

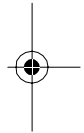
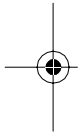
Cat. No. 16-133

OWNER'S MANUAL

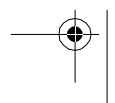
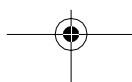
Please read before using this equipment.

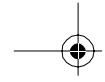
5-Inch Black and White Television

with AM•FM Radio



OPTIMUS®





FEATURES

Your Optimus 5-Inch Black and White Television has many features for easy and convenient TV viewing and radio listening. You can also use your TV/radio to monitor an audio/video source that has audio/video outputs, such as a VCR or camcorder.

Your TV/radio includes these features:

Earphone Jack — lets you connect stereo earphones or headphones so you can listen without disturbing others.

External Audio and Video Input Jacks — let you use the TV/radio to receive external audio and video signals.

Three Power Sources — lets you operate the TV/radio using internal batteries (not supplied), AC power, or vehicle battery power.

External Antenna Jack — lets you connect a standard TV antenna for improved reception.

RADIO/TV Selector — lets you switch between the radio and the TV.

TV/AV Switch — lets you quickly switch between the TV and audio/video modes.

Brightness Control — to adjust the picture when it is too dark or too bright.

Contrast Control — lets you correct picture contrast that is too weak or too strong.

Vertical Hold Control — to adjust the picture when it rolls up or down.

VHF/LO/HI Band Selector — lets you easily select VHF low, VHF high, or UHF TV channels.

AM/FM Selector — for quick selection between the AM and FM bands.

Telescoping Antenna — you can adjust its length, direction, and angle to receive a sharp, clear picture and the best sound.



We recommend you record your TV/radio's serial number here. The number is on the back of the TV/radio.

Serial Number _____

© 1998 Tandy Corporation.
All Rights Reserved.

Optimus and RadioShack are registered trademarks used by Tandy Corporation.

WARNING: To reduce the risk of fire or shock hazard, do not expose this product to rain or moisture.

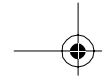
	CAUTION RISK OF ELECTRIC SHOCK. DO NOT OPEN.	
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER OR BACK. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.		



This symbol is intended to alert you to the presence of uninsulated dangerous voltage within the product's enclosure that might be of sufficient magnitude to constitute a risk of electric shock. Do not open the product's case.

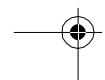
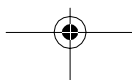


This symbol is intended to inform you that important operating and maintenance instructions are included in the literature accompanying this product.



CONTENTS

Preparation	5
Power Sources	5
Using Internal Battery Power	5
Using AC Power	6
Using Vehicle Battery Power	6
Connecting Antennas	7
Telescoping Antenna	7
Outdoor Antenna	7
Connecting an Audio/Video Source	7
Connecting Earphones or Headphones	8
Listening Safely	8
Traffic Safety	8
Operation	9
TV Operation	9
TV Reception Tips	10
Radio Operation	10
Radio Reception Tips	10
Care and Maintenance	12
Changing the Fuse	13
The FCC Wants You to Know	13
Specifications	14



PREPARATION

POWER SOURCES

You can power the TV/radio from any of three power sources:

- Internal battery power (using ten C batteries, not included)
- Standard AC power (using the supplied AC adapter)
- Vehicle battery power (using the supplied DC power cord)

Using Internal Battery Power

You can power the TV/radio from ten C batteries. We recommend alkaline batteries (such as Cat. No. 23-551) for the longest life. You can also use rechargeable nickel-cadmium batteries (such as Cat. No. 23-124).

Cautions:

- Use only fresh batteries of the required size and recommended type.
- Do not mix old and new batteries, different types of batteries (standard, alkaline, or rechargeable), or rechargeable batteries of different capacities.

Note: If you use rechargeable nickel-cadmium batteries, you need a separate battery charger, such as Cat. No. 23-132.

Follow these steps to install batteries.

1. Carefully turn the TV upside-down and gently press the arrow on the battery compartment cover. Push the cover in the direction of the arrow to remove it.

illus

2. Install ten C batteries in the battery compartment as indicated by the polarity symbols (+ and -) marked inside.

illus

Caution: Installing the batteries with incorrect polarity can damage your TV/radio.

