

FAAC 746 & 844
SLIDING GATE AUTOMATION
WITH CP81 CONTROLLER

INSTALLATION
MANUAL

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CENTURION
THE AUTOMATIC CHOICE

Table of Contents

1. PRODUCT TECHNICAL DETAILS	2
1.1 DIMENSIONS	2
1.2 TECHNICAL SPECIFICATIONS	3
2 PRODUCT INSTALLATION.	4
2.1 RECOMMENDED TOOLS.	4
2.2 CABLE REQUIREMENTS	5
2.3 GATE REQUIREMENTS.	6
2.4 UNIT INSTALLATION	8
2.4.1 FOUNDATION PLATE DETAILS	8
2.2.2 FOUNDATION PLATE POSITIONING	9
2.4.3 ACCESSING CONTROLLER MODULE	10
2.4.4 POSITIONING GEARBOX	10
2.4.5 ADJUSTING GEARBOX POSITION	11
2.4.6 MOUNTING OF RACK	11
2.4.7 MOUNTING AND POSITIONING LIMIT SWITCH PLATES.	13
3 ELECTRICAL CONNECTIONS.	14
4. COMMISSIONING PROCEDURE	24
4.1 REMOVE OIL BLEED SCREW.	24
4.2 ADJUSTMENT OF ANTI-CRUSHING SYSTEM	24
4.3 APPLYING MAINS POWER	25
4.4 SETTING UP THE ELECTRONIC CONTROLLER	26
4.5 TESTING THE AUTOMATION.	35
5 MANUAL OPERATION	36
6 MAINTENANCE	37

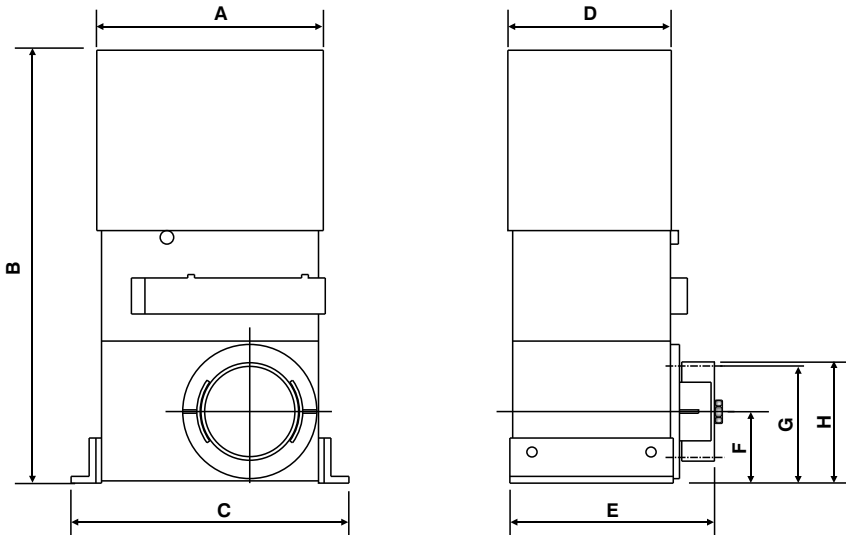
1. PRODUCT TECHNICAL DETAILS

THE FAAC 746 & 844 GATE OPERATORS ARE SELF-CONTAINED UNITS CONSISTING OF A WORMGEARED ELECTRIC MOTOR , AN ELECTRONIC CONTROL CARD AND A PROXIMITY LIMIT SWITCH SYSTEM WHICH STOPS THE GATE AT THE CORRECT END POSITION.

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

THE FAAC RANGE ARE QUALITY PRODUCTS DESIGNED TO GIVE MANY YEARS OF TROUBLE FREE SERVICE

1.1. - Dimensions



N.B. All dimensions in *mm*.

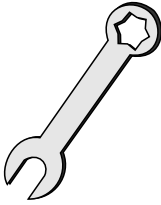
DIMENSION	746 20 Tooth Pinion	844 16 Tooth Pinion	844 20 Tooth Pinion	844 3 Phase 16 Tooth Pinion
A	275	280	280	208
B	312	385	385	385
C	210	209	209	209
D	155	158	158	158
E	191	191	191	191
F	64	64	64	64
G	-	112	-	112
H	120	-	120	-

1.2 TECHNICAL SPECIFICATIONS

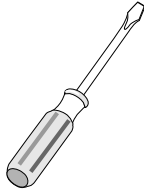
MODEL	746	844	844 3 PHASE
POWER SUPPLY	230V ~ (+6% - 10%) 50Hz	230V ~ (+6% - 10%) 50Hz	380V, 3 Phase 4 wire available
ABSORBED POWER	300W	650W	900W
CURRENT DRAW	1.5A	3.5A	2.5A
MAX. STARTING THRUST	18kgF (Z20)	45khF (Z16) - 35kgF (Z20)	50kgF (Z16)
TEMPERATURE RANGE	-20 TO 55°C	-20 TO 55°C	-20 TO 55°C
MOTOR SPEED	1400rpm	1400rpm	1400rpm
REDUCTION RATIO	1 ÷ 30	1 ÷ 30	1 ÷ 30
No. OF PINION TEETH	Z20	Z16 (Z20)	Z16
RACK PITCH	4 MODULE	4 MODULE	4 MODULE
GATE SPEED	12m/min	9.5m/min (Z16), 12m/min (Z20)	9.5m/min
WINDING THERMAL PROTECTION	120°C	135°C	135°C
DUTY CYCLE	40% (SEE PAGE 6)	40% (SEE PAGE 6)	40% (SEE PAGE 6)
OIL QUANTITY	1.8 LITRES	1.8 LITRES	1.8 LITRES
TYPE OF OIL	FAAC XD 220	FAAC XD 220	FAAC XD 220
HOUSING PROTECTION	IP 55	IP 55	IP55
GEAR MOTOR WEIGHT	14kg	15kg	18kg
STARTING CAPACITOR	25µF	35µF	N/A
CLUTCH	BIDISK IN OIL BATH	BIDISK IN OIL BATH	BIDISK IN OIL BATH
CONTROL UNIT	CENTURION CP81	CENTURION CP81	CENTURION CP81 3 PHASE
LIMIT SWITCH	INDUCTIVE	INDUCTIVE	INDUCTIVE
MAX. GATE WEIGHT	(Z20) 800kg	(Z16) 1800kg (Z20) 1000kg	(Z16) 2200kg

2. PRODUCT INSTALLATION

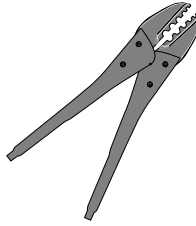
2.1 RECOMMENDED TOOLS



**FLAT and RING
SPANNER**
8, 10, 13, 17 & 19mm



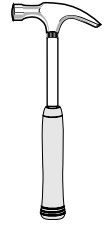
SCREW DRIVER
5mm FLAT
No 1. PHILLIPS



**CRIMPING TOOL
AND PIN LUGS**



**PLIERS/SIDE
CUTTER**



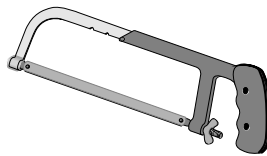
HAMMER



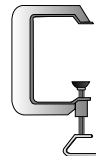
TAPE MEASURE



ALLEN KEYS
3mm ACROSS FLATS
5mm ACROSS FLATS



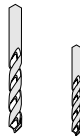
HACKSAW



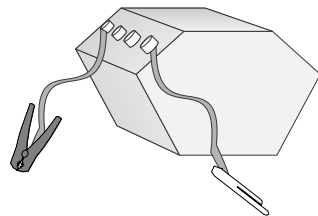
G-CLAMP



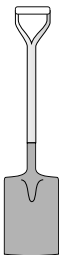
**ELECTRIC
DRILLING
MACHINE**



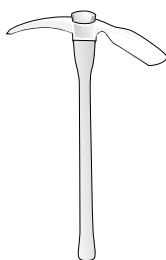
STEEL BITS, 3 - 12mm



WELDING MACHINE



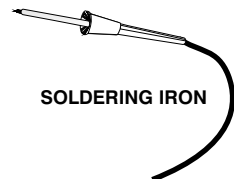
SPADE



PICK



LEVEL



SOLDERING IRON

2.2 CABLE REQUIREMENTS

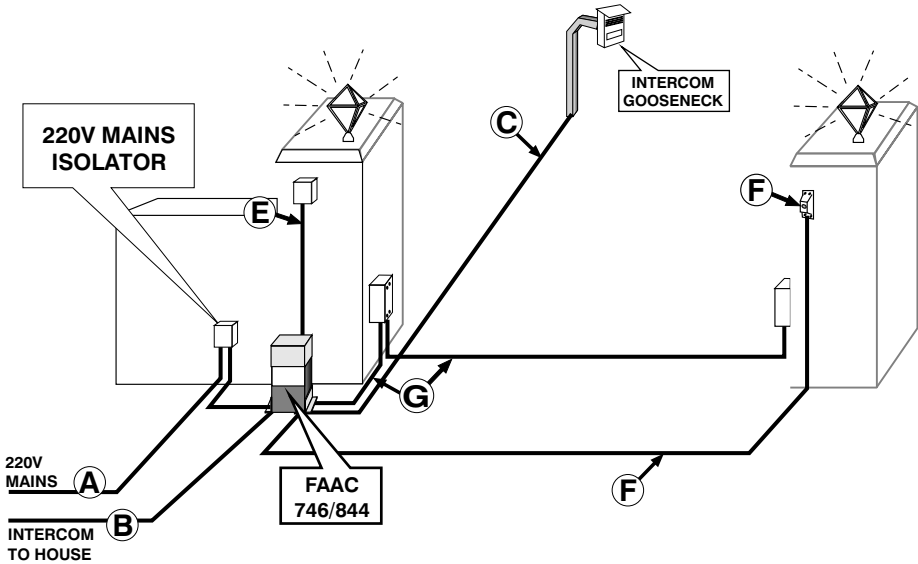


TABLE 1

NO	DESCRIPTION	NO OF CORES	SIZE E_2 mm ²	OPTIONAL	* CABLE TYPE
‡A	220V AC SUPPLY CABLE or 380V 3 ϕ ALTERNATIVE MODEL	2 + E 4 + E	1,5		NORSK IN CONDUIT OR S.W.A.
‡B	INTERCOM IN HOUSE & STATUS SIGNALLING	n1 + 6	0,2		INTERCOM IN CONDUIT
C	INTERCOM - GEARBOX TO GOOSENECK	n 2	0,2		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

* = 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

2.3 GATE REQUIREMENTS

It is important to ensure that the motor is capable of moving the gate as required. Duty cycle must be considered:

MAXIMUM DUTY CYCLE CURVE

The curve makes it possible to determine the maximum operating time with respect to the duty cycle (F).

e.g., the 746 and 844 operators can work continuously at a duty cycle of 40%.

To ensure smooth running, operation should be kept within the duty area under the curve.

Important note. The curve was plotted on the basis of operation at a temperature of 24°C. Allow for up to 20% reduction of the duty cycle in case of exposure to direct sunlight and/or higher ambient temperatures.

