

## DEVICE FOR DIAGNOSTICS OF TESLA VEHICLES

**LOKI has a complete set of functions necessary for repair and maintenance of Tesla Model S, Model X, Model 3, Model Y.**

- provides diagnostic access to the central computer (CID, IC), utility functions of vehicle ECUs, settings, calibration, updates, error codes reading, analyzing, and erasing;
- is easy to install, connect and operate;
- has a user-friendly interface;
- is provided with free automatic software updates.

### **The equipment set includes:**

- Module LOKI
- Cable LC001-CS – Cable CAN for Tesla Model S
- Cable LC002-LS – Cable LAN for Tesla Model S/X
- Cable LC003-CX – Cable CAN for Tesla Model SR, Model X
- Cable LC004-L3 – Cable LAN for Tesla Model 3

### **Functions available by December, 2021:**

- Can be used for diagnostics of Tesla vehicles: Model S, Model X, Model 3, Model Y;
- Complete diagnostics of Model 3 / Y on all firmwares (after 2021.4.12 firmware diagnostics is made via CAN)
- Live Data from CAN modules (Model 3/Y):
  - BMS (Battery Management System)
  - DI (Drive Inverter)
  - CP (Charge Port)
  - PCS (Power Conversation System)
  - EPAS (Electronic Power Assist Steering)
  - VCFRONT (Vehicle Control Front)
  - VCLEFT (Vehicle Control Left)
  - VCRIGHT (Vehicle Control Right)
  - DAS (Driving Autopilot System)
  - SCCM (Steering Column Control module)
- Live Data from CAN modules (Model S/X):
  - MCU (Media Control Unit)
  - THC (Thermal Heat Controller)
  - BMS (Battery Management System)
  - DI (Drive Inverter)

- CHG (Charger)
  - CP (Charge Port)
  - BDY (Body Controller)
  - TAS (Air Suspension System)
  - DAS (Driving Autopilot System)
  - PARK (Park Assist Module)
  - TPMS (Tire Pressure Monitor System)
- Self-testing of important blocks and systems of the car (Model S/X/3/Y with all firmwares)
  - Vehicle updating with AP2\2.5\3.0 MX\MS\M3 manually;
  - Navigation installation and setting: inclusive for firmware 2021.40 MS (Tegra / Intel), MX (Tegra / Intel), M3, **MODEL Y**;
  - Firmware upgrade: available 2021.12.25;
  - Full change of vehicle configurations in Model S/X Tegra before 2020.48
  - Full change of vehicle configurations in Model S/X Intel before 2020.48 and partial change before 2021.40
  - Partial change of vehicle configurations in Model 3 before 2021.40 (Secured Configuration presented separately);
  - Able to change the configuration on M3 on firmware before 2021.4.12 without soldering;
  - Alert codes reading and decoding;
  - Service alert codes removal up to 2021.40;
  - DTC clearing from different ECUs;
  - Reading of a pre-set PIN code with subsequent deactivation of Valet Mode (before 2021.4.12);
  - Reading of a pre-set Pin code with subsequent deactivation of PIN to drive (before 2021.4.12);
  - Factory/Diagnostic/Developer Mode activation (on all firmware up to 2021.4.12 (Intel));
  - Switching vehicle systems to service mode;
  - Connecting of Units to the vehicle (Redeploy, Vin Learn)
  - ECUs setting, adaptation, and calibration (door handles, charging port door, etc.);
  - Calibration of all seats on MX;
  - Calibration of steering column on MX;
  - Calibration of radar AP2.5\3.0 MS\MX\M3\MY;
  - Removing special alert codes from BMS;
  - Removing CRASH from TAS,
  - Removing CRASH from SRS (except BOSCH);
  - Autopilot Firmware Update
  - Key Model S (if key is missing)

### **Secured Configuration Features (only for Model 3)**

- **Vin** - VIN car number. Is needed while MCU change or donor certificates use.
- **Carcomputer\_pn, carcomputer\_sn** - MCU serial number. Is needed while MCU change.
- **Country** - Country configuration change. Is need to change the algorithm of flashing lights to Europe, rearrangement of cars for the Asian market in to European
- **Autopilot** – Change the type of autopilot, for example on FSD
- **SuperchargingAccess** - Activation of supercharger (v1, v2)
- **Performance Package** - Activation of Performance or Acceleration Boost depending on the type of engines
- **Connectivity Package** - Activation of Premium Connectivity
- **Softranger**- Soft limit Removal of the battery capacity on the car where it is available
- **Immersive Audio** - Activation of the audio system add-ons

The cable supports the work with M3 \ MY MCU (for m3 after 2020 and MY, you need to re-solder the gateway chip, on the other with an open JTAG port)

Secured Configuration is additional chargeable service allowing to expand the capacity of device.

It requires Loki, additional cable LC005 and software for work.

#### **Next Updates:**

- Keys for M3

#### **Physical Data:**

NT.WT., kg - 0,42: weight of LOKI module + all the cables included in the equipment set

GR.WT., kg - 1,3: packed weight