THE WEATHER CHANNEL®

weather.com

weatherscan LOCAL
by The Weather Channel®

Installation and Instruction Guide

Weatherscan Local by The Weather Channel

The Weather Channel®
A Landmark Communications, Inc. Network
300 Interstate North Parkway
Atlanta, Georgia 30339

2nd Edition
September 2000

Attention

Weather Star XL® technology requires the correct county addresses to ensure proper delivery of weather warnings, watches, and advisories. Address information for your primary viewing county has been pre-installed in your new Weather Star XL based on the data that your system has previously provided to The Weather Channel®. If for any reason your viewership area has shifted or expanded to another county, please notify Star Operations immediately (**1-800-554-7354**).

Do not attempt to go **on-air** with the Weather Star XL until you have called The Weather Channel at 1-800-554-7354 to activate your data transports.

WARNING: **NEVER** unplug the Weather Star XL without first powering it off. Failure to power off the Weather Star XL could cause irreparable and permanent damage to the unit.

To power off the Weather Star XL, insert a #6 Phillips screwdriver or the end of a pen cap into the **Power** hole (located on the front panel) and gently press one time. Wait 30 seconds for the unit to power off. It is preferable to call The Weather Channel before powering off the Weather Star XL.

We welcome your comments concerning this publication. Although every effort has been made to keep it free of errors, some may occur. When reporting a specific problem, please describe it briefly and include the publication title, the paragraph or figure number, and the page number.

Send your comments to:

Solution Center/Star Operations
The Weather Channel
300 Interstate North Parkway
Atlanta, Georgia 30339

Or by Internet E-Mail to:

StarOps@weather.com

Or call:

1-800-554-7354

Table of Contents

Introduction

The Weather Channel® transmits its programming including weather data supplied by the National Weather Service for thousands of weather zones from a server in Atlanta, Georgia, to affiliates throughout the U.S. (see Figure 1).

At the affiliate site, The Weather Star XL® is installed between your Internet service provider/satellite receive system and the channel modulator. The Weather Star XL captures the data designated for its specified weather zone and displays it automatically at the appropriate time. Local crawl messages may be entered through the supplied modem or with a terminal through the RS-232 port.
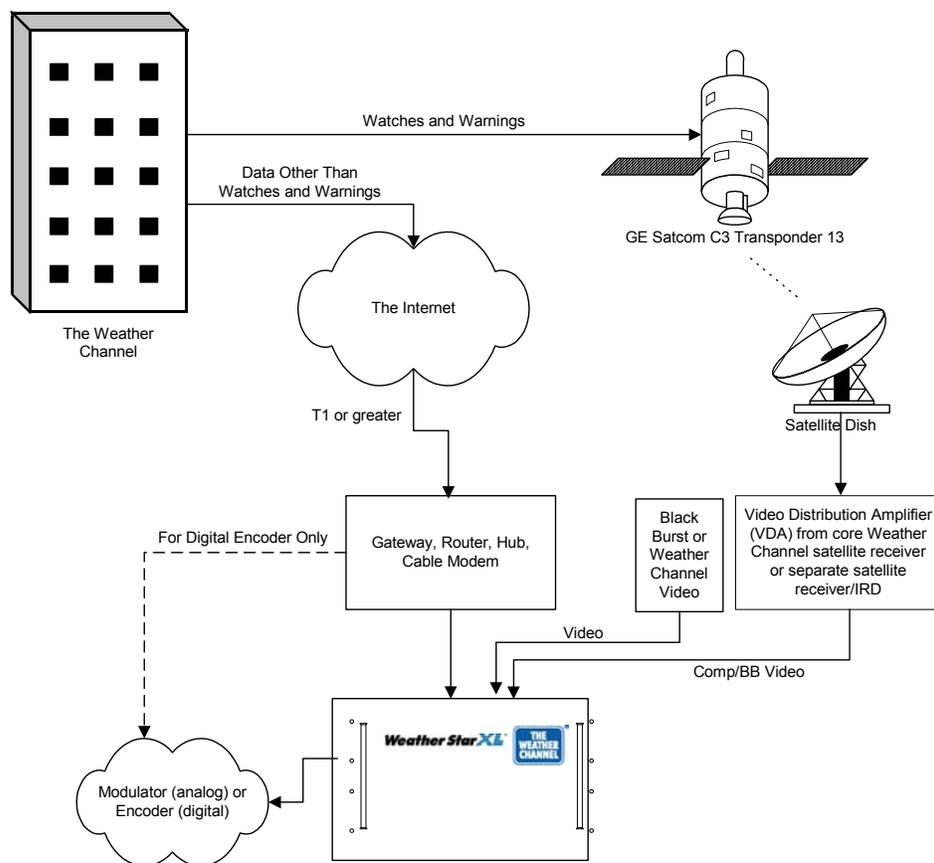
Figure 1. Network Overview.

Think of a broadcast on The Weather Channel as a two-way client/server architecture, in which raw data and audio/video (A/V) are sent to the Weather Star XL and the cable operator location, and monitoring data is returned to The Weather Channel.

The Weather Star XL then assembles the data for display or passes through the A/V signal depending on the instructions sent by The Weather Channel.

The Weather Star XL is connected via Ethernet. It is also either connected using a separate receiver or integrated receiver/descrambler (IRD) (Figure 2) or connected using a video distribution amplifier (VDA) (Figure 3).

THE WEATHER CHANNEL®
weather.com

**Hub, Router,
Cable Modem**

10 MB
Ethernet Out

Sat Receiver/IRD

Weatherscan Star XL

Modulator or Encoder

Composite/
BB out

RJ45
Ethernet In
Baseband In

Video
Out

Video Input

**Black Burst or Weather
Channel Video**

Audio Out

Audio Input

Video Out

Video Input

Figure 2. Connections Using a Separate Receiver or IRD.

10 MB
Ethernet Out

**Video Distribution
Amp**

Weatherscan Star XL

Modulator or Encoder

From existing
Weather
Channel
satellite
receiver/IRD
(Composite/
Baseband)

In

Out 1

Out 2

RJ45
Ethernet In
Baseband In

Video
Out

Video Input

To core Weather Channel
Weather Star XL or videocipher

Audio Out

Audio Input

**Black Burst or Weather
Channel Video**

Video
Out

Figure 3. Connections Using a Video Distribution Amplifier (VDA).

Installation

To install the Weather Star XL, complete the following steps:

☑	Step	Instructions
☐	1	Unpack the unit. The Weather Channel has inspected and properly packaged the unit for shipment. It is the carrier's responsibility to deliver the unit safely.
☐	2	Mount the unit into the rack (refer to "Mounting the Weather Star XL").
☐	3	Connect via Ethernet.
☐	4	Connect **Comp/Baseband Video** from the satellite (refer to "Connecting the Weather Star XL Using a Receiver or IRD" or "Connecting the Weather Star XL Using a VDA").
☐	5	Connect either Black Burst or Weather Channel video to **Video In** on the Weather Star XL.
☐	6	If you are using a digital encoder, refer to "Connecting the Weather Star XL to a Digital Encoder".
☐	7	If you are installing local commercial insertion equipment, refer to "Connecting Commercial Insertion Equipment."
☐	8	Power on the unit (refer to "Powering the Weather Star XL").

Mounting the Weather Star XL

To mount the Weather Star XL into the rack, complete the following steps:

☑	Step	Instructions
☐	1	Remove the six screws from the back panel.
☐	2	Inspect the interior of the Weather Star XL for loose cables or modules (see Figure 12 and Table 3 for proper cable connection information).
☐	3	Lift the Weather Star XL and hold it in the rack unit. Allow eight rack units for installation.
☐	4	Working from the bottom screws to the top, fasten eight rack mount screws to the front of the Weather Star XL.

