

marantz®

Model SR5400 User Guide

AV Surround Receiver

ENGLISH

WARRANTY

For warranty information, contact your local Marantz distributor.

RETAIN YOUR PURCHASE RECEIPT

Your purchase receipt is your permanent record of a valuable purchase. It should be kept in a safe place to be referred to as necessary for insurance purposes or when corresponding with Marantz.

IMPORTANT

When seeking warranty service, it is the responsibility of the consumer to establish proof and date of purchase. Your purchase receipt or invoice is adequate for such proof.

FOR U.K. ONLY

This undertaking is in addition to a consumer's statutory rights and does not affect those rights in any way.

FRANÇAIS

GARANTIE

Pour des informations sur la garantie, contacter le distributeur local Marantz.

CONSERVER L'ATTESTATION D'ACHAT

L'attestation d'achat est la preuve permanente d'un achat de valeur. La conserver en lieu sûr pour s'y reporter aux fins d'obtention d'une couverture d'assurance ou dans le cadre de correspondances avec Marantz.

IMPORTANT

Pour l'obtention d'un service couvert par la garantie, il incombe au client d'établir la preuve de l'achat et d'en corroborer la date. Le reçu ou la facture constituent des preuves suffisantes.

DEUTSCH

GARANTIE

Bei Garantiefragen wenden Sie sich bitte an Ihren Marantz-Händler.

HEBEN SIE IHRE QUITTING GUT AUF

Die Quittung dient Ihnen als bleibende Unterlage für Ihren wertvollen Einkauf. Das Aufbewahren der Quittung ist wichtig, da die darin enthaltenen Angaben für Versicherungswecke oder bei Korrespondenz mit Marantz angeführt werden müssen.

WICHTIG!

Bei Garantiefragen muß der Kunde eine Kaufunterlage mit Kaufdatum vorlegen. Ihren Quittung oder Rechnung ist als Unterlage ausreichend.

NEDERLANDS

GARANTIE

Voor inlichtingen omtrent garantie dient u zich tot uw plaatselijke Marantz.

UW KWITANTIE, KASSABON E.D. BEWAREN

Uw kwitantie, kassabon e.d. vormen uw bewijs van aankoop van een waardevol artikel en dienen op een veilige plaats bewaard te worden voor evt. verwijzing bijv. in verband met verzekering of bij correspondentie met Marantz.

BELANGRIJK

Bij een evt. beroep op de garantie is het de verantwoordelijkheid van de consument een gedateerd bewijs van aankoop te tonen. Uw kassabon of factuur zijn voldoende bewijs.

ESPAÑOL

GARANTIA

Para obtener información acerca de la garantía póngase en contacto con su distribuidor Marantz.

GUARDE SU RECIBO DE COMPRA

Su recibo de compra es su prueba permanente de haber adquirido un aparato de valor. Este recibo deberá guardarlo en un lugar seguro y utilizarlo como referencia cuando tenga que hacer uso del seguro o se ponga en contacto con Marantz.

IMPORTANTE

Cuando solicite el servicio otorgado por la garantía el usuario tiene la responsabilidad de demostrar cuándo efectuó la compra. En este caso, su recibo de compra será la prueba apropiada.

ITALIANO

GARANZIA

L'apparecchio è coperto da una garanzia di buon funzionamento della durata di un anno, o del periodo previsto dalla legge, a partire dalla data di acquisto comprovata da un documento attestante il nominativo del Rivenditore e la data di vendita. La garanzia sarà prestata con la sostituzione o la riparazione gratuita delle parti difettose.

Non sono coperti da garanzia difetti derivanti da uso improprio, errata installazione, manutenzione effettuata da personale non autorizzato o, comunque, da circostanze che non possano riferirsi a difetti di funzionamento dell'apparecchio. Sono inoltre esclusi dalla garanzia gli interventi inerenti l'installazione e l'allacciamento agli impianti di alimentazione.

Gli apparecchi verranno riparati presso i nostri

Centri di Assistenza Autorizzati. Le spese ed i rischi di trasporto sono a carico del cliente.

La casa costruttrice declina ogni responsabilità per danni diretti o indiretti provocati dalla inosservanza delle prescrizioni di installazione, uso e manutenzione dettagliate nel presente manuale o per guasti dovuti ad uso continuato a fini professionali.

PORTUGUÊS

GARANTIA

Para informações sobre a garantia, contactar o distribuidor Marantz local.

GUARDAR O RECIBO DE COMPRA

O recibo é o registo permanente da compra que fez. Deve ser guardado num local seguro, para ser apresentado em questões relacionadas com o seguro ou para quando tiver de contactar a Marantz.

IMPORTANTE

Quando procurar assistência técnica ao abrigo da garantia, é da responsabilidade do consumidor estabelecer a prova e data de compra. O recibo é prova adequada.

SVENSKA

GARANTI

För information om garantin, kontakta Marantz lokalgent.

SPAR KVITTOT

Kvittot är ett inköpsbevis på en värdefull vara. Det skall förvaras säkert och hänvisas till vid försäkringsfall eller vidkorrespondens med Marantz.

VIKTIGT

Fö att garantin skall gälla är det kundens sak att framställa bevis och datum om köpet. Kvitto eller faktura är tillräckligt bevis för detta.

DANSK

GARANTI

Henvend dem til Deres MARANTZ-forhandler angående information om garantien.

GEM DERES KVITTERING

Deres købskvittering er Deres varige bevis på et dyrt køb. Den bør gemmes godt og anvendes som bevis, hvis De vil tegne en forsikring, eller hvis De kommunikerer med Marantz.

VIGTIGT

Det påhviler forbrugeren at skaffe bevis for købet og købsdatoen, hvis han eller hun ønsker garantiservice. Deres købskvittering eller faktura er et fulgyldigt bevis herpå.

CE MARKING

- English**
The SR5400 is in conformity with the EMC directive and low-voltage directive.
- Français**
Le SR5400 est conforme à la directive EMC et à la directive sur les basses tensions.
- Deutsch**
Das Modell SR5400 entspricht den EMC-Richtlinien und den Richtlinien für Niederspannungsgeräte.
- Nederlands**
De SR5400 voldoet aan de EMC eisen en de vereisten voor laag-voltage.
- Español**
El SR5400 está de acuerdo con las normas EMC y las relacionadas con baja tensión.
- Italiano**
Il SR5400 è conforme alle direttive CEE ed a quelle per i bassi voltaggi.
- Português**
O SR5400 conforma com as diretrizes EMC e de baixa voltagem.
- Svenska**
SR5400 är tillverkad i enlighet med EMC direktiven och direktiven för lågvoltsutrustning.
- Dansk**
Model SR5400 er i overensstemmelse med EMC-direktivet og direktivet om lavspænding.

English

To ventilate the unit, do not install the unit in a rack or bookshelf, and note the followings.

- Do not touch the top of the enclosure during operation.
- Do not block the openings in the enclosure during operation.
- Do not insert objects beneath the unit.
- Do not block the ventilation slots at the top of the unit.
Do not place anything about 1 meter above the top panel.
- Make a space of about 0.2 meter around the unit.

Français

Pour que l'appareil puisse être correctement ventilé, ne pas l'installer dans un meuble ou une bibliothèque et respecter ce qui suit.

- Ne pas toucher le dessus du coffret.
- Ne pas obstruer les ouïes de ventilation du coffret pendant le fonctionnement.
- Ne placer aucun objet sous l'appareil.
- Ne pas obstruer les ouïes de ventilation du panneau supérieur. Ne placer aucun objet à moins d'un mètre environ du panneau supérieur.
- Veiller à ce qu'aucun objet ne soit à moins de 0,2 mètre des côtés de l'appareil.

Deutsch

Um eine einwandfreie Belüftung des Geräts zu gewährleisten, darf das Gerät nicht in einem Gestell oder Bücherregal aufgestellt werden; die folgenden Punkte sind besonders zu beachten:

- Während des Betriebs das Oberteil des Gehäuses nicht berühren.
- Während des Betriebs die Öffnungen im Gehäuse nicht blockieren.
- Keine Gegenstände in das Gerät einführen.
- Die Belüftungsschlitze an der Oberseite des Geräts dürfen nicht blockiert werden. Darauf achten, daß über dem Gerät ein Freiraum von mindestens 1 meter vorhanden ist.
- Auf allen Geräteseiten muß ein Zwischenraum von ungefähr 0,2 meter vorhanden sein.

Nederlands

Installeer het toestel niet in een rek of boekenkast waar de ventilatie mogelijk wordt gehinderd. Let tevens op de volgende punten:

- Raak de bovenkant van het toestel niet aan als het in gebruik is.
- Blokkeer de openingen van het toestel niet als het in gebruik is.

- Plaats geen onderwerpen onder het toestel.
- Blokkeer de ventilatie-openingen aan de bovenkant van het toestel niet. Zorg dat er tenminste 1 meter vrije ruimte boven het toestel is.
- Zorg dat er 0,2 meter vrije ruimte rond het toestel is.

Español

Para ventilar la unidad no la instale en una estantería ni estante para libros, y tenga en cuenta lo siguiente:

- No toque la parte superior de la caja durante el funcionamiento.
- No tape las ranuras en la caja durante el funcionamiento
- No ponga objetos debajo de la unidad.
- No tape las ranuras de ventilación de la parte superior de la unidad. No ponga nada a menos de 1 metro por encima del panel superior.
- Deje un espacio de unos 0,2 metro alrededor de la unidad.

Italiano

Perché l'unità possa essere sempre ben ventilata, non installarla in scaffali o librerie e tenere presente quanto segue.

- Non toccare la parte superiore del rivestimento durante il funzionamento.
- Non bloccare le aperture sul rivestimento durante il funzionamento.
- Non inserire oggetti al di sotto dell'unità.
- Non bloccare le fessure di ventilazione sopra l'unità.
Non posare nulla per circa un metro sopra il pannello superiore.
- Lasciare 0,2 metro liberi tutto intorno l'unità.

Português

Para ventilar o aparelho, não instalá-lo dentro numa estante ou algo similar, e observar as seguintes recomendações:

- Não tocar a parte superior do aparelho durante a operação.
- Não bloquear as aberturas do aparelho durante a operação.
- Não inserir objectos debaixo do aparelho.
- Não bloquear as aberturas de ventilação na parte de cima do aparelho. Deixar um espaço completamente livre de cerca de 1 metro acima do painel superior.
- Deixar um espaço de cerca de 0,2 metro ao redor do aparelho.

Svenska

För att ventilera enheten, ställ den inte i ett ställ eller bokhylla och tänk på följande.

- Vidrör inte ytterhöljets ovansida under pågående drift.
- Blockera inte öppningarna i ytterhöljet under pågående drift.
- Stick inte in föremål under enheten.
- Blockera inte ventiltionshålerna ovanpå enheten.
Placera inte någonting närmare än 1 meter ovanför apparaten eller enheten.
- Se till att det finns omkring 0,2 meter fri plats runt omkring enheten.

Dansk

Anbring ikke apparatet i et rack eller en boghylde, da dette kan bloke luftcirkulationen omkring apparatet. lagtag ligeledes følgende:

- Berør ikke oversiden af kabinettet under anvendelsen.
- Bloker ikke åbningerne i kabinettet under anvendelsen.
- Stik ikke genstande ind under apparatet.
- Bloker ikke ventilationsåbningerne ovenpå apparatet.
Anbring ikke noget nærmere end 1 m over apparatets overside,
- Sørg for, at der er et frit område på omkring 0,2 m omkring apparatet.

TABLE OF CONTENTS

FOREWORD	1	BASIC OPERATION (PLAY BACK) ...	20
PRECAUTIONS	1	SELECTING AN INPUT SOURCE	20
INSTALLATION	1	SELECTING THE SURROUND MODE	20
INTRODUCTION	2	ADJUSTING THE MAIN VOLUME	20
PRECAUTIONS	2	ADJUSTING THE TONE (BASS & TREBLE) CONTROL	20
DESCRIPTION	2	TEMPORARILY TURNING OFF THE SOUND	20
FEATURES	3	USING THE SLEEP TIMER	21
ACCESSORIES	3	NIGHT MODE	21
FRONT PANEL	4	SURROUND MODE	21
FL DISPLAY	5	OTHER FUNCTION	24
REAR PANEL	6	TV AUTO ON/OFF FUNCTION	24
REMOTE CONTROL OPERATION	7	ATTENUATION TO ANALOG INPUT SIGNAL	24
FUNCTION AND OPERATION	7	LISTENING THROUGH HEADPHONES	24
PROGRAMMING THE REMOTE CONTROLLER	8	VIDEO ON/OFF	24
OPERATION OF REMOTE CONTROL UNIT	9	DISPLAY MODE	24
GENERAL INFORMATION OF RC5400SR TO SR5400	9	SELECTING ANALOG AUDIO INPUT OR	
CONNECTIONS	11	DIGITAL AUDIO INPUT	24
SPEAKER PLACEMENT	11	RECORDING AN ANALOG SOURCE	25
CONNECTING SPEAKERS	11	6.1 CH INPUT	25
CONNECTING AUDIO COMPONENTS	12	BASIC OPERATION (TUNER)	26
CONNECTING VIDEO COMPONENTS	13	LISTENING TO THE TUNER	26
ADVANCED CONNECTING	14	PRESET MEMORY	26
CONNECTING THE REMOTE CONTROL JACKS	14	RDS OPERATION	28
CONNECTING THE ANTENNA TERMINALS	15	TROUBLESHOOTING	29
SETUP	16	TECHNICAL SPECIFICATIONS	30
ON SCREEN DISPLAY MENU SYSTEM	16	DIMENSIONS	30
1 INPUT SETUP (ASSIGNABLE DIGITAL INPUT)	17		
2 SPEAKER SETUP	17		
3 PREFERENCE	18		
4 SURROUND	19		
5 PL II (PRO LOGIC II) MUSIC PARAMETER	19		
6 CS II (CIRCLE SURROUND II) PARAMETER	19		
7 6.1 CH INPUT LEVEL	19		

FOREWORD

This section must be read before any connection is made to the mains supply.

WARNINGS

Do not expose the equipment to rain or moisture.

Do not remove the cover from the equipment.

Do not insert anything into the equipment through the ventilation holes.

Do not handle the mains lead with wet hands.

Do not cover the ventilation with any items such as tablecloths, newspapers, curtains, etc.

No naked flame sources, such as lighted candles, should be placed on the equipment.

When disposing of used batteries, please comply with governmental regulations or environmental public instruction's rules that apply in your country or area.

EQUIPMENT MAINS WORKING SETTING

Your Marantz product has been prepared to comply with the household power and safety requirements that exist in your area. SR5400 can be powered by 230 V AC only.

COPYRIGHT

Recording and playback of any material may require consent. For further information refer to the following:

- Copyright Act 1956
- Dramatic and Musical Performers Act 1958
- Performers Protection Acts 1963 and 1972
- any subsequent statutory enactments and orders

PRECAUTIONS

The following precautions should be taken when operating the equipment.

GENERAL PRECAUTIONS

When siting the equipment ensure that:

- the ventilation holes are not covered;
- air is allowed to circulate freely around the equipment
- it is on a vibration free-surface;

- it will not be exposed to interference from an external source;
- it will not be exposed to excessive heat, cold, moisture or dust;
- it will not be exposed to direct sunlight;
- it will not be exposed to electrostatic discharges

Never place heavy objects on the equipment. If a foreign body or water does enter the equipment, contact your nearest dealer or service center. Do not pull out the plug by pulling on the mains lead, hold the plug. It is advisable when leaving the house, or during a thunderstorm, to disconnect the equipment from the mains supply.

PRECAUTIONS IN CONNECTION

- Be sure to unplug the power cable from the AC outlet or turn off the POWER switch before proceeding with any connection.
- Connect one cable at a time observing the "input" and "output".
This will avoid any cross connection between channels and signal inputs and outputs.
- Insert the plugs securely. Incomplete connection may result in noise.
- Prior to connecting other audio and video equipment to the SR5400, please read their owner's manuals.

INSTALLATION

If this unit or another electronic device incorporating a microcomputer is used at the same time with the tuner or television, picture disturbance or noise may occur. In such a case, install the unit according to the following guide points.

- Separate the unit as far as possible from the television.
- Place the antenna wire for the tuner or TV apart from the power cable and audio and video connection cables of this unit.
- Since the phenomenon is likely to occur when using an indoor antenna and/or 300-ohm feeder wire, we recommend using an outdoor antenna and 75-ohm coaxial cable.

INTRODUCTION

Thank you for purchasing the Marantz SR5400 Surround receiver.

This remarkable component has been engineered to provide you with many years of home theater enjoyment. Please take a few minutes to read this manual thoroughly before you connect and operate the SR5400.

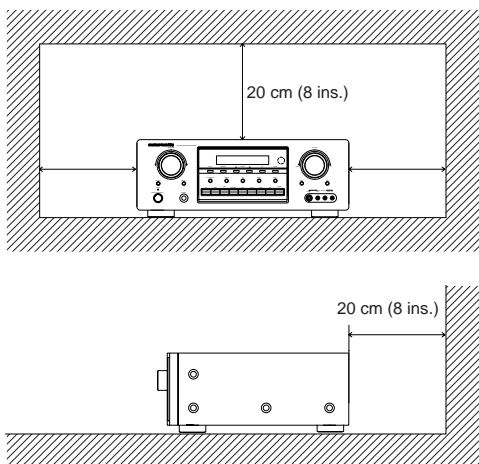
As there are a number of connection and configuration options, you are encouraged to discuss your own particular home theater setup with your Marantz A/V specialist dealer.

PRECAUTIONS

CAUTIONS ON INSTALLATION

For heat dispersal, leave at least 20 cm/8 inch of space between the top, back and sides of this unit and the wall or other components.

- Do not obstruct the ventilation holes.



DESCRIPTION



DTS was introduced in 1994 to provide 5.1 channels of discrete digital audio into home theater systems.

DTS brings you premium quality discrete multichannel digital sound to both movies and music.

DTS is a multichannel sound system designed to create full range digital sound reproduction.

The no compromise DTS digital process sets the standard of quality for cinema sound by delivering an exact copy of the studio master recordings to neighborhood and home theaters.

Now, every moviegoer can hear the sound exactly as the moviemaker intended.

DTS can be enjoyed in the home for either movies or music on of DVD's, LD's, and CD's.

"DTS" and "DTS Digital Surround" are registered trademarks of Digital Theater Systems, Inc.



The advantages of discrete multichannel systems over matrix are well known.

But even in homes equipped for discrete multichannel, there remains a need for high-quality matrix decoding. This is because of the large library of matrix surround motion pictures available on disc and on VHS tape; and analog television broadcasts.

The typical matrix decoder of today derives a center channel and a mono surround channel from two-channel matrix stereo material. It is better than a simple matrix in that it includes steering logic to improve separation, but because of its mono, band-limited surround it can be disappointing to users accustomed to discrete multichannel.

Neo:6 offers several important improvements as follow,

- Neo:6 provides up to six full-band channels of matrix decoding from stereo matrix material. Users with 6.1 and 5.1 systems will derive six and five separate channels, respectively, corresponding to the standard home-theater speaker layouts.
- Neo:6 technology allows various sound elements within a channel or channels to be steered separately, and in a way which follows naturally from the original presentation.

- Neo:6 offers a music mode to expand stereo nonmatrix recordings into the five- or six-channel layout, in a way which does not diminish the subtlety and integrity of the original stereo recording.



DTS-ES Extended Surround is a new multichannel digital signal format developed by Digital Theater Systems Inc. While offering high compatibility with the conventional DTS Digital Surround format, DTS-ES Extended Surround greatly improves the 360-degree surround impression and space expression thanks to further expanded surround signals. This format has been used professionally in movie theaters since 1999.

In addition to the 5.1 surround channels (FL, FR, C, SL, SR and LFE), DTS-ES Extended Surround also offers the SB (Surround Back) channel for surround playback with a total of 6.1 channels. DTS-ES Extended Surround includes two signal formats with different surround signal recording methods, as DTS-ES Discrete 6.1 and DTS-ES Matrix 6.1.

"DTS", "DTS-ES Extended Surround" and "Neo:6" are trademarks of Digital Theater Systems, Inc.



The stereo CD is a 16-bit medium with sampling at 44.1 kHz. Professional audio has been 20- or 24-bit for some time, and there is increasing interest in higher sampling rates both for recording and for delivery into the home. Greater bit depths provide extended dynamic range. Higher sampling rates allow wider frequency response and the use of anti-alias and reconstruction filters with more favorable aural characteristics.

DTS 96/24 allows for 5.1 channel sound tracks to be encoded at a rate of 96kHz/24bits on DVD-Video titles.

When DVD-video appeared, it became possible to deliver 24-bit, 96 kHz audio into the home, but only in two channels, and with serious limitations on picture. This capability has had little use.

DVD-audio allows 96/24 in six channels, but a new player is needed, and only analog outputs are provided, necessitating the use of the D/A converters and analog electronics provided in the player.

DTS 96/24 offers the following:

- Sound quality transparent to the original 96/24 master.
- Full backward compatibility with all existing decoders. (Existing decoders will output a 48 kHz signal)
- No new player required: DTS 96/24 can be carried on DVD-video, or in the video zone of DVD-audio, accessible to all DVD players.
- 96/24 5.1-channel sound with full-quality full-motion video, for music programs and motion picture soundtracks on DVD-video.



Dolby Digital identifies the use of Dolby Digital audio coding for such consumer formats as DVD and DTV. As with film sound, Dolby Digital can provide up to five full-range channels for left, center, and right screen channels, independent left and right surround channels, and a sixth (".1") channel for low-frequency effects.

Dolby Surround Pro Logic II is an improved matrix decoding technology that provides better spatiality and directionality on Dolby Surround program material; provides a convincing three-dimensional soundfield on conventional stereo music recordings; and is ideally suited to bring the surround experience to automotive sound. While conventional surround programming is fully compatible with Dolby Surround Pro Logic II decoders, soundtracks will be able to be encoded specifically to take full advantage of Pro Logic II playback, including separate left and right surround channels. (Such material is also compatible with conventional Pro Logic decoders.)


Dolby Digital EX creates six full-bandwidth output channels from 5.1-channel sources. This is done using a matrix decoder that derives three surround channels from the two in the original recording. For best results, Dolby Digital EX should be used with movies soundtracks recorded with Dolby Digital Surround EX.

Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic", and the double-D symbol are trademarks of Dolby Laboratories.



