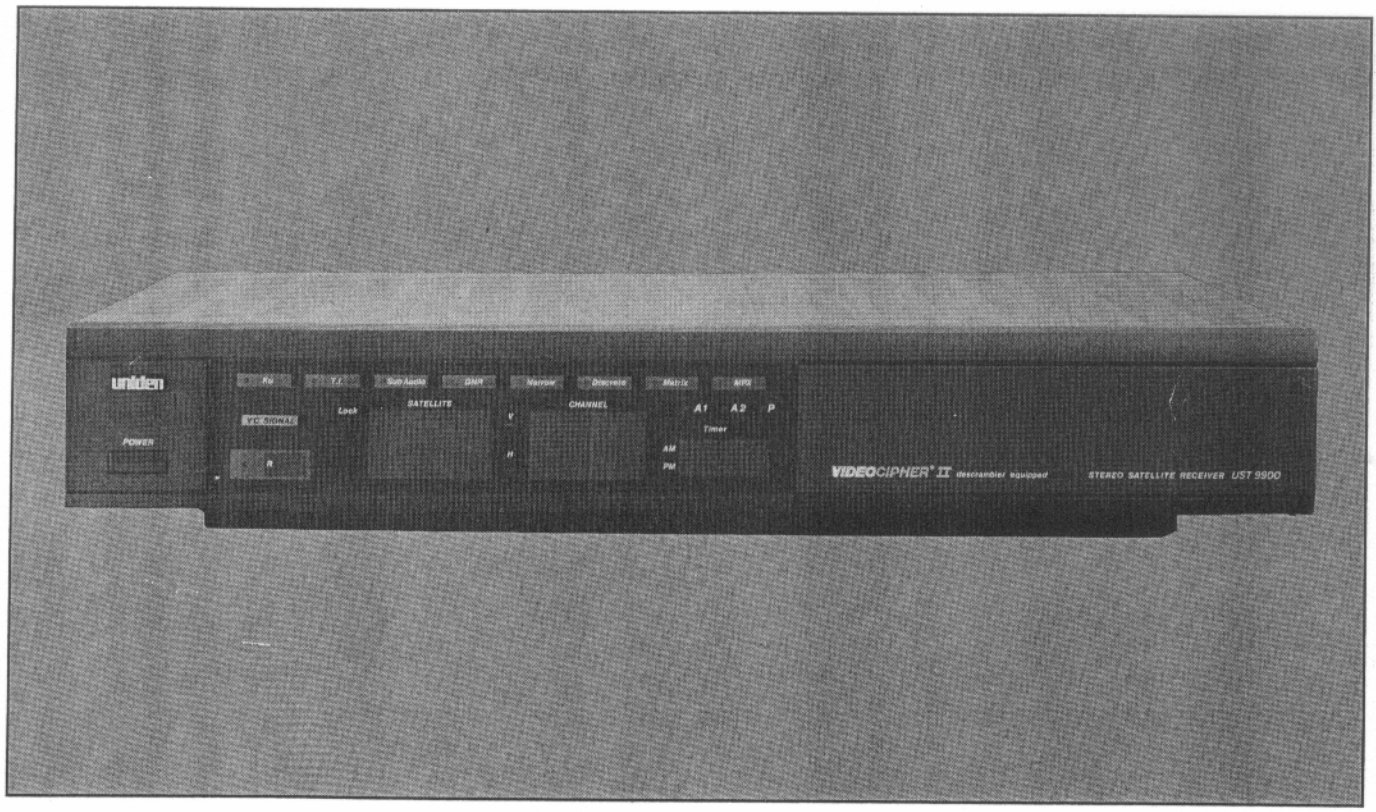
uniden®

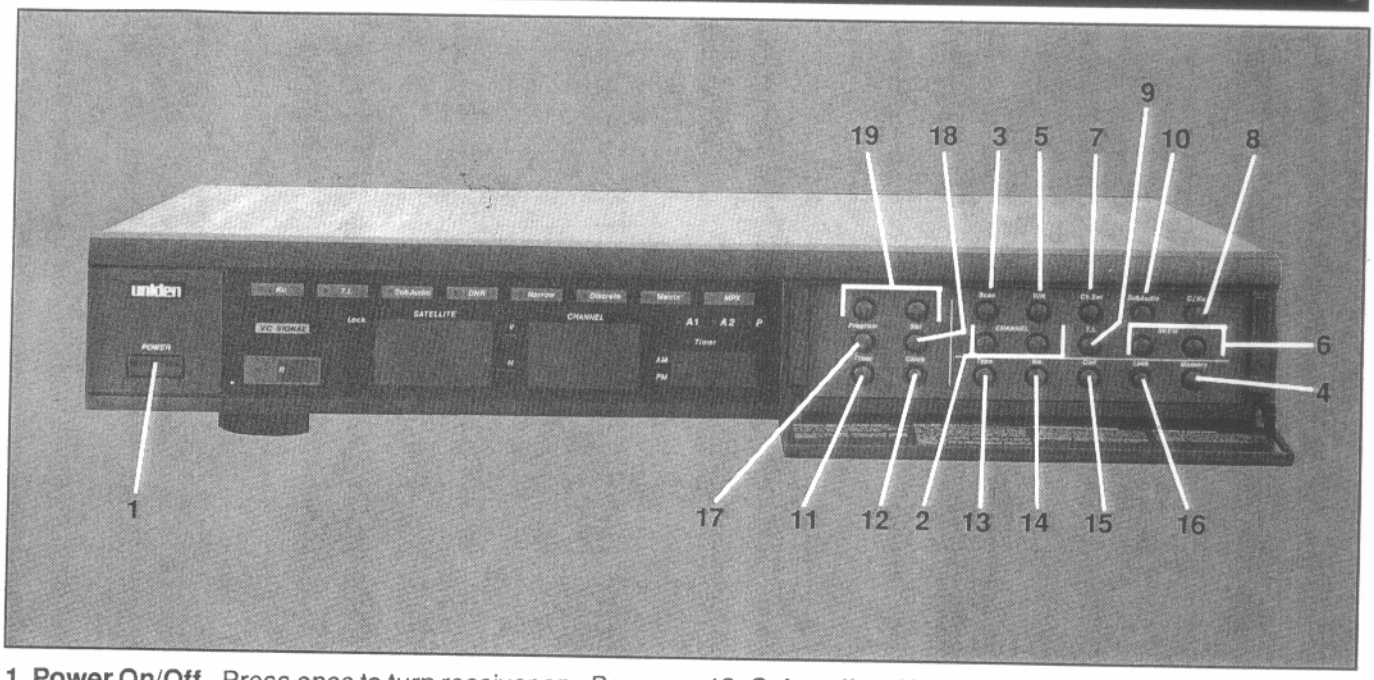
Satellite Television System

UST 9900



A complete guide to the installation and operation of the UST 9900 Integrated Receiver/Descrambler system.

Front Panel Controls 1



1. Power On/Off - Press once to turn receiver on. Press again to turn receiver off. When the receiver is turned off, power will still be supplied to the microprocessor, the VideoCipher II® descrambler and components mounted on the antenna. It is normal for the top of the receiver to be slightly warm while the power is off.

2. Channel Up/Down - Press once to move up or down a single channel. Pressing continuously for more than 1/2 second causes channels to change rapidly.

3. Scan - Activates channel scan. Press once to scan 2 channels per second. Pressing continuously for more than 1/2 second causes scanning to occur at the rate of 8 channels per second.

4. Memory - Press to store audio frequency, channel number satellite position, polarity, audio mode, skew,TI, and video fine tune information. Pressing the Memory key for 4 seconds on an already programmed channel will erase the stored information..

5. V/H - Press to change polarity on a channel from horizontal to vertical or from vertical to horizontal.

6. Skew Keys - Fine tunes the polarizer for best picture. When skew center is reached the V or H LED will flash twice.

7. Channel Set - This feature is used in the Ku-band mode to change the displayed channel number to match a programming guide. Press once to cause channel indicator to flash. Enter the desired number using the remote control. Press MEMORY to change the entered channel number to receive the current program.

8. C/Ku - Press to select C-band or Ku-band signals. A Ku-band LNB must be installed to receive Ku signals.

9. TI - Activates a built-in TI filter when pressed. Use to improve reception on channels affected by mild terrestrial interference. Press a second time to turn the filter off.

10. Subaudio - Used to select analog audio subcarrier programming on VideoCipher II® scrambled channels.

11. Timer - Gives operational control of the system to the timer.

Note: All manual control of the system is locked out while in timer mode. To regain manual control, press the timer button and the timer LED will go out to show you that manual control is regained.

