

Metrici Observer Radar - User's guide -

INTRODUCTION

Metrici Observer Radar is a hardware product developed by Metrici, which is set up to work with Metrici LPR detection engines, as a rule enforcer for street traffic or parkings.

The radar will record the speed of a vehicle which will be associated with the detected number plate in Metrici database.

By default, the radar is set to trigger a detection with Metrici LPR when a speed over 30 km/h is detected.

INSTALLATION

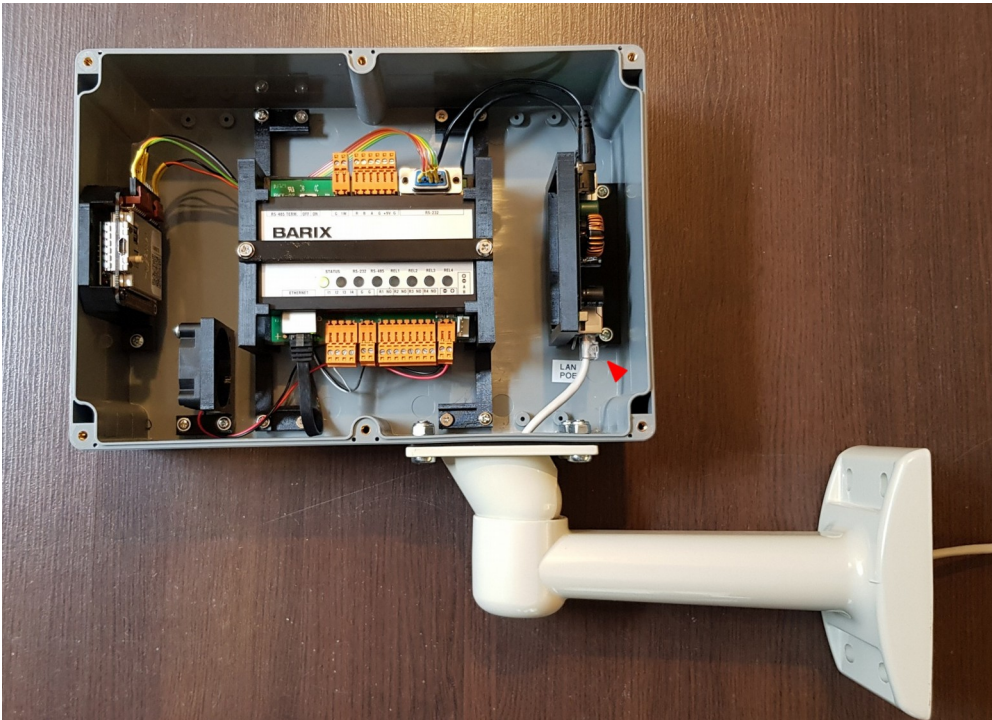
When installing Observer Radar, you must first link it to local network. In order to do this, please remove the front screws, as in the next image.



Introduce the LAN wire through the support of the Observer Radar and connect it to the device as the arrow indicates in the next image.

NOTE!

The wire must be linked to a PoE switch as this Observer Radar is PoE powered.



In order to properly function, you will need to set some data in radar menu and also in Metricí Control Panel.

