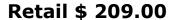


ComMod

www.tomelectronics.it
#1 in Dodge Cummins Performance

Introducing the Communication Module (ComMod) for the Smarty Touch.





What it is.

It is an additional Bus expansion port for the Smarty Touch.

What does it do?

When installed to Smarty Touch's under-dash controller, it allows the communication with the ECM over two distinct CAN Bus channels at the same time. The usual OBD II plug / bus and a secondary under hood service bus used by Cummins for the communication with external modules such as the VGT turbo, Oxygen sensors, etc.



ComMod





Why is it needed?

- 1) The Smarty Touch uses the under hood service bus for real time On The Fly (OTF) tuning for all years from 1998.5 to present *.
- 2) The Smarty Touch uses the under hood service bus to unlock the 2013+ ECM's.

Why additional hardware?

During the development of the Smarty Touch we could not anticipate that we would have needed a third CAN Bus port to communicate with an ECM. When the 2013+ trucks hit the market it became clear that to unlock and communicate with those ECM's a whole new strategy was needed.

Installation of the ComMod.

To install the ComMod on the under dash controller, simply pull the OBD II cable from the controller, slide the ComMod onto the controller, plug the OBD II cable back into the ComMod. Route the "Underhood Bus" cable to it's plug (located under the intake horn and above the ECM). Plug the other end of the cable into the ComMod. Done! Of course, the Smarty Touch then needs an software update on it's SD card. Now we are

(Any Smarty Touch can be upgraded with the ComMod. Update the software on the SD card, that's all)

On The Fly with the Smarty Touch

First things first, upon installation of the Smarty touch, the controller and the ComMod you need to program the ECM one time. During this first download the ECM is unlocked (Years 2013+), the Smarty Touch becomes VIN# locked to the vehicle and a base software is installed. After this first download it is then possible to use the OTF.

The OTF allows you to change -real time- several parameters. At this moment in time they are:

- 1) Duration, five levels.
- 2) Timing, three levels.
- 3) Rail Pressure, three levels.
- 4) VGT, three settings.

It is possible to change any of the above, all, or any combination you choose.

This allows you to find out in a very short time which ones are the settings that suit your driving habits best. You can choose to select if the OTF has to be send to the ECM only once or at every key on.

This may sound confusing but it is there for a very good reason.

Case one. Utilizing the OTF you find your preferred combination of parameters. You then proceed to program the ECM with the "traditional" download using those pre-determined settings.

Let's say you have selected the +30HP duration. At some point you need more power instantly, yet only for a short time. You go into the OTF menu and select the +xxx Duration, and also select the "send only once" option. A second later you have the new

Revised date: 02-21-2024



ComMod

www.tomelectronics.it #1 in Dodge Cummins Performance

power setting in your ECM which will stay there until the key is turned into the Off position or until you change the OTF again.

Case Two. You have downloaded your preferred combination of parameters to the ECM using the "traditional" programming. At some point you want to change these settings. Let's say only for a long road trip, towing heavy, when you are needing more power than usual.

You go into the OTF menu, select the parameters you need and also select the "Send at every key on" option. As the name says, every time the engine is started the Smarty Touch will automatically send the selected OTF parameters to the ECM. After the road trip, you simply un-check the "Send at every key on" option and you are back to your preferred combination of parameters.

Unlocking the ECM with the ComMod.

The ECM becomes unlocked during the first "traditional" software download. Our competitors need to change cables and software's several times. Smarty Touch with the ComMod does not require any special procedure. The unlocking process is integrated seamlessly into the software download to the ECM. It does not take any longer than a download without the unlock procedure. Or, in other words, 4 minutes 30 seconds. Buyer beware! The Smarty Touch will re-enable the ECM lock feature once returned to stock software. Only once returned to stock software and a successful re-lock of the ECM, will the Smarty Touch unlock from the VIN# of the truck. The Smarty Touch is then ready to work on the next vehicle!

NO EXCEPTIONS! We will NOT replace any VIN# locked units.

Summarizing.

The ComMod is **NEEDED** for the 2013+ trucks since it is the only way to unlock the ECM. The ComMod is optional for the OTF for all previous years as they become available.

What is coming next?

The transmission tuning software for the 68RFE is in advanced development stage. It will become available through free download from our website.

The professional version of our UDC tuning software for the 2010 – 15 truck is in a very advanced stage. Thus far we have mapped out close to 9000 different parameters and tables. A good part of those are useless even for the experienced and professional tuner and will never be released but we're ready for any request that may come up in the future. Once the first revision is released we will work our way backwards to and including 1998.5 VP trucks.

More OTF parameters will be added after listening to the customer's requests and needs. They can be expanded virtually limitless but at the same time we need to keep the OTF menu simple enough to remain intuitive and simple to use while driving.

*Ready today is the software for the 2013+ trucks. The software for the 2010-12 trucks in almost finished. It is likely that we will be able to release also the 2010-12 trucks version before the first ComMod's arrive in the USA. The 2007-09 software version is in advanced development stage and will be released ASAP. After that we will work our way backwards to and including 1998.5 VP trucks.