12. Clock - Used to display the clock on the TV screen. Press and hold for 4 seconds for clock setup.

13. Type - Select a letter from A-Z for the type of satellite. Pressing this key for more than 1/2 second causes letters to change at the rate of 4 per second.

14. No. - Select a number from 1-9 for the satellite. Operation is similar to the Type key.

15. Call - Once the desired satellite is in the display, pressing this key moves the antenna to the selected satellite. (If the satellite type in the display is blinking, this means that the particular satellite has not been programmed.)

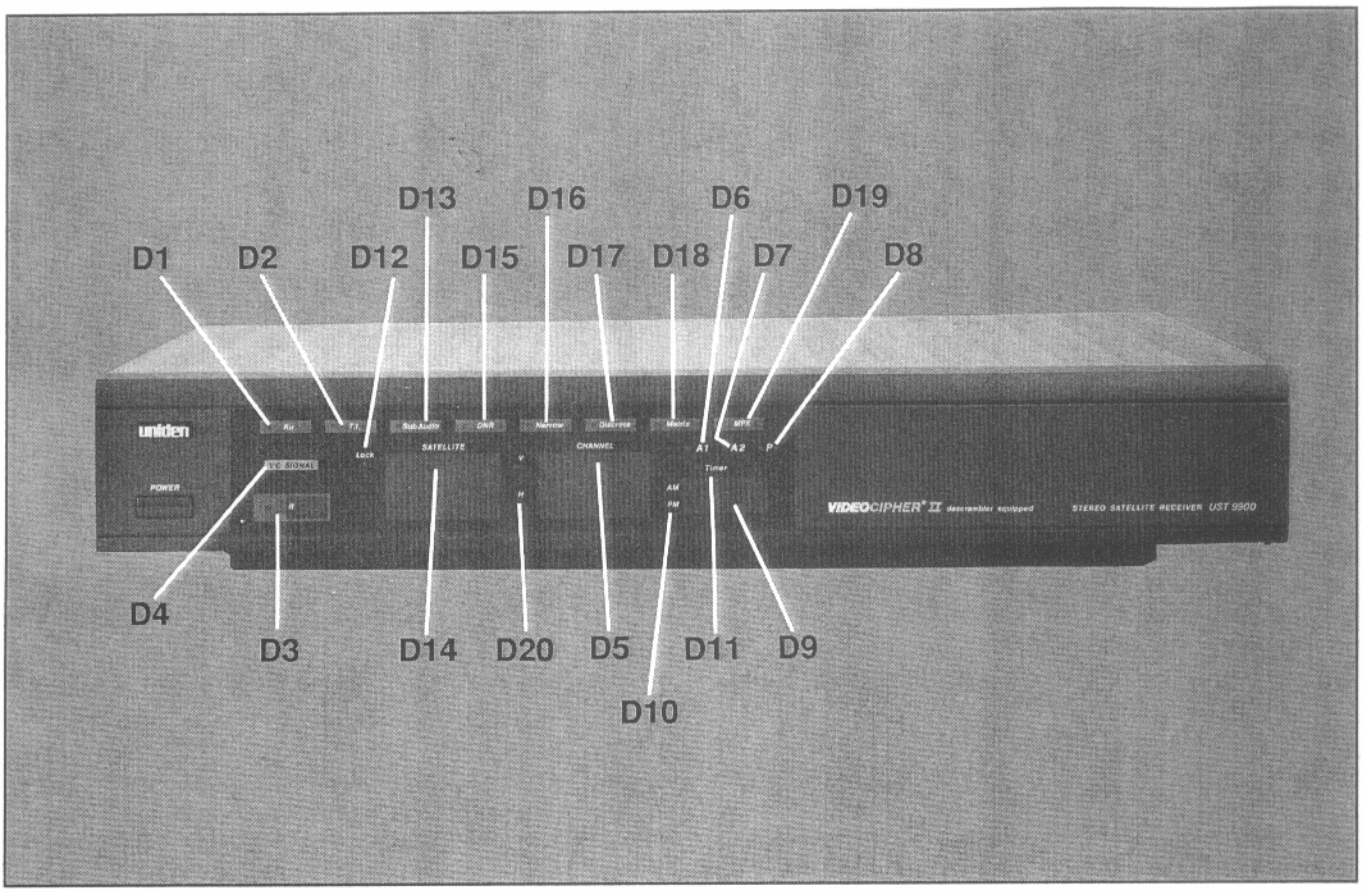
16. Lock - Press to lock memory. In this mode, satellites and satellite positions cannot be stored or changed, and the East and West keys will only move the antenna ± 10 counts for fine tuning. To cancel Lock Mode, press this key continuously for more than 4 seconds.

17. Program - Used for setting the timer.

18. Set - used for setting the clock and timer.

19. V and Λ - Used with the timer for setting the timer program number, day, start time, length, satellite, and channel number.

Display 1



D1. Ku LED - Lights when Ku-band reception is selected. Turns off when C-band mode is selected.

D2. TI LED - Lights when terrestrial interference (TI) filter is turned on.

D3. Remote Window - Receives the infrared signals transmitted by the remote control. The remote should be aimed at this window when it is being used. A red LED ("R") will flash when commands are received from the remote.

D4. VC Signal - This LED will glow when a VideoCipher II® scrambled channel is being received.

D5. Channel Display - This display shows the channel currently displayed or the channel number that you are selecting.

D6. Audio1 LED - Glows when numeric display shows audio 1 frequency.

D7. Audio2 LED - Glows when numeric display shows audio 2 frequency.

D8. Preset LED - Glows when numeric display shows preset channel number.

D9. Numeric Display - Normally indicates time. Indicates also audio 1, audio 2, antenna position, or preset channel number when appropriate LED is lit.

D10. AM/PM LED's - Indicate whether clock is showing AM or PM.

D11. Timer LED - Shows that the timer has control of the system.

Note: When this LED is lit, all manual controls are locked out. To regain manual control, press the timer button on the front panel.

D12. Lock LED - Indicates memory locked to prevent accidental erasure.

D13. Subaudio LED - Shows the analog audio subcarrier mode selected for a VideoCipher II® scrambled channel. This key has no effect when viewing an unscrambled channel.

D14. Satellite Display - Indicates the type and number of the current or selected satellite.

D15. DNR LED - When lit, this shows that the Dynamic Noise Reduction has been enabled.

D16. Narrow LED - Indicates narrow band audio mode.

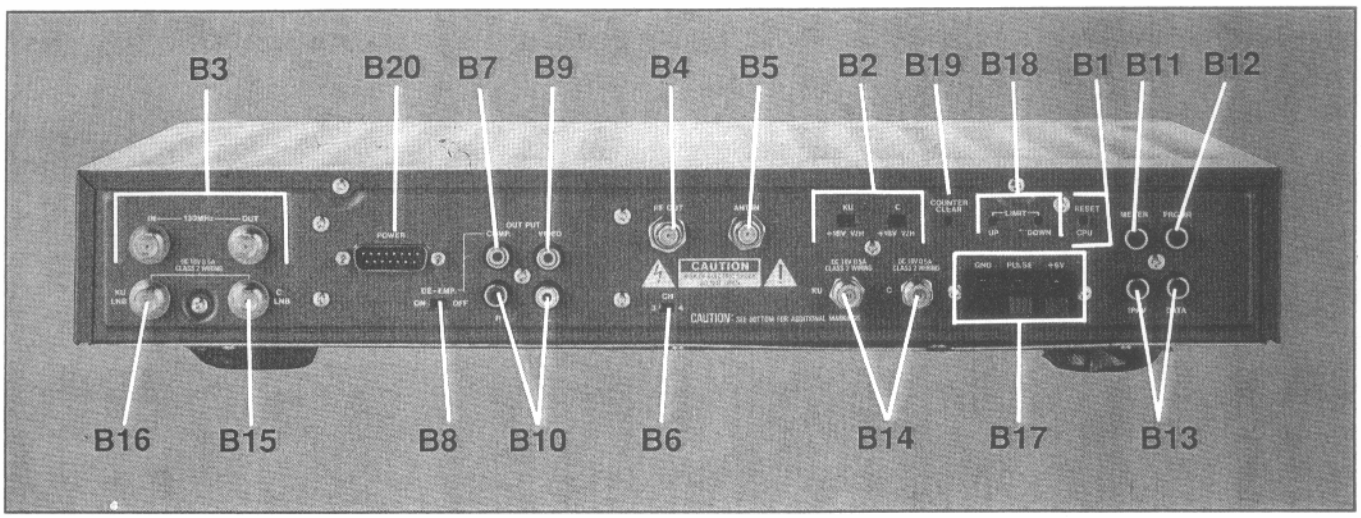
D17. Discrete - Indicates discrete channel stereo mode.

