

2016

Maestro TSI User Manual

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1. INTRODUCTION

In order to provide users with more comprehensive information in a clearer way on the Maestro device, the existing 4 lines have been replaced with a full colored graphical 320x240x3 dot LCD. The name of the new interface is “*Touch Screen Interface - TSI*”. TSI communicates with “*Central Processing Module - CPM*” while ensuring the interaction between machine and the user. When maestro cabinet door is opened TSI turns on. TSI sleeps after five minutes if there is no action. The sleeping function extends the life of display. While TSI is in sleeping mode it turns on via touching on the screen and goes into home screen.



Figure 1: Touch Screen Interface - TSI

2. HOME SCREEN

2.1. First Part of Home Screen



Figure 2: First part of home screen

Time: It shows, hours, minutes and seconds. (In the format of HHMMSS)

Date: It shows day, month and year. (In the format of DDMMYY)

Sequence: Information of total sequences and operating sequences.

- **SEQ:** It shows total sequence number of the program operating on the device and also the current running sequence.

- ✓ DURATION: Total duration of operating sequence and time consumed.
- STEP: Total number of step in a running sequence and the current step.
 - ✓ DURATION: Total duration of current step and time consumed.

GPS Status: It shows the status of the GPS. Red color is the state of being passive, and green color is the state of being active.

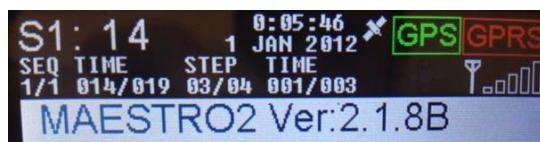


Figure 3: GPS Status

GPRS Status: It shows the status of GPRS. If GPRS caption turns red, it means it is not active. While GPRS being activated, the caption turns into orange and yellow depending on the connection status. When the connection is secured, the color turns to green.



Figure 4: GPRS Status

Phase: It shows operating phase and the minimum and maximum duration of that phase.

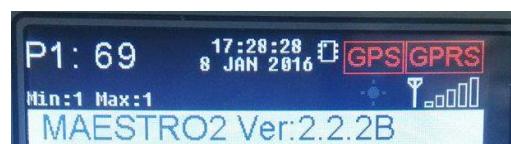


Figure 5: Phase description

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

2.2. Second Part of Home Screen

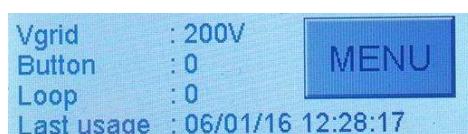


Figure 6: Second Part of home screen

Vgrid: It shows mains voltage of the device.

Button: It shows the number of pedestrian button.

Loop: It shows the input number of vehicle detector.

Last Usage: It shows the time when the device was used for the last time.

2.3.Third Part of Home Screen

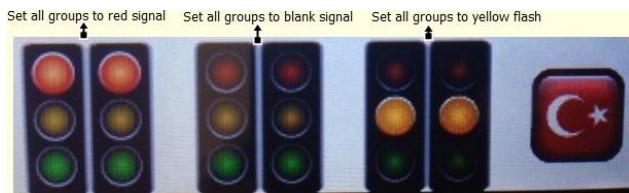


Figure 7: Third Part of Home Screen

Set all groups to red signal: When you press on the red light icon on the left bottom screen, it cancels all plans that device is operating, and makes all groups to flash in red.

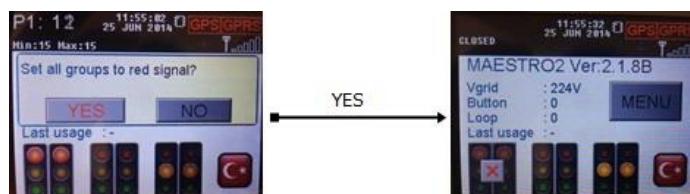


Figure 8: Set all groups to red signal

Set all groups to blank signal: When you press on the no light icon on the central bottom screen, it cancels all plans that device is operating and makes all groups to dark.

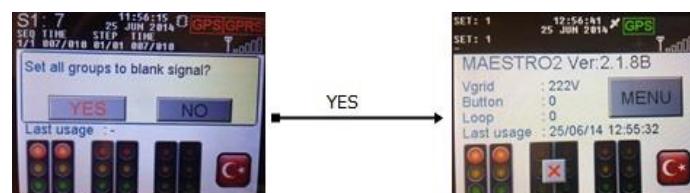


Figure 9: Set all groups to blank signal



Set all groups to yellow flash: When you press on the yellow light icon on the central bottom screen, it cancels all plans that device is operating and makes all groups to yellow flash.

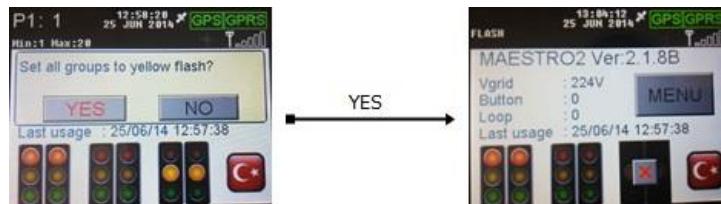


Figure 10: Set all groups to yellow flash

In all three cases, press on () sign to return the device back to former status.

