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BENINCA

BENINCA Core Control Panel

SPECIFICATIONS

- Main power supply 230 VAC 50/60 Hz (115 VAC 50/60Hz CORE 115)

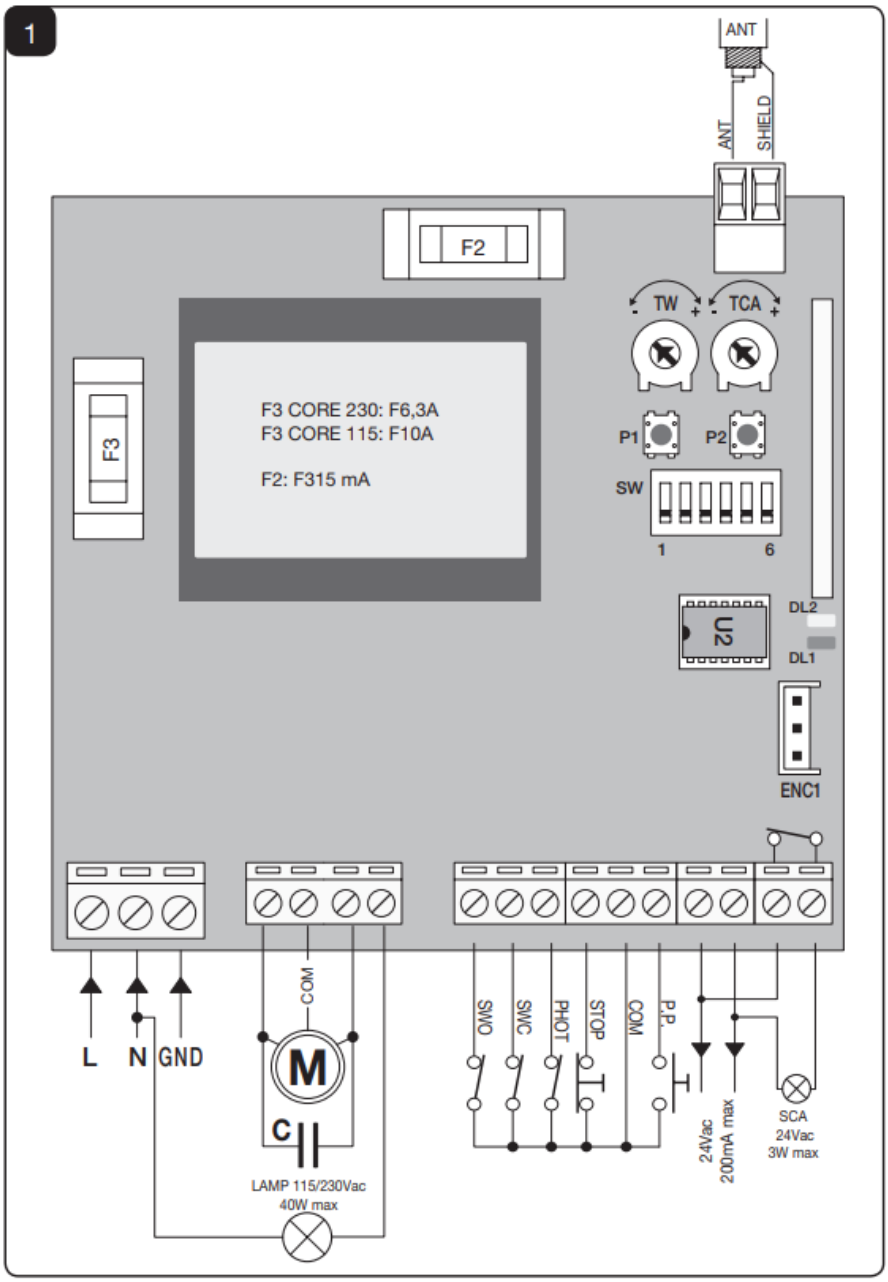
- Output, Motor 1 motor, 230 VAC (115VAC CORE 115)
- Motor maximum power 750 W
- Output, power supply of accessories 24VDC 200mA max.
- Protection level Version in LB box: IP55 – BULL version: IP30
- Operating temperature -20°C / +70°C
- Radio receiver 433.92 MHz, incorporated and configurable (rolling-code or fixed+rolling-code+ ARC Advanced Rolling Code)
- Number of codes storable in memory: 64.