Calculating the duty cycle

The duty cycle is the percentage of the actual operating time (opening plus closing plus pause time). The formula for calculating it is the following:

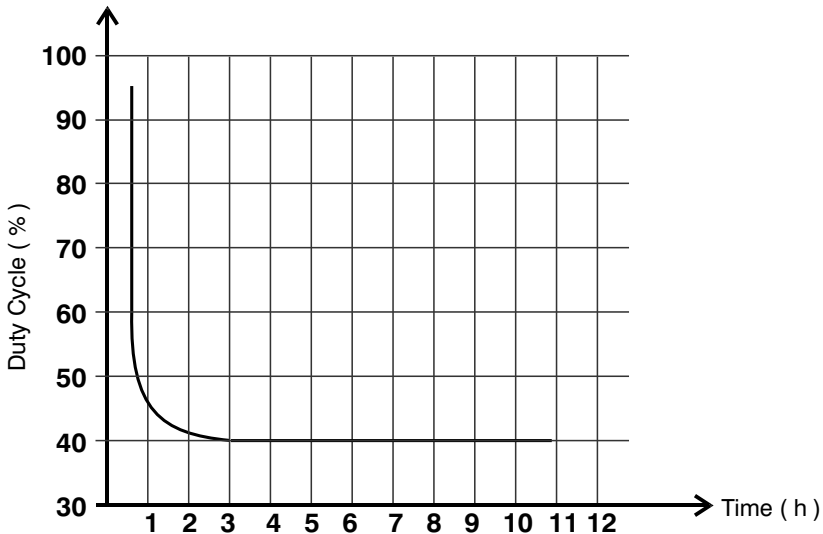
$$\%F = \frac{T_o + T_c}{T_o + T_c + T_p + T_i} \times 100$$

where: T_o = opening time;

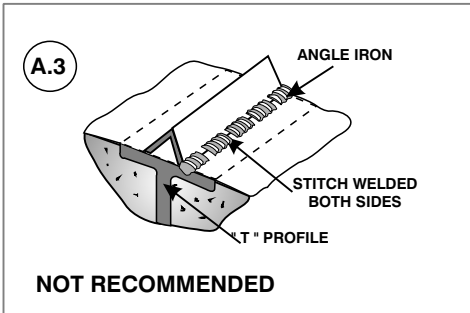
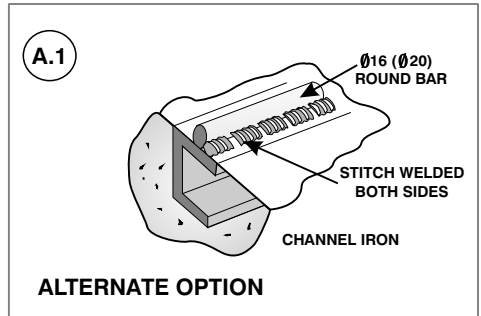
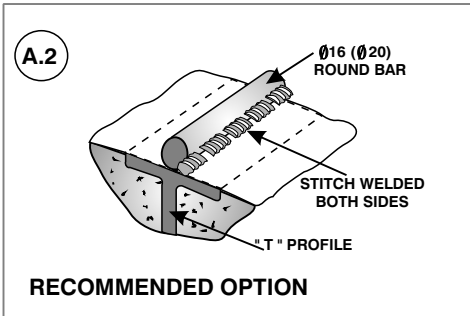
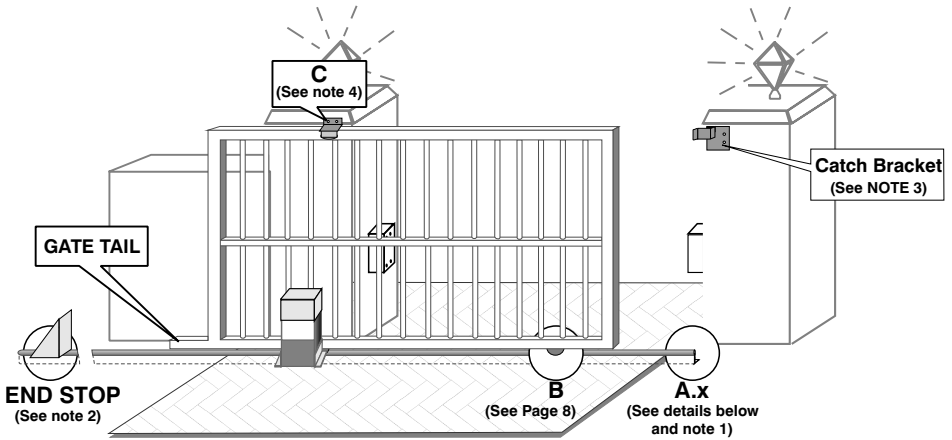
T_c = closing time;

T_p = pause time;

T_i = interval between a complete cycle and the next



ENSURE THAT THE GATE IS FITTED WITH CORRECT END STOPS, ETC. AS SHOWN IN THE SKETCHES BELOW.



NOTE 2: Requirements of END STOP:

- Stop Gate in Fully Open Position;
- Strong Enough to Resist Full Thrust of Motor.

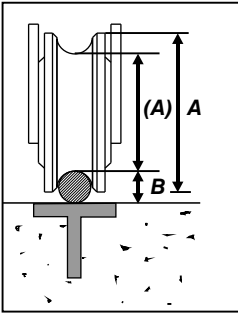
NOTE 3: CATCH BRACKET

- 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.

NOTE 4: GUIDE ROLLERS

- Guide rollers must be installed. Ensure that the gap between the gate and the guide roller bracket is such that the gate cannot be lifted off the motor pinion.

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



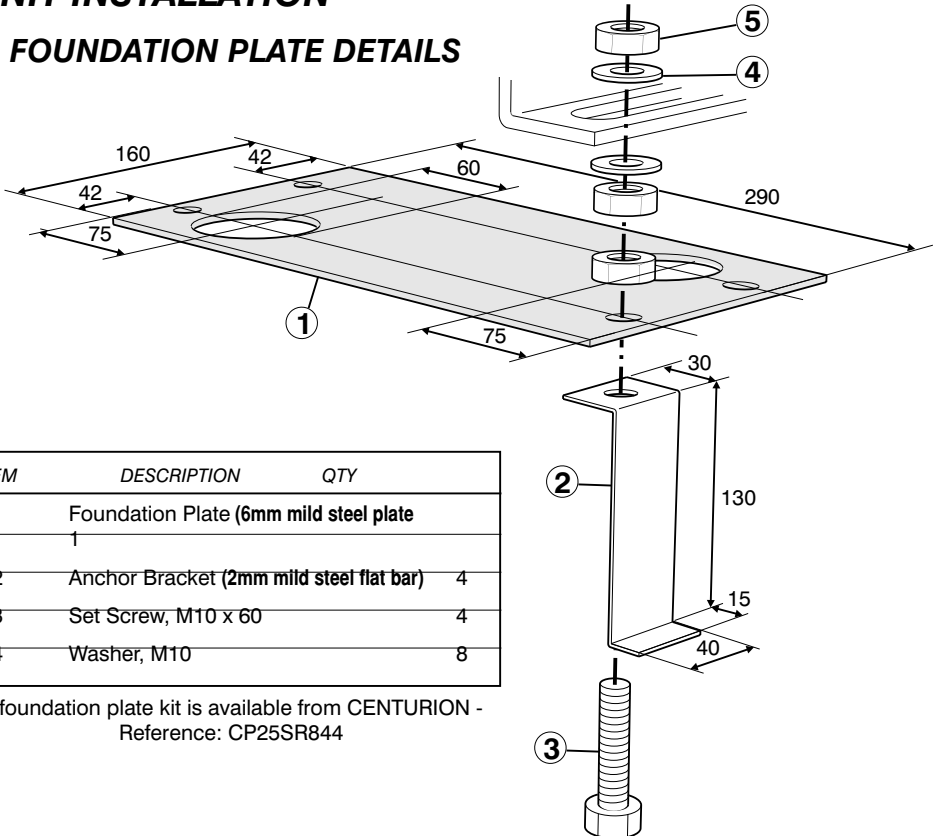
CONSULT THE ADJACENT TABLE TO DETERMINE THE CORRECT GATE WHEEL ROOT SIZE AND ROUND BAR TRACK DIAMETER REQUIRED IN RESPECT OF GATE MASS AND DUTY.

DUTY		GATE MASS			
		up to 300kg	up to 600kg	up to 1200kg	up to 2400kg
Low duty	A	WHEEL OUTER DIAMETER (ROOT DIAMETER)			
		80mm (*65mm)	80mm (65mm)	120mm (100mm)	190mm (165mm)
High duty	B	ROUND BAR TRACK DIAMETER			
		16mm	16mm	20mm	25mm
Low duty	A	WHEEL OUTER DIAMETER (ROOT DIAMETER)			
		80mm (65mm)	120mm (100mm)	190mm (165mm)	
High duty	B	ROUND BAR TRACK DIAMETER			
		16mm	20mm	25mm	

*V Profile

2.4 UNIT INSTALLATION

2.4.1 FOUNDATION PLATE DETAILS

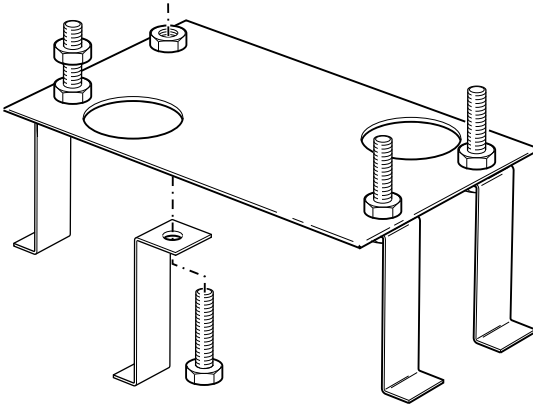


ITEM	DESCRIPTION	QTY
1	Foundation Plate (6mm mild steel plate)	
2	Anchor Bracket (2mm mild steel flat bar)	4
3	Set Screw, M10 x 60	4
4	Washer, M10	8

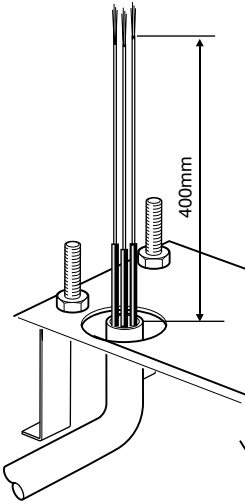
A foundation plate kit is available from CENTURION -
Reference: CP25SR844

2.4.2 FOUNDATION PLATE POSITIONING

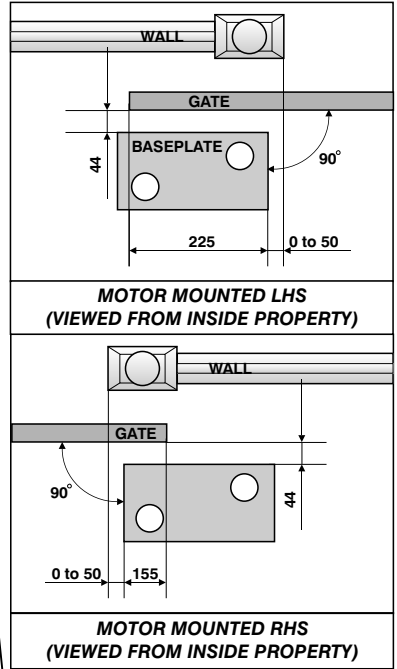
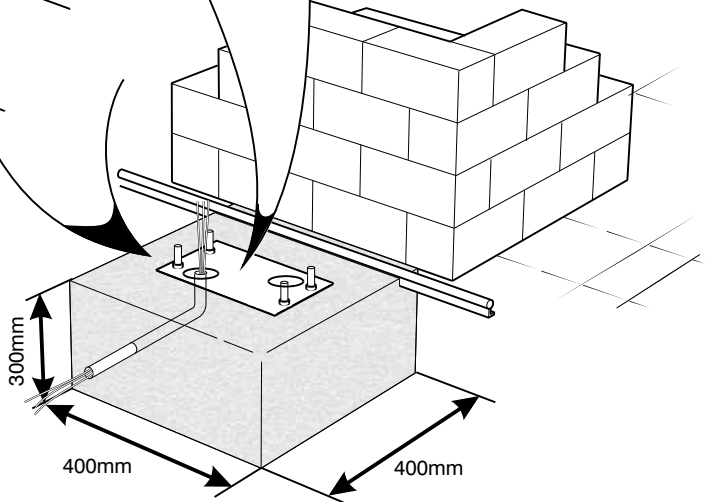
(ALL DIMENSIONS SHOWN IN MILLIMETRES)



- Ensure that the bolts are well tightened.



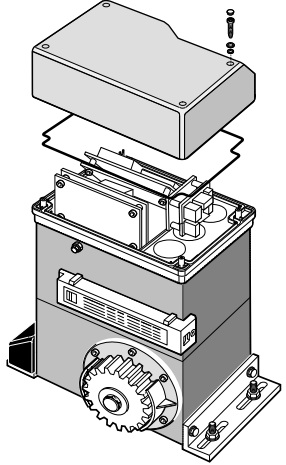
- Ensure that sufficient length of cable is fitted through foundation plate before setting the foundation plate in concrete.



2.4.3 ACCESSING CONTROLLER MODULE

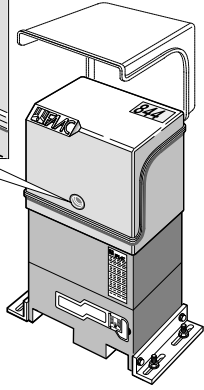
Model 746

- Remove screws from cover to gain access to the controller enclosure.

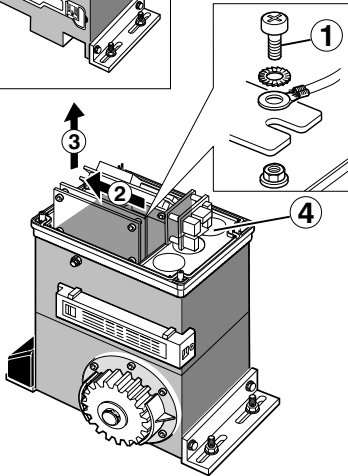


Model 844

- Open up cover of operator to allow easy access in order to feed in main supply and signal cables.