D18. Matrix - Indicates matrix stereo mode.

D19. MPX - Indicates multiplex stereo mode.

D20. V & H LED's - Indicates vertical or horizontal polarization mode. When exactly centered, one of these LED's will blink twice.

Rear Panel 1



WARNING: Do not use metallic objects to press the switches on the rear panel of the unit.

B1. CPU Reset - Pressing this button resets the CPU, clears the position counter and removes the up and down limits. While this will not erase the programmed satellites and positions, it will reset the position counter to zero. If the actuator is not also at zero, it will render the programmed position information useless.

B2. V/H Switches (C- and Ku-band) - When using the UST-524 for a multiple receiver installation, set the appropriate switch to the V/H position. For all other systems leave these switches in the +18V position.

B3. 130 MHz IF Loop Connections - These connections are provided for the installation of a filter in areas that experience severe terrestrial interference. If an external filter is not being used, the short cable included with the unit must be attached between the 130 MHz in and out connectors for the unit to operate.

B4. RF Out - Connect this output to the VHF input on your TV set.

B5. Ant. In - Connect this input to your external VHF antenna. When the receiver is turned off, the antenna will be connected to your TV set.

B6. Channel 3/4 Switch - The receiver is shipped with the receiver set to operate on TV channel 3. Set this switch to 4 if there is a strong local TV transmitter on channel 3. Your TV set should match the setting of this switch to view satellite programming.

B7. Comp. Out - Composite video output used with external descrambling devices or stereo processors.

B8. De-emp. Switch - This switch allows the video deemphasis to be removed from the composite output. Some external descramblers require this switch to be in the OFF position for proper operation.

B9. Video - Baseband video output for connection to video monitor or VCR.

B10. R and L Outputs - Connect your stereo, VCR or stereo monitor to these phono jacks for stereo audio on most VideoCipher II®-scrambled channels. Analog audio from Audio1 and/or Audio2 subcarriers is provided to both of these outputs when unscrambled channels are received, depending on the selected audio mode.

B11. Meter - This phono jack can be connected to a remote signal meter or ordinary voltmeter for antenna installation and alignment.

B12. Prgmr - This allows your dealer to quickly program tuning information when installing your system.

B13. Data and IPPV - These outputs are for future applications such as satellite to PC hookups.

B14. 18V Outputs (C- and Ku-band) - These F- connectors supply +18 VDC power to the UST-524 for multiple receiver installation. The outputs are energized as long as the receiver is connected to an AC power source.

B15. C LNB - This input accepts the 950-1450 MHz input from the C-band LNB. Power for the LNB is supplied through this connector.

B16. Ku LNB - This input accepts the 950-1450 MHz input from the Ku-band LNB. Power for the LNB is supplied through this connector.

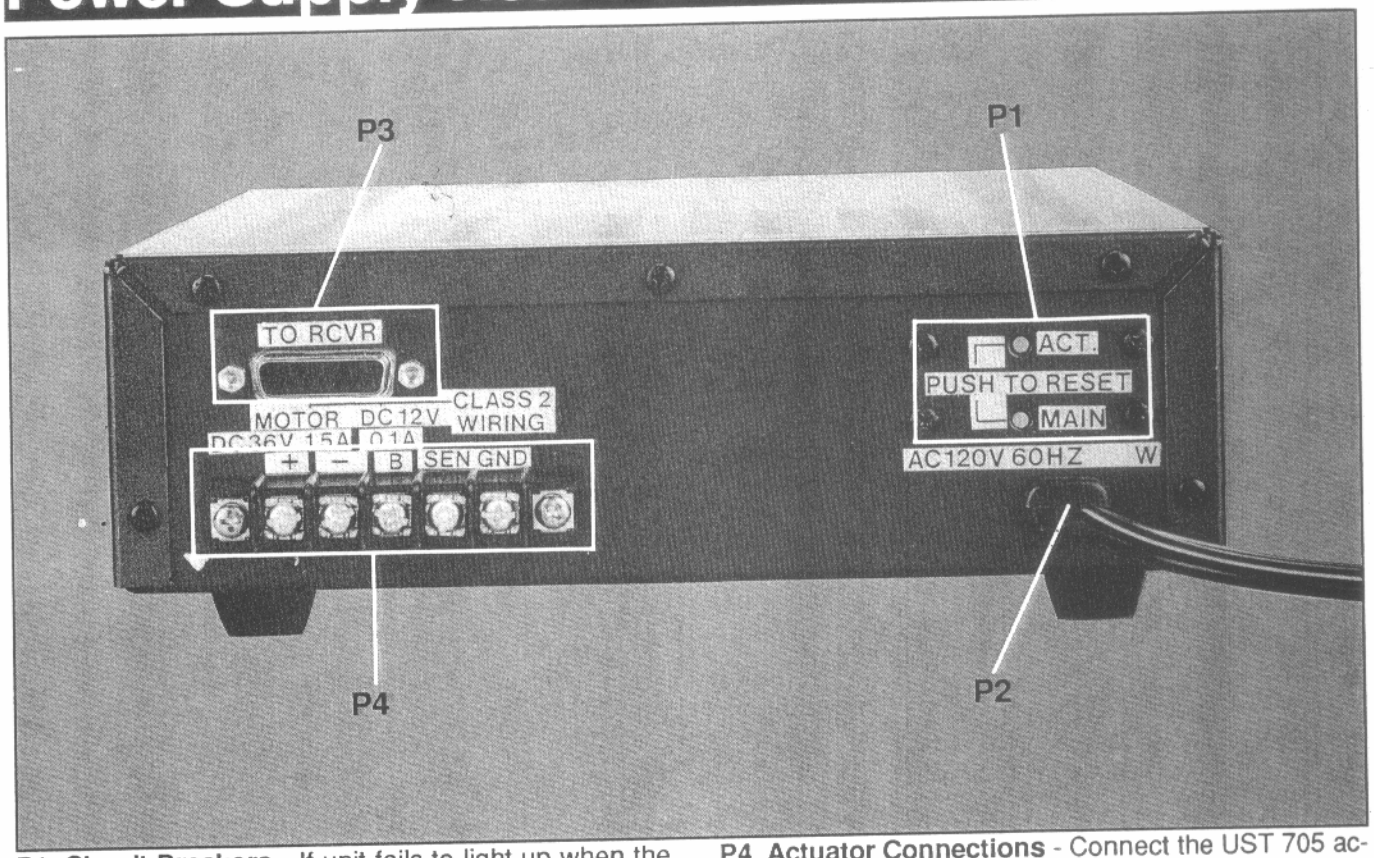
B17. +6V, Pulse and Gnd Terminals - These spring connectors provide power and control signals for a servo type polarization device. Power to the polarizer is automatically disconnected 4 seconds after a polarity change.

B18. Up/Down Limit - Use to limit the travel of the actuator to prevent dish from tipping over or striking an object. Press the Up Limit when the actuator is at the desired eastern limit of travel. Press the Down Limit when the actuator is at the desired western limit of travel.

B19. Counter Clear - Resets Position Display to 000 and clears the upper and lower limits.

B20. POWER - Power input connector from the UST 9900p power supply.

Power Supply Rear Panel 1



P1. Circuit Breakers - If unit fails to light up when the power button is pressed, try pressing the MAIN circuit breaker. If unit lights up but fails to move the antenna, try pressing the ACT circuit breaker.

P2. AC Power Cord - Connect to any 120V AC household outlet. Do not connect to an outlet controlled by a wall switch.

P3. To RCVR - Power output connector to the UST 9900 receiver.

