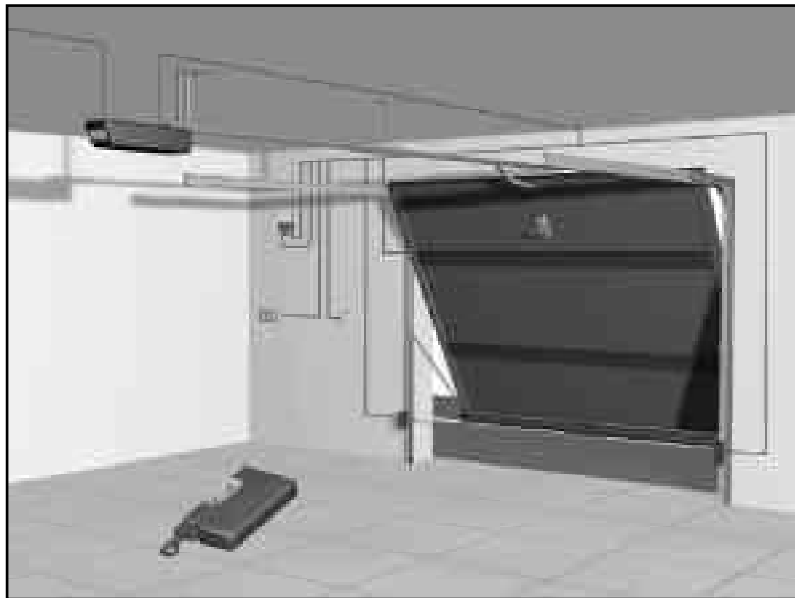


I N T R O D U C T I O N

**THESE INSTRUCTIONS WILL SHOW YOU HOW TO INSTALL
A UNIV GARAGE DOOR KIT.**

**PLEASE READ THESE INSTRUCTIONS AND DIAGRAMS
CAREFULLY BEFORE STARTING ANY WORK.**



UNDER NO CIRCUMSTANCES SHOULD THIS EQUIPMENT BE OPERATED UNLESS FITTED TO A GARAGE DOOR.

FAILURE TO COMPLY WILL INVALIDATE THE GUARANTEE.

INSTALLATION INSTRUCTIONS

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"TIME MARCHES ON BUT CAME AUTOMATION EQUIPMENT STANDS THE TEST OF TIME..."

STAGE 1

CIVIL & MECHANICAL SECTION

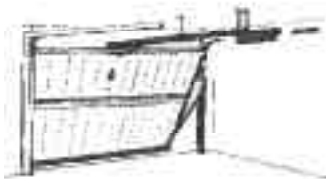
1.1- Which Garage Door?

BEFORE STARTING YOUR GARAGE DOOR INSTALLATION FIRST DETERMINE WHICH GARAGE DOOR YOU HAVE.

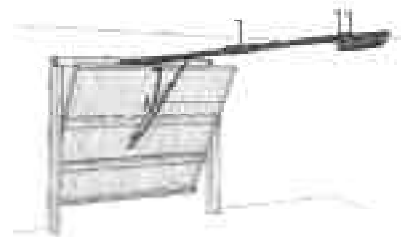
Fig 1



A: Sectional Door



B: Spring Balance Up and Over Door



C: Overhead Door with Counter Balancing or Canopy Door

1.2- V122

IF A SECTIONAL DOOR IS BEING FITTED AN EXTENSION ARM IS RECOMMENDED WHEN THE DISTANCE BETWEEN THE SPRING BAR AND THE UPPER EDGE OF THE DOOR IS BETWEEN 30 AND 60cm (see A).

