



User's Guide

WorldSpace[®] Digital Receiver

MODEL WSSR-11

CONTENTS

WELCOME TO THE <i>WORLDSPACE™</i> BROADCAST EXPERIENCE	4
FEATURES	4
YOUR <i>WORLDSPACE</i> RECEIVER AT A GLANCE	5
TOP AND FRONT OF THE RECEIVER	5
LEFT SIDE OF THE RECEIVER	6
RIGHT SIDE OF THE RECEIVER	6
QUICK START	7
ANTENNA POSITION AND DIRECTION	8
ANTENNA POINTING GUIDE	9
USING YOUR RECEIVER	10
POWER	10
Using AC power	10
Using batteries	10
SWITCHING ON YOUR RECEIVER	11
POINTING THE ANTENNA	11
RECEIVING <i>WORLDSPACE</i>	12
USING LEARN TO FIND BROADCAST CHANNELS	12
<i>LEARN</i> Mode	12
<i>EXTENDED LEARN</i> Mode	12
SELECTING BROADCAST CHANNELS	12
SELECTING SERVICE COMPONENTS WITHIN A BROADCAST CHANNEL	13
PRESETS MODE: STORING, SELECTING, AND DELETING BROADCAST CHANNELS	13
STORING BROADCAST CHANNELS	13
SELECTING STORED BROADCAST CHANNELS	14
DELETING STORED BROADCAST CHANNELS FROM THE PRESET LIST	14

ENCRYPTED CHANNELS	14
DISPLAYING YOUR 16-DIGIT RECEIVER ID	14
PASSWORD	15
Entering password mode	15
Completing the password entry process	15
Clearing the entire password list	16
PC CONNECTION	16
ALTERNATIVE ANTENNA OPTIONS	17
SELECTING ALTERNATIVE ANTENNA OPTIONS.....	17
MAINTENANCE, SAFETY, AND HANDLING PRECAUTIONS.....	18
MAINTENANCE	18
SAFETY PRECAUTIONS	18
HANDLING PRECAUTIONS	18
TROUBLESHOOTING GUIDE	19
FREQUENTLY ASKED QUESTIONS	20
ADDITIONAL INFORMATION	22
TECHNICAL SPECIFICATIONS	22
WARRANTY INFORMATION	22
LEGAL NOTICES	22
NOTES	23

WELCOME TO THE *WORLDSPACE*[™] BROADCAST EXPERIENCE

Congratulations on your purchase of this fine *WorldSpace* digital receiver. It is an exciting way to receive *WorldSpace* Satellite Radio almost anywhere in Africa, the Middle East, Southern Europe, Asia and Latin America*. And the variety is tremendous! In your region, you get dozens of *WorldSpace* Satellite Radio services, including some of the most respected international broadcasters, and important local and regional programming, plus unique music and audio arts services produced just for you, the *WorldSpace* listener.

By adding a *WorldSpace* PC Adaptor** to your receiver, you can also plug excitement into your personal computer! *WorldSpace* Direct Media assembles the best of the Internet and custom programming from marquee content developers and delivers it directly to your PC. No telephone connection needed! No network congestion. Just a clear digital signal and a small monthly fee puts select web content as near as your keyboard and mouse.

For assistance with your purchase or additional information on available subscription services, please contact your local *WorldSpace* distributor, go to **www.worldspace.com** and visit the customer service section, or email us at customerservice@worldspace.com.

Thank you for choosing *WorldSpace*.

We hope you will enjoy countless hours of informative, entertaining, and enlightening programs from around the world.

FEATURES

The *WorldSpace* digital receiver is light and transportable, and filled with exciting features:

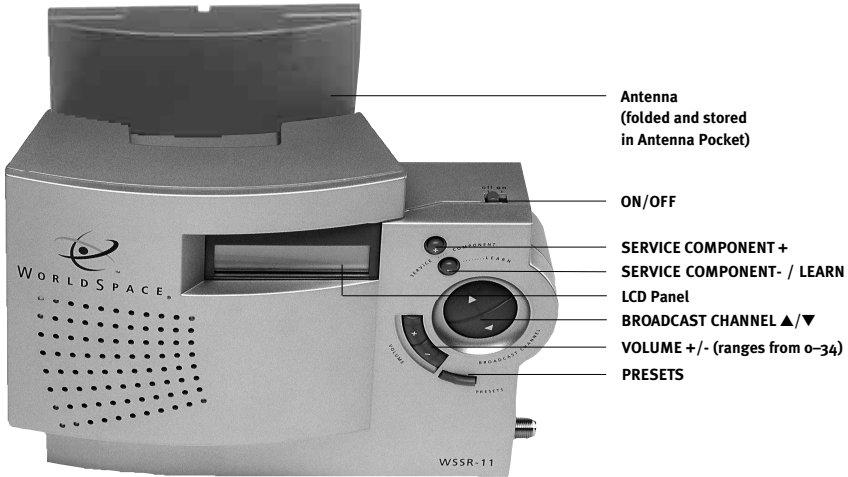
- Receives directly the *WorldSpace* Satellite Radio service throughout the vast satellite coverage areas.
- 10 memory presets for fast access to your favorite channels
- Indoor and outdoor use
- Last Channel Memory Recall
- Stereo output for headphones or for speakers with external amplifier
- Data port for the *WorldSpace* Direct Media service
- Detachable *WorldSpace* water-resistant antenna
- Battery operated (size "C" or type R14 batteries)
- AC powering option