Circle Surround II (CS-II) is a powerful and versatile multichannel technology. CS-II is designed to enable up to 6.1 multichannel surround sound playback from mono, stereo, CS encoded sources and other matrix encoded sources. In all cases the decoder extends it into 6 channels of surround audio and a LFE/subwoofer signal. The CS-II decoder creates a listening environment that places the listener "inside" music performances and dramatically improves both hi-fi audio conventional surround-encoded video material. CS-II provides composite stereo rear channels to greatly improve separation and image positioning – adding a heightened sense of realism to both audio and A/V productions.

CS-II is packed with other useful feature like dialog clarity (SRS Dialog) for movies and cinema-like bass enrichment (TruBass). CS-II can enable the dialog to become clearer and more discernable in movies and it enables the bass frequencies contained in the original programming to more closely achieve low frequencies – overcoming the low frequency limitations of the speakers by full octave.

Circle Surround II, Dialog Clarity, TruBass, SRS and  symbol are trademarks of SRS Labs, Inc. Circle Surround II, Dialog Clarity and TruBass technology are incorporated under license from SRS Labs, Inc.

FEATURES

The SR5400 incorporates the latest generation of digital surround sound decoding technology such as Dolby Digital EX, Dolby Digital, DTS ES (Discrete 6.1 and Matrix 6.1), DTS Neo:6 (Cinema, Music), Dolby Pro-Logic II (Movie and Music), Circle Surround II (Cinema and Music) . In addition, Marantz has focused on the future. By utilizing pre-out jacks, 6.1 direct inputs the SR5400 is tomorrow's technology, today!

The SR5400 features a fully discrete 6 channel amplifier section capable of delivering 90 watts of high-current amplification, for continuously clean and stable power into each of the six channels. It employs a massive EI power transformer in combination with oversized filter capacitors. This design configuration is capable of a clear and powerful reproduction of the most demanding action movie soundtracks and full range (multichannel) music discs. Through its ability to generate very high output voltages, the SR5400 can easily drive the most demanding speakers with optimum results.

The SR5400 incorporates the most advanced Digital Signal Processing circuitry, along with a Crystal® 192 kHz/24 bit D/A converter in each of the 7 channels. Independent power supply circuits are incorporated for the FL display, audio and video sections for maximum separation, clarity and dynamic range. Together with hand-selected customized components, all elements work in harmony to recreate the emotion, exactly as the artist had intended.

The SR5400 is designed and engineered with extensive feedback from dealers and consumers. It features a heavy duty speaker binding posts and an extensive array of both analog and digital inputs / outputs. With 4 assignable digital inputs, 2 component inputs, SACD Multi Channel (6.1 channel) direct inputs and OSD output versatility is taken to a stunning new level. Furthermore, the SR5400 can output the OSD information through the Y/C (S-video) and composite video outputs.

An easy-to-use universal remote control allows full access to all of the operating functions and can be used for system operation as well.

The new generation of Marantz Receivers is stylish and completely symmetrical. On the front panel of the SR5400, buttons are kept to a minimum. Source selectors and volume controls are intuitively placed. The large left dial knob on the left can be used as multi dial which allows all functions of the SR5400 to be operated via the front panel. The SR5400 is here to perform in your unrivaled home entertainment setup.

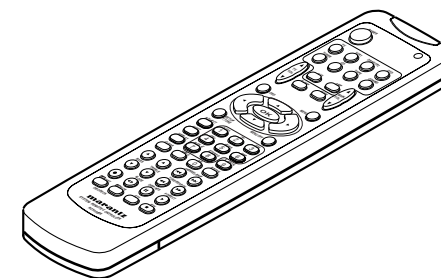
The TruSurround Headphone technology provides a surround sound listening experience over headphones.

When listening to multichannel content such as DVD movies over headphones, the listening experience is fundamentally different than listening to speakers. Since the headphone speaker drivers are covering the pinna of the ear, the listening experience differs greatly from traditional speaker playback. TruSurround utilizes patented headphone perspective curves to solve this problem and provides a non-fatiguing, immersive, home theater listening experience. TruSurround Headphone also delivers exceptional 3D audio from mono and stereo material.

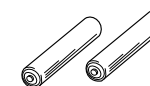
- Dolby Digital EX, Dolby Digital , DTS ES (Discrete 6.1, Matrix 6.1, Neo: 6)
- Dolby Pro Logic II (Movie, Music)
- Circle Surround II (Movie, Music, Mono)
- 6 x 90 Watts (8 Ohm), Discrete Amplifiers
- Massive Energy Power Supply, Huge EI Transformer, Large ELCO's.
- 192 kHz/24 bit Crystal® DAC for all 7 Channels
- 32 bit Digital Surround Processing Chipsets
- Video Off Mode
- Large Heavy Duty Speaker Terminals for all Channels
- Set Up Menu via Composite, and S-Video Output
- Auto Input Signal Detection
- Improved Station Name Input Method, 50 Presets
- Auto Adjust Function for Speaker Distance Settings (Delay Time)
- Large Multi Operation Left Dial Knob
- Universal remote control

ACCESSORIES

Remote Controller RC5400SR



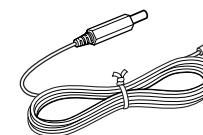
AAA-size batteries X 2



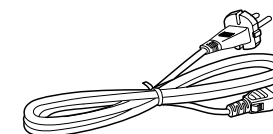
AM Loop Antenna



FM Antenna

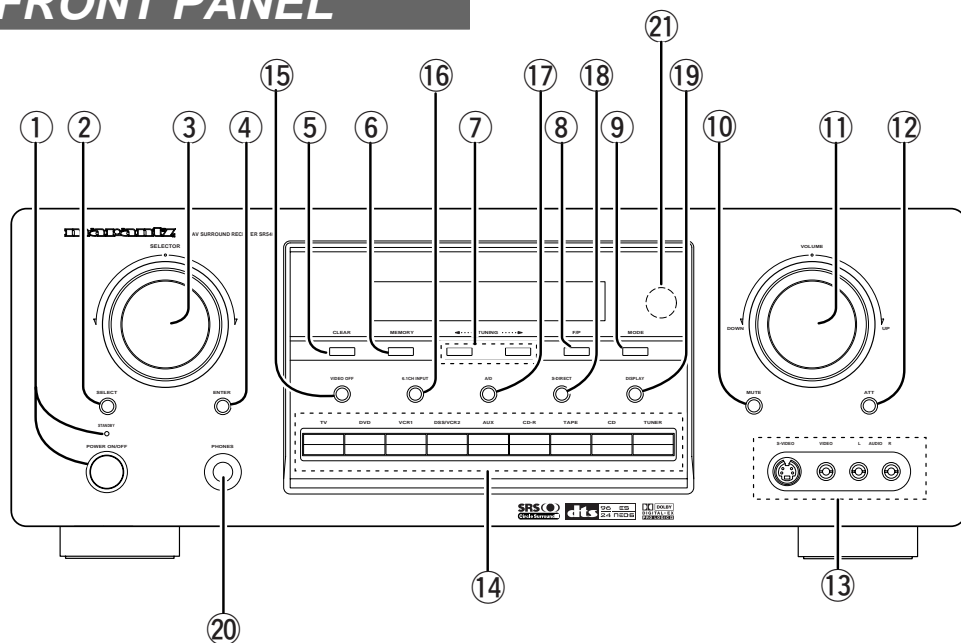


AC Power Cord



Registration Card User Guide

FRONT PANEL



① POWER switch and STANDBY indicator

Press the button to turn the power ON, and press again to turn it OFF. If the **POWER** switch is in the ON position, the power of this unit can be turned ON/OFF by pressing the **POWER** button on the remote control unit.

When this unit is in the standby mode with the **POWER** switch set to the ON position, pressing one of the **FUNCTION SELECTOR** buttons also allows to turn the power on.

The **STANDBY** indicator lights up when this unit is the standby mode (power OFF) by the remote control unit.

② SELECT (MULTI FUNCTION MODE SELECT) button

Press this button to change the mode of the MULTI FUNCTION control dial. I.e. Surround Sound Fields, Tone Control & Set Up Menu.

③ SURROUND MODE Selector & MULTI FUNCTION control dial

This dial changes surround modes & Tone Controls sequentially, and allows you to enter the OSD menu system.

④ ENTER (MULTI FUNCTION ENTER) button

Press this button to enter the setup, which you have chosen by the MULTI FUNCTION dial.

⑤ CLEAR button

Press this button to cancel the station-memory setting mode or preset scan tuning. (See page 26)

⑥ MEMORY button

Press this button to enter the tuner preset memory numbers or station names. (See page 26)

⑦ TUNING ◀ (Down) / ▶ (Up) buttons

Press these buttons to change the frequency or the preset number. (See page 26)

⑧ F/P (Frequency / Preset) button

During reception of AM or FM, you can change the function of the UP/DOWN buttons for scanning frequencies or selecting preset stations by pressing these buttons. (See page 26)

⑨ MODE button

Press this button to select the auto stereo mode or mono mode when the FM band is selected. The "AUTO" indicator lights in the auto stereo mode. (See page 26)

⑩ MUTE button

Press this button to mute the output to the speakers. Press it again to return to the previous volume level.

⑪ VOLUME control knob

Adjusts the overall sound level. Turning the control clockwise increases the sound level.

⑫ ATT (Attenuate) button

If the selected analog audio input signal is greater than the capable level of internal processing, the PEAK indicator will illuminate. If this happens, you should press the ATT button. "ATT" is displayed when this function is activated.

The signal-input level is reduced by about half. Attenuation will not work with the output signal of "REC OUT" (TAPE, CD-R/MD, VCR1 and VCR2 output). This function is memorized for each input function.

⑬ AUX input jacks

These auxiliary video/audio input jacks accept the connections of a camcorder, portable DVD, game etc.

⑭ INPUT FUNCTION SELECTOR buttons (AUDIO/ VIDEO)

These buttons are used to select the input sources. The video function selector, such as TV, DVD, VCR1, DSS and AUX, selects video and audio simultaneously.

Audio function sources such as CD, TAPE, CDR/MD, and TUNER may be selected in conjunction with a Video source.

This feature (Sound Injection) combines a sound from one source with a picture from another. Choose the video source first, and then choose a different audio source to activate this function. Press the TUNER button to switch between FM and AM.

⑮ VIDEO OFF button

This is used when switching the video signals from the various monitor outputs to Video-Off mode. (see page 24)

⑯ 6.1CH IN button

Press this button to select the output of an external multichannel decoder.

⑰ A/D (Analog/Digital) SELECTOR button

This is used to select between the analog and digital inputs.

Note:

- This button is not used for an input source, that is not set to a digital input in the system setup menu.

⑱ S- (Source) DIRECT button

When this button is pressed, the tone control circuitry is bypassed as well as Bass Management.

Notes:

- The surround mode is automatically switched to AUTO when the source direct function is turned on.
- Additionally, Speaker Configurations are fixed automatically as follows.
Front SPKR = Large, Center SPKR = Large, Surround SPKR = Large, Sub woofer = On

⑲ DISPLAY button

When this button is pressed, the FL display mode is changed as Surround Mode → Auto-display Off → Display Off → Input Function and the display off indicator (DISP) lights up in condition of DISPLAY OFF.

⑳ HEADPHONE jack for stereo headphones

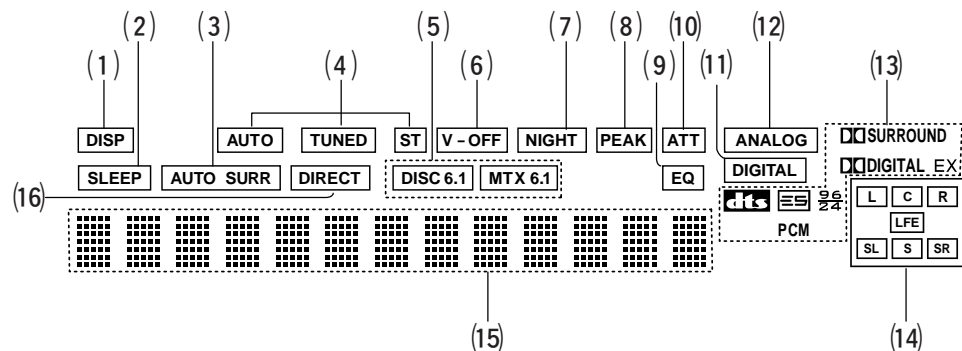
This jack may be used to listen to the SR5400's output through a pair of headphones. Be certain that the headphones have a standard 1 / 4" stereo phono plug. Note that the main room speakers will automatically be turned off when the headphone jack is in use.

Notes:

- When using headphones, the surround mode will change to STEREO and TruSurround (TS) headphones by SURROUND MODE selector.
- The surround mode returns to the previous setting as soon as the headphone plug is removed from the jack.

㉑ INFRARED receiving sensor window

This window receives infrared signals for the remote control.



(1) DISP (Display Off) indicator

This indicator is illuminated when the SR5400 is in the display off condition.

(2) SLEEP timer indicator

This indicator is illuminated when the sleep timer function is in use.

(3) AUTO SURR (Auto Surround mode) indicator

This indicator illuminates to show that the AUTO SURROUND mode is in use.

(4) TUNER's indicators

AUTO : This indicator illuminates when the tuner's Auto mode is in use.

TUNED : This indicator illuminates when a station is being received with sufficient signal strength to provide acceptable listening quality.

ST(Stereo) : This indicator illuminates when an FM station is being tuned into stereo.

(5) DTS-ES mode indicators (DISC6.1, MTX6.1)

These indicators will illuminate to show the DTS-ES decoding mode (Discrete 6.1 or Matrix 6.1).

(6) V (video)-OFF mode indicator

This indicator is illuminated when the Video-OFF function is active.

(7) NIGHT mode indicator

This indicator is illuminated when the SR5400 is in the Night mode, which reduces the dynamic range of digital program material at low volume levels.

(8) PEAK indicator

This indicator is a monitor for an analog audio input signal. If the selected analog audio input signal is greater than the capable level of internal processing, this will illuminate. If this happens, you should press the **ATT** button.

(9) EQ mode indicator

This indicator is illuminated when the HT-EQ function is active.

(10) ATT (Attenuation) indicator

This indicator is illuminated when the attenuation function is active.

(11) DIGITAL Input Indicator

This indicator is illuminated when a digital input has been selected.

(12) ANALOG input indicator

This indicator is illuminated when an analog input source has been selected.

(13) SIGNAL FORMAT indicators

DIGITAL, EX, SURROUND, dts, ES, 96/24, PCM

When the selected input is a digital source, some of these indicators will be illuminated to display the specific type of signal in use.

(14) ENCODED CHANNEL STATUS indicators

These indicators display the channels that are encoded with a digital input signal. If the selected digital input signal is Dolby Digital 5.1ch or DTS 5.1ch, "L", "C", "R", "SL", "SR" and "LFE" will be illuminated. If the digital input signal is 2 channel PCM-audio, "L" and "R" will be displayed.

If Dolby Digital 5.1ch signal with Surround EX flag or DTS-ES signal comes in, "L", "C", "R", "SL", "S", "SR" and "LFE" will be illuminated.

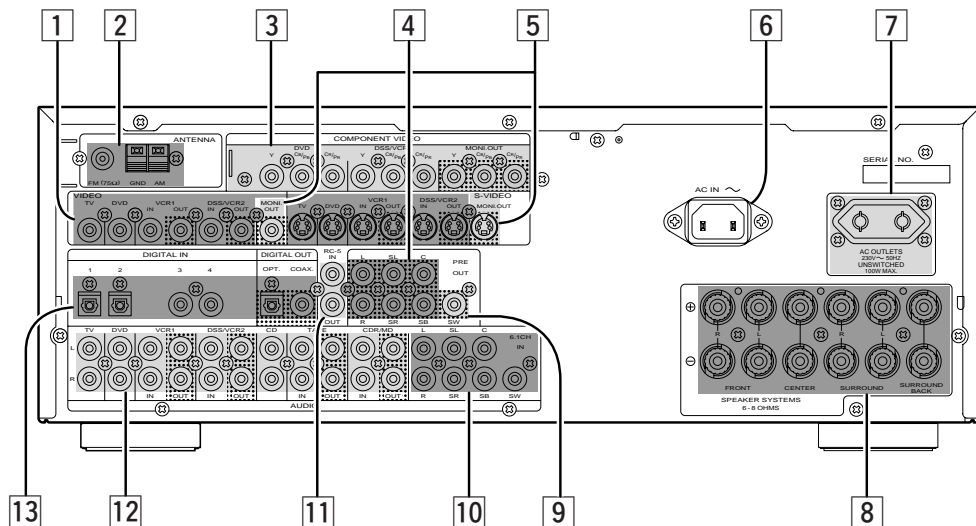
(15) Main Information Display

This display shows messages relating to the status, input source, surround mode, tuner, volume level or other aspects of unit's operation.

(16) DIRECT (Source direct) indicator

This indicator is illuminated when the SR5400 is in the SOURCE DIRECT mode.

REAR PANEL



1 VIDEO IN/OUT (TV, DVD, VCR1, DSS/VCR2)

These are the video inputs and outputs. There are 4 video inputs and 2 video outputs and each one includes both composite video and S-video configurations. Connect VCRs, DVD players, and other video components to the video inputs. S-video sources can be viewed through the S-video outputs, and composite sources can only be viewed through the composite output. The 2 video output channels can be used to be connected to video tape recorders for making recordings.

2 FM antenna terminal (75 ohms)

Connect an external FM antenna with a coaxial cable, or a cable network FM source.

AM antenna and ground terminals

Connect the supplied AM loop antenna. Use the terminals marked "AM" and "GND". The supplied AM loop antenna will provide good AM reception in most areas. Position the loop antenna until you hear the best reception.

3 COMPONENT VIDEO INPUT/OUTPUT

If your DVD player or other device has component video connectors, be sure to connect them to these component video connectors on the SR5400. The SR5400 has two component video input connectors to obtain the color information (Y, C_B, C_R) directly from the recorded DVD signal or other video component and one component video output connector to output it directly into the matrix decoder of the display device.

By sending the pure DVD component video signal directly, the DVD signal forgoes the extra processing that normally would degrade the image. The result is vastly increased image quality, with incredibly life like colors and crisp detail.

Notes:

- This component video output will not display the OSD menu system.

4 Preamp Outputs (L, R, SL, SR, SB, C)

Jacks for L (front left), R (front right), C (Center), SL (surround left), SR (surround right) and SB (surround back).

Use these jacks for connection to external power amplifiers.

5 MONITOR OUT

This is a monitor output and each one includes both composite video and S-video configurations. When connecting two video monitors or televisions, be aware that the OSD interface can be used with both MONITOR OUT connections.

6 AC IN

Connect to supplied an AC cable, and connect to an AC power outlet. SR5400 has to be powered by 230V AC only.

7 AC OUTLET

Connect the AC power cable of component such as a DVD or CD player to this outlet. UNSWITCHED is always live as long as the SR5400 is plugged into a live outlet.

A component connected here may be left on permanently, or may be switched off with via its own power switch.

Caution:

- In order to avoid potential turn-off thumps, anything plugged into these outlets should be powered up before the SR5400 is turned on.
- The capacity of this AC outlet is 100W. Do not connect devices that consume electricity more than the capacity of these AC outlet. If the total power consumption of the connected devices exceeds the capacity, the protection circuit shuts down the power supply.

8 Speaker outputs terminals

Six terminals are provided for the front left, front right, front center, surround left, surround right and surround back speakers.

9 Subwoofer Output

Connect this jack to the line level input of a powered subwoofer. If an external subwoofer amplifier is used, connect this jack to the subwoofer amplifier input. If you are using two subwoofers, either powered or with a 2 channel subwoofer amplifier, connect a "Y" connector to the subwoofer output jack and run one cable from it to each subwoofer amplifier.

10 6.1 CHANNEL INPUT

By connecting a DVD Audio player, SACD multichannel player, or other components that has a multichannel port, you can playback the audio with 5.1 channel or 6.1 channel outputs.

11 REMOTE CONT. IN/OUT terminals

Connect to a Marantz component equipped with remote control (RC-5) terminals.

12 AUDIO IN/OUT (CD, TAPE, CD-R, TV, DVD, VCR1, DSS/VCR2)

These are the analog audio inputs and outputs. There are 7 audio inputs (4 of which are linked to video inputs) and 4 audio outputs (2 of which are linked to video outputs). The audio jacks are nominally labeled for cassette tape decks, compact disc players, DVD players and etc.... The audio inputs and outputs require RCA-type connectors.

13 DIGITAL INPUT (Dig.1 - 4) / OUTPUT (coaxial, optical)

These are the digital audio inputs and outputs. There are 2 digital inputs with coaxial jacks, 2 with optical jacks.

The inputs accept digital audio signals from a compact disc, LD, DVD, or other digital source component.

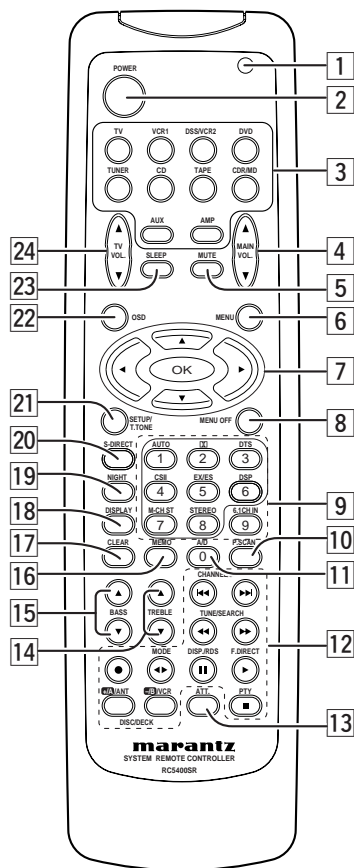
For digital output, there is 1 coaxial output and 1 optical output.

The digital outputs can be connected to MD recorders, CD recorders, DAT decks, or other similar components.

REMOTE CONTROL OPERATION

FUNCTION AND OPERATION

The provided remote control unit is a universal remote controller. The **POWER** button, numeric buttons and control buttons are used in common across different input source components. The input source controlled with the remote control unit changes when one of the input selector buttons is pressed.



1 Transmitting indicator

Lights up during a button is pressed and an infrared signal is sending.

2 (Main) POWER buttons

(when AMP mode is selected)

Press to switch the power of the SR5400 ON or OFF after pressing the **AMP** button.

3 Input selector buttons/ FUNCTION SELECTOR buttons (AUDIO/VIDEO INPUT)

These buttons are used to select a Audio or Video source component. Press one of these buttons once to change the function of the remote control. Press same button within 2 seconds, the input function of the SR5400 is changed.