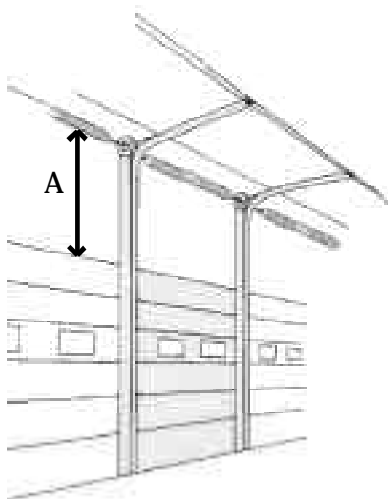


Fig 2

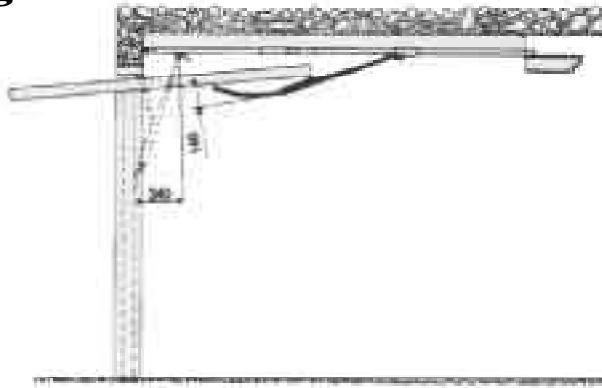
Lever for Sectional Doors



1.3- V201

IF YOU ARE FITTING THE OPERATOR TO A COUNTERWEIGHT BALANCING DOOR OR A CANOPY STYLE DOOR THE V201 ADAPTER KIT IS REQUIRED.

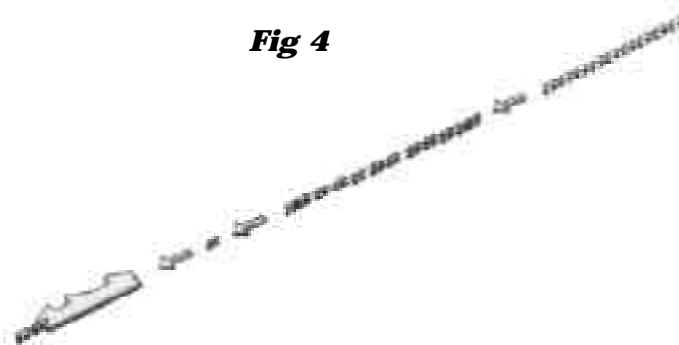
Fig 3



1.4- V203

IF THE HEIGHT OF THE GARAGE DOOR IS BETWEEN 2.5m AND 3.5m THE V203 EXTENSION GUIDE KIT IS REQUIRED TO GIVE 1m EXTENSION OF TRAVEL.

Fig 4



1.5 - Assembling the Operator

Fig 5

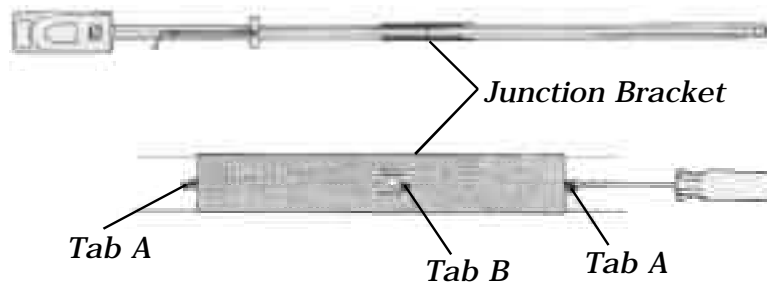


TURN THE GUIDE AROUND 180° AS SHOWN ABOVE ENSURING THAT THE CHAIN IS AROUND THE DRIVE SPROCKET CORRECTLY.

N.B: IF THE HEIGHT OF THE DOOR IS OVER 2.5m IN HEIGHT THEN THE ADDITION OF THE V203 EXTENSION KIT IS REQUIRED. ADDING THE SUPPLEMENTARY GUIDE AND JUNCTION BRACKET. CONNECT THE CHAIN USING THE CHAIN COUPLING LINK.

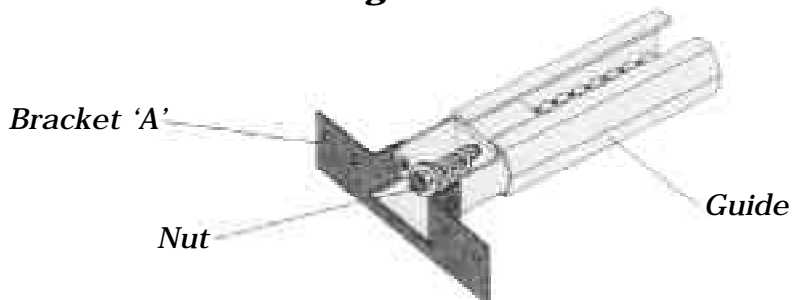
SLIDE THE SLEEVE OVER THE TWO GUIDES SO THAT THE SLEEVE IS IN THE CENTRE OF THE TWO GUIDES. TURN THE UNIT UP-SIDE-DOWN. USING A SCREWDRIVER BEND THE TWO TABS (MARKED 'A') TO SECURE THE SLEEVE IN POSITION. BEND THE TAB MARKED 'B' UP SO IT CAN BE USED TO SECURE THE GUIDE IN POSITION ON INSTALLATION.