P4. Actuator Connections - Connect the UST 705 actuator (optional) to these connectors. The connections are:

+, - 36V DC Motor Power

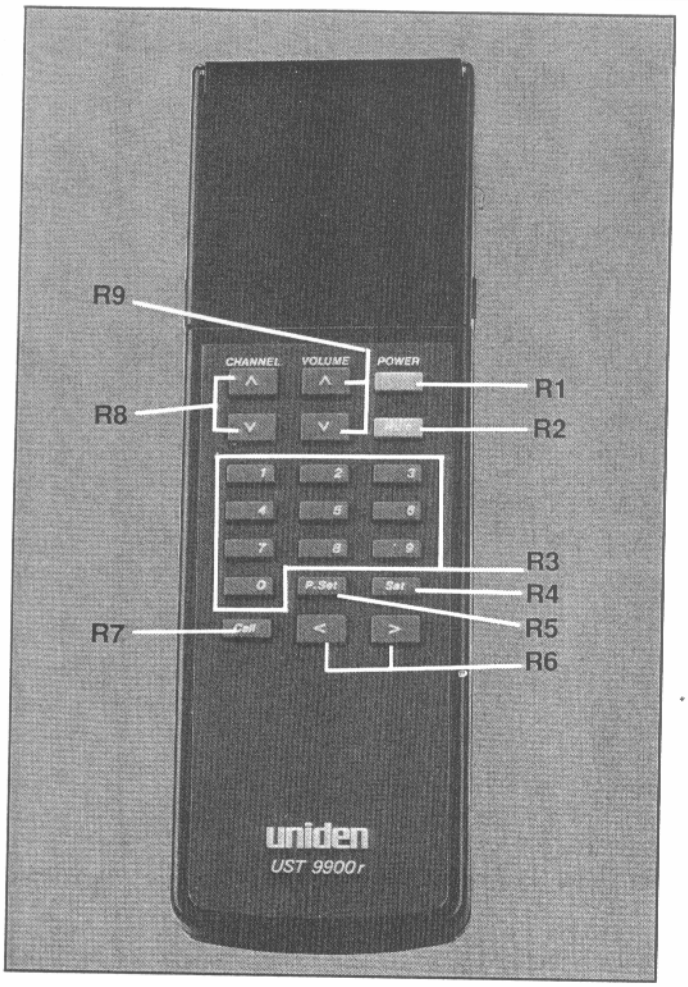
B 12V DC Sensor Power

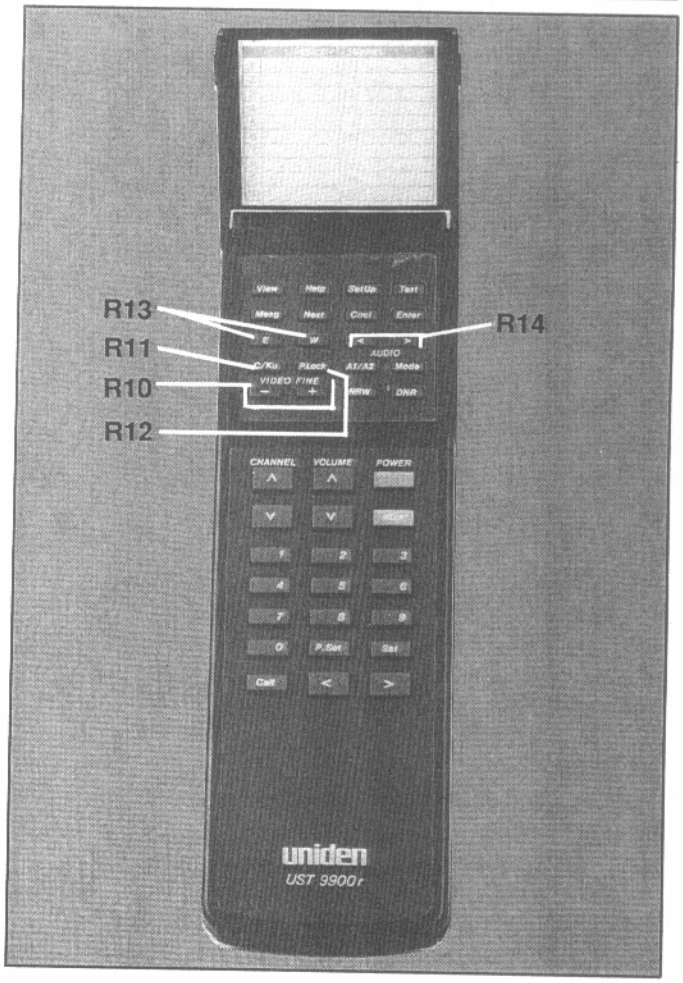
SEN Sensor Return

GND Sensor Ground

WARNING: Failure to observe proper polarity of connections may damage actuator and/or controller and void warranty.

Remote Control 1





Exposed Keys

R1. Power On/Off - This key turns receiver on and off.

R2. Mute - Press to mute audio. To restore original volume setting, press this key or volume up/down keys.

R3. 0-9 Keys - Press to select channel or preset number. Also used for selecting VideoCipher II® Descrambler menu options.

R4. Sat - Activates Satellite Menu function. Press once, then use < and > keys to select from stored satellites. See Satellite Menu section for more information.

R5. P. Set - Activates Preset Channel function. Press once, then use < and > keys or numbered keys to select a preset location.

R6. < and > keys - These keys are used for the Satellite Menu and Preset Channel functions.

R7. Call - Press after selecting a satellite or preset channel to automatically move the antenna and tune the receiver.

R8. Channel Up/Down - Press once to move up or down a single channel. Pressing continuously for more than 1/2 second causes channels to change rapidly.

R9. Volume Up/Down - Adjust the volume by pressing or holding these keys. Pressing either key after the mute key has been pressed restores volume to original setting.

Hidden Keys - lift cover to access

R10. Video Fine +/- - Use to fine-tune video reception. Press momentarily to adjust frequency up or down in small steps, press and hold to rapidly change frequency in larger steps.

R11. C/Ku - Press to select C-band or Ku-band signals. A Ku-band LNB must be installed to receive Ku signals.

R12. P. Lock -This key activates the Parental Lock feature. When activated on a given channel, it cannot be tuned in. To lock or unlock a channel, enter its number on the keypad, then press this key for more than 4 seconds.

R13. E and W - Fine-tunes satellite position east and west. Press once to move antenna one count, press and hold for continuous motion.

R14. Audio Up/Down - Allows adjustment of the audio subcarrier reception frequency from its initial setting of 6.8 MHz. Press once to adjust 10 KHz. Press and hold to rapidly change frequency in steps of 80 KHz. When pressed, the audio frequency will be displayed on the receiver front panel for 4 seconds.

Remote Control 1

VideoCipher II® Descrambler Keys

Note: These keys are operative only while the VC SIGNAL light on the receiver front panel is on. See the section on VideoCipher II® descrambler operation for more details.

R15. < and > - On VideoCipher II®-scrambled channels, use these keys to move back and forth in the VideoCipher II® Descrambler text files or to change program rating limits.

R16. View - Press this key to check the program title, running time and other information about the program you are watching.

R17. Help - Pressing this key provides instructional text to assist in setting up descrambler features and controls.

R18. Setup - Press this key along with a number key to display your Authorization Number and set up VideoCipher II® Descrambler channel services and features.

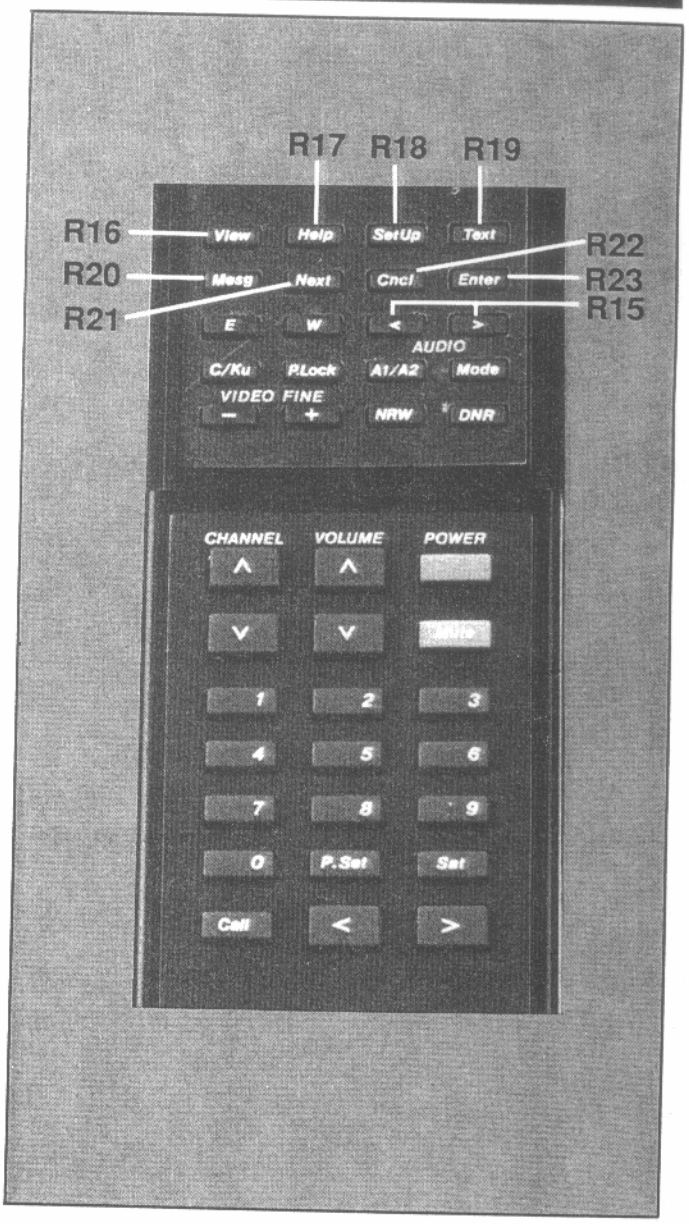
R19. Text - Some VideoCipher II® scrambled channels provide text information to their users. These messages can include news bulletins, program promotions and other special notes. Press this key to read channel and service related text on your TV screen.

