Customer FAQs

TRIMBLE GEOSPATIAL DIVISION

January 2024

TRIMBLE TDL450B UHF RADIO FREQUENTLY ASKED QUESTIONS

The Trimble® TDL450B is an advanced, high speed, wireless UHF data radio built to endure the stresses of daily use in harsh conditions. Full metal construction provides impact and weather resistance that will keep you working with complete confidence.

Q: Does the TDL450B replace the TDL450L and TDL450Hx radios?

Yes, the TDL450B is replacing both of the previous versions of TDL radio.

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Q: The TDL450B is a 35W radio, but I'm only licensed to transmit 20W. Can I still buy this radio?

Yes, the TDL450B can be configured to comply with the end user's license for transmission power and frequencies.

Q: What software utility do I use to configure the radio?

Unlike TDL450L and TDL 450Hx, TDL450B will no longer make use of TDL Conf software for configuration. The regulatory parameters will be configured by your Trimble Distribution Partner. As an end user, you will have to provide the license and the license parameters, including country codes, Tx frequency table and maximum Tx power output to your dealer who will configure the radio for you.

Q: Is the TDL450B compatible with other Trimble radios?

Yes, the radio has been tested with all Trimble GNSS receiver embedded radios and for backward compatibility with a number of radios including the TDL450L, HPB450, PDL450, TRIMMARK™ 2, TRIMMARK™ 3, and TRIMTALK™ 450S.

Q: Is the TDL450B compliant with the U.S. FCC narrowbanding requirements?

Yes, the TDL450B can operate within the 12.5 kHz or 25 kHz bands to comply with specific country regulations

Q: What frequencies can be used?

That is dictated by the license issued by the government agency responsible for wireless communications in your country. The customer must have applied for and received a license which will have the exact frequencies on it.

Q: What is the range on the Bluetooth connection with the receiver?

The TDL450B can stay connected to within a 10m range from the receiver. In certain situations this range can be actually further.

Q: TDL450B raises “CSMA: n Pkts L” alarms. What should I do?

That is because in certain countries, regulations require UHF transmissions be subject to automatically making sure nobody is using the frequency you are using before transmitting. The TDL450B will “listen” to the Tx frequency and determine if it is used by another transmission or not. If it is already used, it will refrain from transmitting and raise the alarm. This is done every second. To address the issue, you can use the Auto Tx function that will scan the frequencies programmed in the radio to find the less noisy frequencies. This is described in the User Manual.

Q: TDL450B raises “Low input voltage” alarms. What should I do?

The TDL450B checks the input voltage so as to reduce the output Tx power if it falls below user settable thresholds. The User Manual describes how to set these thresholds and the alarms associated with these Energy Saving Modes.

Q: TDL450B raises a high temperature alarm. What should I do?

The TDL450B has an embedded process to avoid internal overheating that could destroy the radio. If this temperature threshold is reached, the TDL450B will automatically reduce the Tx power until the internal temperature lowers to a point where it can return to the previously set Tx power. Three main reasons, and thus remedies, cause high internal temperatures:

1. High ambient temperatures: Consider operating TDL450B with the optional fan tray (129681-20), install TDL450B in a shaded well ventilated area.
2. High Tx Power: using higher gain antennas or elevating the antenna will maintain the same range with a lower Tx Power.
3. High Duty cycle: transmitting a high number of satellite corrections will increase the time during which TDL450B will actually be transmitting. Reducing the number of corrections broadcast will reduce the internal temperature.

Q: Why does the 130916 USB to TDL450B data cable not work with the Trimble R10 GNSS receiver?

The R10 USB port is not designed for communication with the TDL450B UHF radio. You should use the serial 130918 cable to connect a R10 to TDL450B.

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