TECHNICOLOR® COM51 SETTINGS FOR CV NTSC16

This document contains instructions to set up the **CV NTSC16** (IP Digital to RF Analog Synthesizer) with the **Technicolor COM51** (DIRECTV Receiver). Detailed instructions for setup of the NTSC16 are provided within the NTSC16 User Manual and Quick Guide provided through the website. Configurations in this document are based on the default settings in the NTSC16.
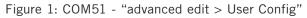

SETUP

The COM51 card should be limited to 16 active tuners. If no QAM is being used, the COM51 Cards require an IP license to operate the NTSC16.

IP and tuner count information are input to the COM51 "**advanced edit > User Config**" screen.

The COM51 must utilize a negative number in the NTSC-8_TunerCount field (Fig.1).

Navigate to the "**advanced edit > User Config**" and enter the IP and tuner count information as shown (Fig.1).

Figure 1: COM51 - "advanced edit > User Config"

Click "**Submit**".

NOTE: Do not set the NTSC16 destination IP in the Overview/Discover pages of the COM51

Use the **TuneAll** tab to retune all tuners on the **Technicolor COM51** blades being used with the **CV NTSC16**. Tuner 1-16 on Card One is shown here being retuned (see Fig.2).

Once the COM51 retunes, the NTSC16 should display green status lights.


```
Tune All

Chassis-Slot-Tuner, IP_Dest:Port, MajorNum-MinorNum-Mode;
5-2-1, 192.168.100.4:1234, 287-65535-1;
0-0-0, 192.168.100.4:1235, 284-65535-1;     //use any tuner
287sd -> 50-1                                //QAM24 mode
284hd -> 50-2                                //QAM24 mode

4-1-1, 192.168.6.5:17, 4-65535-1;
4-1-2, 192.168.6.5:18, 6-65535-1;
4-1-3, 192.168.6.5:19, 13-65535-1;
4-1-4, 192.168.6.5:33, 504-65535-1;
4-1-5, 192.168.6.5:34, 20-65535-1;
4-1-6, 192.168.6.5:35, 501-65535-1;
4-1-7, 192.168.6.5:49, 502-65535-1;
4-1-9, 192.168.6.5:51, 59-65535-1;
4-1-10, 192.168.6.5:65, 63-65535-1;
4-1-11, 192.168.6.5:66, 202-65535-1;
4-1-12, 192.168.6.5:67, 204-65535-1;
4-1-13, 192.168.6.5:81, 206-65535-1;
4-1-14, 192.168.6.5:82, 207-65535-1;
4-1-15, 192.168.6.5:83, 208-65535-1;
4-1-16, 192.168.6.5:97, 209-65535-1;
```

Submit CloseAll Troute TranscodeHD

Figure 2: COM51 - TuneAll Tab

DESTINATION IP AND PORT ASSIGNMENTS

The **CV NTSC16** processes the IP streams differently that the **Technicolor NTSC-8**. In addition to each stream having a unique IP address, the NTSC16 requires a unique port assignment per NTSC16 decoder. The ports are sequential and start at 1235.

NTSC Encoder	IP Address CARD ONE NTSC IP 192.168.11.1	Port
1	192.168.11.1	1235
2	192.168.11.2	1236
3	192.168.11.3	1237
4	192.168.11.4	1238
5	192.168.11.5	1239
6	192.168.11.6	1240
7	192.168.11.7	1241
8	192.168.11.8	1242
9	192.168.11.9	1243
10	192.168.11.10	1244
11	192.168.11.11	1245
12	192.168.11.12	1246
13	192.168.11.13	1247
14	192.168.11.14	1248
15	192.168.11.15	1249
16	192.168.11.16	1250

Table 1: COM51 IP Address CARD ONE

NTSC Encoder	IP Address CARD TWO NTSC IP 192.168.11.17	Port
1	192.168.11.17	1235
2	192.168.11.18	1236
3	192.168.11.19	1237
4	192.168.11.20	1238
5	192.168.11.21	1239
6	192.168.11.22	1240
7	192.168.11.23	1241
8	192.168.11.24	1242
9	192.168.11.25	1243
10	192.168.11.25	1244
11	192.168.11.26	1245
12	192.168.11.27	1246
13	192.168.11.28	1247
14	192.168.11.29	1248
15	192.168.11.30	1249
16	192.168.11.31	1250

Table 2: COM51 IP Address CARD TWO

! **NOTE:** IP Addresses are in "advanced edit > UserConfig"

The IP address need to be set for each unit, but the port assignments repeat with each **CV NTSC16** unit added to the system. Inputting a negative number in the **Technicolor COM51** User Config TunerCount instructs the COM51 to assign these ports accordingly. The previous tables (Table 1 & 2) show an example of IP and port assignments for two NTSC16 units.

