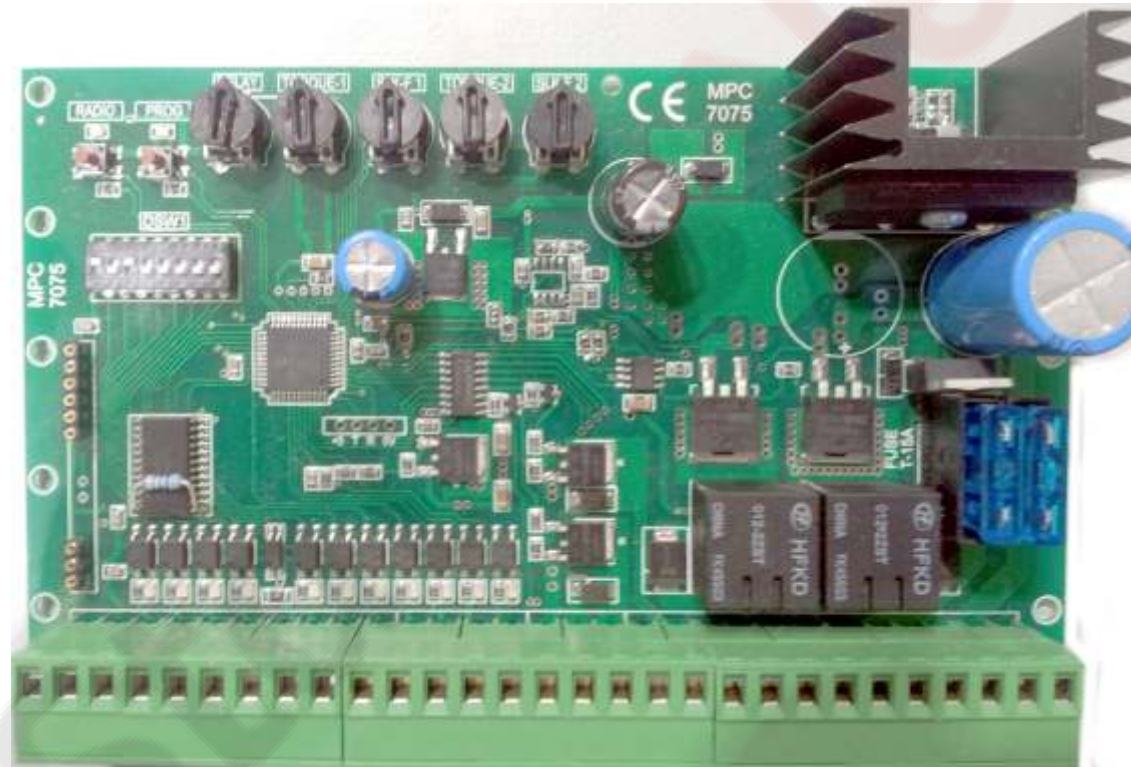


# INSTALLATION AND PROGRAMMING MANUAL FOR AT-7075 CONTROL BOARD FOR 24 Vdc SWINGING GATES MOTOR



# AT 7075 Control Board for swinging gates

## DESCRIPTION

**TR1, TR2, TR3, TR4, TR5** = Adjustable trimmers

**DSW1** = Micro Switches

**DL1 – DL11** = Input LEDs

**DLP1 - DPL2** = Programming LEDs

**F1, F2** = 15 Fuses

**M** = Input Output Terminal

**CN1** = Receiver

**K1 – K2** = Relay

**U1** = Micro Control Unit

**P1A** = Operation time programming button

**P2B** = Remote control programming button

## INTRODUCTION

MPC 7075 control board is suitable for two 24VDC actuators for single or double swinging gate.