Note:

- **CDR/MD** button is set CDR function at initial. To switch MD function, press and hold down **CDR/MD** button and press **2** button.
- To return CDR function, press and hold down **CDR/MD** button and press **1** button.

4 MAIN VOLUME UP (▲)/DOWN (▼) buttons

Main volume control of the SR5400. The front, surround, center and subwoofer channel volumes controlled by these buttons simultaneously.

5 MUTE button

Muting button of the SR5400. Press this button decrease the sound temporarily. Press this button again to return to the previous sound. When this button is pressed, "MUTE" indicator lights up.

6 MENU button

(when AMP mode is selected)

This button is used to enter the SETUP MAIN MENU.

7 Cursor buttons (◀, ▶, ▲, ▼, OK)

Used to operate on-screen and other displays used by receivers and other components. See page 16.

8 MENU OFF button

(when AMP mode is selected)

This button is used to exit from the SETUP MAIN MENU.

9 Numeric buttons 1 to 9 / Surround mode buttons

Numeric buttons

These buttons are used to enter figures in the selection of a tuner preset station and station name preset or to set select a CD track number, etc. The functions of these buttons are dependent on the function button selected.

Surround mode buttons (when AMP mode is selected)

These buttons are used to select the surround mode.

10 P.SCAN (preset scan) button

(when TUNER mode is selected)

This button is used to start preset scan when SR5400 is selected TUNER mode.

11 0 / A/D button

0 button

This button is used to enter the number "0"

A/D button (when AMP mode is selected)

This is used to switch between the analog and digital inputs.

12 CONTROL buttons

These buttons are used when operating the CD player, TAPE deck, etc.

The function of these buttons are dependent on the function button selected.

For the controllable functions of each input function, please refer to controllable function table on the page 10.

13 ATT (attenuator) button

When the input signal is too high and the voice distorts even while adjusting the SR5400 VOLUME control, turn on this function. "ATT" is illuminated when this function is activated.

The input level is reduced. Attenuator is invalid for the output signal of "REC OUT".

Note:

- This function is unavailable while the digital input is selected.

14 TREBLE UP (▲)/DOWN (▼) buttons

These buttons are used to adjust the tone control of high frequency sound for left and right speaker.

15 BASS UP (▲)/DOWN (▼) buttons

These buttons are used to adjust the tone control of low frequency sound for left, right and subwoofer speaker.

16 MEMO button

Memory enable button for various preset functions.

17 CLEAR button

This button is used to cancel for certain memory or programming operations.

18 DISPLAY button

Selects the display mode for the front display of the SR5400.

19 NIGHT button

Pressing this button prevents the Dolby Digital signal from playback at a loud voice. This function reduces the voice by 1/3 to 1/4 at maximum. Thus, it eliminates the occurrence of an abruptly loud voice at night. However, the function is valid only in the case when the Dolby Digital signal is entered into OPTICAL or COAXIAL and data to compress the voice exists in the signal to be played back. When this button is pressed, the "NIGHT" indicator is illuminated.

20 S- (Source) DIRECT button

When this button is pressed, the tone control circuit is bypassed.

21 SETUP / T.TONE button

(when AMP mode is selected)

Used to enter the test tone menu.

22 OSD button

(when AMP mode is selected)

When this button is pressed, the current setting is displayed on the TV monitor.

23 SLEEP (sleep timer) button

This button is used for setting the sleep timer. It can be operated the same way as the button on the unit.

24 TV VOLUME UP (▲)/DOWN (▼) buttons

These buttons increase or decrease TV's volume.

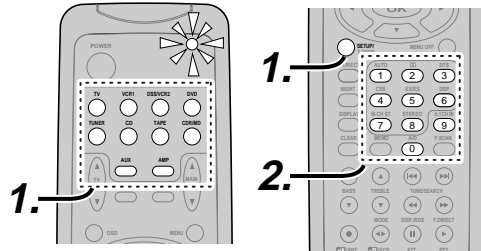
PROGRAMMING THE REMOTE CONTROLLER

The remote controller RC5400SR must be programmed to use the codes for your appliances of different brands. This is done by keying in a 4-digit code or by scanning the codes until the correct one is found. We recommend to using the 4-digit code. This mode is faster and more reliable. The code scanning method should be used only if you cannot find the code for one of your appliances. The codes are listed at the end of this book.

Important:

- Use the remote control buttons for programming, not the buttons of the receiver or other appliances.
- Some codes may be not match your equipment. In this case, your equipment cannot be controlled with this remote controller.

PROGRAMMING WITH THE 4-DIGIT CODE

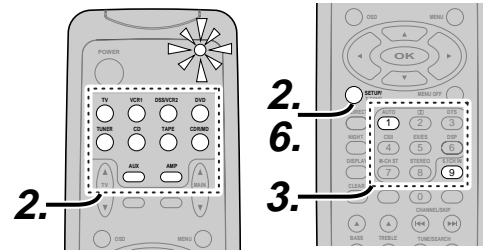


1. Press and hold down the function button for the appliance which should be controlled and press **SETUP** until the indicator blinks twice.
2. Press the 4-digit code for appliance (code table at the end of this book)
3. When the procedure is successful, the indicator will blink twice.

Note:

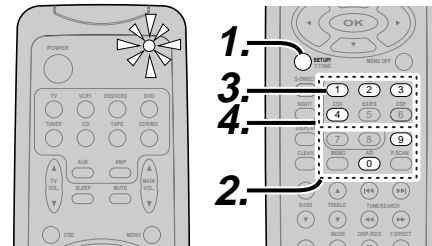
- If the indicator did not blink twice, then repeat steps 1 through 2 and try entering the same code again.

SCANNING THE CODE TABLE



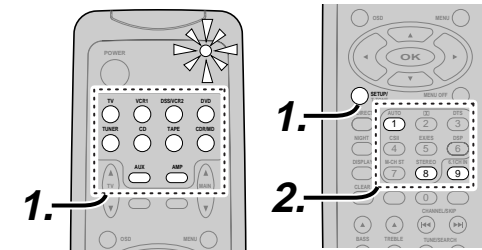
1. Switch on the appliance which should be controlled.
2. Press and hold down the function button for appliance which should be controlled and press **SETUP** until the indicator blinks twice.
3. Press the code **9 - 9 - 1**. The indicator will blink twice.
4. Aim the remote control at the appliance and slowly alternate between pressing **POWER** and the function button for the appliance.
5. Stop when the appliance turns off.
6. Press **SETUP** once to lock in the code.

CHECKING THE CODE



1. Press and hold down the function button for appliance which should be controlled and press **SETUP** until the indicator blinks twice.
2. Press the code **9 - 9 - 0**. The indicator will blink twice.
3. To view the code for first digit, press **1** once. Wait 3 seconds, count the indicator blinks (e.g. 3 blinks = 3) and write down the number.
Note:
If a code digit is "0", the indicator will not blink.
4. Repeat step 3 three more times for remaining digits. Use **2** for the second digit, **3** for the third digit, and **4** for the fourth digit.

RESETTING THE ALL CODE



1. Press and hold down the any function button and press **SETUP** until the indicator blinking twice.
2. Press the code **9 - 8 - 1**. The indicator will blink twice. Then, RC5400SR will return to the factory preset code.

Note:

- After this procedure, the selected function button is set initial code and other function buttons are set initial code too.

Once you have found and the codes for your various appliances, you may want to write them down here.

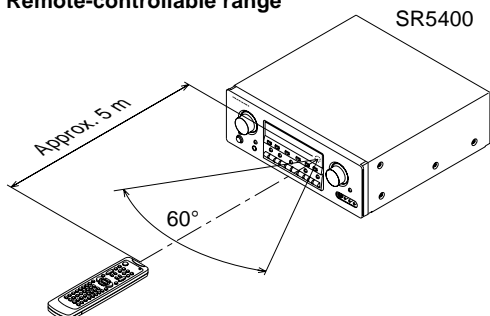
TV _____
 VCR _____
 DSS _____
 DVD _____
 CD _____
 TAPE _____
 CDR _____
 MD _____

OPERATION OF REMOTE CONTROL UNIT

REMOTE CONTROL

The distance between the transmitter of the remote control and the IR SENSOR of the SR5400 should be less than 5 meters. If the remote control is pointed in a direction other than the IR SENSOR or if there is an obstacle between them, use of the remote control may not be possible.

Remote-controllable range

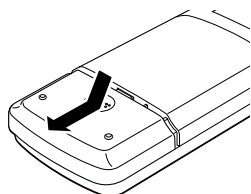


Remote control unit (RC5400SR)

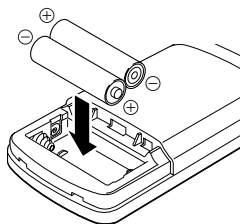
LOADING BATTERIES

The life of the batteries used with the remote control is about 4 months with normal use. Also be sure to replace batteries earlier when you notice that they are getting weak.

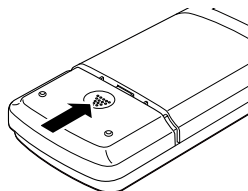
1. Remove the back cover.



2. Insert the new batteries (AAA type) with correct ⊕ and ⊖ polarity.



3. Close the cover until it clicks.



GENERAL INFORMATION OF RC5400SR TO SR5400

To control the SR5400 by your RC5400SR, you have to select the device AMP or TUNER by pressing the function selector button. Please refer below for the details in AMP and TUNER mode.

AMP MODE



POWER	Turns the SR5400 on and off
Function selector *	Selects a particular source component
SLEEP *	Sets the sleep timer function
MUTE *	Decreases the sound temporarily
VOL 3/4 *	Adjusts the over all sound level
MENU	Enters the SETUP MENU
Cursor	Moves the cursor for settings in the SETUP MENU
OK	<ul style="list-style-type: none"> • Enters the SETUP MENU • Confirms the settings in SETUP MENU
SETUP/T.TONE	Enters the test tone mode for setting the Speaker Level Setup
MENU OFF	Exits from the SETUP MENU
S-DIRECT *	Selects the Source Direct mode
NIGHT *	Turns on or off the NIGHT mode
Surround mode (1-8)	Selects the surround mode
6.1CH-IN (9)	Selects the 6.1CH IN
A/D (0)	Switches between the analog and digital inputs
BASS 3/4 *	Adjusts the tone control of low frequency sound
TREBLE 3/4 *	Adjusts the tone control of high frequency sound
ATT *	Reduces the input level

* These buttons are used to control SR5400 in any function mode.

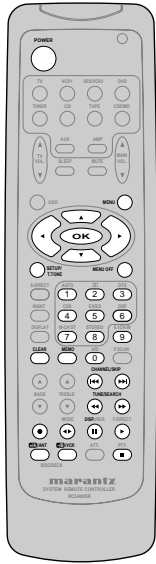
TUNER MODE



TUNER	Selects a frequency band
0-9	Inputs the numeric #s
CLEAR	Clears the inputting
MEMO	Enters the tuner preset memory numbers
P.SCAN	Starts preset scan
CHANNEL/SKIP	<ul style="list-style-type: none"> • Selects a preset station • Changes a PTY type *
TUNE/SEARCH	Tunes a station
5 / 6	
MODE 1 2	Selects the auto stereo mode or mono mode
DISP./RDS ;	Selects the display mode in RDS *
F.DIRECT 2	Selects the "Frequency direct input"
PTY 9	Displays the programmed information of the current station *

* : European model only

THE CONTRABLE FUNCTION TABLE



	TV	VCR	DVD	DSS	CD	TAPE	CDR	MD
POWER	POWER	POWER	POWER	POWER	POWER	POWER	POWER	POWER
MENU	CALL UP MENU	CALL UP MENU	CALL UP MENU	CALL UP MENU	-	-	-	-
Cursor	Cursor	Cursor	Cursor	Cursor	-	-	-	-
OK	OK	OK	OK	OK	-	-	-	-
SETUP/T.TONE	-	-	SETUP MENU	-	-	-	-	-
MENU OFF	-	CANCEL MENU	-	CANCEL MENU	-	-	-	-
0 - 9	INPUT NUMERIC	INPUT NUMERIC	INPUT NUMERIC	INPUT NUMERIC	INPUT NUMERIC	INPUT NUMERIC	INPUT NUMERIC	INPUT NUMERIC
CLEAR	INPUT CLEAR	TAPE SPEED	INPUT CLEAR	-	INPUT CLEAR	INPUT CLEAR	INPUT CLEAR	INPUT CLEAR
MEMO	-	-	CALL PROGRAM	-	CALL PROGRAM	CALL PROGRAM	-	CALL PROGRAM
CHANNEL/SKIP ◀	CH-	PREV	PREV	-	PREV	PREV	PREV	PREV
CHANNEL/SKIP ▶	CH+	NEXT	NEXT	-	NEXT	NEXT	NEXT	NEXT
TUNE/SEARCH 5	-	REWIND	REWIND	-	REWIND	REWIND	REWIND	REWIND
TUNE/SEARCH 6	-	FF	FF	-	FF	FF	FF	FF
O (REC)	-	REC	-	-	-	REC	REC	REC
MODE 1 2	-	-	-	-	-	DIRECTION	-	-
DISP/RDS ;	CH DISPLAY	PAUSE	PAUSE	-	PAUSE	PAUSE	PAUSE	PAUSE
F.DIRECT 2	-	PLAY	PLAY	-	PLAY	PLAY	PLAY	PLAY
+A/ANT	VIDEO	TV/VCR	DISC+	-	DISC+	DECK A	-	-
+B/VCR	VIDEO	TV/VCR	DISC+	-	DISC-	DECK B	-	-
PTY 9	-	STOP	STOP	-	STOP	STOP	STOP	STOP

CONNECTIONS

SPEAKER PLACEMENT

The ideal surround speaker system for this unit is 7-speaker systems, using front left and right speakers, a center speaker, surround left and right speakers, a surround back and a subwoofer.

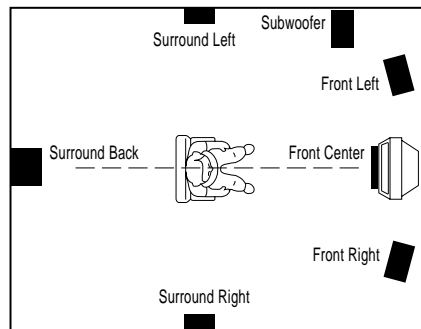
For best results we recommend that all front speakers be of the same type, with identical or similar driver units. This will deliver smooth pans across the front sound stage as the action moves from side to side.

Your center channel speaker is very important as over 80 % of the dialog from a typical motion picture emanates from the center channel.

It should possess similar sonic characteristics to the main speakers. Surround channel speakers need not be identical to the front channel speakers, but they should be of high quality.

The surround center speaker is useful for playback of Dolby Digital Surround EX or DTS-ES. One of the benefits of both Dolby Digital and DTS is that surround channels are discrete full range, while they were frequency limited in earlier "Pro Logic" type systems.

Bass effects are an important part of home theater. For optimal enjoyment a subwoofer should be used as it is optimized for low frequency reproduction. If you have full range front speakers, however, they may be used in place of a subwoofer with proper setting of the switches in the menu system.



Front left and right speakers

We recommend to set the front L and R speakers with 45-60 degrees from the listening position.

Center speaker

Align the front line of the center speaker with the front L/R speakers. Or place the center speaker a little backward from the line.

Surround left and right speakers

Place the speakers right beside of the listening position or a little backward.

Surround back speaker

Place the speaker behind the listening position.

Subwoofer

We recommend using a sub-woofer to have maximum bass effect. Sub-woofer bears only low frequency range so you can place it any where in the room.

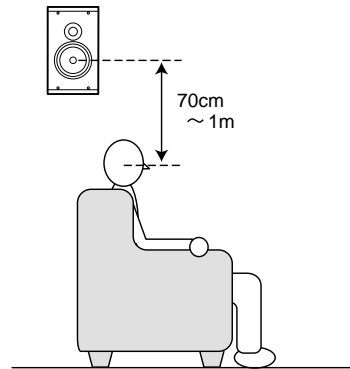
HEIGHT OF THE SPEAKER UNITS

Front left and right speakers, and a center speaker

Align the tweeters and mid-range drivers on the three front speakers at the same height, as best as possible.

Surround left and right speakers, and surround back speaker

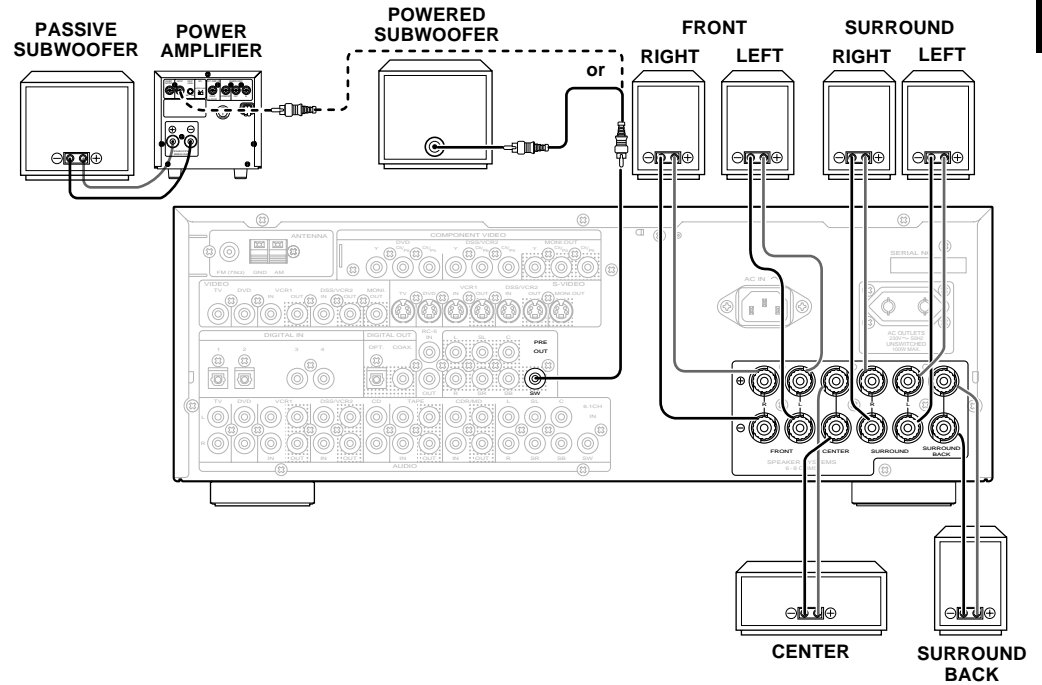
Place the surround left, right and surround back speakers higher than your ears by about 70cm – 1m. Also place the speakers at the same height, as best as possible.



Note;

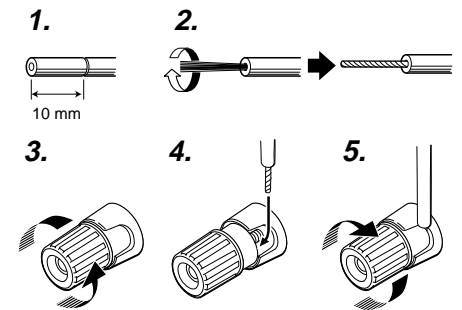
- Use magnetically-shielded speakers for front left, right and the center speakers when the speakers are installed near the TV and the TV is a monitor type.

CONNECTING SPEAKERS



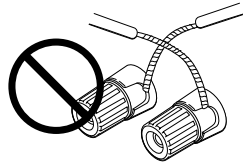
CONNECTING SPEAKER WIRE

1. Strip away approx. 10 mm of wire insulation.
2. Twist the bared wire ends tight, to prevent short circuits.
3. Loosen the knob by turning it counterclockwise.
4. Insert the bare part of the wire into the hole in side of each terminal.
5. Tighten the knob by turning it clockwise to secure the wire.



Caution:

- Be sure to use speakers with the specified impedance as shown on the rear panel of this unit.
- To prevent damage to circuitry, do not let the bare speaker wires touch each other and do not let them touch any metal part of this unit.
- Do not touch the speaker terminals when the power is on. It may cause you to receive an electric shocks.
- Do not connect more than one speaker cable to one speaker terminal. Doing so may damage this unit.



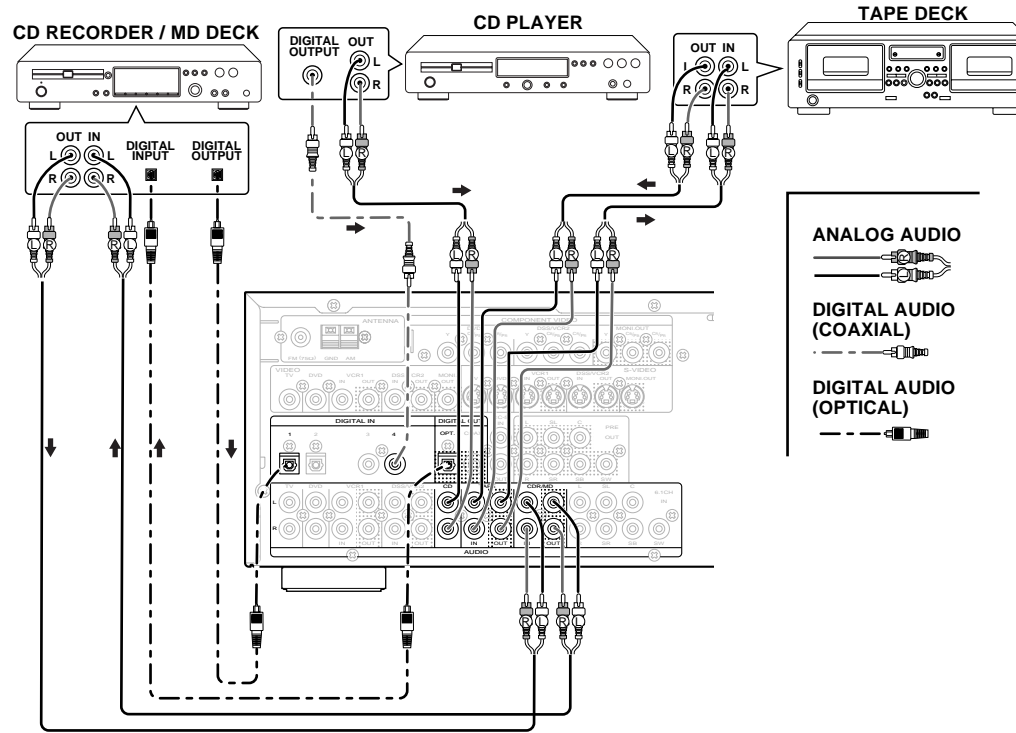
Note:

- Be sure to connect the positive and negative cables for the speaker properly. If they are miss-connected, the signal phase will be reversed and the signal quality will be corrupted.