Fig 6



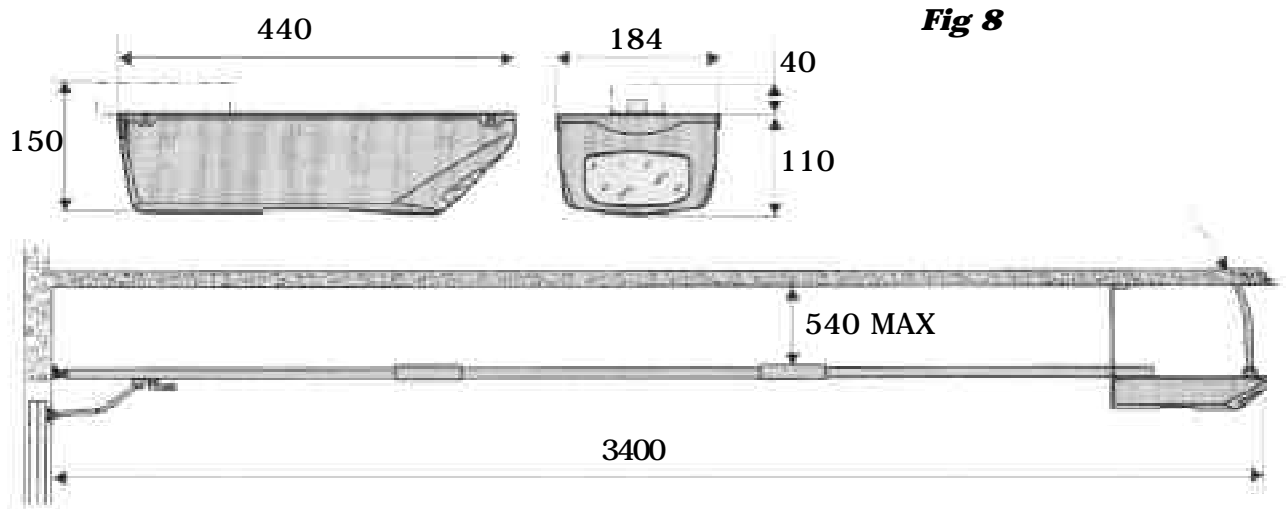
FIT THE WASHER, SPRING AND LOCK NUT AND TENSION THE CHAIN UNTIL IT IS SLIGHTLY TAUT. FIT FRONT MOUNTING BRACKET 'A' WITH THE NUTS AND BOLTS PROVIDED.

Fig 7



1.6 - External Dimensions

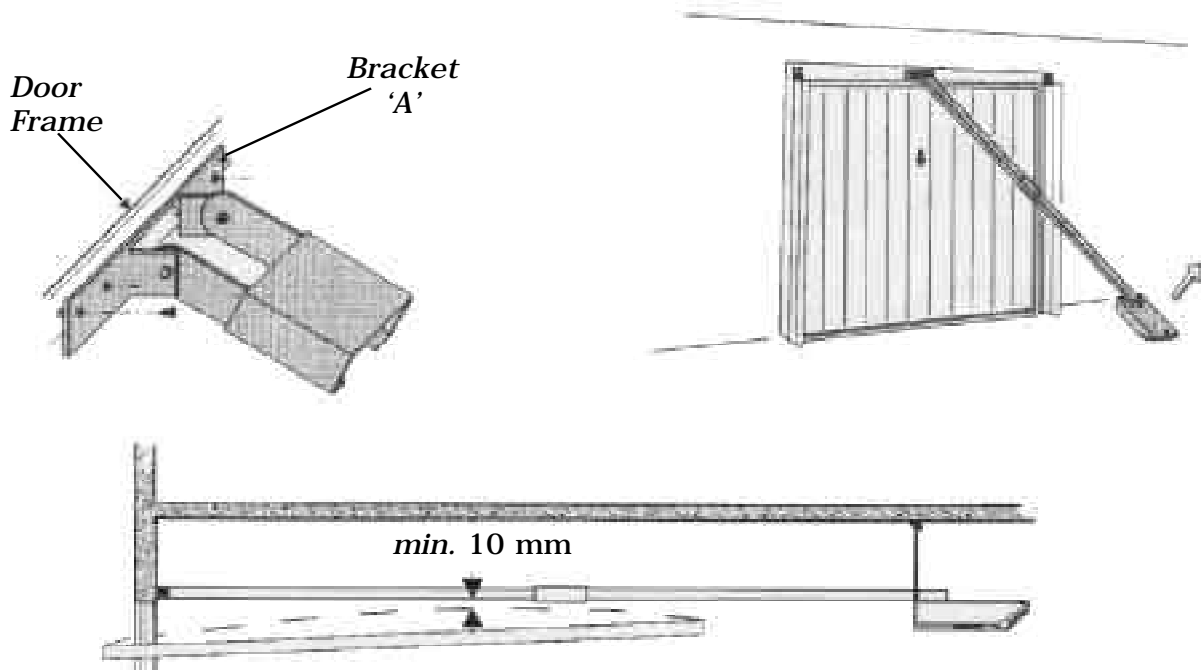
FOR HEIGHTS EXCEEDING 540mm, IT IS NECESSARY TO USE ADDITIONAL BRACKETS AND STRUTS.



