



Installation manual Optima V2 program switch

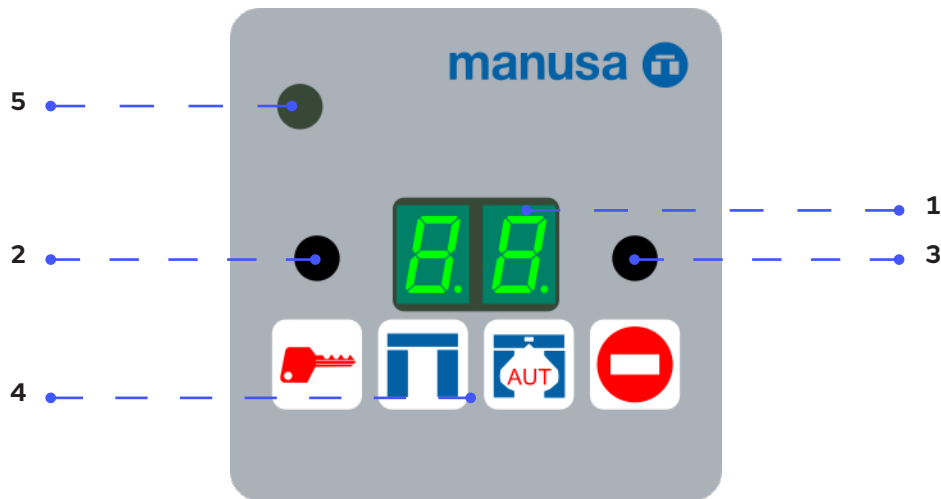
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1. Description

Control element that, when connected to a VISIO, ACTIVA+, VISIO+ or BRAVO operator, enables selection of door operating mode, access to Technical Service functions, and fault display. Two different combinations of keys enable keypad locking and unlocking. The available operating modes are as follows:

1	A 7-segment, 2-digit display indicating selected operating mode in a language to be chosen from the following: Spanish, French, English, German, Italian, Portuguese, Dutch and Catalan. If the monitoring system detects a fault, a flashing number on the display indicates the type of fault.
2/3	Buttons reserved for Technical Service functions.
4	Buttons to select the operating mode.
5	Infra-red receiver, fitted as standard, for remote control of the door using a remote-control unit (optional, code EMMD04).



2. Selecting door operating mode

To select the door operating mode, press the appropriate key.



Door Open AB



Automatic Door AU



Door Closed CE



Exit Only SS **



Pharmacy Opening FA *
Reduced Opening A1-A4

* Operating mode only available on Bravo operator with automatic lock.

** Depending on operator and the safety level set for mode changes, a user password may be required. The "Exit Only SS" mode key may have more than one function, depending on the operator to which it is connected. For adjustable settings, see Advanced settings.

