in direction shown below, till STATUS just comes ON, then add 2 clicks.**

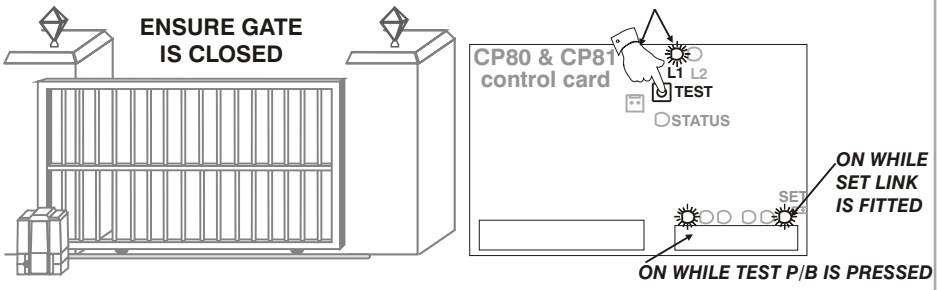
OBSERVE DIRECTION AS SHOWN BELOW



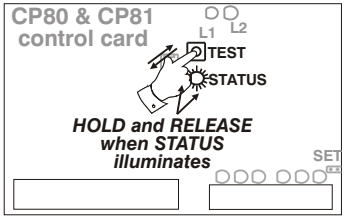
PROCEDURE 4 - SETTING GATE LIMITS

NB. - Gate limits must be set up on initial commissioning, or, if rack and pinion lose mesh.
Steps 1 to 5 must be followed in order and completed.
If not already done put motor into manual mode (See Procedure 3 Step 1).
- Make sure gate is in closed position.

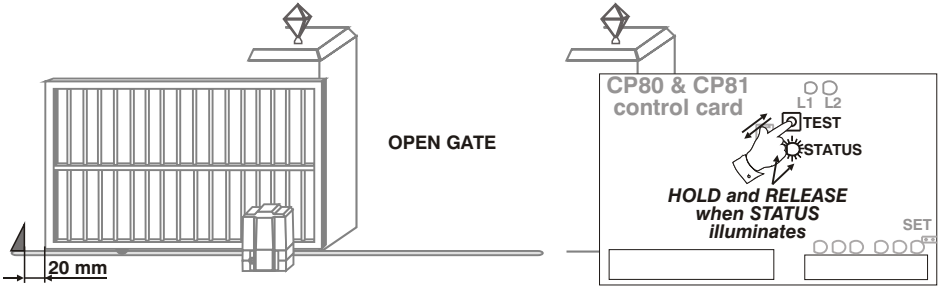
STEP 1 **Hold TEST P/B down until L1 LED flashes once, then release P/B.**



STEP 2 **- L1 will be flashing once per second;**
- Press TEST P/B until STATUS LED illuminates;
- Release P/B;
- STATUS, L1, L2 will now be off.

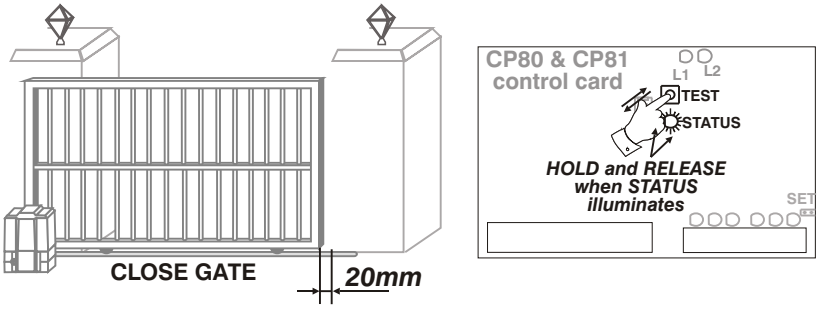


STEP 3 **- Push gate OPEN <u>without</u> reversing and stop gate, 20mm from mechanical endstop.**
- Press TEST P/B until STATUS illuminates.
- Release P/B

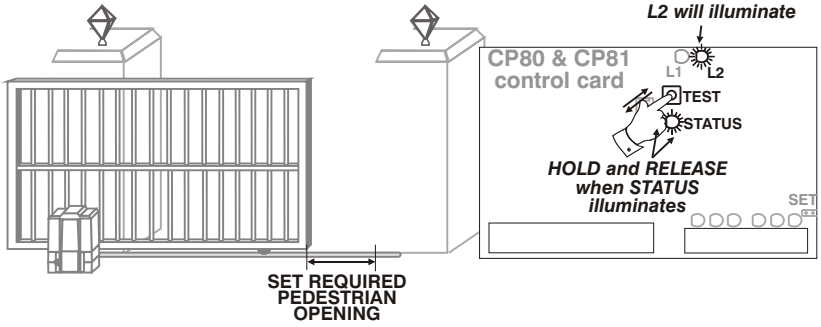


Ref. P8p33.cdr

STEP 4 **- Push gate closed <u>without</u> reversing and stop gate, 20mm from mechanical endstop;**
- Press TEST P/B until STATUS LED illuminates;
- Release P/B.