* The AmeriStar[™] satellite is scheduled to launch in 2001.

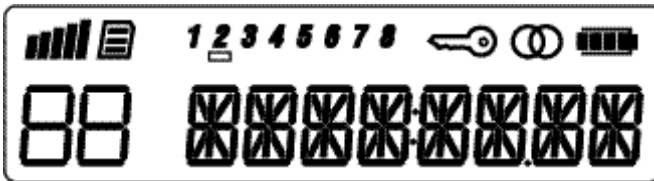
** *WorldSpace* PC Adaptor sold separately.

YOUR *WORLDSPACE* RECEIVER AT A GLANCE

TOP AND FRONT OF THE RECEIVER



LCD PANEL



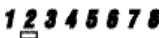
Shows broadcast channel channel (BC) number, service name status, carrier number, etc.



Shows received satellite signal strength (More bars indicate better reception)



Indicates preset mode is on



Indicates number of service components within the selected BC



Indicates selected BC is encrypted and accessed by subscription only



Indicates stereo reception



Batteries fully charged



Batteries need replacement



Indicates broadcast channel preset number

LEFT SIDE OF THE RECEIVER



PC CONNECTION
Jack for connecting to
a PC with a *WorldSpace* PC
Adaptor (PC Adaptor
kit sold separately)

Antenna

**Antenna Pocket/
Battery Cover**

RIGHT SIDE OF THE RECEIVER




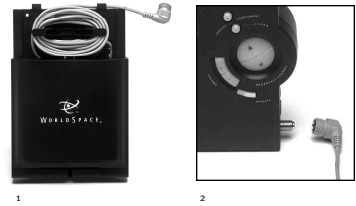
Stereo/Headphone Jack

**DC IN Jack for external
power supply**

**ANTENNA IN *WorldSpace* satellite
signal antenna jack**

QUICK START

- 1) Remove the *WorldSpace* antenna from its pocket and unwrap the cable.
- 2) Connect the antenna cable to the ANTENNA IN jack on the right-hand side of the receiver.
- 3) Connect power adaptor to receiver and to a mains power supply. Or, remove battery cover from the back of the receiver and insert 3 size “C” or type R14 batteries. Replace battery cover.
- 4) Place the *WorldSpace* antenna on a horizontal surface near a window or outdoors in such a way that there are no obstructions such as tall trees, buildings, or walls between the antenna and the satellite.
- 5) Turn the receiver on. The power switch is located on the top panel.
- 6) Point the antenna’s flat front face at the satellite. Consult the ANTENNA POINTING GUIDE on the following pages for the necessary Antenna Position and Direction for your location.
- 7) Once antenna is pointed correctly, press and hold the **LEARN** button for 2 seconds and release. On releasing the button, the *LEARN* mode begins scanning for available *WorldSpace* carriers* in your area. Scanning takes about one minute; LCD panel displays a list of carrier numbers. Once completed, available carriers and their broadcast channels are stored, and the first available broadcast channel will play.**
- 8) Refine the antenna pointing by rotating, tilting and moving antenna back and forth to maximize the number of signal strength bars displaying on the LCD panel. Five bars indicate the strongest signal strength. 
- 9) Use **BROADCAST CHANNEL ▲/▼** buttons for channel selection.



NOTE: As you perform the *LEARN* mode, be sure LCD panel displays signal strength bars indicating signal reception.

ANTENNA POSITION AND DIRECTION

As with all media delivered by satellite, *WorldSpace* signals travel in a direct line from the satellite to your receiver antenna. This path must be unobstructed so that the antenna can receive these transmissions.

* Carriers are an efficient technology used to transport multiple broadcast channels. See Question & Answer, page 21 for details.