3. Replace the cover. Be sure the tab on the cover locks into the slot on the case.

Notes:

- When the TV picture shrinks, replace or recharge the batteries.
- Battery life can vary greatly, depending on how you use your TV/radio.

Cautions:

- Always remove old or weak batteries. Batteries can leak chemicals that can destroy electronic parts.

- Dispose of old batteries promptly and properly.
- If you do not plan to use your TV/radio for a month or more, or if you plan to use only AC or DC power, remove the batteries.

socket using the supplied DC power cord.

illus

Using AC Power

To use AC power, connect the supplied AC adapter's barrel plug to **DC 12V** on the back of TV/radio. Then plug the adapter's other end into a standard AC outlet. When you connect the AC adapter, the batteries automatically disconnect.

illus

Caution: The supplied AC adapter supplies 13.5 volts DC, delivers 850 milliamps, and has a center positive plug which properly fits the TV/radio's **DC 12V** jack. Using an adapter that does not meet these specifications could damage the TV/radio or the adapter.

Note: Always unplug the AC adapter from the AC outlet before you unplug it from the TV/radio.

Using Vehicle Battery Power

Follow these steps to power the TV/radio from your vehicle's cigarette-lighter

1. Make sure the supplied DC power cord's knurled ring is screwed firmly onto its plug.
2. Plug the small end of the supplied DC power cord into the **DC 12V** jack on the back of the TV/radio.

Caution: The supplied DC power cord supplies 12 volts DC, delivers 850 milliamps, and has a center positive plug that properly fits the TV/radio's **DC 12V** jack. Using a power cord that does not meet these specifications could damage the TV/radio or the power cord.

3. Unplug your vehicle's cigarette lighter, and plug the large end of the DC power cord into the cigarette-lighter socket. When you connect the DC power cord, the internal batteries automatically disconnect.

Notes:

- Always unplug the DC power cord from the cigarette-lighter socket before you unplug it from the TV/radio.
- If the TV/radio stops working, check the fuse in the DC power cord (see "Changing the Fuse" on Page 13).

CONNECTING ANTENNAS

Telescoping Antenna

The built-in telescoping antenna provides good reception of FM, VHF, and UHF broadcast signals.

Extend the antenna vertically to its full length for channels 2 to 6 (VHF-LOW) and 14 to 69 (UHF).

Extend the antenna to a shorter length for the best reception channels 7 to 13 (VHF-HIGH).

Outdoor Antenna

For improved reception, you can connect a standard outdoor VHF/UHF antenna to the **EXT. ANT.** jack on the back of the TV/radio.

illus

If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-dis-

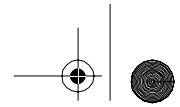
charge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Notes:


- Your local RadioShack store has a wide selection of antennas and adapters to choose from.
- For better reception in your vehicle, you can connect a mobile TV antenna (such as Cat. No. 15-1614, not included) to the television's **EXT. ANT.** jack.

CONNECTING AN AUDIO/VIDEO SOURCE

You can use your TV/radio to monitor an audio/video source (such as a VCR, camcorder, or laser disc player). Connect the audio/video source's output jack(s) to the **AUDIO INPUT** and **VIDEO INPUT** jack(s) on the back of the TV/radio.



CONNECTING EARPHONES OR HEADPHONES

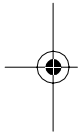
For private listening, plug a pair of stereo earphones or headphones with a $\frac{1}{8}$ -inch mini-plug (not supplied) into the  jack on the side of the TV/radio.

illus

Traffic Safety

Do not wear earphones or headphones while operating a motor vehicle or a bicycle. This can create a traffic hazard and could be illegal in some areas.

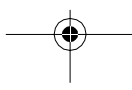
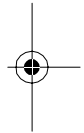
Even though some earphones and headphones let you hear some outside sounds when listening at normal volume levels, they still can present a traffic hazard.



Listening Safely

To protect your hearing, follow these guidelines when you use earphones or headphones.

