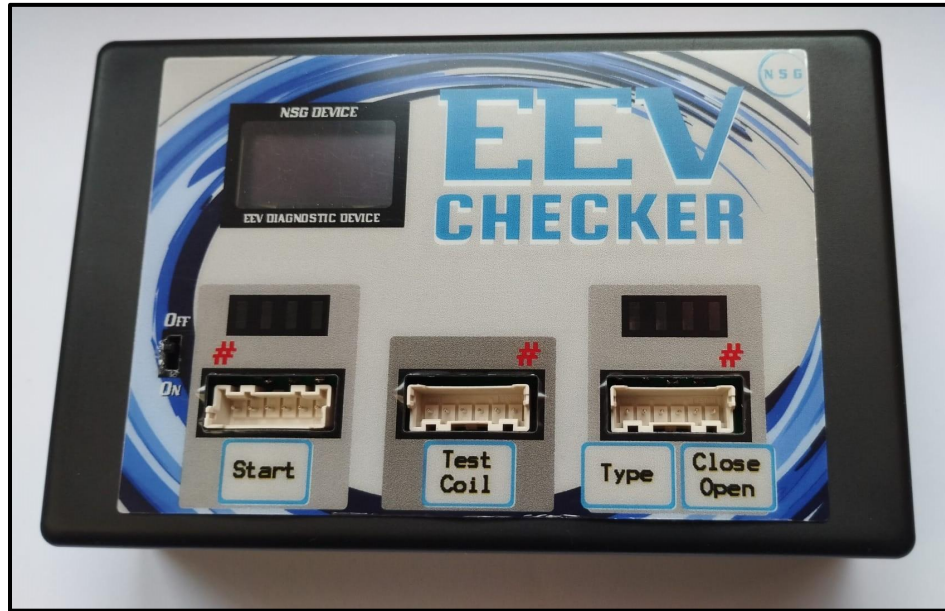


EEV Checker

User Manual

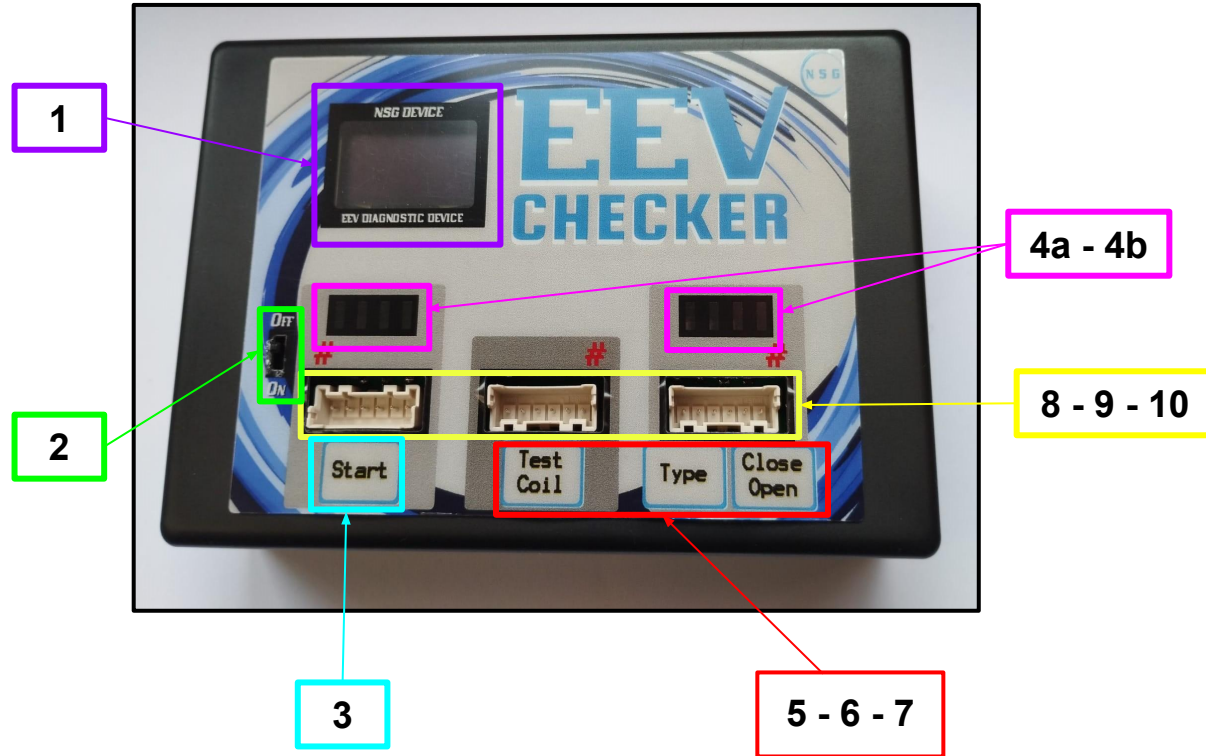


EEV Checker



EEV Checker

Elements on the top of the device

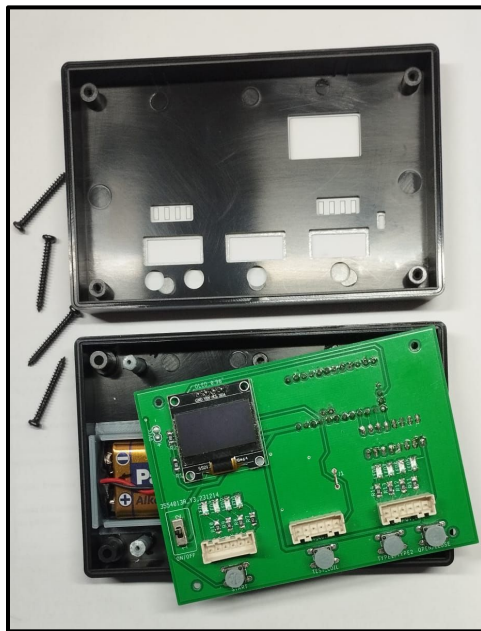


Item Description:

- 1 LCD screen
- 2 On/Off Switch
- 3 Start Button
- 4a-4b Check LEDs
- 5-6-7 Pushbuttons
- 8-9-10 PCB Connectors

EEV Checker

Interior elements of the device.



To access the battery.

First: Remove the cover retaining screws.