CONNECTING A SUBWOOFER

Use the PRE OUT SUBWOOFER jack to connect a powered subwoofer (power amplifier built in). If your subwoofer is a passive type (power amplifier is not built in), connect a monaural power amplifier to the PRE OUT SUBWOOFER jack and connect the subwoofer to the amplifier.

CONNECTING AUDIO COMPONENTS



The output audio signal from the TAPE OUT jack and the CD-R/MD OUT jack is the same signal which is currently selected.

Caution:

- Do not connect this unit and other components to mains power until all connections between components have been completed.

Notes:

- Insert all plugs and connectors securely. Incomplete connections may make noise.
- Be sure to connect the left and right channels properly.
Red connectors are for the R (right) channel, and white connectors are for the L (left) channel.
- Be sure to connect input and output properly.
- Refer to the instructions for each component that is connected to this unit.
- Do not bind audio/video connection cables with power cords and speaker cables this will result in generating a hum or other noise.

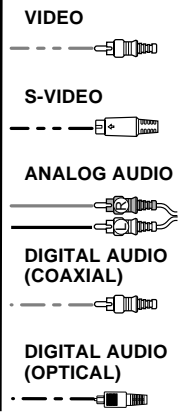
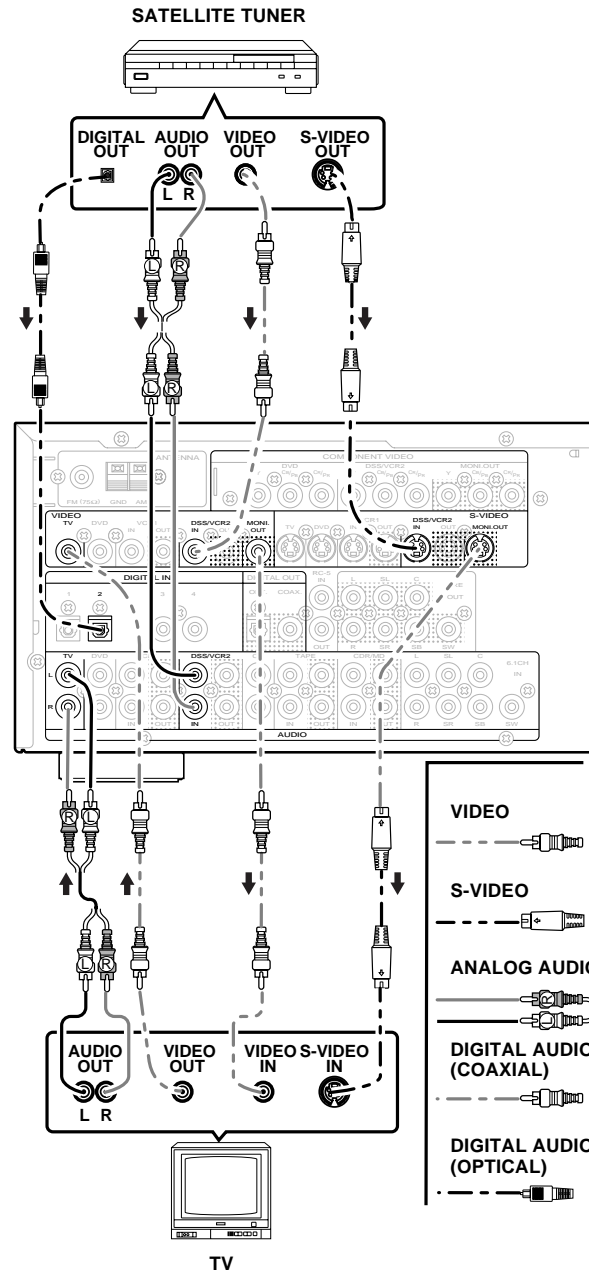
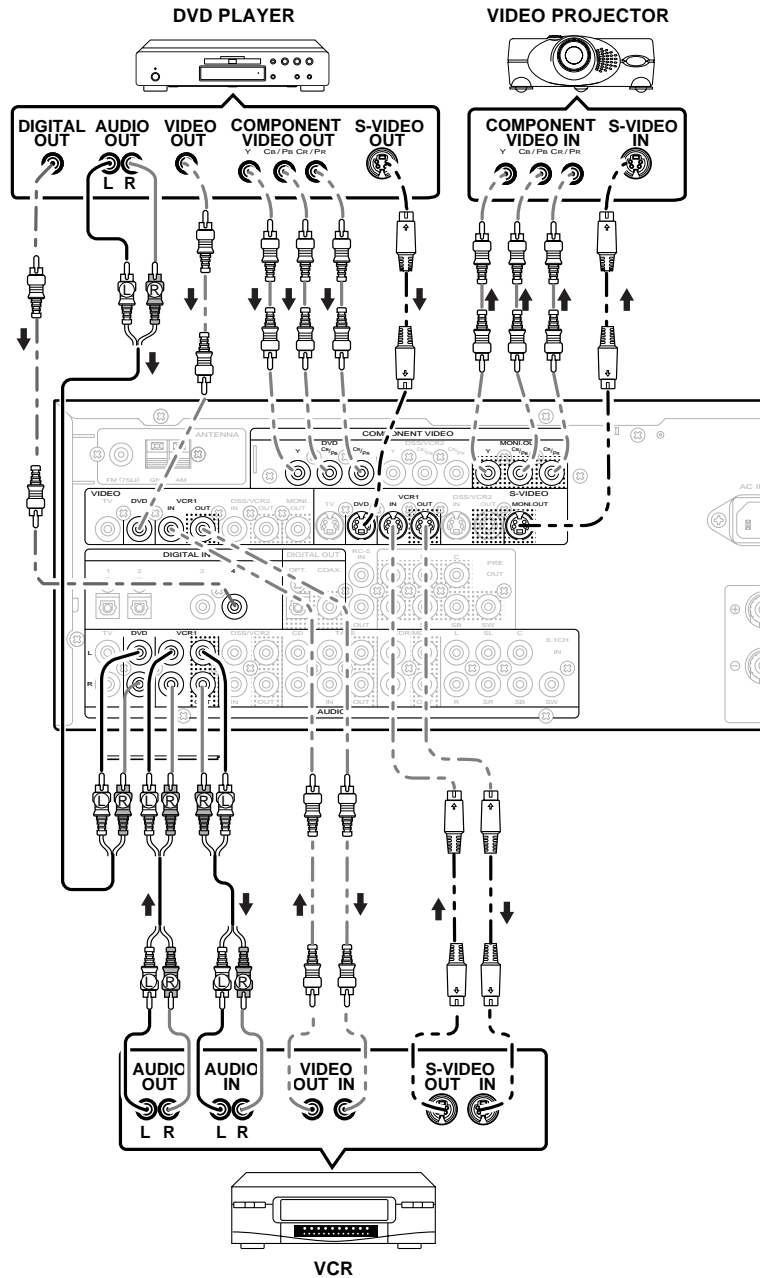
CONNECTING DIGITAL AUDIO COMPONENTS

- There are 4 digital inputs, 2 coaxial jacks and 2 optical jacks, on the rear panel. You can use these jacks to input PCM, Dolby Digital and DTS bitstream signals from a CD, DVD, or other digital source components.
- There is one digital output coaxial jack and one optical output jack on the rear panel. These jacks can be connected to a CD recorder-, or a MD deck inputs, respectively.
- Refer to the instructions for each component. To setup the digital audio format of DVD player, or other digital source's connected to digital input jacks.
- Use fiber optical cables (optical) for DIG-1,2 input jacks. Use 75 ohms coaxial cables (for digital audio or video) for DIG-3, 4 input jacks.
- You can designate the input for each digital input/output jacks according to your component. See page 17.

Notes:

- There is no Dolby Digital RF input jack. Please use an external RF demodulator Dolby Digital decoder when connecting the Dolby Digital RF output jack of the video disc player to the digital input jack.
- The digital signal jacks on this unit conform to the EIA standard. If you use a cable that does not conform to this standard, this unit may not function properly.
- Each type of audio jack works independently. Signals input through the digital and analog jacks are output through the corresponding digital and analog jacks, respectively.

CONNECTING VIDEO COMPONENTS



VIDEO, S-VIDEO, COMPONENT JACKS

There are 3 types of video jacks on the rear panel.

VIDEO jack

The video signal for the VIDEO jacks is the conventional composite video signal.

S-VIDEO jack

The video signal is separated into luminance (Y) and color (C) signals for the S-VIDEO jack. The S-VIDEO signals enables high-quality color reproduction. If your video component has an S-VIDEO output, we recommend to use it. Connect the S-VIDEO output jack on your video component to the S-VIDEO input jack on this unit.

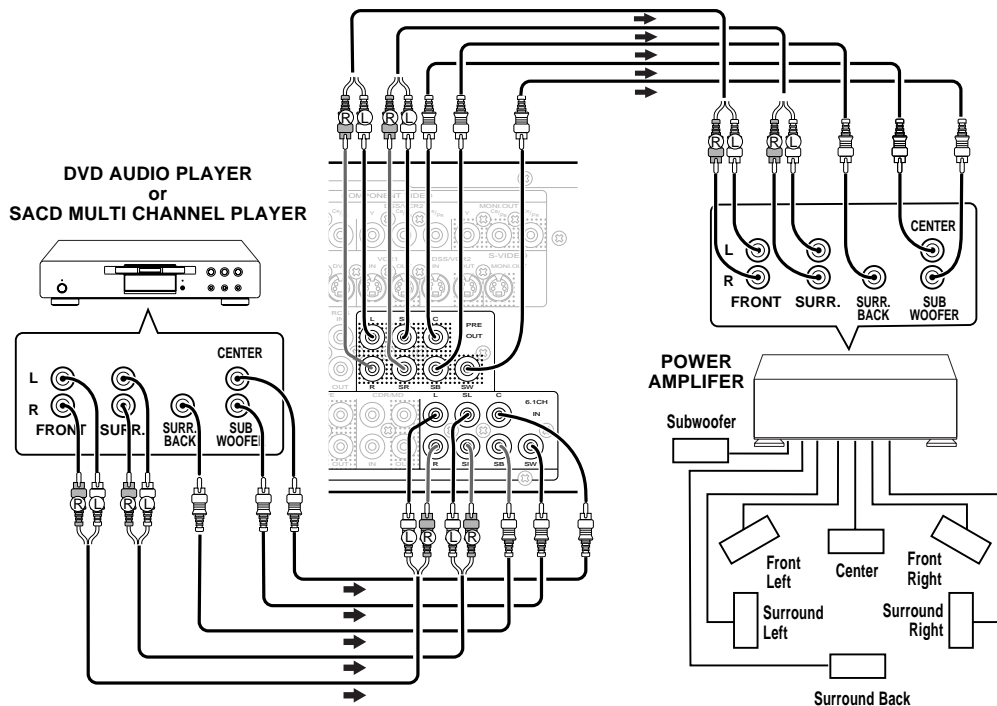
Component jack

Make component video connections to a TV or monitor with component inputs to produce higher quality video images. Use a component video cable or 3 video cords to connect the component video out jacks on the SR5400 to the monitor.

Notes:

- Be sure to connect the left and right audio channels properly. Red connectors are for the R (right) channel, and white connectors are for the L (left) channel.
- Be sure to connect the inputs and outputs of the video signals properly.
- If you connect the S-VIDEO or component signal to the S-VIDEO or component jack on this unit, it is not necessary to connect the conventional video signal to the VIDEO (composite) jack. If you use both video inputs, this unit gives priority to the S-VIDEO signal.
- Each type of video jack works independently. Signals input to the VIDEO (composite) and S-VIDEO jacks or component are output to the corresponding VIDEO (composite) and S-VIDEO or component jacks, respectively.
- This unit has the "TV-AUTO ON/OFF" function to turn the TV ON or OFF automatically, by sensing the incoming video signal from the VIDEO jacks.
- You may need to setup the digital audio output format of your DVD player, or other digital source components. Refer to the instructions of the each component connected to the digital input jacks.
- There is no Dolby Digital RF input jack. Please use an external RF demodulator with a Dolby Digital decoder to connect a video disc player which has a Dolby Digital RF output jack to the digital input jack on this unit.

ADVANCED CONNECTING



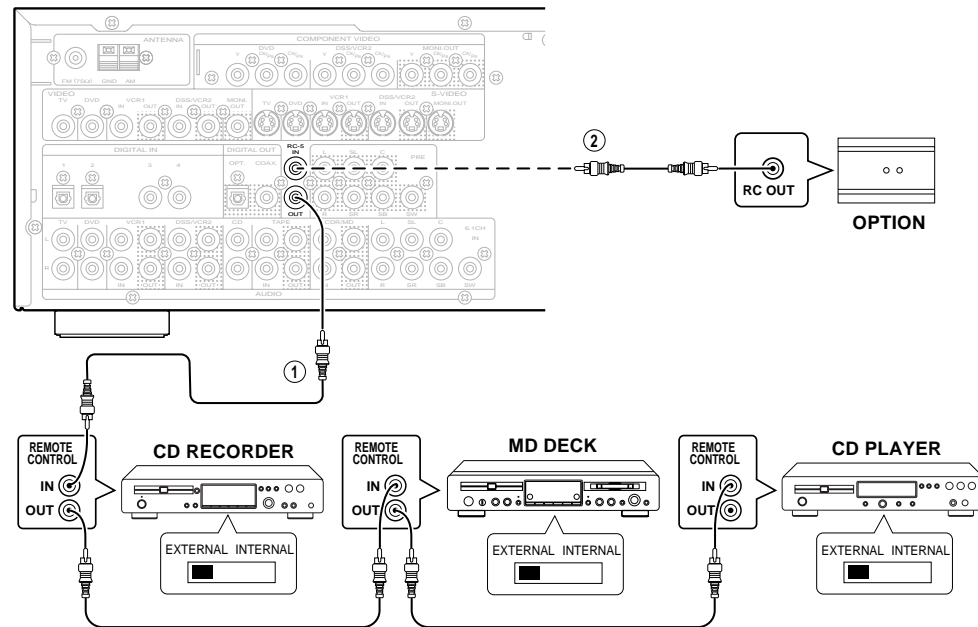
CONNECTING MULTI CHANNEL AUDIO SOURCE

The 6.1CH INPUT jacks are for multichannel audio source such as a SACD multichannel player, DVD audio player or external decoder. If you use these jacks, switch on the 6.1CH INPUT and set the 6.1CH INPUT level by using the SETUP MAIN MENU. See page 19.

CONNECTING AN EXTERNAL POWER AMPLIFIER

The PREOUT jacks are for connecting external power amplifiers. Be sure to connect each speaker to the corresponding external power amplifier.

CONNECTING THE REMOTE CONTROL JACKS



① You can control other Marantz products through this unit with the remote control by connecting the REMOTE CONTROL terminals on each unit. The signal transmitted from the remote control is received by the remote sensor on this unit. Then the signal is sent to the connected device through this terminal. Therefore you only need to aim the remote at one unit. Also, if a Marantz power amplifier (some models excluded) is connected to one of these terminals, the power amplifier's power switch is synchronized with this unit's power switch.

Set the REMOTE CONTROL SWITCH on the units, other than the main unit to EXT.(EXTERNAL) for this feature.

② Whenever external infrared sensors or similar devices are connected to RC-5 IN of the SR5400, be sure to always disable operation of the infrared sensor on the main unit by using the following procedure.

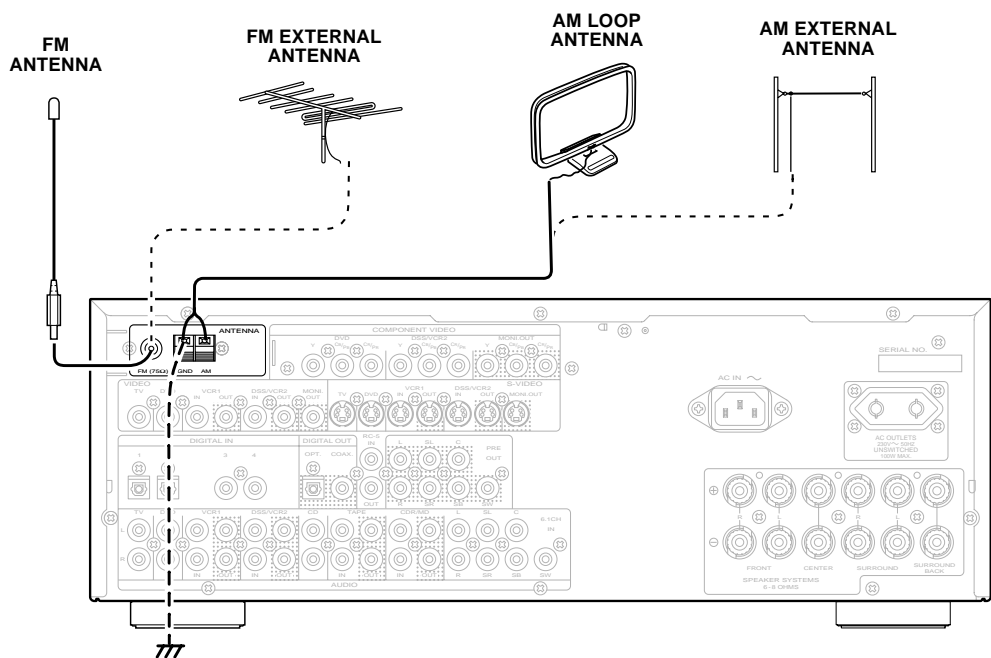
1. Hold down the **SELECT** button and **TV** button on the front panel at the same time for five seconds.
2. The setting "IR=ENABLE" is shown on the FL DISPLAY.
3. Press the **SELECT** button to change this to "IR=DISABLE".
4. Press the **ENTER** button. Once this setting is made, the infrared sensor on the main unit is disabled.

Note:

Be sure to set to "IR=ENABLE" when external infrared sensors or similar devices are not connected. Otherwise, the main unit will be unable to receive remote control commands.

5. To restore the original setting, perform steps 1 to 4 to set to "IR=ENABLE".

CONNECTING THE ANTENNA TERMINALS



Connecting the supplied AM loop antenna

The supplied AM loop antenna is for indoor use only. Set it in the direction and position it to where you receive the clearest sound. Put it as far away as possible from the unit, televisions, speaker cables, and power cords.

If you experience poor reception quality, an outdoor antenna may improve the quality.

1. Press and hold down the lever of the AM antenna terminal.
2. Insert the bare wire into the antenna terminal.
3. Release the lever.

CONNECTING AN FM OUTDOOR ANTENNA

Notes:

- Keep the antenna away from noise sources (neon signs, busy roads, etc.).
- Do not put the antenna close to power lines. Keep it well away from power lines, transformers, etc.
- To avoid the risk of lightning and electrical shock, grounding is necessary.

CONNECTING AN AM OUTDOOR ANTENNA

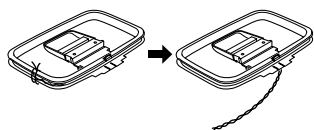
An outdoor antenna will be more effective if it is stretched horizontally above a window or outside.

Notes:

- Do not remove the AM loop antenna.
- To avoid the risk of lightning and electrical shock, grounding is necessary.

ASSEMBLING THE AM LOOP ANTENNA

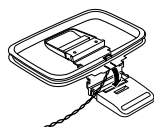
1. Release the vinyl tie and take out the connection line.



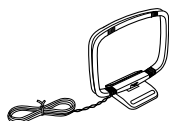
2. Bend the base part in the reverse direction.



3. Insert the hook at the bottom of the loop part into the slot at the base part.



4. Place the antenna on stable surface.



CONNECTING THE SUPPLIED ANTENNAS

Connecting the supplied FM antenna

The supplied FM antenna is for indoor use only. During use, extend the antenna and move it in various directions until the clearest signal is received.

Fix it with push pins or similar implements in the position that will cause the least amount of distortion. If you experience poor reception quality, an outdoor antenna may improve the quality.

SETUP

After all components are connected, initial setup must be performed.

ON SCREEN DISPLAY MENU SYSTEM

The SR5400 incorporates an on-screen menu system, which makes various operations possible by using the cursor (▲, ▼, ◀, ▶) and **OK** buttons on the remote control or **MULTI FUNCTION** dial, **TUNING** ◀ / ▶ button and **ENTER** button on the front panel. Use the **MULTI FUNCTION** dial the same as the Up/Down button on the remote, **TUNING** ◀ / ▶ button the same as the Left/Right button on the remote, the **ENTER** button the same as the **OK** button on the remote.

Notes:

- To view the on-screen displays, make certain you have made a connection from the Monitor Out jack (VIDEO or S-VIDEO) on the rear panel to the composite, S-Video input of your TV or projector. (see 13 page)

- Select the **AMP** mode on the remote control.
- Press the **SETUP** button on the remote control to display the "SETUP MAIN MENU" of the OSD menu system. There are 7 items in the SETUP MAIN MENU.

If you enter this menu from the MULTI dial on the front panel.