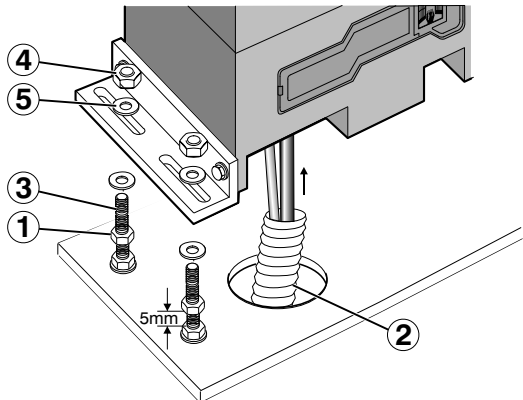


- Loosen the earth screw (1)
- Slide controller mounting plate sideways (2)
- Lift out of position (3) to gain access to the cable entry hole (4)



2.4.4 POSITIONING GEARBOX

- Leave at least a 5mm gap between the lower gearbox nuts (1) and the nuts which secure the foundation plate bolts.
- Feed cables (2) into the operator while lowering gearbox onto the studs (3).
- Gearbox must be firmly secured between top and bottom nuts (4) and washers (5) as shown.

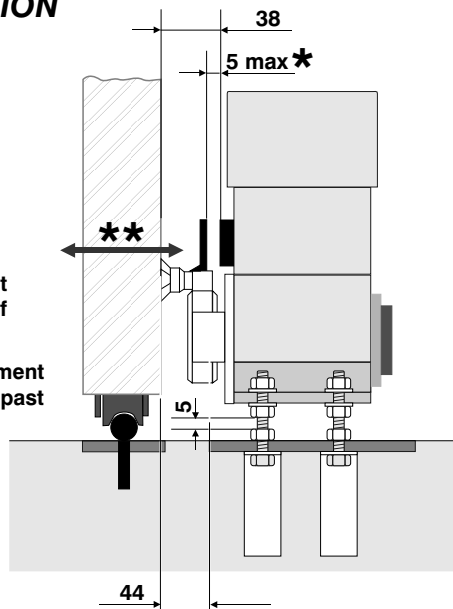


2.4.5 ADJUSTING GEARBOX POSITION

- Using the slotted holes in the angle brackets, slide the operator forwards or backwards to be in the correct position to mount the rack and the limit switch plates.

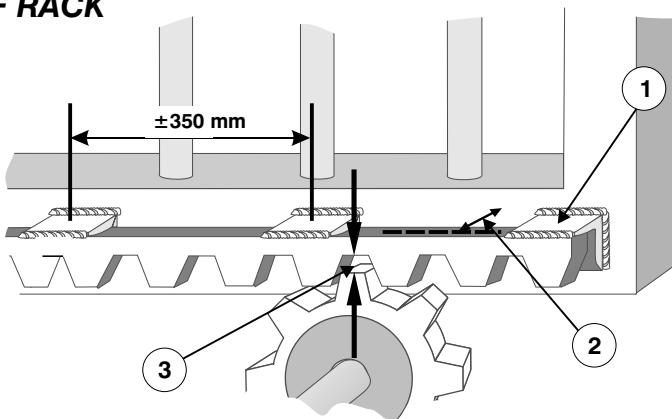
★ - Dimension is critical, if striker is too close it might foul and damage the inductive limit. If it is too far it might not activate the limit.

** - Check that there is little or no lateral movement of the gate, particularly when striker slides past inductive limit. See note ★ above.



2.4.6 MOUNTING OF RACK

- Attach steel rack to gate using the 25x25x2mm angle brackets (1) supplied, spaced approximately 350mm apart.
- Distance between centreline of rack and edge of gate should be 25mm (2)
- Rack must be mounted level with a 2-3mm clearance (3)

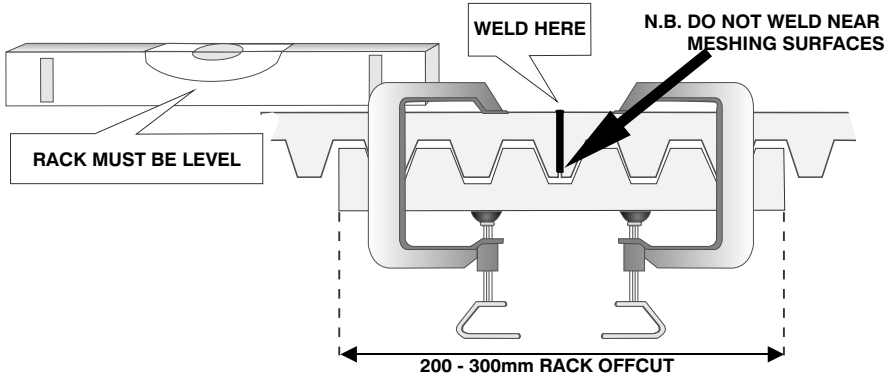


USEFUL TIP

- Raise gearbox by an additional 3mm.
- Put gearbox into manual mode (see page 36)
- 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.

JOINING STEEL RACK

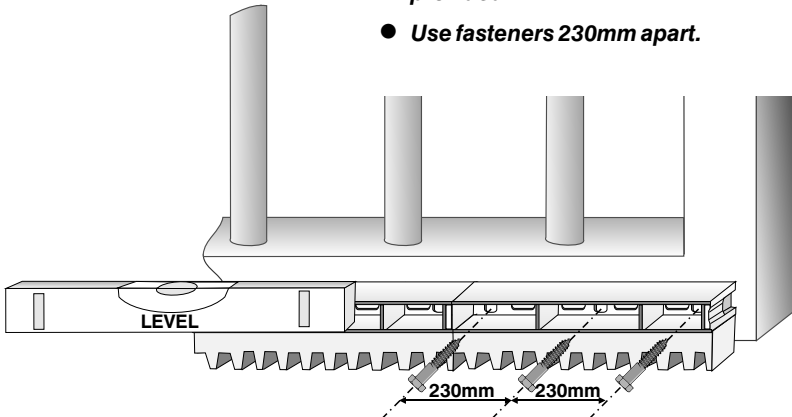
- *Cut off short length of rack (approx. 200mm)*
- *Clamp the new pieces to the off cut.*
- *Weld pieces together where indicated.*



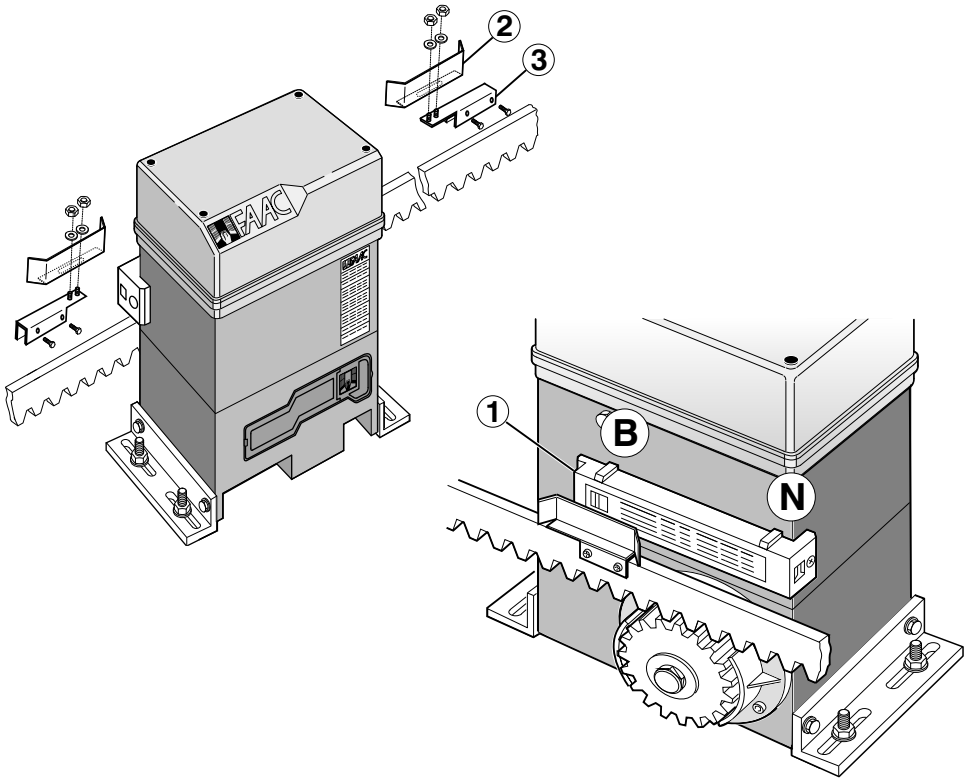
MOUNTING and JOINING of NYLON RACK (RAZ)

(MAXIMUM GATE MASS 500 kg)

- *Work from RHS of the gate to LHS to ensure rack clips together.*
- *Screw nylon rack onto gate using fasteners provided.*
- *Use fasteners 230mm apart.*



2.4.7 MOUNTING AND POSITIONING LIMIT SWITCH PLATES



- The FAAC 746 & 844 operators are fitted with an inductive proximity limit switch (1). When the limit switch plate mounted to the top of the rack slides past the limit switch the operator stops the gate.
- Assemble the limit switch plate as shown, positioning the stop plate (2) centrally on the mounting studs of the support bracket (3).
- Slide the gate open leaving a 20mm gap before the end stop.
- Position the support bracket and stop plate on top of the rack with the center line of the stop plate adjacent either mark (B) or (N) of the limit switch .
- Use mark (B) if the motor is mounted on the LHS (viewed from inside the property).
- Use mark (N) if the motor is mounted on the RHS (viewed from inside the property).
- Gap between the stop plate and limit switch must be less than 5mm. Compensate for sideways movement of the gate (see page 11). Repeat steps above for closed limit using other mark.
- Refer to commissioning section 4, page 24, before testing.
- Fine adjustment of stop plates is done once the limit switch polarity (see page 27) and motor direction (see page 29) are correctly set.

3. ELECTRICAL CONNECTIONS

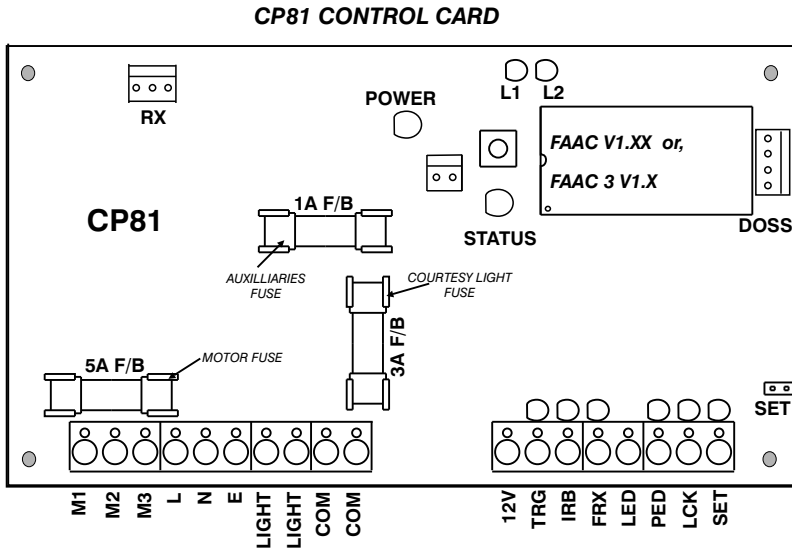
N.B.

- 1) FOR SINGLE PHASE FAAC 746/844 MOTORS THE CP81 CONTROLLER COMBINED WITH THE CP89 POWER SUPPLY BOARD IS USED;
- 2) THE THREE PHASE FAAC 844 MOTOR IS SUPPLIED WITH A CP81 CONTROLLER, CP89 POWER SUPPLY, CONTACTORS AND THERMAL CUT OUT (see Wiring Diagram, pg.16);
- 3) DIFFERENT PIC MICROCONTROLLERS ARE USED ON 1Ø AND 3Ø VERSIONS.