Second: Carefully remove the battery so I can disconnect it.

- From the back you can access the 9Vdc battery

TYPES OF CONNECTOR

On-board connector type



B6B-XH-A



B6B-XASK-1

EEV connector type

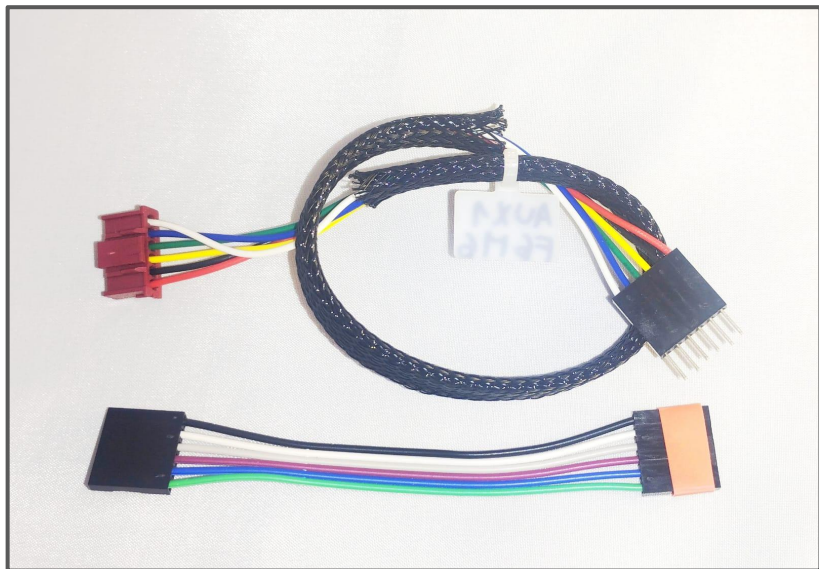


XHP-6

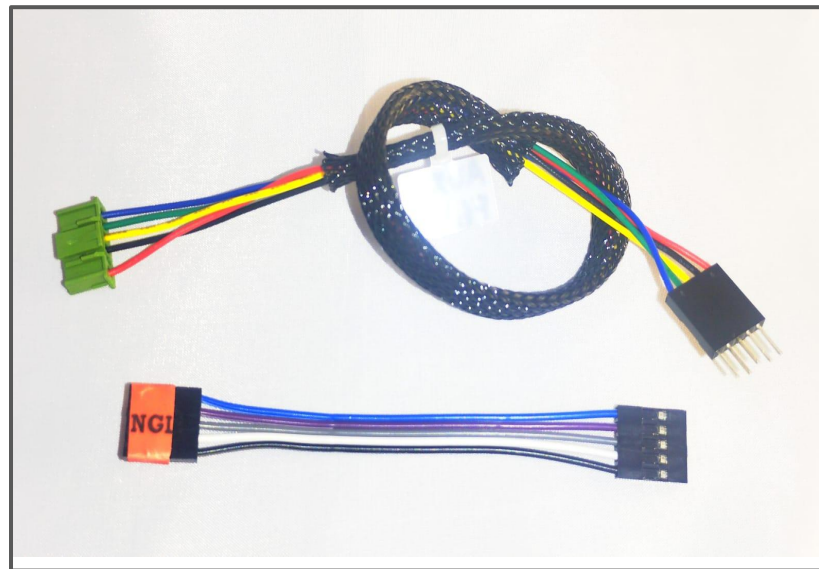


XAP-06V-1

TYPES OF WIRES



WIRES AUX1: Aux_1.1 y Aux_1.2



WIRES AUX2: Aux_2.1 y Aux_2.2

AUTO DETECTION FUNCTION

CONFIGURE

PARAMETERS

AND

SETTINGS

EEV Checker

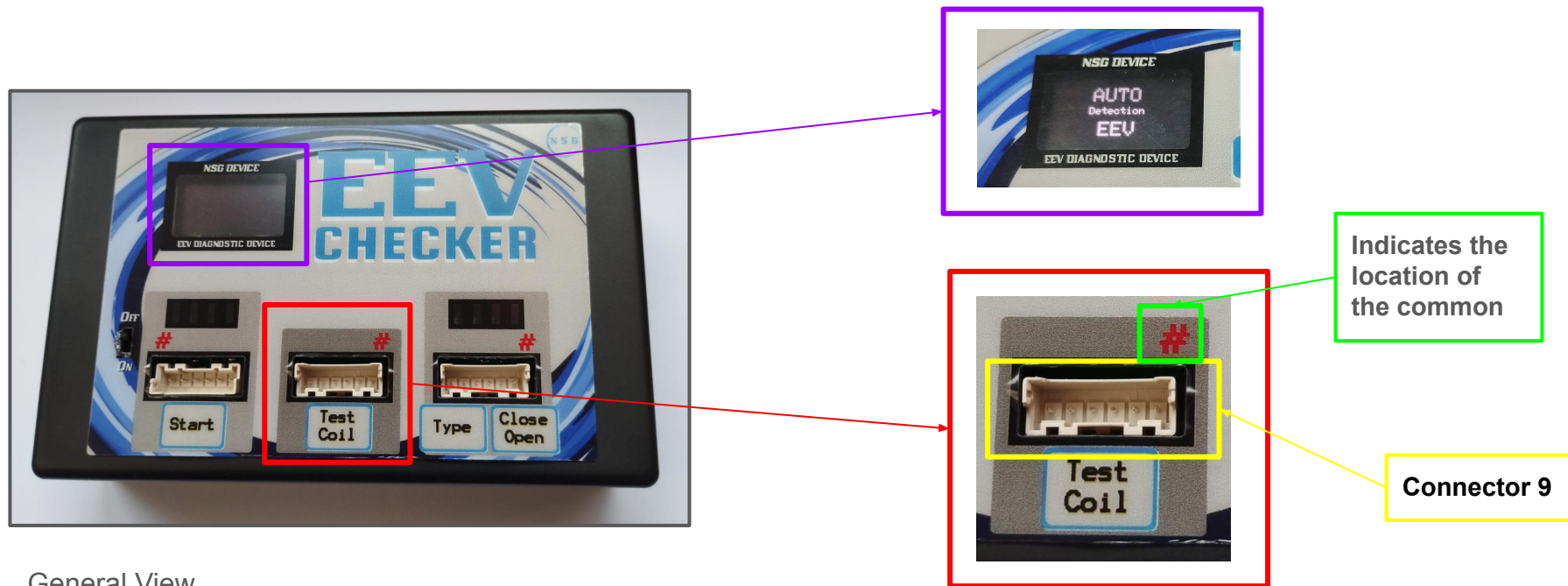


Figure 1

EEV Checker

Auto DETECTION: EEV SETTINGS ARE ESTABLISHED.