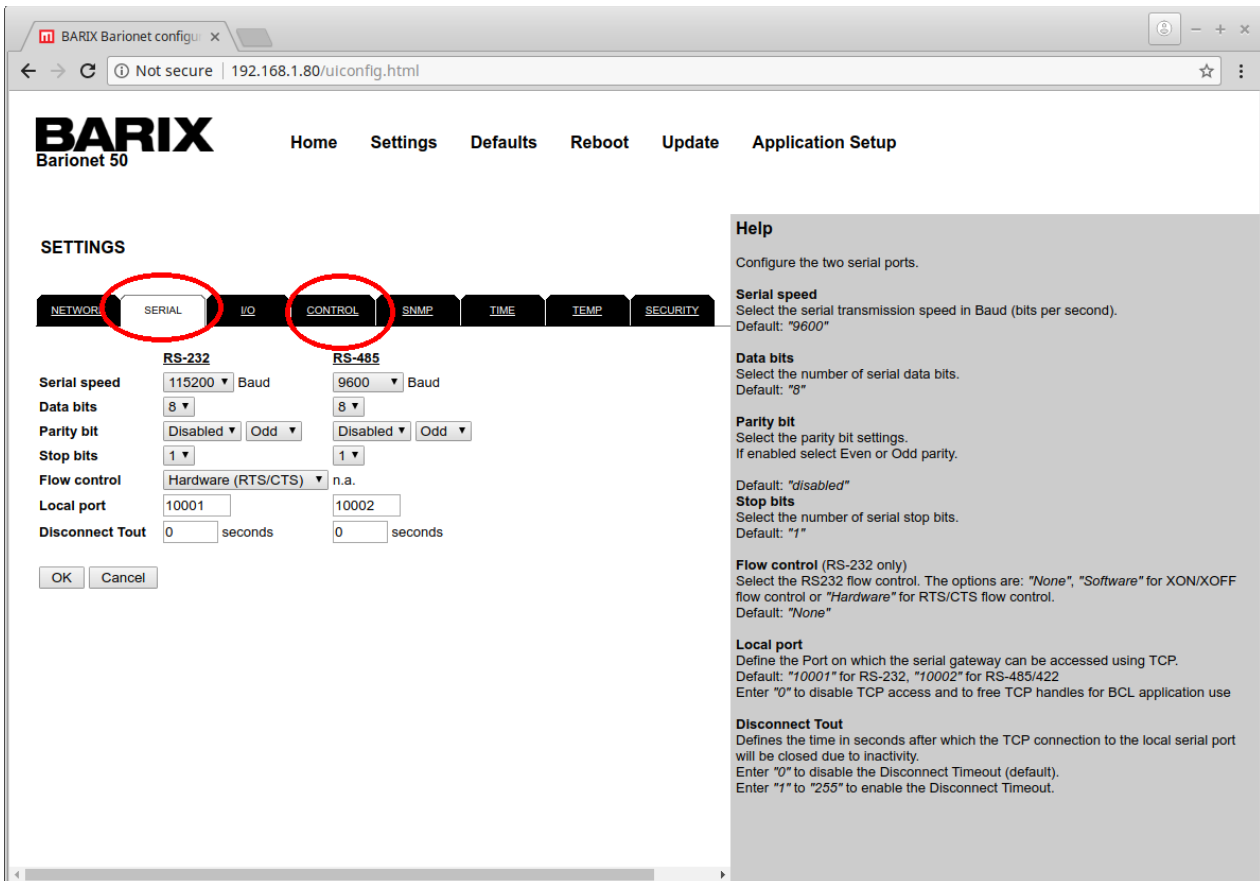
After connecting the **Metricí Observer Radar**, you can set the needed parameters to communicate with Metricí system.

By default, the IP address of Metricí Observer Radar is **192.168.1.80**. You can change it or leave as it is.

Usually, the Observer Radar comes with the next settings already done. If it is not the case, please respect the following steps.

SETTINGS

To connect to the Observer Radar type the IP address in a browser- 192.168.1.80. In Barix **Settings** choose **SERIAL** tab. For RS-232 option fill in **10001** for **Local port**, as in the next image.



The screenshot shows the configuration interface for BARIX Barionet 50. The browser address bar shows the URL 192.168.1.80/ui/config.html. The main navigation menu includes Home, Settings, Defaults, Reboot, Update, and Application Setup. The SETTINGS section is active, and the SERIAL tab is selected. The SERIAL settings are configured for RS-232 with a local port of 10001. The CONTROL tab is also highlighted.

	RS-232	RS-485
Serial speed	115200 Baud	9600 Baud
Data bits	8	8
Parity bit	Disabled Odd	Disabled Odd
Stop bits	1	1
Flow control	Hardware (RTS/CTS)	n.a.
Local port	10001	10002
Disconnect Tout	0 seconds	0 seconds

Help

Configure the two serial ports.