- Set the volume to the lowest setting before you begin listening. After you begin listening, adjust the volume to a comfortable level.
- Do not listen at extremely high volume levels. Extended high-volume listening can lead to permanent hearing loss.
- Once you set the volume, do not increase it. Over time, your ears adapt to the volume level, so a volume level that does not cause discomfort might still damage your hearing.



OPERATION

TV OPERATION

1. Rotate **VOLUME OFF/MAX** clockwise until it clicks to turn on the TV/radio.

illus

2. Set **RADIO/TV** to **TV**.

*illus --
show
RADIO/TV
set to TV*

3. Set **TV/AV** to **TV** to receive a TV signal, or **AV** to receive signals from an audio/video source connected to the TV/radio's **AUDIO INPUT** or **VIDEO INPUT** jack.

illus

4. Set **VHF LO/VHF HI/UHF** to the desired band.

illus

VHF LO — to select the VHF low channels (2 to 6)

VHF HI — to select the VHF high channels (7 to 13)

UHF — to select the UHF channels (14 to 69)

5. Turn **TUNING** to the desired station.

illus

6. Adjust the telescoping antenna for the best picture and sound.

illus

7. Turn **BRIGHTNESS**, **CONTRAST**, and **V-HOLD** on the side of the TV/radio to adjust the picture as necessary.

illus

BRIGHTNESS — adjust when the picture is too dark or too bright.

CONTRAST — adjust when picture contrast is too weak or too strong.

V-HOLD — adjust when the picture rolls up or down.

8. Rotate **VOLUME OFF/MAX** to adjust the volume to a comfortable level.



9. To turn off the TV/radio, rotate **VOLUME OFF/MAX** counterclockwise until it clicks.

3. Set **AM/FM** to **AM** or **FM** as desired.

illus

TV Reception Tips

If the image is blurry, unstable or has "snow," the signal reception might be weak. This can be caused by your location or the telescoping antenna's position and length. Buildings with steel construction can also cause reception problems. Try changing the antenna's position and length. If this does not help, use an outdoor antenna.

If the image does not fill the screen during battery power operation, the batteries are weak. Replace or recharge the batteries.

4. Turn **TUNING** to the desired station.

illus

5. Rotate **VOLUME OFF/MAX** to the desired level.

illus

RADIO OPERATION

1. Rotate **VOLUME OFF/MAX** clockwise until it clicks to turn on the TV/radio.

illus

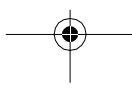
2. Set **RADIO/TV** to **RADIO**.

illus

6. To turn off the TV/radio, rotate **VOLUME OFF/MAX** counterclockwise until it clicks.

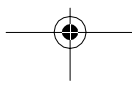
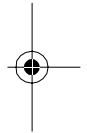
Radio Reception Tips

Weak FM reception can be caused by your location, the telescoping antenna's position and length, and buildings with steel construction. Try changing the antenna's position and length. If this does not help, use an outdoor antenna.





Weak AM reception might be caused by the distance from the station or by operating the TV/radio in a building with steel construction. The TV/radio has a built-in AM antenna. Turn the TV/radio in different directions for the best reception.



CARE AND MAINTENANCE

Your Optimus 5-Inch Black and White Portable TV is an example of superior design and craftsmanship. The following suggestions will help you care for your TV/radio so you can enjoy it for years.



Keep the TV/radio dry. If it gets wet, wipe it dry immediately. Liquids might contain minerals that can corrode the electronic circuits.



Handle the TV/radio gently and carefully. Dropping it can damage circuit boards and cases and can cause the TV/radio to work improperly.



Use and store the TV/radio only in normal temperature environments. Temperature extremes can shorten the life of electronic devices and distort or melt plastic parts.



Keep the TV/radio away from dust and dirt, which can cause premature wear of parts.



Wipe the TV/radio with a damp cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the TV/radio.

Modifying or tampering with the TV/radio's internal components can cause a malfunction and might invalidate your TV/radio's warranty and void your FCC authorization to operate it. If your TV/radio is not performing as it should, take it to your local RadioShack store for assistance.

