# Configuration of ioBroker for EV wall boxes with ModBus TCP

This guide describes the configuration of ioBroker for EM2GO EV wall boxes that can be controlled via the ModBus protocol.

***Note:*** *The steps described in this guide apply to EV wall boxes with part numbers EM011AC1OCPP, EM011AC1ONC, EM011AS0ONC, EM022AC1OCPP, EM022AC1ONC, EM022AS0OCPP, EM022AS0ONC and all models of the "Pro Power" series.*

The EV wall box has the ModBus TCP communication protocol and acts as a slave (server) in the network. To connect the EV wall box to the ioBroker via ModBus TCP, you need the "**modbus**" adapter for ioBroker.

1. Open the web interface of your ioBroker server.
2. Switch to "**Adapter**" in the navigation and search for "**ModBus**"
3. Click on "**Info**" on the ModBus adapter and on the **+** symbol to add a new instance.
4. Switch to "**Instances**" in the navigation and open the settings of the ModBus instance.
5. Configure the following settings:
    - TCP/Serial RTU: **TCP**
    - Partner IP Address: **IP address of the wall box**
    - Port: **502**
    - Device ID: **1**
    - Multiple device IDs: **No**
    - Type: **Master**
    - Use aliases: **No**
    - Do not align addresses to 16 bits: **No**
    - Use only “Write multiple registers": **Yes**
    - Round real to: **2**
    - Data polling interval: **100** ms
    - Reconnect after: **60000** ms
    - Read timeout: **5000** ms
    - Pulse time: **100** ms
    - Wait time: **100** ms
    - Max read request length (float): **48** registers
    - Read interval: **100** ms
    - Write interval: **100** ms
    - Do not include address in ID: **No**

   Switch to the tab „**HOLDING-REGISTERS**“ and click on the ↑↓ icon, to edit data as TSV.
6. Insert the content of the file „**iobroker modbus Holding Register entries.txt**“ into the window. Replace all existing contents.
7. Click on "**IMPORT**" and save the changes.
8. The ModBus instance restarts and establishes the connection with the wall box.

9. Values from the ModBus adapter will be stored by default in ioBroker under „**Objects**“ in the folder „**modbus**“.

***Note:*** *Create another instance of the ModBus Adapter for each wall box in the network.*
***Warning:*** *Do not use timings lower than those specified, this can lead to connection failures.*