

INSTALLATION INSTRUCTIONS AND OWNERS MANUAL

ET-12 Roller Door Motor



IMPORTANT! PLEASE READ THESE INSTRUCTIONS CAREFULLY PRIOR TO COMMENCING THE INSTALLATION OF THE OPERATOR UNIT

This Automatic motor has been designed to provide years of trouble free use. The motor will perform efficiently only if it is installed and operated properly.

READ THESE IMPORTANT SAFETY RULES FIRST

Keep garage door balanced. Sticking or binding doors must be repaired. Garage doors, door springs, brackets and their hardware are under extreme tension and can cause serious personal injury. Do not attempt adjustment. Call for professional garage door service.

Do not wear rings, watches or loose clothing while installing or servicing a garage door operator.

Installation and wiring must be in compliance with your local building and electrical codes.

The safety reverse system test is very important. Your garage door must reverse on a contact with a 5 to 10cm high object on the floor. Failure to properly adjust the operator may result in serious personal injury from a closing garage door. Repeat the test once a month and make any needed adjustments.(see Sensitivity adjustment).

ET motor has an electronic obstruction system that provides safe and reliable operation. It is however a legal requirement in some countries to also install a Photo-electric sensor across the door way. Please check this requirement with your local distributor.

Do not use the force adjustment to compensate for a binding or sticking garage door. Excessive force will interfere with the proper operation of the Safety Reverse System or damage the garage door.

This unit should not be installed in a damp or wet space.

Disengage all existing garage door locks to avoid damage to garage door.

Install the lighted door Control Box(or any additional Push Buttons) in a location where the garage door is visible, but out of the reach of children. Do not allow children to operate push button(s) or remote control(s). Serious personal injury from a closing garage door may result from misuse of the motor.

CAUTION: Activate motor only when the door is in full view, free of obstructions and motor is properly adjusted. No one should enter or leave the garage while the door is in motion. Do not allow children to play near the door.

Disconnect electric power to the garage door motor before making repairs or removing covers.

IMPORTANT: Fix the caution label supplied to the rear of the garage door as a reminder of safe operating procedures.

Pre-Installation Notes

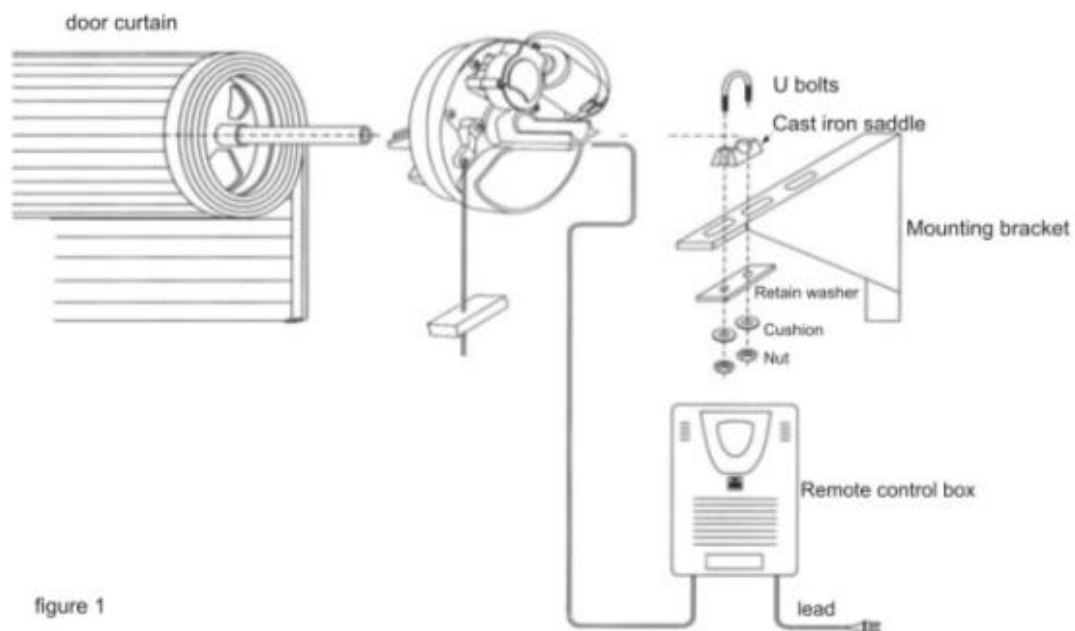


figure 1

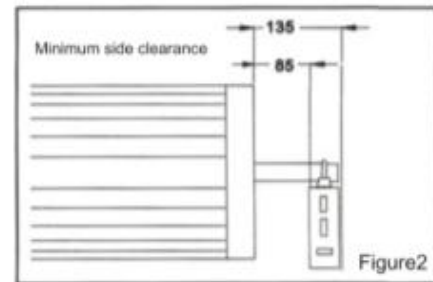
right hand installation shown(inside looking out)

N.B.: The right hand and left hand installation could be swaped on printed circuit board. Please refer to control box set up.

