

NEWSCASTER VT2 Connector Pin	Function	Recommended Wire Size (AWG)	Radio Waves Antenna Connector Pin
N/C	CW (Default)	N/C	N/C
E	V	#22 BROWN	F
C	H	#22 RED	B
D	2/7 GHz Band Select	#22 GREEN	G
F	CCW	#22 WHITE	C
G	Common +24V	#22 BLACK	K
N/C	Shield GND	N/C	L
K	DC GND	#22 BLUE	M
N/C	N/C	N/C	A
N/C	N/C	N/C	D
N/C	N/C	N/C	E
N/C	N/C	N/C	H
N/C	N/C	N/C	J

Table 12: Radio Waves Quad Antenna Polarization Connector Pin Out

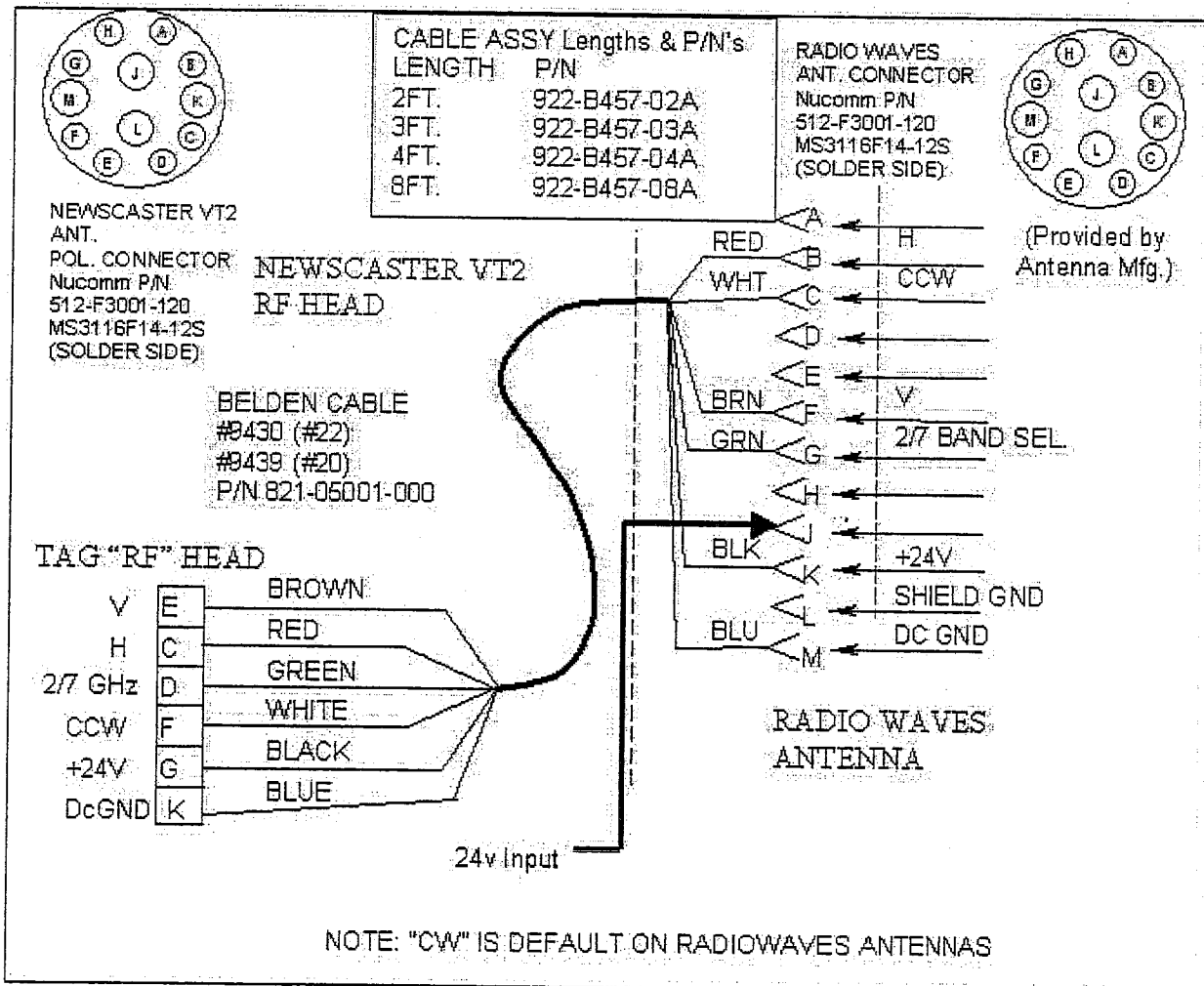


Figure 20: Radio Waves Quad Antenna Polarization Connections

Pan & Tilt Motor Assembly			RF Unit
CONNECTOR 17 PIN	FUNCTION	RECOMMENDED WIRE SIZE AWG	CONNECTOR 18 PIN
A	N/C	#20 Green/Black	A
B	Position Pot-Ref B	#20 Orange/Black	B
C	N/C	#20 Blue/Black	C
D	Position Pot-Ref A	#20 Black/White	D
E	AZ Left	#20 Red/White	E
F	Elev. Pot Wiper	#20 Green/White	F
G	Chassis Ground	#20 Blue/White	G
H	Field "+" (120VDC Units Only)	#20 Orange	H
J	Elev. Up	#20 Blue	J
K	Elev. Down	#20 White/Black	K
L	AZ Right	#20 Red/Black	L
M	Stow SW Up	#20 Red	M
N	Stow SW Down	#20 Green	N
P	Field "-" (120VDC Units Only)	#20 Black	P
T	AZ Pot Wiper	#20 White	T
N/A	N/C	N/A	U

Table 13 : Quickset Model QPT90 12/120 VDC Pan & Tilt Connector Pin-out

CONNECTORS: J2 AMPHENOL MS3116F14-18S Provided with Quickset Unit)
 J1 AMPHENOL MS3106F20-29S
 Cable: Belden # 9458, 15 Cond. #20

