Bully Dog Gauge Tuner Installation

MOUNTING

*We do not at this time recommend installing the GT, HDMI Cable or the Adapter Module on the sled permanently. It has been shown to malfunction with water entry. We recommend installing it for display and diagnostic purposes only and then remove before normal riding.

1) Locate the diagnostic 8 pin connector with ONLY 4 WIRES PRESENT with the protective block off termination plug. This connector is located near the left hand front shock tower usually covered with a fabric cover secured by Velcro.
2) Connect the adapter module to the HDMI cable and determine cable routing length. Be mindful of keeping the module and cable away from heat, vibration, moving parts and especially water since it is not waterproof.
3) Connect the adapter to the diagnostic plug and secure such that wires will not move freely to prevent the delicate wires from breaking.
4) Ensure the 2 amp fuse is installed in the module and the switch is set to BAT(TERY).
5) Connect the GT (Gauge Tuner) to the other end of the HDMI cable. Completely fill the ends of the HDMI cable with dielectric grease and then insert it into the connector. It should insert fully about ¼". If it does not go in very far look at the retaining fingers of the GT's HDMI port and ensure they will allow the cable to insert fully.
6) Mount the GT in a location that will allow access to the SD Card and will protect it from loss or damage. Or alternatively route the cable to a location that will allow the GT to be mounted easily for diagnostic purposes then when not in use you can tuck the end of the cable out of the way so it is not damaged. We have found the handlebar pad to be a good place to tuck the end of the cable into.
7) Secure the wires with zip-ties and mount the module either with zip-ties or with the provided Velcro. If cable length is sufficient it can be mounted on the clutch cover guard or the back side of the ECU. Ensure that the HDMI cable is not going to work its way out and be mindful of preventing water from draining directly onto the module.

UPDATING AND PROGRAMING

Each individual ECU has a unique serial number, which is used by the GT to determine if your programing is valid for it. This ECU serial number must be provided to MTNTK Performance and a unique program generated for that serial number. A program used in one ECU cannot be used in another without a new program being generated for the new ECU's serial number.

An ECU obtained new from Polaris not previously installed onto an engine comes blank without programing and must be first programmed with the Polaris Digital Wrench software by an authorized Polaris Dealership. Programming with a GT will not work until an original Polaris file is loaded into the ECU first. Please contact MTNTK Performance if you have any questions. From time to time updates to the GT will be available and will require downloading.

UPDATE PROCEDURE and PROGRAMMING

1) GT UPDATE – If installing a new kit or GT then updating is recommended. If a file was emailed to you then download the file to a location you can remember where on your computer. GT update files will be a RMK.bin file for snowmobiles and RZR.bin for Polaris RZR's.
2) ENGINE PROGRAMMING - Engine Programing files will be up to 8 characters followed by .atv . for example (EXAMPLE - 13TP8283.atv).
3) Remove the SD card from the GT by pushing in and releasing. It should stick out enough to allow you to pull it out.
4) Insert the SD card into your computer using the provided SD card to USB adapter.
5) Open Windows Explorer and find the card.
6) Drag the RMK.bin file (only if you are updating the GT otherwise skip to step 7) from its location and drop onto the SD card NOT into any folders. It will say there is a file already named RMK.bin. Make the selection to REPLACE OR OVERWRITE the original.
7) If you downloaded an engine tuning file to install then look on the SD card for a folder named USER. If no folder exists on the card already with that name, make one using all capital letters named USER.
8) Drag the tuning file with the extension .atv INTO the USER folder. It is not required to remove old tuning files unless you desire.
9) Eject the card safely with the proper eject procedure before removing from the computer.
10) WITHOUT the engine running or the ECU powered up insert the SD card into the GT by pushing in fully and it will pop back up slightly when fully inserted.
11) Using the provided power up cable connect the white plug end to the ECU POWER plug located next to the diagnostic plug by the shock tower.
12) Using a GOOD 12 Volt 5series battery or larger connect the power up cable to the correct posts of the battery. Connecting battery backwards will destroy the ECU and GT and warranty will be void. The GT will beep once and then the start up splash screen will roll.
13) Using the capacitive touch buttons select GAUGE, then using the right hand buttons scroll one of the gauges until BATTERY VOLTAGE is displayed. Ensure that the voltage is over 12.1 volts. If not disconnect and find a suitable power source. Do not attempt using a battery charger while the GT is connected as it will have too much voltage and ECU damage will occur.
14) Select
    a. MENU – scroll down
    b. CHANGE VEHICLE/ENGINE
    c. POLARIS
    d. POLARIS-'10-'14 RMK (even if your sled is newer then select this for Polaris)

Device will then load an image file and reboot.

15) Once the GT has rebooted
    a. Disconnect the power for 5 seconds
    b. Reconnect the power

16) Select
    a. MENU, and scroll down to
    b. UPDATE DEVICE SOFTWARE
17) It will ask if you want to update with the POLARIS RMK.BIN FILE. Select YES. The screen will darken and the device will chirp for 5 seconds then reboot. Once rebooted disconnect the power to the power up cable for 5 seconds. Reconnect the power.

18) (TURBO ONLY) Select
   a. MENU
   b. USER OPTIONS
   c. SELECT BARO
   d. 3BAR
   e. GO BACK until you are to the gauge screen
19) Make sure battery voltage is still above 12.1 volts
20) Select
   a. MENU
   b. TUNING
   c. INSTALL CUSTOM TUNING (It may take up to 15 seconds for this to switch after selection. If it freezes then make sure your SD card is installed and then power cycle the device and start over.)
   d. SCROLL DOWN AND AGREE you are the owner
   e. Confirm that the engine is NOT running
   f. DOWNLOAD CUSTOM TUNE TO VEHICLE
   g. Scroll to the file you want and select NEXT
21) It will first import the file from the card and then download to the ECU. DO NOT DISTURB the battery, GT, or anything else until it is complete or ECU FAILURE could result.
22) Select
   a. Finish
   b. Remove power from the power up cable and wait 5 seconds
   c. Connect power
23) Use this time to play with the settings and features of the GT. Press and hold the gauge button, three times and it will scroll through the different displays. Press and hold the right hand buttons and it will change from day to night mode. Change colors and themes in the USER SETTINGS.
24) Disconnect the power and remove power cable from sled. Install side panel.