Maestro MMI User Manual

Contents

1. INTRODUCTION

On Maestro, "Man – Machine – Interface" (MMI) module is used for programming, editing, visual monitoring. MMI has a keyboard and a back lighted display for interaction. This display unit is active by default when the device is turned on and goes standby mode if there is no action for more than 5 minutes. The display unit can be reactivated by depressing ENTER key.

Figure 1: Keyboard and Display Unit (MMI)

2. OPENING SCREEN

The first line of the opening screen shows the name, software version and the voltage of PSM.

Figure 2: Opening Screen and first line Definition

Device Name: Displays the name of the device.

Software Version: Displays the software version of the CP card.

Voltage: Display voltage of PSM.

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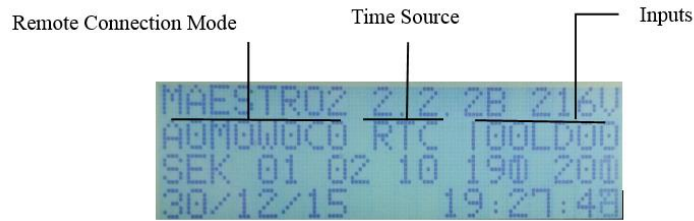In the second line of the opening screen remote connection mode, time source and inputs are displayed.

Figure 3: Opening Screen and Second Line Definition

Remote Connection Mode: Displays the remote connection devices and their statuses.

- **A0 – A1:** GPS Antenna, "A0" antenna is not active, "A1" antenna is active.
- **M0 – M1:** GPS Modem's status, "M0" denotes lack of modem and "M1" denotes existence of modem.
- **W0 – W1:** Data transfer statues, "W0" no data transfer, "W1" data transferring.
- **C0 – C1:** GPRS Modem's status, "C0" denotes lack of modem and "C1" denotes existence of modem.

Time Source: Display the time source of the device.

- **RTC:** Denotes that the time source is real time clock.
- **GPS:** Denotes that the time source is GPS.

Inputs: Display digital and loop inputs.

- **I00:** Shows the latest digital input request.
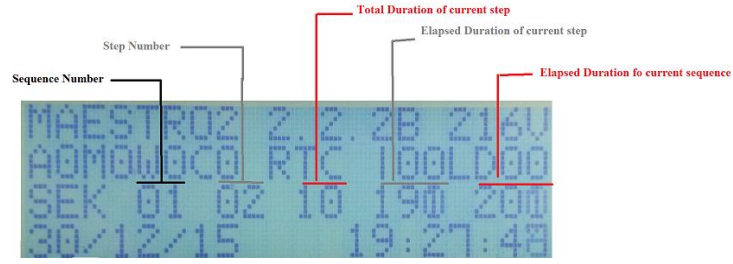- **LD00:** Shows the latest loop request.

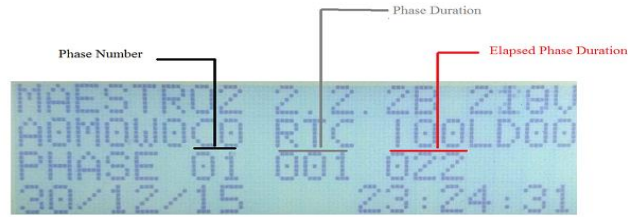*Figure 4: Sequence Program and third line definition*

Figure 5: Phase Program and third line Definition

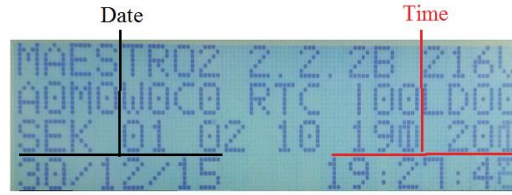In the fourth line of the opening screen date and time of the device displayed.

Figure 6: Opening Screen and fourth line definition

Date: Day and month (DDMM)

Time: Hours, minutes and seconds (HHMMSS)

Additional functions are added to 0, 1, 2, 3, and C buttons on the keyboard. These additional functions can be utilized by depressing the ENTER key after depressing either of these buttons.

- Button 0 switches between available languages.
- Button 1 turns all the light groups to red state.
- Button 2 turns all the light groups to dark state.
- Button 3 turns all the light groups to flash state.
- Button 8 starts learn operation of number of lamps in an intersection.

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If the device is requested to work according to the previous program scheme, button C must be pressed.

Active Buttons	Explanations
0, 1, 2, 3, 8, C	Used for selecting additional functions.
ENTER	Used for confirming an additional function or returning to login menu.