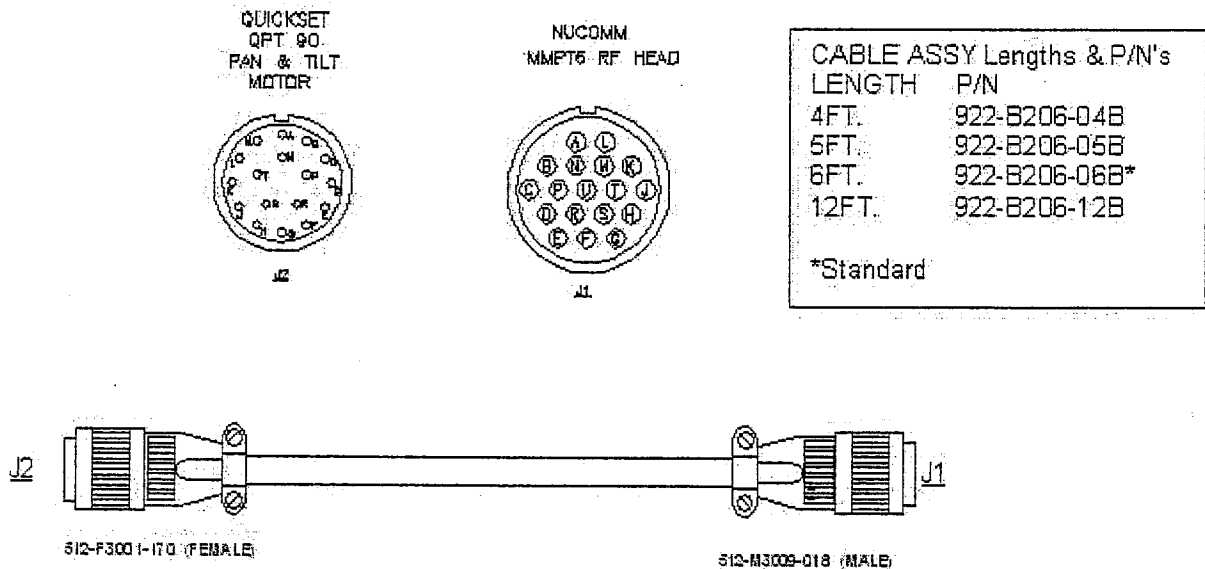


Figure 21: Pan & Tilt Motor Interconnect Cable

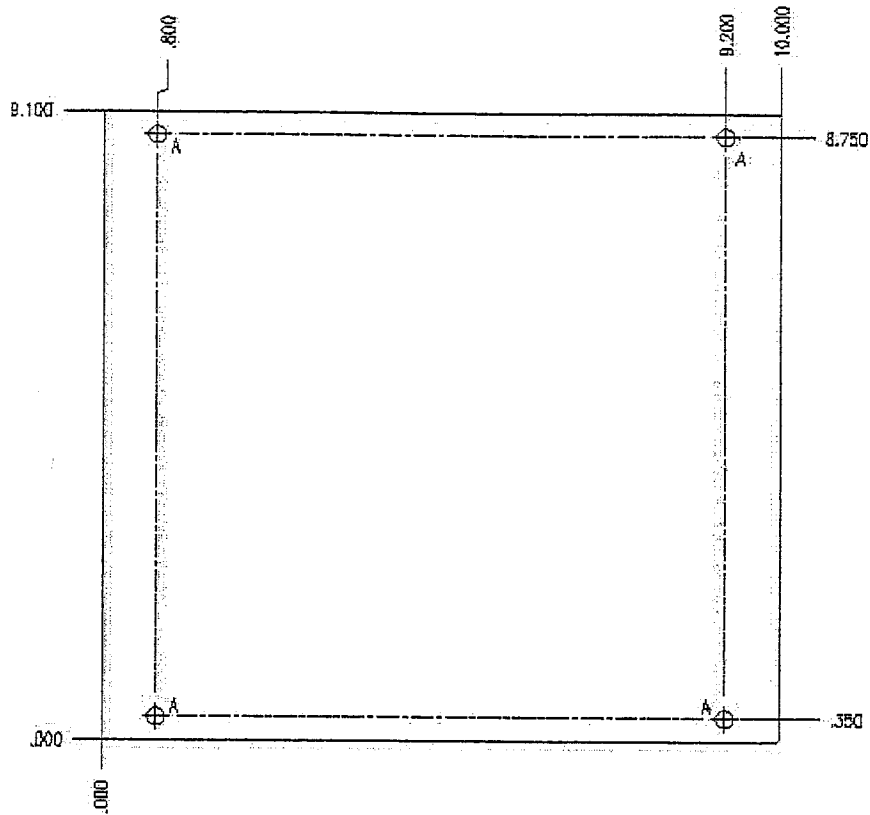


Figure 22: Hole Pattern of Base Plate for RF Head and High Power Amplifier

Drill holes (A) are .250 Dia. (through drilled)
 Material is ALUM 6061, 1/4" thick.
 Use four (4) size 1/4-20 x .750" screws to mount the unit.

MAST MODEL	NYCOIL LENGTH
5-20	30'
6-27	40'
7-30	50'
7-34	60'
7-42	70'
8.5-52	100'
9-58	100'

