



Application Note #5457

Local Mode

February 2, 2005

Purpose:

To define the procedure for operating FGR and IM-series radios in Local Mode:

Equipment requirements: (2.54 in FGR and 3.54 in IM)

- 1) FGR or IM series FreeWave radio installed at the MultiPoint Slave location(s). Firmware version x.54 or greater is required.
- 2) FGR or IM series FreeWave radio set up in Point to Point Master Mode
Firmware version x.54 or greater is recommended.
- 3) Local Mode WILL NOT work with DGR or I series radios.

Setup:

The following are the system requirements. The system must adhere precisely with all requirements to function properly.

Multipoint Network

- 1) Large packet sizes are required.
 - A. The default values of Max = 8 and Min = 9 are good values.
- 2) RF Data Rate should be set to 3.



Multipoint Master

- 1) Number Repeaters set to 1 (or Repeaters set to ON in EZConfig).

Multipoint Slave (Radio to be accessed in Local Mode).

- 1) Firmware version x.54 or greater MUST be loaded.
- 2) Number Repeaters set to 1 (or Repeaters set to ON in EZConfig).
- 3) Local Mode (Menu 5, Option E) set to 1.
- 4) The serial number of the radio which will be accessing this radio (Point to Point Master in the truck) MUST be in the Callbook.

Point to Point Master (Truck radio)

- 1) Packet sizes should be much smaller than the Multipoint network.
Max = 2 and Min = 2 are recommended.
- 2) RF Data Rate MUST be set to 2
- 3) The Frequency Key MUST be different than the radio to be accessed (the Multipoint Slave).
- 4) The serial number of the radio to be accessed MUST be in the Callbook, and the Entry to Call must be set to this serial number.

** The advanced user may wish to use Mode 6 instead of Point to Point mode.
See the FGR user manual for information on Mode 6 operation.

Once all the above requirements are met, the network is capable of running in Local Mode.

Operation:

- 1) Pull up to the site to be accessed.
- 2) Confirm the serial number of the radio to be accessed.
- 3) Apply power to the Point to Point Master.
 - A. It is very important to cycle the power at this point.
- 4) Give the radios up to a minute to connect.



Troubleshooting:

If the radios do not connect, confirm the above settings.

The closer the packet sizes are to each other, the longer it will take for the radios to link. Ensure there is ample separation in the packet sizes.

The Data Rate is also VERY important. The Point to Point Master MUST be set at 2 and the Multipoint network should be set at 3.

Confirm Hop Table size and version are the same.