3. Technical specifications

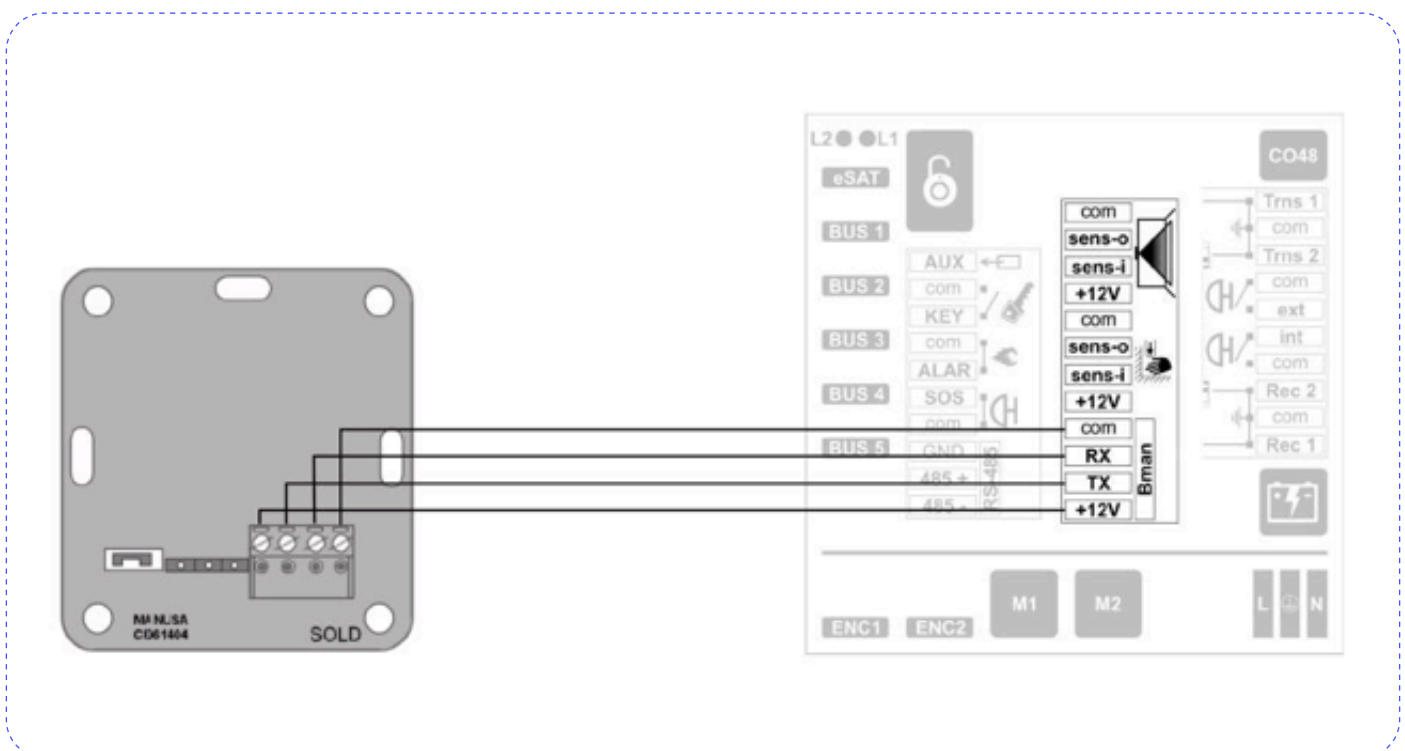
Technical specifications	
Height of 7-segment display	10 mm
Infrared receiver frequency	38 kHz
Average reach of remote control	8 m
Power supply	12 VCC
Consumption	120 mA
Ambient operating temperature	0–50 °C
Dimensions	75 x 75 x 53 mm
Maximum cable length	100 m

4. Wiring

The Optima program switch dimensions and mounting holes allow it to be housed in a standard electric switch box. It can be mounted in one of three ways:

- Straight onto the wall.
- Built into the cover.
- Built into the wall.

It is connected to the operator by a 4-core shielded cable with a minimum core cross-section of 0.25 mm. Shielding must be earthed at one end. The maximum cable length is 100 m.



5. Optima Selector Configuration as V1 or V2

By default, the selector is configured in state V2 (“u2”)

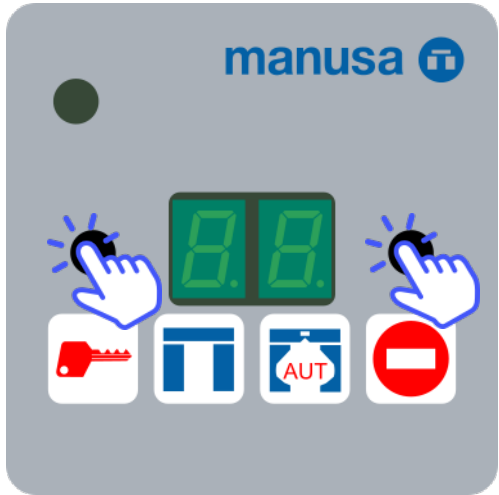
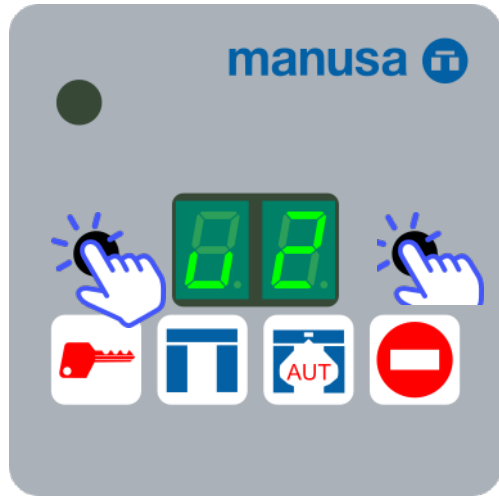
5.1 Check Optima Selector Configuration Status

To check what state the Optima selector is configured in, we must disconnect the selector’s power supply and reconnect it. Once connected, one of the following options appears on the screen:

u1	elector is configured as Selector Optima V1
u2	the selector is configured as Selector Optima V2. (default)

5.2 Change Optima Selector Configuration State

To change the configuration status between “u1” and “u2” it is done in the following steps:

<p>Disconnect power from the Optima Selector.</p>	
<p>Without power, simultaneously press [key 2 + key 3] and keep pressed</p>	
<p>With [key 2 + keyboard 3] pressed, restore power to the Optima selector, until the new value “u2” appears on the selector display.</p>	

6. Accessing Technical Service functions

To access Technical Service functions, follow the instructions below.
Press and hold key **(3)** and press key **(2)** repeatedly until **F0** is displayed.
Release key **(3)**.
Press **(2)** repeatedly for the functions to be shown in sequence on the display.
The available functions are:

1	Opening speed setting, each leaf: between (0)=40 cm/s and (9)=100 cm/s (Visio, Bravo), between (0)=40 cm/s and (6)=80 cm/s (Activa+). Note 1
F2	Closing speed setting, each leaf: between (0)=15 cm/s and (9)=40 cm/s. Note 1
F3	Closing force setting: between (0)=40 N and (9)=150 N. Note 1
F4	Hold-open time setting: between (0)=0 s and (9)=9.9 s.
F5	Delayed closure setting: between (0)=0 and (9)=99.9 s.
F6	Inner radar sensitivity setting between (0)=1 and (8)=25 (only for Visio or Bravo operator with PWM radar or planar radar).
F7	Outer radar sensitivity setting between (0)=1 and (8)=25 (only for Visio or Bravo operator with PWM radar or planar radar)..
F8	Self-adjustment (Visio, Activa+ operator from v.523 and all versions of Bravo operator). Clear width recognition self-adjustment (Visio+ operator).
F9	Language selection.
FA	Reduced Opening or Pharmacy settings.
FB	Deletion of the authorised remote control list.
FC	Addition of remote controls to authorised list (max. 4).
FD	Advanced settings. Note 2
F0	EXIT Technical Service menu.

Note 1: Setting unavailable for Visio+ operators / **Note 2:** Setting unavailable for Visio operators

6.1 Changing numerical parameters

Press **(2)** repeatedly until the desired function appears. Next, press **(3)** to modify that function.
The parameter's current value is shown on the display, represented by a number between 0 and 9.
Press **(2)** repeatedly until the desired value appears. Then press **(3)** to confirm.

6.2 Self-adjustment

Self-adjustment function depending on operator:

- Safety self-adjustment for Visio, Activa+ (from v.523) and Bravo operators (all versions).
- Clear width recognition self-adjustment for Visio+ operator. This does not change the operator settings; it only verifies the positions of the mechanism's travel limits.

Press **(2)** repeatedly until **F8** appears. Then press **(3)**.

Once set, check correct operation of safety elements: photocells, radars, etc.

Note: For Visio and Bravo operators, ensure the leaves are closed before starting the self-adjustment procedure.

6.3 Selecting language

Press **(2)** repeatedly until **F9** appears. Then press **(3)**.

The current language is shown on the display, represented by a number between 0 and 7:

Press **(2)** repeatedly until the desired language's number appears. Then press **(3)** to confirm.

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

6.4 Setting up Reduced Opening or Pharmacy Position – Bravo operator only

To access settings that depend on the opening mode, proceed as follows: Press **(2)** repeatedly until **FA** appears. Then press **(3)**.

The current setting is shown on the display, represented by a number between 0 and 6:

- **0** Pharmacy Position
- **1** Reduced Opening 1
- **2** Reduced Opening 2
- **3** Reduced Opening 3
- **4** Reduced Opening 4
- **5** Pharmacy Position and Reduced Opening deleted
- **6** Reserved

To select the desired mode:

Press **(2)** repeatedly until the desired setting appears. Then press **(3)** to confirm.

Once the mode has been set, it can be activated using either the remote control or the Optima program switch.

- Remote control (optional):

To complete the setting using the remote control, just press



- Optima program switch:

Completion of the setting using the Optima program switch depends on which mode is being programmed:

- If Pharmacy mode has been set (Bravo operator only): Press and hold **(2)** and simultaneously press



- If Reduced Opening mode has been set: Press and hold **(2)** and simultaneously press



To deactivate both Pharmacy and Reduced Opening modes, press another operating mode, whether using the remote control or the program switch.

Note: Settings with VISIO+ operator: With VISIO+, when Reduced Opening has been set, it is activated.

- **1** Reduced Opening 1 to 20 %
- **2** Reduced Opening 2 to 40 %
- **3** Reduced Opening 3 to 60 %
- **4** Reduced Opening 4 to 80 %

6.5 Adding remote controls to the authorised list

When remote controls are used for the first time, the list must be deleted as shown in section 5.6.

Press **(2)** repeatedly until **FC** appears. Then press **(3)**.

