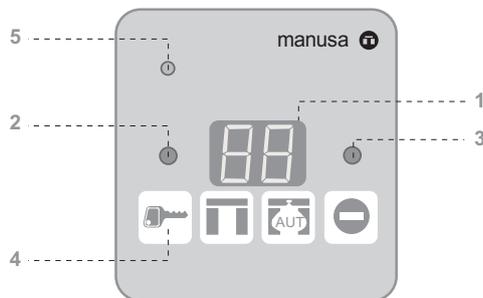


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Optima Selector EMSM03

1- DESCRIPTION

Program switch used to select an operating mode, adjust the basic technical service functions and alert about any malfunction when connected to a BRAVO or ACTIVA+ operators. The operating modes available are:



 Open - OP (AB)

 Automatic - AU (AU)

 Closed - CL (CE)

 Exit Only - EO (SS)

 *Pharmacy opening - PH (FA)
Reduction opening - A1-A4

*Operating mode only available on the Bravo operator equipped with an automatic lock

1 Display with 2 digits and 7 segments: shows the selected operating mode, in any of the following languages: English, Spanish, French, German, Italian, Portuguese, Dutch and Catalan. In case a malfunction is detected by the self-diagnostic system, a numeric code will flash indicating the type of malfunction.

2/3 Buttons to access the Technical Service functions.

4 Buttons to select the desired operating mode.

5 Infrared receiver (supplied as standard), to operate the door from the optional remote control (code **EMMD04**).

Two different combinations of the buttons on the keypad will block or unblock the selector.

2- TECHNICAL FEATURES

Display height	10 mm.
Operating frequency of the IR receiver	38 KHz.
Maximum reach of the remote control	8 m.
Power supply	12 vdc.
Power consumption	120 mA.
Environment operating temperature	0°C - 50°C.
Dimensions	75 X 75 X 53 mm.
Wiring maximum length	100 m.

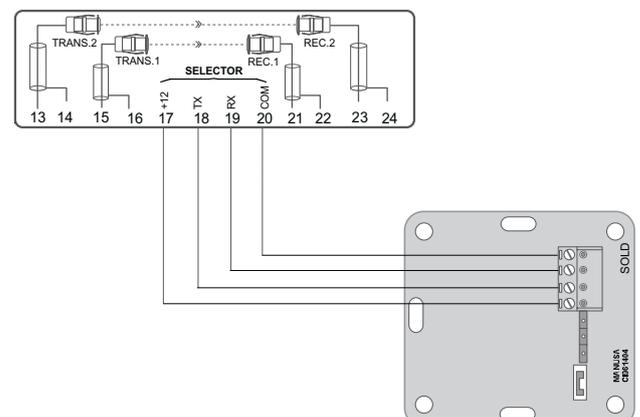
3- WIRING

The Optima Selector fits inside a standard plastic housing, and can be fixed in three different ways:

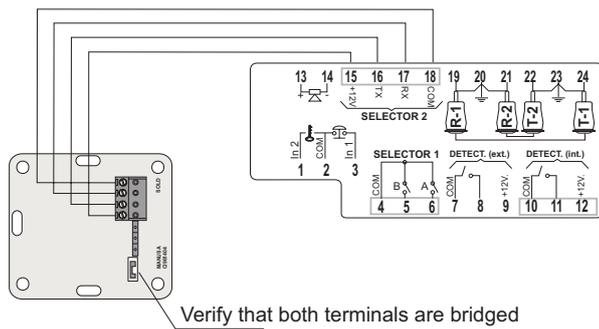
- Flush mounted to any surface
- Mounted into the front cover
- Mounted into a wall

The connection to the operator is made using the supplied radio frequency insulated cable with 4 x 0.25 mm wires. The radio frequency protection must be earthed on either end. The cable length should not exceed 100 m.

3a.- Wiring diagram to a Bravo operator



3b.- Wiring diagram to an Activa+ operator



5a- ADJUSTMENT OF THE PARAMETERS (F1 - F7)

Press button (2) repeatedly until the display shows the desired function. Then press button (3) to confirm.