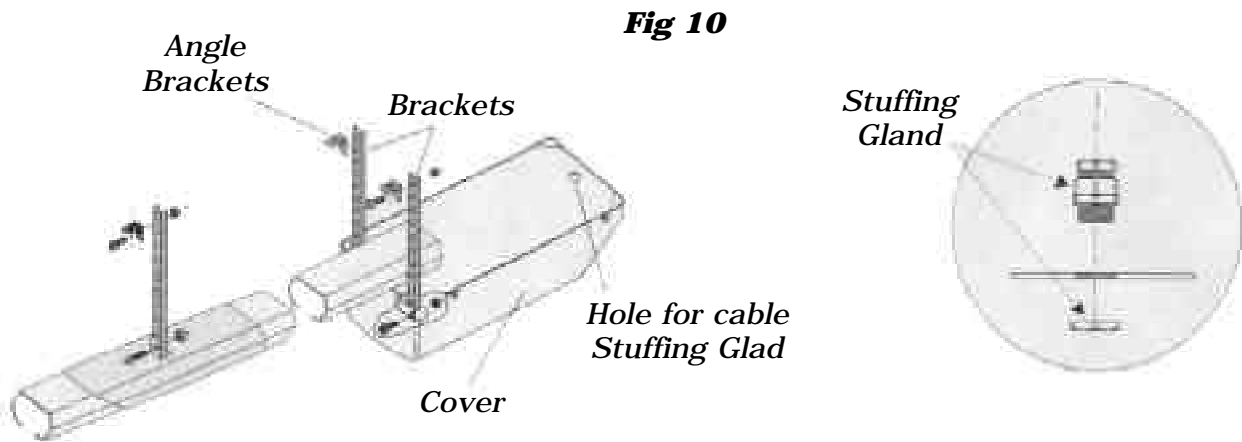
1.7 - Fitting the Operator

BOLT, RIVET OR SCREW BRACKET 'A' TO THE DOOR FRAME, WALL OR SOLID STRUCTURE ABOUT 10-20mm ABOVE THE HIGHEST POSITION REACHED BY THE DOOR DURING ITS TRAVEL.