Check that there is sufficient side clearance to fit the motor unit. It may be fitted to either the right or left hand side.

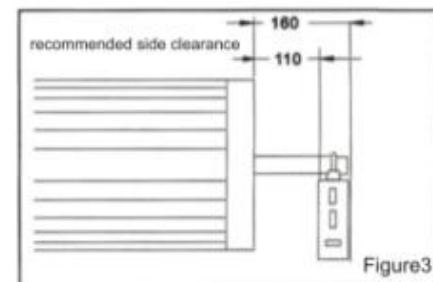
(1) Minimum side clearance:

The minimum side clearance between door curtain and the inside edge of mounting bracket is 85mm;
The minimum side clearance between door curtain and the outside edge of mounting bracket is 135mm.



(2) Recommended side clearance

The recommended side clearance between door curtain and the inside edge of mounting bracket is 110mm;
The recommended side clearance between door curtain and the outside edge of mounting bracket is 160mm.



If the motor is being fitted at the same time as the new door installation, read these instructions in conjunction with the ET roller door installation instructions.

If the motor is being retro-fitted, make sure the door motor smoothly and is properly balanced.

N.B.: SPECIAL CARE SHOULD BE TAKEN IF RE-TENSIONING OF THE DOOR IS REQUIRED.

At no stage should you loosen both “U” bolts if door is under tension.

IF THERE ARE ANY PROBLEMS PLEASE CONTACT YOUR LOCAL SUPPLIER OF THIS MOTOR.

INSTALLATION INSTRUCTIONS

STEP1

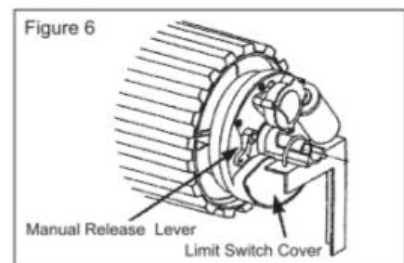
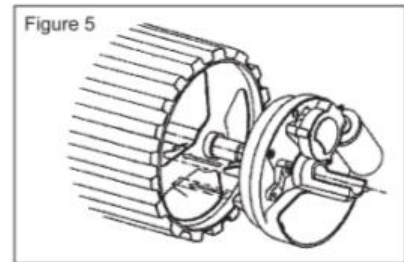
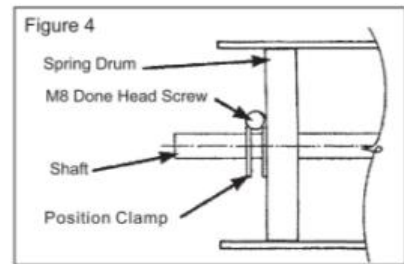
Whilst the door roll is on the floor, rotate shaft backwards and forwards by hand and then release. This action will allow the roll to centralize itself on the shaft.
(New installation only).

STEP1

Fit position clamp TIGHT TO DRUM at opposite end of curtain to the motor using M8 Dome Head Screw and M8 Nyloc Nut as required. Figure 4.

STEP3

Slide drive unit onto shaft as shown Figure 5. Ensuring drive lugs engage fully with the narrowest spoke on drum wheel.



N.B.: Right-hand installation shown(inside looking out)

Lift door onto mounting brackets(ensuring curtain roll is correct way round) centralize curtain roll with opening. Refer to door installation instructions.(New installations only).

Ensure motor assembly is fully engaged with drum wheel spokes. Clamp shaft to mounting brackets using "U" Bolts supplied. (Use "U" bolt in motor pack for MOTOR end). See Figure 6.

Disengaged the motor drive by pulling the manual release lever downwards. See Figure 6.

Tension door and complete door installation as per Door Installation Instructions. Ensure door is correctly balanced and is not binding or sticking within vertical racks.

Ensure locking bars(if fitted) are moved to the retracted(unlocked) position and keys removed from the lock.

Mount Control Unit approximately 1.6m from the floor out of the reach of children. Use 4pcs of 4*30mm self-tapping screws and rawplugs supplied.Ensure aerial is clear of all steel supports and coiled electrical leads. Fit plug from motor unit into bottom of Control Box.

Connect the control unit power cord to an adjacent socket. Ensure that the socket is properly earthed.

