



:TAIMEN

T6 - T12

Irreversible electromechanical INSTRUCTIONS FOR INSTALLATIONS

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INTRODUCTION

The gearmotors TAIMEN T6-T12 allow easily and quickly automating of sectional doors and overhead doors of up to 15 sq.m. .

The automated device with integrated control unit facilitates system certification in accordance with EN125453.

WARNINGS FOR THE INSTALLER

- Before proceeding with installation, fit a magnetothermal and differential switch with a maximum capacity of 10A
 upstream of the system. The switch must guarantee omnipolar separation of the contacts with an opening
 distance of at least 3mm.
- All the packaging materials must be kept out of reach of children since they are potential sources of danger.
- The manufacturer declines all responsibility for proper functioning of the automated device if failing to use original GIBIDI components and accessories suitable for the intended application.
- When installation has been completed, always carefully check proper functioning of the system and the devices used.
- · This instruction manual addresses persons qualified for installation of "live equipment", therefore, good technical
- · knowledge is required exercised as profession in compliance with the regulations in force.
- Maintenance must be performed by qualified personnel.
- · Before carrying out any cleaning or maintenance operation, disconnect the control unit from the mains.
- This product has been designed and constructed solely for the use indicated in this document. Any other use may cause damage to the product and be a source of danger.
- · Verify the intended end use and take the necessary safety precautions.
- Use of the products for purposes different from the intended use has not been tested by the manufacturer and the operations performed are therefore on full responsibility of the installer.
- Mark the automated device with visible warning plates.
- Warn the user that children and animals must not play or stand near the gate.
- Adequately protect the danger points, for example, using a sensitive frame.
- Check proper installation of the earthing system; connect all the metal parts of doors, gates, etc. and all the system components equipped with earthing plate.
- Exclusively use original spare parts for any maintenance or repair.
- · Do not make any modification to the components of the automated device unless expressly authorised by GIBIDI.



WARNING: IMPORTANT SAFETY INSTRUCTIONS.

It is important for the safety of persons to follow these instructions. Keep this instruction manual.

WARNINGS FOR THE USER

- In the event of an operating fault or failure, cut the power upstream of the control unit and call the Technical Service.
- Periodically check the functioning of the safety devices. Any repair must be carried out by specialised personnel using original and certified materials.
- The appliance is not to be used by children or people with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.
- Do not access to the control unit for adjustments and/or maintenance.
- Never use the Opener unless the garage door is in full view and free from any object which may impede its movement such as cars or persons.
- Never operate the Opener when any persons are under or near the path of the garage door. Children must be supervised at all
 times when near the garage door and when the Opener is in use.
- Always disengage the Opener with the garage door in the fully closed position.
- Before attempting to disengage the Opener from any position other than fully closed, ensure that there are no children/persons
 and/or solid objects including motor vehicles under or near the path of the garage door as the garage door may fall sharply upon
 disengagement.
- Never attempt to open or close the garage door by pulling on the Engage/Disengage Cord.
- For safety reasons always ensure that the garage door is fully open and stationary before driving into or out of the garage.



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It is very important to follow these instructions for your own safety. Please keep this instruction manual.

TECHNICAL SPECIFICATIONS

Operator	TAIMEN T6	TAIMEN T12
Туре	Irreversible e	ectromechanical gearmotor
Supply voltage	22	0/230V 50-60 Hz
Motor Supply voltage	24Vdc	
Power absorbed	MAX 80W	MAX 140W
Max Force	600 N	1200 N
Speed	90-125 m	m/s manually adjustable
Slow downs		Automatic
Operating temperature	-20°C + 60°C	-20°C + 60°C
Degree of protection	IP 20	IP 20
Max door height	2400 mm	2400 mm
Max door surface	10 sq. m.	15 sq.m.
Operating frequency (%)	30% (at 20°C)	30% (at 20°C)
Radio receiver		on board
Formula to calculate the operating frequency	$\%Fu = \frac{A+C}{A+C+P} \times 100$	A = Opening time C = Closing time P = Overall pause time A+C+P = Time between two openings

PRELIMINARY WARNINGS

Check that the door structure is in conformity with the regulations in force and that door movement is linear without friction.

Preliminary checks:

- Check that the door structure is sufficiently robust. In any case, check that the weight and dimensions of the door fall within the limits of use of the operator;
- Check that the door can be moved manually without force (points of greatest friction) for the entire travel of the door during both opening and closing;
- · A garage door is deemed to be well balanced and aligned if it:
 - requires an equivalent amount of applied force to either manually open or close.
 - requires no more than 150N (15kg) of applied force to either manually open or close.
 - does not rise or fall more than 100mm when released at any point between fully open or fully closed positions.
 - · does not rub on or incorrectly make contact with any supporting or surrounding structures
- If the door is not a new installation, check the state of wear of all the components, repair or replace the defective or worn parts and perform any other operations necessary.
- The Wall Bracket carries ALL of the opening and closing thrust of the Opener and as such must be securely
 fastened to a rigid, structural member of the garage wall or ceiling. It is entirely up to the installer to determine the
 fixing method and the structural suitability of the fixing points.

