

ECHOSTAR

TR-40

Digital-To-Analog Converter

User Guide

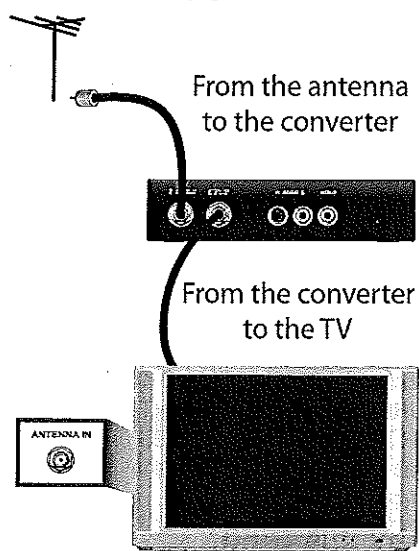
Enjoying your converter is as easy as 1-2-3!

Convenient quick-start steps. See inside for additional information.

1

CONNECTIONS

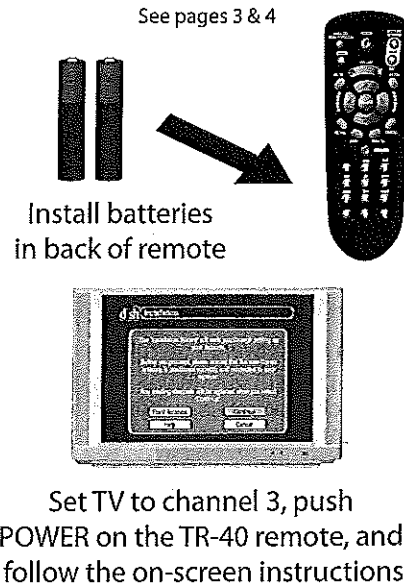
See pages 2 & 3



2

SET UP

See pages 3 & 4



3

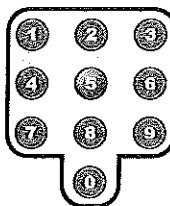
FINDING A CHANNEL

See pages 5-7

Program Guide



Number Pad



Channel Up/Down



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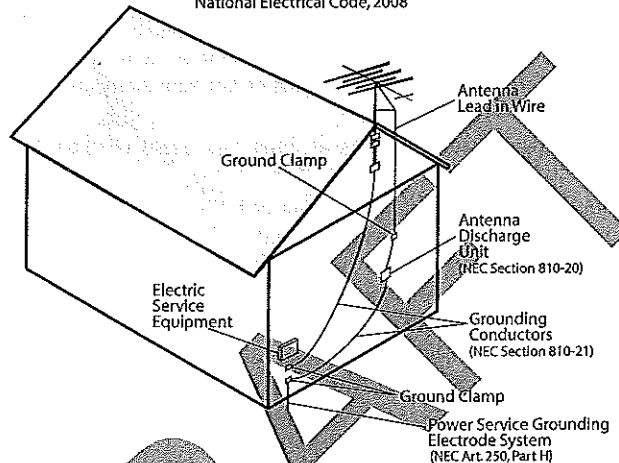
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IMPORTANT SAFETY INSTRUCTIONS

Note to Installer: This reminder is provided to call the installer's attention to Article 810 section II of the *National Electrical Code (NEC)* that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

Example of Antenna Grounding

National Electrical Code, 2008



- Do not locate the antenna near overhead light or power circuits, or where it can fall into such power lines or circuits. When installing the antenna, take extreme care to avoid touching such power lines or circuits, as contact with them can be fatal.

Proper Care of Your Equipment

- Locate the TV converter in an open, well-ventilated area.
- If the TV converter is cold to the touch, do not plug it in immediately. Let it sit unplugged at room temperature for at least 30 minutes before plugging it in.
- Always handle the TV converter and power adapter carefully.
- Unplug the power adapter from the AC power outlet before cleaning.
- Always turn the TV converter off and unplug it before moving it.
- The use of accessories or attachments not recommended by the TV converter manufacturer will void the Limited Warranty.
- Use an outlet that contains surge suppression or ground fault protection. During an electrical storm or when the TV converter is left unattended and unused for long periods of time, unplug the adapter from the wall outlet, and disconnect the lines between the TV converter and the antenna. This will provide additional protection against damage caused by lightning or power line surges.

Introduction and Installation

CHAPTER 1

Getting to Know the TR-40 and Connecting the TR-40

INTRODUCTION

Welcome and thank you for choosing the TR-40 Digital-to-Analog Converter! The TR-40 is a TV converter that connects between your existing over-the-air antenna and your TV. The TR-40 converts your local digital over-the-air TV broadcasts into a format that can be viewed on your standard-definition analog TV.

This chapter walks you through connecting the TR-40 to your TV and provides an introduction to the TR-40's features.