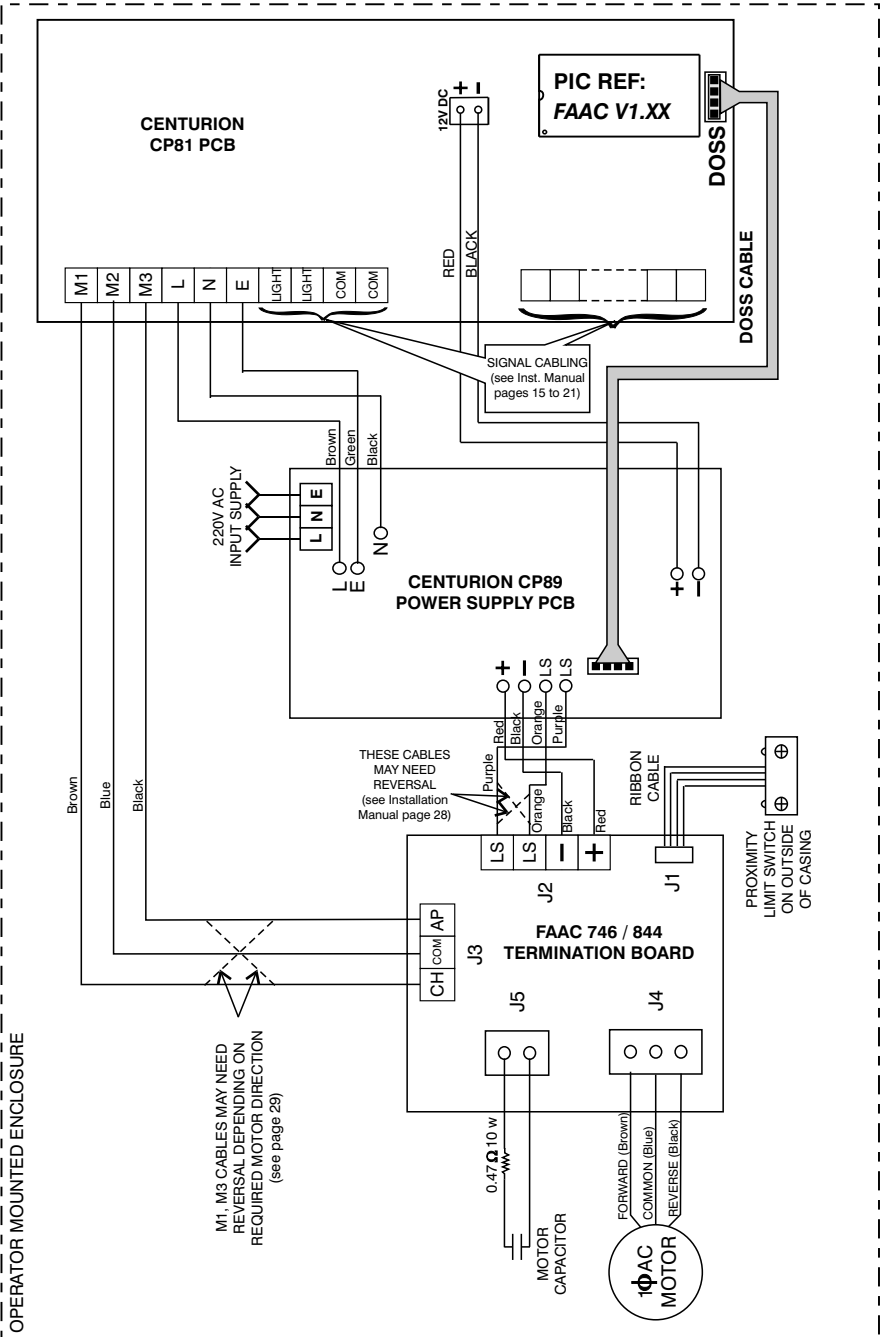
NOTES:

FOLLOWING ARE THE WIRING DIAGRAMS FOR THE DIFFERENT CONTROLLER ASSEMBLIES:

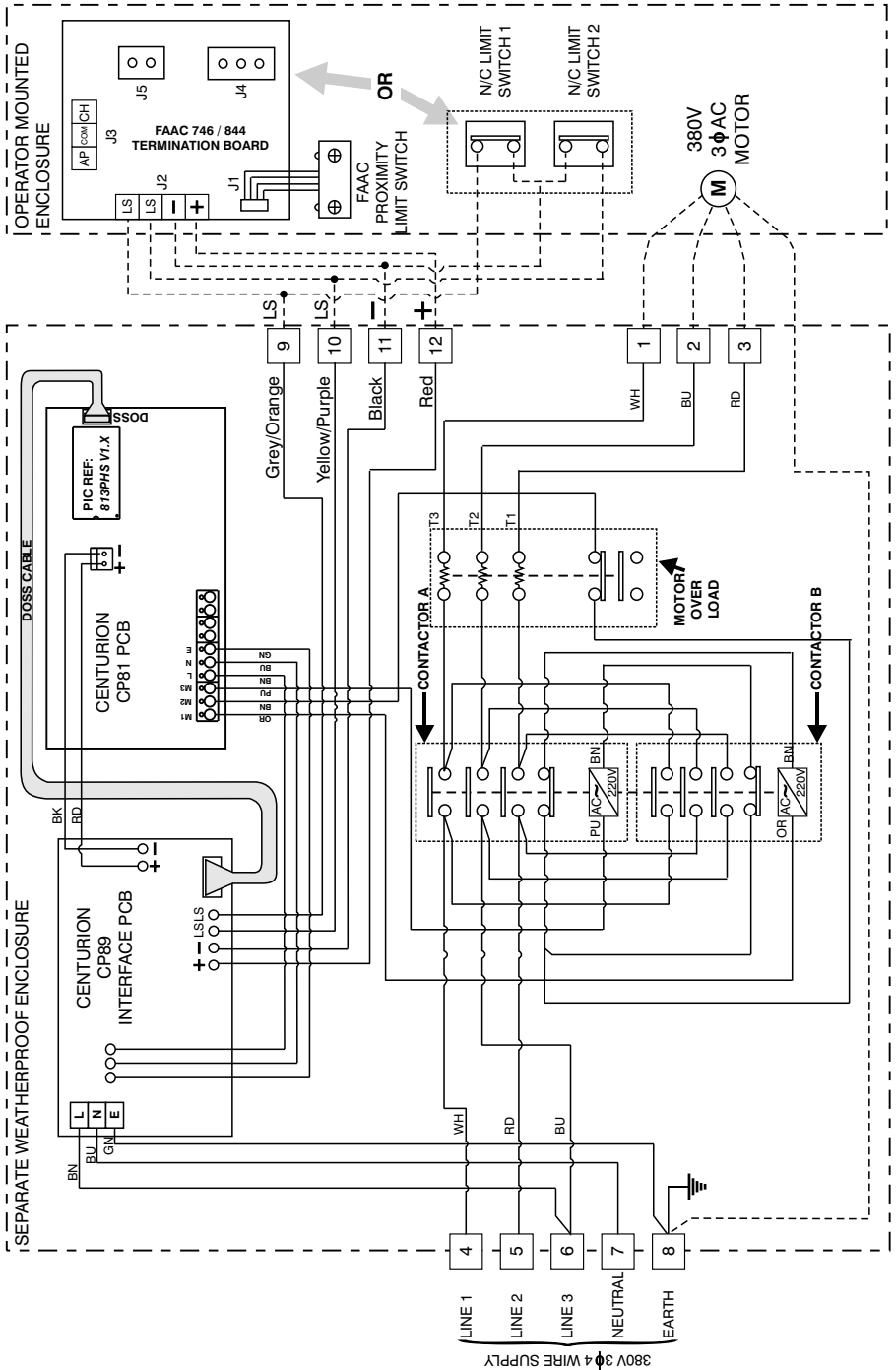
CP81 CONTROLLER - AC MOTOR CONTROLLER



POWER WIRING DIAGRAM FOR 1 ϕ MOTOR (746 / 844)

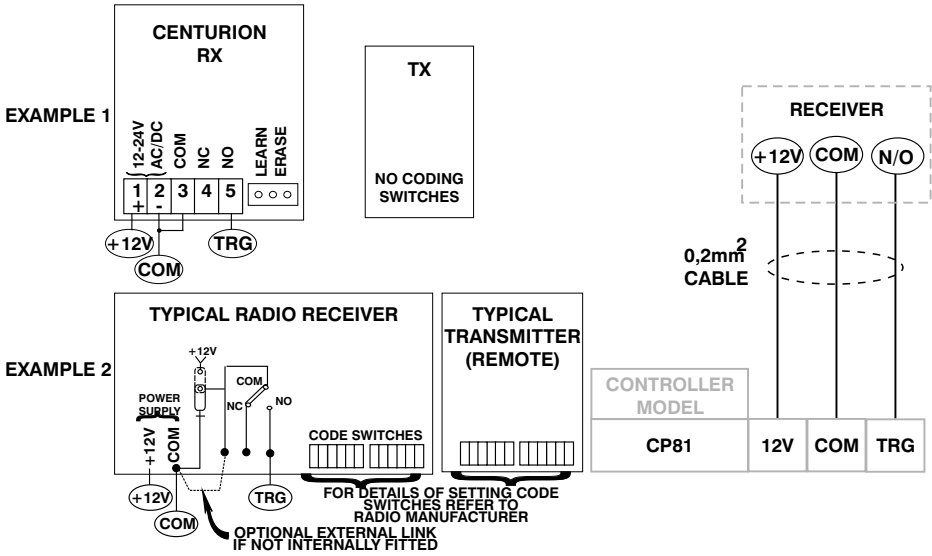


POWER WIRING DIAGRAM FOR 3 ϕ MOTOR (844 3 PHASE)



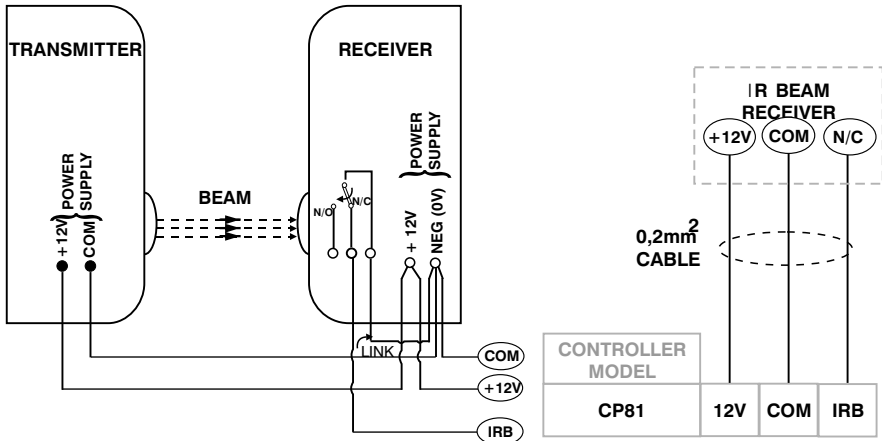
Electrical Connections continued

RADIO CONNECTIONS - (REFER TO CENTURION FOR CODING DETAILS)



SAFETY BEAM

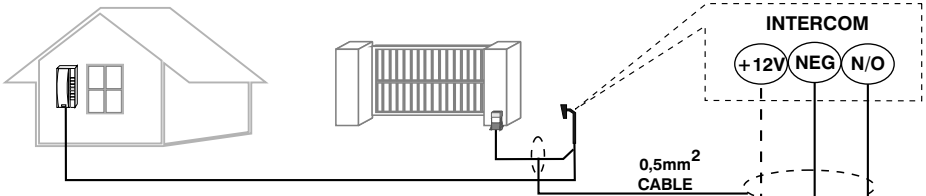
N.B. IF BEAMS ARE NOT USED THEN ENSURE THAT A LINK IS FITTED FROM "COM" TO "IRB" TERMINAL ON CONTROL CARD.



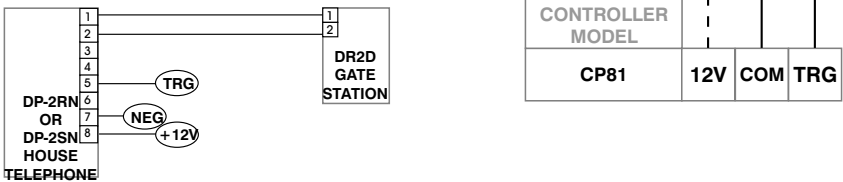
NOTE - TYPICAL SAFETY BEAM IS SHOWN.
REFER TO MANUFACTURER FOR DETAILS

INTERCOM CONNECTIONS

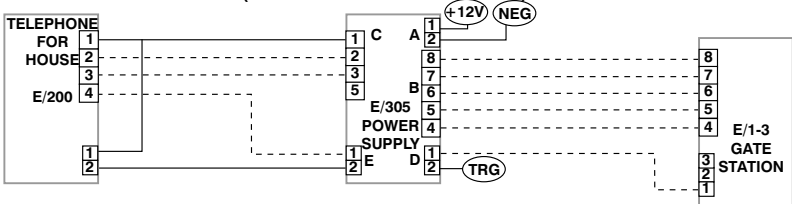
- NOTE: - Many different intercom types are available.
 - Only signals necessary to interface intercom to Centurion's controller are shown.
 - Consult intercom manufacturer for full wiring diagrams.



