

Technical Bulletin #2000-01

Revised 7/2/01

Subject: FM Cubed Receiver Alignment Procedures

FM Cubed service is now available at two orbital locations, 97 and 99 degrees west. Due to similar L-Band frequencies for FM Cubed on the two satellites, 1445 MHz for T5 and 1446 MHz for G11/G4R respectively, it is possible for an FM Cubed receiver to lock onto either satellite if the antenna is not properly aligned and/or the LNB is not properly polarized. To assist you in the antenna alignment to the correct satellite for your FM Cubed system, SpaceCom Systems has prepared an installation procedure designed to verify which satellite you are aligned to.

To use the procedure, follow the normal installation steps for the azimuth, elevation, and polarization for your site and satellite of interest. If you don't have this information, it can be obtained on our website at www.spacecom.com. NOTE that G11 is a vertically polarized downlink, while T5 is horizontally polarized. The two satellites will have a polarization setting approximately 90 degrees apart.

Upon completion of the installation verify that your receiver has a green "Carrier Detect" indication for M2000A/P receivers, or a green "Lock" indication for M2000B and SL2100 receivers. Next, authorize your receiver for the "SAT ID" channel by sending commands to your FM Cubed receiver using i.e. telnet or a manual authorization by SpaceCom. After the command is sent check the "Data" indicator on the front of the receiver and compare it to the table below to determine on which satellite you are aligned.

	M2000A		M2000A/P		M2000B		SL2100	
LED Color	T5, 97 deg. W	G11/G4R, 99 deg. W	T5, 97 deg. W	G11/G4R, 99 deg. W	T5, 97 deg. W	G11/G4R, 99 deg. W	T5, 97 deg. W	G11/G4R, 99 deg. W
Red	X		X					
Green		X		X				
Yellow					X		X	
Off						X		X

If the test result shows that you are on the correct satellite have your receiver authorized for your data channel and the installation will be complete.

However, if the result of this test indicates that you are on the wrong satellite the alignment must be corrected. If the test result shows that you are on T5 at 97 degrees W and wish to be on G11 or G4R at 99 degrees W, you will need to move your dish about 2 degrees towards the West. If the test result shows that you are on G11 or G4R at 99 degrees, and wish to be on T5 at 97 degrees W, you will need to move your dish about 2 degrees towards the East. In either case recheck the polarization setting and verify that it is correct. After making the alignment correction again check the "Data" LED against the chart above. After successful completion of this step, have your receiver authorized for your data channel to complete the installation.

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