WARNINGS

- This manual has been especially written to be used by qualified fitters.
- None of the information provided in this manual can be considered as being of interest to the end users.
- Preserve this manual for future needs.
- The technician has to furnish all the information related to the step-by-step function, the manual, and the emergency function of the operator, and deliver the manual to the final user.
- Foresee on the supply net an on-nipolar switch or elector with a dia distance of the contacts equal to or greater tthan3 mms.
- Verify that the electrical system has an awry differential interrupter and overcurrent protection.
- Some typologies of installation require the connection of the shutter to be linked to a conductive mass of the ground according to the regulations in force.
- The electrical installation and the operating logic must comply with the regulations in force.
- The leads fed with different voltages must be physically separate, or they must be suitably insulated with additional insulation of at least 1 mm.
- The leads must be secured with an additional fixture near the terminals.
- During installation, maintenance, and repair, interrupt the power supply before opening the lid to access the electrical parts.
- Check all the connections again before switching on the power.
- The unused N.C. inputs must be bridged.
- The descriptions and the present illustrations in this manual are not binding.

- Leaving the essential characteristics of the product unchanged, the manufacturer reserves the right to make any change of technical, constructive, or commercial character without undertaking to update the present publication.

CONTROL PANEL CORE



WIRE DIAGRAM

Wire connections shown in Fig. 1 are described hereunder:

Terminals	Function	Description

L-N-GND	Power supply	Input, 230VAC 50Hz (CORE) Input, 115VAC 50/60Hz (CORE 115V)) (1-Phase/2-Neutral/GND-Ground connection)
MOT-COM-MOT	Motor	Connection to motor: (MOT-move/COM-Common/MOT-move)
N-BLINK	LAMP	Output, connection to Flashing light CORE: 230 Vac 40 W max. CORE 115V: 115 Vac 40W max.
SWO	SWO	Input, OPENING limit switch (Normally Closed contact)
SWC	SWC	Input, CLOSING limit switch (Normally Closed contact)
PHOT (CLOSE)	PHOT	Input, connection to safety devices, Normally Closed (N.C.) contact (e.g., photocells): configurable through DIP3. In “Service man” mode, it activates the CLOSE function . In this case , connect a Normally Open (N.O.) key.
STOP	STOP	Input, STOP key (N.C. contact)
COM	COM	Common, all control inputs.
P.P. (OPEN)	Step-by-Step	Input, step-by-step key (N.O. contact). In “Service man” mode, it activates the OPEN control function.
24 VAC	24Vac	Output: 24Vac/200mA max accessory power supply.

SCA	SCA	Contact free from voltage, not insulated for the connect ion of the open gate indicator lamp. Open the contact with the closed door leaf. Flashing lig ht during the door leaf movement. With an open door le af, the contact is closed.
ENC1	ENCODER	Input, connection of the encoder. See section HOW TO ADJUST BRAKING
SHIELD-ANT	Antenna	Connection of the antenna to the incorporated radio-re ceiver module (SHIELD-screen/ANT-signal).

Note

The control unit uses a “P2” key with the same functions as the Step-by-Step push-button. This is useful to control the automatic system during installation (only with DIP2: OFF).

CHECKING CONNECTIONS

1. Cut off the power supply.
2. Manually release the door, move it around half a stroke, and lock it again.
3. Reset the owner supply.
4. Send the step-by-step (P.P.) control signal through the P2 key, P.P., or remote control.
5. The door leaves should open. If not, with a stopped motor, it is sufficient to invert the move wires of the motor (MOT/MOT) of the motor and the limit switches (SWO/SWC).
6. Adjust Times and operating Logics.

TRIMMER FUNCTIONS

- TW It allows the maximum duration of opening and closing.
- It must be preset approximately. 4s more concerning the actual stroke time of the system.