SETTING TOP AND BOTTOM LIMITS

N.B.: Right Hand Installtation only. If left hand, limit switch will be reversed.

STEP1

Remove Limit Switch Cover Plate (See Figure 6) by carefully prising off with a small screwdriver.

STEP2

Top limit cam "T" controls open position of door. Bottom limit cam "B" controls closed position of door.

STEP3

Slightly loosen the three retaining screws so that the cams can be easily moved (See Figure 7).

STEP4

Ensure that the manual release lever is still in the "disengaged" position, and manually raise the door until it is approx 100mm from the top position.

STEP5

Rotate cam "T" (in the same direction that is was moving as you were manually raising the door) so that it actuates the top Limit Switch.

STEP6

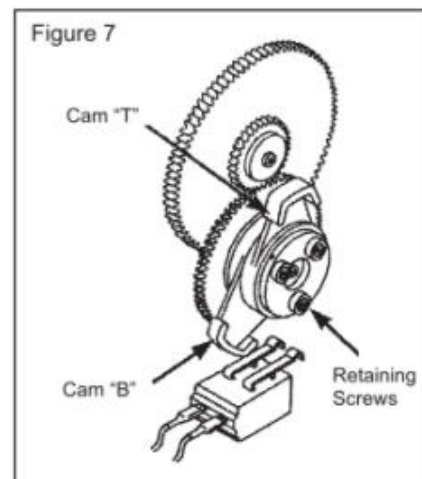
Manually lower the door until it is touching the ground.

STEP7

Rotate cam "B" (in the same direction that is was moving as you were manually lowering the door) so that it actuates the bottom Limit Switch.

STEP8

Tighten the three retaining screws so that the sams will not move.



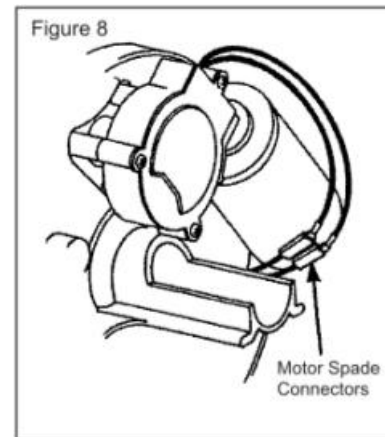
STEP9

Manually position door to halfway and reengage the motor drive by moving the manual release lever to the “engage” position.

N.B.: Door can now only be operated electrically, not manually. If you wish to return to manual operation, ensure power is switched off and move lever to “disengage” position.

STEP10

Connect the two motor wires (Spade Connectors) (Refer Figure 8) to loose wires from the Limit Switches. Switch on power to the Control Box and operate the door from PUSH Button on the Control Box.



IMPORTANT: When the door is traveling in the “Up” position, hold bottom rail. The door should overload and stop. If it does not, reverse motor wires(Spade Connectors)

You will need to re-adjust the Limit Cams as they will be working in a different direction.

STEP11

Press Button on Control Box Front and check closing and opening position.

STEP12

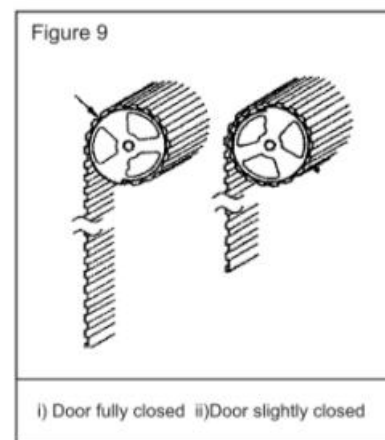
If you are achieving the desired stop position (closing and opening), then replace the Limit Switch Cover Plate. If not, then reset the Limit Cams(Steps2 to 9) after first turning off the mains power.

STEP13

Once the limits have been set, fit the additional security screws(2 of self-tapping screws supplied) with the door in manual mode. With the door fully closed, mark the panel at the first point where the curtain roll touches the drum wheel, on both ends of the curtain(See Figure 9).

Raise the door slightly so that the marks can be seen and accessed from inside the garage.