The actual value of the parameter will be shown on the left digit of the display, represented by a number between 0 and 9.

Press button (2) repeatedly until the desired value is shown. Then press button (3) to confirm your selection

5b- SELF-ADJUSTMENT

For Bravo operator (all versions) and Activa+ (from v.523 onwards).

Press button (2) repeatedly until **F8** appears on the display. Then press (3) to start the self-adjustment.

REMARK: on Bravo operators, make sure that the door leaves are in close position before running the self-adjustment. .

5c- LANGUAGE SELECTION

Press button (2) repeatedly until **F9** appears on the display. Then press (3). The code of the current language appears on left digit of the display, represented by a number between 0 and 7:

- | | |
|------------|---------------|
| 0. Spanish | 5. Portuguese |
| 1. French | 6. Dutch |
| 2. English | 7. Catalan |
| 3. German | |
| 4. Italian | |

Press button (2) repeatedly until the value of the desired language is shown. Then press (3) to confirm your selection

5d- SELECTION BETWEEN PHARMACY OR REDUCTION OPENING

Press (2) repeatedly until **FA** appears on the display. Then press (3). The code of the current configuration appears on left digit of the display, represented by a number between 0 and 6:

- | | |
|------------------------|--|
| 0. Pharmacy opening | 4. Reduction opening 4 |
| 1. Reduction opening 1 | 5. Pharmacy and reduction opening disabled |
| 2. Reduction opening 2 | 6. Reserved. |
| 3. Reduction opening 3 | |

Press (2) repeatedly until the desired option is displayed. Then press (3) to confirm your selection.

After programming the desired configuration, you may select any of these operating modes from the Remote Control or the Optima Selector.

- From the remote control (optional): press

- From the Optima selector:

- If the Pharmacy opening has been enabled (Bravo op. only):

Press and hold (2), then press

- If the Reduction opening has been enabled:

Press and hold (2), then press

To disable both modes (Pharmacy and Winter reduction openings) select any other operating mode on the remote control or the Optima selector.

4- HOW TO SELECT THE DOOR OPERATING MODE

Press the button that corresponds to the desired operating mode:

- | | | | |
|--|-----------------------------|---|---------------------|
| | Open - OP (AB) | | Automatic - AU (AU) |
| | Closed - CL (CE) | | Exit Only - EO (SS) |
| | *Pharmacy opening - PH (FA) | | |
| | Reduction opening - A1-A4 | <i>*Operating mode only available on the Bravo operator equipped with an automatic lock</i> | |

5- HOW TO ACCESS THE TECHNICAL SERVICE FUNCTIONS

Press and hold button (3), and press button (2) repeatedly until the display shows **F0**. Then release button (3).

To access a specific function, press button (2) repeatedly, and the display will show the different functions available in the following sequence:

- F1:** Adjustment of opening speed, per leaf: from (0)=40 cm/s to (9)=100 cm/s (Bravo); from (0)=40 cm/s to (6)=80 cm/s (Activa+)
- F2:** Adjustment of closing speed, per leaf: from (0)=15cm/s to (9)=40 cm/s.
- F3:** Adjustment of closing force: from (0)=40N to (9)=150N.
- F4:** Adjustment of hold-open time: from (0)=0,0s to (9)=9,9s.
- F5:** Adjustment of closing countdown: from (0)=0,0s to (9)=99,9s
- F6:** Adjustment of inside radar sensitivity: from (0)=1 to (9)=25 (Bravo operator with PWM radar or Planar radar only)
- F7:** Adjustment of outside radar sensitivity: from (0)=1 to (9)=25 (Bravo operator with PWM radar or Planar radar only)
- F8:** Self-adjustment for Bravo operator (all versions) and Activa+ (from v.523 onwards).
- F9:** Language selection
- FA:** Selection between reduction opening or pharmacy opening (operating modes only available from the remote control)
- Fb:** Delete all authorized remote controls
- FC:** Remote control synchronization (max. 4)
- F0:** EXIT the Technical Service functions

5e- REMOTE CONTROL SYNCHRONIZATION

When the remote controls are included for the first time, it is necessary to erase the list as it is indicated in the section 5f.