Table 14: Nycoil – Recommended Coiling Cable Lengths

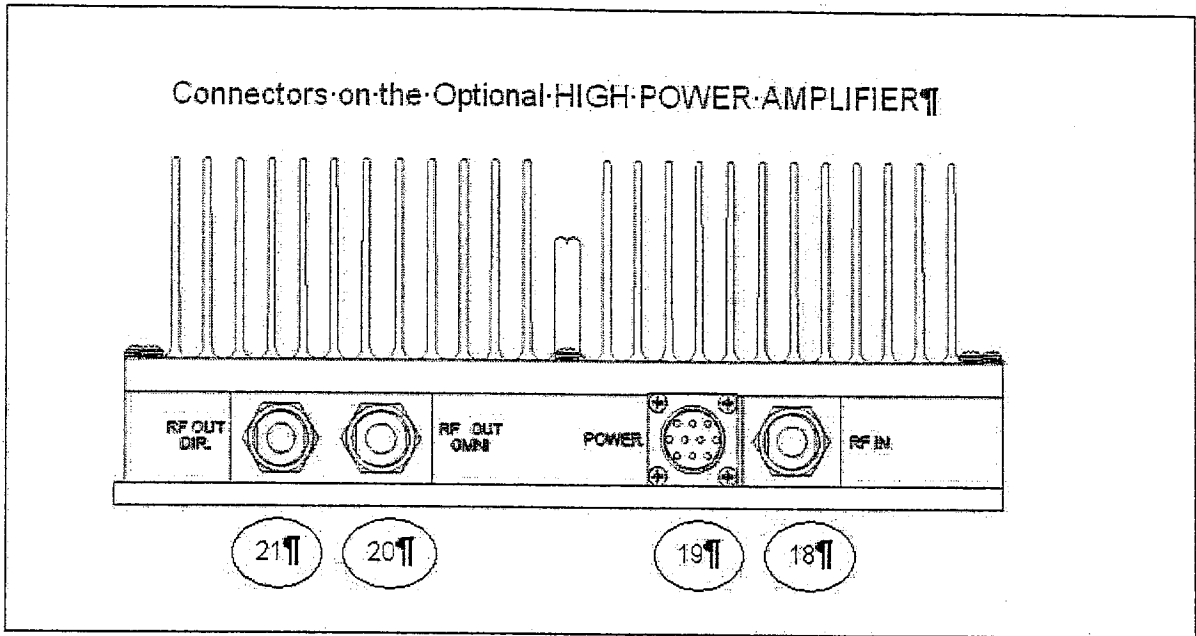


Figure 23: NewsCaster VT2 - Connectors, Optional High Power Amplifier

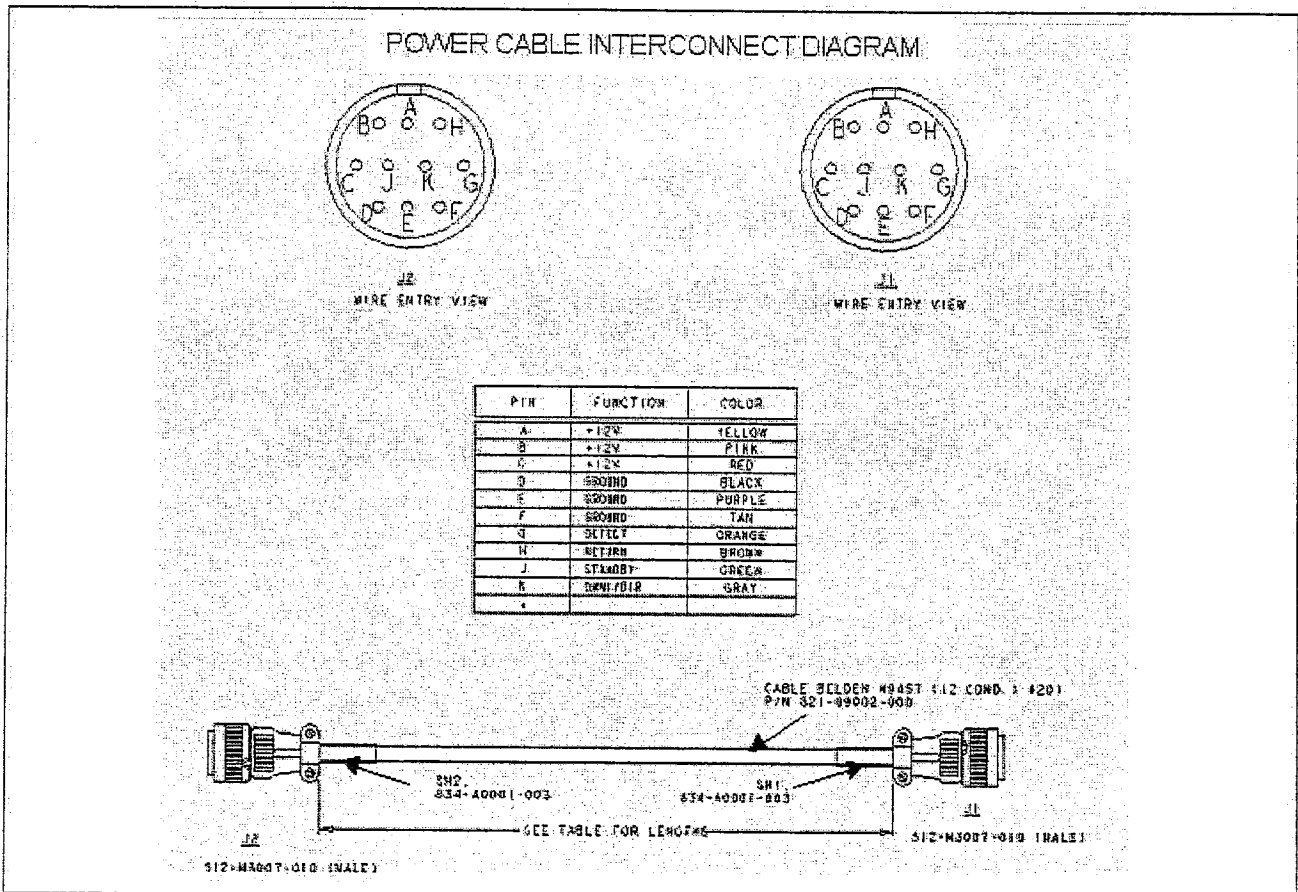


Figure 24: NewsCaster VT2 - Cable, Optional High Power Amplifier

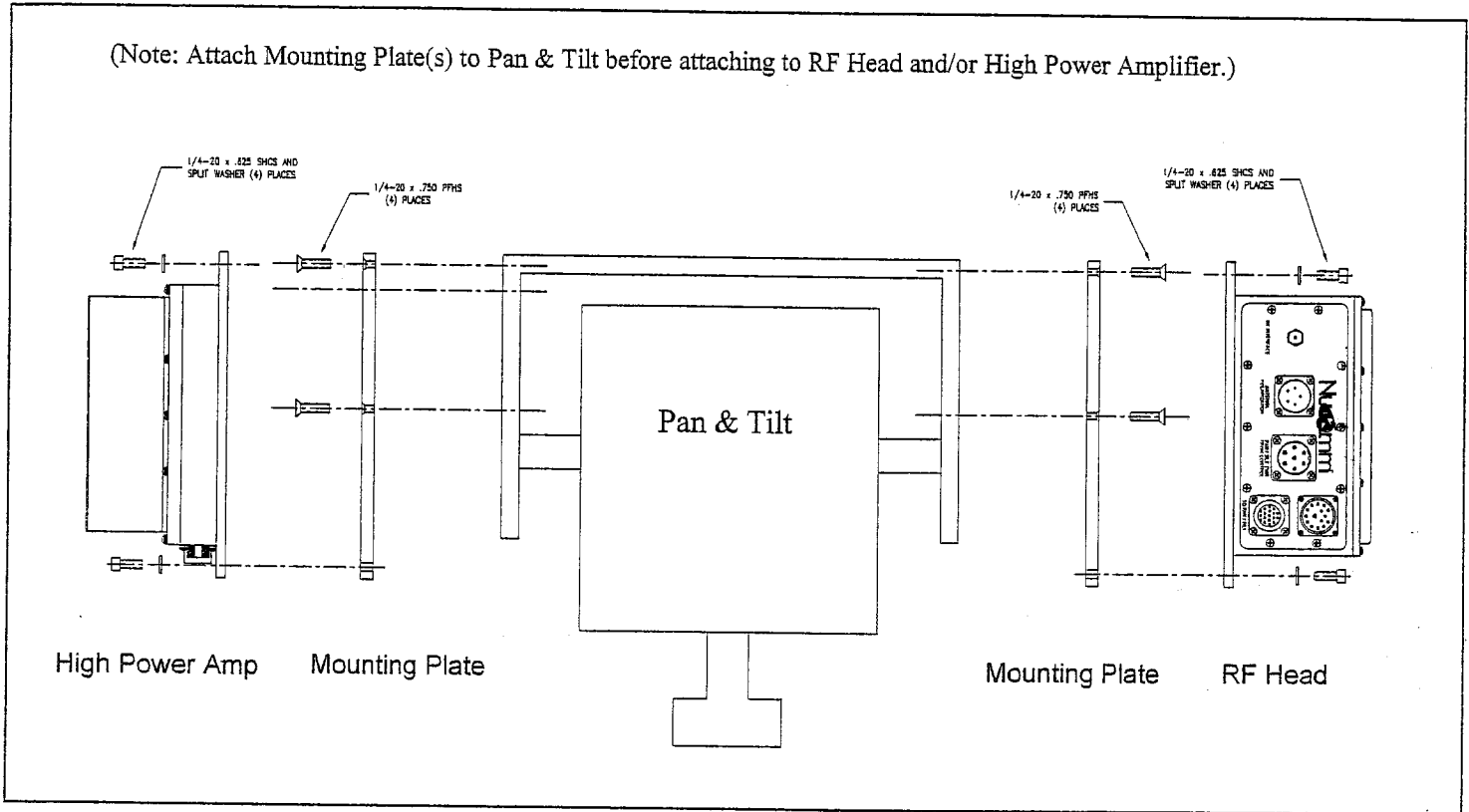


Figure 25: Mounting RF Head and High Power Amplifier using optional Mounting Adapter Plate (713-K008-00B)