Language (): It is used to change the language of the device. When the language is Turkish, the flag of England appears on the screen. If you touch the flag, language changes to Turkish and a Turkish flag appears on the screen now.

3. MENU

At the home screen, by pressing MENU button the user access to user name and password screen. On the user name and password screen, 4-digit password and 4-digit username consisting of a combination of numbers are entered. To go back to home screen, press BACK button. To delete what you write, press C button. If the username and password are valid, Pressing OK button will take you to home screen.

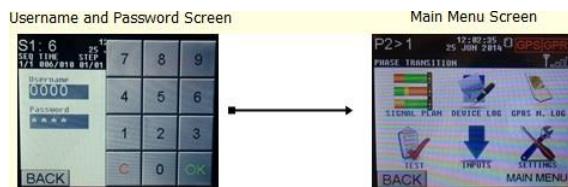


Figure 11: Menu

3.1. Signal Plan

It is used for displaying signal plan in the screen. All progressing groups of signal plan shown in the screen.



Figure 12: Signal Plan

3.2. Device Log

It is used to access to events and malfunction records taking place during the operation of the device. The records are chronologically ordered. When Log lines are touched on, the detailed explanation screen of the log opens. Touching the screen again will close this screen.

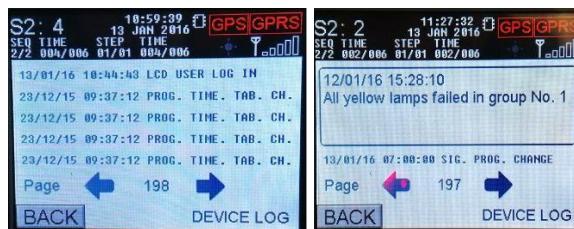


Figure 13: Device Log

3.3. Connection Log

It shows IMEI number and the connection status of GPRS modem and other devices to Maestro controller device.

UBLOX MODEM:

- "COMMAND MODE" : Commanding on GPRS modem.
- "MODEM RESET" : Resetting GPRS modem.
- "AT COMMAND" : Sending an "AT" command to the device for checking the availability.
- "ECHO CLOSE" : Closing GPRS Echo command.
- "IMEI REQUEST" : Retrieving IMEI number.
- "APN SETUP" : Setting up APN.



- "DYNAMIC IP ASSIGN." : Assigning a dynamic IP, if it fails, APN is incorrect.
- "GPRS ACTIVATION" : Activating GPRS modem.
- "DOMAIN IP REQUEST" : Requesting Domain IP.
- "CREATE SOCKET" : Starting TCP (Transmission Control Protocol).
- "CONNECT SOCKET" : Central system connecting to created socket
- "DIRECT LINK MODE" : GPRS modem is connected to central system.

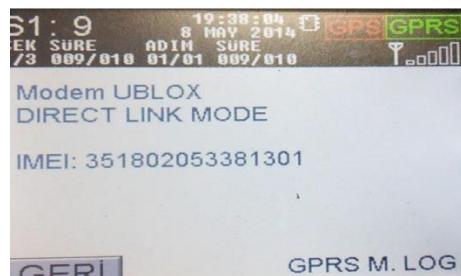


Figure 14: UBLOX Modem Commands

TELIT MODEM:

- "COMMAND MODE" : Commanding on GPRS modem.
- "MODEM RESET" : Resetting GPRS modem.
- "ECHO CLOSE" : Closing GPRS Echo command.
- "IMEI REQUEST" : Retrieving IMEI number.
- "APN SETUP" : Setting up APN.
- "GPRS ACTIVATION" : Activating GPRS modem.
- "CONNECT SOCKET" : Creating socket and central system connecting to created socket.



Figure 15: TELIT Modem Commands

3.4. Test

It is used to change the status of relay. The user may choose ON or OFF.



Figure 16: Relay State

3.5. Inputs

It shows the requests from pedestrian button and detectors. There are two types of input on the inputs screen; Loop and Button. The request from any type of input can be monitored as shown below:

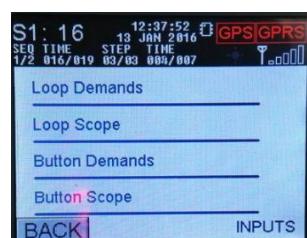


Figure 17: Inputs Screen

- **Loop Demands:** It is used to observe the requests coming from loop entries. According to the request coming from loop detector, the color of the number of related entry changes.

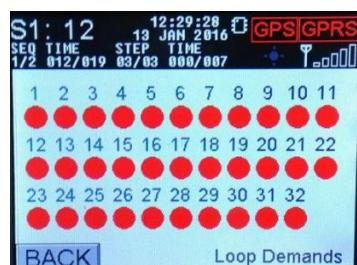


Figure 18: Loop Demands Screen

- **Loop Scope:** The requests coming from the loop detectors could be seen on the loop scope (Loop Tracking) screen depending on the time.