Connecting the Weather Star XL

You must connect the Weather Star XL to your Ethernet device, and you must connect the Weather Star XL to either a separate receiver or integrated receiver/descrambler (IRD) (see Figure 2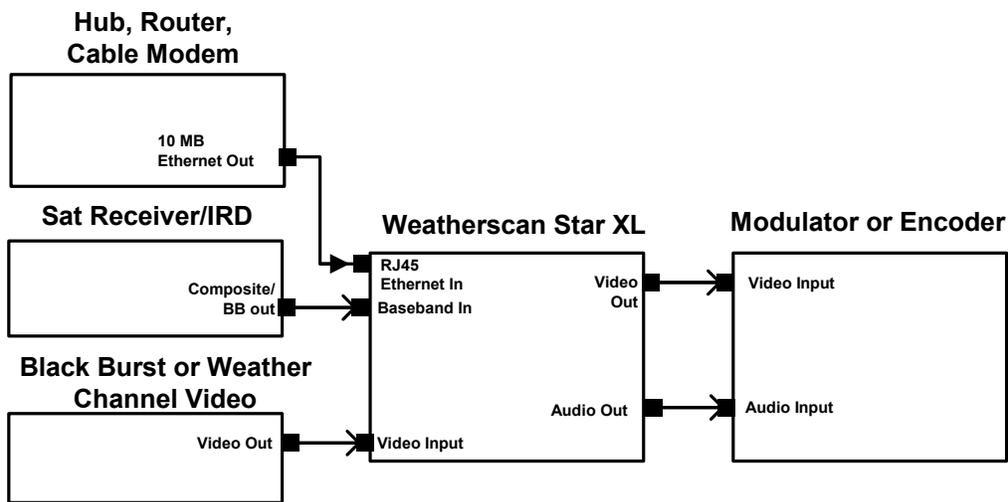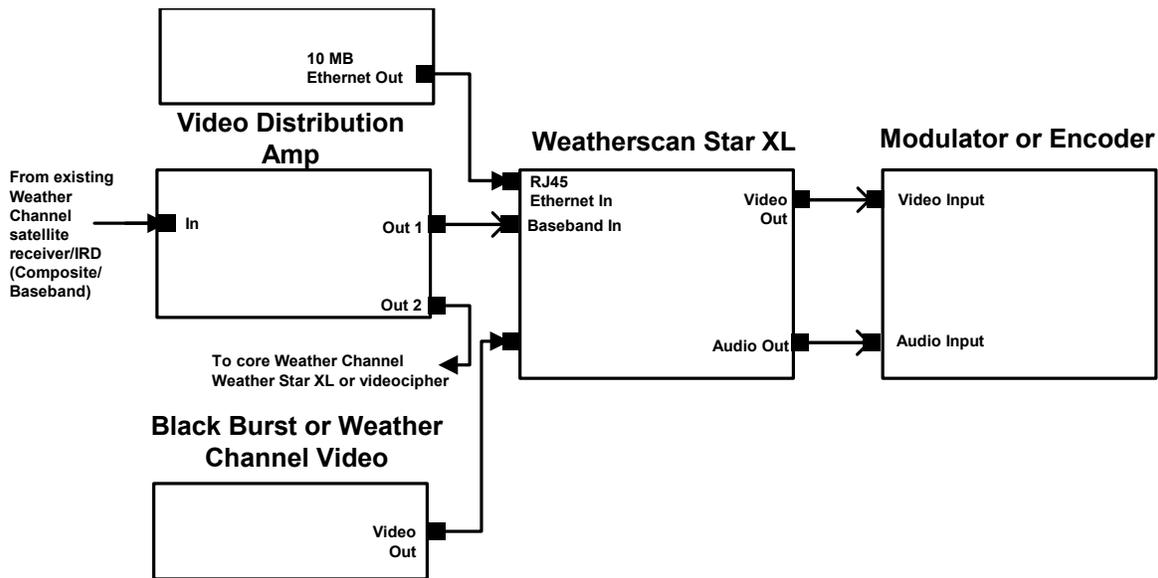) or to a video distribution amplifier (VDA) (see Figure 3). You can optionally install a digital encoder and/or commercial insertion equipment.

Connecting the Weather Star XL Using a Receiver or IRD

If you are connecting the Weather Star XL to a receiver or IRD, complete the following steps (**refer to Figures 5 and 6 for details**):

☑	Step	Instructions
☐	1	Connect a standard category-5 twisted-pair cable from your ethernet device (hub, switch, router, gateway through a cable modem) to "**E-Net**" on the back of the Weather Star XL.
☐	2	Connect "**Composite Baseband**" from your satellite receiver or IRD to "**Comp BB In**" on the Weather Star XL. **Note:** If you are using a Microdyne Receiver, connect "**Demod**" from the receiver to "**Comp BB In**" on the Weather Star XL.
☐	3	Connect either Black Burst or Weather Channel video (use a separate videocipher/IRD or a second VDA) to "**Video In**" on the Star XL.
☐	4	Connect "**Video Out**" from the Weather Star XL to "**Video In**" on your Channel Modulator.
☐	5	Connect "**OUT +**", "**OUT -**", and "**OUT GND**" from the Weather Star XL to "**Audio In**" on your Channel Modulator.

If your channel modulator uses only two "OUT" inputs, then use "OUT +" and "OUT GND" from the Weather Star XL in Step 4.

Connecting the Weather Star XL Using a VDA

If you are connecting the Weather Star XL to a video distribution amplifier (VDA), complete the following steps (**refer to Figures 5 and 7 for details**):

☑	Step	Instructions
☐	1	Connect a standard category-5 twisted-pair cable from your ethernet device (hub, switch, router, gateway through a cable modem) to "**E-Net**" on the back of the Weather Star XL.
☐	2	Connect "**Composite/Baseband**" from your existing satellite receiver or IRD to the input of the VDA.

☑	Step	Instructions
☐	3	Connect "**Output 1**" from the VDA to input "**J1**" on the existing Weather Channel videocipher or, if using an IRD to "**Comp/BB In**" on the existing Weather Channel Weather Star XL.
☐	4	Connect "**Output 2**" from the VDA to "**Comp/BB In**" on the Weatherscan Star XL.
☐	5	Connect either Black Burst or Weather Channel video (use a separate videocipher/IRD or a second VDA) to "**Video In**" on the Weather Star XL.
☐	6	Connect "**Video Out**" from the Weather Star XL to "**Video In**" on your channel modulator (or encoder).
☐	7	Connect "**OUT +**", "**OUT -**", and "**OUT GND**" from the Weather Star XL to "**Audio In**" on your Channel Modulator (or encoder).

Note: Use of a VDA requires connection to your existing Weather Channel receiver (Step 3).

If your channel modulator uses only two "OUT" inputs, then use "OUT +" and "OUT GND" from the Weather Star XL in Step 6.

Connecting to a Digital Encoder

If you are connecting the Weather Star XL to a digital encoder, complete the following steps (**refer to Figure 4 for details**):

| ☑	Step	Instructions
☐	1	Connect the Weather Star XL to your Ethernet device and to a separate receiver/IRD or to a VDA (refer to "Connecting the Weather Star XL Using a Receiver or IRD" or "Connecting the Weather Star XL Using a VDA").
☐	2	Connect a second connection from your ethernet device (hub, switch, router, gateway) to the encoder.
☐	3	Connect "**Video Out**" from the Weather Star XL to "**Video In**" on your encoder.
☐	4	Connect "**OUT +**", "**OUT -**", and "**OUT GND**" from the Weather Star XL to "**Audio In**" on your encoder.
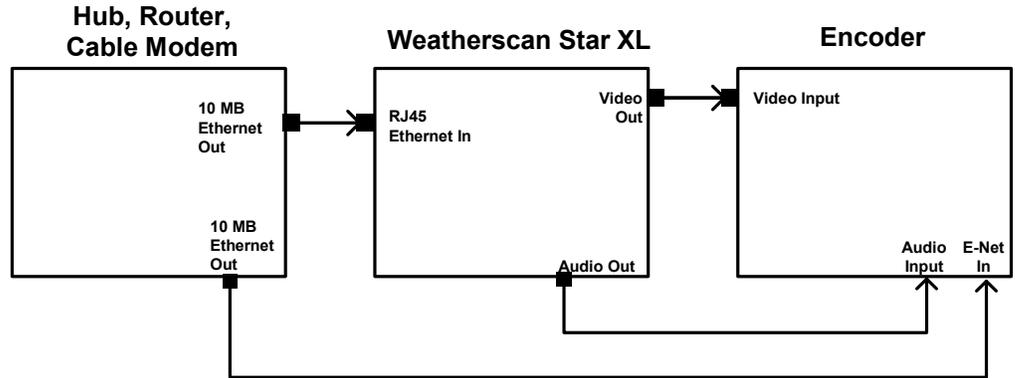
Figure 4. Connections Via Ethernet to a Digital Encoder.