Chassis
5.250

met
w/PT

DPS
TRA wire + REF

Power - 140.000
500.000



5. OPERATION

5.1 FRONT PANEL OPERATIONS

On each screen, a cursor appears as an underscore character, and is moved (←) or (→) by the arrow keys. When the cursor is under a desired item, select it by pressing ENT and the underscore becomes a solid box. Use (↑) or (↓) to scroll the available screens. When the desired setting has been made, press ENT to save the entry and put any change(s) into effect. If ENT is not pressed, and the keypad is left idle for 15 seconds, the changes are discarded. In a multi-digit selection, as in sub-carrier frequency, the boxed "Enter" cursor can be moved left or right to select other digits. Figure 25 and Figure 26 shows the Menu Tree.

Standard Screen:

The *Standard Screen* appears at power up, and displays channel, band, frequency, and output power. Note the cursor under the channel number.

CH=1	6,887.500MHz
BAND=6-7G	HIGH 0.0dBm D

Channel Selection:

Change channels on the *Standard Screen* by underscoring the channel and pressing ENT to select it. Use the up or down arrows to select the new channel, then Press ENT to have the new channel take affect. The unit will go to standby as the synthesizer changes frequency. Transmission will resume when the new frequency is reached.

Power Adjustment:

The power *mode* of the NewsCaster VT2 is set automatically to ANALOG or DIGITAL, based on the **Modulation (13)** selected on the

front panel. This should not be confused with the power *output*.

The user can select HI or LOW power output (*changes the output level 3 to 6dBm*) by pressing the HI/LO button (13). The power will change when the arrow button is released. The new value displayed is the current power.

CH=1	6,887.500MHz
BAND=6-7G	LOW 0.0dBm D

Frequency Direct:

This is an optional operating mode allowing the frequency to be changed without limitation to channels. To use, move the cursor to underline the frequency, and press the ENT key. Use the left and right arrows to select the digit(s) to edit, and the up and down arrows to change the value(s). Continue this procedure until the entire frequency has been set. When complete, press ENT to have the new frequency take effect. If the frequency entered is outside the band of operation, the entry will be discarded, and an error message showing the valid region of operation will be displayed. In this mode the channel number is replaced with asterisks "****". To return to channel mode, select the channel with the cursor and change it to the desired channel number.

5.2 CONTROLS AND INDICATORS

The NewsCaster VT2 operating controls and indicators are shown in Figure 26. Location numbers provide for cross-reference between the figure and description.

ON/OFF (1) Power On/Off control

STAT. (2) The following show the unit's status:

Remote: Unit is under remote control.

RF (Green): RF present at output port.

STBY (Yellow): Indicates muted output

Alarm (Red): Indicates that there has been a module failure. The exact reason for the alarm can be determined from the Alarm section of the Main Menu. (See Section 5.3)

Preset (3)

Six programmable preset keys are provided to save and recall system configurations. To store the current settings to a Preset, *Press* and *Hold* the desired Preset key for *four* seconds. The following settings will be saved:

- Modulation Type.
- Input Type.
- Output Power.
- Channel Number.
- Audio Settings.

LCD Interface (4)

The LCD is the main interface to the unit. The display shown in Figure 26 is *the Standard Screen*.

Entry Keypad (5)

This keypad is used to navigate the LCD menus. The *ENT* key is used to enter and exit from edit mode, and to make menu selections.

Mode (6)

The MODE key is used to select from the following four operating modes:

NORMAL

Transmitter is active, with or without a video (*or composite*) input signal.

STANDBY

Transmitter is in STANDBY until switched to another mode. Frequency synthesizer is locked on frequency.

V. PRES. STBY

This mode is only selectable when input is set to *VIDEO*. If no video is present, the transmitter will switch to STANDBY after a two-second delay (*minimum*). Use this mode to remotely place the transmitter into STBY when a video signal is removed. If the Test Generator is installed, the user may set Color Bars to be activated rather than have the unit go into STBY. See Section 5.4.

V-BLK STB

This mode is only selectable when input is set to *VIDEO*. If the camera is capped, or black video is present at the video input (*no vertical interval signals present*) the NewsCaster V12 will switch to Standby within 30 seconds. If the black video or black burst is removed, the unit will switch to Standby in 2 seconds. When the video signal is reapplied, the unit will return to Normal mode within 2 seconds. If TEST GEN is installed, the user may select Color Bars to be activated rather than having the unit go into STBY.

AUDIO (7)

The *AUDIO* quick key is used for basic audio sub-carrier mode (LINE/AES) selection and gain changes.

SC1 Off/Line/AES 6.200MHz +2dB
SC2 Off/Line/AES 6.800MHz +2dB

Note: You can NOT change Audio Sub-Carrier frequencies via this interface. Please refer to section 5.3.2 "Audio Sub-Carrier Frequency" in the "Nextel BAS Relocation Settings" section.

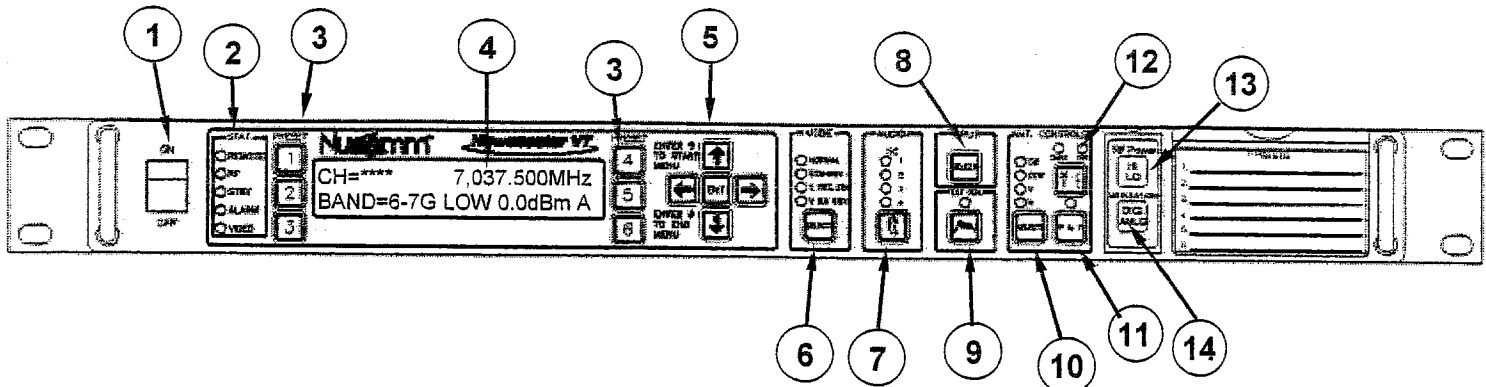


Figure 26: NEWSCASTER VT Front Panel Controls and Indicators

The gain or mode selection is made using the left or right arrow keys and edited using the standard editing procedure. Additional audio sub-carriers are selected with the up and down arrows. To edit sub-carrier frequency, refer to *Settings* in Section 5.4.