Press button (2) repeatedly until **FC** appears on the display. Then press (3). Point at the selector with the remote control (**EMMD04**), then press and hold any button until a number between 1 and 4 flashes on the display. This value indicates the number of remote controls saved in the list. A maximum of 4 remote controls can be programmed.

The selector will only respond to the remote controls listed. You can only include remote controls with ref. **EM MD04** in the list.

5f- DELETE ALL AUTHORIZED REMOTE CONTROLS

Press button (2) repeatedly until **Fb** appears on the display. Then press (3).

Press again button (2) repeatedly until **5b** appears on the display. Then press (3) and the list of authorized remote controls will be deleted.

After completing this process the Optima Selector will not respond to any remote control.

7- SELF-DIAGNOSTIC

If the self-diagnostic system detects any malfunction on the performance of the door or in any of the accessories, the selector will alert the end user showing a numeric code flashing on the display. The list of the malfunction codes are:

MALFUNCTION	POSSIBLE CAUSE	PROCEDURE
Excessive current 	a. Excessive network tension b. Short-circuit in motor or electric circuit	a. Verify network tension b. Verify motor resistance (50 Ohm) Bravo (5,8 Ohm) Activa+
Break-out leaves open (BRAVO); Emergency push button connected (BRAVO/ACTIVA+) 	a. Break-out leaves open b. Check bridge between terminals 10 and 11 (Bravo); 2 and 3 (Activa+)	a. Close break-out leaves fully and verify magnetic switch and leaf magnets b. Bridge terminals 10 and 11 (Bravo); 2 and 3 (Activa+)
Obstruction when closing 	Obstruction within the leaf stroke, or motor tension too low when closing.	Check eccentric wheels and floor guides. Increase closing force and speed. Remove obstruction
Key switch connected 	Key was not removed from the cylinder	Remove key from the key switch device
Parameter memory 	Parameter memory (EEPROM) is faulty	Replace control panel.
Obstruction when opening 	Obstruction within the leaf stroke, or motor tension too low when opening.	Check eccentric wheels and floor guides. Remove obstruction
Automatic lock (Bravo only) 	a. Lock is blocked b. Magnetic switch is missing	a. Adjust lock b. Replace lock
Infrared barrier 	Infrared beam is obstructed	Clean optics, check if there is any cable broken or shortcircuit.

NOTE: The technical specifications described in this manual are given for information purposes only, and do not represent any contractual obligation for Manusa.

Manusa reserves the right to modify in any moment and without prior notice the technical specifications displayed in this manual, whenever it is considered to improve the product.

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5g- EXIT THE TECHNICAL SERVICE FUNCTIONS

Press button (2) repeatedly, until **F0** appears on the display. Then press (3).

The display will then show the selected operating mode, or a malfunction code if there was.

IMPORTANT: To save the new parameters in memory, change the operating mode to "OPEN" followed by "AUTOMATIC"

6- HOW TO BLOCK THE KEYPAD

To avoid unwanted manipulations of the selector, you can block the key pad pressing buttons (2) and  simultaneously.

To unblock again the keypad press button (2) and  simultaneously.

MALFUNCTION	POSSIBLE CAUSE	PROCEDURE
Fail-safe batteries 	a. 24 v battery is empty b. Fail-safe electric circuit is faulty.	a. Verify battery tension Ub > 27 v b. Replace control panel
Inside radar 	Radar terminals permanently closed for more than 5 sec.	Check connections. Replace inside radar
Outside radar 	Radar terminals permanently closed for more than 5 sec.	Check connections. Replace outside radar
Display doesn't show anything 	Selector is not powered	a. Verify that wires are connected properly b. Check power tension (12 Volt) between terminals 1 and 4 on the Selector
Display is on but remains intermitent 	Communication with the operator is missing	Check communication terminals 2 and 3 on the Selector.

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Automatic doors

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