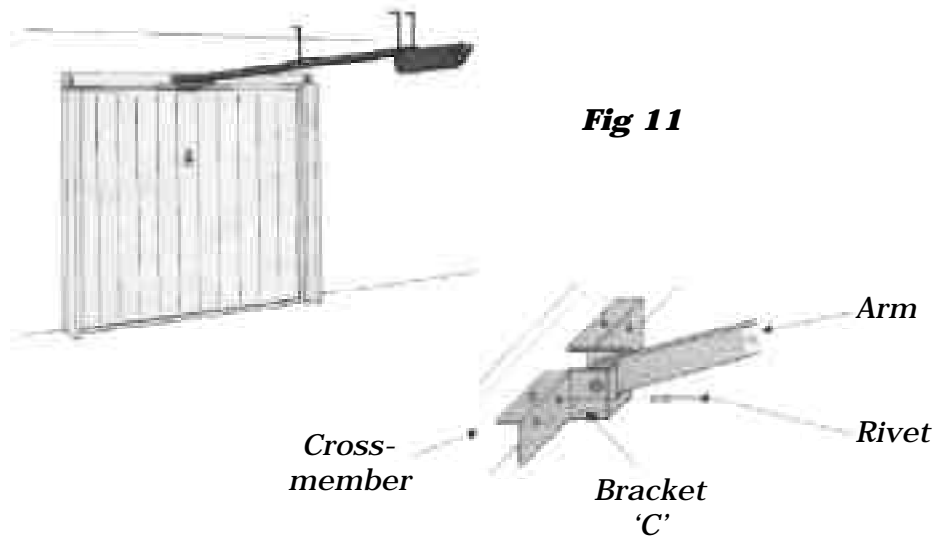
Fig 9



REMOVE THE BLUE COVER AND FIT THE CABLE STUFFING GLAND PROVIDED. FIT THE BRACKETS TO THE MOTOR AND GUIDE SLEEVE AND USING THE ANGLE BRACKETS PROVIDED, SECURE THE OPERATOR TO SUITABLE HANGING POINTS.



FIT THE DOOR BRACKET 'C' TO THE CROSS MEMBER OF THE DOOR FRAME USING THE RIVETS SUPPLIED OR IF FITTING TO A WOODEN DOOR FRAME USE SUITABLE SCREWS OR FIXINGS.



END OF INSTALLATION STAGE 1

**BEFORE STARTING STAGE 2 - Wiring & Electrical
PLEASE CHECK THAT YOU HAVE CORRECTLY:**

	Ref	Page
1. ASSEMBLED THE OPERATOR	1.5	5
2. CORRECTLY FITTED THE OPERATOR	1.7	6

**NOW STAGE 1 IS FULLY COMPLETED YOU ARE READY TO
BEGIN STAGE 2 OF YOUR UNIV AUTOMATION KIT
INSTALLATION**

STAGE 2

WIRING & ELECTRICAL

2.1 - Wiring the Control Panel

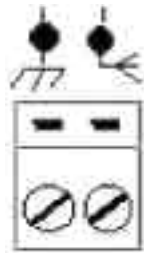
CONNECT A SUITABLE MAINS SUPPLY TO THE MOTOR L2 BEING LIVE AND CONNECT THE EARTH TO THE MOTOR.

Fig 12



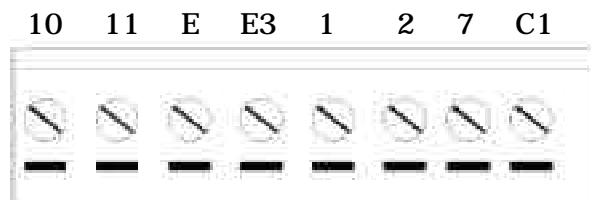
CONNECT THE COAXIAL CABLE TO THE CORRECT TERMINALS ON THE P.C.B. BOARD.

Fig 13



CONNECT THE PUSHBUTTON WIRE TO TERMINALS 2 AND 7. THIS WILL GIVE YOU OPEN/CLOSE REVERSE.

Fig 14



2.2 - Dipswitch Settings

Fig 15



FOR NORMAL OPERATIONS ENSURE ALL DIPSWITCHES ARE SET TO OFF EXC EPT 7, 8 AND 9 WHICH SHOULD BE SET TO ON.

1	Off	Automatic Closure	Disabled
2	On	“Open-Stop-Close-Stop” Control Function	Enabled
2	Off	“Open-Close-Reverse” Control Function	Enabled
3	Off	“Open Only” Control Function	Disabled
4	Off	Pre-Flashing light (Open and Close)	Disabled
5	Off	Obstacle Detection Device (Motor at Limit Position)	Disabled
6	Off	“Present Man” Operation	Disabled
7	On	Re-Opening During Closure Phase (Safety Device 2-C1)	Disabled
8	On	“Total-Stop” (Safety Device)	Disabled
9	On	Courtesy Light	Enabled
10	Not Used		

2.3 - Setting Potentiometers

Fig 16

Trimmer T.C.A



FOR COMMISSIONING SET POTENTIOMETER T.C.A TO MINIMUM.

Trimmer Sens



SET POTENTIOMETER SENS TO THE HALFWAY POSITION FOR COMMISSIONING AND ADJUST ACCORDINGLY

Trimmer Rall



SET POTENTIOMETER RALL TO MINIMUM FOR COMMISSIONING AND ADJUST ACCORDINGLY IF YOU ARE USING THE SLOWDOWN FACILITY.