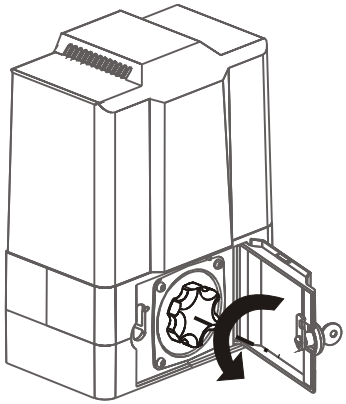
STEP 5 **- Push the gate to the REQUIRED PEDESTRIAN OPEN position making sure the gate direction is not reversed.**
- Press TEST P/B until STATUS illuminates; if not then increase the pedestrian opening, bit by bit until STATUS illuminates;
- Release P/B
- L2 will illuminate.



NOTE: 'STEP 5' MUST BE PERFORMED EVEN IF THE PEDESTRIAN FACILITY IS NOT USED.

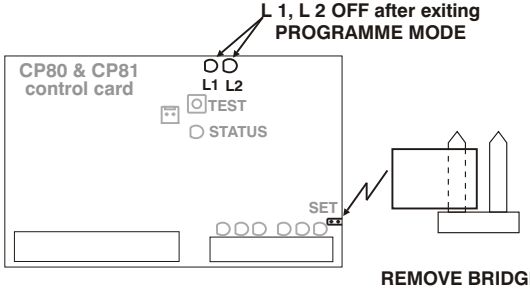
Procedure 4 - Setting Gate Limits continued

STEP 6 **- Re-engage gate by turning manual release thumbwheel anti - clockwise.**
- Slide gate manually until drive re-engages.



ROTATE THUMBWHEEL ANTI - CLOCKWISE TO RE - ENGAGE

STEP 7 **- Exit PROGRAMME MODE, if not proceeding to procedure 5 or 6 by removing SET LINK.**



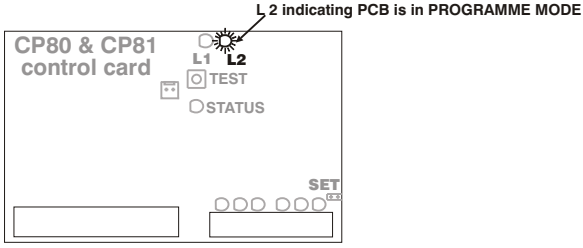
REMOVE BRIDGE FROM SET LINK TO EXIT PROGRAMME MODE
(If not proceeding to Procedure 5 or 6)

Ref. p6p35.cdr

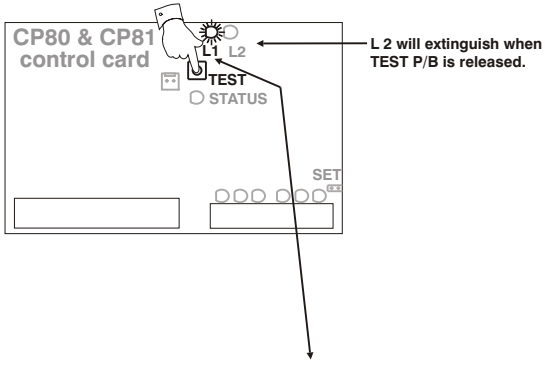
PROCEDURE 5 - FUNCTIONS SELECTION

TURBO SETUP: To speed up the selecting of "menus" turbo mode should be used. This is done by connecting "COM" to "PED". The counting speed on L1 will be increased.

STEP 1 **Ensure that PCB is in PROGRAMME MODE i.e. LED, L 2, MUST be illuminated (if not refer Procedure 2).**



STEP 2 **Hold TEST P/B DOWN until LED L 1, flashes the required number of times as shown in TABLE 5.1, then release P/B.**



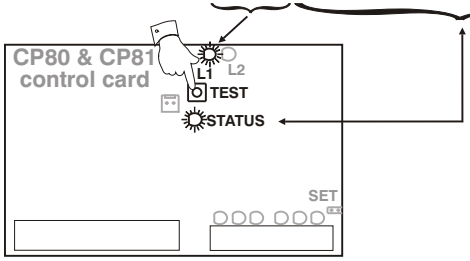
FUNCTION TO BE SELECTED	NO. OF TIMES L1 FLASHES	DEFAULT STATUS
AUTOCLOSE ON / OFF	2	OFF
MODE OF OPERATION	4	STANDARD
COLLISION SENSITIVITY	7	HIGH
PCM	9	OFF
PRE - FLASHING MODE	10	OFF