When the EEV is connected to connector 9 and the device is turned on (figure 1).

- This process lasts one second and this notice is displayed on the LCD. It is configured with the basic operating parameters of said EEV.
- If the EEV is not connected, the standard configuration is as follows:
 - Actuating mode: 4 phases and 4 steps.
 - Excitation mode: 2-2 phase excitation.
 - Excitation rate: 100 pps.
 - Full opening: 2000 pulses.

FUNCTION 1

CHECK

OUTPUT FROM THE PLATE TO THE EEV

EEV Checker

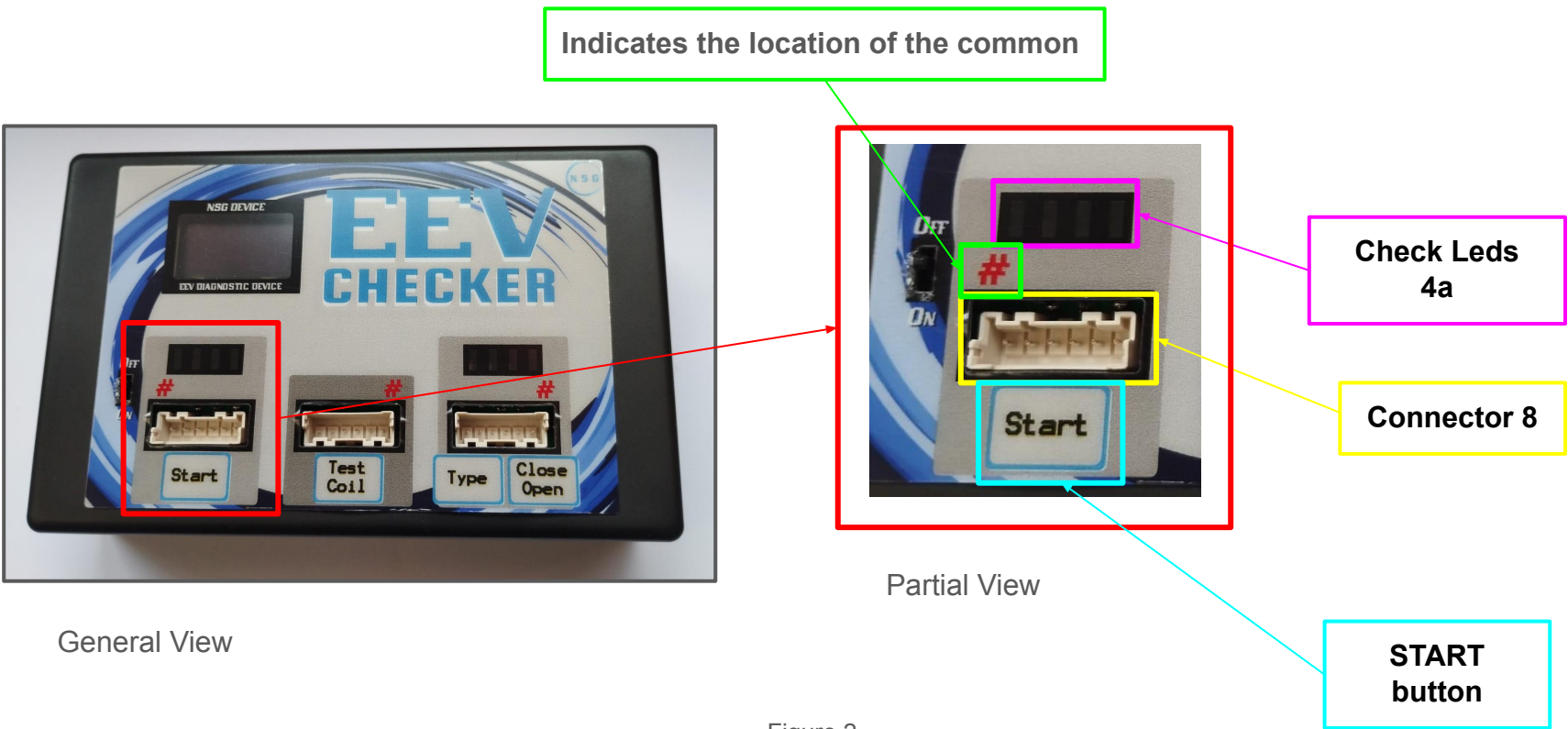


Figure 2

EEV Checker

Function 1: HOW TO CHECK THE OUTPUT FROM THE PCB TO THE EEV.

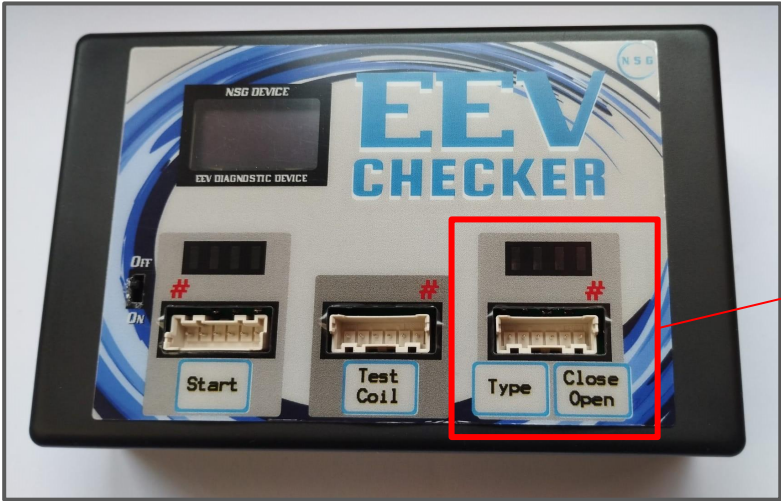
With this device you can check the output from the electronic board of the air conditioning unit. If there are output pulses from the electronic board, the four check LEDs 4a will illuminate intermittently.