The gain adjustment allows for ±6 dB of gain, and can be used to compensate for variance in line levels. Audio levels will be expressed in dBm when using analog modulation, and in dBu when in digital, per the following:

$$P_{dBm} + \text{Gain} - 18 = P_{dBu}$$

$$0.0 \text{ dBm} = -18 \text{ dBu}$$

If LINE is selected, the unit accepts balanced 600-Ohm inputs at +8 dBm Analog (-10 dBu Digital). At 1 KHz input, headroom is +18 dBm Analog (0.0 dBu Digital).

If AES is selected, the unit accepts data from the backplane AES port(s) and decodes the Group 1 audio from the SDI stream. If only two audio channels are configured, they will be the first channel in Group 1.

Four LED's indicate the status of the audio channel:

GREEN: On and working - OK.

GREEN Flashing: Over modulation.

RED: Trouble indication.

OFF: Off, or not configured.

INPUT (8)

The *INPUT* key brings up the *Input Screen* to select the mode of the input BNC connector. Press *ENT*, then use the up and down arrows to select the desired format. Press *ENT* to confirm entry. To return to the *Standard Screen*, press the *Input* key or wait 15 seconds.



When analog modulation is selected, the input selections will be:

Composite - The signal applied at the INPUT connector is routed through the internal low pass filter to modulate the output. Typically, this filter has a bandwidth of about 4.0 MHz for NTSC and 5.6 MHz for PAL. The NTSC filter selectivity ensures the higher frequency video components do not interfere with the 4.83 MHz audio subcarrier.

SDI - SDI is converted to Composite via an internal circuit and then processed as a Composite signal.

Baseband/FSK - In this mode, the signal bypasses the internal video low pass filter. The input bandwidth (about 10 MHz) is sufficient to pass a complete composite video plus audio sub-carriers. If the audio sub-carriers are "ON" they

will appear summed into the baseband signal.

External 70 MHz FM - The input bypasses the modulator, and is routed directly to the heterodyne up-converter.

When digital modulation is selected, the input selections will be:

Composite - In this mode the input signal is passed through the MPEG Encoder and converted to digital.

SDI - The Input is routed through the MPEG Encoder.

External 70 MHz Digital - The input bypasses the modulator, and routes to the heterodyne up-converter.

ASI - Input bypasses the Encoder and goes to the digital modulator. The ASI rate must be at or below the maximum digital modulation rate.

TEST GEN (9)

This key allows editing of the 16 character ID, and selection of the waveform display. This is only selected when the input type is set to "VIDEO".

When TEST GEN is enabled, the green LED is lit and the LCD displays the current pattern and ID. The menu will time-out after 2 seconds. Pressing TEST GEN a second time disable TEST GEN.

ANTENNA CONTROL (10)

The SELECT key is used to change the antenna polarization.

PAN & TILT (11)

When Pan & Tilt is pressed, the Red indicator LED is lit to indicate P/T power is enabled. Any joystick movement will move the antenna in that direction. A display for

P/T elevation and azimuth is available. When operating the Pan & Tilt, the antenna movement MUST also be physically monitored to reduce the danger of hitting power lines, etc. When the desired position is reached, press Pan & Tilt again to disable power to the motor and reduce the possibility of unintentional antenna movement.

ANTENNA SELECTION (12)

This key toggles between Omni or Directional for antenna selection. If no Omni is connected this function should be disabled. (See Options in Section 5.4.)

RF POWER (13)

This key selects whether the unit will operate in HI or LOW power mode.

MODULATION MODE (14)

This key selects whether the unit will operate in Analog or Digital mode.

5.3 MENU SYSTEM

5.3.1 Main Menu

Settings
Monitoring/Alarm

Refer to Figure 28 for a tree diagram of the menu system. To enter the Main menu, hold (↑) and press ENT. To select a sub-menu, move the cursor to the desired item, and press ENT. To move back up a level, select (←) at the upper left of the screen and press ENT.

The Main Menu contains settings not ordinarily required during standard operation, such as the following:

- Modify the frequency plan.
- View trouble-shooting information.
- Changing sub-carrier frequencies.
- Changing video configurations.

- Setting up the remote interface.
- Configuring special unit options.

5.3.2 Settings

Selecting "Settings" accesses the system settings menu.

```

┌ Mod/Enc  Options PA
└ Frequency Plan  Remote
    
```

Mod/Enc (Modulator/Encoder)

Selecting Mod/Enc provides access to parameters for video, audio, the MPEG-2 encoder and the digital/analog modulator. First you must select whether you want to modify Analog or Digital parameters.

```

┌ ANALOG
└ DIGITAL
    
```

Analog Video and Audio

```

┌ Video
└ Audio
    
```

Video Setup (FM modulation)

```

┌ Video Level: 0
└ Video Emphasis:
  NTSC/PAL/Flat
    
```

Video invert and emphasis are edited from here. If the NewsCaster is used with existing gear that inverts the video, it can be pre-inverted at the transmitter to compensate. The pre-emphasis network may be bypassed, if desired.

Pressing the UP or DOWN arrow selects the Video Standby screen where Video Black Standby and Video Standby are set. SIBY can be changed to TEST GEN if that option is installed.

```

┌ Vid-Blk Stby: Standby
└ Video Standby: Standby
  Video Inverse: Invert/Normal
    
```

Audio Setup (FM modulation)

```

┌ SC1 Freq:7.500MHz EMP
└ Mode:LINE      Level:+2
    
```

This screen allows viewing and editing of the analog audio configuration. Input mode, emphasis or flat, sub-carrier frequency and level may be selected. Pressing the UP or DOWN arrows toggles between the audio inputs.

Video Setup (Digital modulation)

```

┌ ANALOG
└ DIGITAL
    
```

When Digital is selected, you will see a screen allowing access to Modulator and Encoder settings.

```

┌ Modulator
└ Encoder
    
```

Modulator Setup

```

┌ Power: On   Mod: QPSK
└ CR: 1/2   GI:1/32  BW:8MHz
    
```

You can view and/or edit the following:

- Power: On/Off.
- Modulation: QPSK, 64QAM, 16QAM.
- Code Rate: 1/2, 7/8, 5/6, 3/4, 2/3.
- Guard Interval: 1/32, 1/4, 1/8, 1/10.
- Bandwidth.