Connecting Commercial Insertion Equipment

To connect local commercial insertion equipment, complete these steps (**see Figures 5, 6, and 7**):

Refer to your commercial insertion equipment manual for further instructions.

☑	Step	Instructions
☐	1	Connect the Weather Star XL to your Ethernet device and to a separate receiver or IRD or to a VDA (refer to "Connecting the Weather Star XL Using a Receiver or IRD" or "Connecting the Weather Star XL Using a VDA").
☐	2	Connect "**Positive Manual Start**" from your commercial insertion equipment to "**LC PRE ROLL +3**" on the Weather Star XL.
☐	3	Connect "**Negative**" or "**Ground**" from your commercial insertion equipment to "**LC PRE ROLL -3**" on the Weather Star XL.

Installing Communications

To access the Weather Star XL advertising crawl manager, you can install a modem or terminal/terminal emulator.

Installing the Modem

To install the modem, complete the following steps (**refer to Figures 5, 6, and 7**):

☑	Step	Instructions
☐	1	Reinstall the back panel to the Weather Star XL using the six screws that you removed earlier.
☐	2	Plug the 25-pin RS232 cable from the back of the modem to the "**Comm Port**" on the back of the Weather Star XL.
☐	3	Attach the power cord from the back of the modem to the power strip on the rack.
☐	4	Attach your telephone cord (RJ11) to the "LINE" connection on the back of the modem.
☐	5	Flip the ON/OFF switch on the back of the modem to the "**ON**" position.
☐	6	Slide the modem into the bracket on the back panel of the Weather Star XL.

Under normal operating conditions, when the modem is in an inactive state, it displays continuous red lights for:

- **HS**

- **AA**

- **TR**

- **MR**

In addition, when the modem is receiving incoming communication or sending outgoing communication, it displays blinking lights for:

- **CD** (solid)

- **OH** (solid)

- **RD** (blinking)

- **TD** (blinking)

Installing a Terminal/Terminal Emulator

To install a terminal/terminal emulator, complete these steps (**see Figures 6 and 7**):

☑	Step	Instructions
☐	1	If not already reinstalled, reinstall the back panel to the Weather Star XL using the six screws that you removed earlier.
☐	2	Plug the 25-pin null-modem RS232 cable from the back of your terminal/terminal emulator to the "**Comm Port**" on the back of the Weather Star XL.

THE WEATHER CHANNEL®
weather.com

D1 Video Input

Channel Control/
External Data

Comm Port

Satellite
Data

GPI

Video In

GPI

Video Out

Audio

	GPI
LANG - 7	
LANG + 7	
EMITTER 6	
COLLECTOR 6	
WX WARNING - 5	
WX WARNING + 5	
EMITTER 4	
COLLECTOR 4	

	GPI
LC PRE ROLL - 3	
LC PRE ROLL + 3	
EMITTER 2	
COLLECTOR 2	
CATHODE 1	
VCC 1	
CATHODE 0	
VCC 0	

	Audio
RIGHT IN -	
RIGHT GND	
RIGHT IN +	
OUT -	
OUT GND	
OUT +	
LEFT IN -	
LEFT GND	
LEFT IN +	
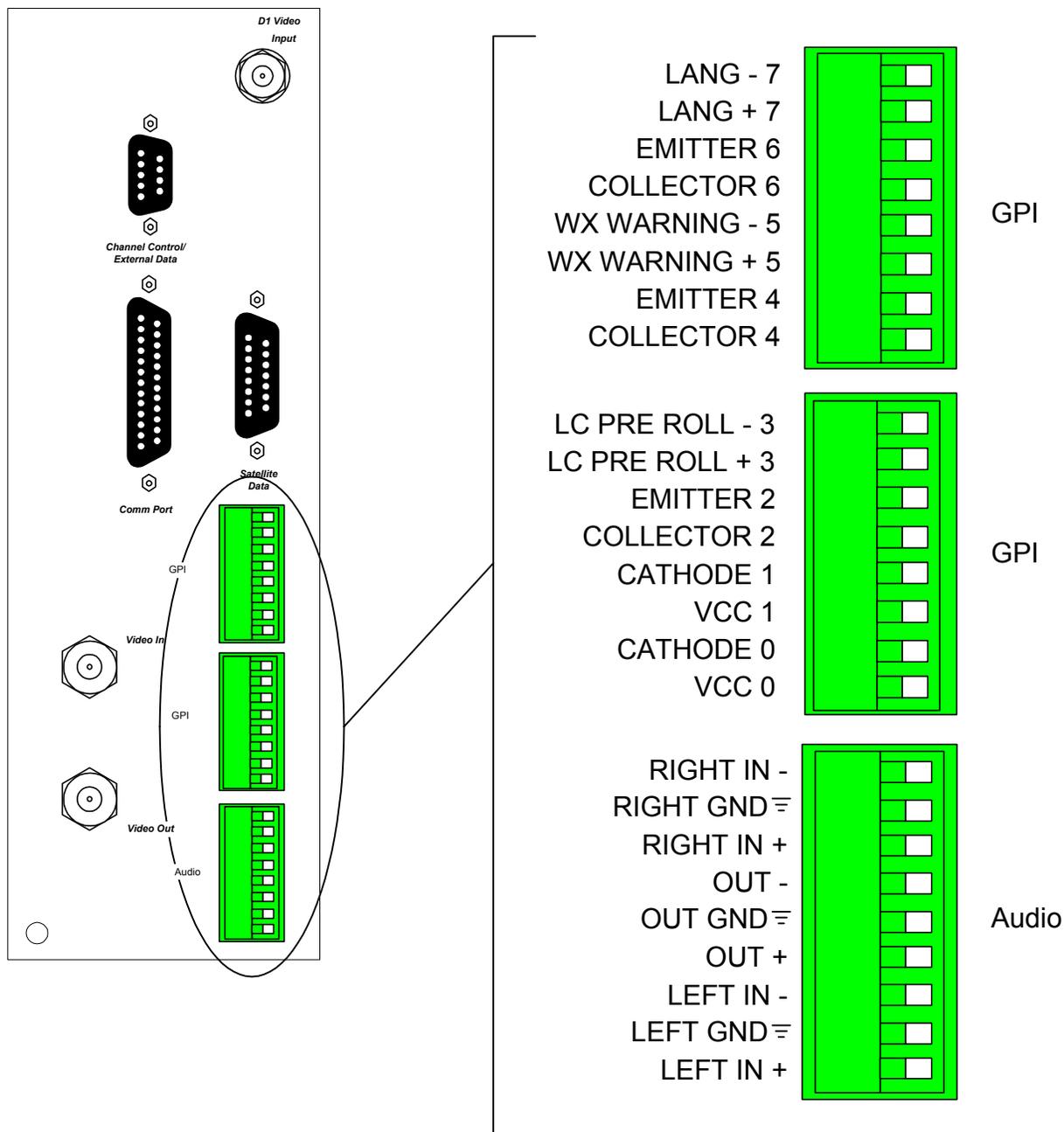
Figure 5. General Purpose Interface (GPI) and Audio Connection Detail for the Weather Star XL.