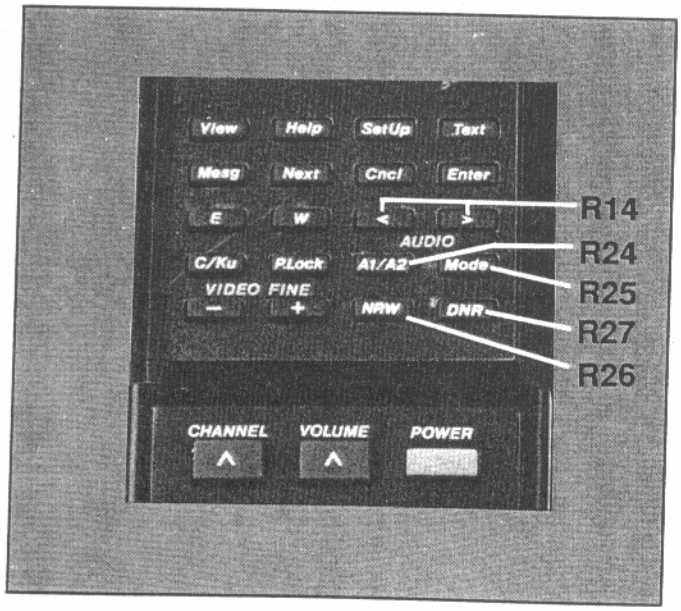
R20. Mesg - Occasionally a program supplier may have a personal message for you about your subscription. If you have received a message, you will see a flashing asterisk (*) in the upper right corner of your TV screen. Press this key to read messages on your TV screen.

R21. Next - Pressing this key causes information on the next scheduled program on the current channel to be displayed.

R22. Cncl - Press this key to clear any numbers that were entered incorrectly.

R23. Enter - Pressing this key confirms selections and password entries for VideoCipher II® Descrambler channel setup.





Audio Control Keys

R24. A1/A2 - Press this key to select audio 1 or audio 2 to change audio subcarrier frequencies.

R25. Mode - Press this key to select the stereo mode (discrete, matrix, or multiplex)

R26. NRW - Use this key to select between audio narrow and wide modes.

R27. DNR - This key will enable the Dynamic Noise Reduction circuitry in the audio section of the receiver.

R14. Audio Up/Down - Allows adjustment of the audio subcarrier reception frequency from its initial setting of 6.8 MHz. Press once to adjust 10 KHz. Press and hold to rapidly change frequency in steps of 80 KHz. When pressed, the audio frequency will be displayed on the receiver front panel for 4 seconds.

The TVRO System 2

A typical TVRO system incorporating the UST 9900 will consist of the following components:

Dish Antenna

The antenna receives and concentrates the extremely weak signal from the satellite.

Actuator

The actuator extends and retracts to aim the dish antenna at various satellites in orbit. The actuator is controlled with the built in Satellite Selector, which allows operation with the same remote control as the other functions of the UST 9900.

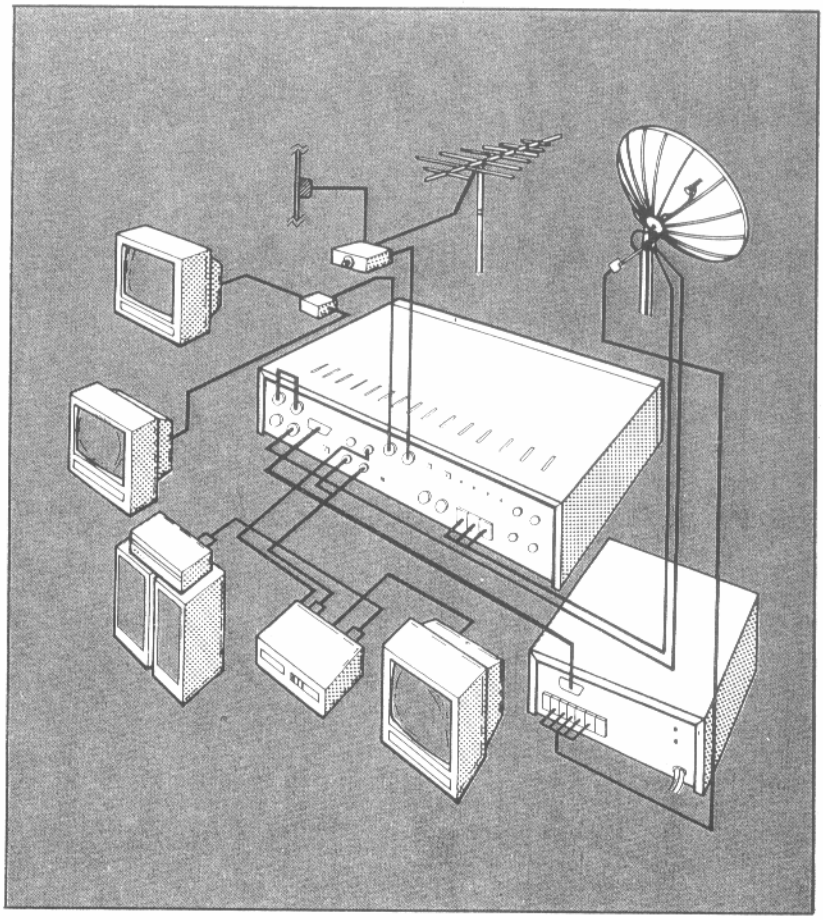
Feedhorn and Polarizer

The feedhorn, mounted above the center of the dish antenna, collects the concentrated satellite signal. The polarizer, contained within the feedhorn, selects the polarity of the signal that will be sent to the LNB.

LNB

The satellite signal is extremely weak by the time it reaches your dish antenna. The LNB (Low Noise Block Downconverter) amplifies the signal over 1,000 times and converts it to a lower frequency so that inexpensive coaxial cable can more easily carry it to your receiver.

One to four LNBs may be installed in your system, depending on the number and types of feedhorns that are installed. One LNB will be required if a single C-band feed is installed. The single feed polarizer selects either the vertical or horizontal polarity, depending on the channel that is desired. The dual feed polarizer accepts both vertical and horizontal signals simultaneously, and requires two LNBs. This feed is used in multiple receiver systems to allow different receivers to watch channels on either polarity at the same time.



Your UST 9900 is also equipped to receive Ku-band transmissions. The next few years will see a strong growth in the number of services that broadcast in this higher frequency band. In most cases, the same antenna used for C-band reception can be used to receive Ku-band transmissions. However, a special feedhorn and LNB must be added. Like C-band, the polarizer can be single or dual feed.

Receiver

The UST 9900 is a complete satellite reception system capable of storing the positions of up to 37 satellites as well as the tuning details for up to 24 channels per satellite, as well as satellite and channel number for up to 100 of your favorite channels.

TV Set

After the desired video and audio signals are obtained from the satellite signals, they are sent to your TV set for display. If the TV is a monitor type set, these signals are sent directly. If the set is a standard TV receiver, they are converted into a signal that simulates a TV broadcast station before being routed to your set.