Encoder Screen:

```

┌ Audio      Video
└ Table     GOP      Rate
    
```

By selecting "Audio" you can view the sample rate.

By selecting "Video" you can view and/or edit the following:

- Standard: PAL, NTSC.
- Profile: 4:2:2, 4:2:0.
- Aspect Ratio.

By selecting "Table" you can view and/or edit the following:

- Service Name.
- Service Provider.
- PCR PID.
- Video PID.
- Audio 1 PID.
- Audio 2 PID.

By selecting "GOP" you can set the GOP level from 0 (Super Low Delay) to 5 (Highest Quality Encoding).

By selecting "Rate" you can view the "MPEG Only Rate".

Options:

← Start in Standby: NO	DIR Antenna Only: NO
← Antenna Type: Nucomm	P+T Position Pot: YES
← Elevation Thd: 70	

Start in Standby: The unit can be forced to startup in Standby regardless of the last mode used. Caution: if the power to the unit is interrupted for any reason the unit will not return to transmit without user intervention.

Dir Antenna Only should be set to YES if an Omni antenna is not connected to the RF Head. This locks the Antenna Selection Switch in DIR and prevents accidental switching to the Omni circuit.

Antenna Type is selectable between Nucomm and NSI. This will be factory set per the configuration ordered.

Pan + Tilt Position Pot If the Pan and Tilt control potentiometers are installed, then this option should be set to YES.

Elevation Threshold can be used to halt the Pan function when the selected elevation has been exceeded, to avoid equipment damage.

PA

This is a Factory access point to the power amplifier bias points, and should only be used with factory consultation.

Frequency Plan

←
2GHz 7GHz 12/13GHz

This menu allows viewing and editing of the frequency plan.

Remote:

←Remote Cfg
Download Data

This menu allows remote configuration through a PC. The type of interface (RS232 or RS485), BAUD rate, and address (1-255) are selectable.

The Download Data function is for use by factory personnel only.

5.3.3 Monitoring/Alarm (Trouble Shooting)

(See Table 9 for Alarms and their Cause)

Selecting Monitoring/Alarm allows status to be obtained on the Control and RF Units. Notice the internal temperature of the units may be monitored.

← Control: OK	25°C
RF Module: OK	63°C

Visibility to the full range of alarms is provided, with an indicator of which module is failing.

Control Unit:

← PSU:OK	Audio:OK
Mod/Enc:OK	Enc:N/A

This first screen under "Control" provides an overview of the Control Unit. To obtain specific module status, move the cursor and press *ENT*.

Power Supply Screen:

← PSU:+12 Voltage OK
+12= +11.9V -12 = -12.0V

This screen displays the units PSU voltages. The first display line toggles between the two voltages present.

Modulator/Encoder:

← Encoder: WORKING OK
Ver: *.*.*
↔ Encoder: WORKING OK
Curent Rate: *.*.*.mbps
← Encoder: WORKING OK
Max Rate: *.*.*.mbps

This screen displays modulator/encoder status. Version, Current Rate, and Maximum Rate are displayed.

RF Unit:

← P&T:N/A	Synth:OK
Controller:OK	

This first screen under "RF Module" provides an overview of the RF Unit. To obtain specific module status, move the cursor and press *ENT*.

P&T Screen:

← P&T:WORKING OK

Under this screen, the status of the pan and tilt motor is displayed.

Synthesizer Screen:

← Synth:WORKING OK
Loop=+2.9V

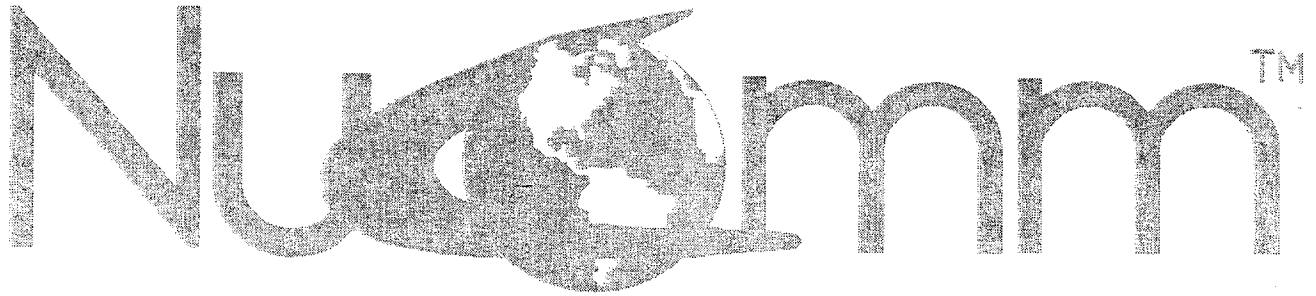
← Synth:WORKING OK
15.0= +14.5V 22.0= +23.2V

Under this screen, the locked status and loop voltage of synthesizer is displayed.

Controller Screen:

← RF Router:WORKING OK
Ver:D2
← RF Router:WORKING OK
+48v= +41 +11v= 10.7V
← RF Router:WORKING OK
+5= +4.8V -5 = -4.7V
← RF Router:WORKING OK
+24= 22V Var = -8.9V

These screens provide status on the power supply voltages, plus the firmware version of the control board in the RF Head.



5.4 NEXTEL BAS RELOCATION SETTINGS

For our US clients, the NewsCaster VT2 is designed so that when it's time to switch over to the "post-Nextel" 2GHz band plan **you will only need to change one setting, on one screen.**

To preset the unit for "pre-Nextel" and "post-Nextel" operation, there are two groups of settings that must be made: "AUDIO SUB-CARRIER FREQUENCY" and "CHANNEL BANDWIDTH & BAND PLAN". These are described below.

5.4.1 Audio Sub-Carrier Frequency

In this section you set your "pre-Nextel" and "post-Nextel" Audio Sub-Carrier (ASC) frequencies, so that when you make the switchover they will be ready to go.

Start the ASC set-up procedure by making the following menu selections:
 SETTINGS>MODULATOR/ENCODER>ANALOG>AUDIO

This brings up a screen similar to the one at right, with the settings and selections as described below:

← SC1 Insertion: (-20 to -40dBc)
2(17)/7/13:
2(12) 1-7:
2(12) 8-10:

NOTE: Press "Up" & "Down" to scroll through the ASC's, and press "Left" & "Right" to scroll through the available settings. The settings for all ASC's are modified in the same fashion. ASC#1 is used as the example.

2(17)/7/13 This setting controls the frequency for the selected Sub-Carrier when operating in the "pre-Nextel" 2GHz band (USA), and also for all the other frequency bands (i.e. 7GHz or 13GHz). The possible range for this setting is 4.83MHz to 8.5MHz.