- The adjustment ranges from 3s to 180s maximum.
- If installed, the Encoder provides the function of anti-crash sensitivity adjustment.
- TCA allows for adjusting the automatic closure time.
- The adjustment ranges from 3s to 180s maximum.
- With the TCA trimmer completely turned clockwise, the DL2 LED (green) switches off, and TCA is deactivated.

DIP-SWITCH FUNCTION

Dip-Switches	Function	Description
DIP1	Set-up	To be used only for the setting up of the torque and the forewarning and braking time. After moving DIP1 to ON: – With the P1 push-button, the torque is adjusted. With push-button P2, the forewarning light is activated/deactivated- ted. – With the Step-by-Step input or a memorised remote control, braking length is adjusted (with Encoder only). See the related sections. After presetting the parameters, move to OFF.
DIP2	Multi-flat	The multi-flat function is enabled or disabled. Off: disabled multi-flat function. On: enabled multi-flat function. The P.P. (Step-by-step) impulse or the impulse of the transmitter has no effect in the opening phase.

DIP3	PHOT: operating mode	The operating mode of the PHOT input is selected. Off: Input, activated in both opening and closing phases. On: Input, activated in the closing phase only.
DIP4	P.P.: operating mode	The operating mode of the “P.P. push-button” and the transmitter are selected. Off: Operation: OPEN > STOP > CLOSE > STOP > On: Operation: OPEN > CLOSE > OPEN >
DIP5	Rapid closure	The rapid closure is enabled or disabled (only with activated TCA) Off: disabled rapid closure On: enabled rapid closure. The triggering of the photocell involves, after approximately. 3s, the closure of the door.
DIP6	Radio	The programmable code transmitters are enabled or disabled. On: Radio receiver is enabled for roll-on code transmitters only. Off: Receiver is enabled for both roll-on and programmable code transmitters.

HOW TO ADJUST BRAING (WITH ENCODER ONLY)

To adjust braking length in both opening and closing phases, proceed as follows:

1. Close the gate (make sure that the closing limit switch is pressed).
2. Move DIP 1 to ON
3. Send PP control signal (through Step-by-Step Input or memorised remote control). The gate starts opening at normal speed.
4. When the gate reaches the desired braking point, send another PP control signal, and

the gate will start braking until it is completely opened. Subsequent PP control signals will be ignored.

5. With an open and stopped gate, send a PP control signal (through Step-by-Step Input or a memorised remote control). The gate starts closing at normal speed.
6. When the gate reaches the desired braking point, send another PP control signal, and the gate will start braking until it is completely closed. Subsequent PP control signals will be ignored.
7. Move DIP1 to OFF again.

NOTE

- If braking length does not require any adjustment in both opening and closing, leave the gate to open/close without sending a PP control signal to start braking.
- If safety functions (STOP and PHOT) are activated, the adjustment procedure will be blocked.
- During this phase, the anti-crash sensor is disabled.
- When the Encoder is installed, Trimmer TW provides the function of sensitivity adjustment of the Encoder.

ADJUSTMENT OF THE TORQUE (DIP1: ON)

When DIP1 is moved to ON, the board indicates that the torque has been applied during several flashes (from 1 to 4) of the DL2 green LED, followed by a 3-s interval. The max torque is indicated with the DL2 green LED with fixed light.
To increase the torque, press P1. The DL2 LED changes the number of flashes to indicate the selected torque value. Once the desired torque is selected, move DIP 1 to OFF to memorize this presetting.

PRE-WARNING ACTIVATION/DEACTIVATION (DIP1: ON)

- As soon as DIP1 is to ON, the DL1 red LED indicates whether the pre-warning flashing is activated.
- The pre-warning function can be activated or deactivated with the P2 key. LED DL1 On: Activated pre-warning, the indicator lamp switches on for approx. 3 seconds before the motor starts.
- LED DL1 Off. Pre-warning is deactivated.

SERVICE MAN MODE

- With all DIPs on ON, the control unit switches to SERVICE MAN mode.
- The PHOT input has the CLOSE push-button function (connect the button with N.O. contact).
- The PP input has the OPEN push-button function (connect the button with N.O. contact).
- The OPEN/CLOSE push buttons must be kept pressed during operation. The opening of the STOP input stops the motor.
- The contemporary pressure of OPEN/CLOSE stops the motor.