- If the board connector is type JST B6B-XH-A, wire **Aux_1.1** or **Aux_2.1** must be connected between the corresponding output of the electronics and connector 8 (figure 2).
- When the connector on the board is of the JST B6B-XASK-1 type , wire **Aux_1.1** and cable **Aux_1.2** will be connected between the corresponding output of the electronics and connector 8 (figure 2).
- Plug the A/C equipment into the mains, wait a few seconds until the electronic board output voltages to the EEV.

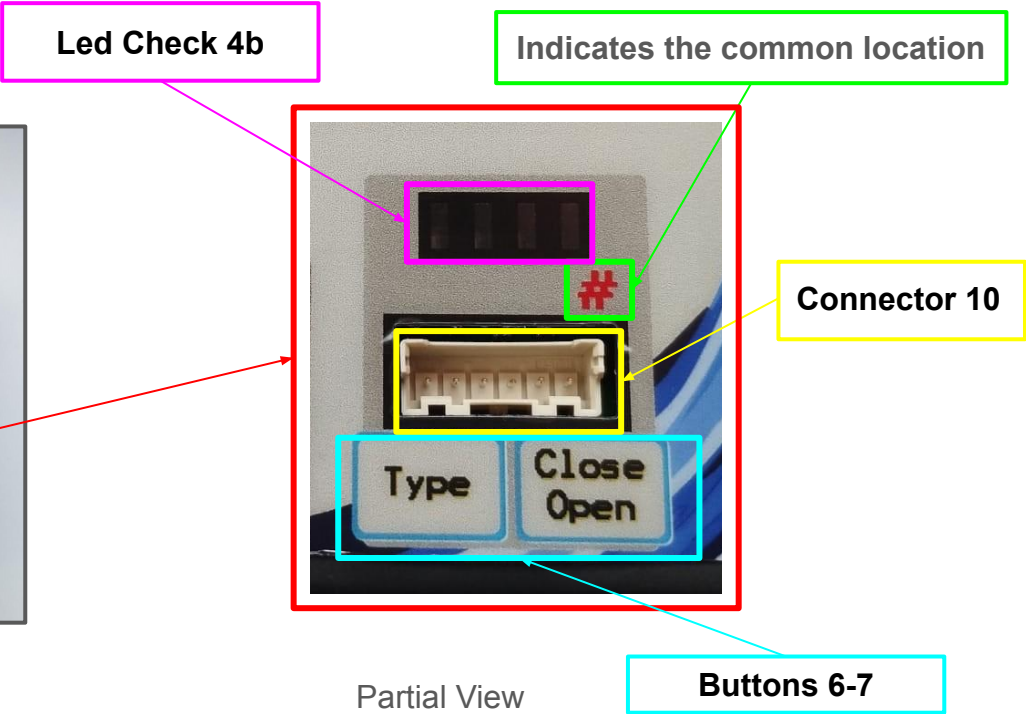
FUNCTION 2

**SELECT EEV TYPE
AND
ACTION
(Open/Close)**

EEV Checker



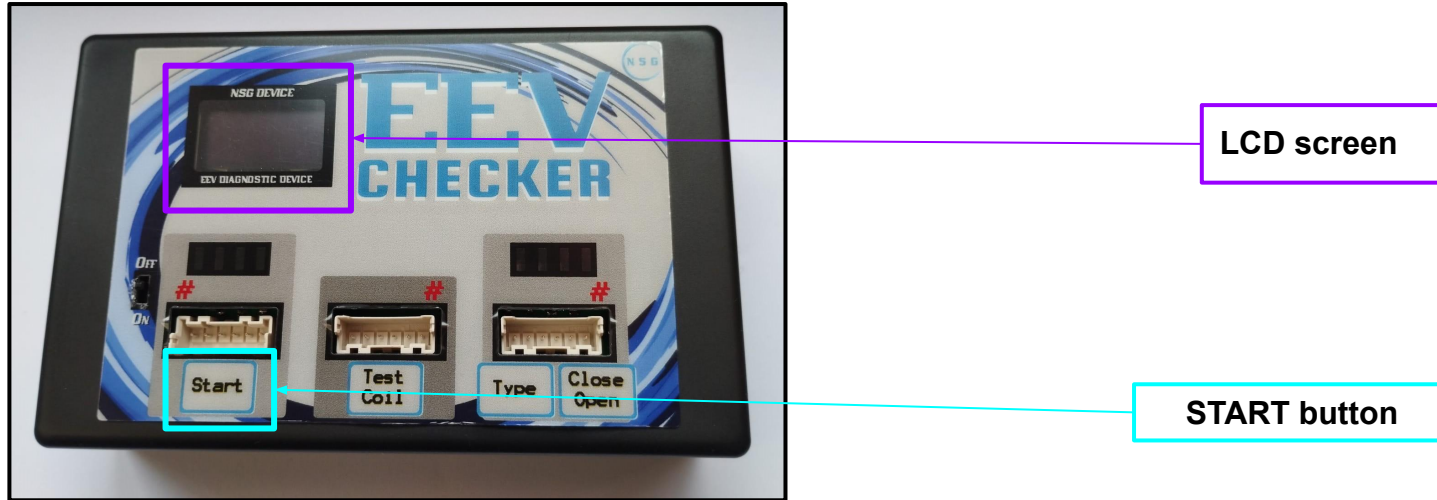
General View



Partial View

Figure 3a

EEV Checker



General View

Figure 3b

EEV Checker

Function 2: SELECT EEV TYPE - OPEN/CLOSE

With the device you can give a signal to open/close the EEV. Using button 7 (**CLOSED/OPEN**) , this action is selected; the action will be displayed on the screen (figure 3a).

With button 6 (**TYPE**) the EEV type is selected and the selected text appears on the LCD (figure 3a).