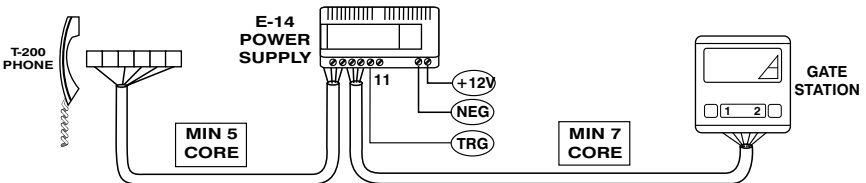
EXAMPLE 1 COMMAX 1 - 1 (12V)



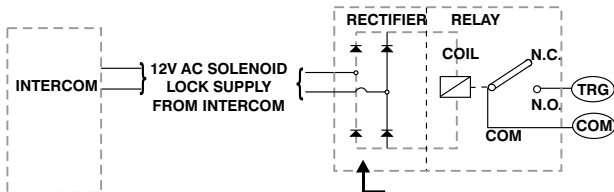
EXAMPLE 2 BPT 1 - 1 (WITH 12V DC POWER SUPPLY)



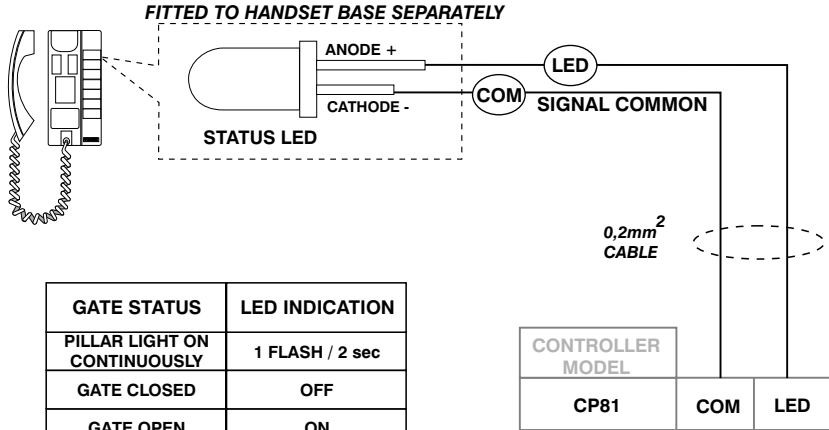
EXAMPLE 3 TEGUI 12V DC INTERCOM



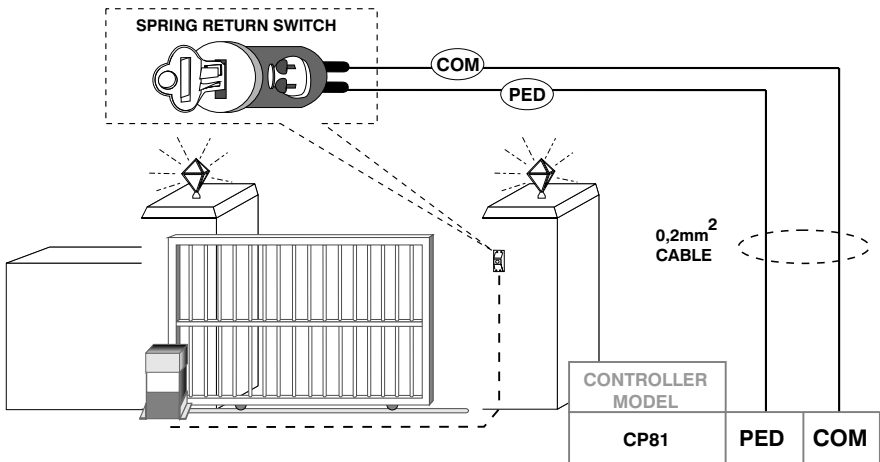
EXAMPLE 4 TYPICAL 220V AC POWERED INTERCOM



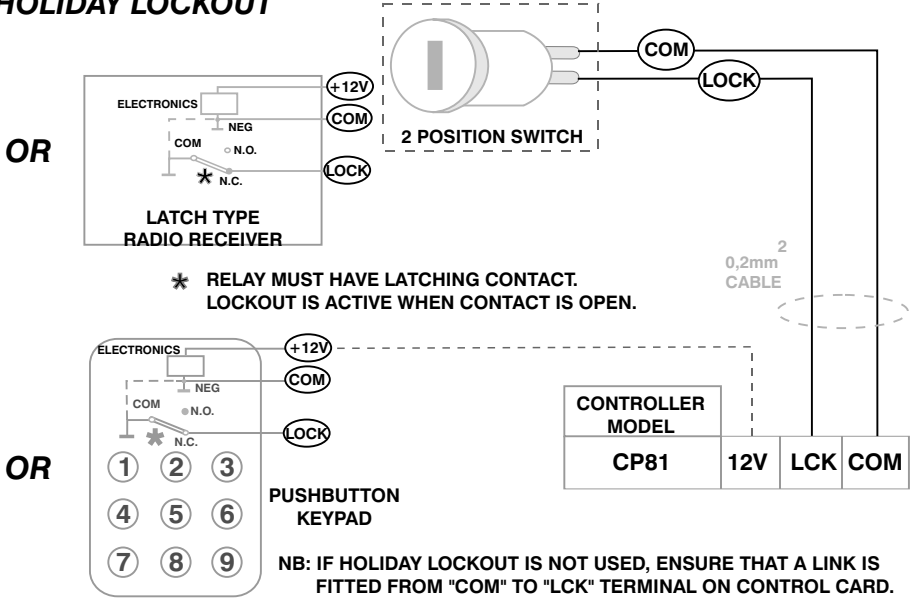
REMOTE GATE STATUS LIGHT EMITTING DIODE (LED)



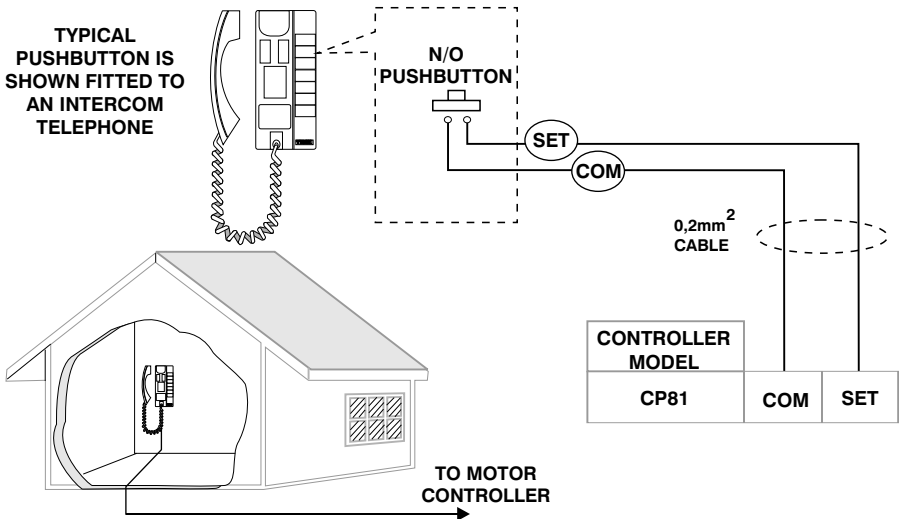
PEDESTRIAN KEYSWITCH



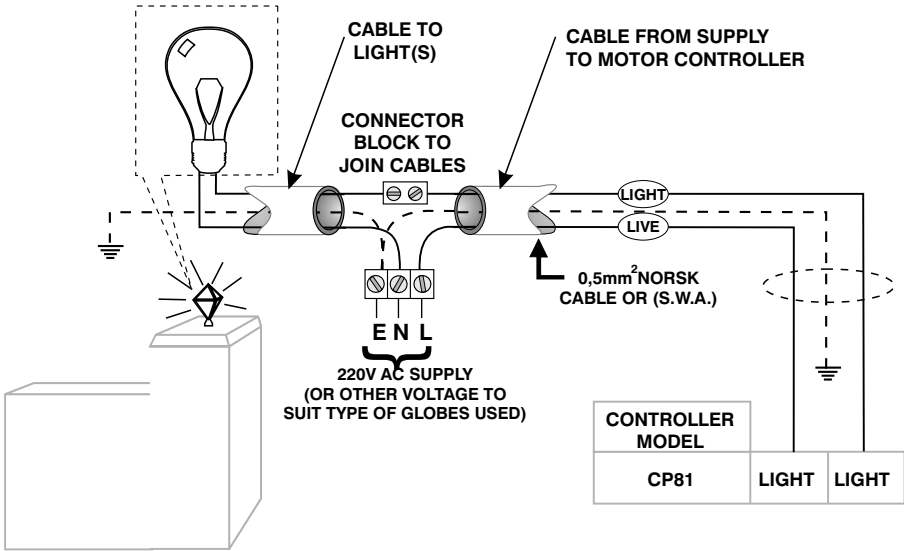
HOLIDAY LOCKOUT



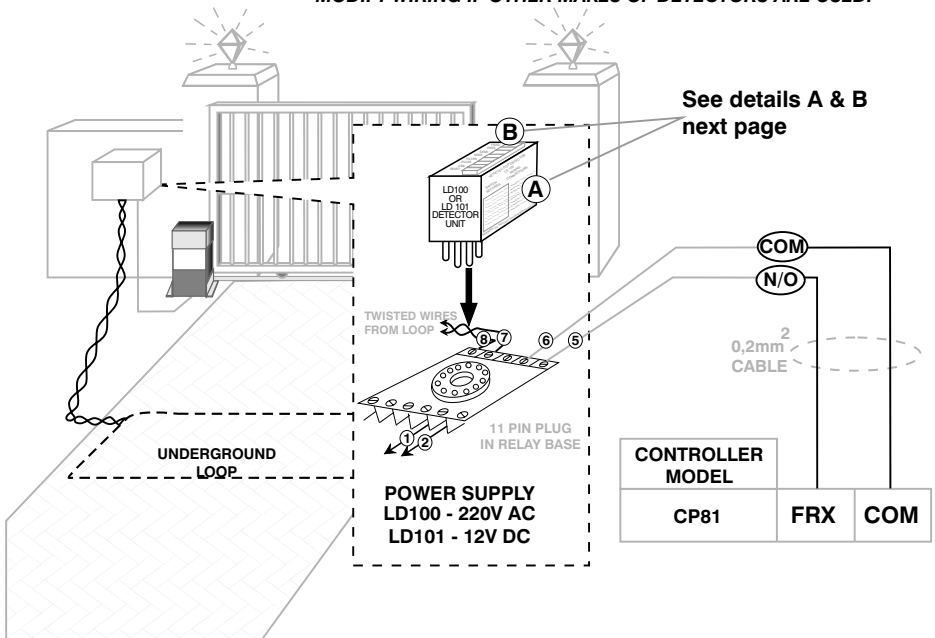
REMOTE PROGRAMME SWITCH (Activate pillar lights)



PILLAR LIGHT(S)



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



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. 1 Second or 0.2 Second.

- Pulse Relay Selection.

The Pulse relay may be configured to energise on detection of vehicle leaves the loop or when the vehicle leaves the loop.

- Switch selectable Sensitivity. Four sensitivity settings are available on the switches to allow flexibility in configuration.

1	High	- 0.01%	5	- 0.2%
2		- 0.02%	6	- 0.5%
3		- 0.05%	7	- 1%
4		- 0.1%	8	Low - 2%

- 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.

- Sensitivity Boost.

This feature sets the undetect level to maximum sensitivity and is used to prevent loss of detection of high-bed vehicles.

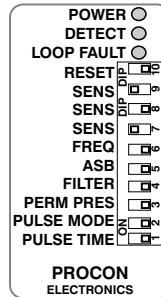
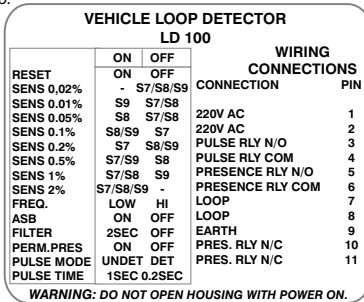
- Filter Option

This option is used to provide a delay between detection of the vehicle and switching of the output relay. This delay is normally used to prevent false detection of small or fast moving objects.

- Loop Fault Indicator

This LED Indicator is illuminated when the loop is either open circuit or short circuit and is used to give a visual indication of a faulty loop.