** If *LEARN* mode does not find available *WorldSpace* broadcast channels, run the *EXTENDED LEARN* mode. See page 12.

ANTENNA POSITION

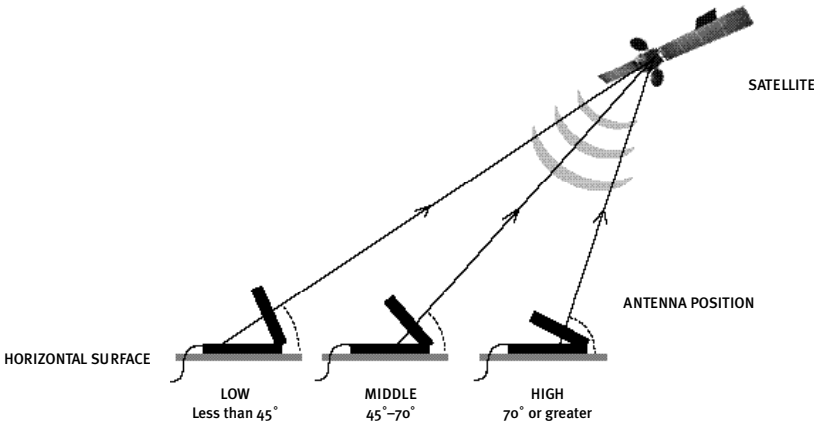
"Antenna Position" refers to the angle above the horizon to which you should point the antenna .

The antenna can be put in three positions: **LOW**, **MIDDLE**, and **HIGH**.

In the **LOW** position you put the antenna in pointing angle of less than 45° .

In the **MIDDLE** position it is put in an angle between 45° and 70° .

In the **HIGH** position the pointing angle is 70° or greater.

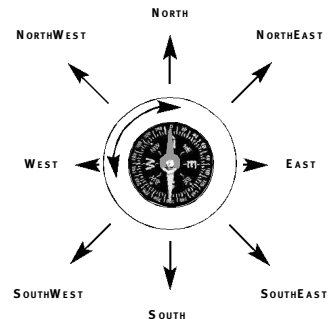


ANTENNA DIRECTION

"Antenna Direction" refers to the direction (north, east, etc.) the flat face of the antenna should point. With the help of the supplied compass, select the desired pointing direction for the antenna.

USING THE COMPASS

- 1) Place the compass on the picture at right, and align it in such a way that the N on the compass is in the same position as the North on the picture.
- 2) Turn the paper and the compass at the same time until the red side of the compass needle points to N(orth).
- 3) Refer to the **ANTENNA POINTING GUIDE** on the next page to select the correct Antenna Direction for your region.

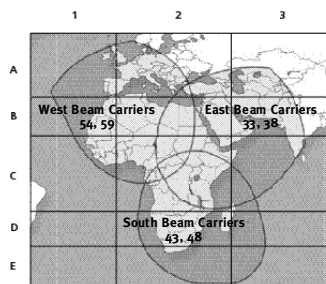


NOTE: Please make sure that the compass is not placed on top of or near metal plates or material as this may alter the position of the needle.

ANTENNA POINTING GUIDE

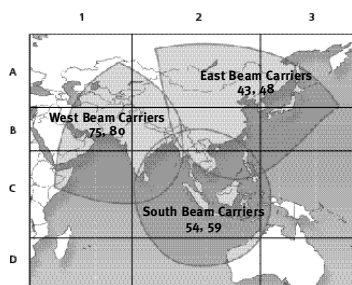
NOTE: Antenna Position and Direction are approximate guides. If you are near a region border, please adjust antenna accordingly for your maximum signal reception.

AFRISTAR™



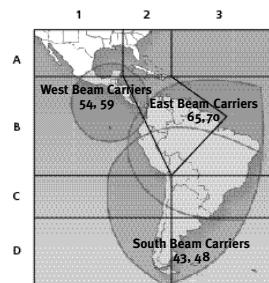
Region	Antenna Position	Antenna Direction
A1	Low	Southeast
A2	Low	South
A3	Low	Southwest
B1	Middle	Southeast
B2	Middle	South
B3	Low	Southwest
C1	Middle	East
C2	High	Any
C3	Middle	West
D1	Middle	Northeast
D2	Middle	North
D3	Low	Northwest
E2	Low	North

ASIASTAR™



Region	Antenna Position	Antenna Direction
A1	Low	Southeast
A2	Low	South
A3	Low	Southwest
B1	Middle	Southeast
B2	Middle	South
B3	Middle	Southwest
C1	Middle	East
C2	High	Any
C3	Middle	West
D2	Middle	North