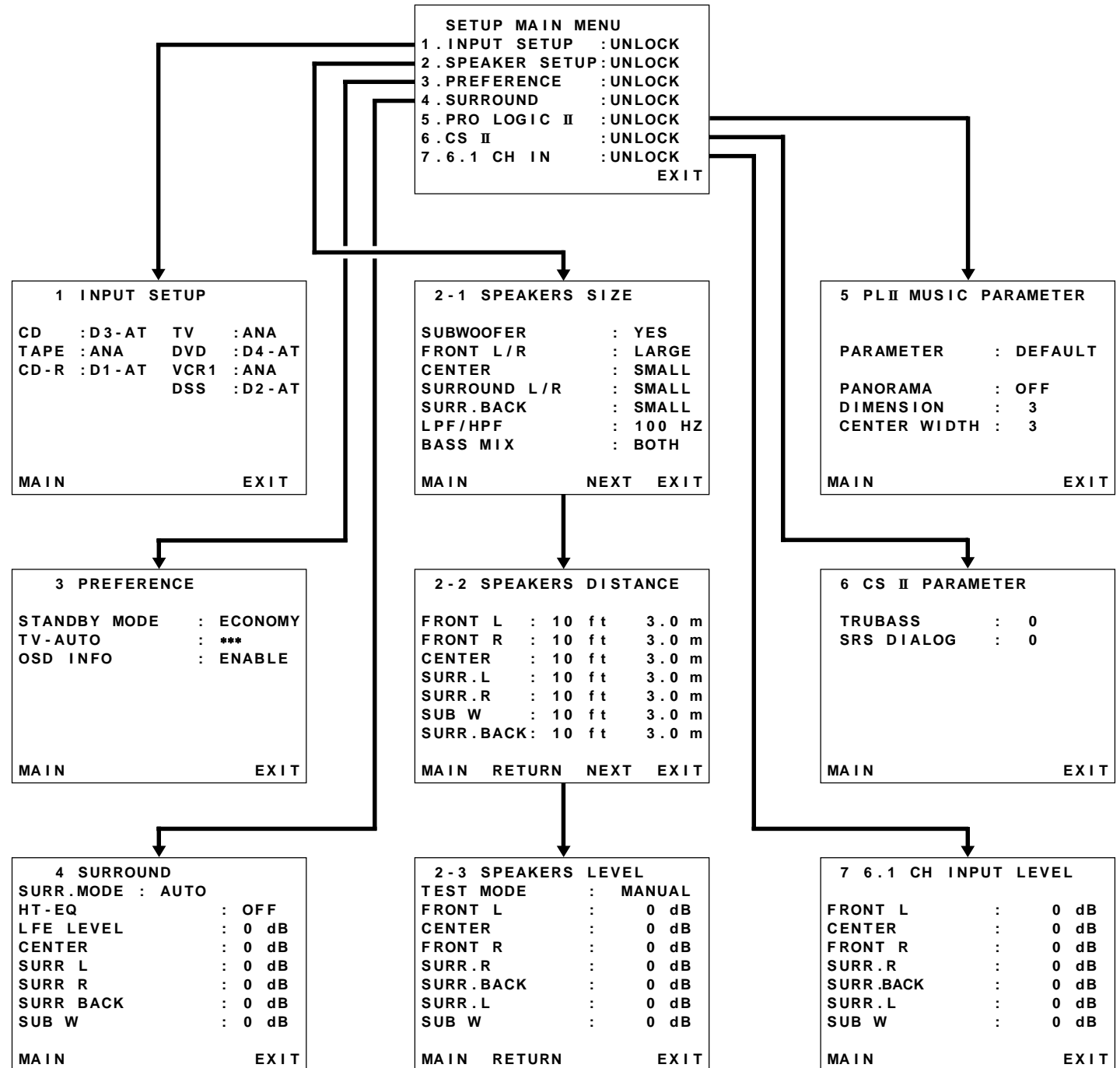
Press **SELECT** to show the "SETUP MENU" in the FL display and press the **ENTER** button.

- Select a desired sub-menu with ▲ or ▼ cursor buttons, and press the **OK** button to enter. The display will change to the selected sub-menu.

You can lock the condition of setup to each sub-menu with ◀ or ▶ cursor buttons.

Notes: If you desire to adjust any sub-menu, you need to set it to UNLOCKED.

- If you desire to exit from this menu system, press the **EXIT** button (or **SELECT** button on the front panel), or move the cursor to **EXIT** and press the **OK** button.



1 INPUT SETUP (ASSIGNABLE DIGITAL INPUT)

Four digital inputs can be assigned to a desired source. Use this menu to select the digital input jack to be assigned to the input source.

1. Select "INPUT SETUP" in SETUP MAIN MENU with ▲ or ▼ cursor button, and press the OK button.

1 INPUT SETUP			
CD	: D3 - AT	TV	: ANA
TAPE	: ANA	DVD	: D4 - AT
CD - R	: D1 - AT	VCR1	: ANA
		DSS	: D2 - AT
MAIN		EXIT	

2. To select the input source, press ▲ or ▼ cursor buttons.
3. To select the digital input jack, press the ◀ or ▶ cursor buttons.
Select "Dx-AT" for input sources, for automatic detection of the digital input signal condition. If there is not a digital signal present, but there is an analog signal present, the analog signal will be played.
Select "Dig x", when only a digital signal will be used.
Select "ANA" for input sources for which no digital input jacks are used.
4. After you complete this portion of the set up, move the cursor to MAIN with ▲ or ▼ cursor buttons and press the OK button.

Notes:

- The TUNER and AUX are fixed to the analog input, and cannot be selected for any digital input.
- When a DTS-LD or DTS-CD is playing, this setup is not available. This is to avoid noise being generated from the analog input.
- If "Dx-AT" is selected and a DVD, compact disc or LD is fast-forwarded during playback, decoded signals may produce a skipping sound. In such cases, change the setting to DIGITAL.

2 SPEAKER SETUP

After you have installed the SR5400, connected all the components, and determined the speaker layout, it is now time to perform the settings in the Speaker Setup menu for the optimum sound acoustics for your environment and speaker layout. Before you perform the following settings, it is important that you first determine the following characteristics:

2-1 SPEAKERS SIZE

When setting the speaker size in the SPEAKER SIZE sub-menu, use the guidelines given below.

LARGE:

The complete frequency range for the channel you are setting will be output from the speaker.

SMALL:

Frequencies of the channel you are setting lower than approx. 100 Hz will be output from the subwoofer.

If the Subwoofer is set to "NONE" and the front speakers are set to "Large," then the sound will be output from both the left and right speakers.

2 - 1 SPEAKERS SIZE	
SUBWOOFER	: YES
FRONT L / R	: LARGE
CENTER	: SMALL
SURROUND L / R	: SMALL
SURR . BACK	: SMALL
LPF / HPF	: 100 HZ
BASS MIX	: BOTH
MAIN	NEXT EXIT

1. Select "SPEAKER SETUP" in MAIN SETUP MENU with the ▲ or ▼ cursor buttons, and press the OK button.
2. To select the each speaker, press the ▲ or ▼ cursor buttons.
3. To select the setting of each speaker size, press the ◀ or ▶ cursor buttons.
4. After you complete this portion of the set up, move the cursor to "NEXT" with the ▲ or ▼ cursor buttons and then press the OK button to go to the next page.

SUBWOOFER:

YES:

Select when a subwoofer is connected.

NONE:

Select when a subwoofer is not connected.

FRONT L/R

LARGE:

Select if the front speakers are large.

SMALL:

Select if the front speakers are small.

- If "NONE" is selected for the Subwoofer setting, then this setting is fixed to "Large."

CENTER

NONE:

Select if no center speaker is connected.

LARGE:

Select if the center speaker is large.

SMALL:

Select if the center speaker is small.

SURROUND L/R

NONE:

Select if no surround left and right speakers are connected.

LARGE:

Select if the surround left and right speakers are large.

SMALL:

Select if the surround left and right speakers are small.

SURR. BACK

LARGE:

Select if the surround back speaker is large.

SMALL:

Select if the surround back speaker is small.

NONE:

Select if no surround back speaker is connected.

- If "None" is selected for the Surround L/R setting, then this setting is not available.

LPF/HPF

When you use a subwoofer, you can select the cutoff frequency for the small speakers used. Select one of the crossover frequency levels according to the size of the small speaker connected.

80Hz :

Select this when the bass speaker is about 12 cm (4 3/4 inches).

100Hz :

Select this when the bass speaker is about 10 cm (3 15/16 inches).

120Hz :

Select this when the bass speaker is about 8 cm (3 3/16 inches).

Notes:

- Use the above comments as reference when adjusting.
- If S-Direct mode, 6.1CH Input is in use, this function does not take effect.

BASS MIX

- The bass mix setting is only valid when "LARGE" is set for the front speakers and "YES" is set for the subwoofer during stereo playback.
- When "BOTH" is selected, the low frequencies will be played through the main L&R, as well as the sub woofer.

In this playback mode, the low frequency range expand more uniformly through the room, but depending on the size and shape of the room, interference may result in a decrease of the actual volume of the low frequency range.

- By selecting "MIX", the low frequencies will play through the main L&R ONLY.

Note:

LFE signals during playback of Dolby Digital or DTS, will be played through the sub woofer.

2-2 SPEAKERS DISTANCE

Use this parameter to specify the distance of each speaker's position from the listening position. The delay time is automatically calculated according to these distances.

Begin by determining the ideal or most commonly used seating position in the room.

This is important for the timing of the acoustics to create the proper sound space that the SR5400 and today's sound systems are able to produce.

Note: For speakers that you have selected "None" the Speaker Configuration sub-menu will not appear here. (There are several useful books and special DVD and LD's available to guide you through proper home theater configuration. If you are unsure, have your Marantz dealer perform the installation for you.

They are trained professionals familiar with even the most sophisticated custom installations. Marantz recommends the WWW.CEDIA.ORG website for further information about this).

2 - 2 SPEAKERS DISTANCE			
FRONT L	:	10 ft	3.0 m
FRONT R	:	10 ft	3.0 m
CENTER	:	10 ft	3.0 m
SURR . L	:	10 ft	3.0 m
SURR . R	:	10 ft	3.0 m
SUB W	:	10 ft	3.0 m
SURR . BACK	:	10 ft	3.0 m
MAIN	RETURN	NEXT	EXIT

- To select each speaker, press the ▲ or ▼ cursor buttons.
- To set the distance for each speaker, press the ◀ or ▶ cursor buttons.
- After you complete this portion of the set up, move the cursor to "NEXT" with the ▲ or ▼ cursor buttons and then press the OK button to go to the next page.

FRONT L :

Set the distance from the front left speaker to your normal listening position between 1 and 30 feet in 1.0 foot intervals (0.3 to 9 meters in 0.3-meter intervals).

FRONT R :

Set the distance from the front right speaker to your normal listening position between 1 and 30 feet in 1.0 foot intervals (0.3 to 9 meters in 0.3-meter intervals).

CENTER :

Set the distance from the center speaker to your normal listening position between 1 and 30 feet in 1.0 foot intervals (0.3 to 9 meters in 0.3-meter intervals).

SURR. L :

Set the distance from the surround left speaker to your normal listening position between 1 and 30 feet in 1.0 foot intervals (0.3 to 9 meters in 0.3-meter intervals).

SURR. R :

Set the distance from the surround right speaker to your normal listening position between 1 and 30 feet in 1.0 foot intervals (0.3 to 9 meters in 0.3-meter intervals).

SUB W :

Set the distance from the subwoofer to your normal listening position between 1 and 30 feet in 1.0-foot intervals (0.3 to 9 meters in 0.3-meter intervals).

SURR. BACK:

Set the distance from a surround back speaker to your normal listening position between 1 and 30 feet in 1.0-foot intervals (0.3 to 9 meters in 0.3-meter intervals).

Notes

- For the speakers that you have selected "None" the Speaker Size menu will not appear.

2-3 SPEAKERS LEVEL

Here you will set the volume for each speaker so that they are all heard by the listener at the same level. We recommend using a SPL (Sound Pressure Level) meter, when available.

Note:

- The speaker level settings are not available in 6.1 channel input mode and S-Direct mode.

2 - 3 SPEAKERS LEVEL			
TEST MODE	:	MANUAL	
FRONT L	:	0	dB
CENTER	:	0	dB
FRONT R	:	0	dB
SURR . R	:	0	dB
SURR . BACK	:	0	dB
SURR . L	:	0	dB
SUB W	:	0	dB
MAIN	RETURN		EXIT

TEST MODE :

Selects "MANUAL" or "AUTO" for generating the mode of the test tone with the ◀ or ▶ cursor buttons.

If you select "AUTO", the test tone will be cycled through in a circular pattern which is Left → Center → Right → Surround Right → Surround Back → Surround Left → Subwoofer → Left → .. increments of 3 seconds for each channel.

Using the ◀ or ▶ cursor buttons, adjust the volume level of the noise from the speaker so that it is the same level for all the speakers.

If you select "MANUAL", adjust the output level of each speaker as listed below.

- When you move the cursor to FRONT L by pressing the ▼ cursor button, the SR5400 will emit a pink noise from the front left speaker. Remember the level of this noise and then press the ▼ cursor button. (Note that this can be adjusted to any level between -10 and +10 dB in 1 dB intervals except the subwoofer setting. The subwoofer can be adjusted to any level between -15 and +10 dB in 1 dB intervals.) The SR5400 will now emit the pink noise from the center speaker.
- Using the ◀ and ▶ cursor buttons, adjust the volume level of the noise from the center speaker so that it is the same level as the front left speaker.
- Press the ▼ cursor button again. The SR5400 will now emit the pink noise from the front right speaker.
- Repeat steps 2 and 3 above for the front right and other speakers until all speakers are adjusted to the same volume level.

After you complete this portion of the set up, press the OK button, the cursor will move to "MAIN" and then press the OK button to go to SETUP MAIN MENU.

Notes:

- Speakers that you selected "None" for in the Speaker Size menu will not appear.
- To adjust the speaker levels for 6.1-channel input sources, you will need to use the 6.1CH-INPUT sub menu. (See page 19).

3 PREFERENCE

3 PREFERENCE	
STANDBY MODE	: ECONOMY
TV - AUTO	: ***
OSD INFO	: ENABLE
MAIN	EXIT

- Select "PREFERENCE" in the SETUP MAIN MENU with the ▲ or ▼ cursor buttons, and press the OK button.
- To select a desired content, press the ▲ or ▼ cursor buttons.

STANDBY MODE:

When this function is set to "ECONOMY", you can reduce the power consumption when the unit is in the standby mode.

Note:

- TV-AUTO is disabled in the "ECONOMY" setting.

TV AUTO:

Select the TV AUTO ON/OFF function to enable or disable with the ◀ or ▶ cursor buttons. (refer to page 24)

OSD Info:

Select the OSD information function to enable or disable with the ◀ or ▶ cursor buttons. If you select "ENABLE", the SR5400 will display the status of the feature (Volume up/down, input select, etc..) on the TV monitor. But if you do not desire this information, select "DISABLE".

After you complete this portion of the set up, move the cursor to "MAIN" with the ▲ or ▼ cursor buttons and press the OK button.

4 SURROUND

4 SURROUND	
SURR.MODE	: AUTO
HT-EQ	: OFF
LFE LEVEL	: 0 dB
CENTER	: 0 dB
SURR L	: 0 dB
SURR R	: 0 dB
SURR BACK	: 0 dB
SUB W	: 0 dB
MAIN	EXIT

1. Select **"SURROUND"** in the SETUP MAIN MENU with the ▲ or ▼ cursor buttons, and press the **OK** button.
2. To select a desired content, press the ▲ or ▼ cursor buttons.

SURR.MODE :

Select the desired surround mode with the ◀ or ▶ cursor buttons.

HT-EQ :

Select to activate the HT-EQ with the ◀ or ▶ cursor buttons.

The tonal balance of a film soundtrack will be excessively bright and harsh when played back over audio equipment in the home. This is because film soundtracks were designed to be played back in large movie theater environments. Activating the HT-EQ feature when watching a film made for movie theaters corrects this and restores the correct tonal balance.

The HT-EQ feature can be activated only while in Dolby Pro Logic Mode, or while decoding Dolby Digital or DTS encoded material.

LFE LEVEL :

Select the output level of the LFE signal included in the Dolby Digital signal or the DTS signal.

Select 0 dB, -10 dB or OFF with the ◀ or ▶ cursor buttons.

CHANNEL LEVEL

CENTER LEVEL:

Set the effect level of the center speaker between -10 and +10 dB level in 1 dB level intervals.

- If "None" was selected for the Center speaker setting, in the Speaker size set up menu, then this setting will not appear.

SURR L LEVEL:

Set the level of the Surround left speaker between -10 and +10 dB level in 1 dB level intervals.

- If "None" was selected for the Surround left speaker setting, in the Speaker size set up menu, then this setting will not appear.

SURR R LEVEL:

Set the level of the Surround right speaker between -10 and +10 dB level in 1 dB level intervals.

- If "None" was selected for the Surround right speaker setting, in the Speaker size set up menu, then this setting will not appear.

SURR BACK LEVEL:

Set the effect level of the Surround Back speaker between -10 and +10 dB level in 1 dB level intervals.

- If "None" was selected for the Surround back speakers setting, in the Speaker size set up menu, then this setting will not appear.

SUB W LEVEL:

Set the effect level of the subwoofer speaker between -15 and +10 dB level in 1 dB level intervals.

- If "None" was selected for the Subwoofer speaker setting, in the Speaker size set up menu, then this setting will not appear.

After you complete this portion of the set up, move the cursor to **"MAIN"** with the ▲ or ▼ cursor buttons and press the **OK** button.

5 PL II (PRO LOGIC II) MUSIC PARAMETER

Pro Logic II-Music mode creates a rich and enveloping surround ambience from stereo sources such as CDs.

In this mode, SR5400 includes three controls to fine-tune the soundfield as follows.

5 PL II MUSIC PARAMETER	
PARAMETER	: DEFAULT
PANORAMA	: OFF
DIMENSION	: 3
CENTER WIDTH	: 3
MAIN	EXIT

Select **"PRO LOGIC II"** in the SETUP MAIN MENU with the ▲ or ▼ cursor buttons, and press the **OK** button.

PARAMETER:

Select **"DEFAULT"** or **"CUSTOM"** with the ◀ or ▶ cursor buttons.

If you select **"CUSTOM"**, you can adjust three parameters as listed below.

PANORAMA:

Select the Panorama mode On or Off with the ◀ or ▶ cursor buttons.

Panorama wraps the sound of the front left and right speakers around you, for an exciting perspective.

DIMENSION:

Set the Dimension level between 0 and 6 level in 1 level intervals with the ◀ or ▶ cursor buttons. Adjust the soundfield either towards the front or towards the rear.

This can be useful to help achieve a more suitable balance from all the speakers with certain recordings.

CENTER WIDTH:

Set the Center width level between 0 and 7 in 1 level intervals with the ◀ or ▶ cursor buttons.

Center Width allows you to gradually spread the center channel sound into the front left and right speakers.

At its widest setting, all the sound from the center is mixed into the left and right.

This control may help achieve a more spacious sound or a better blend for the front image.

If **"None"** was selected for the Center speaker setting, in the Speaker size set up menu, then this setting will not appear.

After you complete this portion of the set up, move the cursor to **"MAIN"** with the ▲ or ▼ cursor buttons and press the **OK** button.

6 CS II (CIRCLE SURROUND II) PARAMETER

6 CS II PARAMETER	
TRUBASS	: 0
SRS DIALOG	: 0
MAIN	EXIT

1. Select **"CS II"** in the SETUP MAIN MENU with the ▲ or ▼ cursor buttons, and press the **OK** button.
2. To Select desired contents as below, press the ▲ or ▼ cursor buttons.

TRUBASS:

Set the TRUBASS level between 0 and 6 level in 1 level interval with the ◀ or ▶ cursor buttons.

TRUBASS produced by the speakers are an octave below the actual physical capabilities of the speakers adding exciting, deeper bass effects.

SRS DIALOG:

Set the SRS DIALOG level between 0 and 6 in 1 level intervals with the ◀ or ▶ cursor buttons.

This can be popped out of the surround audio effects, allowing the listener to easily discern what the actors say.

If **"NONE"** was selected for the Center speaker setting, in the Speaker size set up menu, then this setting will not appear.

After you complete this portion of the set up, move the cursor to **"MAIN"** with the ▲ or ▼ cursor buttons and press the **OK** button.

7 6.1 CH INPUT LEVEL

This sub-menu is to adjust the speaker levels for 6.1-channel input sources.

Here you will adjust the volume for each channel so that they are all heard by the listener at the same level.

7 6.1 CH INPUT LEVEL	
FRONT L	: 0 dB
CENTER	: 0 dB
FRONT R	: 0 dB
SURR . R	: 0 dB
SURR .BACK	: 0 dB
SURR . L	: 0 dB
SUB W	: 0 dB
MAIN	EXIT

1. Select **"6.1CH IN"** in the MAIN SETUP MENU with the ▲ or ▼ cursor buttons, and press the **OK** button.
2. To Select desired channel, press the ▲ or ▼ cursor buttons.
3. Using the ◀ or ▶ cursor buttons, adjust the volume level of each channel.
4. After you complete this portion of the set up, move the cursor to **"MAIN"** with the ▲ or ▼ cursor buttons and press the **OK** button.

Note:

- These settings will be memorized to 6.1CH INPUT source.

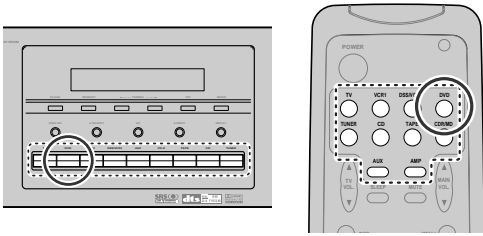
BASIC OPERATION

(PLAY BACK)

SELECTING AN INPUT SOURCE.

Before you can listen to any input media, you must first select the input source on the SR5400.

Example : DVD

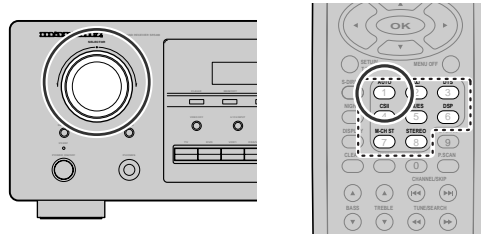


To select DVD, simply press the **DVD** button on the front panel or press the **DVD** button on the remote. After you have selected DVD, simply turn on the DVD player and play the DVD.

- As the input source is changed, the new input name will appear momentarily as OSD information on the video display. The input name will also appear in the display, on the front-panel.
- As the input is changed, the SR5400 will automatically switch to the digital input, surround mode, attenuation, and night mode status which were entered during the configuration process for that source.
- When an audio source is selected, the last video input used remains routed to the **VCR1 & DSS/ VCR2** Outputs and **Monitor** Outputs. This permits simultaneous viewing and listening to different sources.
- When a Video source is selected, the video signal for that input will be routed to the **Monitor Outputs** jacks and will be viewable on a TV monitor connected to the SR5400. If a component video input is connected to the **DVD** or **DSS** component inputs, it will be routed to the **Component Video Output**. Make certain that your TV is set to the proper input to view the signal.

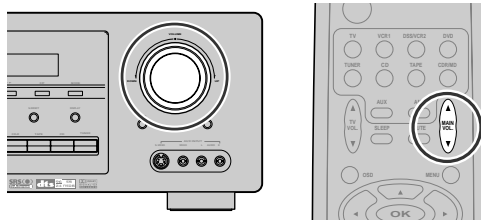
SELECTING THE SURROUND MODE

Example : AUTO SURROUND



To select the surround mode during playback, turn the **SELECT** knob on the front panel or press the surround mode button on the remote .

ADJUSTING THE MAIN VOLUME



Adjust the volume to a comfortable level using the **VOLUME** control knob on the front panel or **VOL ▲ / ▼** buttons on the remote.