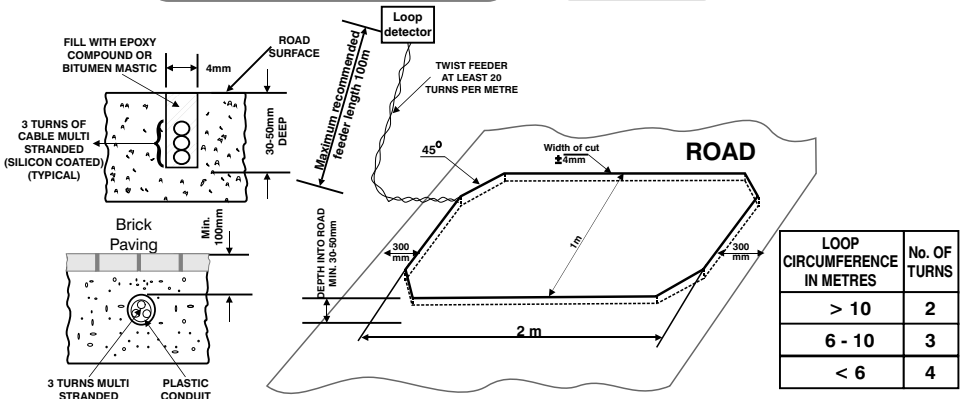
DETAIL A



DETAIL B

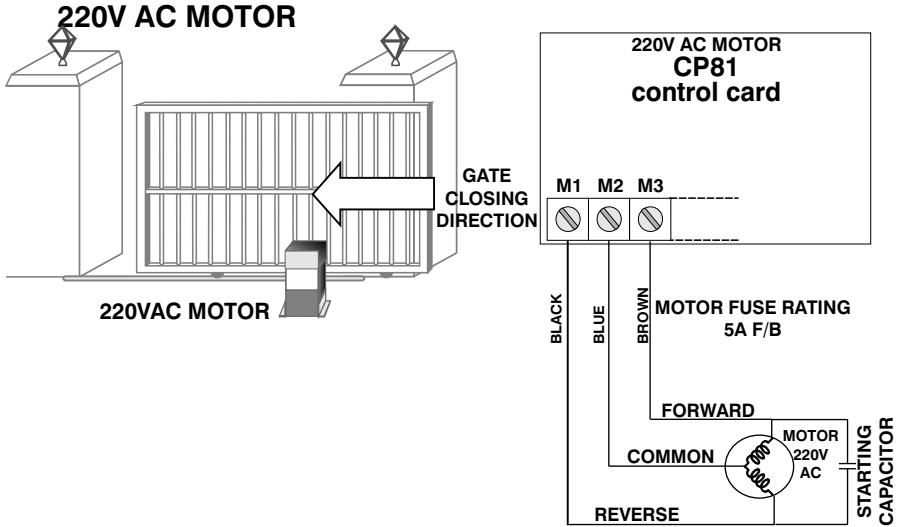
(Recommended settings)

Note: If two detectors are used, set different frequencies (S6)



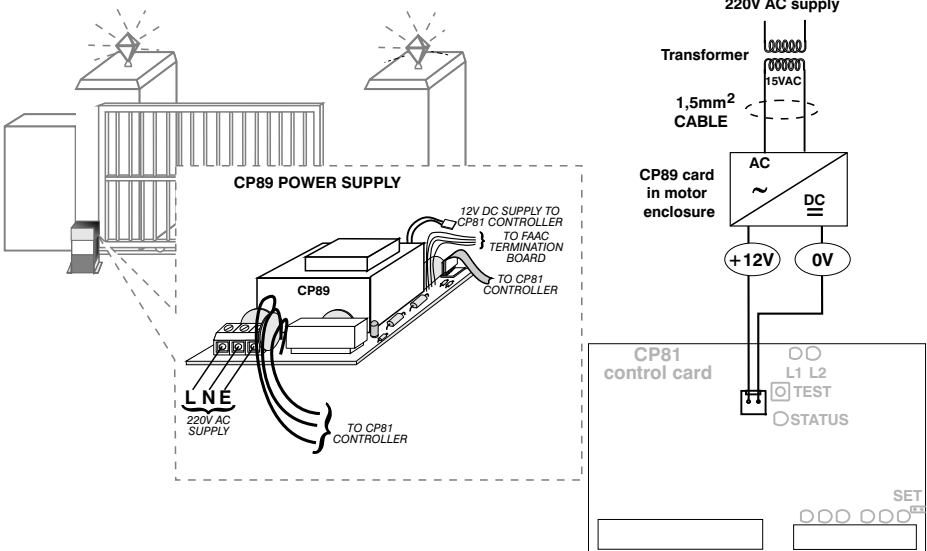
- WIRE: 1.5mm SQUARED MULTI STRANDED CABLE (USE SILICON COATED IF PLACED DIRECTLY INTO THE GROUND)
- SPACING BETWEEN TWO ADJACENT LOOPS > 2 METRES. ALTERNATE ADJACENT LOOPS USING DIFFERENT NUMBERS OF TURNS.
- LOOP AND FEEDER SHOULD COMPRISE ONE LENGTH OF UNJOINED WIRE. IF JOINTS ARE MADE, THEN SOLDER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

Electrical Connections continued



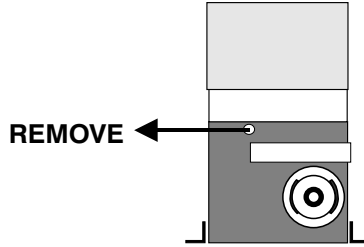
NOTE: For 3 Phase Motor connect to the separate box; see diagram inside the box.
(See also page 16 for 3 Phase Motor Wiring Diagram).

TRANSFORMER POWER SUPPLY



4. COMMISSIONING PROCEDURE

4.1 REMOVE OIL BLEED SCREW (IMPORTANT)

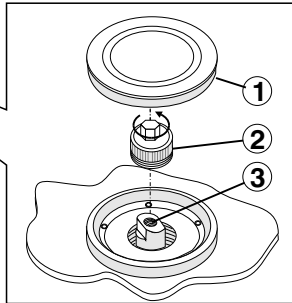
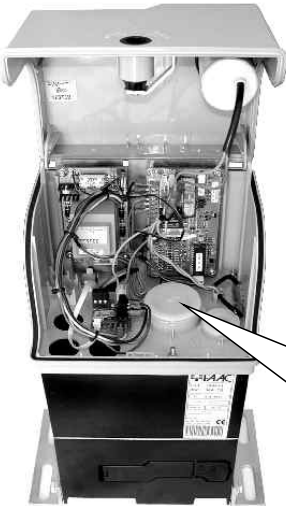


4.2 ADJUSTMENT OF ANTI - CRUSHING SYSTEM

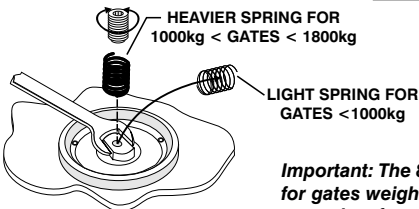
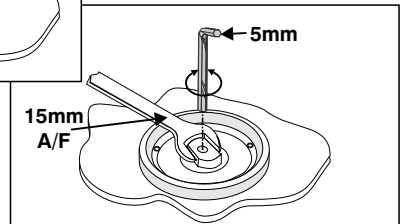
The 746 & 844 automation systems are equipped with an anti-crushing mechanical clutch which stops the opening / closing if the gate meets an obstacle during its movement. When the obstacle is removed, the gate resumes its movement until the relevant limit switch trips or the safety time (TIME OUT) is over. This torque limiter must be set in compliance with current local standards. FAAC recommends a force not to exceed 15kgF, measured on the GATE. To adjust the threshold of the anti-crushing system, proceed as follows:

Model 844

- Switch off the power supply.
- Access the controller enclosure as shown in section 2.4.3 on page 10
- Remove the cover (1) exposing the motor shaft and unscrew the cap (2) of the clutch adjusting screw (3). Keep the driving shaft in position by means of a wrench, and adjust the clutch adjusting grub screw as shown in the drawing below. To increase torque, turn the screw clockwise. To decrease torque, turn the screw counterclockwise.



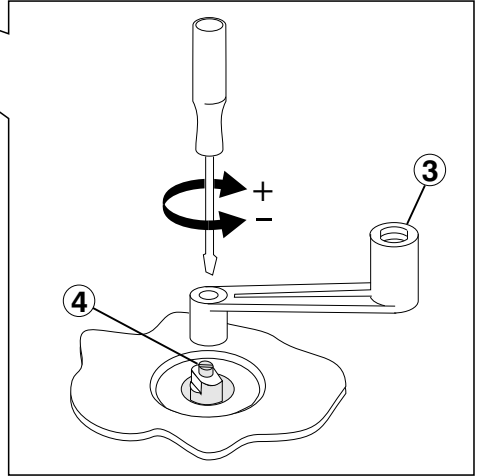
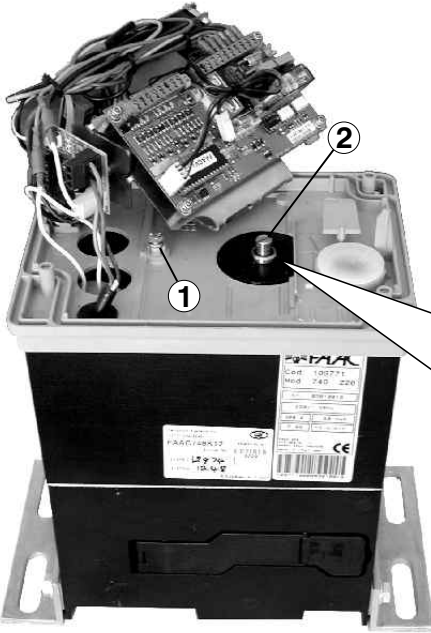
WARNING: the operator is supplied with the clutch set to maximum torque. Initially, the working torque of the system must be decreased.



Important: The 844 operator is factory-equipped with a clutch adjustment spring for gates weighing up to 1000kg. For heavier gates, fit the spring supplied. The procedure for replacing the spring is shown in the drawing below.

Model 746

- Switch off the power supply.
- Access the controller enclosure as shown in section 2.4.3 on page 10
- Swing the controller module outward to expose the motor shaft (2) Keep the driving shaft in position with the lever supplied (3), and adjust the clutch adjusting grub screw (4) as shown in the drawing below, with a flat screwdriver. To increase torque, turn the screw clockwise. To decrease torque, turn the screw counterclockwise.