Serial speed
Select the serial transmission speed in Baud (bits per second).
Default: "9600"

Data bits
Select the number of serial data bits.
Default: "8"

Parity bit
Select the parity bit settings.
If enabled select Even or Odd parity.
Default: "disabled"

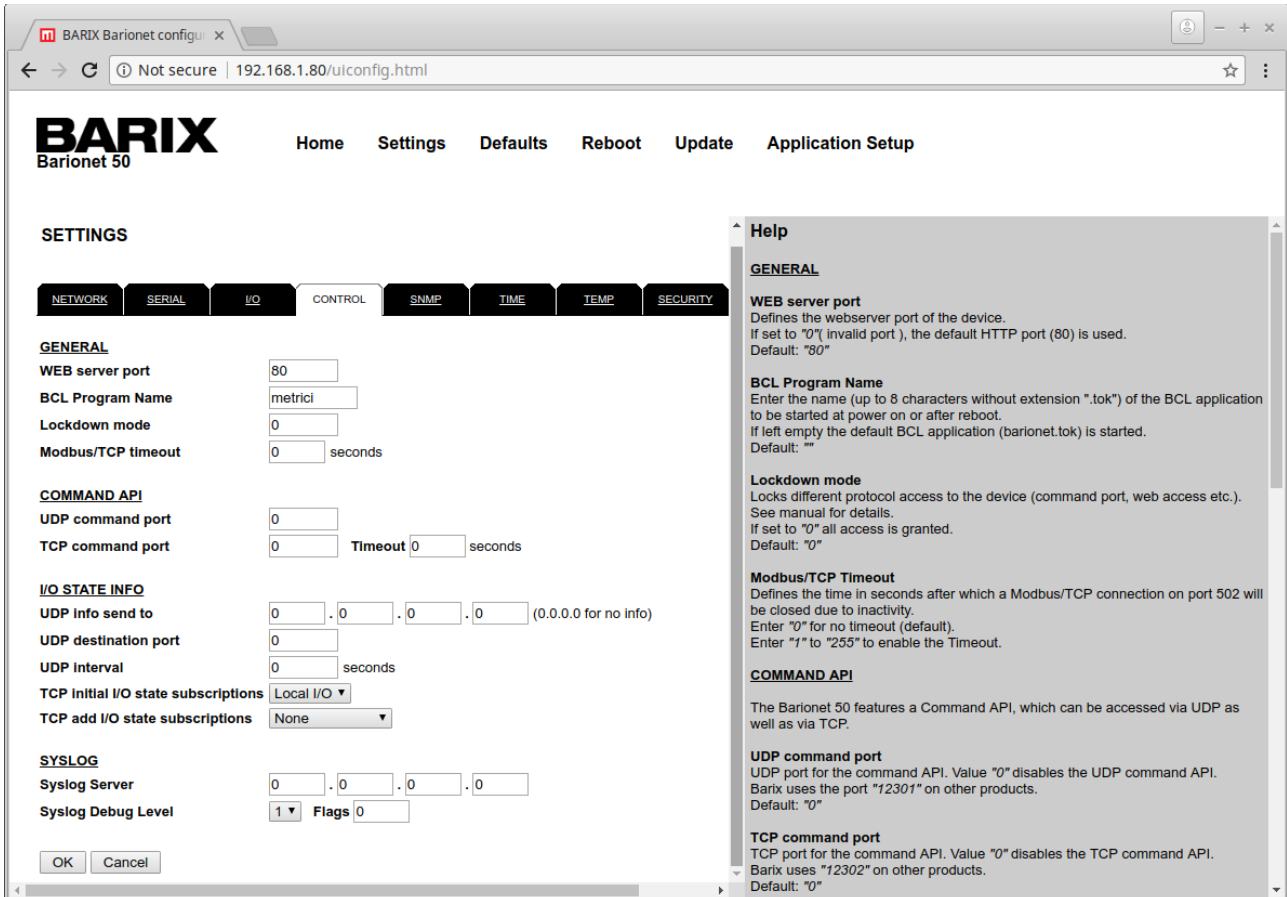
Stop bits
Select the number of serial stop bits.
Default: "1"

Flow control (RS-232 only)
Select the RS232 flow control. The options are: "None", "Software" for XON/XOFF flow control or "Hardware" for RTS/CTS flow control.
Default: "None"

Local port
Define the Port on which the serial gateway can be accessed using TCP.
Default: "10001" for RS-232, "10002" for RS-485/422
Enter "0" to disable TCP access and to free TCP handles for BCL application use

Disconnect Tout
Defines the time in seconds after which the TCP connection to the local serial port will be closed due to inactivity.
Enter "0" to disable the Disconnect Timeout (default).
Enter "1" to "255" to enable the Disconnect Timeout.