AMERISTAR™

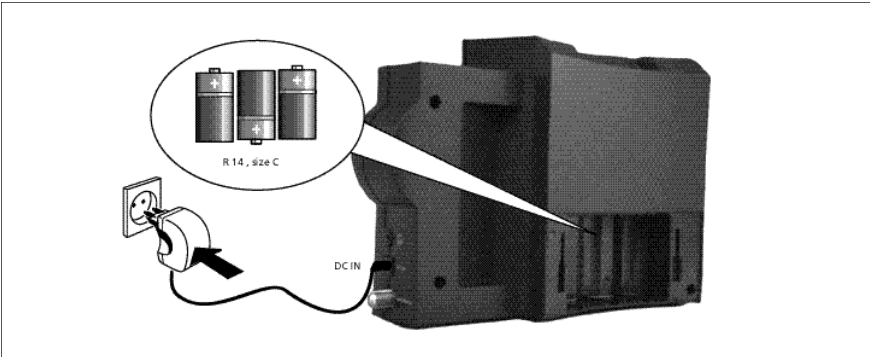


Region	Antenna Position	Antenna Direction
A1	Middle	South
A2	Middle	Southwest
B1	High	North
B2	Middle	West, Northwest
B3	Low	West
C1	Middle	Northwest
C3	Low	Northwest
D1	Low	North
D3	Low	Northwest

For more information and questions please visit our Web site at
www.worldspace.com.

USING YOUR RECEIVER

POWER



Using AC power

The *WorldSpace* receiver operates on alternating current (AC) power. Use an AC power adaptor that will operate from your mains and deliver 4.5 – 6.0 volts DC with minimum 500 mA output current (adaptor included).

To use AC power, insert the adaptor into the DC IN jack on the right-hand side of the receiver and plug the adaptor into a wall outlet. Make sure the voltage setting of the adaptor corresponds to the local voltage.

To change over from AC power to battery power, remove the plug from the DC IN jack. Always disconnect the adaptor from the wall outlet when not in use.

Using batteries

The receiver can also operate on battery power using three size “C” or type R14 batteries. To install the batteries:

- 1) Remove antenna. Remove battery cover which also serves as the *WorldSpace* antenna pocket, by releasing cover latch and sliding the cover down.
- 2) Insert the batteries. Be certain to match the polarities (+/-) as shown.
- 3) Replace the battery cover.

When you switch the receiver power on (the power switch is on the top panel of the receiver), the front LCD panel indicates the state of the batteries:



Batteries full




Batteries need replacement

SWITCHING ON YOUR RECEIVER

Switch on the receiver by sliding the switch on the top of the receiver to the 'On' position.

POINTING THE ANTENNA

- 1) Remove the antenna from its pocket and unwind the cable.
- 2) Connect the antenna cable plug to the ANTENNA IN jack on the side of the receiver.
- 3) Place the antenna on a horizontal surface near a window or outdoors in such a way that there are no obstacles between the antenna and the satellite.
- 4) Point the antenna's flat front face at the satellite. Consult the ANTENNA POINTING GUIDE for the necessary Antenna Position and Direction for your location (pages 7–9 of this User's Guide).
- 5) Once antenna is pointed correctly, the LCD panel displays signal strength bars,  indicating satellite signal is being received.

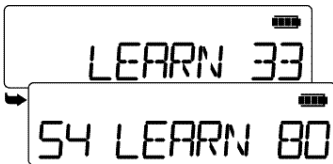
NOTE: As with all media delivered by satellite, *WorldSpace* signals travel in a direct line from the satellite to your receiver antenna. This path must be unobstructed so that the antenna can receive these transmissions.

RECEIVING *WORLDSPACE*

By running the *LEARN* mode, your *WorldSpace* receiver automatically scans and stores all *WorldSpace* carriers and their broadcast channels available in your area. We strongly recommend that you run the *LEARN* mode the first time you turn on the receiver and when the receiver is moved to a new country or region.

USING *LEARN* MODE TO FIND BROADCAST CHANNELS

LEARN Mode



- Press and hold the **LEARN** button for 2 seconds and release.
- The LCD panel shows “LEARN”. On releasing the button, the *LEARN* mode begins scanning for available carriers in your area. This process takes one minute. Once completed, the first available BC will play.

NOTE: If the *LEARN* mode does not find the *WorldSpace* carriers and broadcast channels available in your area, run the *EXTENDED LEARN* mode

NOTE: As you perform the *LEARN* mode, be sure LCD panel displays signal strength bars indicating signal reception.

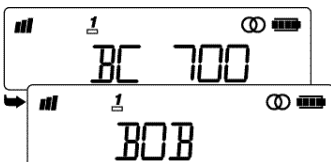
EXTENDED LEARN Mode

- Press and hold the **LEARN** button for 5 seconds and release.
- The *EXTENDED LEARN* Mode is necessary should *WorldSpace* launch additional satellites or install repeater services. Visit our Website at www.worldspace.com for updates.

NOTE: The *LEARN* and *EXTENDED LEARN* modes will not reset or clear the channel presets.