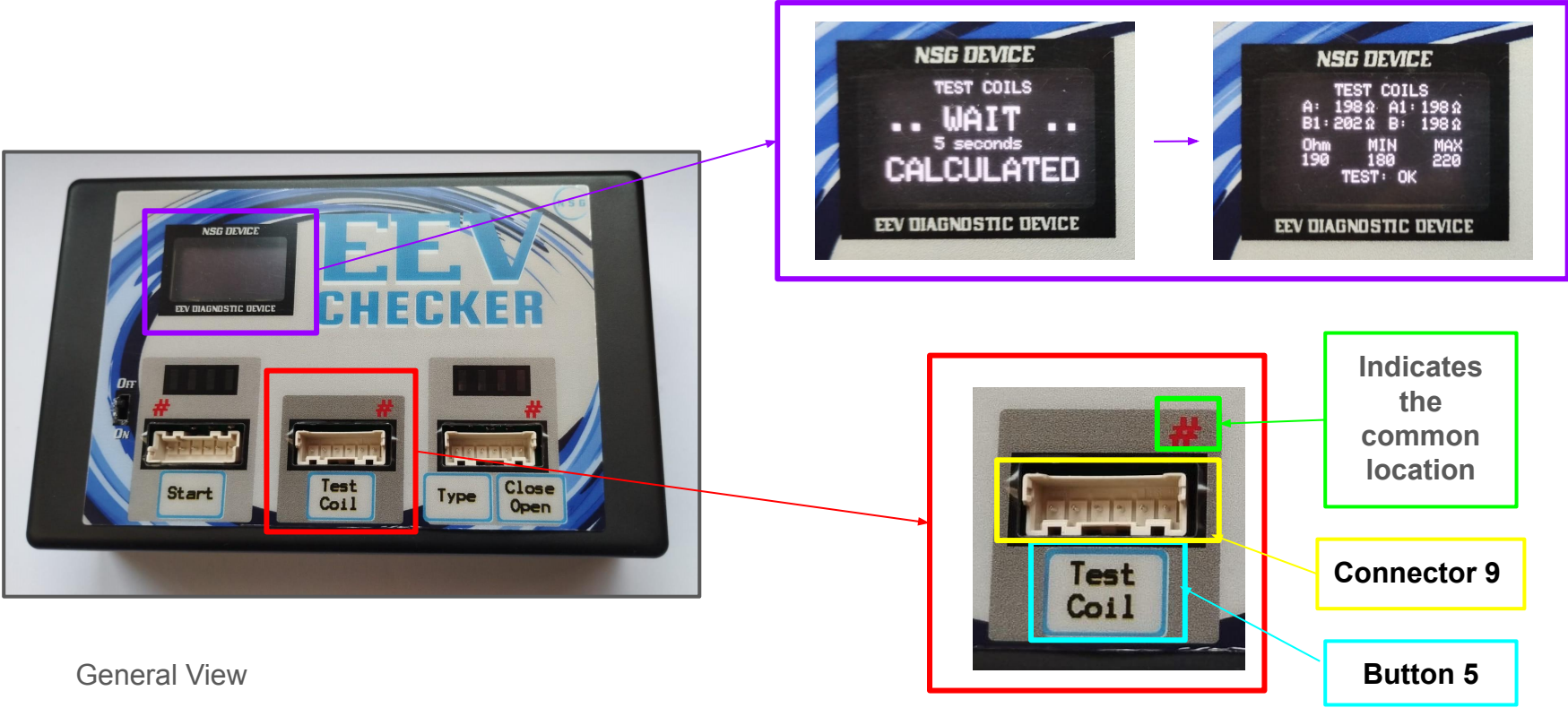
Follow these steps:

- If the EEV connector does not match type connector 10 and the coil common does not match the device brand, use wire **Aux_1.1** or **Aux_1.2** as an adapter.
- Connect the **Aux_1.1** or **Aux_1.2** cable with the corresponding **Aux_1.2** or **Aux_2.2** adapter to connector 10 and select as described above according to the required action.
- Once the selection is made, press button 3 (**START**) and the action, number of pulses and the percentage of said action will appear on the screen (figure 3b) and the check LEDs 4b will flash intermittently. depending on the EEV Checker signal.

FUNCTION 3

MEASURE RESISTANCE OF THE EEV COILS

EEV Checker



NSG DEVICE
TEST COILS
.. WAIT ..
5 seconds
CALCULATED
EEV DIAGNOSTIC DEVICE

NSG DEVICE
TEST COILS
A: 198 Ω A1: 198 Ω
B1: 202 Ω B: 198 Ω
Ohm MIN MAX
190 180 220
TEST: OK
EEV DIAGNOSTIC DEVICE

EEV Checker

Function 3: HOW TO MEASURE THE RESISTANCE OF THE EEV COILS.

Follow these steps:

- To measure the resistance of the EEV coils with the device, the EEV connector must be inserted into connector 9 (figure 4), if necessary use adapter cable **Aux_1.2** or **Aux_2.2**.
- When the test is activated, the device takes a sample for 5 seconds, indicating it on the LCD. The test will remain for 20 seconds and then returns to the main screen.
- Press button 5 (**TEST COIL**), wait 5 seconds and the message on the screen will change indicating the resistive value of each of the coils and the test result (figure 4).