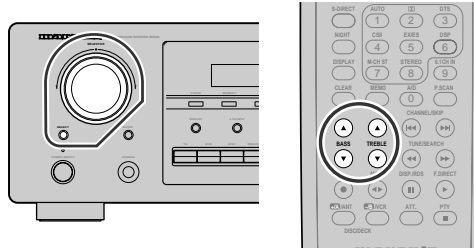
To increase the volume, turn the **VOLUME** knob clockwise or press **VOL ▲** button on the remote, to decrease the volume, turn counterclockwise or press **VOL ▼** button on the remote.

Notes:

- The volume can be adjusted within the range of $-\infty$ to 18 dB, in steps of 1 dB.
- However, when the channel level is set as described on page 18, if the volume for any channel is set at +1 dB or greater, the volume cannot be adjusted up to 18 dB.

(In this case the maximum volume adjustment range is "18 dB - Maximum value of channel level)

ADJUSTING THE TONE (BASS & TREBLE) CONTROL.



During a listening session you may wish to adjust the Bass and Treble Control to suit your listening tastes or room acoustics.

(Using the SR5400)

To change the selector mode, press the **SELECT** button, until "BASS" or "TREBLE" is shown on the front display.

Turn the **SELECTOR** knob to the desired level of tone control.

(Using the remote control unit)

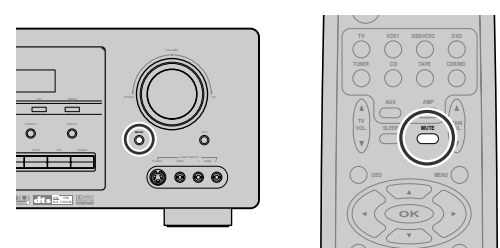
To adjust the bass effect, press **BASS▲** or **BASS▼** on the remote.

To adjust the treble effect, press **TREBLE▲** or **TREBLE▼** on the remote.

Notes :

- The tone control function can work in the AUTO Surround, Stereo, Dolby PL2, DTS, DTS-ES, and Multi Ch. Stereo mode.

TEMPORARILY TURNING OFF THE SOUND



To temporarily silence all speaker outputs such as when interrupted by a phone call, press the **MUTE** button on the front panel or **MUTE** button on the remote.

This will interrupt the output to all speakers and the head-phone jack, but it will not affect any recording or dubbing that may be in progress.

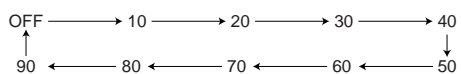
When the system is muted, the display will show "MUTE".

Press the **MUTE** button again to return to normal operation.

USING THE SLEEP TIMER



To program the SR5400 for automatic standby, press the **SLEEP** button on the remote. Each press of the button will increase the time before shut down in the following sequence.



The sleep time will be shown for a few seconds in the display on the front panel, and it will count down until the time has elapsed. When the programmed sleep time has elapsed, the unit will automatically turn off. Note that the **SLEEP** indicator on the display will illuminate when the Sleep function is programmed. To cancel the Sleep function, press the **SLEEP** button until the display shows "**SLEEP OFF**" and the SLEEP indicator will disappear.

NIGHT MODE



Press the **NIGHT** button on the remote to turn on the NIGHT mode. Selecting the Night Mode ON is effective in Dolby Digital only, and it compresses the dynamic range. This softens loud passages such as sudden explosions, to help prevent disturbing others late at night. To turn off the Night mode, press the **NIGHT** button again.

SURROUND MODE

The SR5400 is equipped with many surround modes. These are provided to reproduce a variety of surround sound effects, according to the content of the source to be played. The available surround modes may be restricted depending on the input signal and speaker setup.

AUTO

When this mode is selected, the receiver determines whether the digital input signal is Dolby Digital, Dolby Digital Surround EX, DTS, DTS-ES, DTS 96/24 or PCM-audio. Surround EX & DTS-ES will operate for multichannel source that has a Dolby Digital Surround EX or DTS-ES auto trigger flag in the digital signal. When a Dolby Digital or DTS signal is input, the number of channels for which the corresponding signal is encoded will be played. Inputting a Dolby Digital two channel signal with Dolby surround status automatically subjects that signal to Pro Logic II movie processing before play. PCM 96 kHz source material can be played in this mode.

Notes:

- When you use this mode with certain DVD and CD players, performing operations such as "Skip" or "Stop" may momentarily interrupt the output.
- When the signal is not decoded, the mode is changed to AUTO mode automatically. Refer to page 23 to confirm the available decoding mode.

DOLBY DIGITAL

This mode is enabled when playing source materials encoded in Dolby Digital. Playing multi-channel encoded 5.1-channel Dolby Digital sources provides five main audio channels (left, center, right, surround left and surround right) and Low Frequency Effect channel. Dolby Digital EX decoding is not available in this mode.

Dolby Pro Logic II brings the excitement of surround sound to any stereo mix, while making existing Dolby Surround mixes sound more like discrete 5.1 channels Surround sound.

Dolby Pro Logic II has 3 modes. Please see below.

Pro Logic II MOVIE

This mode provides 5.1 channel surround sound from Dolby Surround encoded stereo movie sound tracks.

Pro Logic II MUSIC

This mode provides 5.1 channel surround sound from conventional stereo sources, analog or digital, such as CD, Tape, FM, TV, Stereo VCR, etc.

Pro Logic

This mode emulated original Dolby Pro Logic decoding (3/1 surround) suit for Dolby Surround encoded stereo movie soundtracks.

Notes:

- Pro Logic II mode is available for a 2ch input signal which is encoded in Dolby Digital or PCM format.
- PCM-audio signals can be subjected to Pro Logic processing when the sampling frequency is 32 kHz, 44.1 kHz or 48 kHz.

EX/ES

This mode provides 6.1 channel surround for DOLBY DIGITAL EX, DTS-ES encoded source material such as DVD.

This mode cannot be used when an analog input has been selected.

Dolby Digital EX

In a movie theater, film soundtracks that have been encoded with Dolby Digital surround EX technology are able to reproduce an extra channel which has been added during the mixing of the program.

This channel, called Surround Back, places sounds behind the listener in addition to the currently available front left, front center, front right, surround right, surround left and subwoofer channels.

This additional channel provides the opportunity for more detailed imaging behind the listener and brings more depth, spacious ambience and sound localization than ever before.

Dolby Digital EX is not available in the system without surround back speaker(s).

DTS-ES (Discrete 6.1, Matrix 6.1)

DTS-ES adds the surround center channel audio to the DTS 5.1-channel format to improve the acoustic positioning and makes acoustic image movement more natural with the 6.1-channel reproduction.

This receiver incorporates a DTS-ES decoder, which can handle DTS-ES Discrete-encoded and DTS-ES Matrix-encoded program sources from DVD, etc..

DTS-ES Discrete 6.1 features digital discrete recording of all channels including the surround back channel(s) and higher quality of audio reproduction. DTS-ES is not available in the system without a surround back speaker.

dts MODE

(dts, Neo:6 Cinema, Neo:6 Music)

This mode is for DTS encoded source materials such as LASER DISC, CD, and DVD. Neo:6 is for some 2 channel sources.

dts : This mode is enabled when playing source materials encoded in dts multichannel.

Playing multi-channel encoded 5.1-channel dts sources provides five main audio channels (left, center, right, surround left and surround right) and Low Frequency Effect channel.

dts-ES decoding is not available in this mode. The DTS mode cannot be used when an analog input has been selected.

Neo:6 Cinema, Neo:6 Music

This mode decodes 2-channel signals into 6-channel signals using high-accuracy digital matrix technology.

The DTS NEO:6 decoder has near-discrete properties in the frequency characteristics of the channels as well as in channel separation.

According to the signals to be played back, DTS NEO:6 uses either the NEO:6 CINEMA mode optimized for movie playback or the NEO:6 MUSIC mode optimized for music playback.

Note:

- Neo:6 mode is available to 2ch input signals which are encoded in Dolby Digital or PCM format.
- PCM-audio signals can be subjected to Pro Logic processing when the sampling frequency is 32 kHz, 44.1 kHz or 48 kHz.

MULTICH. ST

This mode is used to create a wider, deeper and more natural soundstage from two channel source material.

This is done by feeding the left channel signal to both left front and left surround speaker and the right channel signal to both right front and right surround speaker. Additionally, the center channel reproduces a mix of the right and left channel.

CIRCLE SURROUND II (CSII-CINEMA, CSII-MUSIC, CSII-MONO)

Circle Surround is designed to enable multi-channel surround sound playback of non-encoded and multi-channel encoded material.

Backward compatibility provides listeners with up to 6.1 channels of surround performance from your entire collection of music and film, including broadcast, videotape and stereo recorded music.

Depending on source material, you can select **CSII-Cinema** mode, **CSII-Music** mode or **CSII-Mono** mode.

Note:

- CS II mode is available for 2ch input signals which are encoded in Dolby Digital or PCM format.
- PCM-audio signals can be subjected to Pro Logic processing when the sampling frequency is 32 kHz, 44.1 kHz or 48 kHz.

VIRTUAL

This mode creates a virtualized surround sound experience from a two-speaker (front L and R) playback system playing any multi-channel audio source (such as found on DVDs and digital broadcasts), including Dolby Digital, Dolby Pro Logic or DTS.

STEREO

This mode bypasses all surround processing. In stereo program sources, the left and right channels play normally when PCM-audio or analog stereo is input.

With Dolby Digital and DTS sources, the 5.1 multi-channels are converted to two channel stereo. 96 kHz PCM source material can be played back in stereo mode.

S (SOURCE) - DIRECT

In the source direct mode, the tone control circuit and bass management configuration are bypassed for full range frequency response and the purist audio reproduction.

96 kHz PCM source material can be played back in this mode.

Notes:

- Internal speaker size is setup to front L/R = Large, Center = Large, Surround L/R = Large and Subwoofer = Yes automatically. Tone controls and additional processing are also defeated.
- When you use this mode with certain DVD and CD players, performing operations such as "Skip" or "Stop" may momentarily interrupt the output.

CAUTION**NOTE for DTS signal**

- * Connected DVD-player, laser-disc player or CD-player needs to support DTS-digital output. You may not be able to play some DTS source signals from certain CD players and LD players even if you connect the player to the SR5400 digitally. This is because the digital signal has been processed (such as the output level, sampling frequency, or frequency response) and the SR5400 cannot recognize the signal as DTS data.
- * Depending on the player used, DTS play may produce a short noise. This is not a malfunction.
- * While signals from DTS-laser disc or CD are playing in another Surround mode, you cannot switch to digital input or from digital input to analog input by INPUT SETUP in SETUP MAIN MENU or the A/D button.
- * The outputs for the VCR 1 OUT, DSS/VCR 2 OUT, TAPE OUT, and CD-R OUT output analog audio signals. Do not record from CDs or LDs that support DTS using these outputs. If you do, the DTS-encoded signal will be recorded as noise.

NOTE for Dolby Digital Surround EX signal

- * When playing Dolby Digital Surround EX-encoded software in 6.1 channels, it is required to set the EX/ES mode.
- * Note that some of Dolby Digital Surround EX-encoded software does not contain the identification signal. In this case, set the EX/ES mode manually.

NOTE for 96kHz PCM audio

- * AUTO, Source- DIRECT, and STEREO modes can be used when playing PCM signals with a sampling frequency of 96 kHz (such as from DVD-Video discs that contain 24 bit, 96 kHz audio). If such signals are input during playback in one of the other surround modes, output from SR5400 will be muted.
- * Certain DVD player models inhibit digital output. For details, refer to the player's operation manual.
- * Some DVD formatted discs feature copy protection. When using such discs, 96 kHz PCM signal is not outputted from the DVD player. For details, refer to the player's operation manual.

The relation between the selected surround mode and the input signal

The surround mode is selected with the surround mode selector on SR5400 or the remote control unit. However, the sound you hear is subject to the relationship between the selected surround mode and input signal. That relationship is as follows;

Surround Mode	Input Signal	Decoding	Output Channel					Front information display		
			L/R	C	SL SR	SB	SubW	Signal format indicators	Channel status	
AUTO	Dolby Surr. EX	Dolby Digital EX	○	○	○	○	○	DD DIGITAL	L, C, R, SL, SR, S, LFE	
	Dolby D (5.1ch)	Dolby Digital 5.1	○	○	○	-	○	DD DIGITAL	L, C, R, SL, SR, LFE	
	Dolby D(2ch)	Dolby Digital 2.0	○	-	-	-	-	DD DIGITAL	L, R	
	Dolby D (2ch Surr)	Pro Logic II movie	○	○	○	-	-	DD DIGITAL, DD SURROUND	L, R, S	
	DTS-ES	DTS-ES	○	○	○	○	○	dtS, ES	L, C, R, SL, SR, S, LFE	
	DTS 96/24	DTS 96/24	○	○	○	-	○	dtS 96/24	L, C, R, SL, SR, LFE	
	DTS (5.1ch)	DTS 5.1	○	○	○	-	○	dtS	L, C, R, SL, SR, LFE	
	PCM(Audio)	PCM (Stereo)	○	-	-	-	-	PCM	L, R	
	PCM 96kHz	PCM (96kHz Stereo)	○	-	-	-	-	PCM	L, R	
	Analog	Stereo	○	-	-	-	-	ANALOG	-	
	S-DIRECT	Dolby D Surr. EX	Dolby Digital EX	○	○	○	○	○	DD DIGITAL	L, C, R, SL, SR, S, LFE
		Dolby D (5.1ch)	Dolby Digital 5.1	○	○	○	-	○	DD DIGITAL	L, C, R, SL, SR, LFE
Dolby D (2ch)		Dolby Digital 2.0	○	-	-	-	-	DD DIGITAL	L, R	
Dolby D (2ch Surr)		Pro Logic II movie	○	○	○	-	-	DD DIGITAL, DD SURROUND	L, R, S	
DTS-ES		DTS-ES	○	○	○	○	○	dtS, ES	L, C, R, SL, SR, S, LFE	
DTS 96/24		DTS 96/24	○	○	○	-	○	dtS 96/24	L, C, R, SL, SR, LFE	
DTS (5.1ch)		DTS 5.1	○	○	○	-	○	dtS	L, C, R, SL, SR, LFE	
PCM (Audio)		PCM (Stereo)	○	-	-	-	-	PCM	L, R	
PCM 96kHz		PCM (96kHz Stereo)	○	-	-	-	-	PCM	L, R	
Analog		Stereo	○	-	-	-	-	ANALOG	-	
EX/ES		Dolby D Surr. EX	Dolby Digital EX	○	○	○	○	○	DD DIGITAL	L, C, R, SL, SR, S, LFE
		Dolby D (5.1ch)	Dolby Digital EX	○	○	○	○	○	DD DIGITAL	L, C, R, SL, SR, LFE
	DTS-ES	DTS-ES	○	○	○	○	○	dtS, ES	L, C, R, SL, SR, S, LFE	
	DTS(5.1ch)	DTS-ES	○	○	○	○	○	dtS	L, C, R, SL, SR, LFE	
DOLBY (PL II movie) (PL II music) (Pro Logic)	Dolby D Surr. EX	Dolby Digital 5.1	○	○	○	-	○	DD DIGITAL	L, C, R, SL, SR, S, LFE	
	Dolby D (5.1ch)	Dolby Digital 5.1	○	○	○	-	○	DD DIGITAL	L, C, R, SL, SR, LFE	
	Dolby D (2ch)	Pro Logic II	○	○	○	-	-	DD DIGITAL	L, R	
	Dolby D (2ch Surr)	Pro Logic II	○	○	○	-	-	DD DIGITAL, DD SURROUND	L, R, S	
	PCM (Audio)	Pro Logic II	○	○	○	-	-	PCM	L, R	
	Analog	Pro Logic II	○	○	○	-	-	ANALOG	-	
DTS (Neo:6 Cinema) (Neo:6 Music)	DTS-ES	DTS 5:1	○	○	○	-	○	dtS, ES	L, C, R, SL, SR, S, LFE	
	DTS 96/24	DTS 96/24	○	○	○	-	○	dtS 96/24	L, C, R, SL, SR, LFE	
	DTS (5.1ch)	DTS 5.1	○	○	○	-	○	dtS	L, C, R, SL, SR, LFE	
	PCM (Audio)	Neo:6	○	○	○	○	-	PCM	L, R	
	Analog	Neo:6	○	○	○	○	-	ANALOG	-	
	Dolby D (2ch)	Neo:6	○	○	○	○	-	DD DIGITAL	L, R	
CS II Cinema CS II Music CS II Mono	Dolby D (2ch Surr)	Neo:6	○	○	○	○	-	DD DIGITAL, DD SURROUND	L, R, S	
	PCM (Audio)	CS II	○	○	○	○	○	PCM	L, R	
	Analog	CS II	○	○	○	○	○	ANALOG	-	
	Dolby D (2ch)	CS II	○	○	○	○	○	DD DIGITAL	L, R	
STEREO	Dolby D (2ch Surr)	CS II	○	○	○	○	○	DD DIGITAL, DD SURROUND	L, R, S	
	Dolby Surr. EX	Stereo	○	-	-	-	○	DD DIGITAL	L, C, R, SL, SR, S, LFE	
	Dolby D (5.1ch)	Stereo	○	-	-	-	○	DD DIGITAL	L, C, R, SL, SR, LFE	
	Dolby D (2ch)	Stereo	○	-	-	-	○	DD DIGITAL	L, R	
	Dolby D (2ch Surr)	Stereo	○	-	-	-	○	DD DIGITAL, DD SURROUND	L, R, S	
	DTS-ES	Stereo	○	-	-	-	○	dtS, ES	L, C, R, SL, SR, S, LFE	
	DTS 96/24	Stereo	○	-	-	-	○	dtS 96/24	L, C, R, SL, SR, LFE	
	DTS (5.1ch)	Stereo	○	-	-	-	○	dtS	L, C, R, SL, SR, LFE	
	PCM (Audio)	Stereo	○	-	-	-	-	PCM	L, R	
	PCM 96kHz	Stereo	○	-	-	-	-	PCM	L, R	
	Analog	Stereo	○	-	-	-	-	ANALOG	-	
	Virtual	Dolby Surr. EX	Virtual	○	-	-	-	-	DD DIGITAL	L, C, R, SL, SR, S, LFE
Dolby D (5.1ch)		Virtual	○	-	-	-	-	DD DIGITAL	L, C, R, SL, SR, LFE	
Dolby D (2ch)		Virtual	○	-	-	-	-	DD DIGITAL	L, R	
Dolby D (2ch Surr)		Virtual	○	-	-	-	-	DD DIGITAL, DD SURROUND	L, R, S	
DTS-ES		Virtual	○	-	-	-	-	dtS, ES	L, C, R, SL, SR, S, LFE	
DTS (5.1ch)		Virtual	○	-	-	-	-	dtS	L, C, R, SL, SR, LFE	
PCM (Audio)		Virtual	○	-	-	-	-	PCM	L, R	
Analog		Virtual	○	-	-	-	-	ANALOG	-	
Multi Ch. Stereo	Dolby Surr. EX	Dolby Digital EX	○	○	○	○	○	DD DIGITAL	L, C, R, SL, SR, S, LFE	
	Dolby D (5.1ch)	Dolby Digital 5.1	○	○	○	-	○	DD DIGITAL	L, C, R, SL, SR, LFE	
	Dolby D (2ch)	Multi Channel Stereo	○	○	○	○	-	DD DIGITAL	L, R	
	Dolby D (2ch Surr)	Multi Channel Stereo	○	○	○	○	-	DD DIGITAL, DD SURROUND	L, R, S	
	DTS-ES	DTS-ES	○	○	○	○	○	dtS, ES	L, C, R, SL, SR, S, LFE	
	DTS (5.1ch)	DTS 5.1	○	○	○	-	○	dtS	L, C, R, SL, SR, LFE	
	PCM (Audio)	Multi Channel Stereo	○	○	○	○	-	PCM	L, R	
Analog	Multi Channel Stereo	○	○	○	○	-	ANALOG	-		

Note:

- Dolby Digital (2 ch: Lt/Rt): signal with Dolby Surround flag Speakers are full set.
- No sound outputs from the surround speaker, center speaker and subwoofer if the DVD disc has no surround data.

Abbreviations

- L/R : Front speakers
- C : Center speaker
- SL/SR : Surround speakers
- SB : Surround Back speaker
- SubW : Sub woofer speaker

OTHER FUNCTION

TV AUTO ON/OFF FUNCTION

This function allows the component connected to the TV-VIDEO in jack to control the power (ON/OFF) to the SR5400.

AUTO POWER ON

1. Be sure the TV auto mode is ENABLED. (Refer page 18 : System Setup)
2. Connect your TV TUNER (etc) to the TV-VIDEO in terminal. Be sure to connect the VIDEO input.
3. Turn OFF the power to the TV TUNER and the SR5400.
4. Turn ON the TV TUNER and tune in a receivable station.
5. When the station is received, the SR5400 turns ON and TV is selected automatically.

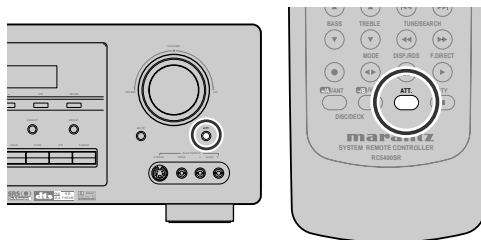
AUTO POWER OFF

1. In the above situation, turn the TV TUNER OFF or select a channel that does not contain any broadcast.
2. The power to the SR5400 switches to STANDBY after approx. 5 minutes.

Notes:

- AUTO POWER OFF is canceled if the SR5400 is set to a source other than TV.
The function reactivates when TV is selected again.
- Some TV broadcasts may cause the TV AUTO FUNCTION to turn ON.
- The S-Video terminal does not support "TV AUTO ON/OFF" function.

ATTENUATION TO ANALOG INPUT SIGNAL

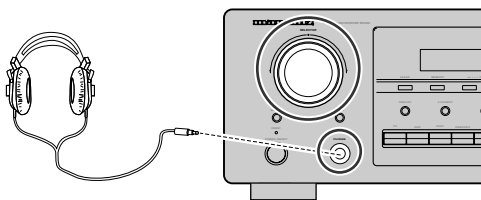


If the selected analog audio input signal is greater than the capable level of internal processing, the "PEAK" indicator will light up on the front display. If this happens, you should press the **ATT** button on the front panel or on the remote. "ATT" indicator will be illuminated when this function is activated. The signal-input level is reduced by about half. Attenuation will not work with the output signal of TAPE-OUT, CD-R/MD-OUT, VCR1-OUT and DSS/VCR2-OUT.