END OF INSTALLATION STAGE 2

BEFORE STARTING STAGE 3 - Commissioning

PLEASE CHECK THAT YOU HAVE CORRECTLY:

	Ref	Page
1. WIRED THE MOTORS	2.1	9
2. SET DIPSWITCHES	2.2	10
3. SET POTENTIOMETERS	2.3	11

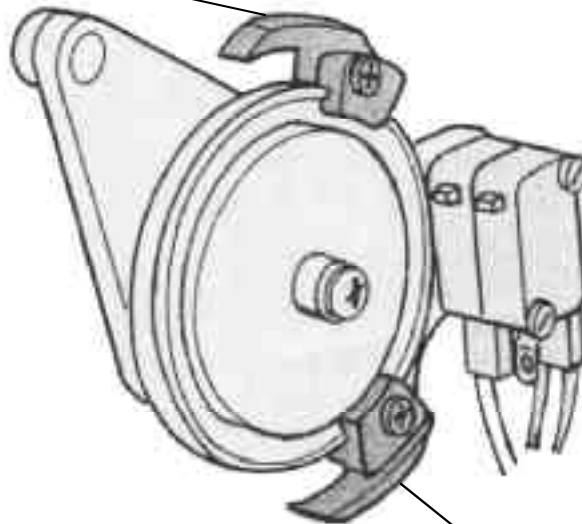
**NOW STAGE 2 IS FULLY COMPLETED YOU ARE READY TO
BEGIN STAGE 3 OF YOUR UNIV AUTOMATION KIT
INSTALLATION**

STAGE 3 COMMISSIONING

3.1 - Initial Commissioning and Setting the Cams

White Cam (Open)

Fig 17



Red Cam
(Slowdown/Close)

ENGAGE THE DOOR ONTO THE CHAIN DRIVE BY MOVING THE MANUAL RELEASE HANDLE TO THE REAR AND LIFTING THE DOOR UNTIL IT ENGAGES ONTO THE CHAIN. YOU ARE NOW READY TO ADJUST THE OPEN AND CLOSE CAMS.

OPEN/STOP

PRESS THE OPEN/CLOSE BUTTON AND THE DOOR WILL START TO OPEN. MOVE THE WHITE CAM UNTIL THE CORRECT OPEN POSITION IS ACHIEVED. ONCE THE DESIRED POSITION HAS BEEN ACHIEVED TIGHTEN THE SCREW OF THE WHITE CAM TO SECURE IN POSITION.

DECELERATION DURING CLOSING

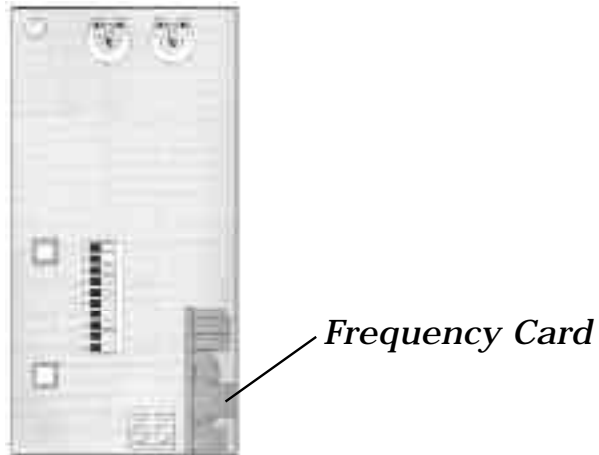
PRESS THE OPEN/CLOSE BUTTON AGAIN UNTIL THE DOOR IS ABOUT 200mm FROM THE CLOSED POSITION THEN PRESS THE OPEN/CLOSE BUTTON AGAIN TO STOP THE DOOR IN THAT POSITION. TURN THE RED CAM AROUND UNTIL THE MICROSWITCH HAS BEEN TRIPPED. THEN TIGHTEN THE SCREW ON THE CAM. TURN THE POTENTIOMETER TR TO THE + POSITION UNTIL THE DOOR HAS REACHED THE FULLY CLOSED POSITION.

CHECKING SENSITIVITY

CHECK THE SENSITIVITY OF THE DOOR BY TRYING TO STOP THE DOOR WHEN IT IS CLOSING IF IT STOPS VERY EASILY, TURN THE SENSITIVITY TOWARDS - TO GIVE MORE POWER AND TO DECREASE THE POWER TURN THE SENSITIVITY TO +.