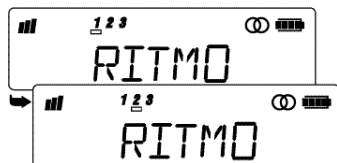
SELECTING BROADCAST CHANNELS (BCs)

You can select BCs sequentially by pressing the **BROADCAST CHANNEL ▲/▼** buttons. When selecting a BC, the LCD panel shows first its number followed shortly by its channel name. After selecting the last BC of a carrier, pressing ▲ will automatically scroll to the first BC of the next carrier. The same is true when the first BC is selected and you press ▼.




SELECTING SERVICE COMPONENTS WITHIN A BROADCAST CHANNEL

Some broadcast channels may have more than one service component. In this case, use the **SERVICE COMPONENT +/-** buttons to scroll and select the desired service component of that broadcast channel. For instance, if the “RITMO” channel decided to broadcast in more than one language on multiple service components and you wanted to hear one of the alternative languages, you would select the appropriate service component using the **SERVICE COMPONENT +/-** buttons.



PRESETS MODE: STORING, SELECTING, AND DELETING BROADCAST CHANNELS

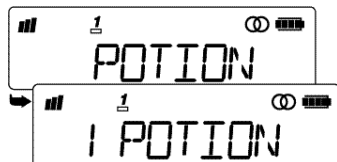
The *PRESET* mode can be switched on and off by briefly pressing the **PRESETS** button. If the *PRESET* mode is switched on the LCD panel indicates the  symbol.

STORING BROADCAST CHANNELS

You can store up to 10 of your favorite BCs in the receiver’s memory. To store a BC:


- 1) Make sure the *PRESET* mode is switched off.
- 2) Select the BC you wish to store.
- 3) Press and hold the **PRESETS** button for 2 seconds.

The current BC is now stored in the next free position in the preset list. The preset number is shown on the LCD panel before the name.



NOTE: If the preset list is full, the LCD panel will show “MEMFULL”.

SELECTING STORED BROADCAST CHANNELS


- 1) Briefly press the **PRESETS** button to switch on the *PRESET* mode. The  symbol appears on the LCD panel.
- 2) Scroll through stored stations sequentially by pressing the **BROADCAST CHANNEL ▲/▼** buttons.

DELETING STORED BROADCAST CHANNELS FROM THE PRESET LIST

- 1) Switch on *PRESET* mode.
- 2) Select the BC you wish to delete from the preset list.
- 3) Press and hold the **PRESETS** button for 2 seconds. The current channel is erased from the preset list. The LCD panel will no longer show the preset number before the channel name.
- 4) After the channel is erased the receiver automatically switches the *PRESET* mode off.

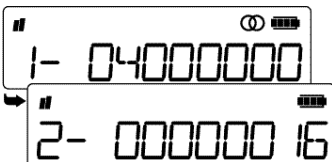
When selecting a channel, the receiver verifies that the channel is not already stored. If a channel is already stored, its memory location number appears on the LCD panel in front of the channel name, and it will not be stored a second time.

ENCRYPTED CHANNELS

Depending on your region, some or all channels are encrypted for audio subscription-based listening. If you select a channel that is encrypted, a key symbol  appears on the LCD panel and no audio is heard. To access these channels a password must be entered. Your receiver has a unique ID number that is required for the distributor to set up your subscription. Contact your nearest *WorldSpace* distributor for more information about subscription-based services or visit our Website at www.worldspace.com.

DISPLAYING YOUR 16-DIGIT RECEIVER ID

- 1) Press and hold the **SERVICE COMPONENT +** (plus) button more than 5 seconds. After 2 seconds, the receiver enters *PASSWORD ENTRY* mode. After 5 seconds, the receiver enters *RECEIVER ID* mode and the LCD panel shows “1-” followed by the first 8 digits of the receiver ID.
- 2) Press the **SERVICE COMPONENT +** button. “2-” followed by the remaining 8 digits of the receiver ID appear on the LCD panel.

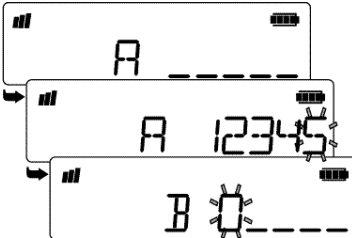


PASSWORD

You will be issued a password that is unique to your receiver and cannot be used with another receiver. Passwords are entered once and then stored. This password remains stored and valid for the whole subscription period. A password is either 22 or 25 digits in length. The receiver can store up to 8 passwords for different services.