While pointing the remote control (**EMMD04**) at the program switch, press and hold any key on the remote control until a number between 1 and 4 flashes on the display. This number indicates how many remote controls are stored on the list. The list can include up to four remote controls.

The program switch only responds to the remote controls included in the list. Only **EMMD04**-type remote controls can be on the list.

6.6 Deleting the authorised remote control list

Press **(2)** repeatedly until **Fb** appears.

Then press **(3)**.

Press **(2)** repeatedly until **5b** appears on the display.

Then press **(3)**.

From now on, the program switch will not respond to any remote control.

6.7 Exiting Technical Service functions

Press **(2)** repeatedly until **F0** appears.

Then press **(3)**.

The display will show the selected operating mode or fault detected, if any.

Important: To store any changes in the memory, change the setting mode to “Open” and then to “Automatic”.

7. Advanced settings

To access the advanced settings submenu, first access the **FD** service function.

Numerical parameters are adjusted in the same way as Technical Service functions (see section 5.1).

C1	Safety self-adjustment. (1) Begin self-adjustment, (0) exit submenu without making any changes.
C2	Reduced Opening setting in 10% intervals between (1) =10% and (9)=90%. With some operators, setting this value can additionally enable Reduced Opening.
C3	Set up Wi-Fi operating mode. (1)=Wi-Fi Off – switch off wireless connectivity. (2)=Wi-Fi On – switch on wireless connectivity, enabling connection to an existing network. (3)=e-SAT mode – switch on wireless connectivity for e-SAT. This setting only works with operators that have Wi-Fi connectivity.
C4	Enable/disable auxiliary output. (1)=Inversion, change the operational status to the opposite of the current one (for example, if it was enabled, it disables it); (0) exit submenu without making any changes.
C5	Set up safety level during mode changes. To edit the set value, the admin password is required. (0)=OPEN – Validation required to enter OPEN mode. (1)=CLOSE – Validation required to enter CLOSED mode. (2)=OPEN and CLOSE – Validation required to enter both OPEN and CLOSED modes. (3)=NOT SECURE – Does not require validation to change mode. For escape routes, only settings 1 and 2 are permitted.
C6	Emergency exits. If error 11 (battery failure) occurs, disable door opening for 24 hours. To enable this setting, the admin password is required. (0)=RESTORE – Enable door's standard behaviour in case of battery failure; (1)=DISABLE – Disable opening for at least 24 hours due to battery fault. Normal operation will be restored if the battery fault has been resolved after 24 hours of continuous use.
C7	Disable warning 22. Opening safety fault. To change this setting, the admin password is required. (0)=DISABLE alarm; (1)=ENABLE side safety sensor monitoring and alarm (alarm 22).
C8	Disable warning 23. Closure safety fault. To change this setting, the admin password is required. (0)=DISABLE alarm; (1)=ENABLE closure safety sensor monitoring and alarm (alarm 23).
C9	Allows temporary pairing of Pocket program switches. To enable pairing, the admin password is required. (0) Exit submenu without making any changes; (1)=START – Initiates a time window for pairing new remote controls.
CA	RESET WIFI subsystem. To reset it, the admin password is required. (0) Exit submenu without making any changes; (1)= RESET – Reset WIFI subsystem.
CB	RESET admin password. Reset admin password to default value (9999). Resetting requires the admin password. (0) Exit submenu without making any changes; (1)=RESET – Reset default value.
CC	Setting the function assigned to the “EXIT ONLY SS” mode key. To change the setting, the admin password is required; (0)=MODE – Pressing the key changes the mode to EXIT ONLY and cancels reduced opening. (1)=Push button – Pressing the key emulates the behaviour of the internal push button input.
C0	Exit advanced settings submenu.

8. Setting admin and user passwords

To access the advanced settings submenu, first access the **FD** service function. Numerical parameters are adjusted in the same way as Technical Service functions (see section 5.1).

Setting admin password	
Length of admin password and factory default password.	The admin password must contain between 4 and 8. The factory default password is [9999].
Admin password prompt.	When the admin password is required, "SP" is displayed on the screen.
Entering the numeric code.	When entering the admin password, the digits on the display should be noted, representing 2 numbers. The number on the left shows the position in the password of the digit being typed. The number on the right shows the numbers making up the password. Pressing key (2) increases the number on the left (from position 1 to position 8) and pressing key (3) confirms the number.

Setting user password	
Factory default user password.	The factory default sequence is to press the key four times (3) .
User password prompt.	When "US" appears on the display, this is a prompt for the user password.
Setting user password.	The user password is a sequential combination of 4 presses of key (3) and door modes. The number on the left indicates which element in the sequence (position) is to be entered and the digit on the right shows the key to be entered.