3.2 - Inserting the Frequency Card

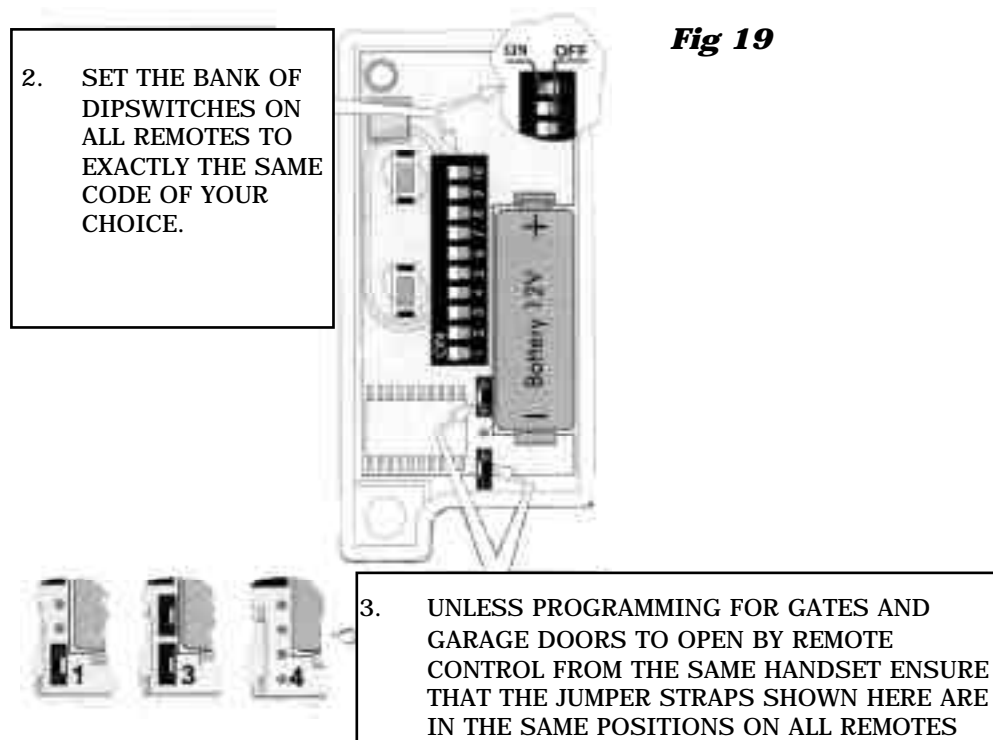
Fig 18



BEFORE INSERTING THE RADIO FREQUENCY CARD ENSURE THAT THE POWER IS TURNED OFF TO THE CONTROL PANEL.