Satellite Receiver or Integrated Receiver/Descrambler (IRD)
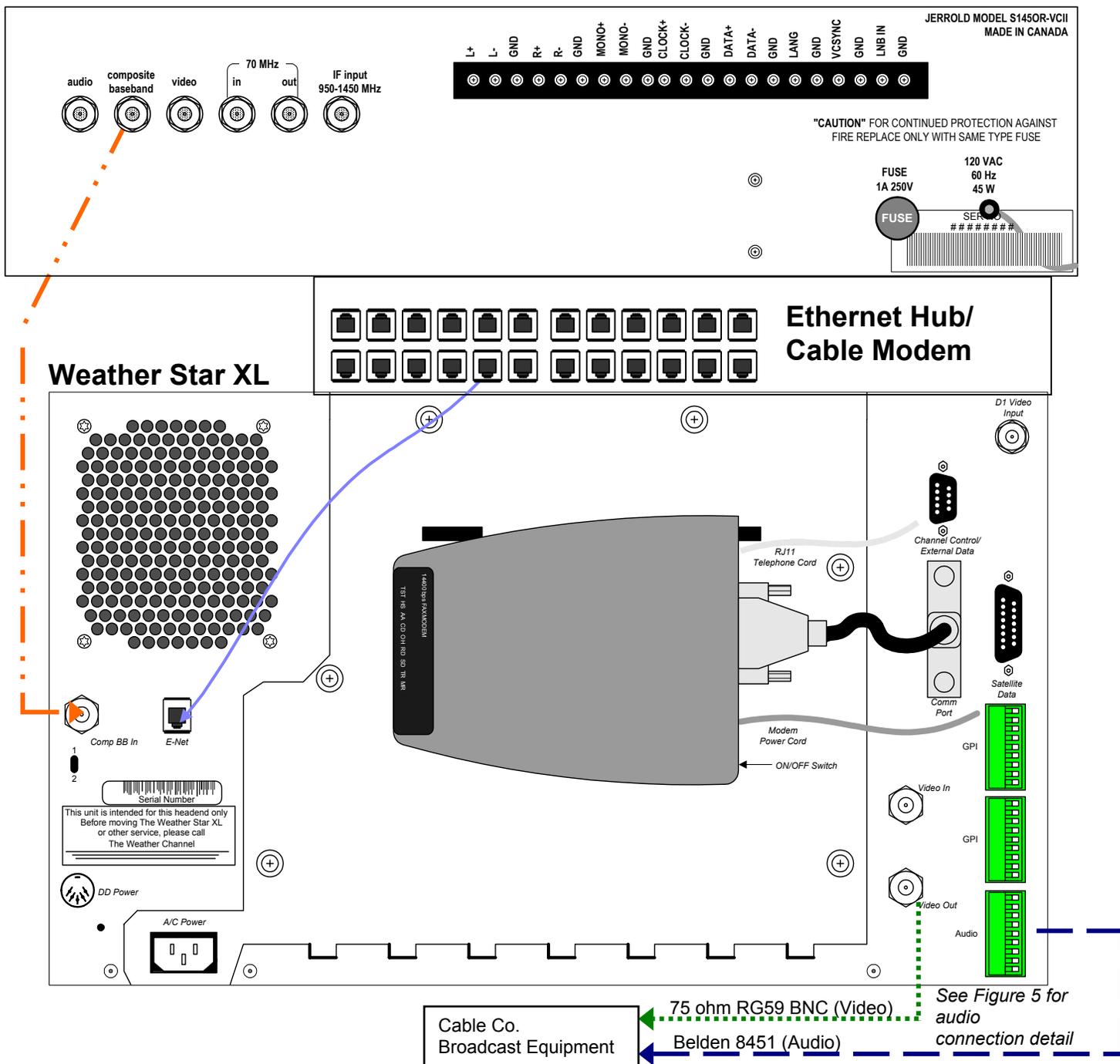
Figure 6. Connections Using Satellite Receiver or Integrated Receiver/Descrambler (IRD).

Video Distribution Amplifier (VDA)

Composite/Baseband from existing receiver or IRD

J1 on videocipher or Comp/BB In on existing Star XL

Ethernet Hub/ Cable Modem

D1 Video Input

Channel Control/ External Data

RJ11 Telephone Cord

Satellite Data

H400 bps FAXMODEM

TST HS AA CD OH RD SD TR MR

Comp BB In   E-Net

GPI

Modem Power Cord

ON/OFF Switch

Comm Port

1
2

Serial Number

This unit is intended for this headend only
Before moving The Weather Star XL
or other service, please call
The Weather Channel

Video In

GPI

DD Power

A/C Power

Video Out

Audio

Cable Co.
Broadcast Equipment

75 ohm RG59 BNC (Video)

Belden 8451 (Audio)

See Figure 5 for audio connection detail

Figure 7. Connections Using Satellite Receiver or Integrated Receiver/Descrambler (IRD).

Powering the Weather Star XL

To power on the Weather Star XL, complete the following steps (**refer to Figures 6, 7, and 8**):

☑	Step	Instructions
☐	1	Connect an A/C power cord to the back of the Weather Star XL (located on the lower left-hand side).
☐	2	Connect the power cord to an A/C power outlet.
☐	3	Plug a 9-volt transformer into the **DD Power** connection (located to the left of the A/C power cord connection). There are two LED indicators on the back panel (located below the **Comp BB In** connection). Once the A/C power is applied to **DD Power**, LED 1 turns red and LED 2 flickers red.
☐	4	Face the front of the Weather Star XL (see Figure 8).
☐	5	Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Power** hole (the upper hole to your right on the front panel) and gently press **one time** to power on the unit.
☐	6	Observe the following when the Weather Star XL powers on: • In the hole to the left of the power switch, observe a red LED for about 30 seconds; then the LED will turn green (you may have to look in the hole at an angle to see this). • The Weather Star XL will pass audio approximately two minutes and thirty seconds after the unit powers on. • The Weather Star XL will pass video approximately three minutes after the unit powers on.
☐	7	Call The Weather Channel at 1-800-554-7354 to activate the data transports so that you can begin receiving data.

DD Power applies power only to the SatScan module. You do not apply power to the Weather Star XL until you complete Step 5.

Warning: Do **NOT** use a paper clip or other object that could cause an electrical short.

You will not receive data until you complete Step 7.

WARNING: **NEVER** unplug the Weather Star XL without first powering it off. Failure to power off the Weather Star XL could cause irreparable and permanent damage to the unit.

To power off the Weather Star XL, insert a #6 Phillips screwdriver or the end of a pen cap into the Power hole and gently press one time. Wait 30 seconds for the unit to power off. It is preferable to call Star Operations before powering off the Weather Star XL.
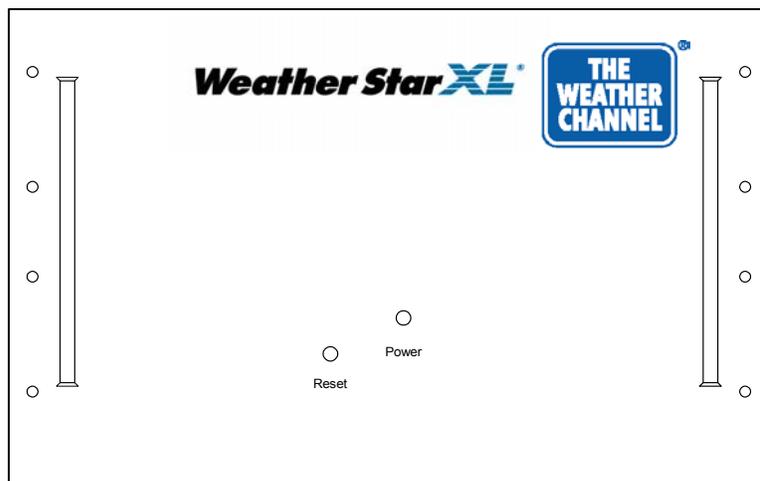
Figure 8. Weather Star XL Front Panel

Working with the Advertising Crawl Manager

This section describes how to set up, access, and use the Advertising Crawl Manager. A crawl is an on-screen effect which displays a block of text as a single line that scrolls from right to left across the bottom of the television screen during the local forecast.

The Advertising Crawl Manager lets you create and maintain up to twelve crawls.