Table 1: Active Buttons in Opening Screen

3. USER NAME / PASSWORD SCREEN

Login menu is accessed by depressing ENTER.

In the login menu, user can enter the username that consists of a 4 digit number, can return to the opening screen by depressing C or can verify the username by depressing ENTER. If the username is valid, password menu comes up. If not, login menu will be active until a valid username is entered.

In the password menu, user can enter the password that consists of a 4 digit number, can return to the opening screen by depressing C or can verify the password by depressing ENTER. If the password is correct, menu screen comes up. If not, it will return back to login menu.

Two different types of login can be done to the menu screen. While the administrator can access all the items in the menu, guests can access only read-only items. (Logs in EEPROM and help menu (Check section 4.1 for details))

Login type	Username	Password
Administrator	1111	1111
Guest	2222	2222

Table 2: MMI User Account Type

4. MENU SCREEN

Menu screen is explained as though an administrator login is performed. If the user is logged in as guest, the explained menus will be displayed in read-only mode.

There is no structural difference between administrator and guest credential menus.

Active Buttons	Explanations
1, 2, …, 6	Used for accessing the corresponding submenu.
◄, ►	Used for browsing menu pages.
▲, ▼	Used for browsing menu items.
ENTER	Used for entering the selected menu item.

Table 3: Accessible Buttons in Menu Screen

4.1 HELP

In case an ambiguous event shows up in the third line of the log, an explanation of the event can be reached from the help menu. If there is no event to change the device's signal mode, the user is notified that there isn't an emergency present.

First Line: Signal group set that the event occured.

Second Line: Event name.

Third Line: Event parameters.

Fourth Line: Precautions taken in response to the emergency situation.

Active Buttons	Explanations
C	Used for returning to the menu screen.

Table 4: Accessible Buttons in Help Screen

4.2 DEVICE LOG

In this menu, the logs are taken from the device can be listed. At the left-up corner of the log display, the log number is shown. By left-right keys or through the keypad, log number can be entered and by depressing ENTER key, they can be shown. If entered number is not exist, the current log number remains on the display.
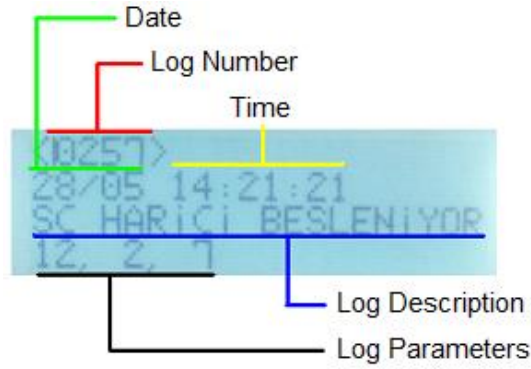
Figure 7: Log Screen and Explanations

Active Buttons	Explanations
0, 1, 2, 3, 4, 5, 6, 7, 8, 9	Used for entering log number.
◄, ►	Used for changing log numbers.
ENTER	Used for confirming the entered log number
C	Used for returning main menu.

Table 5: Accessible Buttons in Log Screen

4.3 CONNECTION LOG

In this menu connection logs shows, and logs differs according to connections types:

GPRS (UBLOX or TELIT): The IMEI of GPRS and other connection status logs will be shown in screen.

ETHERNET: The MAC address of Ethernet module and related connection status logs will be shown in screen.

4.4 TEST

In test menu, the position of power relay which delivers energy to signal outputs can be displayed or changed.

Active Buttons	Explanations
1	Used for entering the relay state.
C	Used for returning the menu screen.

Table 6: Accessible Buttons in Test Screen

4.4.1 RELAY STATE

In the relay position menu, relays which carry mains power to lamps can be made ON or OFF. Through right and up arrow, relay's position is determined and by ENTER key relays new position designated.

Active Buttons	Explanations
◄, ►	Used for changing the relay state.
ENTER	Used for confirming the relay state.
C	Used for returning to the menu screen.

Table 7: Accessible Buttons in Rely State Screen

4.5 REMOTE CONNECTION

Port for remote connection in Maestro Controller device is 1234.
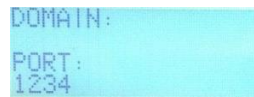
Figure 8: Remote Connection Screen

4.6 SETTINGS

In this menu device's date, time, language, GPS, connection, user account, config, IAP mode settings can be done and by selection of the factory initial settings, EEPROM memory can be reset.

Active Buttons	Explanations
1, 2, 3, 4	Used for choosing the setting type.
C	Used for returning the menu screen.