CHANGING THE FUSE

If the TV does not work while using vehicle battery power, check the fuse by following these steps.

illus

1. Unscrew the knurled ring on the DC power cord and remove the spring to check the fuse.
2. If the fuse is bad, replace it with a 2-amp fuse, such as RadioShack Cat. No. 270-1007. Do not use a fuse with a different rating.
3. Replace the spring and the knurled ring. Tighten the ring securely.

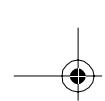
- Use outlets on different electrical circuits for this product and the radio or TV

Consult your local RadioShack store if the problem still exists.

THE FCC WANTS YOU TO KNOW

This TV/radio complies with the limits for a Class B digital device as specified in Part 15 of *FCC Rules*. These limits provide reasonable protection against radio and TV interference in a residential area. However, your TV/radio might cause TV or radio interference even when it is operating properly. To eliminate interference, you can try one or more of the following corrective measures:

- Reorient or relocate the receiving antenna
- Increase the distance between this product and the radio or TV



SPECIFICATIONS

System NTSC-M

Horizontal Resolution 260 Lines

Receiving Channels Broadcast VHF: 2∠13
Broadcast UHF: 14∠69

Intermediate Frequency Picture IF Carrier Frequency: 45.75 MHz
Sound IF Carrier Frequency: 41.25 MHz

Radio Frequency AM: 530–1710 kHz
FM: 88–108 MHz

Maximum Sensitivity VHF: 45 dB μ V max
UHF/CATV: 48 dB μ V max

Antenna VHF/UHF 75-Ohm Unbalanced

Power Source AC 120V, 60Hz
DC 12V, 800mA
10 C Batteries (Cat. No. 23-551)

Power Consumption 15 W Maximum

Output Power 1 W

Load Impedance 8 Ohms

Frequency Response 80 Hz–7 kHz (3 dB Bandwidth)

Total Harmonic Distortion 2%

Input Level: Video: 1 Vp-p (75-Ohm Terminated)
Audio: 400 mV RMS

Dimensions (HWD) $6\frac{7}{8} \times 6\frac{1}{8} \times 8\frac{1}{16}$ Inches (175 \times 155 \times 205 mm)

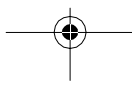
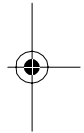
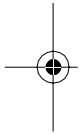
Weight (without batteries) 3 lb 2 oz (1.4 kg)

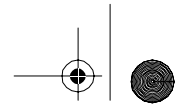
Specifications are typical; individual units might vary. Specifications are subject to change and improvement without notice.





NOTES





Limited Ninety-Day Warranty

This product is warranted by RadioShack against manufacturing defects in material and workmanship under normal use for ninety (90) days from the date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. EXCEPT AS PROVIDED HEREIN, RadioShack MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CONTAINED HEREIN. EXCEPT AS PROVIDED HEREIN, RadioShack SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY USE OR PERFORMANCE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGES RESULTING FROM INCONVENIENCE, LOSS OF TIME, DATA, PROPERTY, REVENUE, OR PROFIT OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RadioShack HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow the limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

In the event of a product defect during the warranty period, take the product and the RadioShack sales receipt as proof of purchase date to any RadioShack store. RadioShack will, at its option, unless otherwise provided by law: (a) correct the defect by product repair without charge for parts and labor; (b) replace the product with one of the same or similar design; or (c) refund the purchase price. All replaced parts and products, and products on which a refund is made, become the property of RadioShack. New or reconditioned parts and products may be used in the performance of warranty service. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

This warranty does not cover: (a) damage or failure caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, lightning or other incidence of excess voltage or current; (b) any repairs other than those provided by a RadioShack Authorized Service Facility; (c) consumables such as fuses or batteries; (d) cosmetic damage; (e) transportation, shipping or insurance costs; or (f) costs of product removal, installation, set-up service adjustment or reinstallation.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

RadioShack Customer Relations, Dept. W, 100 Throckmorton St., Suite 600, Fort Worth, TX 76102

We Service What We Sell

3/97

RadioShack
A Division of Tandy Corporation
Fort Worth, Texas 76102

7A8

Printed in China