Accessing the Advertising Crawl Manager

You can access the Crawl Manager via a modem or a terminal/terminal emulator. After accessing the crawl manager for the first time, change the default password (refer to "Changing the Crawl Manager Password") to avoid unauthorized access.

Accessing the Crawl Manager via modem

To access the Crawl Manager using a modem, complete the following steps:

☑	Step	Instructions
☐	1	Start your modem software and dial the Weather Star XL.
☐	2	At the login prompt (**[Headend name] Login:**), type the following: **crawl [ENTER]**
☐	3	At the password prompt, type the following: **adcrawl2 [ENTER]**
☐	4	At the TERM VT100 prompt, press **[ENTER]**.

The Advertising Crawl Manager Main Menu displays.

Accessing the Crawl Manager via terminal

To access the Crawl Manager using a terminal, complete the following steps:

☑	Step	Instructions
☐	1	Ensure that the terminal is installed (refer to "Installing the Terminal/Terminal Emulator") and powered on.
☐	2	On the terminal, set the **Baud Rate** to **38400**, **Parity** to **None**, **Stop Bits** to **1** and **Data Bits** to **8**.
☐	3	Press **[ENTER]** three times.
☐	4	At the login prompt (**[Headend name] Login:**), type the following: **crawl [ENTER]**
☐	5	At the password prompt (**Password:**), type the following: **adcrawl2 [ENTER]**
☐	6	At the TERM VT100 prompt, press **[ENTER]**.

To terminate the session, exit out normally. The login prompt should display. For proper operation, you must terminate the session normally.

The Advertising Crawl Manager Main Menu displays.

Working with the Crawl Manager Main Menu

The Advertising Crawl Manager Main Menu displays the menu options and the Crawl List. The Crawl List contains the names of all the crawls (up to 12). If there are no existing crawls, the Crawl List will be empty. By default, the crawls display in sequential order as they appear on the Crawl List. You can move crawls in the Crawl List to display in any order you want (refer to "Moving a Crawl").

To activate the Crawl Manager and display one or more crawls, you must have at least two active (that is, not disabled) crawls in the Crawl List (refer to "Accessing the Advertising Crawl Manager"). If you do not have two active crawls, you can list a crawl more than once in the Crawl List (as long as you give it a different name).
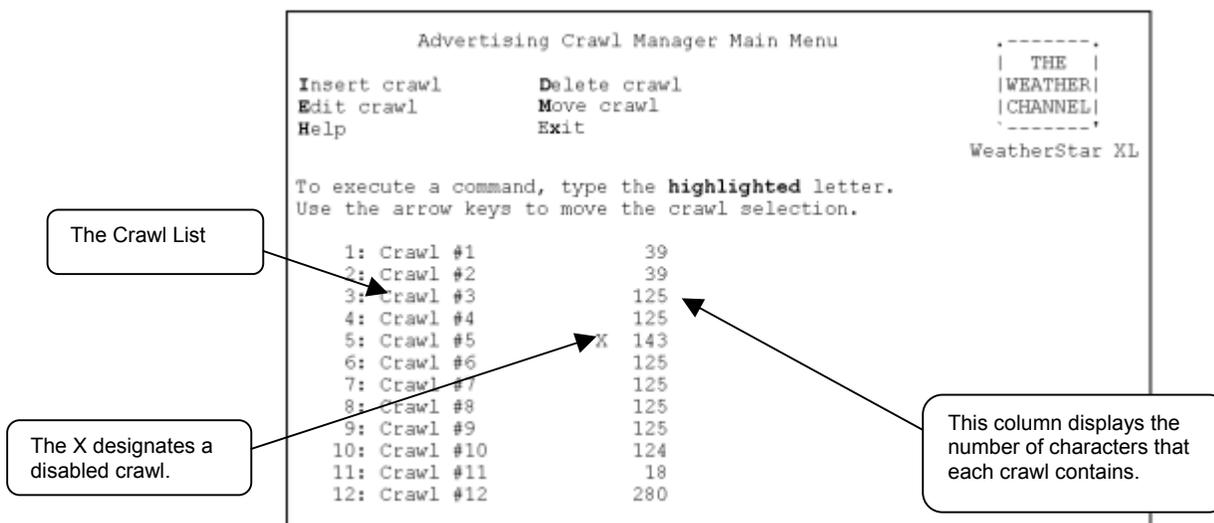
```
               Advertising Crawl Manager Main Menu      .-------.
                                                        |  THE  |
Insert crawl          Delete crawl                      |WEATHER|
Edit crawl            Move crawl                        |CHANNEL|
Help                  Exit                              '-------'
                                                        WeatherStar XL

To execute a command, type the highlighted letter.
Use the arrow keys to move the crawl selection.

    1: Crawl #1            39
    2: Crawl #2            39
    3: Crawl #3           125
    4: Crawl #4           125
    5: Crawl #5        X  143
    6: Crawl #6           125
    7: Crawl #7           125
    8: Crawl #8           125
    9: Crawl #9           125
   10: Crawl #10          124
   11: Crawl #11           18
   12: Crawl #12          280
```

The Crawl List

The X designates a disabled crawl.

This column displays the number of characters that each crawl contains.

Figure 9. The Advertising Crawl Manager Main Menu.

Changing the Crawl Manager Password

After you access the crawl manager for the first time, it is important to change the default password to avoid unauthorized access. You should also periodically change the password as appropriate (for example, after a personnel change).

☑	Step	Instructions
☐	1	Start your modem software and dial the Weather Star XL.
☐	2	At the login prompt (**[Headend name] Login:**), type the following: **crawl [ENTER]**

☑	Step	Instructions
☐	3	At the password prompt, type the current password. If you have not changed the default password, type the following: **`adcrawl2 [ENTER]`**
☐	4	At the TERM VT100 prompt, press **`[ENTER]`**.
☐	5	In the Advertising Crawl Manager Main Menu, press **`CTRL + C`**.
☐	6	At the **Old Password** prompt, type the current password. For security reasons, the password you type does not display.
☐	7	At the **New Password** prompt, type the new password. The password must be at least six characters long. It must contain at least two alphabetic characters and at least one numeric or special character. You can use alphanumeric characters and punctuation including spaces and underscores.
☐	8	At the **Re-enter New Password** prompt, verify the new password by typing it again. If the confirmation field matches the entry in the **New Password** field, the password will be successfully changed and your modem software **will automatically disconnect**. To access the crawl manager, repeat the steps listed in "Accessing the Advertising Crawl Manager." If the confirmation field does not match the entry in the **New Password** field, you must repeat Steps 7 and 8.

Adding a Crawl to the Crawl List

You can create a new crawl message with a maximum of 280 characters. To create a crawl, complete the following steps (**refer to Figure 9 and Figure 10**):

☑	Step	Instructions
☐	1	In the Crawl List (see Figure 9), use the up and down arrow keys to select a crawl. The new crawl will be inserted below the selected crawl. If there are no existing crawls, you cannot change the position.
☐	2	Press the **`I`** key (**I**nsert Crawl). The Insert Crawl screen displays (see Figure 10).

☑	Step	Instructions
☐	3	In the **Name** box, type a distinctive name for this crawl. For example, you could type an advertiser's name.
		The crawl name can contain up to 18 upper and/or lower case alphanumeric characters.
☐	4	Press **TAB**.
☐	5	To disable this crawl so that it doesn't display on-air, press the **Y** key in the **Disabled** box.
		To enable a disabled crawl so that it will display at the next scheduled time, press the **N** key to clear the **Disabled** box.
☐	6	Press **TAB**.
☐	7	In the **Text** box, type the text that you want to scroll across the bottom of the television screen.
		The crawl message cannot be blank, and you are limited to a 280-character message.
☐	8	Press **ENTER** to verify your changes.
		The crawl name you added displays in the first column list of the Advertising Crawl Manager Main Menu along with the number of characters in the crawl message.
		The letter X displays after the name of a disabled crawl (see Figure 9).
		To exit the Crawl Manager, press **X**, and then press **ENTER** to save your changes.

A disabled crawl does not display on-air until you enable it.