2(12) 1-7 This setting controls the frequency for the selected Sub-Carrier when operating in the "post-Nextel" 2GHz band (USA) on channels 1 through 7. The possible range for this setting is 4.83MHz to 5.2MHz

2(12) 8-10 This setting controls the frequency for the selected Sub-Carrier when operating in the "post-Nextel" 2GHz band (USA) on channels 8 through 10. The possible range for this setting is 4.83MHz to 8.5MHz

Nucomm's default Audio Sub-carrier Frequencies				
Bandplan	ASC1	ASC2	ASC3*	ASC4*
2(17)/7/13	4.83MHz	6.20MHz	6.80MHz	7.50MHz
2(12) 1-7	4.83MHz	5.20MHz	6.80MHz	7.50MHz
2(12) 8-10	4.83MHz	6.20MHz	6.80MHz	7.50MHz

**NOTE: Due to bandwidth limitations, only two ASC's can be active on the "post-Nextel" 2GHz bandplan (US), regardless of how the unit is hardware configured.*

5.4.2 Channel Bandwidth And Band Plan

In this section you can set your “pre-Nextel” and “post-Nextel” Video Bandwidth Deviation, so that when you make the switchover they will be ready to go.

Start this set-up procedure by making the following menu selections:

MENU>Settings>Options>Nextel

This brings up the screen at right, with the settings and selections as described below:

2GHz Freq Plan: 2G(17), 2G(12)
BW(2G(17)/7/13): 4MHz, 3MHz
BW(2G(12)8-10): 4MHz, 3MHz

2GHz Freq Plan

This setting controls the 2GHz Frequency Plan which will be used by the radio. Select the 17MHz “pre-Nextel” bandplan by choosing “2G(17)”, or the 12MHz “post-Nextel” bandplan by choosing “2G(12)”.

BW(2G(17)(7/13)

This setting controls your Video Deviation bandwidth when operating in the “pre-Nextel” 2GHz band (USA), and also for all the other frequency bands (i.e. 7GHz or 13GHz). The possible selections are 3MHz or 4MHz.

BW(2G(12) 8-10)

This setting controls the Video Deviation bandwidth when operating in the “post-Nextel” 2GHz band (USA) on channels 8 through 10. The possible selections are 3MHz or 4MHz.

NOTE: Due to bandwidth limitations of the “post-Nextel” 2GHz bandplan, in “2G(12)” mode, the Video Deviation bandwidth of 2GHz channels 1 through 7 is locked at 3MHz..

5.4.3 SWITCHOVER TO “POST-NEXTEL” SETTINGS

For our US clients, when your DMA switchover date arrives, assuming you have already set the unit per the preceding guidelines, you will only need to take the following steps to put the radio on the new “post-Nextel” settings:

Step #1: Navigate to the following menu: *Settings>Options>Nextel*

Step #2: Change your “2GHz Freq Plan” setting from “2G(17)” to “2G(12)”

Step #3: Done!

NewsCaster VT2 Alarms		
Alarm Message	Problem	Probable Cause
"+11V Error"	+11 VDC is out of tolerance.	Problem in power supply or +11 VDC line being loaded down.
"+5V Error"	+5 VDC is out of tolerance.	Problem in power supply or +5 VDC line being loaded down.
"IFLO Unlock"	IF Local Oscillator (Reference) cannot frequency lock.	Reference Oscillator signal wrong or bad.
"RFLO Unlock"	RF Local Oscillator (Reference) cannot frequency lock.	Reference Oscillator signal wrong or bad.
"MOD: FPGA FAIL"	FPGA failed software loading from PROM.	Bad PROM.
"MOD: LOADING ERR"	MOD microprocessor failed loading data EPROM or EPROM data not recognizable.	Bad EPROM or EPROM data corrupted.
"MOD: VIDEO ERROR"	MPEG Video FIFO Read/Write Error.	Bad MPEG Encoder Module.
"MOD: AUDIO ERROR"	MPEG Audio FIFO Read/Write Error.	Bad MPEG Encoder Module.
"MOD: ASI OVERFLOW"	External ASI Data Rate Error	Check devices for proper data rate setting. Check external ASI signal for problems. Possibly U1 (<i>SDI Receiver</i>) of COFDM MPEG 2 Encoder Board, its PLL circuit, or its clock is bad.
"MOD: ASI UNLOCKED"	External ASI Signal Lock Error	Check external ASI signal for problems. Possibly U1 (<i>SDI Receiver</i>) of COFDM MPEG 2 Encoder Board, its PLL circuit, or its clock is bad.
"MOD: NO VIDEO INPUT"	Video signal missing.	Bad cable, bad connector, or COFDM MPEG 2 Encoder Board bad.
"MOD: NO AES AUDIO 1"	No AES Audio 1 signal.	Possibly U24 or U11 of COFDM MPEG 2 Encoder Board bad.
"MOD: NO EMD AUDIO 1"	No Embedded Audio 1 signal.	Possibly U1 (<i>SDI Receiver</i>) or U17 (<i>Microprocessor</i>) of COFDM MPEG 2 Encoder Board bad.
"MOD: EMB RATE 1"	Embedded Audio 1 Data Rate Error.	Check devices for proper data rate setting. Check external SDI signal for problems. Possibly COFDM MPEG 2 Encoder Board bad.
"MOD: NO AES AUDIO 2 "	No AES Audio 2 signal.	Possibly U22 or U7 of COFDM MPEG 2 Encoder Board bad.
"MOD: NO EMD AUDIO 2"	No Embedded Audio 2 signal.	Possibly U1 (<i>SDI Receiver</i>) or U17 (<i>Microprocessor</i>) of COFDM MPEG 2 Encoder Board bad.
"MOD: EMB RATE 2"	Embedded Audio 2 Data Rate Error.	Check devices for proper data rate setting. Check external SDI signal for problems. Possibly COFDM MPEG 2 Encoder Board bad.