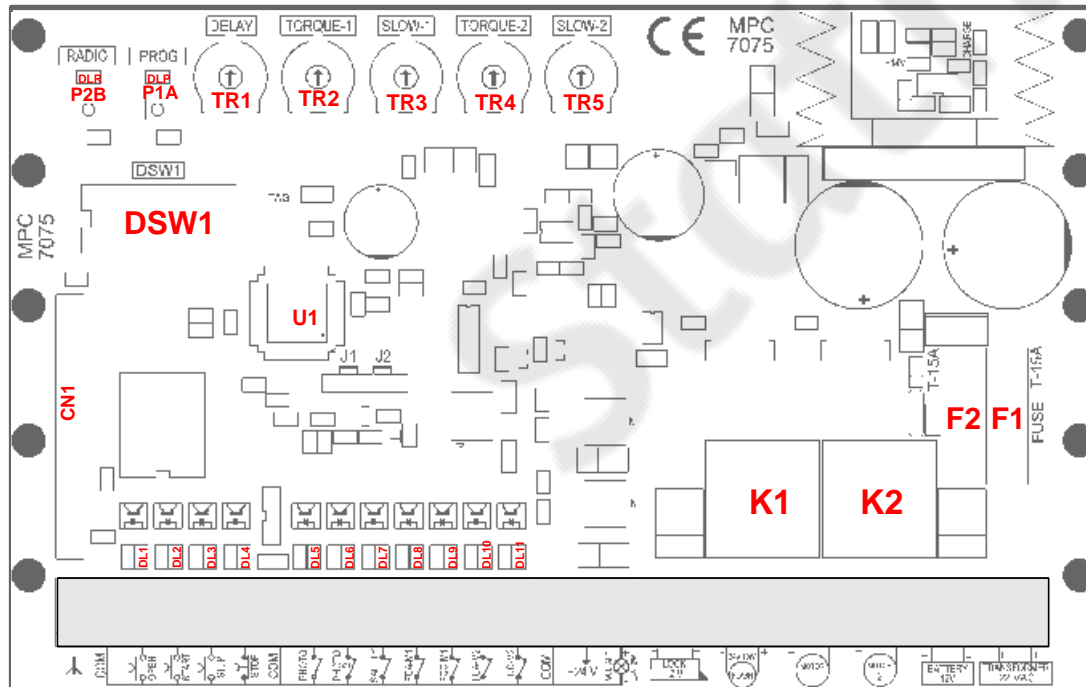
The max absorption of the device is 120 W per 24Vdc.

The setup of the parameters must be carried out after the installation of all the equipment.

## ATTENTION

The Product must be installed by qualified personnel who can carry out the installation operation strictly in compliance with safety rules. The device must not be used incorrectly or for any purposes other than the ones designed for. Before proceeding with the installation it is necessary to read the instruction manual carefully in order to avoid danger to either the users or the equipment. It is necessary to power the device using a 6A bipolar thermomagnetic switch equipped with a differential with an operating current of 0.03 A. Before carrying out any installation or maintenance operations turn off the power supply to the device with the bipolar switch. The equipment must not be tampered with or modified in any way. It is necessary to turn off the power supply to the equipment before installing it or opening the enclosure.

*The manufacturer reserves the right to make changes to the product without prior notice. Therefore this manual may not correspond exactly to the product specifications.*



## INSTALLATION

Prior to the electric connection shut down the power supply and adjust motor torch to minimum.

Use 0,5mm<sup>2</sup> cables to connect buttons, photocells and 24 Vdc power supply. For the electric lock, lights and motors use at least 1,5mm<sup>2</sup> wires.