*To type an extended character, press **CTRL-A**. Press the left and right arrow keys to navigate the list of characters, and then press **ENTER** to insert the selected character into your text.*

```
                    Insert Crawl
  Name:                Disabled:
  Text:




  Press Enter to save changes, Esc to cancel.
  Press Ctrl-A to insert extended characters.
```

Figure 10. Advertising Crawl Manager Insert Crawl Dialog Box.

Editing a Crawl in the Crawl List

To edit an existing crawl, complete the following steps (refer to Figures 9 and 11):

☑	Step	Instructions
☐	1	In the Crawl List (see Figure 9), use the up or down arrow keys to select the crawl you want to edit.
☐	2	Press the **E** key (**E**dit Crawl).
☐	3	To change the crawl name, type a new name in the **Name** box (see Figure 11). The crawl name is typically the advertiser's name. The crawl name can contain up to 18 upper and/or lower case alphanumeric characters.
☐	4	Press **TAB**.
☐	5	To disable an enabled crawl so that it will not display, press the **Y** key in the **Disabled** box. To enable a disabled crawl so that it will display at the next scheduled time, press the **N** key to clear the **Disabled** box.
☐	6	Press **TAB**.
☐	7	In the **Text** box, type any changes you want to make to the text that will scroll across the bottom of the screen. You are limited to a 280-character message.
☐	8	Press **ENTER** to save your changes. To exit the Crawl Manager, press **X**, and then press **ENTER** to save your changes.

To type an extended character, press **CTRL-A**. Press the left and right arrow keys to navigate the list of characters, and then press **ENTER** to insert the selected character into your text.
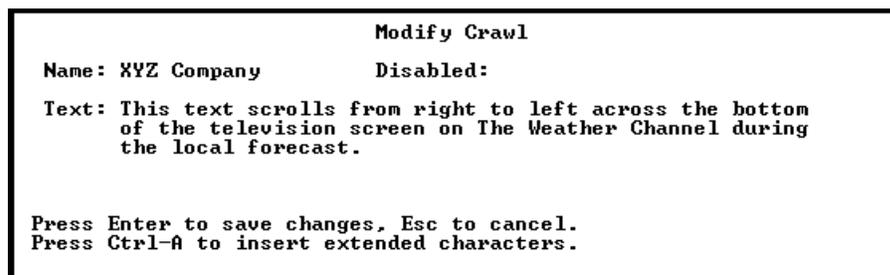
```
                        Modify Crawl
    Name: XYZ Company          Disabled:

    Text: This text scrolls from right to left across the bottom
          of the television screen on The Weather Channel during
          the local forecast.



    Press Enter to save changes, Esc to cancel.
    Press Ctrl-A to insert extended characters.
```

Figure 11. Advertising Crawl Manager Modify Crawl Dialog Box.

Moving a Crawl

To move an existing crawl, complete the following steps:

☑	Step	Instructions
☐	1	In the Crawl List (see Figure 9), use the arrow keys to select the crawl you want to move.
☐	2	Press the **M** key (**M**ove Crawl).
☐	3	Use the up or down arrow keys to move the crawl to the desired position in the Crawl List.
☐	4	Press **ENTER**. To exit the Crawl Manager, press **X**, and then press **ENTER** to save your changes.

Deleting a Crawl

To delete an existing crawl, complete the following steps:

☑	Step	Instructions
☐	1	In the Crawl List (see Figure 9), use the up and down arrow keys to select the crawl that you want to delete.
☐	2	Press the **D** key (**D**elete Crawl).
☐	3	Press the **Y** key to confirm that you want to delete the crawl. If you accidentally delete the wrong crawl, you can exit the Advertising Crawl Manager program without saving your changes. When leaving the Advertising Crawl Manager, press **X**, and then press **ENTER** to save your changes; press **ESC** to exit without saving your changes.

Troubleshooting

This section describes how to run the software diagnostics (power-on) tests and how to troubleshoot problems on your Weather Star XL.

Table 1. Locating Troubleshooting Information

Information about this problem . . .	is on page . . .
No video output and no LED on the front panel	28
No video output and solid red LED on the front panel	29
Blinking yellow LED on the front panel	30
No video output and solid green LED on the front panel	31
Page backgrounds display normally and screen goes black every 20-25 minutes	32
Regularly scheduled local forecasts appear as usual and screen goes black every 20-25 minutes	33
No audio or low audio	34
Video working as usual and no local forecast information received	35
No modem or terminal communication	36
No Ethernet communication	37
No local commercial trigger and no weather warning trigger	38
Internal or external fan stops running	39

Use this table to quickly locate the possible remedies for a specific problem.

Figure 12 and Table 2 show correct cable connections for the Weather Star XL.

WARNING: **NEVER** unplug the Weather Star XL without first powering it off. Failure to power off the Weather Star XL could cause irreparable and permanent damage to the unit.

To power off the Weather Star XL, insert a screwdriver into the Power hole and gently press one time. Wait 30 seconds for the unit to power off. It is preferable to call Star Operations before powering off the unit.

Contacting Star Operations

If you experience trouble with the Weather Star XL, please contact The Weather Channel, Inc. at **1-800-554-7354** 24 hours a day, 365 days a year for repair/warranty information. Ask for Star Operations.

Power-on Tests

These tests run automatically on the major hardware components of the Weather Star XL each time it is powered on. If the tests find a faulty part, the LED on the front of the system turns red. If this occurs, contact Star Operations (refer to "Contacting Star Operations"). The troubleshooting procedures for the Weather Star XL are shown in Table 3.
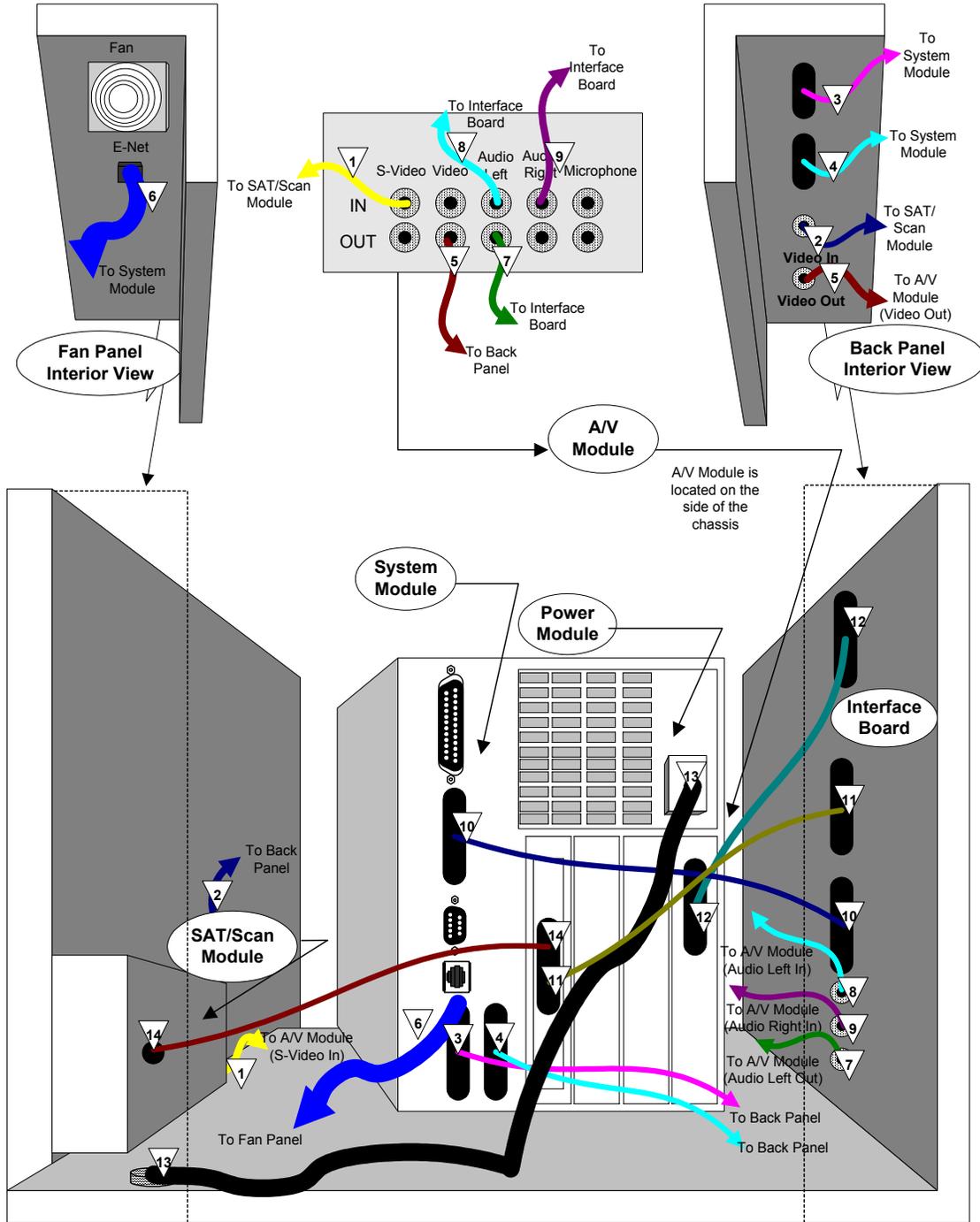
Color coded for readability only