9. Locking the keypad

To avoid accidental operation, the switch keypad can be locked by simultaneously pressing keys **(2)** and



To unlock the keypad, simultaneously press keys **(2)** and



Depending on the operator used, locking the keypad may require a user password.

10. Warning messages

When the automatic door operator detects a door malfunction, the program switch screen will show a numeric code. The meaning of the code is summarised in the table below. Depending on the operator, sometimes the code numbers may be different. *

Warning	Fault	Possible cause	Corrective action
02	SOS	Emergency signal enabled.	Check position of folding leaves. Check emergency stop button.
03	Obstruction when Closing	Obstruction during the closing cycle.	Check that there are no obstructions during closure.
04	Outside key switch	The key has not be removed after 1 min	Remove the key from the outside key switch device.
05	Parameter error	Door parameter fault.	Contact Manusa Technical Service.
06	Obstruction when Opening	Obstruction during the opening cycle.	Check that there are no obstructions in the opening area.
07	Photocell 1	Interior photocell blocked for more than 1 minute.	Clean the photocells. Should fault persist, contact Manusa Technical Service.
08	Photocell 2	Exterior photocell blocked for more than 1 minute.	Clean the photocells. Should fault persist, contact Manusa Technical Service.
09	Fire	Fire alarm signal triggered.	Check that it is not a false alarm.
11	Batteries	Battery not overly charged.	If the door has been disconnected for a while, connect it and wait 24 hours for the batteries to charge. Should fault persist, contact Manusa Technical Service.
12	Interior Radar	Interior radar detection more than 1 minute.	Contact Manusa Technical Service.
13	Exterior Radar	Exterior radar detection more than 1 minute.	Contact Manusa Technical Service.
15	Auxiliary processor	Communications failure with auxiliary processor.	Should fault persist, contact Manusa Technical Service.
16	Side safety device	Presence detection in the leaves clear-width area for more than 1 minute.	Check that there are no objects within the sensor detection radius.
17	Lock	Lock stuck. Failure on attempting to close the lock.	Contact Manusa Technical Service.
22	Opening safety fault	Opening safety sensors not detected.	Contact Manusa Technical Service.
23	Closure safety fault	Closure safety sensors not detected.	Contact Manusa Technical Service.
24	Closure safety	Closure safety sensor failure.	Contact Manusa Technical Service.
33	Current leakage	Motor insulation failure.	Contact Manusa Technical Service.
34	Power module	Power module stoppage due to overcurrent or insulation failure.	Contact Manusa Technical Service.
35	Encoder	Encoder error. One of the two channels of the encoder is faulty.	Contact Manusa Technical Service.
36	Self-adjustment fault	Self-adjustment not completed correctly.	Contact Manusa Technical Service.
49	Critical alarm	Possible general failure of the motor control microprocessor.	Contact Manusa Technical Service.

Warning	Fault	Possible cause	Corrective action
50	Critical alarm.	Possible internal electronics failure.	Contact Manusa Technical Service. Change electronics.
51	Critical alarm.	Possible internal electronics failure.	Contact Manusa Technical Service. Change electronics.
52	Critical alarm.	Possible internal electronics failure.	Contact Manusa Technical Service. Change electronics.
53	Critical alarm.	Possible internal electronics failure.	Contact Manusa Technical Service. Change electronics.
54	Critical alarm.	Possible internal electronics failure.	Contact Manusa Technical Service. Change electronics.
55	Critical alarm.	Possible internal electronics failure.	Contact Manusa Technical Service. Change electronics.

* Consult our Technical Department.

11. Wi-Fi connection status

To access the Wi-Fi connection status, press and hold key **(3)** and press the “Exit Only” mode key.

If the connected operator has Wi-Fi connectivity, the current Wi-Fi operating mode will be shown on the display for a few seconds. Touch any key to return to the usual display.

Status	Displayed	Action
Wi-Fi STATION OFF	OFF off	Wi-Fi connection is switched off.
Wi-Fi STATION ON	ON on	Wi-Fi connection established with network that has been set up.
Wi-Fi STATION CONNECTING	Inner area of display illuminated and rotating.	Seeking or connecting to network that has been set up.
Wi-Fi e-SAT	Outer area of display illuminated and rotating in circular fashion.	Wi-Fi in e-SAT mode (ACCESS POINT).
Other status	Vertical bar is illuminated on the display.	Different from above statuses.

The characteristics described in this document are purely informative and are in no way binding.

The manufacturer reserves the right to make modifications without prior notice.



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