

ECU EVO 2013 Programming Mode

Dear customer,

We are proud that the applications of our ME-SHIFTER F1 Shifting System expanded continuously in the past years. Nowadays we equip not only Karting but also Quad, Autocross and numerous Formula applications, like Formula Gloria or FSAE (Formula Student) for example.

The range of the different motorizations, reaching from 125cc-1cylinder to 1000cc 4-cylinder engines requires in some cases an optimization of the process parameters, to get the system not only working good, but perfect.

Therefore we developed an In-System-Programming (ISP) Mode to allow the customer to make optimizations by himself. This mode is explained in the following:

1. Getting into the ISP Mode:

- Connect the system completely, like you are going to drive
- The Engine is NOT RUNNING!
- Press the upshift Paddle (+) and press with your finger the (-) contact at the same time (both switches are pressed)



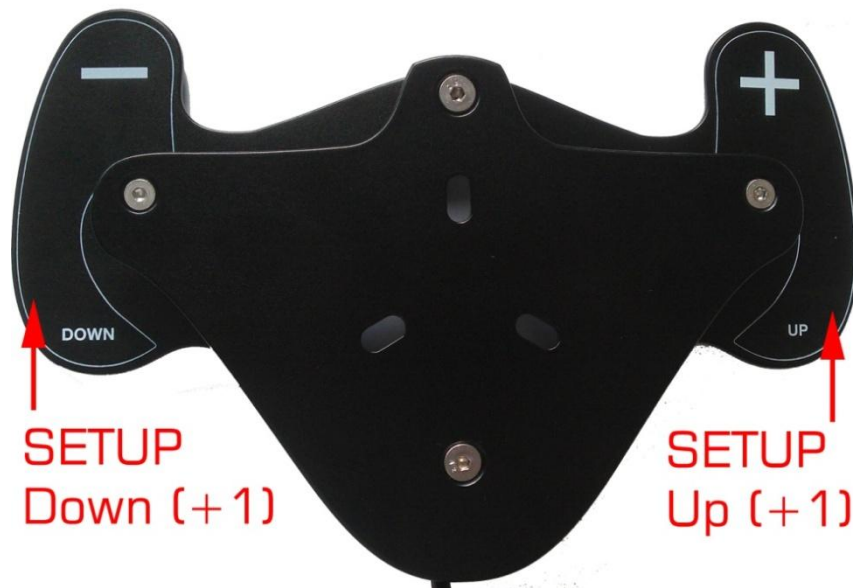
- Look at the SHIFTER Process Box: When you are in the ISP Mode, the lever of the SHIFTER will move quick 2 times which indicates that you are in the ISP Mode



2. Programming Parameters for SHIFTING Setup:

With the new EVO 2013 Software, both upshift and downshift characteristic is adjustable in 10 different Setups separately.

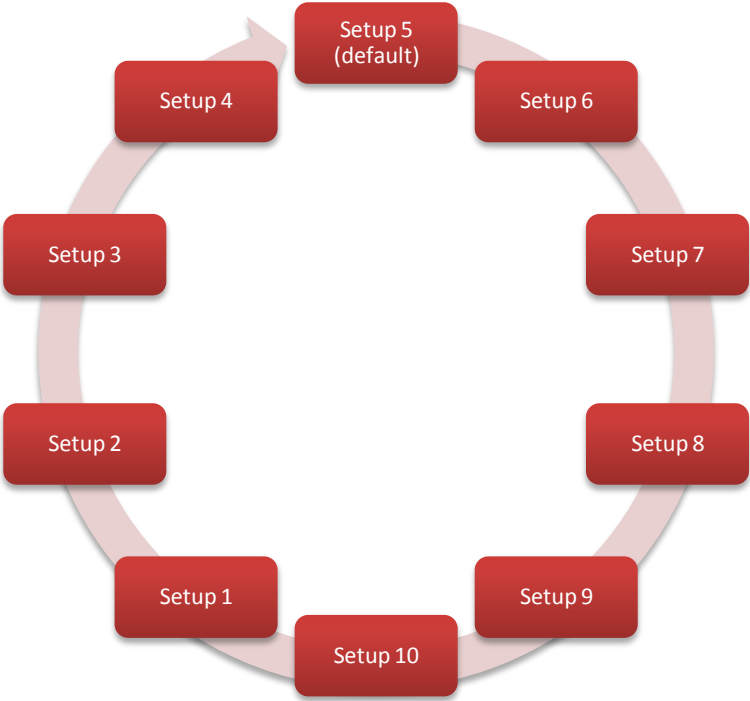
Once you are in the Programming mode, you can increase the Setup value for upshift by pressing the (+) paddle, for downshift by pressing the (-) paddle:



The Servomotor displays the actual selected Setup when changed by moving the lever 1x (Setup 1) 5x (Setup 5, default) ... 10x (Setup 10):