Then go to **CONTROL** tab and fill in **Web server port “80”** and **BCL Program Name “metrici”**, if they are not already filed .



The screenshot shows the configuration page for a BARIX Barionet 50 device. The browser address bar shows '192.168.1.80/uiconfig.html'. The page has a navigation menu with 'Home', 'Settings', 'Defaults', 'Reboot', 'Update', and 'Application Setup'. The 'SETTINGS' section is active, with tabs for NETWORK, SERIAL, I/O, CONTROL, SNMP, TIME, TEMP, and SECURITY. The 'CONTROL' tab is selected, showing the following settings:

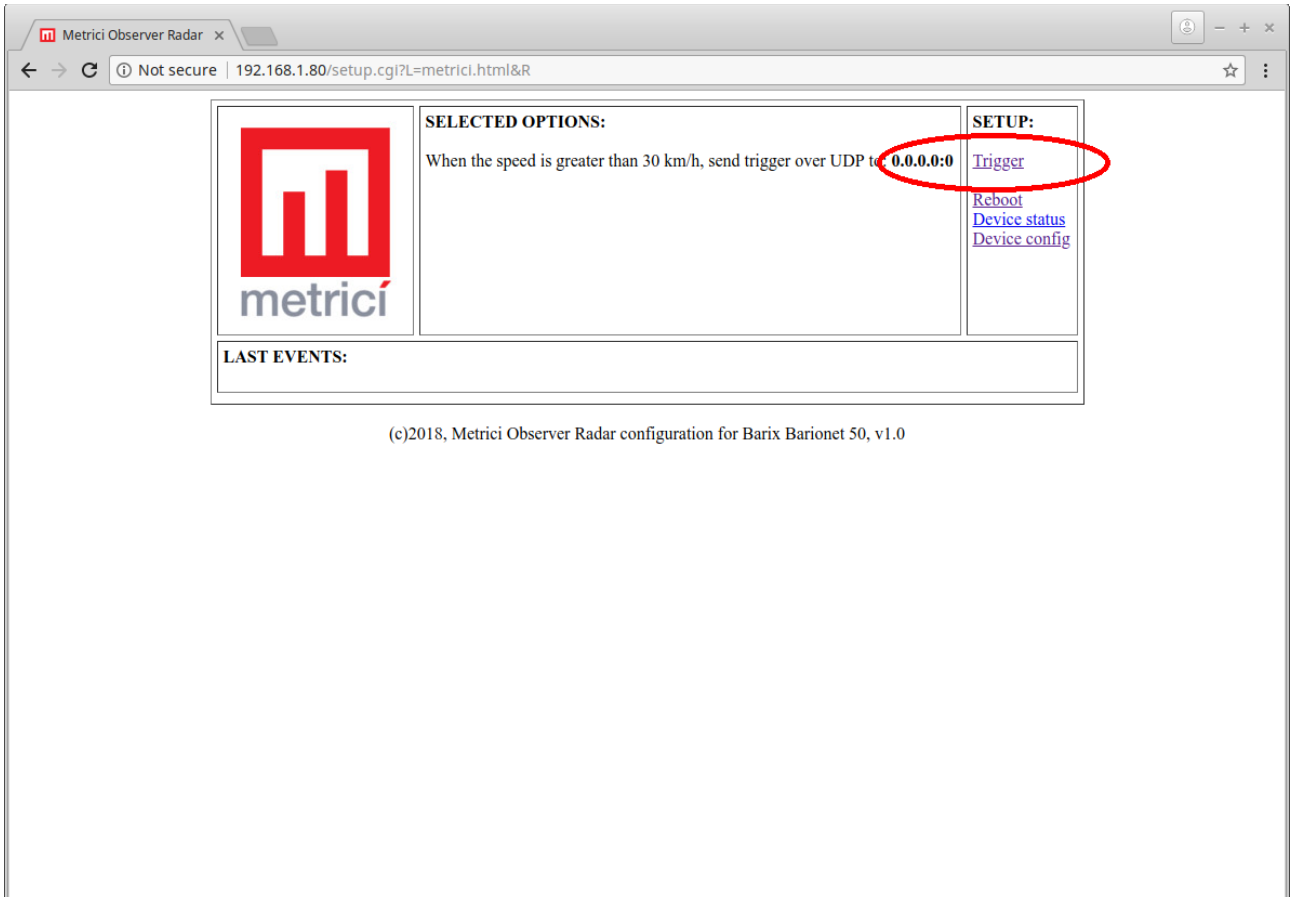
- GENERAL**
 - WEB server port: 80
 - BCL Program Name: metrici
 - Lockdown mode: 0
 - Modbus/TCP timeout: 0 seconds
- COMMAND API**
 - UDP command port: 0
 - TCP command port: 0, Timeout: 0 seconds
- I/O STATE INFO**
 - UDP info send to: 0.0.0.0 (0.0.0.0 for no info)
 - UDP destination port: 0
 - UDP interval: 0 seconds
 - TCP initial I/O state subscriptions: Local I/O
 - TCP add I/O state subscriptions: None
- SYSLOG**
 - Syslog Server: 0.0.0.0
 - Syslog Debug Level: 1, Flags: 0