POSITION AND ASSEMBLY CONTROL UNIT

Control unit can be installed in three different ways (Fig. 1).

- method A: Securely attach Socket Piece (Fig.2-1) to the Control Box (Fig.2-2) using the screws (Fig.2-3) provided.
- method B: Do not attach Socket Piece to the Control Box as it will be placed near the drive rail socket (Fig. 1-B).
- method C: Do not attach Socket Piece to the Control Box, using the optional axtension kit, it will be placed anywhere(Fig. 1-C).

DRIVE RAIL ASSEMBLY

- Align and insert each Drive Rail Joiner (Fig.3-1) into a Drive Rail Segment (Fig.3-2) and push them together until they are fully abutted and form one continuous Drive Rail Assembly.
- Slide the Drive Rail Hanger (Fig.3-3) onto the Drive Rail Assembly.
- Slide the rail sockets (Fig.3-4) (Fig.3-6) onto the Drive Rail and then insert the Lock Pin (Fig.3-5) into the Chain and Chain Connector.
- Use a 13mm Socket Wrench to tighten the Chain Tensioner Bolt (Fig.3-7) so that the underside of the Bolt Head aligns with the Indicator Arrow.

MOUNT WALL BRACKET

- Determine highest arcing point of the Door and mark this as a Horizontal Line (Fig.4-1) on the wall above the door
- Determine the Door center line and mark a Vertical Line (Fig.4-2) on the wall above the door.
- Position the Wall Bracket (Fig.4-3) as depicted and ensure its bottom edge is no more than 50mm above the horizontal marked line (fig.4-1)
- Mark the location of the 2 outer most screw holes (Fig4-4)
- Fix the Bracket to the wall.

MOUNT TOWING BRACKET

• Using two 6mmX50mm self drilling screws, or two 6mmX20mm screws with nuts fix the Towing Bracket (Fig.4-5) to a structural member of the Garage Door as close to the top edge as possible and on the centerline of the door.

ATTACH DRIVE RAIL TO WALL BRACKET

- Important Note: Avoid scratches and potential damage to the plastic covers by placing the Opener on cardboard (Fig.5-2).
- With the Garage Door (Fig.5-1) in the fully closed position, lay the assembled Opener on the floor in line with the centerline of the Garage Door so that the Control Box (Fig.5-2) is furthest from the Garage Door.
- Raise the Drive Rail (Fig.5-3) up to the Wall Bracket (Fig.5-4) so that the Drive Rail sits in between the ears of the Wall Bracket.
- Align the mounting holes of the Drive Rail and Wall Bracket and fully insert the Long Clevis Pin and secure it with the Spring Clip.

6

MOUNT OPENER TO CEILING

- Important Note: Do not lift the Opener by the Control Box or damage may occur. Always lift the Opener by the Drive Rail.
- Raise the Opener off the floor and rest it on a Support (Fig.6-1) high enough that the Drive Rail (Fig.6-2) runs parallel to the ground.
- Slide the Drive Rail Hanger (Fig.6-3) along the Drive Rail (up to max 600mm from the Control Box) and align it with a structural member of the garage.
- Securely fasten 2 Metal Hangers (Fig.6-4) to the structural member and then attach the Metal Hangars to the Drive Rail Hanger.

ATTACH TOWING ARMS

- Close the Garage Door and remove the Drive Unit Cover (Fig.7-1)
- Insert the Straight Towing Arm (Fig.7a-1) through the slot in the cover.
- Attach the Straight Towing Arm to the Drive Unit (Fig.7a-2) using the clevis pin and spring clip provided and then replace the Cover.
- Attach the Bent Towing Arm (Fig.7a-2) to the Towing Bracket (Fig.7a-3) using the clevis pin and spring pin provided.
- Bring the 2 Arms together and align the 2 sets of holes which are furthest apart from each other.
- Securely fix the Towing Arms together using the 2 x 8mm screws and nuts provided.

ENGAGING / DISENGAGING

Important Note : Always disengage the Opener with the door in the fully closed position. If disengaging from any position other than the door fully closed ensure that there are no persons or property near or directly under the path of the door.

- To Disengage: Pull down on the release handle (Fig.8-1) until a click is "felt" and then release the handle.
- To Engage: Pull down on the release handle (Fig.8-1) once again until a click is "felt" and then release the handle.