### Terminal

⌚ ( )	= Antenna
COM	= Input and light common
OPEN	= Input button N.O. (Only OPEN)
START	= Input button N.O. (OPEN / CLOSE)
ST.P	= Input button N.O. (Pedestrian OPEN)
STOP	= Input button N.C. (STOP)
COM	= Input and Flashing light common
PHOTO1	= External Photocell Command Input N.C.
PHOTO2	= Internal Photocell Command Input N.C.
SAFETY	= Safety contact Input N.C.
FCA-M1	= Motor 1 OPEN Limit switch
FCC-M1	= Motor 1 CLOSE Limit switch
FCA-M2	= Motor 2 OPEN Limit switch
FCC-M2	= Motor 2 CLOSE Limit switch
COM	= Input and Flashing light common
+24V	= +24 Vdc power supply
W.LIGHT / 24V 2W	= Flashing Light 24Vdc 2W max. Output
-LOCK 12V	= Electric Lock -12Vac Output
+LOCK 12V	= Electric Lock -12Vac Output
-FLASH	= Electric Light 24V 15 W max.
+FLASH	= Electric Light 24V 15 W max.
+MOTOR 1	= Motor 1 +24Vdc Output
-MOTOR 1	= Motor 1 -24Vdc Output
+MOTOR 2	= Motor 2 +24Vdc Output
-MOTOR 2	= Motor 2 +24Vdc Output
+BATTERY	= + Battery Input 12V/ 7-10Ah
-BATTERY	= - Battery Input 12V/ 7-10Ah
TRANSFORMER	= Transformer connection 22V/120W / 50Hz
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- It is very important to firmly tight the signal and power cables on the terminal. Use jumpers to all N.C. inputs when they are not in use.

- Do not connect any kind of device in the terminal inputs other than the one they are designed for.

- If one of the . . . (START and S.TP) is closed, or one of the N.C.inputs is open the TEST\_LED blinks fast. In this case track programming is not available.

## OPERATION MODES

### CONDOMINIUM AUTOMATIC:

If the door is closed or closing and you press START button the door opens. If the door is opening, START command is ignored, while during auto close, START command resets time. If you press START after STOP command the door closes.

### SUPERAUTOMATIC:

If the door is closed or closing and you press START button the door opens. if the door is opening START command stops the door. During auto close, START command closes the door. If you press START after STOP command the door closes.

### AUTOMATIC:

If the door is closed or closing and you press START button the door opens. START command is ignored while the door is open. During auto close, START command closes the door. If you press START after STOP, command the door closes.

### SEMI-AUTOMATIC:

START command controls opening, closing and stopping the door. When the door is open you must press START to close the door. Auto close is disabled. If the door is opening and you press START the door stops and you must give a second START command to close the door. If START is pressed during closing function, the door starts to open. If you press START after a STOP command the door closes.

### STEP BY STEP:

When the door is closed and you press START, the door opens. During opening if START is pressed, the door stops. if you then press START the door closes and by pressing START again the door stops. if you press START after a STOP command, the door closes.

Choose operation mode with micro Switches 1,2,3 and 6, according to the following board "CHOOSE OPERATION MODE" (after each change of operation mode you must short circuit jumper JR1 for a few seconds to apply change).

## **CHOOSE OPERATION MODE**

Dip 1	Dip 2	Dip 3	Dip 6	
OFF	OFF	OFF	OFF	Condominium automatic
OFF	OFF	ON	OFF	Condominium automatic + comfort (1)
OFF	ON	OFF	OFF	Superautomatic
OFF	ON	ON	OFF	Superautomatic + comfort (1)
ON	ON	OFF	OFF	Automatic
ON	ON	ON	OFF	Automatic + comfort (1)
ON	OFF	OFF	OFF	Semiautomatic
ON	OFF	ON	OFF	Step by Step
OFF	OFF	OFF	ON	Condominium automatic + photocell retrigger (2)
OFF	ON	OFF	ON	Superautomatic + photocell retrigger (2)
ON	ON	OFF	ON	Automatic + photocell retrigger (2)

(1) Comfort operation allows the door to close 5 seconds after the photocells command, independent of the AUTO CLOSE programmed time.

(2) Photocell retrigger resets AUTO CLOSE time after any command from Photocells.

## SETTINGS

Through micro(DIP) switches 4,5,7 and 8 the following settings may be applied.

<u>Dip switch</u>	<u>OPERATION</u>	<u>ON</u>	<u>OFF</u>
4	Preflashing	Enabled	Disabled
5	Revert movement	Enabled	Disabled
7	Lighting operation	Light	Beacon
8	Max torque at closing ending	Enabled	Disabled

## ADJUSTABLE TRIMMER

TR1 adjusts auto close time (the time the door remains open before closes automatically), with range from 1 to 120 seconds.

TR2 and TR4 adjust the motors Torque .