Buttons for 'OK' and 'Cancel' are at the bottom left. A 'Help' sidebar on the right provides details for the 'GENERAL' section:

- WEB server port**: Defines the webservice port of the device. If set to "0" (invalid port), the default HTTP port (80) is used. Default: "80"
- BCL Program Name**: Enter the name (up to 8 characters without extension ".tok") of the BCL application to be started at power on or after reboot. If left empty the default BCL application (barionet.tok) is started. Default: ""
- Lockdown mode**: Locks different protocol access to the device (command port, web access etc.). See manual for details. If set to "0" all access is granted. Default: "0"
- Modbus/TCP Timeout**: Defines the time in seconds after which a Modbus/TCP connection on port 502 will be closed due to inactivity. Enter "0" for no timeout (default). Enter "1" to "255" to enable the Timeout.

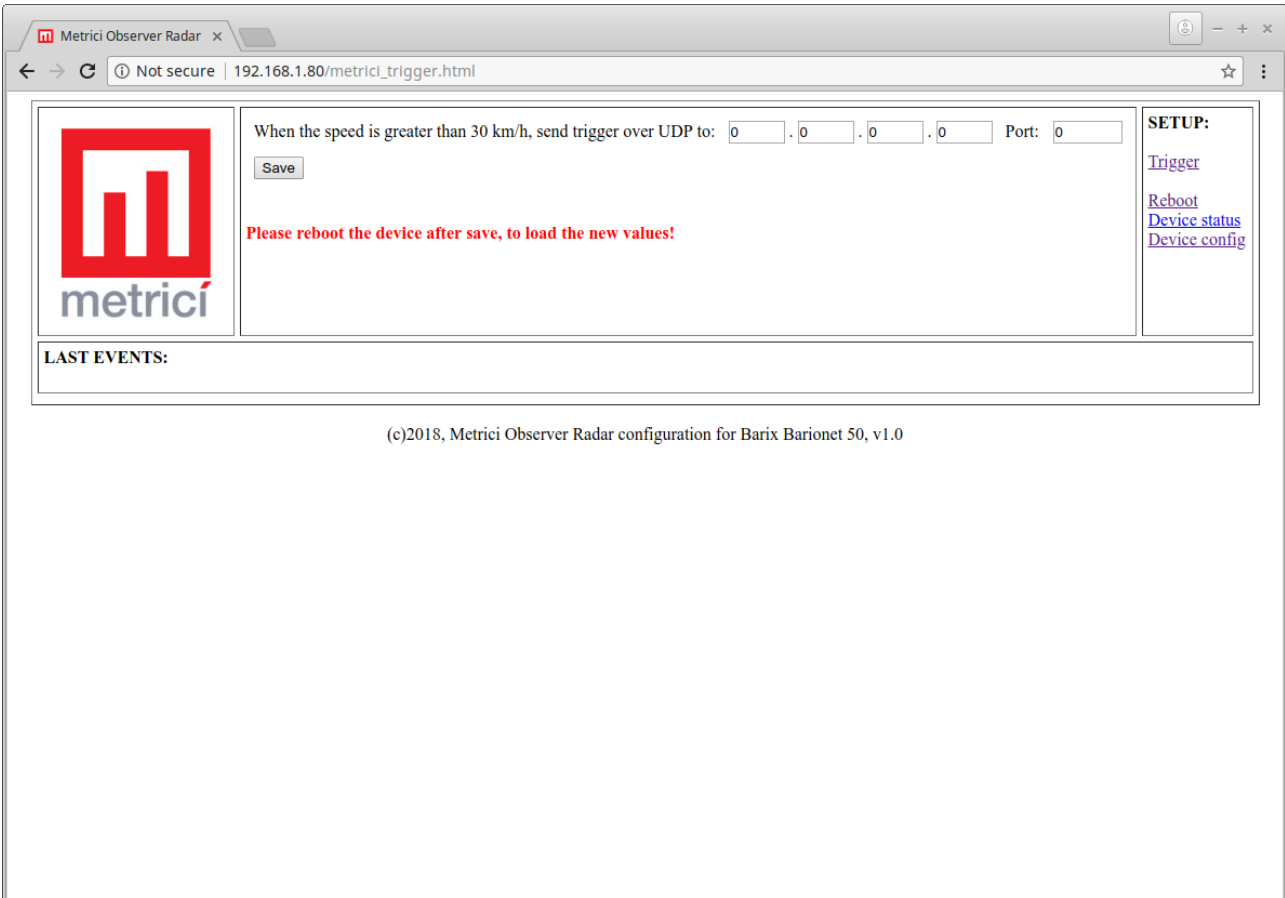
CONNECTION TO METRICI

For the radar to send a trigger to Metrici you need to fill some more parameters. **Go to 192.168.1.80/metrici.html.**



You will enter Metrici Observer Radar interface and the text “When the speed is greater than 30 km/h send trigger over UDP to 0.0.0.0”. Choose **Setup, Trigger** option to fill in the IP address.

A new window will open as in the next image. The IP address to be filled in here is the IP address of Metrici Server, where the software is installed. The UDP port is the port generated by Metrici Control Panel.



When the speed is greater than 30 km/h, send trigger over UDP to: . . . Port:

[Save](#)

Please reboot the device after save, to load the new values!