FUNCTION 4

MODIFY

THE NUMBER OF PULSES

EEV Checker

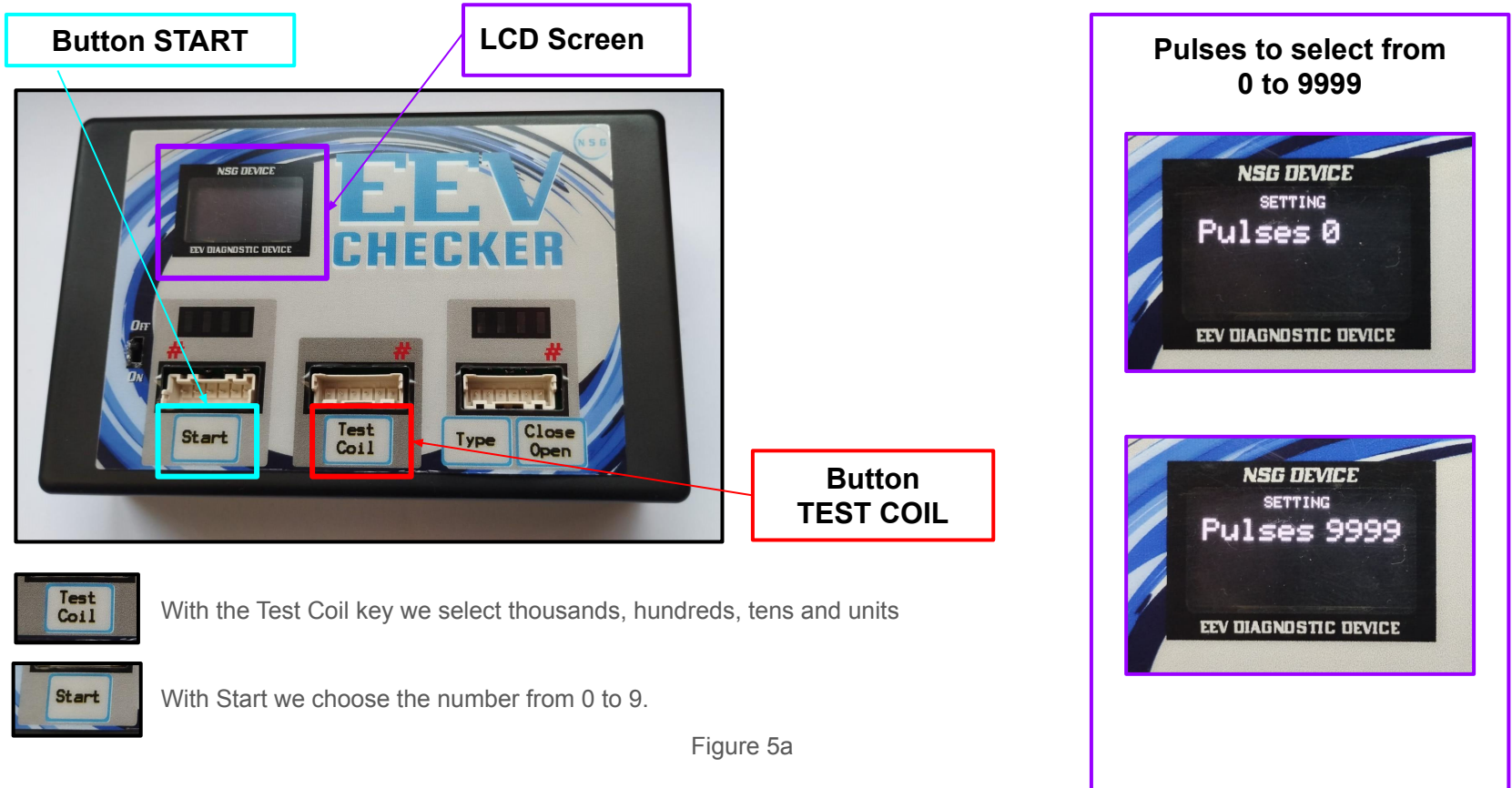


Figure 5a

EEV Checker

Function 4: HOW TO MODIFY THE NUMBER OF PULSES

- To enter a different value for the number of pulses in the device, press button 3 (**START**) for 4 seconds figure 5b.
- SETTING will appear on the screen and the pulses will be set to zero, for each press of button 3 (**START**), we select the thousands from 1000 to 9000.
- By pressing the (**TEST COIL**) key we go to the hundreds and with (**START**) we choose between 0 to 9.
- We press (**TEST COIL**) again, we go to the tens and with (**START**) we choose from 0 to 9.
- Press (**TEST COIL**) to go to units and with (**START**) we choose from 0 to 9.
- To exit the pulse configuration menu with the selected value, press button 3 (**START**) for more than 5 seconds.