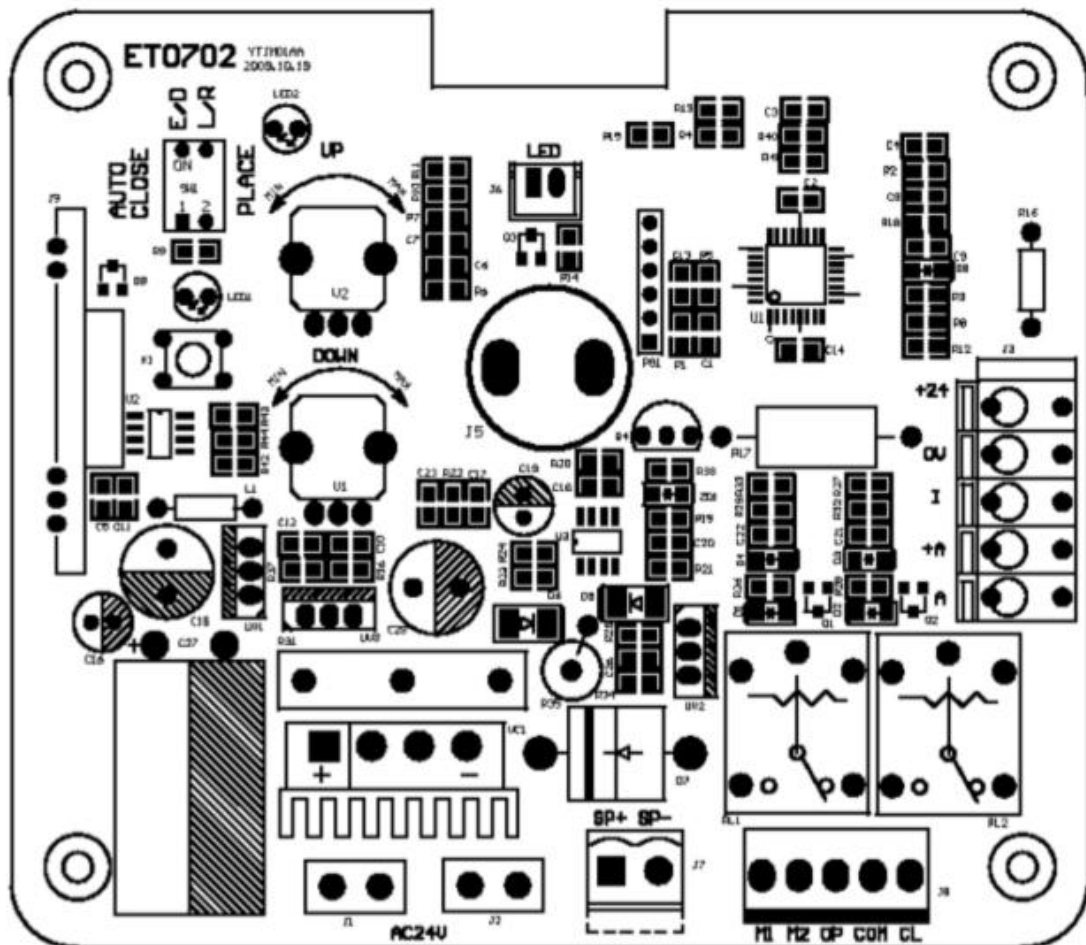
Fit the security screws through the bottom of a corrugation and into the plastic flange of the drum wheel, on both ends of the curtain. Tighten securely.



WARNING! – Do not run door on power through its full reavel unit the limits are correctly set.

Control box set up

Remove cover on front of control box



1. Wiring diagram

B1, B2(AC24V): transformer output

M1,M2 : motor

A,A+ :Manual push button

24V,OV,I :infrared beam

LAMP : 36V 1.5W light socket

3.Auto close option

switch1(1) in E position: auto close features on;
switch1(1) in D position: auto close features off.

**N.B.: mandatory Photo Eye Protection must be used for this option.
Contact your local supplier.**

4.Right hand and left hand installation swap

switch 1(2) in R position is for right hand installation;
switch 1(2) in L position is for left hand installation.

5.Sensitivity adjustment

For right hand installation:

- 1) adjust pot Down for downward traveling sensitivity, clockwise is for big force and the anti-clockwise is for small force.
- 2) adjust pot Up for upward travelling sensitivity, clockwise is for big force and the anti-clockwise is for small force.

Whilst the door is travelling turn the obstruction sensitivity pot slowly until an overload condition occurs i.e. door going up stops before reaching the set top limit or door going down auto-reverses before reaching set bottom limit.

Cycle the door a few times ensuring an overloading conditions is not registered during normal operation.

PROGRAMMING HANDSETS TO NEW CONTROL BOX

Press and release the white learning button, learn LED indicator will light and go out, then press the handset key which will operate the door, the handset transmitter is now programmed.

*For multiple handsets code them the same as above mentioned.

To delete all codes

Press and hold the learning button in the control box for about 10 seconds until the LED indicator go out, all transmitters codes held in the memory have been erased.

N.B.: If a transmitter is lost or stolen please erase the memory and re-learn any spare or new transmitters.

