

1. Not all MotoTRBO branded radios are capable of operating digital. Originally, all MotoTRBO radios were digitally equipped (from July 2007-September 2009). As of September 2009, Motorola began offering their MotoTRBO line of radios as analog only, with the option to upgrade them on-line. This was done as a cost saving measure to those who needed analog only radios. The analog only radios shipped from Motorola with a 'C' in the 4th to last digit.
2. A number of the early XPR8300 repeaters and XPR series mobiles (during the demo era) were plagued with a serious failure. After 20-35 minutes of heavy use, the repeater would lock itself up in a type of service diagnostic mode, not responding to any external RF signals. In most cases, the repeater would de-key itself and stay that way until power was reset. This was due to a defect during production of the multi-layer PC boards, and was resolved shortly thereafter. Repeaters and mobiles randomly affected were in the serial number range of [xxxTHCxxxx] to [xxxTHJxxxx]. As a reminder, not all were affected. To be safe, do a burn in test of the unit in question.
3. The XPR8300 repeater can operate as an analog repeater, or digital repeater (but not as mixed mode repeater). If you program/configure the repeater as an analog repeater, it will remain as an analog only repeater. If you program/configure the repeater as a digital repeater, it will remain as a digital only repeater. Although you can remote channel steer the repeater between analog and digital via the accessory pins by changing their logic states in a binary order. Please keep in mind that when doing so, the repeater may be un-usable for up to 45 seconds after toggling its channel steering I/O pins. As a foot note, channel steering may also be carried out via the Motorola RDAC [Remote Diagnostic and Access Control software]. This requires an XPR8300 repeater to be tied to a network of some kind (via the rear RJ45 connector on the rear of the unit).
4. MotoTRBO radios can do DTMF in analog, but not in Digital. The internal Vocoder chip cannot process DTMF tones. To send DTMFs, just hold down the PTT and push the DTMF buttons accordingly.
5. Measuring RF power out from a MotoTRBO radio is done while the radio is programmed / operating in analog. This, due to the fact that while the radio is operating in digital mode (TDMA Time Division Multiple Access) it is only transmitting part of the time (pulsing on and off) and will yield a much lower output reading.
6. In order to program and or configure a MotoTRBO radio, you will need the required software and programming cable from Motorola. The genuine Motorola programming cables will run you \$60.00-\$110.00ea. The programming software, with firmware upgrades, Remote Diagnostics and Access Control tool including 3 years of updates can be had directly from Motorola for a price (about \$350.00). As a foot note, you may build your own mobile / repeater programming cable for under \$10.00, but if your not a techie, and do not have the proper crimpers / eyes for the job, I'd play it safe and just purchase one from Motorola. You don't want to toast your radio.
7. When configuring repeaters for IP Site Connect, no two devices (repeaters or computers running RDAC) on the system may share the same "RADIO ID" (as seen within the GENERAL SETTINGS folder in the Customer Programming Software=CPS).
8. When setting up a dedicate DSL circuit for an IP Site Connected MotoTRBO repeater, a separate DSL modem and router may cause you un-wanted headaches down the road. As in the case if both were loose power at the same time, then regain power at the same time, the repeater might not re-acquire the network. For this reason, the N6DVA group is utilizing a Netopia 3347 DSL modem/switch all in one unit. This model comes equipped with wireless as well.
9. A dedicated broadband connection and static IP is HIGHLY recommended for each TRBO repeater which is intended to be part of an IP site connected system. This is done to help ensure stability of a

system. Some individuals are currently running their TRBO IP site connected repeaters from shared home residential networks. This sharing of home networks has caused them issues time and time again. Forcing them to investigate the means by which to remotely reset their modem, router, switch, and TRBO repeaters as the intermittent issues sporadically occur.

10. When using the CPS programming software for the 1st time, be sure to click [VIEW] from the top tool bar, and [EXPERT] from the drop down menu. This will allow you to see all programmable parameters.
11. If your planning on using a MotoTRBO radio / repeater within the Amateur Radio spectrum, please be aware that the receivers on the MotoTRBO line of radios are tighter than most. This will lead to analog audio being clipped or muted on voice peaks when Amateur Radios used on the system over deviate (which many of them do new right out of the box).
12. When configuring a Motorbo repeater in digital mode for the 1st time, or while performing firmware upgrades, please be mindful to check the 'BEACON' field within the 'NETWORK' folder. I have heard of several instances where individuals were standing around scratching their heads, wondering why the repeater seemed to be transmitting a pulse every 60 seconds.
13. Before buying a used radio, check the firmware version via the front display. Radios with their Firmware beginning with the letter 'D' instead of the traditional 'R' have been programmed with Motorola Lab software and are termed Development radios. If you attempt to send such a radio into Motorola, it will not be coming back.
14. Radios will not scan while the operator of the radio is utilizing the on screen menus.
15. The highest capacity battery Motorola offers for the XPR series portables is the PMNN4077B 2200mAH lithium ion Impres battery which is not listed when 'BROWSING' their catalog. It may be found with s 'SEARCH'.
16. Third party software developers are;

System Administration Tools:

The Genesis Group <http://www.genesisworld.com/GW3/TRBO>

Remote Dispatch, Logging, GPS Tracking:

Neocom Software <http://www.trbonet.com>

Elcomplus <http://www.smartptt.com>

HermesTRX <http://www.microcom.eu>

NeoNyte <http://www.streetrek.com>

CTI Products <http://www.citiproducts.com/turbovui.html>

17. Radios currently available from Motorola operate in the following ranges;

Freq Of Oper	XPR8300 & Mobile	XPR8300 & Mobile	Mobile	MTR3000
136-174MHz	1-25W	25-45W		
403-470MHz	1-25W	25-40W		
450-512MHz	1-40W			
800-900MHz			10-35W	

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