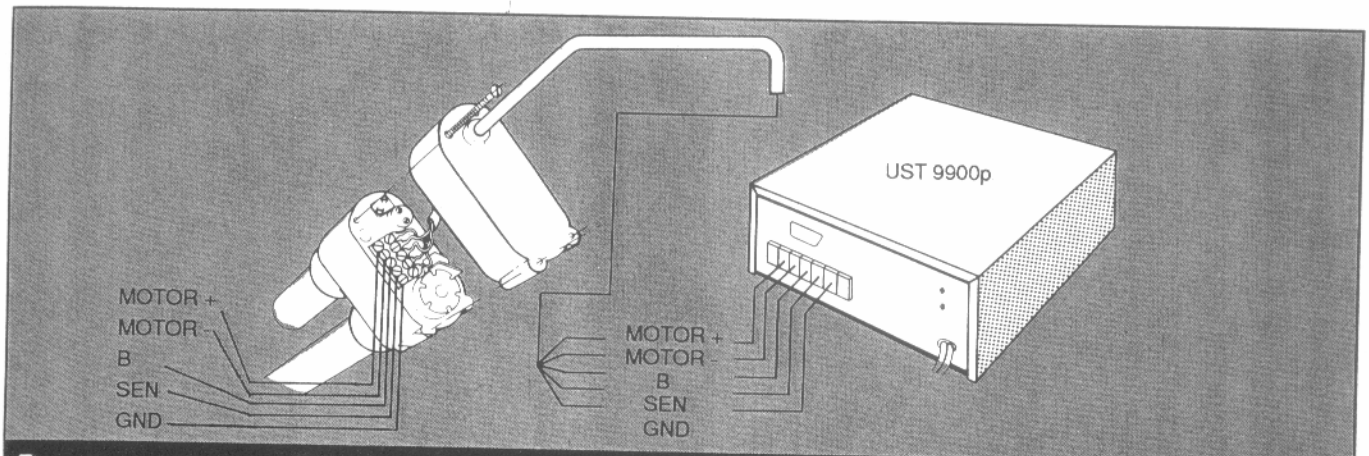
On most VideoCipher II® scrambled channels, digital stereo audio is transmitted. By connecting the UST 9900 to a stereo system, digital stereo sound can be obtained on these channels. The analog Audio1 and/or Audio2 outputs are output to the L and R outputs when unscrambled channels are received, depending on the selected audio mode.

Remote Control

The remote control included with the UST 9900 allows you to operate all functions of the receiver without leaving the comfort of your chair.

Actuator Connection 3

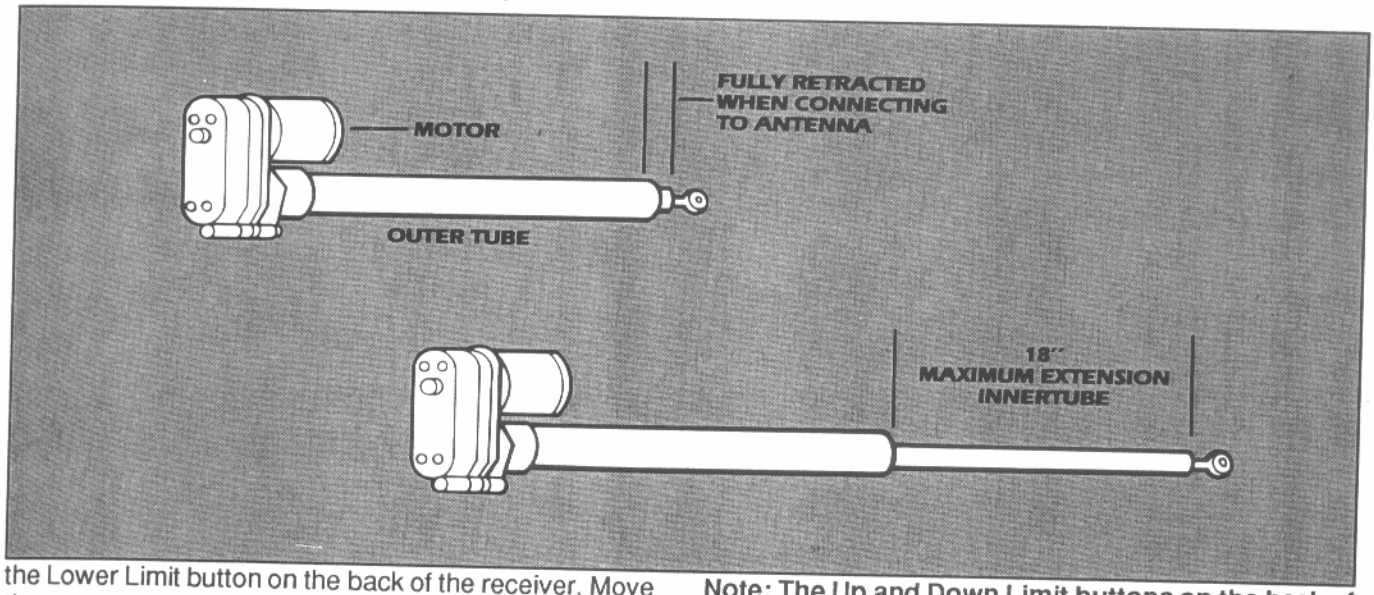
Remove the rear cover of the actuator motor. Inside the casing is a terminal strip. Connect the appropriate wires to the connections on the strip. Be sure to use the cables recommended in the preceding chart. Route the wire through the rubber seal and put the case back on the motor. Be sure that the gasket is properly seated for a weather tight seal. The actuator should then be connected to the 5 screw terminals on the rear of the power supply. Make sure that the proper connections are made. Any improper connection can cause permanent damage to your system.



Actuator Set Up

The actuator inner tube should be retracted as far as possible, leaving only the pivot socket exposed. The satellite position display on the UST 9900 should read 000 . If the display is not at 0, press the Counter Clear button on the back of the receiver. Once the counter is at 0, press the East key until the counter displays 010 . Press the Lower Limit button on the back of the receiver. Move the antenna all the way to the east. Press the West key to reverse it about 10 counts. Press the Upper Limit button on the back of the unit. After setting the limits, when the upper limit is reached the counter will display -U-. When the lower limit is reached, the counter will display -L-. Pushing the limit buttons a second time will erase the limit that was set.

Important: BE SURE TO SET BOTH THE UPPER AND LOWER LIMITS AS DESCRIBED ABOVE. IF THE LIMITS ARE NOT SET THE ACTUATOR WILL NOT WORK PROPERLY.



Note: The Up and Down Limit buttons on the back of the UST 9900 are used to stop the travel of the antenna in both the east and west directions. If there is some kind of physical obstruction or other reason that the antenna should not travel the full distance of its arc, the Up or Down limit should be set to stop the travel. To set the limit, advance the antenna to the farthest position it should travel. Press the Down button (for a western position) or the Up button (for an eastern position).

Programming 4

Programming Satellites and Channels

Turn the power on with the remote control or the front panel key. If the LOCK LED is on, turn it off by pressing the LOCK key on the front panel for more than 4 seconds. Press the SCAN key on the 9900 for more than 1/2 second to rapidly scan through the channels. Use the E or W key to move the antenna back and forth. When the screen flickers to indicate an active satellite release the direction key and press the SCAN key to stop the channel scan.

Next, use the Channel up/down keys to locate an active channel. If the picture appears scrambled or distorted, press the V/H key to change antenna polarity. If the picture does not improve, select another channel.

Use the E and W keys to fine tune the antenna position and bring in the best picture. Press the SKEW and VIDEO FINE +/- keys to further improve the picture. When optimum reception is achieved identify the satellite channel with your program guide to determine the satellite. Press the TYPE and NO. keys to display the letter and number corresponding to the satellite being received. Immediately press the MEMO key to store the present settings in memory. The satellite number will flash twice to confirm entry. The satellite is now stored in memory. Repeat this procedure until all active satellites are programmed. Up to 37 different satellites can be retained in memory at one time.

Audio Programming

When the UST 9900 is first turned on, the audio frequency is set on all channels at 6.8 MHz. This is the correct frequency for most channels. Some channels have audio frequencies that are different from 6.8 MHz. On these channels, select Audio by using the A1/A2 button on the remote. Then, simply adjust the audio frequency with the < and > buttons on the remote control. When these buttons are pressed, the AUDIO 1 or AUDIO 2 LED will be lit and the audio frequency will be displayed. The frequency can be varied from 5.0 to 8.5 MHz, and can be permanently stored by pressing the MEMORY key on the front panel. The number of the satellite will flash twice to confirm entry. Whenever this satellite and channel are selected, the audio will be tuned as programmed. Repeat the procedure for all channels requiring an audio frequency that differs from 6.8 MHz. After a few seconds, the LED will go out and the current time will replace the audio frequency in the display. *Note: You can only select and set the Audio 2 frequency when in Discrete or Matrix mode.*

Note: It is not necessary to tune audio on VideoCipher II® scrambled channels as the audio is digitally encoded. See the section on VideoCipher descrambler operation for details.

Programming Stereo Audio

Check you local program guide for channels that are not 6.8 MHz monaural audio. Tune the receiver to the first channel. Press the A1/A2 key until the A1 LED is lit. Use the keys to tune the audio to the correct frequency. If the audio portion of the channel is broadcast in multiplex stereo, press the MODE key until the MPX LED lights.

If the audio portion of the channel is broadcast on two frequencies, press the A1/A2 key until the A2 LED lights. Then, use the again to select the correct second audio frequency as listed in your guide. If the broadcast is in stereo, press the MODE key to select Discrete or Matrix stereo. Press the DNR key if Dynamic Noise Reduction is desired. Press the NRW key until the Narrow LED lights if the program guide calls for narrow band audio.

