RaceGrade

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Title		BF1 TPMS Setup Notes	
Revision	**Date**	**Prepared By**	**Change History**
0.9	2/6/2013	Chris Brown	Beta release

TPMS Pressure Reading

There is a strategy to understand about how the TPMS controller works. When in the pits without any speed, the TPMS controller will accept messages from all wheel sensors. Therefore you will see values jumping around depending on which wheels are within range of the antennas. When the car move away from the pits, and exceeds a set speed value for a certain amount of time (both are programmable), it should be far enough away from other wheels and only receiving messages from the wheels on the car. The control unit will lock onto those IDs and not receive any other IDs until the vehicle speed has dropped below the programmed threshold.

TPMS Pressure Accuracy

In many situations the reported pressures will not match a mechanical pressure gauge on the tire. The TPMS sensor will transmit absolute pressures and an therefore you must subtract out the barometric pressure at your location in order to obtain gauge values. Also, the ambient temperature and atmospheric pressure are used for corrections internal to the TPMS control box. To obtain the most accurate readings, both ambient temperature and atmospheric pressure must be manually set each day and transmitted from the dash to the TPMS unit. If you choose to only transmit speed, the TPMS unit will use internal defaults for temperature and pressure. This can result in a 1-2 PSI error. When not transmitting absolute temperature and pressure, then you must type in a 0 for the CAN ID of the TPMS configuration software.
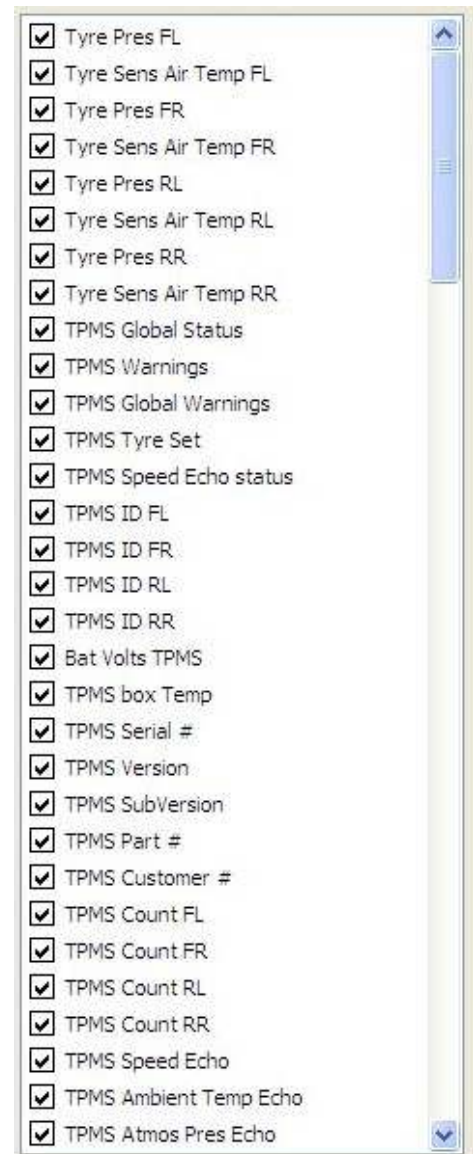

CAN Communication

There are up to three CAN available. The first two are required for every installation. The channels used in these CAN templates require renaming some channels because the channel names are not stored in the CAN template.

bf1 TPMS Receive - general receive template in receive message block format. The list of channels received is shown to the right. This is set for 0x700 to 0x70F addresses.

bf1 TPMS Transmit - required to send speed data to the TPMS controller. This is set for 0x720 address.
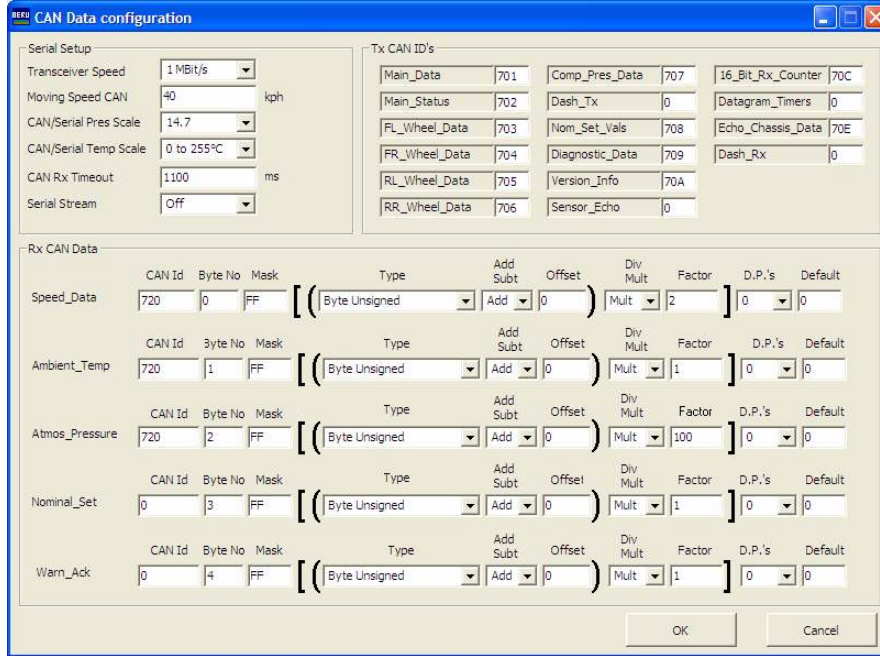
bf1 TPMS IR Temps - used only with IR pro sensors. This is set for 0x710 address.

BF1 CAN Setup

Below are screen captures of the configuration settings for the TPMS control box with regard to CAN configuration.

NOTE: If you choose not to transmit and send over the ambient temperature and atmospheric pressure from the data system, then you MUST enter "0" for their CAN ID in the bottom half Rx CAN Data section. Failure to do so will scale the pressure channels incorrectly.

BF1 Configuration

Below is a typical configuration setting for the TPMS control box. The number of antennas used must be correct on this page.