TABLE 5.1

STEP 3 **Press & Hold TEST button while monitoring STATUS LED; Release the Pushbutton after STATUS LED Flashes the required number of times to select the required mode. (See Table 5.2)**

FUNCTION TO BE SELECTED	No. of times L1 is flashing	REQUIRED NO. OF FLASHES OF STATUS LED TO SELECT MODE			
		1	2	3	4
AUTOCLOSE ON / OFF	2	ON	OFF	—	—
MODE OF OPERATION	4	STANDARD	CONDOMINIUM	PIRAC	REVERSING
COLLISION SENSITIVITY ✱	7	HIGH	MEDIUM	LOW	—
PCM ✱	9	ON	OFF	—	—
PRE - FLASHING ON / OFF	10	MODE 1	MODE 2	MODE 3	OFF

TABLE 5.2

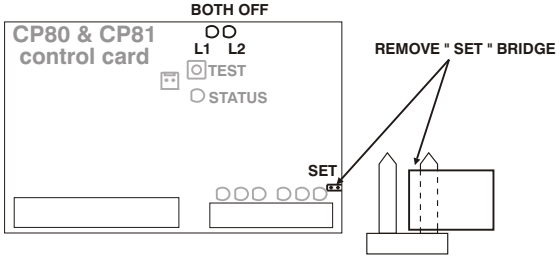


L 1 will extinguish & L 2 will illuminate allowing selection of more functions if required.

PREFLASHING MODES:

MODE 1 - LIGHT PREFLASHES AT 1 HZ, THEN ACTS AS COURTESY LIGHT
MODE 2 - LIGHT FLASHES AT 1 HZ FOR PREFLASH TIME AND MOTOR RUN TIME ONLY
MODE 3 - LIGHT ON CONTINUOUSLY FOR PREFLASH TIME AND MOTOR RUN TIME ONLY

STEP 4 **Exit PROGRAMME MODE, if NOT proceeding to procedures 4 or 6, by removing set bridge.**

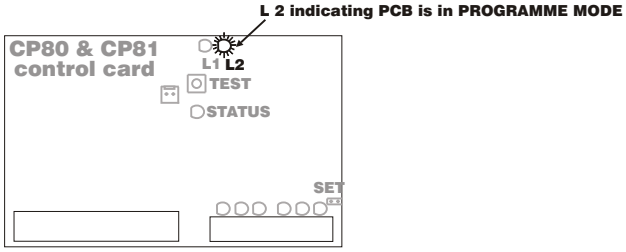


✱ **ONLY applicable to D5. See page 26 for adjustment of A5 Clutch.**

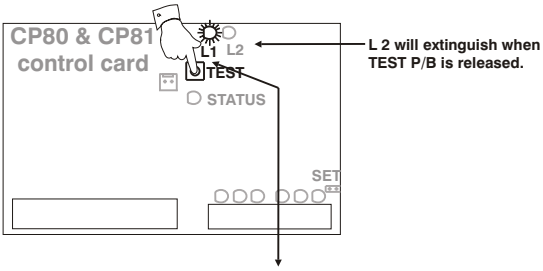
Ref. p4p37.cdr

PROCEDURE 6 - SETTING DURATION OF TIMERS

STEP 1 **Ensure that PCB is in PROGRAMME MODE i.e. LED, L 2, MUST be illuminated (if not refer Procedure 2).**



STEP 2 **Hold TEST P/B DOWN until number of flashes of LED, L1, corresponds to the TIMER to be selected as shown in TABLE 6.1, then release P/B.**



TIMER	NO. OF TIMES LED L1 SHOULD FLASH	DEFAULT
AUTOCLOSE	3	15 secs
PEDESTRIAN AUTOCLOSE	5	5 secs
COURTESY LIGHT (see note overleaf)	6	120 secs
AUTOCLOSE OVERRIDE	8	3 secs
PREFLASHING TIME	11	5 secs
COLLISION COUNTER	12	4 counts
COAST MODE	13	✱ 3 counts

TABLE 6.1

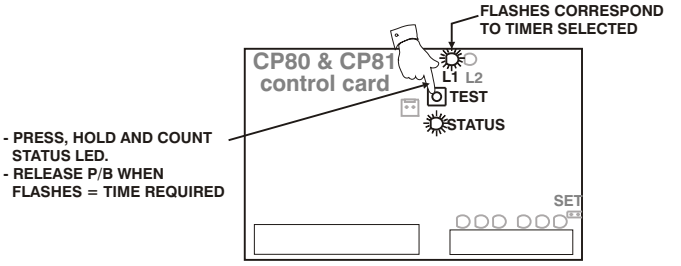
✱ **NB. Each count represents 10mm of coast for the gate.**

STEP 3 **Press and Hold TEST button while counting the number of times STATUS LED flashes;**
Release the Pushbutton when the flashes count = time (or count) required.

