RSP-966

SURROUND SOUND PROCESSOR

Owner's Manual

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

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

APPLICABLE FOR USA, CANADA OR WHERE APPROVED FOR THE USAGE

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT. INSERT FULLY.

ATTENTION: POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU AU FOND.

This symbol is to alert the user to the presence of uninsulated dangerous voltages inside the product's enclosure that may constitute a risk of electric shock.

This symbol is to alert the user to important operating and maintenance (service) instructions in this manual and literature accompanying the product.

WARNING:
There are no user serviceable parts inside. Refer all servicing to qualified service personnel.

WARNING:
To reduce the risk of fire or electric shock, do not expose the unit to moisture or water. Do not allow foreign objects to get into the enclosure. If the unit is exposed to moisture, or a foreign object gets into the enclosure, immediately disconnect the power cord from the wall. Take the unit to a qualified service person for inspection and necessary repairs.

Read all the instructions before connecting or operating the component. Keep this manual so you can refer to these safety instructions.

Heed all warnings and safety information in these instructions and on the product itself. Follow all operating instructions.

Clean the enclosure only with a dry cloth or a vacuum cleaner.

You must allow 10 cm or 4 inches of unobstructed clearance around the unit. Do not place the unit on a bed, sofa, rug, or similar surface that could block the ventilation openings. If the unit is placed in a bookcase or cabinet, there must be ventilation of the cabinet to allow proper cooling.

Keep the component away from radiators, heat registers, stoves, or any other appliance that produces heat.

The unit must be connected to a power supply only of the type and voltage specified on the rear panel of the unit.

Connect the component to the power outlet only with the supplied power supply cable or an exact equivalent. Do not modify the supplied cable in any way. Do not attempt to defeat grounding and/or polarization provisions. The cable should be connected to a 2-pin polarized wall outlet, matching the wide blade of the plug to the wide slot of the receptacle. Do not use extension cords.

Do not route the power cord where it will be crushed, pinched, bent at severe angles, exposed to heat, or damaged in any way. Pay particular attention to the power cord at the plug and where it exits the back of the unit.

The power cord should be unplugged from the wall outlet if the unit is to be left unused for a long period of time.

Immediately stop using the component and have it inspected and/or serviced by a qualified service agency if:

• The power supply cord or plug has been damaged.
• Objects have fallen or liquid has been spilled into the unit.
• The unit has been exposed to rain.
• The unit shows signs of improper operation
• The unit has been dropped or damaged in any way