SETUP:

- [Trigger](#)
- [Reboot](#)
- [Device status](#)
- [Device config](#)

LAST EVENTS:

(c)2018, Metrici Observer Radar configuration for Barix Barionet 50, v1.0

Now go to Metrici LPR and for **LPR Engine Working Mode and External Trigger**, we recommend using option Continuous and Started by TRIGGER.

At **Trigger device and type** choose Barix Barionet 50, and write down the UDP port to be filled in Radar interface.

Metrici LPR v5.2 plus - Settings

LPR engine working mode & External trigger

LPR engine working mode: Started by TRIGGER ▾

Trigger device and type: Barix Barionet 50 (input 1) ▾ UDP port 3500

How many seconds to analyze after the trigger is received: 1

Enhanced recognition mode:

LPR input stream

Companion stream

Detection window

Live view

Reporting, check action and external query

Plates

Car tracking

Countries

Barrier and traffic light

GPS

Weight scale

Radar

Cancel Save

Now go to **Radar** tab. A new window will open as in the next image.



Choose the Radar Type, fill in its IP address (the default one is 192.168.1.80) and the TCP port as it is in the Barix Serial Settings.

When **Metricí Observer Radar** is connected, after correctly filling the required data (IP address and TCP Port), the image of the license plate detected by Metricí will be saved together with the recorded speed of the vehicle.

All recorded data can be later seen in Metricí Web Interface. The speed of a vehicle, the image from the moment of license plate detection and if it's the case an image from companion camera are saved together and linked in database.