This function is memorized for each individual input source.

LISTENING THROUGH HEADPHONES

This jack may be used to listen to the SR5400's output through a pair of headphones. Be certain that the headphones have a standard 1/4" stereo phono plug. (Note that the speakers will automatically be turned off when the headphone jack is in use.)



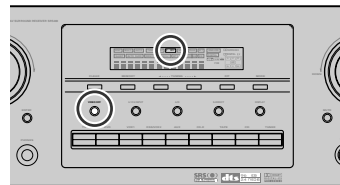
Notes:

- When using headphones, the surround mode will change to STEREO and TruSurround (TS) headphones by SURROUND MODE selector.
- The surround mode returns to the previous setting as soon as the plug is removed from the jack.

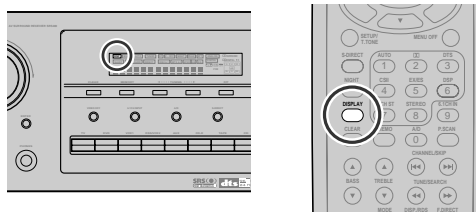
VIDEO ON/OFF

When no video signal is connected to the SR5400 or a DVD, etc., is connected directly to your TV, the unnecessary video circuit can be turned off by selecting the "VIDEO OFF" setting.

To select video off, press the **VIDEO OFF** button on the front panel.



DISPLAY MODE



You can select the display mode for the front display of the SR5400.

To select this mode, press the **DISPLAY** on the remote control.

When this button is pressed, the display mode is switched in the following sequence.

→ Surround Mode → Auto-display Off → Display Off → Input Function → Surround Mode...

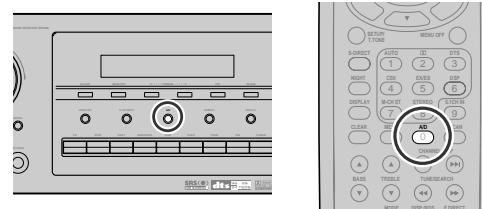
In Auto display off mode, the display is off. But, if you make a change to the unit such as input or surround mode, the display will show that change, then go back to off after about 3 seconds. When changing the volume, it is not displayed.

In Display off mode, the display is off completely.

Notes:

- Only the DISP indicator will be illuminated on the front display, in display off condition

SELECTING ANALOG AUDIO INPUT OR DIGITAL AUDIO INPUT



If you have already assigned the digital inputs, you can temporarily select the audio input mode for each input source with the **A/D** button on the remote controller or front panel.

When this button is pressed, the input mode is switched in the following sequence.

→ Digital Auto → Digital → Analog → Digital Auto...

In Digital Auto mode, the types of signals being input to the digital and analog input jacks for the selected input source are detected automatically.

If no digital signal is being input, the analog input jacks are selected automatically.

In Digital mode, input is fixed to an assigned digital input terminal.

In analog mode, the analog input jacks are selected. This selecting is temporary, so the result will not be stored in memory.

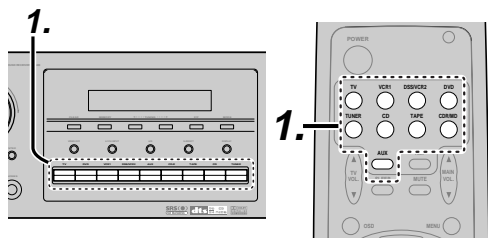
If you need to change the input mode completely, use SYSTEM SETUP in OSD menu system. (see page 17)

RECORDING AN ANALOG SOURCE

In normal operation, the audio or video source selected for listening through the SR5400 is sent to the record outputs.

This means that any program you are watching or listening to may be recorded simply by placing machines connected to the outputs for **TAPE OUT**, **CD-R/MD OUT**, **VCR1 OUT**, and **DSS/VCR2 OUT** in the record mode.

To record the input source signal you are currently watching or listening to

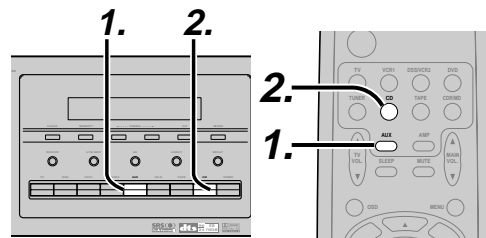


1. Select the input source to record by pressing the corresponding **input selector** button. The input source is now selected and you may watch or listen to it as desired.
2. The currently selected input source signal is output to the **TAPE OUT**, **CD-R/MD OUT**, **VCR1 OUT**, and **DSS/VCR2 OUT** outputs for recording.
3. Start recording to the recording component as desired.

Recording the video from one source and the audio from another

You can add the sound from one source to the video of another source to make your own video recordings.

Below is an example of recording the sound from a compact disc player connected to CD IN and the video from a video camera connected to AUX IN to video cassette recorder connected to the VCR1 OUT jack.



1. Press the **AUX** input source button to set video output.
2. Press the **CD** input source button to set audio output.
3. Now "CD" has been selected as the audio input source and "AUX" as the video input source.

Notes:

- If you change the input source during recording, you will record the signals from the newly selected input source.
- You cannot record the surround effects.
- Digital input signals are only output to the digital outputs. There is no conversion from digital to analog.

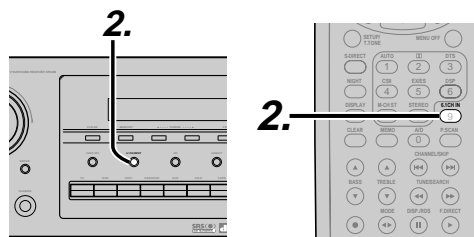
When connecting CD players and other digital components, do not connect only the digital terminals, but the analog ones as well.

6.1 CH INPUT.

The SR5400 is equipped for future expansion through the use of Multi channel SACD multichannel player or DVD-Audio player.

When this is selected, the input signals connected to the L(front left), R (front right), CENTER, SL (surround left), SR (surround right) and SB (surround back) channels of the 6.1 CH. In jacks are output directly to the front (left and right), center, surround (left and right) and surround back speaker systems as well as the pre-out jacks without passing through the surround circuitry. In addition, the signal input to the SW (subwoofer) jack is output to the PRE OUT SW (subwoofer) jack.

When 6.1 CH. INPUT is selected, the last video input used remains routed to the **Monitor Outputs**. This permits simultaneous viewing with video sources.



1. Select a desired Video source to decide the routed video signal to the **Monitor Outputs**.
2. Press the **6.1 CH INPUT** button on the front panel or press **6.1 CH IN** on the remote to switch the 6.1 channel input.
3. If it is necessary to adjust the output level of each channel, use "6.1 Ch. INPUT LEVEL" in the OSD menu system as desired. Adjust the speaker output levels so that you can hear the same sound level from each speaker at the listening position. For the front left, front right, center, surround left, surround right and surround back speakers, the output levels can be adjusted between -10 to +10 dB. The subwoofer can be adjusted between -15 and +10 dB. These adjustments result will be stored to 6.1 Ch. INPUT memory. (see to page 19)
4. Adjust the main volume with the **MAIN VOLUME** knob or the **VOL** buttons on the remote.

To cancel the 6.1 Ch. INPUT setting, press the **6.1 CH INPUT** button on the front panel or press **6.1 CH IN** on the remote.

Notes:

- When the 6.1 Ch. Input is in use, you may not select a surround mode, as the external decoder determines processing.
- In addition, there is no signal at the record outputs when the 6.1 Ch. Input is in use.

BASIC OPERATION (TUNER)

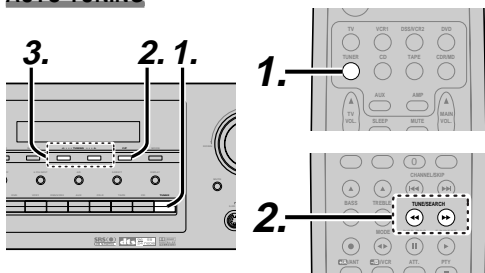
LISTENING TO THE TUNER

Frequency scan step for AM is selectable. Default setup is 10 kHz step, if your country's standard is 9 kHz step, Press **TUNER** button on the remote more than 6 seconds. Scan step will change.

Note:

- Preset memory for the tuner will clear by changing this setup.

AUTO TUNING



(Using the SR5400)

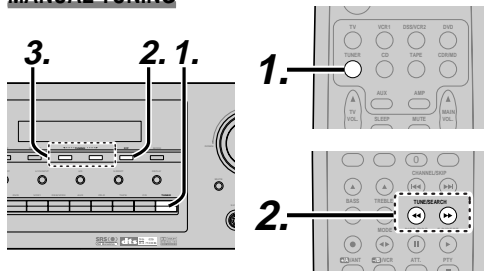
1. To select tuner and desired band (FM or AM), press the **TUNER** button on the front panel.
2. **F/P** button on the front panel to display the frequency.
3. Press the **TUNING** ◀ or ▶ button on the front panel for more than 1 second to start the Auto tuning function.
4. Automatic searching begins then stops when a station is tuned in.

(Using the remote control unit)

1. To select tuner and desired band (FM or AM), press the **TUNER** button twice within in two seconds on the remote.
2. Press the **5** or **6** for more than 1 second on the remote.
3. Automatic searching begins then stops when a station is tuned in.

If tuning does not stop at the desired station, use to the "Manual tuning" operation.

MANUAL TUNING



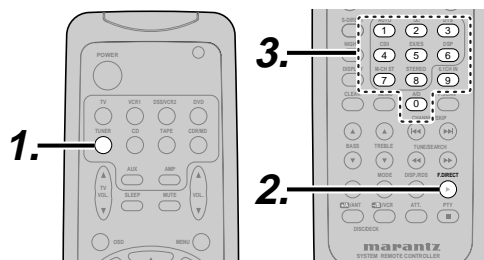
(Using the SR5400)

1. To select tuner and desired band (FM or AM), press the **TUNER** button on the front panel
2. Press the **F/P (Frequency/Preset)** button on front panel, to have the frequency appear on the display.
3. Press the **TUNING** ◀ or ▶ buttons.

(Using the remote control unit)

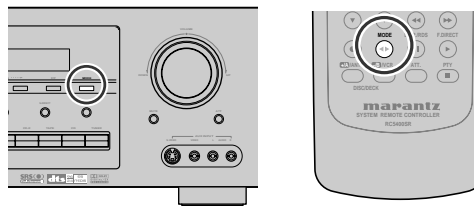
1. To select tuner and desired band (FM or AM), press the **TUNER** button twice within in two seconds on the remote.
2. Press the **5** or **6** on the remote to tune in the desired station.

DIRECT FREQUENCY CALL



1. To select tuner and desired band (FM or AM), press the **TUNER** button twice within two seconds on the remote.
2. Press the **F.DIR** on the remote, display will show "FREQ - - - -".
3. Input your desired station's frequency with the ten numbered keypad on the remote.
4. The desired station will automatically be tuned.

(FM) TUNING MODE (AUTO STEREO OR MONO)



When in the auto stereo mode, **AUTO** indicator will be illuminated on the display.

The "ST" indicator is illuminated when a stereo broadcast is tuned in.

At open frequencies, the noise is muted and the "TUNED" and "ST" indicators are not illuminated. If the signal is weak, it may be difficult to tune into the station in stereo. In such a case, press the **MODE** button on the front panel or press the **MODE** button on the remote.

"AUTO" indicator is not illuminated, if FM stereo broadcasts are received in monaural and the "ST" indicator is not illuminated.

To return to auto stereo mode, press the **MODE** button or press **MODE** button on the remote again. **AUTO** indicator is illuminated on the display.

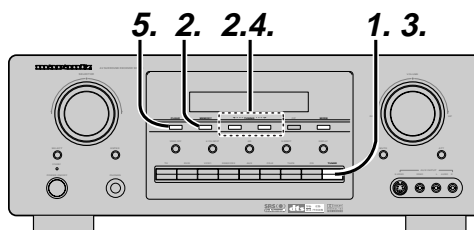
PRESET MEMORY

With this unit you can preset up to 50 FM/AM stations in any order.

For each station, you can memorize the frequency and reception mode if desired.

AUTO PRESET MEMORY

This function automatically scans the FM and AM band and enters all stations with proper signal strength into the memory.



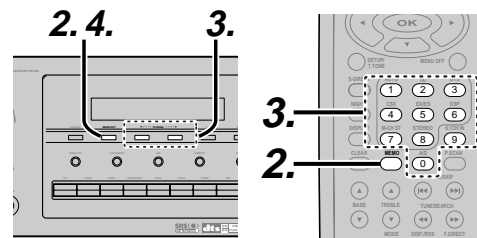
1. To select FM, press the **TUNER** button on the front panel.
2. While pressing the **MEMORY** button, press the **TUNING** ▶ button up. "AUTO PRESET" will appear on the display, and scanning starts from the lowest frequency.
3. Each time the tuner finds a station, scanning will pause and the station will be played for five seconds. During this time, the following operations are possible.

4. The band can be changed by the **TUNER** button. If no button is pressed during this period, the current station is memorized in location Preset 02.

If you wish to skip the current station, press the **TUNING** ▶ button during this period, this station is skipped and auto presetting continues.

5. Operation stops automatically when all 50 preset memory positions are filled or when auto scanning attains the highest end of all bands. If you desire to stop the auto preset memory at anytime, press the **CLEAR** button.

MANUAL PRESET MEMORY



(Using the SR5400)

1. Tune into the radio station you desire (Refer to the "MANUAL TUNING" or "AUTO TUNING" section).
2. Press the **MEMORY** button on the front panel. "- -" (preset number) starts blinking on the display.
3. Select the preset number by pressing the **TUNING** ◀ or ▶ button, while this is still blinking (approx. 5 seconds)
4. Press the **MEMORY** button again to enter. The display stops blinking. The station is now stored in the specified preset memory location.

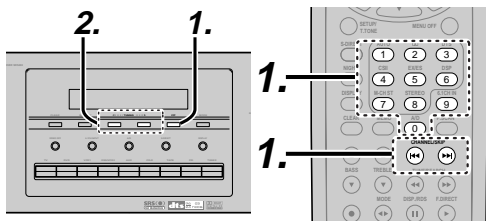
(Using the remote control unit)

1. Tune into the radio station you desire (Refer to the "MANUAL TUNING" or "AUTO TUNING" section).
2. Press the **MEMO** button on the remote. "-- --" (preset number) starts blinking on the display.
3. Enter the desired preset number by pressing the **numeric** buttons.

Note:

- When entering a single digit number (2 for example), either input "02" or just input "2" and wait for a few seconds.

RECALLING A PRESET STATION



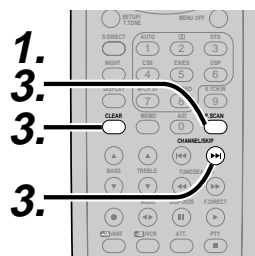
(Using the SR5400)

1. Press the **F/P** button to show the preset station on the display.
2. Select the desired preset station by pressing the **TUNING** ◀ or ▶ buttons on the front panel

(Using the remote control unit)

1. Press the ◀◀ or ▶▶ buttons to select the desired preset station, or input your desired preset channel with the **numeric** buttons on the remote.

PRESET SCAN

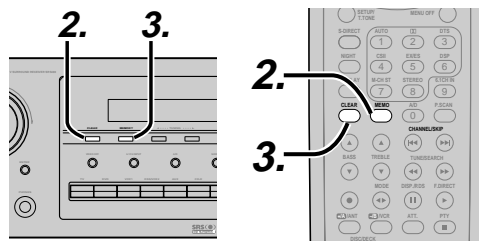


(Using the remote control unit)

1. Press the **P.SCAN** on the remote. "PRESET SCAN" appears on the display and then the preset station with the lowest preset number is recalled first.
2. Preset stations are recalled in sequence (No.1 → No.2 → etc.) for 5 seconds each. No stored preset number will be skipped.
3. You can fast forward the preset stations by pressing the ▶▶ continuously. When the desired preset station is received, cancel the preset scan operation by pressing the **CL** button or **P.SCAN** on the remote.

CLEARING STORED PRESET STATIONS

You can remove preset stations from the memory using the following procedure.

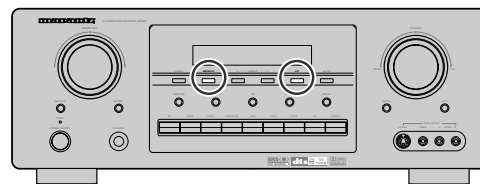


1. Recall the preset number to be cleared with the method described in "Recalling" a preset station.
2. Press the **MEMORY** button on the front panel or press the **MEMO** button on the remote.
3. The stored preset number blinks in the display for 5 seconds. While blinking, press the **CLEAR** button on the front panel or press the **CL** button on the remote.
4. "xx CLEAR" appears on the display to indicate that the specified preset number has been cleared.

Notes:

- To clear all stored preset stations, press and hold the **CLEAR** and the **F/P** buttons for two seconds.

SORTING PRESET STATIONS



If you have stations memorized, and there is a gap in the sequential order:

i.e. the stations are stored as follows

- 1) 87.1 MHz
- 2) 93.1 MHz
- 3) 94.7 MHz
- 10) 105.9 MHz

(notice there is no stations programmed for pre sets for 4-9), you can have pre set 10 become pre set 5:

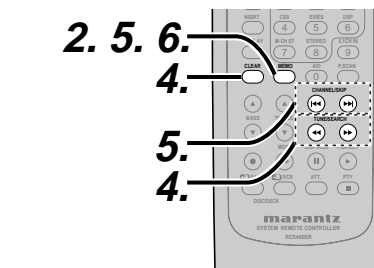
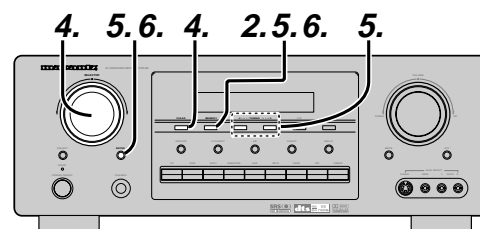
To sort the numbers, press and hold the **MEMORY** and the **F/P** buttons.

"PRESET SORT" will appear on the display and sorting will be done.

NAME INPUT OF THE PRESET STATION.

This function allows the name of each preset channel to be entered using alphanumeric characters.

Before name inputting, you need to store preset stations with the preset memory operation.



1. Recall the preset number to be inputted name with the method described in "Recalling" a preset station.

2. Press the **MEMORY** button on the front panel or press the **MEMO** button on the remote for more than 3 seconds.
3. The left most column of the station name indicator flashes, indicating the character entry ready status.
4. When the **SELECT** knob is turned or you press the **5 / 6** buttons on the remote, alphabetic and numeric characters will be displayed in the following order:

A → B → C ... Z → 1 → 2 → 3 0 → - → + → / → (Blank) → A
 UP →
 ← DOWN

5. After selecting the first character to be entered, press the **MEMORY** or **ENTER** buttons, press the **MEMO** button on the remote.

The entry in this column is fixed and the next column starts to flash. Fill the next column the same way.

To move back and forth between the characters, press the **TUNING** ◀/▶ buttons or press ◀◀ or ▶▶ buttons on the remote.

Note:

- Unused columns should be filled by entering blanks.

6. To save the name, press the **MEMORY** or the **ENTER** button, press the **MEMO** button on the remote for more than 2 seconds.

Ten keypad	Press, press again, press again, etc.
1	A → B → C → 1 → A
2	D → E → F → 2 → D
3	G → H → I → 3 → G
4	J → K → L → 4 → J
5	M → N → O → 5 → M
6	P → Q → R → 6 → P
7	S → T → U → 7 → S
8	V → W → X → 8 → V
9	Y → Z → space → 9 → Y
0	- → + → / → 0

RDS OPERATION

Now in use in many countries, RDS (Radio Data System) is a description of the station's programming hidden space in the FM signal.

Your new receiver is equipped with RDS to assist in the selection of FM stations using station and network names, rather than broadcast frequencies. Additional RDS functions include the ability to search for programme types.

RADIO TEXT

Some RDS stations broadcast RADIO TEXT, which is additional information on the station and programme being broadcast.

RADIO TEXT information appears as 'running' text in the display. RADIO TEXT is transmitted character by the radio station. As a result of that it may take some time until the entire text has been completely received.

RDS DISPLAY

When a receiver is tuned to an FM station that is transmitting RDS data, the Front Panel Information Display will automatically show the station name or RDS TEXT in place of the typical display of the station's broadcast frequency.

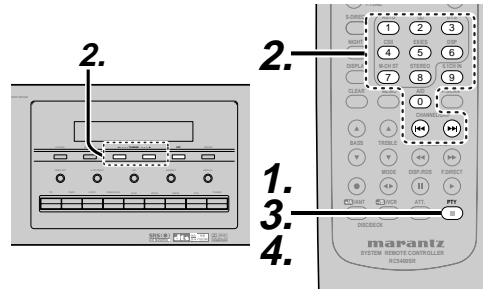
To change the display, press the **DISP./RDS** button on the remote.



PS (Program Service Name) → RT (RADIO TEXT) → Frequency

PTY AUTO SEARCH

Your receiver is equipped to automatically search for stations transmitting any of 29 different programme types. To search for a PTY, follow these procedures:

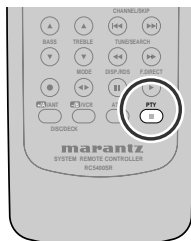


1. Press the **PTY** button in the TUNER MODE on the remote controller. The current station's PTY will be displayed, or the currently selected PTY group will be displayed in blinking if no station or RDS data is present.
2. To change to a new PTY type, press the **TUNING ▲** or **▼** button on the front panel or **numeric** buttons on the remote until the desired PTY is shown in the display.
3. Once the desired PTY group or type has been selected, press the **PTY** button while the display blink (approx. 5 seconds). The PTY Auto search will start, and the tuner will pause at each station broadcasting RDS PTY information corresponding to the selected choice.
4. To advance to the next RDS station with the desired PTY, press the **PTY** button again within 5 seconds.