OWNER'S MANUAL

DOOR OPERATION

A roller door equipped with a roller door motor may be operated by any of the following two methods:

by using the hand held transmitter;

by pressing the push button on the control box.(mounted on the wall)

! WARNING

- Ensure that the Centre Lift Lock is not engaged when the Drive Unit is in the automatic position.

Manual Operation

In the case of a power failure, the drive unit has an easily accessible manual release lever, the door could be opened manually.

Obstruction Detection

During an open cycle is an obstruction is detected the door will stop.

During a closing cycle is an obstruction is detected the door will reverse to the open position. The sensitivity or the amount force required to cause an obstruction detection is fully adjustable.

Courtesy Light

An internal courtesy light is housed within the control box enclosure. This is activated during an open or close cycle and will stay illuminated for approximately 180 seconds.

Auto Closing

The motor can be programmed to automatically close 60 seconds after the door has been opened.

Photo-electric sensor

The motor includes an interface for the connection of a photo-beam sensor. The photo-beam sensor can be supplied as an accessory option.

OPERATING CONTROLS

1)Control Box Push Button

Pressing this button will open, close or stop the door.

2)Hand transmitter

Each button is programmed to have three functions to open, close and stop the door.

***Key Ring Handset(optional)**

The hand transmitter is manufactured using the latest surface mount technology and incorporates 4 functional buttons. This enables the user to remotely control up to 4 separate operators from the one handset.

FAULT FINDING

DOOR WILL NOT OPERATE FROM

A)Control Box

- Check power is on to Control Unit(Green L.E.D illuminated)
- IF NOT, check mains plug and fuse.
- Plug fully engaged on top of Control Box.
- Motor wiring connections properly engaged.
- Manual release lever in engaged position.
- Limit Switch cams correctly set. i. e. upper Limit Switch for fully open position, lower Limit Switch for fully closed position.
- Move door manually to half-closed position and try again.
- Try operation with Hand Transmitter.

B)On hand Transmitter

- Check door operates correctly using the Push Button on Control Box to prove systems is okay.
- Try recoding Transmitter.
- Check battery in Transmitter is correctly fitted. L.E.D should illuminate.
- Try new battery.

DOOR OPERATES BUT FAILS TO FULLY OPEN OR REVERSES BEFORE

CLOSING

- Check manual operation for correct balance ,not binding. Adjust if necessary.
- Spray silicone lubricant into tracks. Do not grease.
- Check/adjust safety sensitivity setting.
- Check Limits.

BANGS HARD ON TRACK STOPS WHEN FULLY OPEN

- Check top Limit Switch setting.
- Adjust if necessary.

BANGS HARD ON GROUND AND REVERSES WHEN FULLY SHUT

- Check bottom Limit Switch setting.
- Adjust if necessary.

DOOR FAILS TO TRAVEL DOWN FROM OPEN POSITION MOTOR RUNS

AND ROLLER DOOR BALOONS

- Check door curtain has smooth line of entry into tracks, as near vertical as possible.
- Check door tension is not too great, reduce spring tension if necessary.
If the above does not cure the problem, then the door may require a weight bar to be fitted.

SHOT RANGE REMOTE CONTROL

- Remote Control should give minimum of 6m range.
- Check battery is correctly fitted in Transmitter.
- Try new battery.

DOOR OPERATES BUT FAILS TO FULLY OPEN BUT REVERSES TO CLOSED

POSITION

- Change Motor Wire(Spade Connectors)
- Reset Limits.
- Re-adjust Sensitivity Adjustment.

POWER FAILURE

To disengage

Pull manual release lever downwards(refer fig3)

To engage

Push manual release lever up.

Technical Specifications

INPUT VOLTA	220VAC+-10% 50Hz (110VAC 60Hz or 127VAC 60Hz available on request) Single Phase
TRANSFORMER SEPC:	Primary Voltage 220VAC +- 10% Secondary Voltage 24VAC
WORKING CIRCUMSTANCE :	TEMPERATURE: -20°C ~70°C
MOTRO SPEC:	Motor Type Permanent Magnet D.C. Motor Voltage 24V DC
CONTROL BOARD SPEC:	Control Board Voltage 24V DC/ 5V DC Light Globe Voltage 36V 1.5W Receiver specification Receiver type 433MHz /315 MHz (built-in) RF Frequency 433MHz /315MHz Control distance 50m max.
TRANSMITTER SPEC:	Carrier Frequency 433MHz /315 MHz Battery Voltage 12 Volts A23 battery Coding Format Rolling Code (7.38×10^{19} Code Combinations)

ACCESSORY OPTIONS

Additional remote control transmitter
Infrared beam Additional safety feature
Manual release lock
External receiver