CONNECT TO POWER SUPPLY

- · Connect to a properly earthed power supply using the power cord provided.
- Important Note: Ensure that the power cord does not touch the moving door and that no excess cord hangs below the Opener when it is plugged in.

DOOR TRAVEL ADJUSTMENT

Opening direction:

- · Loosen the Limit Prong Lock Screw (Fig. 10-1) half a turn
- Slide the Limit Prong (Fig.10-2) towards the front wall of the garage to increase garage door travel and away from the front wall to decrease garage door travel.
- Retighten the Limit Prong Lock Screw once correctly adjusted.

Closing direction:

- Loosen the Limit Prong Lock Screw (Fig. 10-3) half a turn
- Slide the Limit Prong (Fig.10-4) towards the Control Box to increase garage door travel and away from the Control Box to decrease travel.
- Re-tighten the Limit Prong Lock Screw once correctly adjusted.

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TRANSMITTERS LEARNING - AUTOMATIC MODE (DIP5=ON)

In this mode all transmitter buttons will be learned with the following functions:

• Button 1: "START WITH AUTOMATIC CLOSING"

Operation in reply to a START command:

 Door closed 	\rightarrow OPEN
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- During opening \rightarrow STOP
- Door opened \rightarrow CLOSE During closing \rightarrow STOP

Automatic closing will be active if DIP3=ON

Button 2: "START WITHOUT AUTOMATIC CLOSING"

Operation in reply to a START command: • Door closed \rightarrow OPEN • During opening \rightarrow STOP Door openedDuring closing \rightarrow CLOSE \rightarrow STOP Automatic closing is never active.

Button 3: "COURTESY LIGHT ON/OFF"

Operation in reply to a START command:

- Button press → COURTESY LIGHT ON
- Button press → COURTESY LIGHT OFF
- Tasto 4 : "Holiday Lock-out Mode"

During Holiday Lock-out Mode all functionality is disabled and the operator will only function upon receiving a signal from a pre-learned transmitter.

TRANSMITTERS LEARNING - CUSTOM MODE (DIP5=OFF)

With this mode it's possible to assign the function "START WITH AUTOMATIC CLOSING" to a transmitter button of choice.

Button learning procedure:

- Press and release LEARN button (Fig.9-1).
- Courtesv light will flash.
- Press and hold for three seconds the transmitter button to assign the function to.
- · Courtesy light will flash rapidly and them it will extinguish.
- · Learn completed.

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8

TRANSMITTERS DELETING

Following this procedure all previously learned transmitters will be deleted.

- Press and release LEARN button (Fig.9-1).
- Press for 6 seconds RUN button (Fig.9-3).
- Courtesy light will flash and then extinguish.
- Deleting completed.

TRAVEL AND ANTI CRUSHING THRESHOLDS LEARNING

During a closing movement Auto Reverse ensures that the garage door will stop and reverse (Safety Reverse) when it encounters an obstruction thus ensuring the safety of people and property.

During an opening movement the garage door will stop (Safety Stop) when it encounters an obstruction.

The amount of force required to make the garage door Safety Reverse/Stop can be adjusted.

A low force value ensures maximum safety, but requires a very well sprung and installed door in order to avoid ghosting (false safety reversing/stopping).

The system will automatically compensate on each and every cycle for door wear ageing and seasonal temperature change for the lifetime of the door.

Learning procedure:

- Besure DIP1 is ON.
- Press LEARN button (Fig. 9-1) for 8 seconds.
- Courtesy light will flash.
- Execute three complete and uninterrupted open-close cycles. If using a transmitter to command the operator, a transmitter command is required for evey single movement, while if using RUN button (FIG.9-3), the operator will execute the learning cycles automatically.
- During Learning, if the door load is excessive, the operator will stop and courtesy light will double flash. The door requires maintenance.

An automatic re learn will be initiated immediately subsequent to either one of the following 3 occurrences:

- Run time deviation becoming excessive.
- Safety reverse occurring on 3 consecutive occasions.

During relearn LED (Fig.9-4) will paused single blink then extinguish once relearn is complete.

ANTI CRUSHING THRESHOLDS MANUAL ADJUSTMENT

Once complete the anti crushing thresholds learning process, it's possible to shift the thresholds using the green adjustment pin OFFSET (Fig.9-5).

Rotate the OFFSET adjustment pin clockwise to increase the force required to have an anti crushing intervention.

Rotate the OFFSET adjustment pin counterclockwise to decrease the force required to have an anti crushing intervention.

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SPEED ADJUSTMENT

It's possible to adjust the operator speed to best suit the door type.