Table 15: NewsCaster VT2 Alarms

Monitoring/Alarm

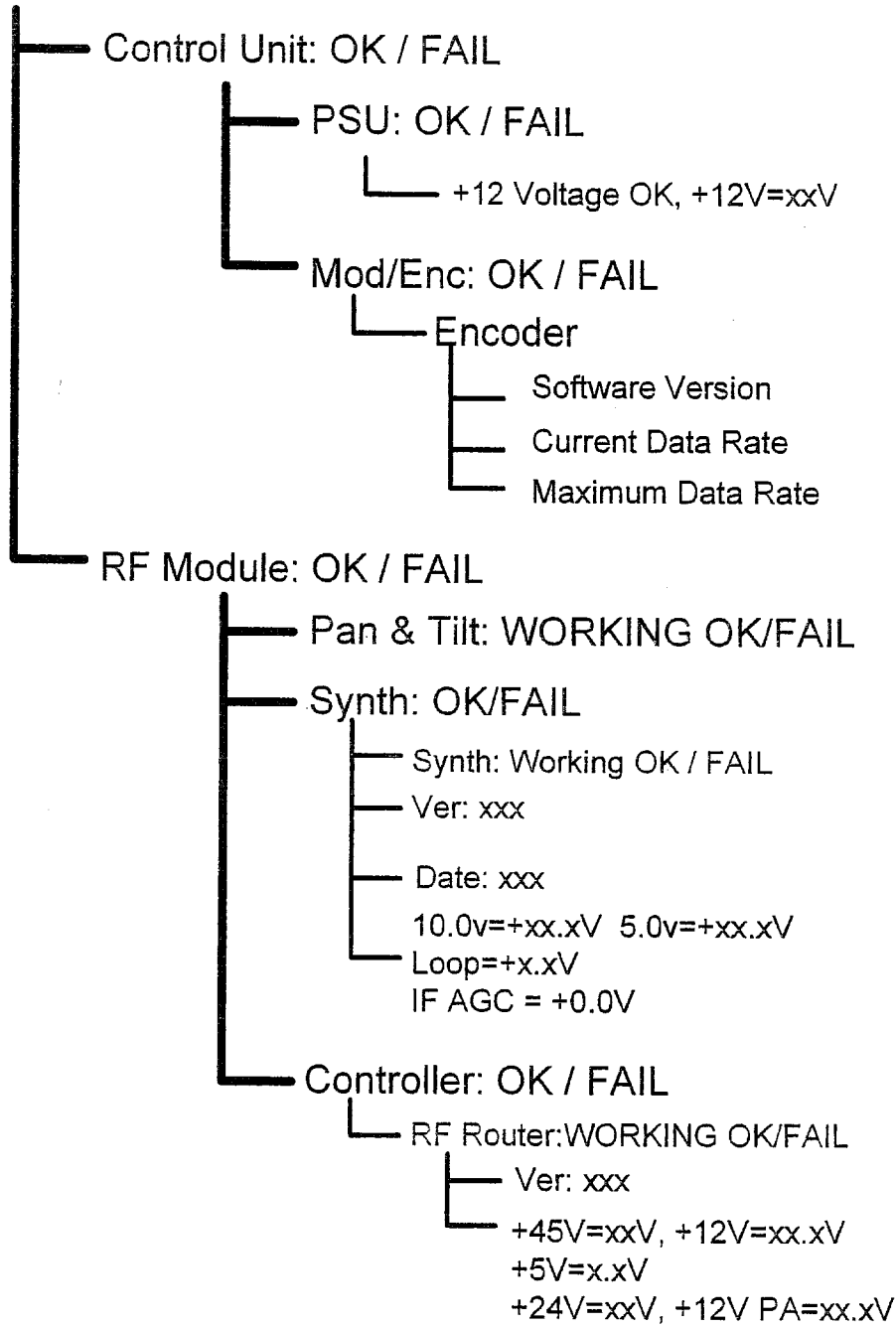


Figure 27: Monitoring & Alarm Menu Flow

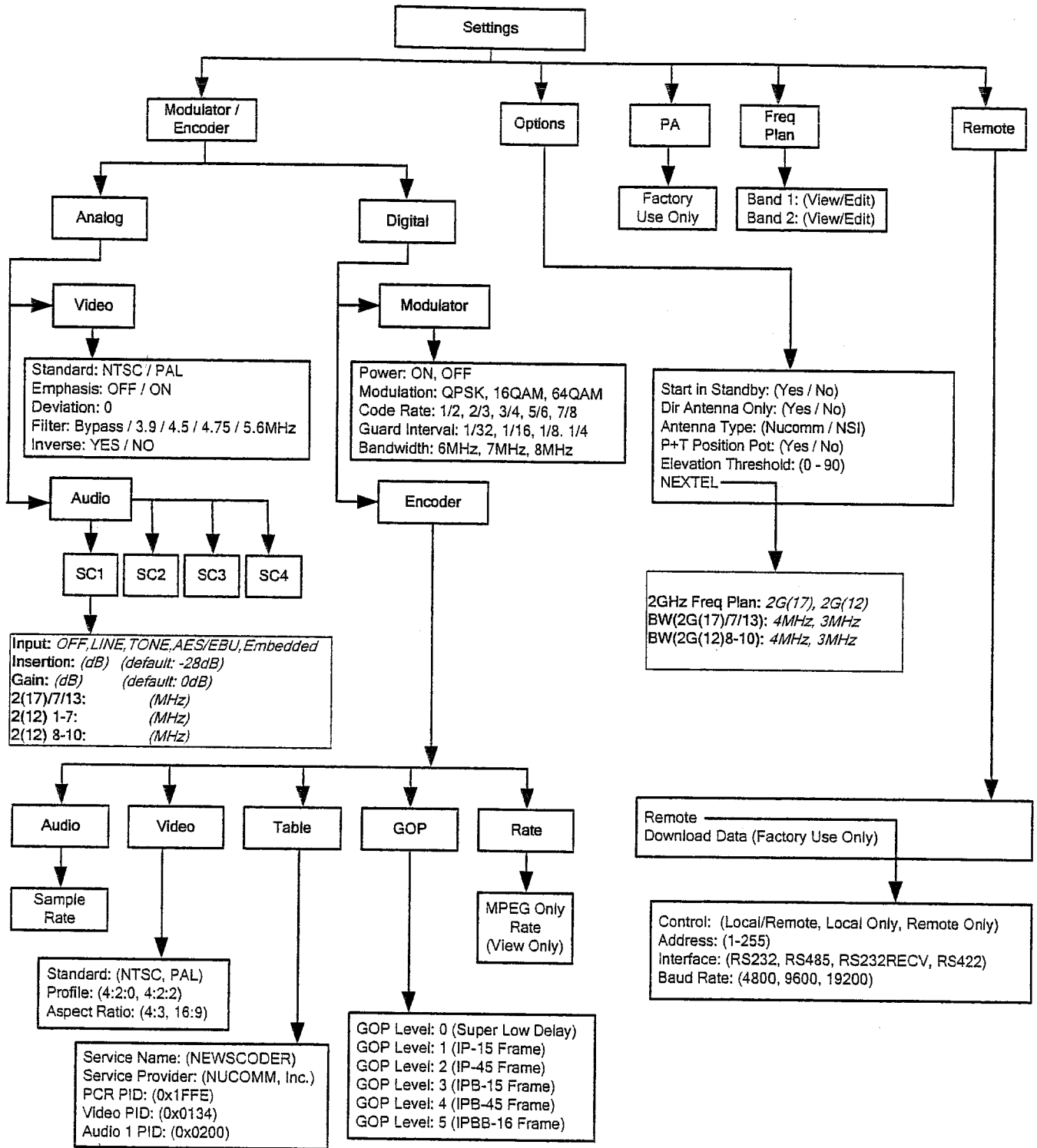


Figure 28: "Settings" Menu Tree