GUIDE CONVENTIONS

- The names of remote control buttons are all uppercase.
Example: Press **SELECT**.
- On-screen menu options are bold.
Example: Choose the **Setup** option.
- Select means to move the on-screen highlight using the remote control's **ARROW** buttons then press **SELECT** on the remote control.
Example: Select the **Locks** option.

GETTING STARTED

- To learn about the remote control, refer to Chapter 2 on page 5.
- To learn about using the features of the TR-40, refer to Chapter 3 on page 9.
- If you experience any issues using the TR-40, refer to the Troubleshooting steps on page 19.

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INSTALLATION

INSTALLATION

Connecting the TR-40 to Your TV



Important Safety Note: Do not connect your TV or the TR-40 to a power supply until after you have properly connected all of the cables using the following instructions.

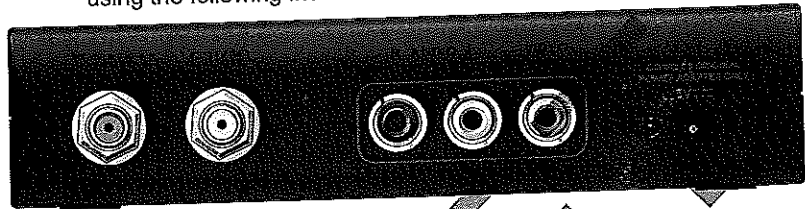


Diagram 1. TR-40 Back Panel Connections

- 1 On the back of your TV, locate the **ANTENNA IN** connection, which connects your TV to your over-the-air antenna. This connection may be labeled **OVER-THE-AIR ANTENNA IN**, **CABLE IN**, **COAX IN**, or another name. Refer to your TV's User Guide for help locating this connection.
- 2 Disconnect the coaxial cable from your TV's **ANTENNA IN** connection.
Note: If your TV uses twin-lead (300 ohm) connections, you will need to obtain and install a 75 ohm to 300 ohm converter on your TV. This converter can be found at most consumer electronics stores.
- 3 Look at the back of the TR-40, and locate the **OVER-THE-AIR ANTENNA IN** connection (refer to Diagram 1). Connect the coaxial cable from step 2 to the TR-40's **OVER-THE-AIR ANTENNA IN** connection. Do not use a wrench to tighten this connection, as you may damage the TR-40.
Note: The TR-40 includes only a digital over-the-air tuner. If channels in your area are still broadcasting in analog signals, you can view these channels by pressing the **ANALOG PASS-THROUGH** button, and changing channels using the TV's remote control.
- 4 Determine the connection type you'll use to connect the TR-40 to your TV. The **TV SET OUT** connection uses a coaxial cable to connect to the TV's **ANTENNA IN** connection. The **AUDIO/VIDEO** connection (RCA-type) uses composite cables (RCA-type) to connect to your TV's video input.
- 5 To connect the TR-40 using a coaxial cable:
 - a Connect one end of the coaxial cable to the TV's **ANTENNA IN** connection. This is the connection that was disconnected in step 2.
 - b Connect the other end of the coaxial cable to the TR-40's **TV SET OUT** connection.

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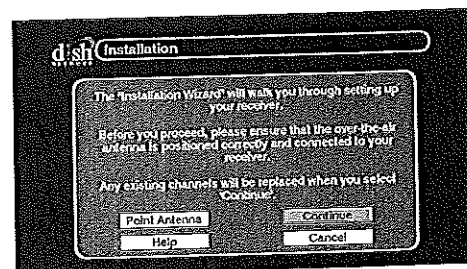
INSTALLATION

- 6 To connect the TR-40 using composite cables (RCA-type).
 - a Connect the composite cables to the TV's RCA-type composite input.
 - b Connect the other end of the cables to the red, white, and yellow **Audio/VIDEO** connections on the TR-40.
- 7 Plug the TR-40's power adapter into the power adapter plug on the back of the TR-40. Plug the other end into an electrical outlet. Make sure your TV is connected to power.

Using the Installation Wizard

- 1 Install two AAA batteries in the TR-40 remote control. Be sure to follow the battery installation diagram on the remote control.
- 2 Turn on your TV using the TV's remote control.
- 3 Change your TV to the correct channel or input to view the TR-40.
 - a If your TV is connected to the TR-40 using the coaxial connection (step 5), set the TV to channel 4, which is the default output channel for the TR-40.

Note: If you have a local or cable channel that broadcasts on channel 4, you can change the TR-40's output setting during the Installation Wizard, below.
 - b If your TV is connected to the TR-40 using the RCA-type connection (step 6), you will need to set the TV to a video input or source. Most TV remote controls have a **VIDEO**, **INPUT**, or **SOURCE** button that you can use to change the TV's video input or source. Refer to your TV's User Guide for additional help changing the TV's input or source.
- 4 The first time the TR-40 turns on, an Installation Wizard screen appears and guides you through the setup process. The Installation Wizard scans for local digital over-the-air channels, and helps you set up the time zone and TV display settings.