Figure 12. Weather Star XL Cable Diagram.

Table 2. Weather Star XL Cable Diagram Description

Cable Number*	Connection Description
1	S-Video cable connects from the bottom plug on the SatScan Module to the **S-Video In** plug on the A/V Module.
2	Single-pin connector connects from the **Video In** (BNC) connector (second connector from the bottom) on the Back Panel to the RCA connector (top connector) on the SatScan Module.
3	Nine-pin RS-232 connector connects from the **Channel Controls/External Data** connector (top connector) on the Back Panel to the nine-pin RS-232 connector (slot 2) on the System Module.
4	RS-232 25-pin connector connects from the **Comm Port** connector (second connector from the top) on the Back Panel to the RS-232 nine-pin connector (slot 1) on the System Module.
5	Single-pin connector connects from the **Video Out** (BNC) connector on the Back Panel to the **Video Out** (RCA) connector on the A/V Module.
6	Cable from **E-Net** connector on the Fan Panel connects to the RJ-45 connector on the System Module.
7	Cable from **Left Audio Out** RCA connector (bottom connector) on the Interface Board connects to the **Audio Left Out** RCA connector on the A/V Module.
8	Cable from the RCA connector (third connector from the bottom) on the Interface Board connects to the **Audio Left In** RCA connector on the A/V Module.
9	Cable from the RCA connector (second connector from the bottom) of the Interface Board connects to the **Audio Right In** RCA connector on the A/V Module.
10	Cable from the 36-pin high density connector (third connector from the top) of the Interface Board connects to the 36-pin high density connector (**Parallel Port**) on the System Module.
11	Cable from the 15-pin RS-232 connector (second connector from the top) of the Interface Board connects to the SBE card in the System Module.
12	Cable from the 36-pin high density connector (top connector) of the Interface Board connects to the A/V Module (connection is located below the power cord).
13	Cable from the A/C power connector (under the SatScan Module) connects to the 3-prong A/C connector on the Power Module.
	Cable from the 9-pin RS-232 connector (on the side of the SatScan Module) connects to the SBE card on the System Module.

* Triangle color corresponds to the cable color in Figure 12: Weather Star XL Cable Diagram

Table 3. Weather Star XL Troubleshooting

Symptom	Possible Cause	Possible Solution
• No video output • No LED on the front panel	• No power to system • Power supply failure • Loose power connections • Power cable failure • Loose cable connections • Cable failure **Note:** It is always preferable to call Star Operations before attempting to reset or power off the Weather Star XL.	**1** Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Power** hole (the upper hole to your right on the front panel, see Figure 8) and gently press one time to power off the unit. Wait 30 seconds for the Weather Star XL to power off. Then power it on again (refer to "Powering the Weather Star XL"). **Warning:** Do not use a paper clip or other object that could cause an electrical short. **2** Check for loose power connections (refer to Figures 5 and 7). Repeat Solution 1 above. **3** Check for loose cable connections (especially cable #13) (refer to Figure 12). Repeat Solution 1 above. **4** Unplug cable #13, slide the lock switch on the power supply to the right, gently pull out the power supply about 3 inches, reseat the power supply, slide the lock switch back to the left, reattach cable #13, and then repeat Solution 1 above. **5** If none of these options solve the problem, contact Star Operations at **1-800-554-7354**.

Symptom	Possible Cause	Possible Solution
• No video output • Solid red LED on the front panel	• System board module lock-up • System board module failure • System drive (drive 0) not fully inserted • System drive (drive 0) failure • Loose cable connections • Cable failure **Note:** It is always preferable to call Star Operations before attempting to reset or power off the Weather Star XL.	**1** Check for loose cable connections (refer to Figure 12). **2** Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Reset** hole (the lower hole to your left on the front panel, see Figure 8) and gently press one time to reset the unit. Wait two minutes for the LED to turn green. **Warning:** Do not use a paper clip or other object that could cause an electrical short. **3** Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Power** hole (the upper hole to your right on the front panel, see Figure 8) and gently press one time to power off the unit. Wait 30 seconds for the Weather Star XL to power off. Then power it on again (refer to "Powering the Weather Star XL"). **Warning:** Do not use a paper clip or other object that could cause an electrical short. **4** If none of these options solve the problem, contact Star Operations at **1-800-554-7354**.

Symptom	Possible Cause	Possible Solution
Blinking yellow LED	• Memory diagnostic failure • Loose cable connections • Cable failure **Note:** It is always preferable to call Star Operations before attempting to reset or power off the Weather Star XL.	**1** Check cable connections (refer to Figure 12). **2** Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Reset** hole (the lower hole to your left on the front panel, see Figure 8) and gently press one time to reset the unit. Wait two minutes for the LED to turn green. **Warning:** Do not use a paper clip or other object that could cause an electrical short. **3** Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Power** hole (the upper hole to your right on the front panel, see Figure 8) and gently press one time to power off the unit. Wait 30 seconds for the Weather Star XL to power off. Then power it on again (refer to "Powering the Weather Star XL"). **Warning:** Do not use a paper clip or other object that could cause an electrical short. **4** If none of these options solve the problem, contact Star Operations at **1-800-554-7354**.

Symptom	Possible Cause	Possible Solution
• No video output • Solid green LED on the front panel	• System drive (drive 0) not fully inserted • System drive (drive 0) failure • Loose cable connections • Loose A/V Module • Cable failure **Note:** It is always preferable to call Star Operations before attempting to reset or power off the Weather Star XL.	1 Turn power off and let unit sit for 1.5 minutes. 2 Check that system drive locking lever is pushed up all the way and the system drive is firmly inserted. 3 Check that A/V Module is firmly attached to chassis. 4 Check cable connections (especially cable #1, #2, and #5) (refer to Figure 12). 5 Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Reset** hole (see Figure 8) and gently press one time to reset the unit. Wait two minutes for the video to return. **Warning:** Do not use a paper clip or other object that could cause an electrical short. 6 Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Power** hole (see Figure 8) and gently press one time to power off the unit. Wait 30 seconds for the unit to power off. Then power it on again (refer to "Powering the Weather Star XL") **Warning:** Do not use a paper clip or other object that could cause an electrical short. 7 If none of these options solve the problem, contact Star Operations at **1-800-554-7354**.

Symptom	Possible Cause	Possible Solution
• Regularly scheduled local forecasts appear as usual • Screen goes black every 20-25 minutes	• Receiver failure • Loose video cable connections • Video cable failure • TWC problem • SatScan board failure **Note:** It is always preferable to call Star Operations before attempting to reset or power off the Weather Star XL.	**1** Check cable connections. **2** Check DD power transformer. **3** Check **Comp/BB In** connections from receiver, IRD, or VDA (refer to Figure 7). **4** Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Reset** hole (the lower hole to your left on the front panel, see Figure 8) and gently press one time to reset the unit. Wait two minutes for the LED to turn green. **Warning:** Do not use a paper clip or other object that could cause an electrical short. **5** Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Power** hole (the upper hole to your right on the front panel, see Figure 8) and gently press one time to power off the unit. Wait 30 seconds for the Weather Star XL to power off. Then power it on again (refer to "Powering the Weather Star XL") **Warning:** Do not use a paper clip or other object that could cause an electrical short. **6** If none of these options solve the problem, contact Star Operations at **1-800-554-7354**.