Table 8: Accessible Buttons in Settings Screen

4.6.1 DATE/TIME SETTINGS

In this menu, date and clock setting can be edited. Entries must be in DDMMYY HHmm WD format. (D: day, M: month, Y: year, H: hour, m: minute, WD: day of week)

There is no need to change "Day of week" since Maestro calculates it by using date parameters.

Active Buttons	Explanations
0, 1, 2, 3, 4, 5, 6, 7, 8, 9	Used for entering date and time parameters.
◄, ►	Used for getting the cursor left or right.
ENTER	Used for approving the entered date and time settings.
C	Used for returning settings menu.

*Table 9: Accessible Buttons in Date/ Time Settings Screen*

4.6.2 LAGUAGE SETTINGS

In this menu language can be selected as English or Turkish.

Active Buttons	Explanations
1	User for selecting the device language Turkish.
2	User for selecting the device language English.
C	To return settings menu.

Table 10: Accessible Buttons in Language Screen

4.6.3 GPS SETTINGS

Maestro intersection controller device may use the RMC messages that come from GPS for updating clock/date. Maestro capable of reading message sent 4800, 9600, 19200, 38400, 57600 and 115200 baud rate.
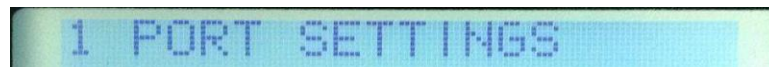
Figure 9: GPS Port Selection Screen

In this menu user should select PORT SETTING using "1" button, maestro intersection controller includes two type of GPS module:

Figure 10: GPS module Type Selection Screen

INTERNAL GPS: Select internal GPS using button "1".

EXTERNAL GPS: Select external GPS using button "2".

After selecting type of GPS module, the device restart itself. Else, the device returns the settings menu.

Active Buttons	Explanations
0, 1, 2, 3, 4, 5, 6, 7, 8, 9	Used for changing GPS baud rate.
1	Used for selecting port and selecting internal GPS module.
2	Used for selecting external GPS module.
ENTER	Used for approving new gps baud rate and type.
C	Used for returning menu screen or clearing the previous entered value.

Table 11: Accessible Buttons in GPS Baud Rate and GPS Type selection Screen

4.6.4 CONNECTION SETTINGS

Maestro intersection controller in order to connect with MCTS web user interface use GPRS module or Ethernet. In this menu connection type can be selected by user.

Figure 11: Connection Type Selection

Active Buttons	Explanations
1	User for selecting UBLOX GPRS module
2	User for selecting TELIT GPRS module
3	Use for selecting ETHERNET as a connection type
4	Use for selecting RS232 as a connection type
C	To return settings menu.

Table 12: Accessible Buttons in Connection Type Screen

4.6.5 USER ACCOUNT SETTINGS

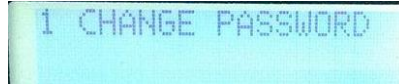In this menu user can change the password.

Figure 12: User Account Setting Screen

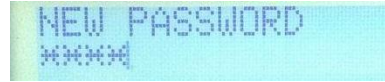User should press "1" and then enter the new password.

Figure 13: Entering New Password Screen

Active Buttons	Explanations
0, 1, 2, 3, 4, 5, 6, 7, 8, 9	Used for entering password
1	Used to open password change screen
ENTER	Used for approving the entered date and time settings.
C	Used for returning settings menu.

Table 13: Accessible Buttons For User Account Settings

4.6.6 CONFIG. SETTINGS

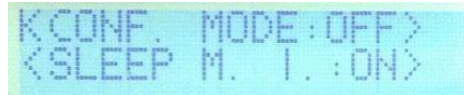In this menu there is two option, config mode and sleep mode, user can change each of them to ON or OFF.

Figure 14: Config Settings Screen

Active Buttons	Explanations
◄, ►	Used for changing the Config Mode and Sleep Mode states
▲, ▼	Used for browsing menu items.
ENTER	Used for entering the selected menu item.

Table 14: Accessible Buttons in Config Settings Screen

4.6.7 IAP MODE

In this menu user can change the state of IAP mode in Maestro Controller device to "1 YES" or "2 NO".

4.6.8 RETURN FACTORY SETTINGS

In this menu, the device's EEPROM is cleaned completely and return to factory settings configuration. All programs including saved signal programs signal plans are deleted. Device is restarted and intersection controller outputs are disabled (No signal is sent to signal outputs).

Figure 16: Return factory settings screen

Active Buttons	Explanations
1	Used for returning the device to the factory settings.
2	Used for returning to the settings menu.
C	Used for returning settings menu.

Table 15: Accessible Buttons in Returning Factory Settings Screen