Double check the audio information displayed with your program guide to be sure that all information is correct. Press the Memory key to store this information for future use. Continue with this process until the special audio programming for each channel is completed.

Selecting a Satellite and Channel

The UST 9900 system makes calling previously programmed satellites easy with the Satellite Menu function. From the remote control, simply press the SAT. key and then the < and > keys immediately below it. The Satellite display will begin to step through all of the programmed satellites in the order in which they appear in the Clarke orbit belt. When the desired satellite appears in the display, press the CALL key. The antenna will begin to move to the desired satellite. The UST 9900 will beep when the selected satellite is reached. If the CALL key is not pressed within a few seconds the selected satellite will disappear from the display and be replaced with the type and number of the satellite that was in the display before being changed.

Use the CHANNEL keys to select a channel. From the remote control, the Up/Down keys may be used or the channel may be directly entered using the numbered keys. When entering a channel number from 1 to 9 the single digit may be entered. After a two-second delay, the channel will be selected. If the number is entered with a preceding zero (0) the channel will immediately be tuned.

A satellite can also be selected from the front panel of the UST 9900. Use the TYPE and NO. keys to display the programmed abbreviation for the desired satellite. There are 26 possible types (A through Z) and 9 possible numbers (1-9). Once the desired satellite appears in the display, press the CALL key. If the satellite selected was not previously programmed in memory, the letter will flash when the CALL key is pressed, then the previously displayed satellite will return.

Programming Continued 4

Programming Favorite Channels

The UST 9900 System takes the effort out of satellite TV viewing with sophisticated microprocessor control that allows you to move the antenna to the satellite and tune the channel and audio by just pressing P. Set, a number, and the Call key.

To program favorite channels, select the satellite and channel you wish to store for future reference. Press the P.SET key on the remote control and enter the number you wish to assign to it. A "P" will appear in the position display on the UST 9900 along with the number you entered. If the display is flashing, this means that the preset location is currently empty. Press the MEMORY key to store the current settings. You may also use the <and > keys to select the preset location number.

Memory Lock

When all the satellite, channel and audio information has been programmed, the memory function can be locked to avoid accidental erasure or misprogramming. When the memory lock is activated, the UST- 9900 system will not accept any additional programming command except to turn the Parental Lock feature on or off. The East and West key will move the antenna only 10 counts for fine tuning. To lock the memory press the Lock key on the front panel. The Lock LED will light to confirm that the memory is locked. To unlock the memory, press the Lock key for more than 4 seconds. The Lock LED will turn off.

Parental Lock

The UST 9900 has a special feature which will allow up to ten channels to be locked out or blocked from viewing. If you feel that a certain program is not suitable for viewing you can lock out that channel so that it cannot be seen. To activate the Parental Lock, call the satellite and channel that you wish to lock. Press the P.Lock key on the remote control. Whenever that channel is called it will appear blank on the TV screen. You can activate the Parental Lock for a total of 10 channels. To turn the Parental Lock off, call the satellite and channel, then press the P.LOCK key for more than 4 seconds. (Note: When a channel has been locked out, it will not be possible to call up the channel using the channel up/down keys. To be able to unlock the channel, you must call it up directly using the number keys.)

Operation 5

Please read the following instructions before attempting to operate your UST 9900 system. Be sure you understand each section and are familiar with all of the innovative features. A brief summary of these operations can be found in the users pamphlet accompanying this guide.

Ready, Set, Go

Now that the antenna is set up and properly operating and the UST 9900 is programmed with satellite positions and special channels you are ready to pioneer the new frontiers of satellite television. With the UST 9900r infrared remote in hand and a copy of your favorite satellite program guide, try each of the functions listed below. All operations described below are accessed by the remote control used with the UST 9900.

Press the Power Key on the Remote

The UST 9900 will turn on and all the displays will light. The last satellite and channel previously watched will come on. You can adjust the volume by pressing the Volume up and down keys or mute the volume by pressing the Mute key.

Select a Channel

Press 0 - 9 keys to select any of 24 channels on the current satellite. The selected channel will appear in the channel display and that channel will come on. Press key 1 and in 2 seconds channel 1 will appear. Press keys 2 - 2 and channel 22 will appear. Press the channel up or down keys to rapidly step through each channel.

Operation - UST 9900 6

Select a channel

Press the numbered keys 0-9 to select any of 24 channels (32 channels for Ku band) on the current satellite. Press key 1 and in 2 seconds channel 1 will appear. The channel Up/Down keys will step the receiver through the channels.

Fine-Tuning the Video

The video can be optimized by using the video fine tune keys (on the remote control) or the skew keys (on the front panel). The skew keys have built-in limits to prolong the life of the polarizer motor. If no change can be observed when one skew key is pressed, try pressing the opposite key.

Try moving the antenna back and forth with the E or W keys if a good picture is still not being received.

Audio Tuning

Select the audio by pressing the A1/A2 and the < and > keys. When the channel is changed, the audio will go to the audio frequency setting stored for that channel, or if not programmed,remain at the setting selected. When the audio frequency is changed, the AUDIO1 or AUDIO2 LED will light, and the audio frequency will appear in the display. After a few seconds, the AUDIO LED will go out, time will return to the display. It is only necessary to do this on non-scrambled channels that are not on the preset (6.8 MHz) frequency, stereo programs, or to find "hidden" audio programs.

TI Filter

Press the TI button to activate the internal terrestrial interference filter. Press it again to turn it off. When the TI filter is active, the TI LED on the front panel will be lit.

Ku Band operation

Press this key to switch back and forth between C band and Ku band. A Ku-band feed and LNB must be installed for you to receive the Ku band. When Ku band is selected, the Ku LED on the front panel will light. The remote control may also be used to select Ku-band operation.

To make Ku-band reception as simple as possible, the UST 9900 has the video fine tune settings of all current Ku-band satellites available in memory. When setting up Ku-band satellites, video fine tuning of individual channels can be largely eliminated by simply using one of five pretuned satellite types. Once the satellite is identified, simply enter one of the following letters for the type of satellite with the TYPE key:

B - SBS
C - Anik C-type
K - Satcom K-type
P - Spacenet or ASC
R - GStar

Ku-band satellites may also be stored under other letters, but without the special fine tune information. Once the proper type has been selected, select a number by pressing the NO. key and press MEMORY..

Channel Set feature (Ku band only)

When Ku band is selected, the UST 9900 switches from a 24 to a 32 channel format. The unit will remember the fine tune settings for each of the 32 channels on Ku band. Once the fine tune is set for each channel, press the MEMORY key.

Many programming guides now carry program listings for services carried on Ku band. Occasionally, the channel number listed for the service will not match the displayed number. In this case, the Channel Set feature allows you to change the displayed number for a particular service.

For example, suppose that a particular service can be received (with fine tuning) on channel 23. Your program guide lists the service as being on channel 12. To make the receiver match the guide, first tune to channel 23 and fine tune the audio, video and skew. Press the CH. SET button. The channel display will begin to flash. Enter 12 on the remote control and press MEMORY. The channel display will stop flashing. Now the service will be received on channel 12. (Note: You must directly select the channel by entering it's number NOT by using the channel up/down keys.)

To return the normal setting of channel 12, select a channel other than 12 (14, for example). Press the CH. SET key, then use the CHANNEL Up/Down keys to go to channel 12. Notice that the previously programmed service has disappeared. Press the MEMORY key to return the original tune setting into channel 12.

Selecting Favorite Stations

Up to 100 favorite stations can be stored into memory for instant recall. Once the station is programmed, select by pushing the P.SET button on the remote control, then entering the desired memory location with the numbered keys. The < and > keys may also be used to select the favorite channel. The number will appear preceded by a "P" in the satellite location window. If the displayed number flashes, nothing is stored in the indicated memory location. When the entered number is correct, press the CALL key to move the antenna to the satellite and tune the receiver.

Storing Fine Tuning Information

On every satellite and channel, a different audio and video fine tune setting can be stored. Most channels on C-band will require no special settings, but those that require fine tuning can be stored by pressing the MEMORY key before changing channels.

14 Day/7 Event Timer and clock Operation 6

Note: The clock MUST be set before the timer can be used. If the clock blinks when the power is off to the receiver, it means that the clock needs to be set. The clock will need to be set when the unit is first installed, after a power failure, or if the unit has been unplugged.