Learning procedure:

- Stop Opener midway between open and close position.
- Press and hold Learn Button (Fig.9-1) for 3 seconds.
- · Light paused single blink.
- Rotate the Speed Adjust Pin (Fig.9-6) while opener is running clockwise to increase speed and anti clockwise to decrease speed.
- Speed may only be adjusted while the operator is traveling between limits.
- Adjustment function will close out automatically once either one of the limits has been reached.

If the RUN button (Fig. 9-3) is used to command the operator, the system will automatically execute the three complete cycles to learn new anti crushing thresholds cause of the new speeds.

DIP SWITCHES

The settings are stored during the rest phase (door closed).

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The DEFAULT settings are coloured in grey
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DIP	Funzione	Stato	Descrizione
DIP 1	NOT USED	ON	NOT USED, LEAVE ON
		OFF	NOT USED, CHANGE TO ON POSITION
DIP 2 PHOTOCELLS	ON	Photocells enabled, install photocells.	
	PHUIULELLS	OFF	Photocells disabled.
DIP 3	AUTOMATIC CLOSING	ON	Automatic closing disabled. Automatic closing will work only if photocells are enabled and installed. The door will close automatically : • After 30 seconds the door reached the totally opened position. • After 5 seconds subsequently photocells intervention.
		OFF	Automatic closing disabled.

DIP SWITCHES

DIP	Funzione	Stato	Descrizione	
DIP 4	DOOR SERVICE MONITOR	ON	The system will constantly monitor the spring balance of the garage door and will warn the user when door is out of balance. Courtesy lamp will triple flash every 15 sec once imbalance is excessive. At this time the garage door should be serviced by a suitably qualified technician.	
		OFF	Door service monitor disabled.	
	TRANSMITTERS LEARNING METHOD	ON	Automatic learning method.	
DIP 5		OFF	manual assignment of the function "START WITH AUTOMATIC CLOSING " to a transmitter button of choice.	
DIP 6 BACK JUMP		ON	The operator, upon reaching the closing limit switch, will reverse to make disengagement easier.	
		OFF	Assegnazione manuale delle funzioni ai tasti del trasmettitore.	
DIP 7	SAFETY REVERSE	ON	Full reverse upon anti crushing intervention.	
		OFF	Partial reverse upon anti crushing intervention.	

LUCE DI CORTESIA

Courtesy light:

- provides garage illumination and opener status indication.
- will illuminate automatically each time the Opener is activated and will switch off 90 sec after the last activation.
- may be switched on and off via button 3 of an automatically learned transmitter.

LED STATUS	INDICATION
2X FLASHING	Photocells are malfunctioning.
3X FLASHING	During force learning, door load is excessive
4X FLASHING	"Holiday Lock-out" mode activation.
SLOW FLASHING	Learning force values.



LED INDICATOR

The LED (Fig.9-4) provides operator status informations.

LED STATUS	INDICATION
GLOW SOLID	The operator has reached close limit position.
SLOW BLINK	The operator has reached open limit position.
RAPID BLINK	The operator is learning new force values.
INTERMITTENT BLINK	Sleep mode.

PHOTOCELLS

The Opener will commence to safety reverse when the photocells become momentarily or permanently interrupted during a closing movement.

Photocells intervention will reduce auto closing pause time to 5 seconds.

Photocells override:

• Press and hold the Run Button (Fig.9-3) until the operator has reached the fully closed position.

WICKET DOOR SWITCH

In order to render the operator inoperative, whenever the wicket door is open, connect as per Fig.12.

OVERHEAD DOOR

The curved arm accessory is required in order to properly install this operator on overhead doors.

INSTALLATION COMPLIANCE WITH THE REGULATION

When an existing door / gate is automated it becomes a machine, the installer becomes the builder, He is responsible for the safety of the automated device and has to comply with the provisions provided by the 2006/42/CE Directive. To make easier the certification process, GI.BI.DI. put at your disposal on its website WWW.GIBIDI.COM some guides and replies to more frequent questions.



CE Declaration of conformity

The manufacturer:

GI.BI.DI. S.r.I.

Via Abetone Brennero, 177/B, 46025 Poggio Rusco (MN) ITALY

Declares that the products:

ELECTROMECHANICAL GEARMOTOR TAIMEN T6-T12

Are in conformity with the following CEE Directives:

- LVD Directive 2006/95/CE and subsequent amendments;
- EMC Directive 2004/108/CE and subsequent amendments;

and that the following harmonised standards have been applied:

- EN60335-1,
- EN61000-6-1, EN61000-6-3

Moreover declares that the product must not be used until the machine in which it has been incorporated has not been declared in accordance with 2006/42/CE Directive.

Date 14/03/14

The legal Representative Michele Prandi



GI.BI.DI. S.r.I.

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