Entering password mode:

- 1) Press and hold the **SERVICE COMPONENT +** button for more than 2 seconds. The LCD panel shows “A _ _ _ _ _”. The blinking cursor indicates your current position.
- 2) Enter the first 5 digits.
Enter the first digit by using the **BROADCAST CHANNEL ▲/▼** buttons to scroll through digits (0–9). When the proper digit is in the field, use the **SERVICE COMPONENT +** and – buttons to move the cursor to the left or right.
- 3) After you have entered the fifth digit, press the **SERVICE COMPONENT +** button to move to the next screen. The LCD panel shows “B _ _ _ _ _”.
- 4) Enter the next 5 digits.



As you complete each screen, press the **SERVICE COMPONENT +** button to move to the next screen. When you are finished, you will have completed five screens, “Axxxxx” through “Exxxxx”. If you were given a 22-digit password, leave the last 3 digits of screen “Exx _ _ _” blank.

Completing the password entry process

To end the password entry process:

- 1) Press and hold the **SERVICE COMPONENT +** button for more than 2 seconds. “CHECKING” appears on the LCD panel as the password is being verified. If the password is correct, the LCD panel will show “ACCEPTED” for 3 seconds.



- 2) When an encrypted station is selected, the receiver will automatically search for the necessary password. If the password is found in the memory, you will be able to hear the encrypted channel.

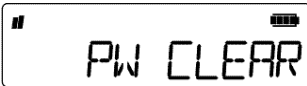
Remarks:

- During password verification, all buttons will be unavailable.
- If the receiver is tuned to a decrypted BC, that channel will be muted during verification.
- If the password list is full, the oldest password is replaced.

Clearing the entire password list

To clear the entire password list:

- 1) Press and hold the **SERVICE COMPONENT +** button for more than 10 seconds. The LCD panel will show "PW CLEAR".



- 2) Press the **SERVICE COMPONENT +** button once to complete the password clearing process and confirm that all passwords are cleared.

NOTE: To cancel the password clearing process, press any button other than **SERVICE COMPONENT +**, or switch off the receiver.

PC CONNECTION

The PC CONNECTION jack on the left side of your receiver is a port to a new type of multimedia service. With a *WorldSpace* PC Adaptor*, you can connect your receiver to your personal computer (using its serial port or USB connector) and receive the *WorldSpace* Direct Media service, an exciting new way to receive select web content direct from satellite. Being a *WorldSpace* Direct Media subscriber is like having a personalized CD-ROM delivered into your PC every day. You interact with the content that you download, use it on your schedule, and surf from one area of interest to another. No telephone connection needed!

WorldSpace Direct Media offers you choice, quality, speed, and reliability. Contact your nearest *WorldSpace* distributor for more information and how to subscribe, or visit our Website at www.worldspace.com.

* *WorldSpace* PC Adaptor sold separately

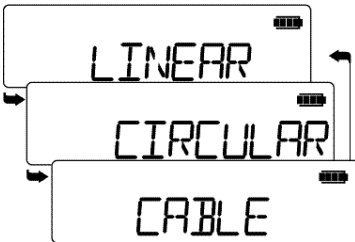
ALTERNATIVE ANTENNA OPTIONS

A *LINEAR* antenna is supplied with your receiver. Alternatively, you may use a *WorldSpace* *CIRCULAR* antenna, or a *LINEAR* Yagi antenna with 2.3 volts LNA (Low Noise Amplifier). You may also have an in-house *CABLE*-connected outdoor antenna. Optional antennas, LNAs and in-house installation are available separately. When changing antennas you will need to select the appropriate antenna mode: *LINEAR*, *CIRCULAR*, or *CABLE*.

NOTE: receivers are factory-set for the *LINEAR* antenna mode for the supplied antenna.

SELECTING ALTERNATIVE ANTENNA OPTIONS

- 1) While pressing the **SERVICE COMPONENT +** button, switch ON the receiver.
The LCD panel will display the antenna mode.
- 2) Scroll up or down using the **BROADCAST CHANNEL ▲/▼** buttons. “*LINEAR*”, “*CIRCULAR*”, and “*CABLE*” display on the LCD panel.
- 3) When the desired antenna mode is displayed, press the **PRESETS** key to select it.



In *LINEAR* mode the antenna voltage supply is 3.0 volts. This mode is suited for the linear antenna provided with the receiver, or a Yagi antenna with 2.3V LNA.

In *CIRCULAR* mode the antenna voltage supply is 2.4 or 3.0 volts. This mode is suited for a circular (patch) antenna. In this mode, the receiver will automatically select the voltage.

In *CABLE* mode the antenna voltage supply in the receiver switches off. This mode is for an in-house cable installation with separate voltage supply for an active outdoor antenna.

NOTE: All antennas options require an unobstructed line-of-site to the *WorldSpace* satellite so that the antenna can receive the transmissions.