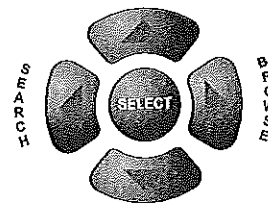


Installation Wizard

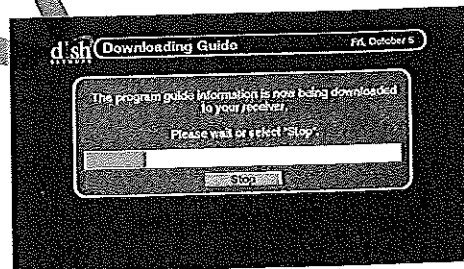
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INSTALLATION

- 5 To navigate through the Installation Wizard, use the **SELECT** button on the TR-40 remote control to choose the highlighted (orange) on-screen option. To highlight other options, use the **ARROW** buttons.
- 6 Select **Continue** to begin the Installation Wizard.
- 7 The Installation Wizard scans for local digital over-the-air channels.
- 8 After the channel scan completes, you will be taken to the Set Time Zone screen. Use the **UP** and **DOWN ARROW** buttons to find your time zone and to set if your area follows Daylight Savings time. Press **SELECT** on **Next** once you've made these settings and to go to the next step.
- 9 The Modulator Setup screen is used to change the output channel of the TR-40's **TV SET OUT** connection. The channel setting on the Modulator Setup screen must match your TV's channel. If you have a local or cable channel that broadcasts on channel 4, be sure to change this setting to channel 3. If you do this, you will also need to change your TV channel to 3. Press **SELECT** on **Next**.
- 10 Use the **ARROWS** or **NUMBER PAD** to enter your zip code. Press **SELECT** on **Next**.
- 11 The TR-40 begins to download the Program Guide information. This takes a few minutes. After the Program Guide has downloaded, the TR-40 will exit out to a channel.



Navigation Buttons



Downloading Guide

TR-40 DIGITAL-TO-ANALOG TV CONVERTER

THE REMOTE CONTROL

Remote Control

CHAPTER 2

Using the TR-40 Remote Control

THE REMOTE CONTROL

The remote control that came with the TR-40 will operate only the TR-40 Digital-to-Analog Converter. If you own a universal remote control, you may be able to program your universal remote control to operate the TR-40. Review the device codes provided in your universal remote control's user manual. Look for the codes listed for EchoStar, EchoSphere, or DISH Network.



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REMOTE CONTROL BUTTONS

REMOTE CONTROL BUTTONS

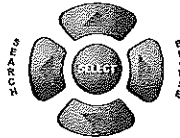
POWER

POWER



Turns the TR-40 on or off.

ARROWS



Use the UP and DOWN ARROWS to quickly change channels. The ARROW buttons also allow you to move through on-screen menus and highlight different options.

SELECT



Selects a highlighted on-screen option or, if pressed while viewing a channel, displays the program information banner.

VOLUME
and MUTE

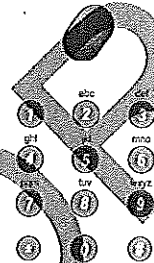
VOLUME



MUTE

Adjusts the volume level of the TR-40 or mutes the TR-40's volume.

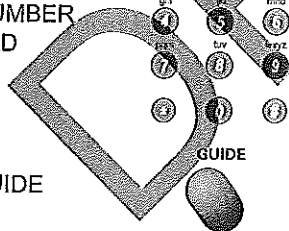
NUMBER
PAD



Quickly change channels by entering the channel number, or choose numbered on-screen options.

GUIDE

GUIDE



Opens the on-screen Program Guide, which displays this list of available channels and programs.

INFO














INFO

Displays program information.

TR-40 DIGITAL-TO-ANALOG TV CONVERTER

REMOTE CONTROL BUTTONS

PAGE UP and DOWN (PICTURE FORMAT and CC)	  	<p>Move through the Program Guide and other menus one page at a time.</p> <p>PAGE UP/PICTURE FORMAT adjusts formatting of programs to fit your TV screen while watching TV.</p> <p>PAGE DOWN/CC turns closed captioning on or off while watching TV.</p>
MENU		<p>Opens the TR-40 main menu, which allows you to open all other menus.</p>
CANCEL		<p>Allows you to exit out of any menu without saving changes.</p>
VIEW TV		<p>Quickly exits you all the way out of menus to return to viewing TV.</p>
RECALL		<p>Returns you to the previous channel.</p>
SEARCH		<p>Quickly opens the Event Search screen. See page 11 for more details on Event Search.</p>
BROWSE		<p>Displays the Browse Banner, allowing you to see what is showing on other channels. See page 11 for more details on the Browse Banner.</p>
SYS INFO		<p>Opens the System Information screen, which provides technical details on the TR-40.</p>
ANALOG PASS- THROUGH		<p>Provides the ability to pass-through the analog antenna signal directly to the TV, allowing the TV's tuner to be used for analog channels.</p>

Note: The STAR (*) and POUND (#) buttons are not used by the TR-40.