

Warnings

The mindy TT0 control unit has been designed to control asynchronous single-phase electric motors for automating awnings, shutters and the like. It must be installed by qualified fitters in total compliance with cur-

rent electrical and safety standards. During installation, particular attention must be paid to ensure the casing is protected to the "IP" level required by the application.

1) Description of the product

The mindy TT0 control unit controls asynchronous single-phase electric motors with "COMMON" "OPEN" "CLOSE" connections and can be used for automating awnings, shutters, skylights and similar applications.

The control unit incorporates a radio receiver working at a frequency of 433.92 MHz using rolling code technology which ensures elevated levels of safety. It is possible to store the codes of up to 14 radio commands of the "ERGO" and "PLANO" series (figs. 1.a and 1.b) or radio-sensors for each control unit. After each command, the

motor is powered for about 2 minutes and an electrical limit switch fitted to the motor or the automation unit stops movement when the required position has been reached. Additional functions can be programmed by the radio control units, a "beep" guides users through the various phases. As well as using the radio control, the control units can also be operated with an external button (with a step-by-step function) or via Bus ("TTBUS"). Optional wind, sun and rain sensors automatically manage the system according to weather conditions.

2) Installation

⚠ WARNING: The electrical systems and automation units must be installed by qualified technicians in full compliance with the laws in force. All connections must be made the unit disconnected from the power supply.

To install and fix the casing, please refer to figure 2.

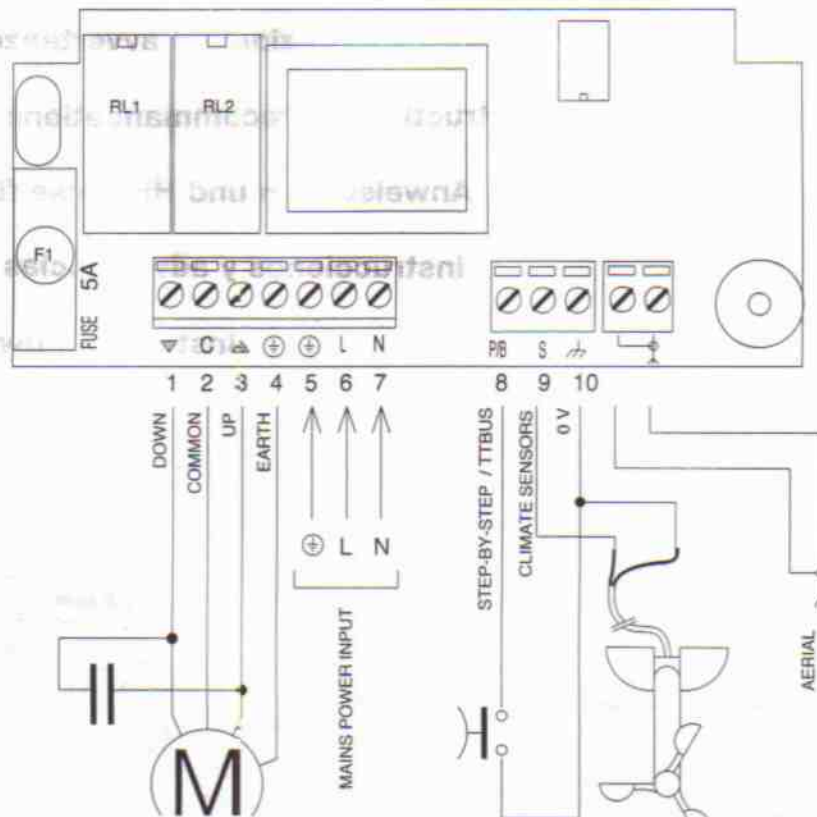
When making holes in the casing to pass the wires through, take suitable precautions to ensure the required IP protection level is maintained.

The wires must always be passed through the bottom of the casing using the supplied core hitch cut to a suitable diameter (see fig. 2).

2.1) Wiring diagram

⚠ Strictly keep to the wiring diagram; if you have any doubts do NOT make experiments but consult the relative technical sheets which are also available on the web site "www.niceforyou.com".

An incorrect connection may cause serious damage to the control unit.



3) Programming

Each radio control unit is recognised by the receiver incorporated in control unit by means of a unequivocal "code". A "storing" phase must therefore be performed in order to allow the control unit to recognise each single radio control unit.

- For radio control units with more than one "unit", choose the unit to associate the control unit with before proceeding with the storing phase.
- Programming via radio may be done on all the control units within the range of the transmitter; only the one involved in the operation should be kept switched on, therefore.

⚠ ATTENTION: All the storing sequences are timed, that is, they must be completed within the programmed time limits.

When the memory contains no codes the first radio control unit can be entered as follows:

Table "A1"	Memorising the first transmitter (fig. 4)	Example
1.	As soon as the control unit is powered, 2 long beeps will sound	
2.	Within 5 seconds press and hold down button ■ of the transmitter to memorise (for approx. 3 seconds)	
3.	Release button ■ when you hear the first of the 3 beeps confirming memorisation	

N.B.: If the control unit already contains codes, 2 short beeps will be heard when it is switched on. This means that the above procedure is not valid and another memorisation procedure must be used.

When one or more transmitters have already been memorised, others may be enabled as follows:

Table "A2"	Memorising other transmitters (fig. 5)	Example
1.	Press and hold down button ■ of the new transmitter until you hear a beep (after about 5 seconds)	
2.	Press button ■ of a previously enabled transmitter slowly 3 times (old)	
3.	Press button ■ of the new transmitter again.	
4.	At the end, 3 beeps will indicate that the new transmitter has been memorised correctly.	

N.B.: If the memory is full (14 codes), 6 beeps will indicate that the transmitter can no longer be memorised.

When the direction of movement with respect to the radio control unit buttons must be inverted, proceed as follows:

Table "A3"	Inverting the direction of the motor with respect to the controls (fig. 6)	Example
1.	Press and hold down button ■ of a previously memorised transmitter until you hear a beep (after about 5 seconds)	
2.	Then hold down both the ▲ and the ▼ button (approx. 4 seconds) until you hear the first of the 3 beeps confirming that the direction has been inverted	
3.	Test the new direction of the manoeuvre. ▲ should correspond to "up" while ▼ should correspond to "down".	

⚠ If the anemometer triggers, this will cause the motor to carry out a manoeuvre equivalent to the ▲ button

If a wind sensor is connected to the "sensors" input it is possible to select the cut-in level from 3 possible levels: 1= 15 km/h, 2= 30 km/h and 3= 45 km/h (the level was originally n° 2). When the level is exceeded for over 3 seconds, a command equivalent to the ▲ button is activated and all other movements are blocked until the wind returns to under the programmed level. To modify the programmed level:

Table "A4"	Changing the "wind" protection cut-in level (fig. 7)	Example
1.	Press button ■ of a previously memorised transmitter until you hear a beep (after about 5 seconds)	
2.	Slowly press the ▲ button a number of times (1, 2 or 3) equal to the required level	
3.	After a few moments you will hear a number of beeps equal to the required level	
4.	Press button ■ to confirm, otherwise wait for at least 5 seconds without confirming in order to abort the procedure without changing the previous level	