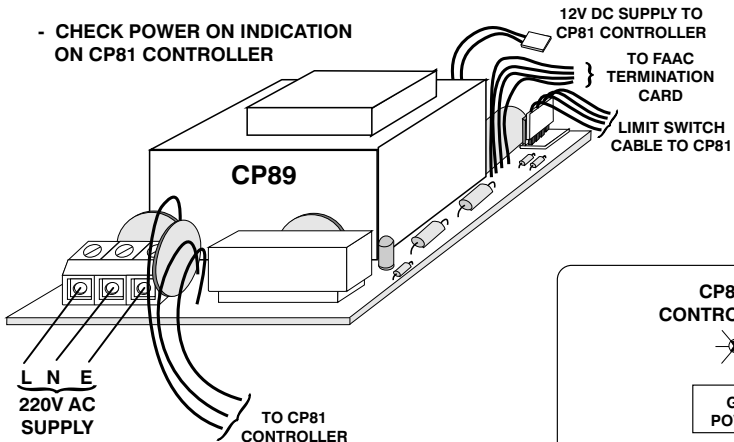


4.3 APPLYING MAINS POWER

See also Page 15 Wiring diagram for 1 ϕ motor

See also Page 16 Wiring diagram for 3 ϕ motor

- APPLY 220V AC POWER
- CHECK POWER ON INDICATION ON CP81 CONTROLLER

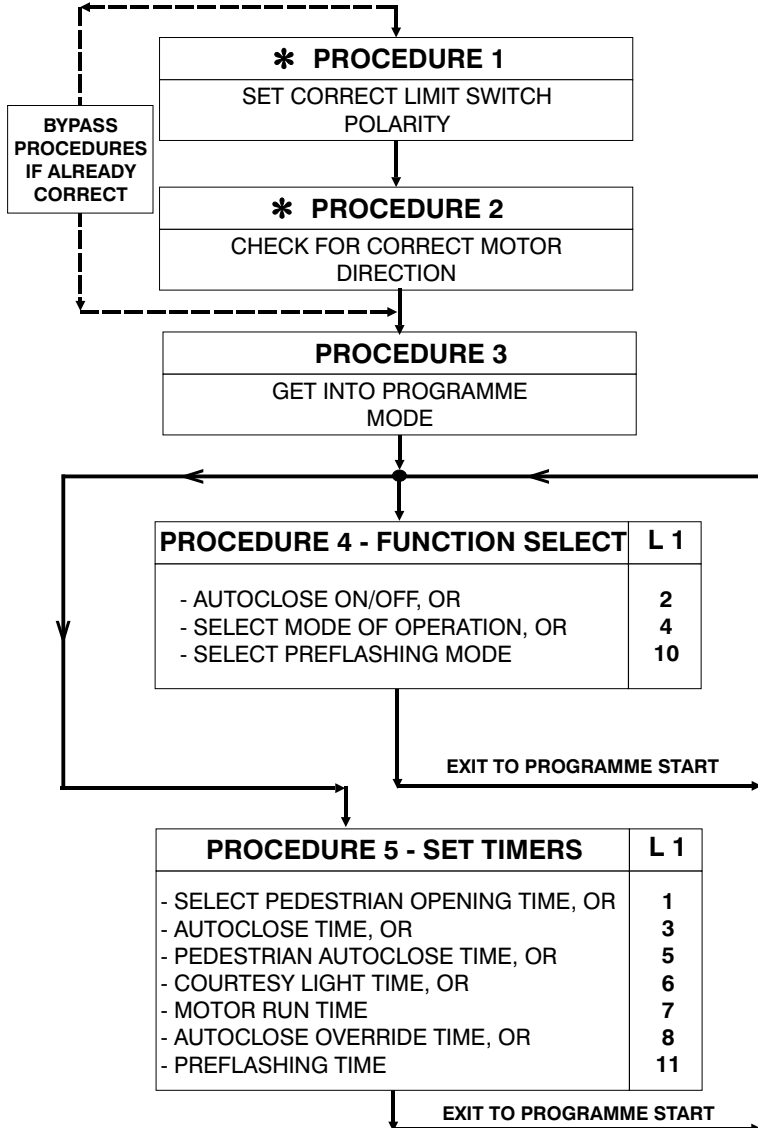


Commissioning Procedure continued

4.4 SETTING UP THE ELECTRONIC CONTROLLER

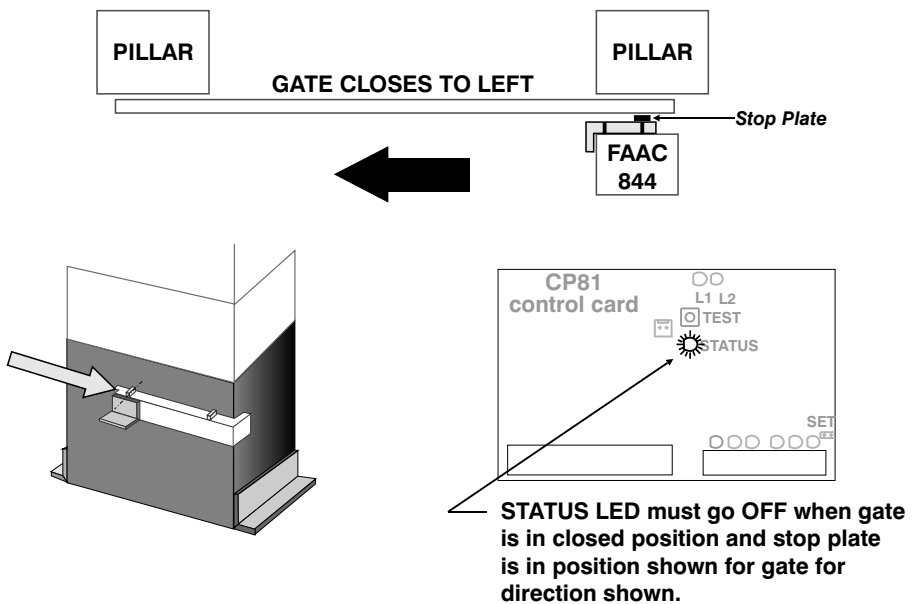
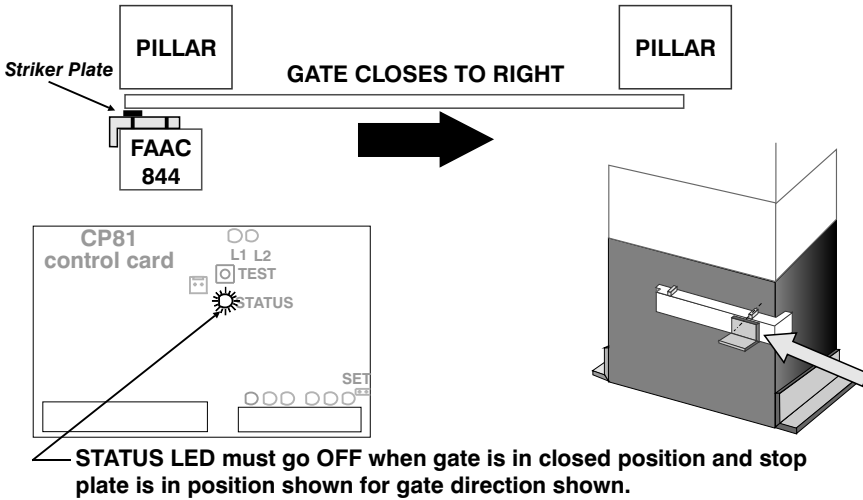
N.B. * Procedure 1 and 2 **MUST** be performed on initial commissioning. Procedure 3 to 5 are required **ONLY** if the default settings on the PCB need to be changed.

The procedure is shown in the following block diagram.



PROCEDURE 1 - SETTING LIMIT SWITCH POLARITY

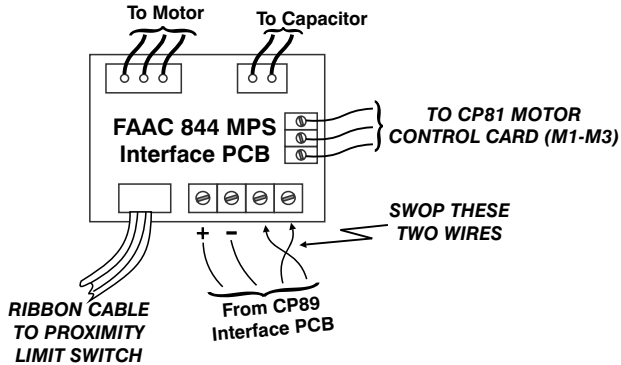
STEP 1 Check if limit switch wiring is correct for one of the alternatives shown below



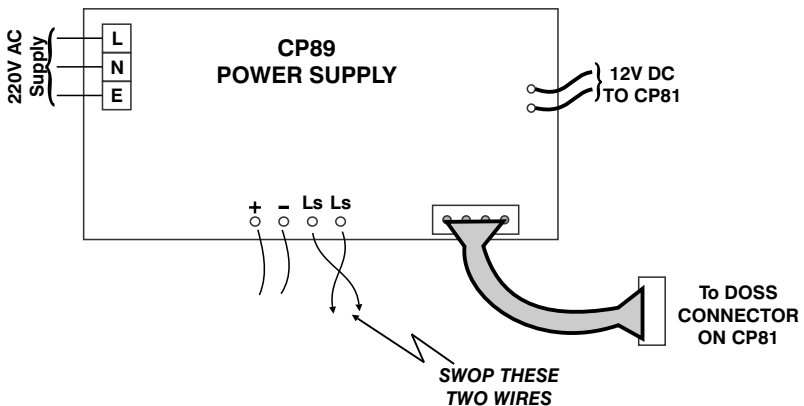
Procedure 1 - Setting Limit Switch Polarity continued

STEP 2 If Step 1 is incorrect then swop limit switch polarity as shown below:

OPTION 1 Motors fitted with FAAC termination board
(See Page 15 for wiring diagram)



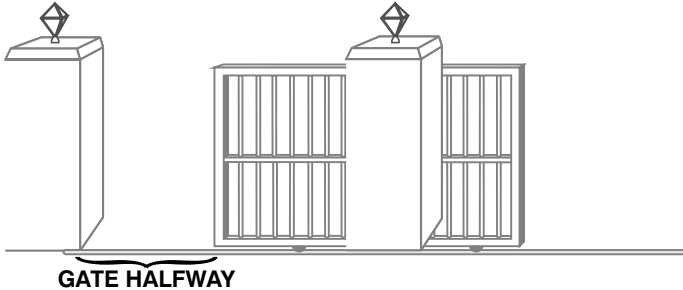
OPTION 2 Motors using CP89 power supply ONLY.
(IE NO FAAC TERMINATION BOARD FITTED)
(See also Page 16 for 3 Phase Motor Wiring Diagram)



Commissioning Procedure continued

PROCEDURE 2 - CHECK FOR CORRECT MOTOR DIRECTION

STEP 1 - Make sure Gate is in CENTRE of Travel (or that Rack is lifted off the pinion - Preferable)

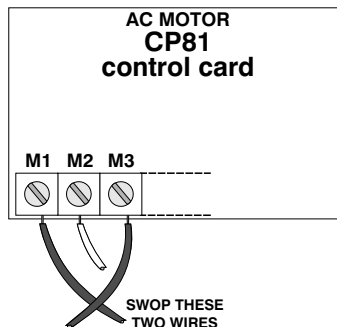


STEP 2 - Trigger Motor and check that pinion rotation is correct by comparing gate direction with STATUS LED.

STATUS LED	GATE DIRECTION
SLOW EVEN FLASH	GATE SHOULD BE OPENING
FAST EVEN FLASH	GATE SHOULD BE CLOSING

N.B. If direction is incorrect Stop Motor (or Remove Power) IMMEDIATELY, or serious damage could be done if gate runs into an End Stop.

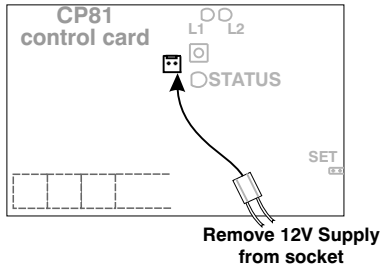
STEP 3 - If motor direction in Step 2 is incorrect, swop wires connected to CP81 terminals marked M1, M3.



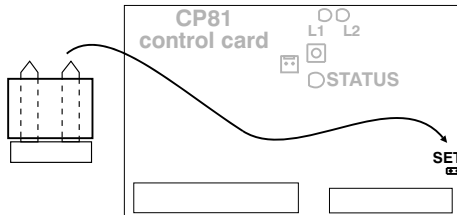
Commissioning Procedure continued

PROCEDURE 3 - GETTING INTO PROGRAMME MODE

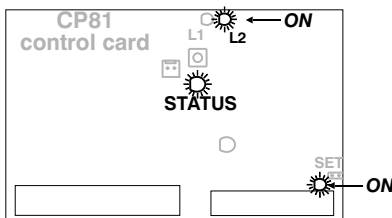
- STEP 1** Remove the electronics power from the PCB.
All LED's will extinguish.



- STEP 2** Fit SET link to PCB.



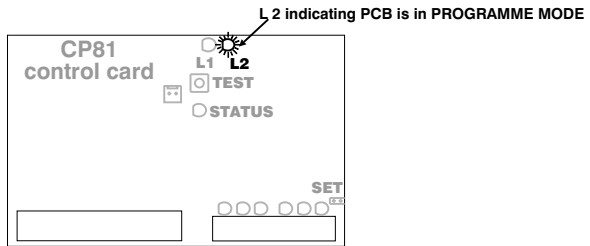
- STEP 3** Reapply power (Reversal of STEP 1 above).
Check that STATUS LED flashes 5 times
and then " L 2 " LED must be illuminated
indicating PROGRAMME MODE.



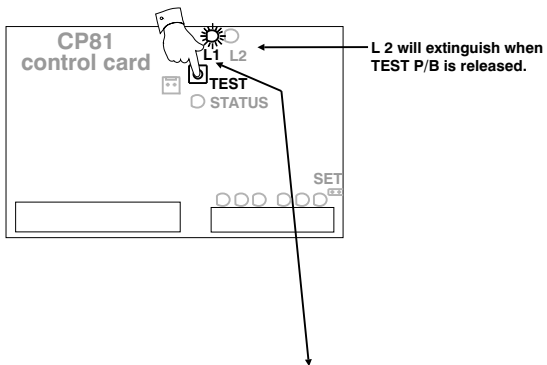
Commissioning Procedure continued

PROCEDURE 4 - FUNCTIONS SELECTION

- STEP 1** Ensure that PCB is in PROGRAMME MODE i.e. LED, L 2, MUST be illuminated (if not refer Procedure 3).



- STEP 2** Hold TEST P/B DOWN until LED, L 1, flashes the required number of times as shown in TABLE 4.1, then release P/B.