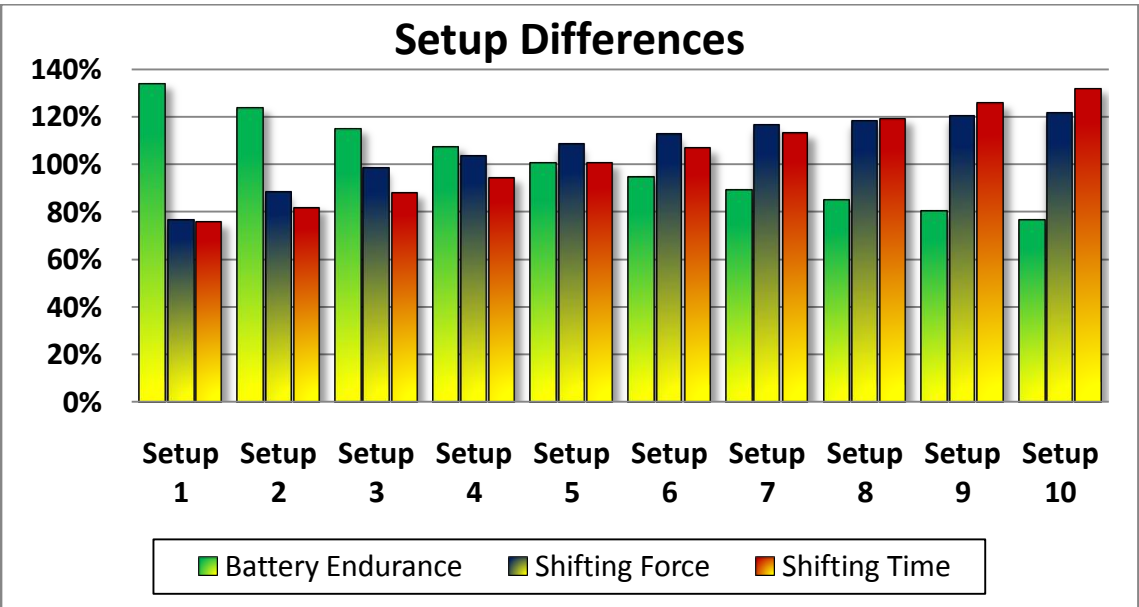
To decrease the setup, for example from Setup 5 to Setup 1, you must increase the Setup until the Setup changes from 10 to 1 again. The Setup menu diagram is shown below (same for upshift and downshift):



We recommend, as a strategy for optimizing the Setup of the system, to start at Setup 1 and increase until you found the perfect working Setup for your installation.

Note: Setup 5 (default) is the Setup which leads to a good result at the most standard installations. If the system works always perfect from your feeling (no gear misses and fast shifting) we recommend to leave the system as it is to avoid malfunction by wrong setup.

The following diagram shows the effects of the different Setups:

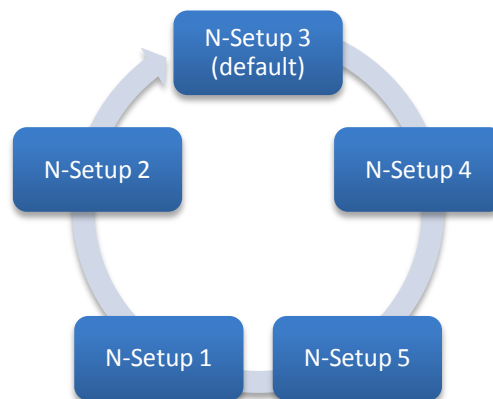


3. Programming Parameters for NEUTRAL-FINDER Setup

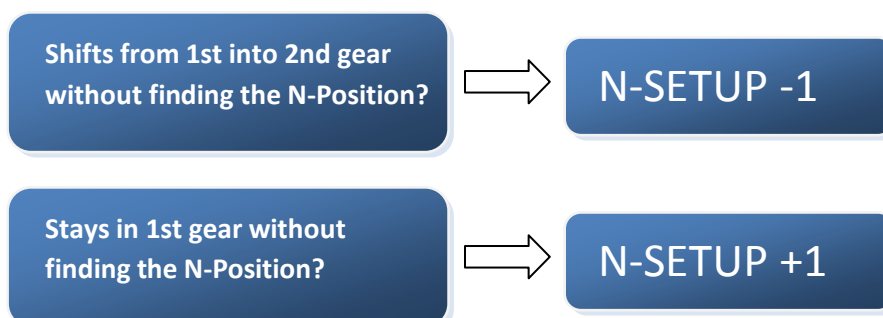
The Neutral-Finder can be calibrated to your specific mounting situation in 5 steps. This is done with the same principle as the SHIFTING Setup with the only difference that the NEUTRAL-FINDER is calibrated by HOLDING the (-) Paddle for 2 seconds while being in the ISP-Mode.



The Menu design is the same as for the SHIFTING SETUPS:



The standard Setup is No. 3., which works in most applications. If the Neutral Gear is not selected properly in default configuration, please follow the shown diagram:



If you use the Neutral Automatic and the System does not hit the Neutral Gear, but shifts from 1st into 2nd gear, you have to decrease the Setup (2 or 1). If you use the Neutral Automatic and the Gearbox stays in 1st gear, you have to increase Setup (try 4 or 5).

4. Leaving the ISP Mode

To leave the ISP and save all adjusted Parameters permanently, just hold the (+) Paddle for 2 seconds. The Setup will be saved in the ECU also after disconnecting the system from the battery.



As confirmation, the Servomotor makes 2 short shifting sequences, like when entering the ISP mode.



You can now use the system normally!