Symptom	Possible Cause	Possible Solution
• Page backgrounds display normally • "Data Unavailable" message displays when products expire	• TWC lost data stream to the Weather Star XL • Loose cable connections • Cable failure • No connection to **Comp BB In** • No connection to Ethernet • LAN problems **Note:** It is always preferable to call Star Operations before attempting to reset or power off the Weather Star XL.	**1** Check cable connections (especially both sides of cable #14) (refer to Figure 12). **2** Check **Comp BB In** connections from videocipher or IRD (refer to Figure 7). **3** Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Reset** hole (the lower hole to your left on the front panel, see Figure 8) and gently press one time to reset the unit. Wait two minutes for the LED to turn green. **Warning:** Do not use a paper clip or other object that could cause an electrical short. **4** Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Power** hole (the upper hole to your right on the front panel, see Figure 8) and gently press one time to power off the unit. Wait 30 seconds for the Weather Star XL to power off. Then power it on again (refer to "Powering the Weather Star XL"). **Warning:** Do not use a paper clip or other object that could cause an electrical short. **5** If none of these options solve the problem, contact Star Operations at **1-800-554-7354**.

Symptom	Possible Cause	Possible Solution
• No audio • Low audio	• Loose audio cables • Audio cable failure • A/V Module failure • Interface Board failure • No **OUT** connection from Weather Star XL to channel modulator **Note:** It is always preferable to call Star Operations before attempting to reset or power off the Weather Star XL.	**1** Check cable connections (especially cable #7, #8, and #12) (refer to Figure 12). **2** Check that A/V Module is firmly attached to chassis. **3** Check **OUT** connections from the Weather Star XL to channel modulator (refer to Figures 5, 6, and 7). **4** Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Reset** hole (the lower hole to your left on the front panel, see Figure 8) and gently press once to reset the unit. Wait two minutes for the LED to turn green. **Warning:** Do not use a paper clip or other object that could cause an electrical short. **5** Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Power** hole (the upper hole to your right on the front panel, see Figure 8) and gently press once to power off the unit. Wait 30 seconds for the unit to power off. Then power it on again (refer to "Powering the Weather Star XL"). **Warning:** Do not use a paper clip or other object that could cause an electrical short. **6** If none of these options solve the problem, contact Star Operations at **1-800-554-7354**.

Symptom	Possible Cause	Possible Solution
• Video and audio working as usual • No local forecast information received or information is outdated	• Loose data cable • Data cable failure • No connection to **Comp BB In** • System drive (drive 0) not fully inserted • System drive (drive 0) failure • No connection to Ethernet • LAN network problems • Data transports not activated (new system) **Note:** It is always preferable to call Star Operations before attempting to reset or power off the Weather Star XL.	**1** Check cable connections (especially cable # 14) (refer to Figure 12). **2** Check **Comp BB In** connections from videocipher or IRD (see Figure 7). **3** Check the LEDs on the SBE board (refer to cable #14 and #11 in Figure 12). Normally, the left LED does not light and the right LED blinks. **4** Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Reset** hole (the lower hole to your left on the front panel, see Figure 8) and gently press one time to reset the unit. Wait two minutes for the LED to turn green. **Warning:** Do not use a paper clip or other object that could cause an electrical short. **5** Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Power** hole (the upper hole to your right on the front panel, see Figure 8) and gently press one time to power off the unit. Wait 30 seconds for the unit to power off. Then power it on again. **Warning:** Do not use a paper clip or other object that could cause an electrical short. **6** Check the network connectivity and verify communications through the cable modem. **7** If none of these options solve the problem, contact Star Operations at **1-800-554-7354**.

Symptom	Possible Cause	Possible Solution
No modem or terminal communication	• Loose communication cable • Communication cable failure • No power to modem • Modem failure • No power to terminal • Terminal failure Under normal operating conditions, when the modem is in an inactive state, it displays continuous red lights for: **HS**, **AA**, **TR**, and **MR**. In addition, when the modem is receiving incoming communication or sending outgoing communication, it displays blinking red lights for **CD** and **OH**. **Note:** It is always preferable to call Star Operations before attempting to reset or power off the Weather Star XL.	**1** Check modem/terminal power connections, and check that modem/terminal is turned on. **2** Check cable connections (especially cable #4) (refer to Figure 12) **3** Check that modem or terminal cable is connected to the **Comm Port** connection on the back of the Weather Star XL (refer to Figure 5). **4** If using a modem, try connecting a terminal and power it on. **5** If using a terminal, make sure the cable attached to the Weather Star XL is a NULL-modem cable. **6** Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Reset** hole (see Figure 8) and gently press once to reset the unit. Wait two minutes for the LED to turn green. **Warning:** Do not use a paper clip or other object that could cause an electrical short. **7** Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Power** hole (see Figure 8) and gently press once to power off the unit. Wait 30 seconds for the unit to power off. Then power it on again. **Warning:** Do not use a paper clip or other object that could cause an electrical short. **8** If none of these options solve the problem, contact Star Operations at **1-800-554-7354**.

Symptom	Possible Cause	Possible Solution
• No Ethernet communication • Data not updating	• Loose Ethernet connection • Ethernet cable failure • LAN problem **Note:** It is always preferable to call Star Operations before attempting to reset or power off the Weather Star XL.	**1** Check cable connections (especially cable #6) (refer to Figure 12). **2** Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Reset** hole (the lower hole to your left on the front panel, see Figure 8) and gently press one time to reset the unit. Wait two minutes for the LED to turn green. **Warning:** Do not use a paper clip or other object that could cause an electrical short. **3** Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Power** hole (the upper hole to your right on the front panel, see Figure 8) and gently press one time to power off the unit. Wait 30 seconds for the Weather Star XL to power off. Then power it on again (refer to "Powering the Weather Star XL"). **Warning:** Do not use a paper clip or other object that could cause an electrical short. **4** Check the network connectivity and verify communications through the cable modem. **5** If none of these options solve the problem, contact Star Operations.

Symptom	Possible Cause	Possible Solution
• No local commercial trigger • No weather warning trigger	• Loose GPI cable connection • GPI cable failure • Satscan failure (weather warning) • SBE failure (weather warning) • No connection to Comp/BB In (weather warning) **Note:** It is always preferable to call Star Operations before attempting to reset or power off the Weather Star XL.	**1** Check cable connections (especially cable #10) (refer to Figure 12). **2** Check **GPI** connections from the Weather Star XL to the videocipher or IRD (refer to Figures 6 and 7). **3** Check Comp/BB In connections from receiver, IRD, or VDA (refer to Figure 7). **4** Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Reset** hole (the lower hole to your left on the front panel, see Figure 8) and gently press one time to reset the unit. Wait two minutes for the LED to turn green. **Warning:** Do not use a paper clip or other object that could cause an electrical short. **5** Insert a #6 Phillips head screwdriver or the end of a pen cap into the **Power** hole (the upper hole to your right on the front panel, see Figure 8) and gently press one time to power off the unit. Wait 30 seconds for the Weather Star XL to power off. Then power it on again (refer to "Powering the Weather Star XL"). **Warning:** Do not use a paper clip or other object that could cause an electrical short. **6** If none of these options solve the problem, contact Star Operations at **1-800-554-7354**.

Symptom	Possible Cause	Possible Solution
Internal or external fan stops running	• Loss of power to the fan • Fan failure	**1** If this is the external fan, check that the power cable is firmly attached. The power cable runs from the external fan and sits on top of the system module/power module. **2** If this option does not solve the problem, contact Star Operations at **1-800-554-7354**.

Index