NUMBER	DISPLAY	PROGRAMME TYPE
1	POP	Pop Music
2	ROCK	Rock Music
3	MOR	M. O. R. Music
4	LIGHT	Light classical
5	CLASSIC	Serious classical
6	NEWS	News
7	AFFAIR	Current Affairs
8	INFO	Information
9	SPORT	Sport
10	EDUCATE	Education
11	DRAMA	Drama
12	CULTURE	Culture
13	SCIENCE	Science
14	OTHERS	Varied
15	OTHER	Other Music
16	WEATHER	Weather
17	FINANCE	Finance
18	CHILDREN	Children's programmes
19	SOCIAL	Social Affairs
20	RELIGION	Religion
21	PHONE IN	Phone In
22	TRAVEL	Travel
23	HOBBIES	Hobbies
24	JAZZ	Jazz Music
25	COUNTRY	Country Music
26	NATION	National Music
27	OLDIES	Oldies Music
28	FOLK	Folk Music
29	DOCUMENT	Documentary

PROGRAMME TYPE (PTY) DISPLAY

The RDS system categorizes programmes according to their genre into different programme type (PTY) groups. To display the programme type information of the current station, press the **PTY** button in the TUNER MODE on the remote.



TROUBLESHOOTING

In case of trouble, check the following before calling for service:

1. Are the connections made properly ?
2. Are you operating the unit properly following the user's guide ?
3. Are the power amplifiers and speaker working properly ?

If the unit does not operate properly, check items shown in the following table.

If your trouble cannot be recovered with the remedy actions listed in the following table, malfunction of the internal circuitry is suspected; immediately unplug the power cable and contact your dealer, nearest Marantz authorized dealer or the Marantz Service Center in your country.

SYMPTOM	CAUSE	REMEDY
SR5400 cannot be turned up.	The power plug is not connected.	Connect the power plug to the outlet.
No sound and picture are output even when power is on.	Mute is on.	Cancel mute using the remote control unit.
	The input cable is not connected correctly.	See the connection diagram and connect the cables correctly.
	The master volume control is turned all the way down.	Adjust the master volume.
	The function selector position is wrong.	Select correct position.
No speaker output.	The headphones are connected to the headphone jack.	Disconnect the headphones. (Speakers will not output sound when headphones are connected.)
Incorrect Audio or Video for selected source.	Input cable connected incorrectly.	Connect the cable correctly by referring to the connection diagram.
Incorrect Audio from a channel.	Speaker cable connected incorrectly.	Connect the cable correctly by referring to the connection diagram.
No Audio output from the center channel speaker.	The center speaker cable connection is incomplete.	Connect the cable correctly.
	STEREO has been selected for Surround mode.	When STEREO is selected for Surround mode, no sound will be output from the center speaker. Set another Surround mode.
	Center = NONE has been selected in SETUP mode.	Make the correct setting.
No Audio output from the surround speakers.	The surround speaker cable connection is incomplete.	Connect the cable correctly.
	STEREO has been selected for Surround mode.	When STEREO has been selected for Surround mode, no sound will be output from the surround speaker. Set another Surround mode.
	Surround = NONE has been selected in SETUP mode.	Make the correct setting.
No Audio output from the surround back speakers.	The surround back speaker cable connection is incomplete.	Connect the cable correctly.
	Surround mode is not EX/ES mode.	Set surround mode EX/ES.
	Surround back = NONE has been selected in SPEAKERS SIZE SETUP	Make the correct setting.

SYMPTOM	CAUSE	REMEDY
Can not select EX/ES mode.	Surround center= NONE has been selected in SPEAKERS SIZE SETUP	Make the correct setting.
	Input signal is incompatible.	Use 5.1 channel source.
Can not select Pro Logic II mode.	Input signal is incompatible.	Use 2 channel Dolby Digital input signal, PCM input signal or analog input signal.
Can not select Neo:6 mode.	Input signal is incompatible.	Use 2 channel Dolby Digital input signal, PCM input signal or analog input signal.
Can not select CSII mode.	Input signal is incompatible.	Use 2 channel Dolby Digital input signal, PCM input signal or analog input signal.
No output to Sub Woofer Out.	Sub-woofer = NONE has been selected in SETUP mode.	Select Sub-woofer = YES.
Noise is produced during DTS-encoded CD or laser disc play.	Analog has been selected for input.	Be sure to perform digital connection, select digital input, then play.
A specific channel does not produce output.	Nothing recorded on source.	Check the encoded channel on the source side.
FM or AM reception fails.	Antenna connection is incomplete.	Correctly connect the indoor FM and AM antennas to FM and AM antenna outlets.
Noise is heard during AM reception.	Reception is affected by other electrical fields.	Try changing location where the AM indoor antenna is set up.
Noise is heard during FM reception.	The radio waves from the broadcasting station are weak.	Install an FM outdoor antenna.
Cannot get programmed station when the PRESET button is pressed.	Preset data has been erased.	Disconnecting power plug for long periods of time will erase preset data. If that happens, input the preset data again.
Control with the remote control unit fails.	Batteries are consumed.	Replace all the batteries with new ones.
	Remote controller's function-key setting is wrong.	Select different position from which equipment will be controlled.
	The distance between this SR5400 and the remote commander is too far.	Move closer to this SR5400.
	Something is blocking SR5400 and the remote commander.	Remove offending object.

GENERAL MALFUNCTION

If the equipment malfunctions, this may be because an electrostatic discharge or AC line interference has corrupted the information in the equipment memory circuits. Therefore:

- disconnect the plug from the AC line supply
- after waiting at least three minutes, reconnect the plug to the AC line supply
- re-attempt to operate the equipment

Memory backup

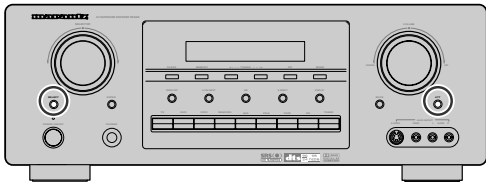
- In case a power outage occurs or the power cord is accidentally unplugged, the SR5400 is equipped with a backup function to prevent memory data such as the preset memory from being erased.

HOW TO RESET THE UNIT

Should the operation or display seem to be abnormal, reset the unit with the following procedure.

The SR5400 is turned on, press and hold the **SELECT** and **ATT** buttons simultaneously for 3 seconds or more.

Remember that the procedure will reset the settings of the function selector, Surround mode, delay time, TUNER PRESET etc., to their initial settings.



TECHNICAL SPECIFICATIONS

FM TUNER SECTION

Frequency Range 87.5 - 108.0 MHz
 Usable Sensitivity IHF 1.8 μV/16.4 dBf
 Signal to Noise Ratio Mono/Stereo 75/70 dB
 Distortion Mono/Stereo 0.2/0.3 %
 Stereo Separation 1 kHz 45 dB
 Alternate Channel Selectivity ± 300 kHz 60 dB
 Image Rejection 98 MHz 70 dB
 Tuner Output Level 1 kHz, ± 75 kHz Dev 800 mV

AM TUNER SECTION

Frequency Range 531 - 1602 kHz
 Signal to Noise Ratio 50 dB
 Usable Sensitivity Loop 400μV
 Distortion 400Hz, 30 % Mod. 0.5 %
 Selectivity ± 10 kHz 60 dB

AUDIO SECTION

Power Output (20 Hz - 20 kHz/THD=0.08%)
 Front L&R 8 ohms 90 W / Ch
 Center 8 ohms 90 W / Ch
 Surround L&R 8 ohms 90 W / Ch
 Surround Back 8 ohms 90 W / Ch

Front L&R 6 ohms 110 W / Ch
 Center 6 ohms 110 W / Ch
 Surround L&R 6 ohms 110 W / Ch
 Surround Back 6 ohms 110 W / Ch

Input Sensitivity/Impedance 168mV/ 47 Kohms
 Signal to Noise Ratio(Analog Input / Source Direct) ... 105 dB
 Frequency Response
 (Analog Input / Source Direct)
 8 Hz - 100 kHz (± 3 dB)
 (Digital Input /96 kHz PCM) 8 Hz - 45 kHz (± 3 dB)

VIDEO

Television Format NTSC/PAL
 Input Level/Impedance 1 Vp-p/75 ohms
 Output Level/Impedance 1 Vp-p/75 ohms
 Video Frequency Response 5 Hz to 8 MHz (- 1 dB)
 Video Frequency (Component) 5 Hz to 80 MHz (- 1 dB)
 S/N 60 dB

GENERAL

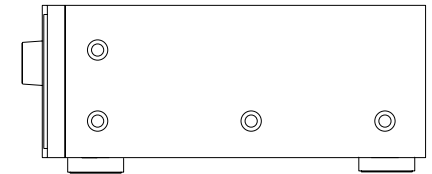
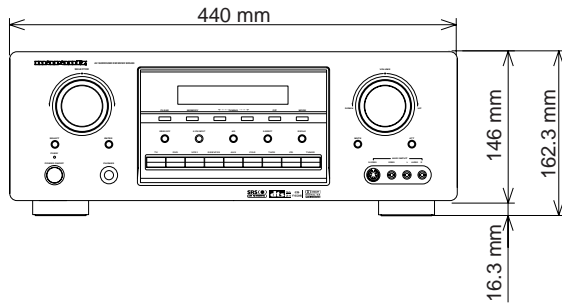
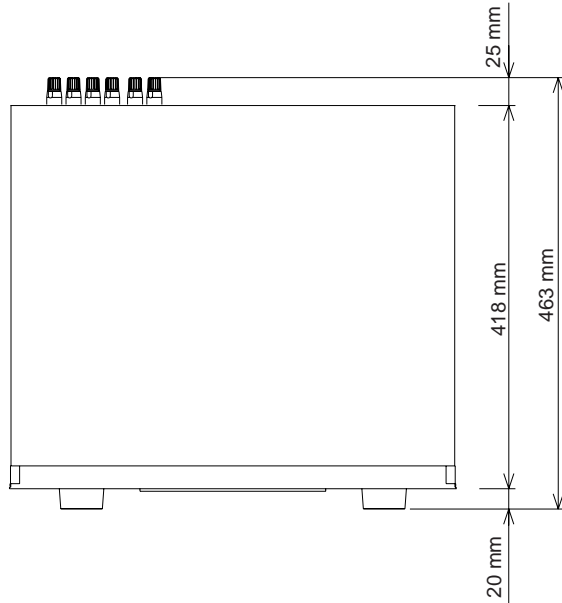
Power Requirement AC 230 V 50 Hz
 Power Consumption 400 W
 Weight 12.5 Kg

ACCESSORIES

Remote Control Unit RC5400SR 1
 AAA-size batteries 2
 FM Antenna 1
 AM Loop Antenna 1
 AC Power Code 1

Specifications subject to change without prior notice.

DIMENSIONS



SETUP CODES

CD

Aiwa	0151, 0184
Burmester	0447
California Audio Labs	0056, 0330
Carver	0184, 0206, 0326, 0464
DKK	0027
Denon	0030
Emerson	0332
Fisher	0201, 0206
Garrard	0420, 0447
Genexxa	0059, 0332
Harman/Kardon	0184, 0200
Hitachi	0059
JVC	0099
Kenwood	0055, 0064, 0217
Krell	0184
LXI	0332
Linn	0184
Luxman	0062, 0120, 0293, 0354, 0355, 0457, 0459, 0510, 0516
MCS	0056
MTC	0447
Magnavox	0184, 0332
Marantz	0056, 0184, 0207, 1207, 0999,
Mission	0184
NAD	0046, 0326, 0343, 0747, 0748
NSM	0184
Nakamichi	0106, 0174, 0466, 0471, 0691
Nikko	0201
Onkyo	0128
Optimus	0027, 0059, 0064, 0172, 0206, 0332, 0447, 0464, 0495
Panasonic	0056, 0330
Parasound	0447
Philips	0184
Pioneer	0059, 0271, 0332, 0495
Polk Audio	0184
Proton	0184
QED	0184
Quasar	0056
RCA	0059, 0080, 0206, 0332, 0495, 0791
Realistic	0206, 0207, 0447
Rotel	0184, 0447
SAE	0184
Sansui	0184, 0332
Sanyo	0206

Scott	0332
Sears	0332
Sharp	0064, 0207
Sherwood	0207
Sonic Frontiers	0184
Sony	0027, 0212
Soundesign	0172
Tascam	0447
Teac	0201, 0207, 0420, 0447
Technics	0056, 0330
Toshiba	0046, 0326
Victor	0099
Wards	0080, 0184
Yamaha	0063, 0214
Yorx	0488

MD PLAYERS

Denon	1900
Kenwood	1708, 1853
Marantz	1207
Onkyo	1895
Optimus	1090
Pioneer	1090
Sharp	1888
Sherwood	1094
Sony	1517
Yamaha	1915

CDR

Marantz	0999
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TAPE

Aiwa	0056, 0224
Carver	0056
Denon	0103
Garrard	0335, 0336
Harman/Kardon	0056, 0209
JVC	0271, 0300
Kenwood	0097
Magnavox	0056
Marantz	0056
NAD	0171
Onkyo	0162, 0309
Optimus	0054, 0247

Panasonic	0256
Philips	0056
Pioneer	0054, 0126, 0247
Polk Audio	0056
RCA	0054, 0247
Samsung	0418, 0419
Sansui	0056
Sony	0197, 0270, 0318
Teac	0307, 0335, 0336, 0418, 0419
Technics	0256
Victor	0300
Wards	0054
Yamaha	0121, 0124

SAT (DSS)

AlphaStar	0799
Echostar	0802, 1032
Expressvu	0802
General Instrument	0388, 0654, 0896
HTS	0802
Hitachi	0846
Hughes Network Systems	0776
JVC	0802
Jerrold	0388, 0654
Magnavox	0749, 0751
Memorex	0751
Next Level	0896
Panasonic	0728
Philips	0749, 0751, 1103
Primestar	0388, 0654
RCA	0170, 0419, 0593, 0882
Radio Shack	0896
Sony	0666
Star Choice	0896
Toshiba	0776, 0817
Uniden	0749, 0751
Zenith	0883

TV

AOC	0046, 0057
Admiral	0120, 0490
Aiko	0119
Akai	0057
Alaron	0206
Ambassador	0204
America Action	0207
Anam	0207

Audiovox	0119, 0207, 0478, 0650
Baysonic	0207
Belcor	0046
Bell & Howell	0043, 0181
Bradford	0207
Brockwood	0046
Broksonic	0263, 0490
CXC	0207
Candle	0057, 0083
Carnivale	0057
Carver	0081
Celebrity	0027
Cineral	0119, 0478
Citizen	0057, 0083, 0087, 0119
Concerto	0083
Contec	0207
Craig	0207
Crosley	0081
Crown	0207
Curtis Mathes	0043, 0057, 0074, 0078, 0081, 0083, 0087, 0120, 0172, 0181, 0193, 0478, 1174, 1374
Daewoo	0046, 0119, 0478, 0650, 0651
Daytron	0046
Denon	0172
Dumont	0044, 0046
Dwin	0747, 0801
Electroband	0027
Emerson	0046, 0181, 0204, 0205, 0206, 0207, 0263, 0490, 0650, 0651
Envision	0057
Fisher	0181
Fujitsu	0206, 0710
Funai	0206, 0207
Futuretech	0207
GE	0074, 0078, 0120, 0205, 0478, 1174, 1374
Gibraltar	0044, 0046, 0057
GoldStar	0046, 0057, 0083, 0205
Gradiente	0080, 0083
Grunpy	0206, 0207
Hallmark	0205
Harley Davidson	0206
Harman/Kardon	0081
Harvard	0207
Hitachi	0043, 0083, 0172
Infinity	0081
Inteq	0044
JBL	0081
JCB	0027

JVC	0080	Sampo	0057	Audiovox	0064	Magnin	0267
KEC	0207	Samsung	0046, 0057, 0083, 0087, 0205	Beaumarck	0267	Marantz	0062, 0108, 1408
KTV	0057, 0207	Sansei	0478	Bell & Howell	0131	Marta	0064
Kenwood	0046, 0057	Sansui	0490	Broksonic	0148, 0211, 0236, 0506	Matsushita	0062, 0189
LG	0083	Sanyo	0181	CCE	0099, 0305	Memorex	0027, 0062, 0064, 0066, 0074, 0075, 0131, 0189, 0236, 0267, 0506, 1064, 1189, 1289
LXI	0074, 0081, 0181, 0183, 0205	Scimitsu	0046	Calix	0064	Minolta	0069
Logik	0043	Scott	0205	Canon	0062	Mitsubishi	0070, 0075, 0094
Luxman	0083	Scotch	0046, 0205, 0206, 0207, 0263	Carver	0108	Motorola	0062, 0075
MGA	0046, 0057, 0177, 0205	Sears	0074, 0081, 0083, 0181, 0183, 0205, 0206	Cineral	0305	Multitech	0027, 0099
MTC	0046, 0057, 0083, 0087	Semivox	0207	Citizen	0064, 0305	NAD	0085
Magnavox	0057, 0081, 0206, 1281	Semp	0183	Colt	0099	NEC	0094, 0131
Majestic	0043	Sharp	0120, 0192, 0715	Craig	0064, 0074, 0099, 0267	Nikko	0064
Marantz	0057, 0081, 1581	Shogun	0046	Curtis Mathes	0062, 0087, 0189	Noblex	0267
Matsushita	0277	Signature	0043	Cybernex	0267	Olympus	0062
Megatron	0172, 0205	Sony	0027	Daewoo	0072, 0305	Optimus	0064, 0075, 0085, 0131, 0189, 0459, 1075, 1089, 1189, 1289
Memorex	0043, 0083, 0177, 0181, 0205, 0206, 0277, 0490	Soundesign	0205, 0206, 0207	Denon	0069	Orion	0211, 0236, 0506
Midland	0044, 0074, 0078	Starlite	0207	Dynatech	0027	Panasonic	0062, 0189, 0252, 0643, 1089, 1189, 1289
Mitsubishi	0046, 0120, 0177, 0205	Supreme	0027	Electrohome	0064	Penney	0062, 0064, 0069, 0267
Motorola	0120	Sylvania	0057, 0081	Electrohome	0064	Pentax	0069
Multitech	0207	TMK	0083, 0204, 0205	Emerex	0059	Philco	0062, 0236, 0506
NAD	0183, 0193, 0205	TMK	0083, 0204, 0205	Emerson	0027, 0064, 0070, 0148, 0211, 0236, 0305, 0506	Philips	0062, 0108, 0645, 1108, 1208
NEC	0046, 0057, 0083	TNCi	0044	Fisher	0074, 0131	Pilot	0064
NTC	0119	Tandy	0120	Fuji	0062	Pioneer	0085, 0094
Nikko	0057, 0119, 0205	Technics	0078, 0277	Funai	0027	Polk Audio	0108
Onwa	0207	Technol Ace	0206	GE	0062, 0075, 0087, 0267	Profitronic	0267
Optimus	0181, 0193, 0277	Techwood	0078, 0083	Garrard	0027	Proscan	0087
Optonica	0120, 0192	Teknika	0043, 0046, 0081, 0083, 0087, 0119, 0177, 0206, 0207	Go Video	0459	Protec	0099
Orion	0206, 0263, 0490	Telefunken	0083	GoldStar	0064	Pulsar	0066
Panasonic	0078, 0277	Toshiba	0087, 0181, 0183, 1283	Gradiente	0027	Quasar	0062, 0189, 1189
Penney	0046, 0057, 0074, 0078, 0083, 0087, 0183, 0205, 1374	Vector Research	0057	Hi-Q	0074	RCA	0062, 0069, 0075, 0085, 0087, 0267
Philco	0046, 0057, 0081, 0172, 0490	Victor	0080	Harley Davidson	0027	Radio Shack	0027, 1064
Philips	0081	Vidikron	0081	Harman/Kardon	0108	Radix	0064
Pilot	0046, 0057	Vidtech	0046, 0205	Harwood	0099	Randex	0064
Pioneer	0193, 0706	Wards	0043, 0046, 0057, 0081, 0083, 0192, 0205, 0206	Hitachi	0027, 0069	Realistic	0027, 0062, 0064, 0074, 0075, 0131
Portland	0046, 0119	White Westinghouse	0490, 0650, 0651	Hughes Network Systems	0069	ReplayTV	0641, 0643
Prism	0078	Yamaha	0046, 0057	JVC	0094	Runco	0066
Proscan	0074	Zenith	0043, 0044, 0119, 0490, 0651	KEC	0064, 0305	STS	0069
Proton	0205			KLH	0099	Samsung	0072, 0267
Pulsar	0044, 0046			Kenwood	0094	Sanky	0066, 0075
Quasar	0078, 0192, 0277			Kodak	0062, 0064	Sansui	0027, 0094, 0236, 0506
RCA	0046, 0074, 0078, 0117, 0120, 0706, 1074, 1174, 1274, 1374, 1474			LXI	0064	Sanyo	0074, 0131, 0267
Radio Shack	0046, 0057, 0074, 0083, 0181, 0192, 0205, 0207			Lloyd's	0027	Scott	0070, 0072, 0148, 0211
Realistic	0046, 0057, 0083, 0181, 0192, 0205, 0207			Logik	0099	Sears	0027, 0062, 0064, 0069, 0074, 0131
Runco	0044, 0057, 0630			MEI	0062	Semp	0072
SSS	0046, 0207			MGA	0070, 0267	Sharp	0075
				MGN Technology	0267	Shintom	0099
				MTC	0027, 0267		
				Magnasonic	0305		
				Magnavox	0027, 0062, 0066, 0108		

VCR

Admiral	0075, 0236
Adventura	0027
Aiko	0305
Aiwa	0027, 0064
America Action	0305
American High	0062
Asha	0267

Shogun	0267
Singer	0099
Sony	0027, 0059, 0062, 1059
Sylvania	0027, 0062, 0070, 0108
Symphonic	0027
TMK	0267
Teac	0027
Technics	0062, 0189
Teknika	0027, 0062, 0064
Thomas	0027
Tivo	0645
Toshiba	0070, 0072
Totevision	0064, 0267
Unitech	0267
Vector	0072
Video Concepts	0072
Videosonic	0267
Wards	0027, 0062, 0069, 0074, 0075, 0087, 0099, 0108, 0267
White Westinghouse	0099, 0236, 0305
XR-1000	0027, 0062, 0099
Zenith	0027, 0066, 0236, 0506

DVD

Aiwa	0668
Apex	0699
Denon	0517, 0661
Fisher	0697
GE	0549
Harman/Kardon	0609
Hitachi	0691
Hiteker	0699
JVC	0585, 0650
Kenwood	0561, 0709
Magnavox	0530, 0702
Marantz	0566
Mitsubishi	0548
Onkyo	0530, 0654
Optimus	0598
Oritron	0678
Panasonic	0517, 0659
Philips	0530, 0566
Pioneer	0552, 0598, 0659
Proscan	0549
RCA	0549, 0598
Samsung	0600
Sharp	0657
Sony	0560
Technics	0517
Theta Digital	0598
Toshiba	0530
Yamaha	0517, 0572
Zenith	0530, 0618

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