IP and Port assignments can also be found in the NTSC16 Status page as shown (Fig.3):

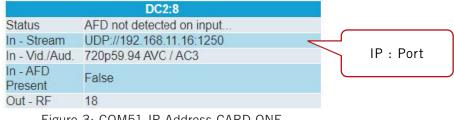*Example*: The 16th decoder on the 1st NTSC16.

Figure 3: COM51 IP Address CARD ONE

ELECTRONIC PROGRAM GUIDE ON NTSC16

If you are planning on using the **Technicolor COM51** scrolling guide as a channel in your system you will need to determine what IP and port assignment need to be entered into the EPG information.

The COM51 EPG must be sent to an unused encoder IP and port on the **CV NTSC16**. The recommended practice is to set the tuner count on the last COM51 being used to -15 and use the 16th decoder for EPG. Referencing the chart in the previous section, the settings below would send EPG to the 16th encoder on the second NTSC16.

Figure 4: COM51 - EPG Settings Example

Refer to the **CV NTSC16** User Manual to assign and/or change the output channels of each decoder.

CLOSE COM51 DESTINATION ADDRESS

There may be situations where it is desirable to close all outputs from the **Technicolor COM51**, other than the feed for the **CV NTSC16**. This can be accomplished via the "**TuneAll**" tab by entering a customized TuneAll file.

Create a TuneAll file setting the third and forth octet of the IP address and the port number for each tuner to **0**.

The example below (Fig. 7) would close tuner outputs on COM51 card one, tuners 1-16.

The COM51 would continue to stream channels to the NTSC16 but would not stream out Multicast IP or QAM carriers via the COM400 chassis.

```
1-1-1, 192.168.0.0 :0, 4-65535-1;
1-1-2, 192.168.0.0 :0, 6-65535-1;
1-1-3, 192.168.0.0 :0, 13-65535-1;
1-1-4, 192.168.0.0 :0, 504-65535-1;
1-1-5, 192.168.0.0 :0, 20-65535-1;
1-1-6, 192.168.0.0 :0, 501-65535-1;
1-1-7, 192.168.0.0 :0, 502-65535-1;
1-1-9, 192.168.0.0 :0, 59-65535-1;
1-1-10, 192.168.0.0 :0, 63-65535-1;
1-1-11, 192.168.0.0 :0, 202-65535-1;
1-1-12, 192.168.0.0 :0, 204-65535-1;
1-1-13, 192.168.0.0 :0, 206-65535-1;
1-1-14, 192.168.0.0 :0, 207-65535-1;
1-1-15, 192.168.0.0 :0, 208-65535-1;
1-1-16, 192.168.0.0 :0, 209-65535-1;
```

Figure 7 - Example: Closing outputs from the COM51

NOTE: Note: If using EPG, create the EPG file before proceeding. The EPG will not load information once this procedure is completed.

Once completed the COM51 "**Discover**" and "**Overview**" tabs will display information as shown:

Tuner	QAM	Bitrate	Channel	SNR	Strength
1	192.168.0.0	0	4 WTTV	15	-28
2	192.168.0.0	0	6 WRTV	15	-27
3	192.168.0.0	0	13 WTHR	15	-28
4	192.168.0.0	0	504 HBOwHD	11	-27
5	192.168.0.0	0	20 WFYI	15	-28
6	192.168.0.0	0	501 HBOeHD	10	-27
7	192.168.0.0	0	502 HB2eHD	11	-28

Figure 6: COM51 - Discover Tab

Tuner	Security	Channel	Mode	Major.Minor / IP:Port				
1	Pro:Idiom	4 WTTV	IP	192	168	0	0	0
2	Pro:Idiom	6 WRTV	IP	192	168	0	0	0
3	Pro:Idiom	13 WTHR	IP	192	168	0	0	0
4	Pro:Idiom	504 HBOwHD	IP	192	168	0	0	0
5	Pro:Idiom	20 WFYI	IP	192	168	0	0	0
6	Pro:Idiom	501 HBOeHD	IP	192	168	0	0	0

Figure 7: COM51 - Overview Tab