FUNCTION TO BE SELECTED	NO. OF TIMES L1 IS FLASHING	DEFAULT STATUS
AUTOCLOSE ON / OFF	2	OFF
MODE OF OPERATION	4	STANDARD
INACTIVE	7	N/A
INACTIVE	9	N/A
PRE - FLASHING MODE	10	OFF

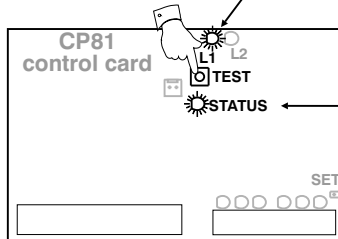
TABLE 4.1

Procedure 4 - Functions Selection continued

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 4.2)

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
INACTIVE	9	—	—	—	—
PRE - FLASHING ON / OFF	10	MODE 1	MODE 2	MODE 3	OFF

TABLE 4.2



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

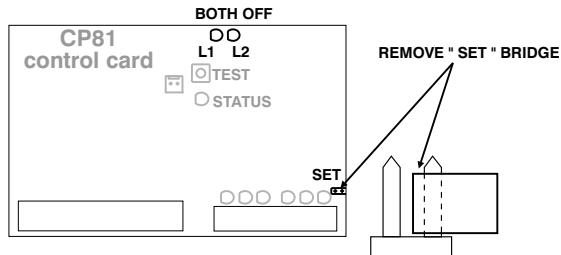
PREFLASHING MODES:

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

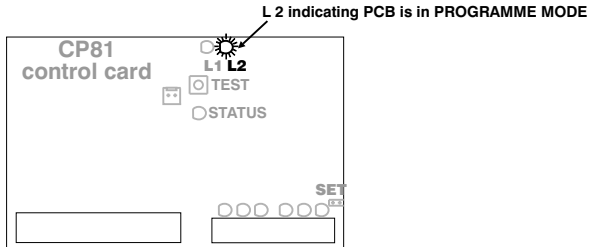
STEP 4 Exit PROGRAMME MODE, if NOT proceeding to procedure 5, by removing set bridge.



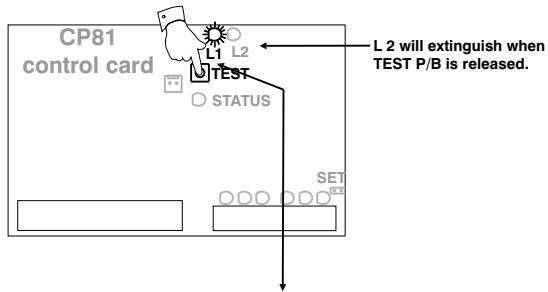
Commissioning Procedure continued

PROCEDURE 5 - 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 3).



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 5.1, then release P/B.



TIMER	NO. OF TIMES LED L1 SHOULD FLASH	DEFAULT TIME (SECONDS)
PEDESTRIAN RUN	1	6 *
AUTOCLOSE	3	15
PEDESTRIAN AUTOCLOSE	5	5
COURTESY LIGHT	6	120
MOTOR RUN TIME	7	40
AUTOCLOSE OVERRIDE	8	3
PREFLASHING TIME	11	5

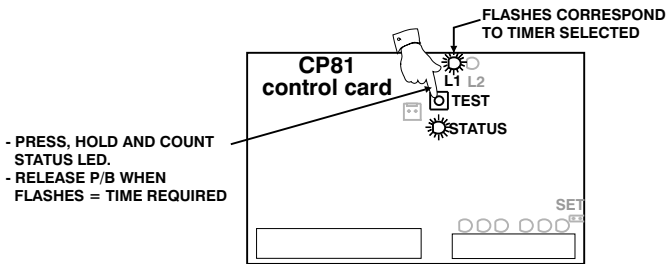
* Default time of 6 seconds = Approx. 1.2m (Z20)
1.0m (Z16)

TABLE 5.1

Procedure 5 - Setting Duration of Timers continued

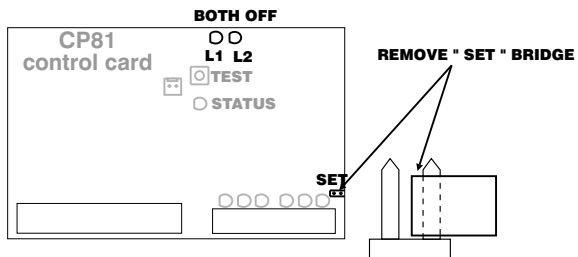
STEP 3 Press and Hold TEST button while counting the number of times STATUS LED flashes;
Release the Pushbutton when the flashes count = time (or count) required.

NOTE: 1 FLASH 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.).



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, by removing SET bridge.



PROCEDURE 6 - PROGRAM THE CP81 TO DEFAULT SETTINGS

1. REMOVE POWER.
2. FIT THE "SET" LINK.
3. CONNECT "PED" AND "FRX" TO "COM".
4. RECONNECT POWER. L1 AND L2 WILL ILLUMINATE.
5. REMOVE THE POWER.
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 4.1 (see page 31) AND 5.1 (see page 33) (GATE END POINTS ARE NOT AFFECTED)

4.5 TESTING THE AUTOMATION

When installation is complete, press fit the covers over the operator fixing bars.

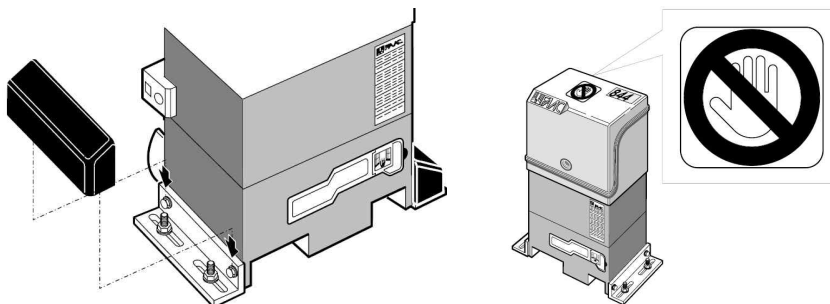
Fit the top cover to the 746 and secure with the screws and bushes supplied.

Close and lock the controller enclosure cover of the 844 operator

Affix the danger warning decal to the top cover.

Thoroughly check operation of the automation system, including all connected accessories.

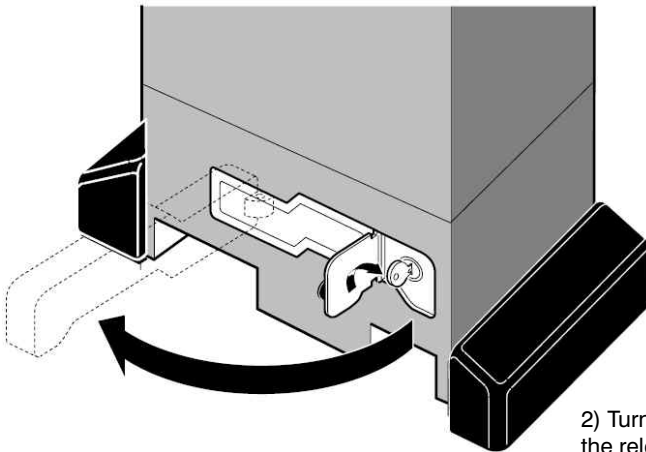
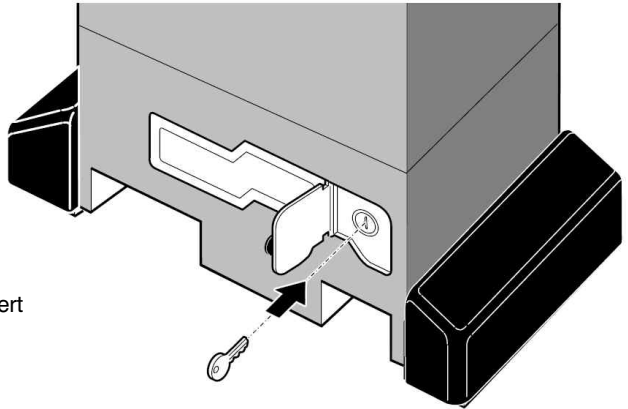
Give the customer the user guide. Explain correct use and operation of the gate motor and draw attention to the potential danger zones of the system.



5. MANUAL OPERATION

Should the need arise to operate the gate manually because of power failure or malfunction, release it by operating the releasing system as shown:

1) Open the lock cover and insert the key supplied in the lock.



2) Turn the key clockwise and pull out the release lever as shown.

3) Open or close the gate manually.

To re-lock the system, bring the unlocking lever back to its original position. Turn the key anticlockwise, remove the key and close the lock cover.

Important: Slide gate until clutch re-engages before retriggering the system.

6. MAINTENANCE

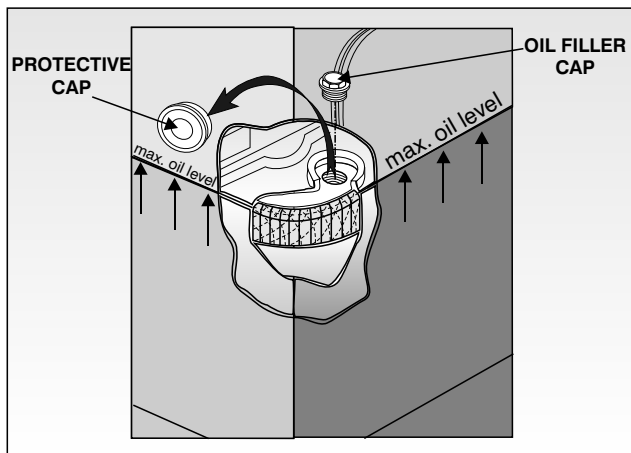
OIL LEVEL

Periodically check the oil level. For medium to low duty cycles, it is advisable to perform the check annually. Where more intensive use has occurred, check every 6 months.

The tank is accessed by removing the oil filler cap.

The oil level can be checked visually: it should soak the copper coil of the electric motor.

If topping up is needed, use only FAAC XD 220 oil.



ANTI-CRUSHING AND SAFETY DEVICES

It is also necessary to ensure that the mechanical anti-crushing clutch is functioning and is correctly set to deliver no more than 15kgF. The safety devices installed on the system must be checked every 6 months.

7. REPAIRS

If any repair is needed, contact your authorized Centurion repair centre.



CENTURION

THE AUTOMATIC CHOICE



CENTURION SYSTEMS (PTY) LTD HEAD OFFICE:
TEL: +27 (0)11 699-2400, FAX: +27 (0)11 704-3412 or 462-6669
148 EPSOM AVENUE, NORTH RIDING
P.O. BOX 506, CRAMERVIEW, 2060
SOUTH AFRICA

WEB: <http://www.centsys.co.za> General information e-mail: info@centsys.co.za

FOR TECHNICAL SUPPORT CONTACT:

SOUTH AFRICA

EAST RAND	(011) 397-6401	PORT ELIZABETH	(041) 581-6994/5
DURBAN	(031) 701-9583	EAST LONDON	(043) 743-4923
NELSPRUIT	(013) 752-8074/5	BLOEMFONTEIN	(051) 448-1714
PRETORIA	(012) 362-8819/8893	KIMBERLEY	(053) 832-3231
CAPE TOWN	(021) 447-1295	VEREENIGING	(016) 422-5667

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MOLECULAR CONSULTANTS, NIGERIA	Tel: 803-3123182
SECURITY DISTRIBUTORS, ZIMBABWE	Tel: (4) 795-873
SEKANYOLYA TIMBER WORKS, UGANDA	Tel: (41) 231-40

EUROPE

AUTOMATISME BATIMENT, FRANCE	Tel: (1) 697-93120
CROWN AXCESS LTD U.K. UNITED KINGDOM	Tel: (1483) 450-011
NESTOR, BELGIUM	Tel: (9) 380-4020

NORTH AMERICA

BILLY GATES, CANADA	Tel: (250) 334-1553
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AUSTRALASIA

ABA GATES, WESTERN AUSTRALIA	Tel: (8) 933-03061
DOMINATOR SYSTEMS, NEW ZEALAND	Tel: (3) 384-5145
ICBT, VICTORIA	Tel: (3) 933-54213
ROTECH, QUEENSLAND	Tel: (7) 326-47330
SA GATES, SOUTHERN AUSTRALIA	Tel: (8) 826-64235
SECURITE DU PACIFIQUE, NEW CALEDONIA	Tel: 283-760

INDIAN OCEAN

SECULOGIX LTD, MAURITIUS	Tel: 467-8509
SECURITE AUTOMATISMES REUNION, REUNION	Tel: 280-368

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VAST VIDEO, MALAYSIA	Tel: (3) 214-34931
BLT ASSOCIATES, THAILAND	Tel: (2) 691-6793