MAINTENANCE, SAFETY, AND HANDLING PRECAUTIONS

MAINTENANCE

- Use a soft damp cloth to clean the receiver housing.
- Never use cleaning agents that contain alcohol, methylated spirits, ammonia or abrasives.

SAFETY PRECAUTIONS

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT OPEN OR REMOVE RECEIVER CASING, EXCEPT FOR BATTERY COVER. NO USER SERVICEABLE PARTS ARE INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL ONLY.

- Do not continue to use the receiver if performance is abnormal.
- During lightning, unplug any power cord connecting the receiver to a wall outlet. If the receiver is being used outdoors, stop using the receiver and store the receiver and the *WorldSpace* antenna indoors.
- Use only the specified battery type. Never combine new and old batteries or different types of batteries to avoid possible injury.
- Insert the batteries as directed, with the correct polarity (+/-).
- Discharged batteries should be removed from the receiver immediately and disposed of properly. If the receiver is not in use for long periods, remove the batteries from the receiver even if they are new.

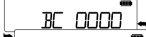






WorldSpace accepts no responsibility for damage due to leaking batteries.

HANDLING PRECAUTIONS



WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE OR ITS ACCESSORIES TO RAIN OR MOISTURE.

- Do not immerse in water or use in bathtub, shower, or swimming pool. Electrical shock could result. Do not allow the receiver to become wet from rain or splashes.
- Do not expose the receiver to extreme temperatures.
- Do not expose the receiver to direct sunlight, extreme heat, or high humidity. Do not place it near heat sources, water, or in a sandy or dusty place.
- Do not drop the receiver or cause damage to the cabinet.
- When the receiver is not used for an extended period, unplug from the wall outlet.
- When unplugging the optional power supply from the wall outlet or the receiver, grasp the plug, and not the cord.

TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	REMEDY
The receiver does not switch on.	Power supply not connected properly.	Check the power supply connection.
	Batteries not properly positioned or are empty.	Ensure that the batteries are new and correctly inserted.
The receiver does not receive <i>WorldSpace</i> . (LCD panel may show "BC GONE" or "TDM GONE")    	Antenna pointing is not correct.	Check "Antenna Pointing Guide" (see page 4–5).
	There is an obstacle between the antenna and the satellite.	Set the antenna up in open-air or window for line-of-sight and to minimize interference.
	Antenna cable is not inserted.	Check the cable connections.
	The channel location has changed.	Perform the <i>LEARN</i> mode again to find the new BC location.
	The channel is temporarily not available	Contact your nearest <i>WorldSpace</i> customer service representative, see <i>WorldSpace</i> Offices list
	Receiver has moved to another country or region.	Perform the <i>LEARN</i> mode again to find the BC.
The receiver receives the <i>WorldSpace</i> signal but no sound is heard.	Headphones are plugged in.	Listen via headphones or pull headphones out of the receiver.
	Volume is set too low.	Adjust the volume.
	The LCD panel shows the  symbol which means that the station is encrypted.	A password has to be entered to access this encrypted station Contact your nearest <i>WorldSpace</i> distributor to subscribe. Select another BC.
	Selected BC is for DATA.	Contact your nearest <i>WorldSpace</i> distributor to subscribe. Select another BC.
	The receiver has a synchronization problem.	Switch the receiver off and on again to reset completely.
When I enter my password, the LCD panel reads "REJECTED". 	The password is incorrect.	Confirm the password and reenter it. If you still receive the "REJECTED" message, contact your <i>WorldSpace</i> distributor.
When I enter my password, the LCD panel reads "REPLACED". 	There was already a password for the same service in the password list.	This is normal. No further action is required.

FREQUENTLY ASKED QUESTIONS

QUESTION	ANSWER
<p>What is line-of-sight?</p> 	<p>Line-of-sight means the receiver's satellite antenna has a direct and clear path to where the <i>WorldSpace</i> satellite is located in the sky.</p>
<p>Why is line-of-sight needed for satellite reception?</p>	<p>As with all satellite broadcasting, <i>WorldSpace</i> transmissions travel directly from the satellite to your receiver antenna. This path must be unobstructed so that the antenna can receive these transmissions.</p>
<p>What do the BROADCAST CHANNEL ▲/▼ buttons do?</p>	<p>Allow listeners to scroll through available BCs. In <i>PRESET</i> mode, these buttons take you to the next or the previous stored channel. In <i>PASSWORD</i> entry mode, you increase or decrease the current digit by pressing these buttons.</p>
<p>What is a service component?</p>	<p>A service component is a separate program within a BC. One BC can have as many as eight service components. The LCD panel on your receiver shows how many service components are available for the selected broadcast channel. For instance, if the "RITMO" channel decided to broadcast in more than one language on multiple service components and you wanted to hear one of the alternative languages, you would select the appropriate service component.</p> 
<p>Is a service component always an audio channel?</p>	<p>Some broadcasters may use a service component to transfer data other than audio. In that case, no sound will be audible upon selection of that service component and the LCD panel shows "DATA" every 2 seconds.</p>
<p>Do all broadcast channels have service components?</p>	<p>Yes. All broadcast channels have at least one service component. Some have more, up to eight service components. The LCD panel displays the number of available service components for the selected broadcast channel.</p>