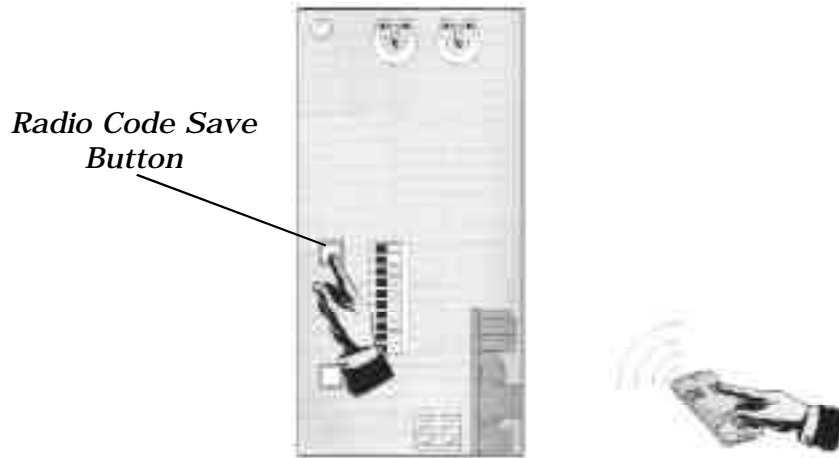
3.3 - Coding the Remote Controls

1. REMOVE THE BATTERY COVER & CASING OF THE REMOTE CONTROL HANDSET TO REVEAL THE DIAGRAM BELOW



3.4 - Storing the Code

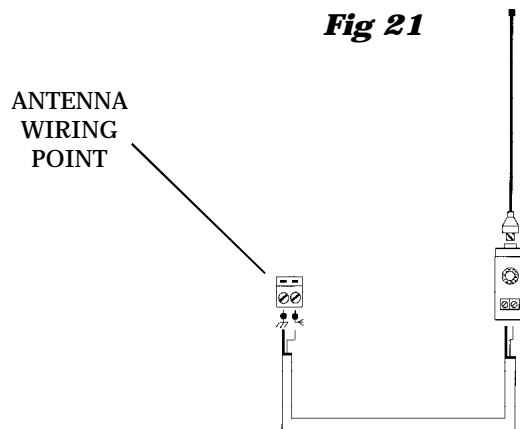
Fig 20



PRESS AND HOLD THE RADIO CODE SAVE BUTTON, AT THE SAME TIME TRANSMIT BY PRESSING THE TOP BUTTON OF THE REMOTE CONTROL. THE SIGNAL L.E.D WILL FLASH AND THEN GO CONSTANT TO INDICATE THAT THE CODE HAS BEEN STORED.

3.5 - Wiring in the Tuned Antenna

Fig 21



END OF INSTALLATION STAGE 3

PLEASE CHECK THAT YOU HAVE CORRECTLY:

	Ref	Page
1. SET THE CAMS	3.1	13
2. INSERTED FREQUENCY CARD	3.2	14
3. CODED REMOTES	3.3	14
4. STORED CODE	3.4	15
5. WIRED THE TUNED ANTENNA	3.5	15

4. TROUBLESHOOTING GUIDE

A MULTIMETER WILL BE NEEDED

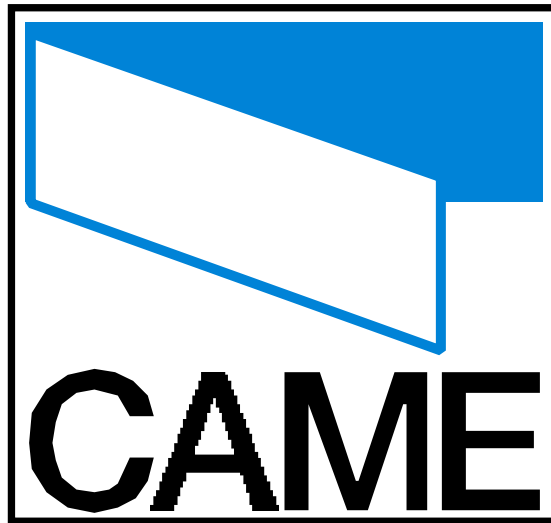
<i>PROBLEM</i>	<i>SOLUTION</i>
OPERATOR WILL NOT RESPOND WHEN GIVEN A COMMAND	<ol style="list-style-type: none">1. CHECK POWER SUPPLY TO THE CONTROL PANEL.2. CHECK CONTROL PANEL FUSES.3. CHECK DIPSWITCH SETTINGS 7,8 AND 9 ARE ON.
DOOR IS OPEN BUT WILL NOT CLOSE	<ol style="list-style-type: none">1. CHECK SAFETY BEAM CIRCUIT IS SWITCHED OFF (DIPSWITCH 7 ON).2. IF SAFETY BEAMS ARE FITTED ENSURE THAT THEY ARE WIRED CORRECTLY.
DOOR CLOSES AND THEN RE-OPENS AFTER PUTTING A LOT OF PRESSURE ON THE DOOR	<ol style="list-style-type: none">1. CLOSE CAM NOT SET CORRECTLY.2. RALL NOT SET CORRECTLY. TOO MUCH POWER GOING TO OPERATOR.
THE REMOTE CONTROL WILL NOT WORK	<ol style="list-style-type: none">1. FREQUENCY CARD NOT FITTED.2. CODE HAS NOT BEEN TRANSMITTED TO CONTROL PANEL.

***IF THE PROBLEM IS STILL APPARENT CONTACT THE
CAME TECHNICAL HELPLINE:***

0115 938 7203

NOTES

5. CONTACT INFORMATION



CAME UNITED KINGDOM LTD

UNIT B3
GILTBROOK INDUSTRIAL ESTATE
GILTBROOK, NOTTINGHAM, NG16 2GN

TEL: **0115 938 7200**

FAX: **0115 938 2694**

INTERNET : www.cameuk.com
E-MAIL: enquiries@cameuk.com

THIS INSTALLATION WAS COMPLETED BY:

.....

NAME.....

ADDRESS.....

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TEL..... MOBILE.....

DATE OF INSTALLATION.....