EEV Checker

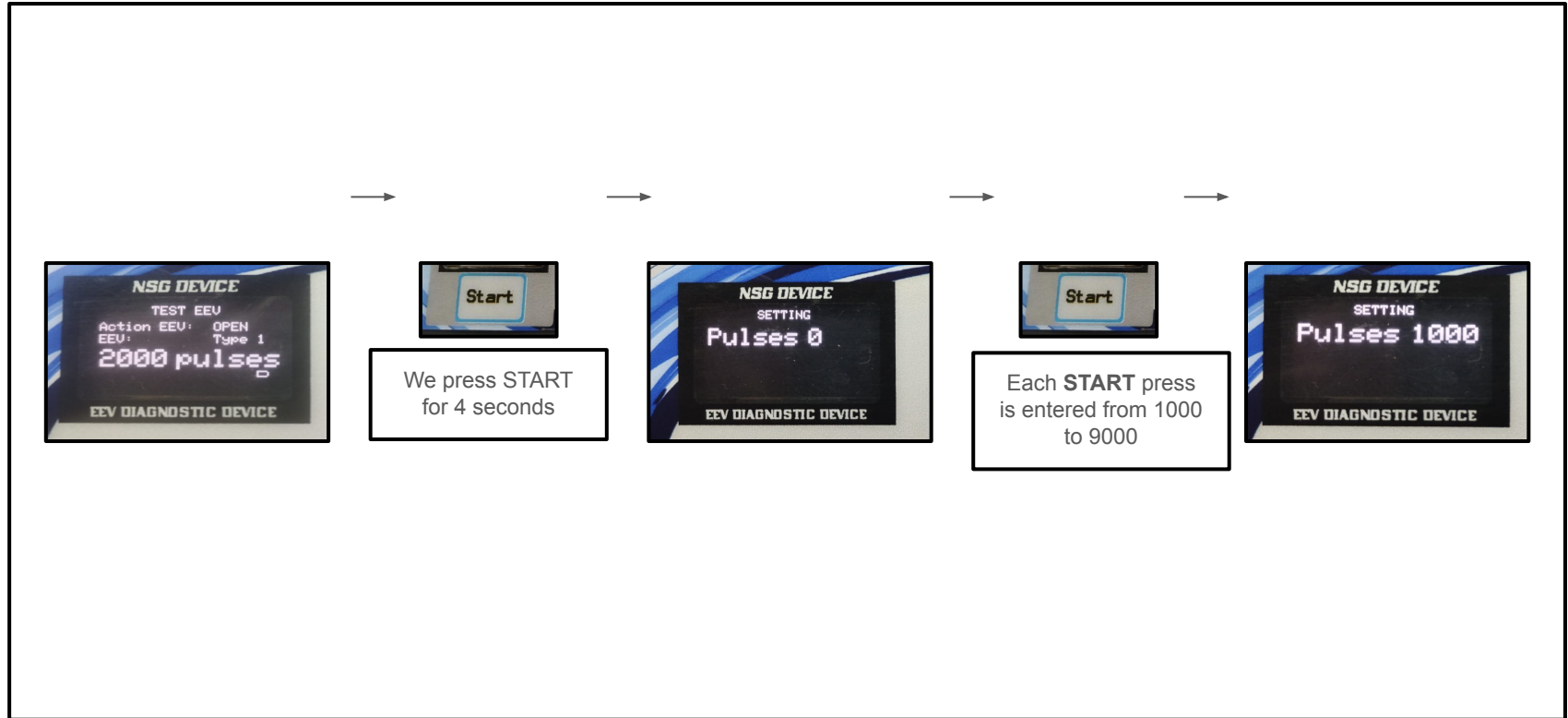


Figure 5b

EEV Checker

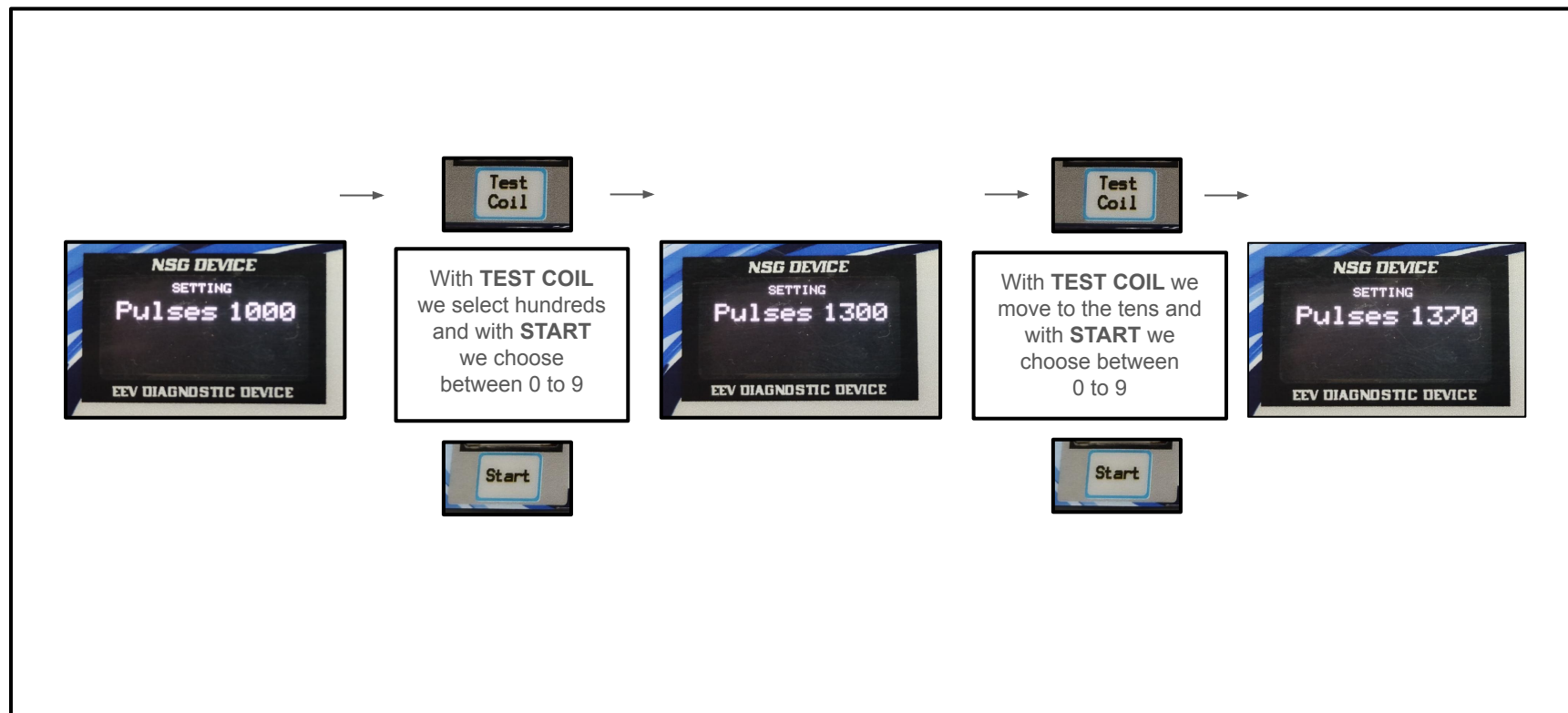


Figure 5b

EEV Checker

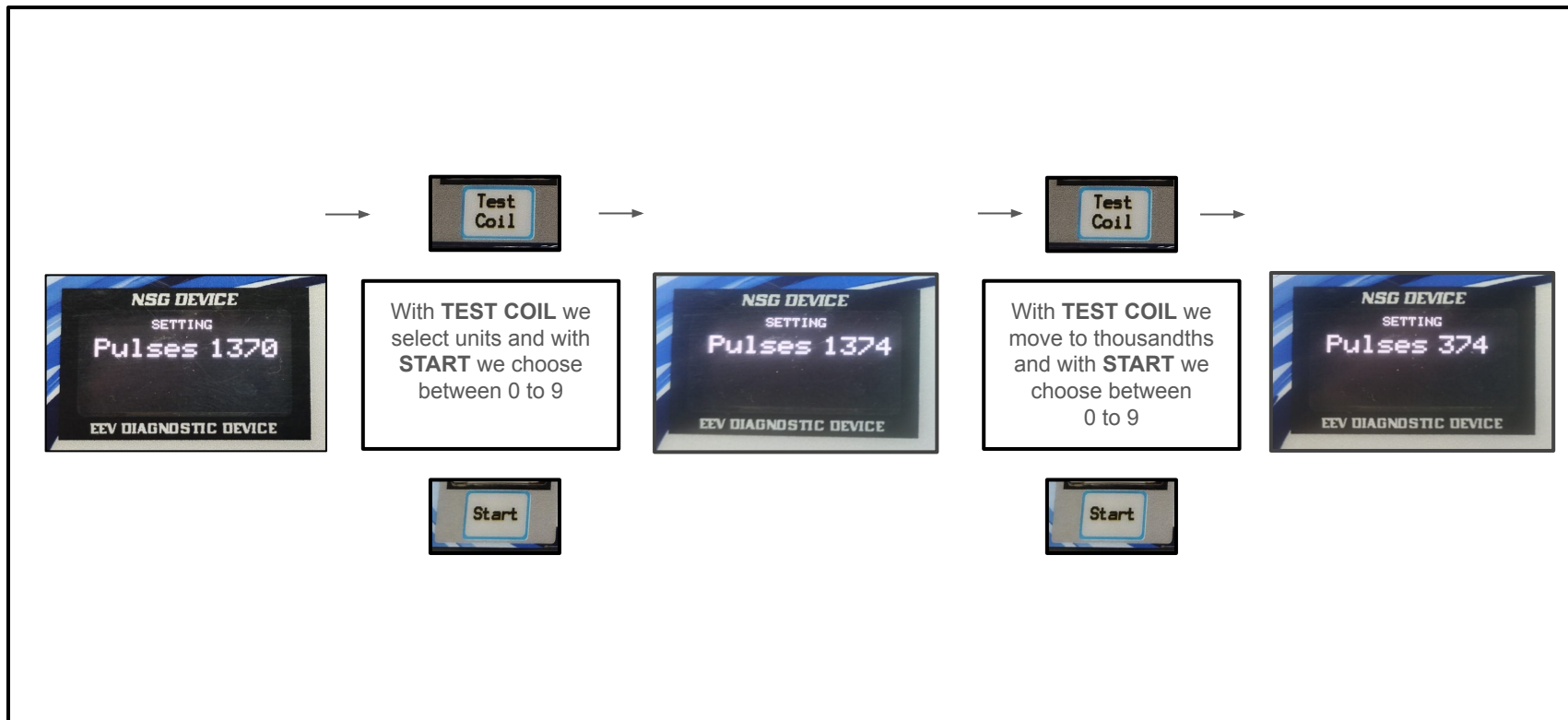


Figure 5b

EEV Checker

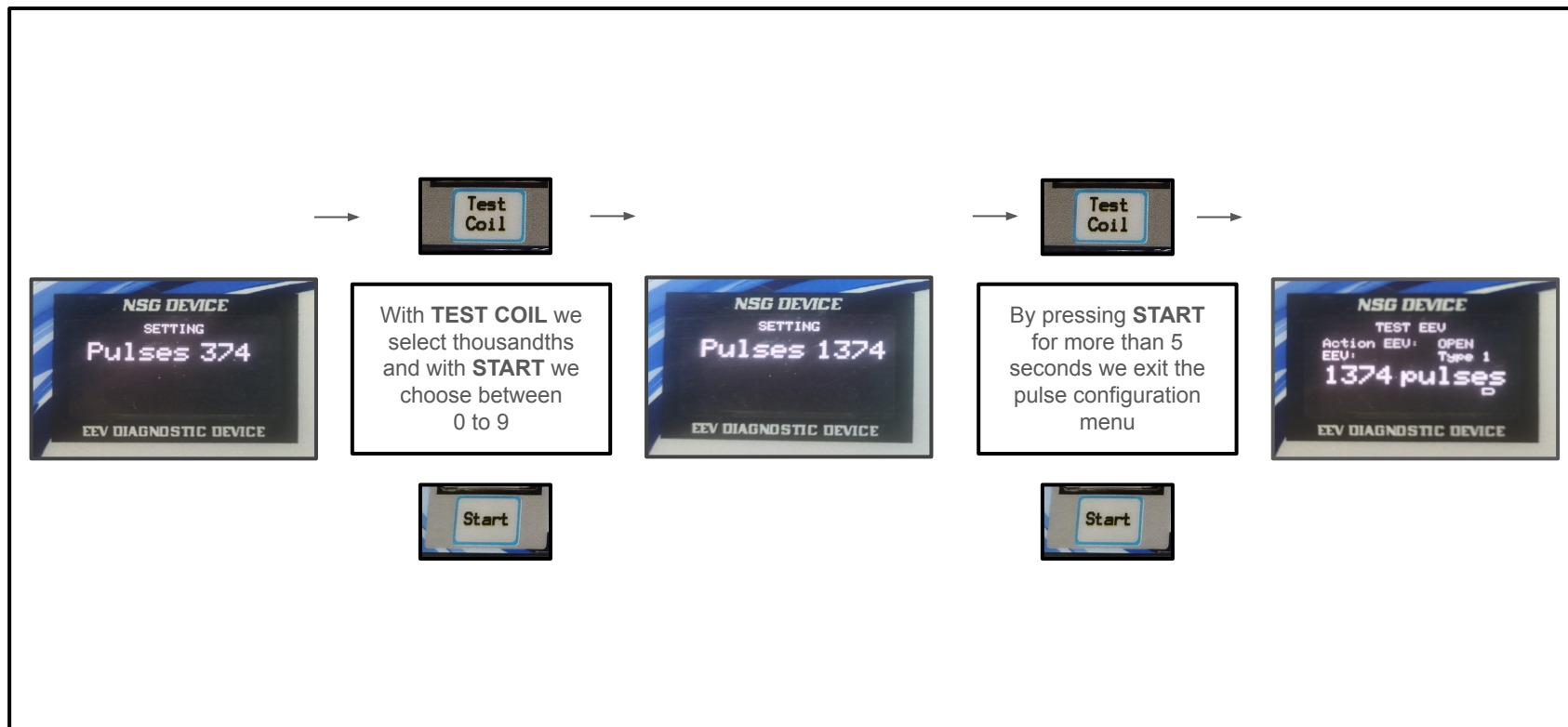


Figure 5b

EEV Checker

- Type of EEV according to the manufacturer:

FUJIKOKI: **TYPE1 = serie CAM**
 TYPE2 = serie EDM

SAGINOMIYA: **TYPE2 = serie UKV-F**

SANHUA: **TYPE2 = serie DBF - serie DBF - serie DPF-TS/S - serie DPF- R**

CAREL: **TYPE2 = E2V**

EEV Checker

WARNINGS:

- When the battery level begins to be low for proper operation. It will be indicated on the screen with a battery symbol and you must replace it.
- IF THE BATTERY LEVEL IS TOO LOW THE DEVICE WILL RESET, when using the EEV open/close function from the device.
- The purpose of the EEV Checker device is to assist in the diagnosis of possible failures of the electronic expansion valves and its purpose is never to replace other measuring devices.
- When the battery level is low, the resolution of the resistance measurement can reach ± 3 ohms.