RADIO SELF-LEARNING (DIP1: OFF)

- The CORE control unit is equipped with a built-in radio module for the fixed or roll-on code ofthe remote controls, with a 433.92 MHz frequency.
- To use a remote control, it is first necessary to store its code in memory. The memorisation procedure is described hereunder. The device can store up to 64 different codes in memory.
- By pressing P1, the control unit enters the radio learning phase: DL1 red LED flashes 1 time per second, awaiting the key to match the Step-by-Step function;
- When the key is stored in memory, exit from the programming mode.
- By pressing P1 twice, the DL1 red LED flashes 2 times per second, and the pedestrian learning phase is entered (the pedestrian function controls an opening operation of 7s).
- When the key to be matched is memorised, exit from the programming mode.
- If the programming mode must be left without storing any remote control signal, press the P1 key until DL1.
- Red LED starts to flash in “power on” mode (see LED diagnostics on page 7).
- To reset the memory of the receiver, press and keep the P1 and P2 keys pressed for around 10 seconds (During this period, both DL1 and DL2 flash rapidly.)
- After 10 seconds, when the two LEDs are switched on with fixed light, release the push buttons.
- When the LEDs switch back again to the original configuration, the control unit has completed the memory reset.

NOTE

The transmitters are memorised on an EPROM memory (U2), which can be extracted from the control unit and inserted into a new CORE control unit should a replacement be required. For safety reasons, the transmitters can be stored in memory during the opening/closing of the motor.

TRANSMITTER REMOTE LEARNING

If the transmitter code is already stored in the receiver, the remote radio learning can be carried out. (without accessing the control unit).

IMPORTANT: The procedure should be carried out with the ate in the opening phase, during the TCA dwell time.

Proceed as follows

1. Press the hidden key of the transmitter, the code of which has already been stored in memory.
2. Within 5 seconds, press the already memorised transmitter key corresponding to the channel to be matched to the new transmitter. The flashing light switches on.
3. Within 10 seconds, press the hidden key of the new transmitter.
4. Within 5 seconds, press the key of the new transmitter to be matched to the channel selected in item 2. The flashing light switches off.
5. The receiver stores the new transmitter code and exits from the programming mode immediately.

LED DIAGNOSTICS

The red LED DL1 indicates the activation of inputs according to the legend hereunder:

- Stop with the fixed light
- PHOT rapid flashing
- SWO 1 flash with a 2-second interval
- SWC 2 flashes with a 2-second interval
- OPEN+CLOSE 3 flashes with a 2-second interval
- By flashing slowly, the red LED DL1 also indicates that the unit is powered.
- The green LED DL2 indicates the movement direction of the motor and the status of the gate according to

To the legend hereunder

- APERTURA 1 flash with 1-second interval
- CHIUSURA 2 flashes with a 1-second interval
- Open the gate without TCA with the fixed light
- Open the gate with TCA rapid flash
- Closed gate LED off

WASTE DISPOSAL

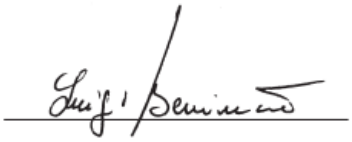
If the product must be dismantled, it must be disposed of according to regulations in force regarding the differentiated waste disposal and the recycling of components (metals, plastics, electric cables, etc). For this operation, it is advisable to call your installer or a specialised company.

EC declaration of conformity

Manufacturer: Automatismi Benincà SpA.
Address: Via Capitello, 45 – 36066 Sandrigo (VI) – Italia
Herewith declares that: control unit CORE.

Complies with the following relevant provisions

EMC guidelines: 89/336/CCE, 93/68/CEE
Low voltage guidelines: 73/23/CEE, 93/68/CEE
Benincà Luigi, Legal responsible.
Sandrigo, 10/11/2011.



Documents / Resources

	BENINCA Core Control Panel [pdf] User Manual L8542644 12-2011 rev 4, Core Control Panel, Control Panel, Panel

References

- User Manual

BENINCA, Control Panel, Core Control Panel, L8542644 12-2011 rev 4, Panel

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