

Advanced Operations Update for DR500

DR500 extended mode forced tuning in Version 2.0 and above

Previous versions of the DMX tuner allowed forced tuning to be programmed locally with the remote control, but were limited to six events consisting of channel number and hour of the day. This resulted in a forced tune event that happened only on the hour and at the same time every day.

The extended mode allows you to specify the channel, volume level, day of week, hour, and minute for a maximum of 32 events.

To program a forced tune event in the extended mode, the channel and volume level are selected first. Then PRESET 930 is entered. The Day-of-the-week is programmed first. A flashing "0" will be displayed indicating that the default is everyday of the week. Use the + - keys to cycle through the days of the week as indicated below.

0	=	Everyday of the week
1	=	Sunday
2	=	Monday
3	=	Tuesday
4	=	Wednesday
5	=	Thursday
6	=	Friday
7	=	Saturday

When you have selected the day of the week press STORE. A flashing "00" will be displayed. Using the number keys, enter the hour of the event in 24 hr time. Press STORE. A flashing "00" will again be displayed. Using the number keys, enter the minutes of the event. Press STORE. If an illegal Hour or Minute value is entered (i.e. 25hr or 60min) "Err" will appear on the display for two seconds and then the display will show a flashing "00" allowing reentry. When Hours and Minutes are programmed, the display will return to the currently selected channel number and the new forced tune event will be stored in memory.

DR500 extended mode Dynamic Range settings

Programming dynamic range locally is the same as on the DR500 with a code version less than 2.0. However, now 32 individual channels can be programmed rather than the previous ten. Also, the DMX broadcast center will now be able to program all 9 levels of dynamic range rather than 4.

SPDIF Operations for DR500 & 501

DR500 units with version 2.04 and higher firmware have the capability of operating in PCM or AC3 formats on the SPDIF (Digital) output. In order for this feature to operate properly, the jumper inside the unit must be in the “AC3” position. (This is the factory default setting; there should be no need to remove the cover to check this.) There are 2 new presets defined to switch between the 2 modes; Preset 320 and Preset 330.

Preset 320

Preset 320 will put the DR500 in PCM mode. Press “PRESET”, “3”, “2”, “0” on the remote control. The 3 digit display on the DR500 should display “S.PC”. The unit will reset itself after a few seconds and come back on displaying the Channel Number. The SPDIF output will now be in PCM format (uncompressed). The DR500 will remain in this mode, even if power is lost.

Preset 330

Preset 330 will put the DR500 in AC3 mode. Press “PRESET”, “3”, “3”, “0” on the remote control. The 3 digit display on the DR500 should display “S.AC”. The unit will reset itself after a few seconds and come back on displaying the Channel Number. The SPDIF output will now be in AC3 format (compressed). The DR500 will remain in this mode, even if power is lost. Note that even though AC3 supports up to 5.1 channels, the output of the DR500 contains 2 channel information only. Using the AC3 format on the SPDIF output will allow the user to connect to the SPDIF input of an AC3 receiver and use the AC3 decoder in the receiver instead of the AC3 decoder inside the DR500.

Note that when using AC3 format, the dynamic range settings used in the DR500 will NOT be present in the SPDIF output, since the dynamic range processing occurs in the AC3 decoding process. (They will still be present in the analog outputs.) PCM format will have the dynamic range settings programmed in the DR500 present in the SPDIF output.

DR501 User Manual Addendum

The DR501 satellite receiver adds new capability to the DR500 receiver. The DR501 has all the functionality of the DR500, and can also play advertisements when commanded to do so by the satellite operations center. This capability is useful in a messaging or storecasting environment.

To support this new functionality, two locally controllable capabilities have been added as described below. Most importantly, note that the default output level is lower than the DR500, so it will not sound as loud when initially installed.

It is recommended that receivers using either of these functions and/or used for Ad insertion have their front panels locked.

New Local Preset Commands Added to DR501

Preset 400

This Preset controls routing of Dual Mono broadcast music channels (**NOT** Stereo channels). Dual Mono channels can be identified by distinct program material on the L/R outputs and by the illumination of one or both of the Mono indicator LEDs on the front of the receiver rather than the Stereo LED.

This preset command controls the routing of the distinct L/R audio material in the following manner to the physical analog RCA jacks of the DR501. The 3 possible modes are:

- L output out of all RCA jacks (MONO A LED illuminated, "--1" on display)
- R output out of all RCA jacks (MONO B LED illuminated, "--2" on display)
- L out L RCA and R out R RCA, mono a mix, (both MONO LEDs illuminated, "--3" on display)

To use this routing function, enter Preset 400. Use the Tune Up button (not Down button) to cycle through the 3 modes. The display and LEDs will correspond to the modes as indicated above. To save the desired setting, hit the Store button or just wait for the receiver to timeout. Stereo channels cannot be routed in this manner, and entering Preset 400 will display "--3", which cannot be changed.

Preset 450

This Preset toggles max absolute analog music output level between 1VRMS and 2VRMS. For the DR501, the default "as shipped" configuration is 1VRMS max music level. Note that DR500 receivers had a max output level of 2VRMS.

This reduction in the nominal max output level is to allow headroom for boosting the level of Advertisements over the music level. The amount of Ad boost is controlled by the satellite operations center. The default max output level of the receiver may be changed using the remote control. If Advertisements are to be played on the receiver, it is recommended that the default 1VRMS max level NOT be changed so that the Advertisements may be boosted if desired.

To change the max output level of the receiver, enter Preset 450. The display will indicate either “OL1” or “OL2”. The display indicates what the receiver output level has been changed to. The volume change should be audible, and get louder when changed to OL2 and softer when changed to OL1.

Note that in all cases, the absolute maximum signal level out of the receiver under any conditions is limited to 2.8VRMS.

Local programming directions for extended mode forced tuning

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