TR3 and TR5 adjust the door leaf speed when slow speed is enabled according to safety options.

<u>Trimmer</u>	<u>Operation</u>	<u>Range</u>
TR1	Auto Close	1 – 120 Seconds
TR2	Motor 1 Torque	20 – 100 %
TR3	Motor 1 slow speed	10 – 100 %
TR4	Motor 2 Torque	20 – 100 %
TR5	Motor 2 slow speed	10 – 100 %

## REMOTE CONTROL PROGRAMMING

MPC-7075 control board has a built in receiver that can store up to 128 Rolling coded remote controls or one fixed coded remote control.

### Remote control programming for total door open

If the door is closed, press RADIO and hold until LED starts blinking. Release RADIO and within 10 seconds, press the remote control you want to program. When the procedure is complete LED and FLASHING LIGHT must turn ON and OFF simultaneously. For rolling coded remote controls repeat the procedure for each control. For fixed coded remote controls just copy the remote control.

### Remote control programming for pedestrian

When the door is closed press RADIO and hold until LED starts blinking. Do not release until LED starts blinking faster. Release RADIO and within 10 seconds press the button of the remote control you want to program. When the procedure is complete LED and FLASHING LIGHT must turn ON and OFF simultaneously. For rolling coded remote controls repeat the procedure for each control. For fixed coded remote controls just copy the remote control.

### Erase all remote controls

When the door is closed press RADIO and hold it until LED starts blinking. Do not release LED until it starts blinking faster. Keep RADIO pressed until LED blinks even faster. When the procedure is complete LED and FLASHING LIGHT must turn ON and OFF simultaneously. For rolling coded remote controls repeat the procedure for each control. For fixed coded remote controls just copy the remote control.

## MAINTENANCE

There are two 5 20 fuses for the power supply of the board with the following values:

F1 = 15A Slow burning

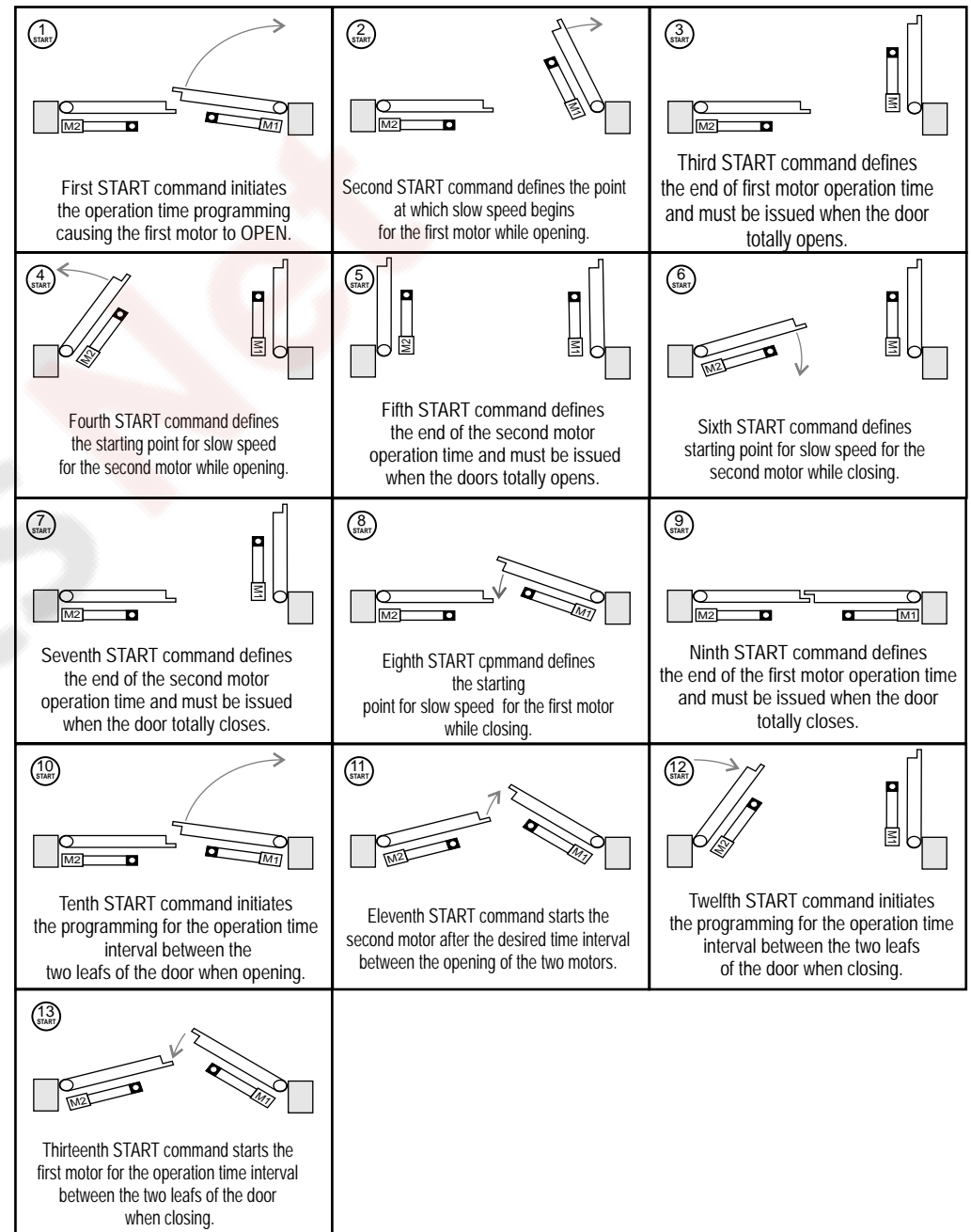
F2 = 15A Slow burning

*Prior to replacing the fuses the power supply must be turned off from the main electrical supply. The value of the fuses must not be altered.*

*There is no other element on the control board that can be repaired or replaced from installation personnel. For any other issue contact technical support.*

## OPERATION TIME PROGRAMMING FOR TWO LEAFED SWINGING GATE WITH SLOW SPEED

- Set trimmer TORQUE-1 and TORQUE-2 at minimum needed to move the door leaf correctly and adjust trimmer SLOW-1 and SLOW-2 for slow speed the same way
- Totally close the door
- Press PROG for at least 3 seconds
- LED starts blinking
- Release PROG
- Press START: The first leaf starts opening at normal speed
- When you want to start slow speed press START: Slow speed mode has began.
- When first leaf is totally open press START: The second leaf starts opening at normal speed.
- When you want to start slow speed for the second leaf press START: Slow speed has began.
- When the second leaf is totally open press START: The second leaf starts closing at normal speed.
- When you want to start slow speed for the second leaf press START: Slow speed has began.
- When the second leaf is totally closed press START: The first leaf starts closing at normal speed.
- When you want to start slow speed for the first leaf press START: Slow speed has began.
- When the first leaf is totally closed press START.
- Press START: the first leaf starts opening and when you decide that the time interval between the opening of the two leafes is enough press START again: The second leaf starts opening.
- Press START: The second leaf starts closing and when you decide that the time interval between the closing of the two leafes is enough press START again: The first leaf starts closing.
- Wait until the TEST LED turns off.
- The operation time programming is complete.
- The next time the door will open will be according to the settings just completed



## OPERATION TIME PROGRAMMING FOR SINGLE LEAFED SWINGING GATE WITH SLOW SPEED

- Set trimmer TORQUE-1 at minimum needed to move the door leaf correctly and adjust trimmer SLOW-1 for slow speed at minimum needed to move the door correctly .
- Totally close the door.
- Press PROG until LED starts blinking and do not release PROG until LED starts blinking faster.
- Release PROG
- Press START: The door starts moving at normal speed.
- When you want to start slow speed press START: Slow speed mode has began.
- When the door is totally open press START: The door closing at normal speed.
- When you want to start slow speed for the door press START: Slow speed has began.
- When the door is totally closed press START.
- Wait until the TEST LED turns off.
- The operation time programming is complete.
- The next time the door will open will be according to the settings just completed.