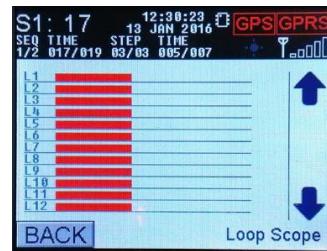


Figure 19: Loop Scope Screen

- **Button Demands:** It is used to monitor the requests coming from the pedestrian buttons on the field. According to the requests, the colour of related entry changes.



Figure 20: Button Demands Screen

- **Button Scope:** The request coming from pedestrian buttons can be monitored on buttons scope (Button Tracking) screen depending on the time.

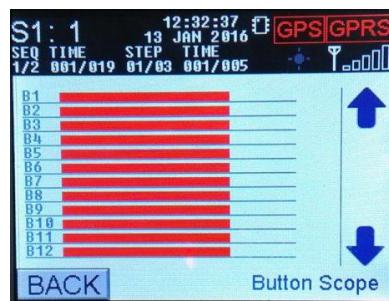


Figure 21: Button Scope Screen

3.6. Settings

By pressing SETTINGS icon on home screen, you can go to settings screen. On this screen, the user can make following changes:



Figure 22: Settings Screen

3.6.1 Date/ Time Setting

In this menu, date and clock settings can be edited.



Figure 23: Date and Time Settings Screen

3.6.2 Menu Language

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



Figure 24: Menu Language Screen

3.6.3 GPS Setting

Maestro intersection controller device may use the RMC messages that come from GPS for updating clock/date. Maestro capable of reading message sent 2400, 4800, 9600, 19200, 28800, 38400, 57600, 76800 and 115200 baud rate.



Figure 25: GPS Setting Screen

In this menu user should select port type, maestro intersection controller includes two type of GPS module:



Figure 26: GPS Type Selection Screen

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

By clicking port baud rate, user can select the baud rate of GPS module.



Figure 27: Baud Rate Selection Screen

3.6.4 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 28: Connection Type Selection Screen

3.6.5 Heater Settings

Heater setting is active for maestro software version 2.1.8 or under. For versions above 2.1.8 heater setting is not active.



Figure 29: Heater Settings Screen

3.6.6 Lamp DIM. Setting

Lamp DIM. Setting is active for maestro software version 2.1.8 or under. For versions above 2.1.8 lamp DIM. Setting is not active.



Figure 30: Lamp DIM. Settings Screen

3.6.7 PSM Calibration

If there is a difference between measured mains voltage and the value on the screen, a calibration to PSM module is necessary. Measured mains voltage is on the top line and calibrated value appears on the bottom line.

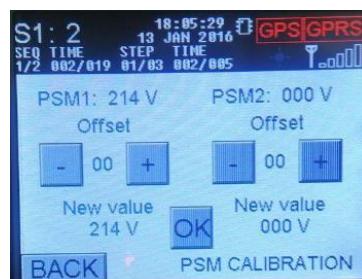


Figure 31: PSM Calibration Screen

3.6.8 User Account Settings (Change Password)

In this menu user can change the password.



Figure 32: User Account Screen

Enter four digit new password and click OK.

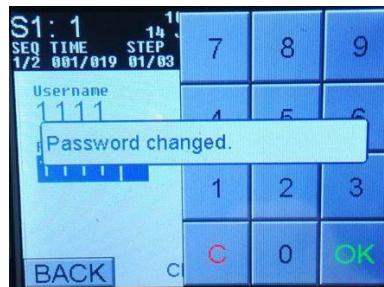


Figure 33: User Account Screen

3.6.9 Config Lock

In this menu user can change the configuration status of Maestro intersection controller. The status can be changed to “Enable” and “locked”. When the status is enable controller can be programed using Maestro Config Tool program.

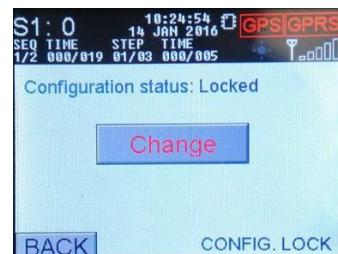


Figure 34: Configuration Status Screen

3.6.10 External Battery

In this menu user can change the External Battery status of Maestro intersection controller. The status can be changed to “Active” and “Disabled”.



Figure 35: External Battery Usage Screen

3.6.11 Firmware Upgrade

In this menu user can change the state of IAP mode in Maestro Controller device.



Figure 36: Firmware Upgrade Screen

3.6.12 Default Settings (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 and signal plans are deleted. Device is restarted and intersection controller outputs are disabled. (No signal is sent to signal outputs).

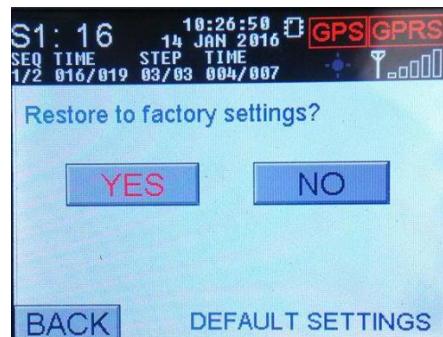


Figure 37: Return Factory Settings Screen