QUESTION	ANSWER
<p>What do the SERVICE COMPONENT +/- buttons do?</p>	<p>Allow listeners to scroll through a broadcast channel's available service components. Press the SERVICE COMPONENT + and SERVICE COMPONENT - buttons to scroll forward and backward, respectively, through available service components.</p> <p>These buttons have some additional features.</p> <p>Press the SERVICE COMPONENT + button and hold it 2 seconds to enter <i>PASSWORD ENTRY</i> mode. Once in <i>PASSWORD ENTRY</i> mode, press SERVICE COMPONENT + again to move to the next password field screen. Press SERVICE COMPONENT - to return to previous field screens.</p> <p>Press the SERVICE COMPONENT + button and hold it 5 seconds to enter <i>RECEIVER ID</i> mode. Once in <i>RECEIVER ID</i> mode, press SERVICE COMPONENT + again to see the second 8 digits of the receiver ID.</p>
<p>What is Last Channel Memory Recall?</p>	<p>If the receiver remains tuned to a broadcast channel for at least 10 seconds, this broadcast channel and volume level are stored. When the receiver is switched off and on again, the receiver will tune to that last broadcast channel.</p>
<p>What is a carrier?</p>	<p>A carrier is an efficient technology used by the WorldSpace satellites to transport multiple WorldSpace broadcast channels. Each WorldSpace satellite has three beams, and each beam has two carriers. Each carrier contains multiple broadcast channels. After the <i>LEARN</i> or <i>EXTENDED LEARN</i> mode has been scanned and automatically stored all carriers available in your region, you will have access to all these carriers' broadcast channels.</p>
<p>When I use the <i>LEARN</i> mode, the LCD panel displays a series of numbers. What is the significance of these numbers?</p>	<p><i>WorldSpace</i> uses, and the <i>WorldSpace</i> receiver recognizes, a predefined carrier list (numbers 33, 38, 43, 48, 54, 59, 75, 80). The <i>LEARN</i> mode searches through these predefined carriers to find the available broadcast channels and service components for your region and stores them.</p>
<p>When I use the <i>EXTENDED LEARN</i> mode, the LCD panel displays a series of numbers. What is the significance of these numbers?</p>	<p>The <i>EXTENDED LEARN</i> mode scans all carriers from 0-81 for available broadcast channels and service components in your region and stores them. This mode can be used any time, but is only necessary should <i>WorldSpace</i> launch additional satellites or install repeater services.</p>

ADDITIONAL INFORMATION

TECHNICAL SPECIFICATIONS*

BROADCAST SYSTEM	<i>WorldSpace™</i> system	
FREQUENCY RANGE	L band (1453.384–1490.644 MHz)	
MODULATION	QPSK	
AUDIO CODING	MPEG 2/Layer 3	
ANTENNA	Linear Patch antenna with 1 metre extension cable	
TERMINALS	Antenna input:	F-type/50
	Power supply input:	DC 5.5 V, 5.0 x 1.7mm \emptyset
	Headphones:	3.5 mm stereo jack
	External Data:	digital data out for PC connection
POWER SOURCE	Batteries:	3 x size "C" or type R14
	AC with adaptor:	(50/60 Hz, 4.5–6.0 volts DC, minimum 500 mA, plus-pole to the center pin)
GENERAL	Dimensions (l x h x d):	220 x 150 x 90 mm
	Weight:	680 grams without batteries
ACCESSORIES/OPTIONS	AC power adaptor antenna extension cable <i>WorldSpace</i> PC Adaptor for Direct Media service	

WARRANTY

WorldSpace warranties this digital receiver, model WSSR-11, against any defect arising from faulty material or workmanship for a period of one year. This warranty is not valid in any of the following events:

- Technical Assistance Card is not fully completed and returned to a WorldSpace office within 10 days of consumer purchase.
- Instructions given in the User's Guide are not strictly followed.
- Defects occur as a result of improper or reckless use or handling.
- Work or servicing is performed on this receiver by a non-authorized dealer.
- Modifications or alterations are performed on any of the circuits of the receiver.
- The receiver's 18-digit serial number is tampered with or removed from receiver.

LEGAL NOTICES

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