NOTE:

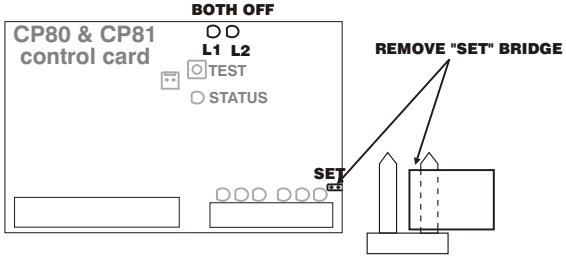
-1FLASH OF STATUS = 1 second of timer duration (approx.), EXCEPT for the courtesy light timer where
-1 FLASH OF STATUS = 10 seconds of timer duration (approx.).

For COAST MODE: (see page 40 for more detail)
- 1 FLASH OF STATUS=10 mm of COAST DISTANCE (maximum 250mm)



L 1 will extinguish & L 2 will illuminate allowing selection of more timers or functions. (See Procedure 4 or 5).

STEP 4 **Exit PROGRAMME MODE, if NOT proceeding to Procedure 4 or 5, remove SET bridge.**

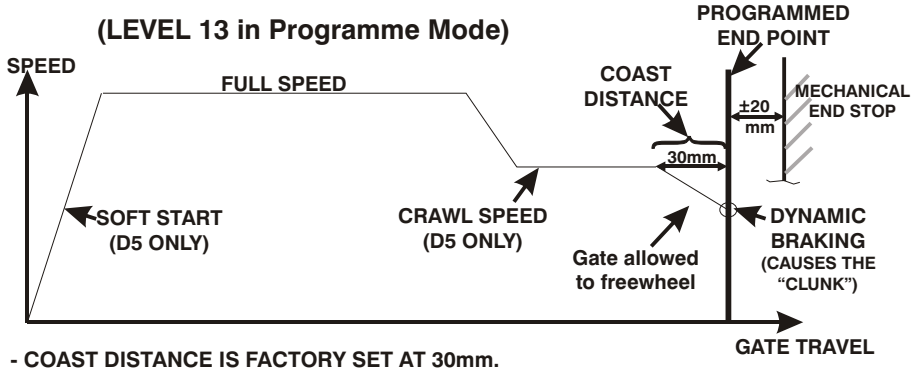


Ref. P2p39.cdr

5.4 PROCEDURE TO PROGRAM THE CP80/CP81 TO DEFAULT SETTINGS

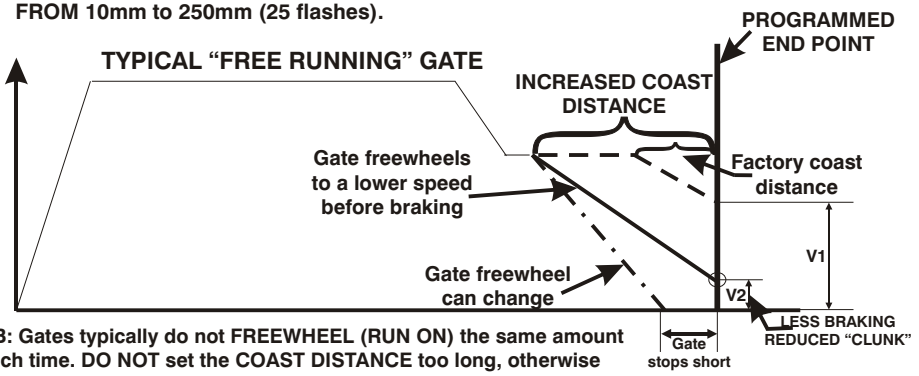
1. **REMOVE POWER (POWER SUPPLY AND BATTERY IF D5).**
2. **FIT THE "SET" LINK.**
3. **CONNECT "PED" AND "FRX" TO "COM".**
4. **RECONNECT POWER. L1 AND L2 WILL ILLUMINATE.**
5. **REMOVE THE POWER (BATTERY AND POWER SUPPLY).**
6. **REMOVE THE "SET" LINK AND DISCONNECT "PED" AND "FRX" FROM "COM".**
7. **THE CARD IS NOW PROGRAMMED TO DEFAULT SETTINGS AS SHOWN IN TABLES 5.1 (see page 36) AND 6.1 (see page 38) (GATE END POINTS ARE NOT AFFECTED)**

5.5 COAST DISTANCE



- COAST DISTANCE IS FACTORY SET AT 30mm.

- IT CAN BE VARIED IN INCREMENTS OF 10mm (1 flash of status) FROM 10mm to 250mm (25 flashes).



NB: Gates typically do not FREEWHEEL (RUN ON) the same amount each time. DO NOT set the COAST DISTANCE too long, otherwise on occasion, the gate could stop short (i.e. allow a little "clunk").