Setting the Clock

1. Make sure that your TV is on and set to the correct channel (the same as for receiving satellite channels.)

2. Press the CLOCK button on the front panel of the receiver and hold it in. As soon as you press the CLOCK button you will see the day and time displayed on the TV screen. When you hold it in long enough, (about 4 seconds) the day will start to blink.

3. Use the V and Λ keys (above program and set on the front panel) to display the correct day on the screen. When the correct day is displayed, press the SET key.

4. You will then see the hours start to blink. Use the V and Λ keys again to display the correct hour. (Make sure that a.m. and p.m. are correct!). When you have the correct hour, press SET again and the minutes will start to blink.

5. Again, use the V and Λ keys to display the correct minute. Press the SET key again, and the settings that you have just entered will be stored.

Note: If you make a mistake, you should finish the setting procedure, then push and hold the CLOCK button for 4 seconds and start over.

Using the Timer

Note: The clock MUST be set before the timer can be programmmed. See the previous section for details on setting the clock.

To program the Timer

1. Press the PROGRAM key. The timer programming screen will appear on your TV set and the first item (program) will blink.

2. Use the V and Λ keys to display the desired program number.

Note: Program numbers MUST be used sequentially.

3. After the desired program number is displayed, press the SET key. The next item will then blink. Use the V and Λ keys again to select the desired day.

4. Repeat step 3 for the start, length and sat/channel.

Note: You may use preset channel numbers from the remote to set the sat/channel or the normal satellite and type keys. Do not use the timer V or Λ keys to select a satellite.

5. After the Sat/Channel has been set, press the program key. The information for the next program will be displayed. If you have made a mistake, press the PROGRAM key to start over. If the Sat/Channel has been set, press and hold the SET key until all of the on-screen information has been reset, and then start over.

6. After setting all of the desired programs, press the TIMER key on the front panel of the display. The Timer LED will light and power to the unit will be shut off.

Note When the Timer LED is lit, all manual controls are locked out. To regain manual control, press the TIMER button until the Timer LED goes out. If the Timer LED is out THE TIMER WILL NOT CONTROL THE SYSTEM!!!!

Timer Notes

The start time for one program must not overlap the running time of another program.

Having the end time and start time the same is acceptable.

If two programs overlap, the timer will ignore the second program.

The satellite and channel may be selected with the satellite menu or preset channels while you are programming the timer.

If you do not press at least one key every 15 seconds during programming, the screen will return to normal satellite reception. It is helpful to write out the times etc. before programming the timer to make this easier.

If you make a mistake, press the PROGRAM key to start over.

If you press and hold the SET key for about 4 seconds, the settings for the selected program will be erased.

Minimum program length is 5 minutes. Maximum is 8 hours and 59 minutes.

Don't forget to set you VCR timer too. The UST 9900 timer does NOT control your VCR, only satellite reception.

Parental Supervision Features 6

Because of the wide variety of programs available from satellites, we have provided features that parents may use to control their children's viewing. We have included two types of controls - rating ceilings and parental lock-out.

Rating Ceilings

Have to call G,I.

Rating ceilings control viewing based on the rating of the material being received. For example, the rating ceiling can be set so that only G, PG or PG-13 rated films can be received. Rating ceilings can be easily changed to allow parents to view higher rated programs. Rating ceilings are only available on VideoCipher II® descrambled channels.

Parental Lock-out

Parental lock-out controls viewing by blanking out the video and audio portions of a selected channel on a particular satellite.

Programming Rating Ceilings

HELP

Press HELP when you are using VideoCipher II® descrambler features and need an explanation of the procedure. You will be able to read help messages on your TV screen. If you still cannot understand the procedure, press VIEW and consult this manual or your Uniden dealer.

SETUP

The SETUP key is used with the number keys to customize features in your VideoCipher II® descrambler. If you press SETUP, you will see the following menu on your TV:

1. Installation
2. Unit Settings
3. Rating Ceiling
4. Rating Password

You can choose one of these setup functions by pressing the corresponding number key.

3. Rating Ceilings

A password-protected rating limit can be set for VideoCipher II® scrambled channels. The ratings used are identical to the G, PG, PG-13, R and X ratings used by the motion picture industry.

You can prevent viewing of all rated VideoCipher II® channel programs above the level that you set. For example, if you set the level at PG, your system will allow only G and PG rated programs to be viewed. Programs with ratings of PG-13, R and X will be locked out.

To change the rating ceiling:

1. Press SETUP, then 3.

2. Enter your password if one has been set. If no password has been set, proceed to the next step.

3. Use the and keys (under the door) to change the rating ceiling.

4. Rating Password

Passwords are used to control access to the rating ceiling. Pick a password number that is easy to remember such as your phone number, license number or date of birth.

If you forget your password, you will need to contact your program supplier to have it reset. If you don't want password control:

1. Press SETUP, then 4.

2. Press ENTER twice when the screen prompts you to enter a new password.

To set or change a password:

1. Press SETUP, then 4.

2. If the system has a password already stored, you will need to key it in and press ENTER before the system will accept a new one. Key in the new password and press ENTER again.

3. The screen will ask you to enter the new password again (followed by ENTER) to verify the proper entry.

4. The screen will indicate that the password has been changed and then return you to the main SETUP menu.

Parental Lock

The UST 9900 has a special feature which will allow up to ten channels to be locked out or blocked from viewing. If you feel that a certain program is not suitable for viewing you can lock out that channel so that it cannot be seen. To activate the Parental Lock, call the satellite and channel that you wish to lock. Press the P.Lock key on the remote control. Whenever that channel is called it will appear blank on the TV screen. You can activate the Parental Lock for a total of 10 channels. To turn the Parental Lock off, call the satellite and channel, then press the P.LOCK key for more than 4 seconds. (Note: When a channel has been locked out, it will not be possible to call up the channel using the channel up/down keys. To be able to unlock the channel, you must call it up directly using the number keys.)

Helpful Hints 7

To make sure you get the most out of satellite television viewing we offer the following information. The sophisticated engineering required to tune in satellite signals from about 22,300 miles away can be as mysterious as space itself. We hope that this information will take some of the mystery out of this technology, making it even more enjoyable for you.

External Interference

The most common cause of interference for a satellite television system is Terrestrial interference. It is caused by local telephone or data microwave links. If your antenna is located close to, or in the path of a microwave tower you may experience snowy video, sparkles or a distorted picture. This kind of interference is usually not constant and may appear to increase and decrease at different times of the day. Since telephone traffic is busiest during the daytime you may notice the most interference during daytime viewing. You may also notice that this interference occurs only on vertical or horizontal channels. On the front of the UST 9900 is a switch labeled TI. If you experience terrestrial interference, turn the TI filter on. If the problem still exists you may need to relocate your antenna or use more sophisticated filters. Contact your Uniden dealer for more information.

Blinking Display

To make your UST 9900 system easy to use, the displays will blink in different ways to tell you different things.

Type display blinks twice - This means that the satellite type that you have called has not been programmed.

Satellite number display blinks twice - This means that the satellite that you have just programmed in has been memorized.

Type and number blink constantly -

You have used the E/W keys to go more than 10 counts away from a satellite's programmed position.

Counter blinks constantly - The emergency stop feature for the actuator has been activated by pressing any key or reaching either the upper or lower programmed limits.

Solar Outage

Another cause of interference is the bi-annual solar outage. Due to the seasonal changes of the earth's axis the satellite belt moves between the earth and the sun. When the satellite belt moves directly between the sun and your antenna, the satellite transmissions will be overpowered by the natural radio transmissions of the sun. This kind of satellite eclipse occurs twice a year around the spring and fall equinox. As the satellite eclipse approaches you may notice a gradual, daily increase in interference. It will peak for about 10 - 30 minutes with a completely distorted picture. As the eclipse decreases so will the amount of interference until the picture is back to clear, normal operation. The degree of interference and the timing of this phenomenon varies with the satellite, your geographical location and the size of your antenna. Unfortunately the only solution is to tune to a satellite that is east of the sun's position until it has passed the satellite you were watching.

Other Sources of Interference

All electrical equipment is susceptible to interference from other electrical devices. The UST- 9900 is an extremely sensitive unit and may pick up interference from any household appliance. If you experience temporary audio or video interference you should check other equipment in your house. Appliances such as refrigerators, washers/dryers, microwave ovens, pumps, power tools, hair dryers, etc. may cause a variety of annoying interference. Also, radio transmitters such as CBs or shortwave radios may be a source of interference. Try plugging the UST 9900 into another outlet, or isolated circuit. Check with your Uniden dealer for other ways to control this type of interference.

Aircraft passing over or near to your antenna may cause some temporary interference as it blocks or reflects the satellite signal. This type of interference is momentary and cannot be filtered.