Place the unit on a fixed, level surface strong enough to support its weight. Do not place it on a moveable cart that could tip over.
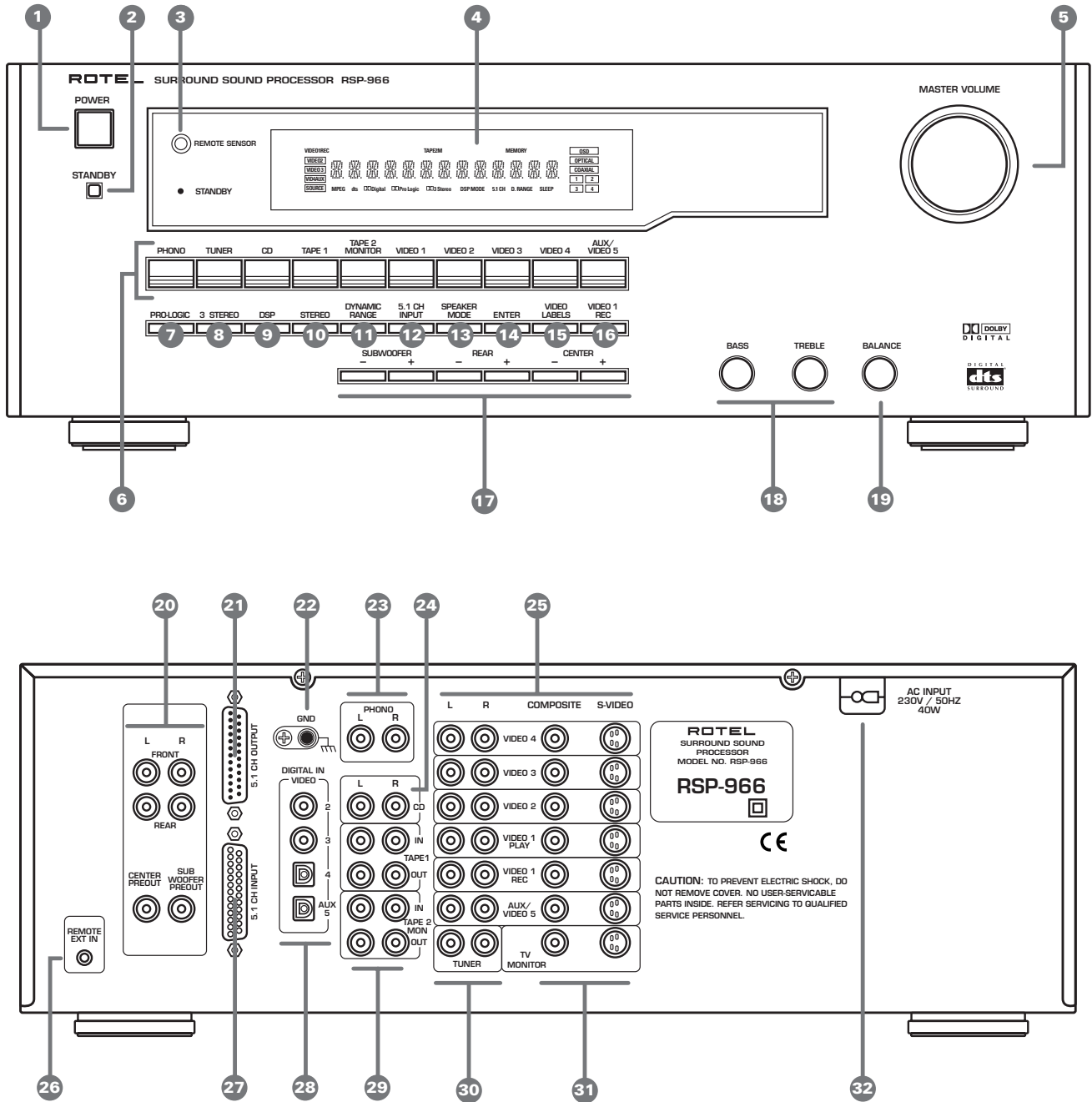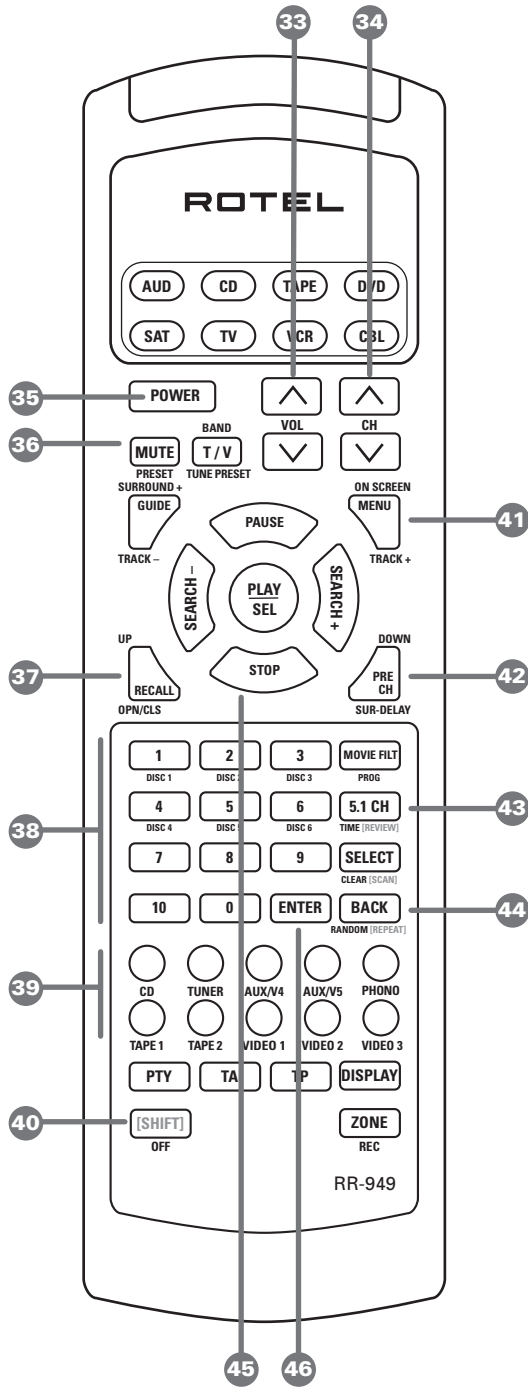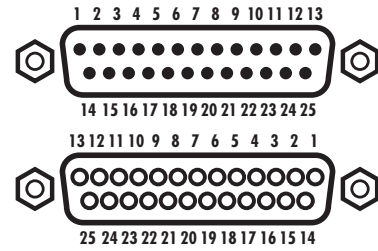
Figure 1: Controls and Connections

ROTEL   SURROUND SOUND PROCESSOR RSP-966

MASTER VOLUME

POWER

STANDBY

REMOTE SENSOR

STANDBY

VIDEO1REC
VIDEO2
VIDEO3
VID4AUX
SOURCE   MPEG   dts   Digital   Pro Logic   3 Stereo   DSP MODE   5.1 CH   D. RANGE   SLEEP

TAPE2M

MEMORY

OSD
OPTICAL
COAXIAL
1   2
3   4

PHONO   TUNER   CD   TAPE 1   TAPE 2 MONITOR   VIDEO 1   VIDEO 2   VIDEO 3   VIDEO 4   AUX/ VIDEO 5

PRO-LOGIC   3 STEREO   DSP   STEREO   DYNAMIC RANGE   5.1 CH INPUT   SPEAKER MODE   ENTER   VIDEO LABELS   VIDEO 1 REC

SUBWOOFER   −   +   REAR   −   +   CENTER   −   +

BASS   TREBLE   BALANCE

DOLBY DIGITAL

DIGITAL dts SURROUND

GND

PHONO
L   R

L   R   COMPOSITE   S-VIDEO

AC INPUT
230V / 50HZ
40W

L   R
FRONT

REAR

CENTER PREOUT   SUB WOOFER PREOUT

5.1 CH OUTPUT

DIGITAL IN
VIDEO
2
3
4
AUX 5

L   R
CD
IN
TAPE1
OUT
IN
TAPE 2
MON
OUT

VIDEO 4

VIDEO 3

VIDEO 2

VIDEO 1 PLAY

VIDEO 1 REC

AUX/ VIDEO 5

TUNER   TV MONITOR

ROTEL
SURROUND SOUND PROCESSOR
MODEL NO. RSP-966

RSP-966

C E

CAUTION: TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

REMOTE EXT IN

5.1 CH INPUT

Figure 2: Remote Control

Figure 3: DB25 Connector Pin Assignments

1 left front +   14 left front GND
2 center +   15 center GND
3 right front +   16 right front GND
4 subwoofer +   17 subwoofer GND
5 left surround +   18 left surround GND
6 rear surround +   19 right surround GND

NOTE: *See PROGRAMMING THE RR-949. Audio code for RSP-966 is code 001.*
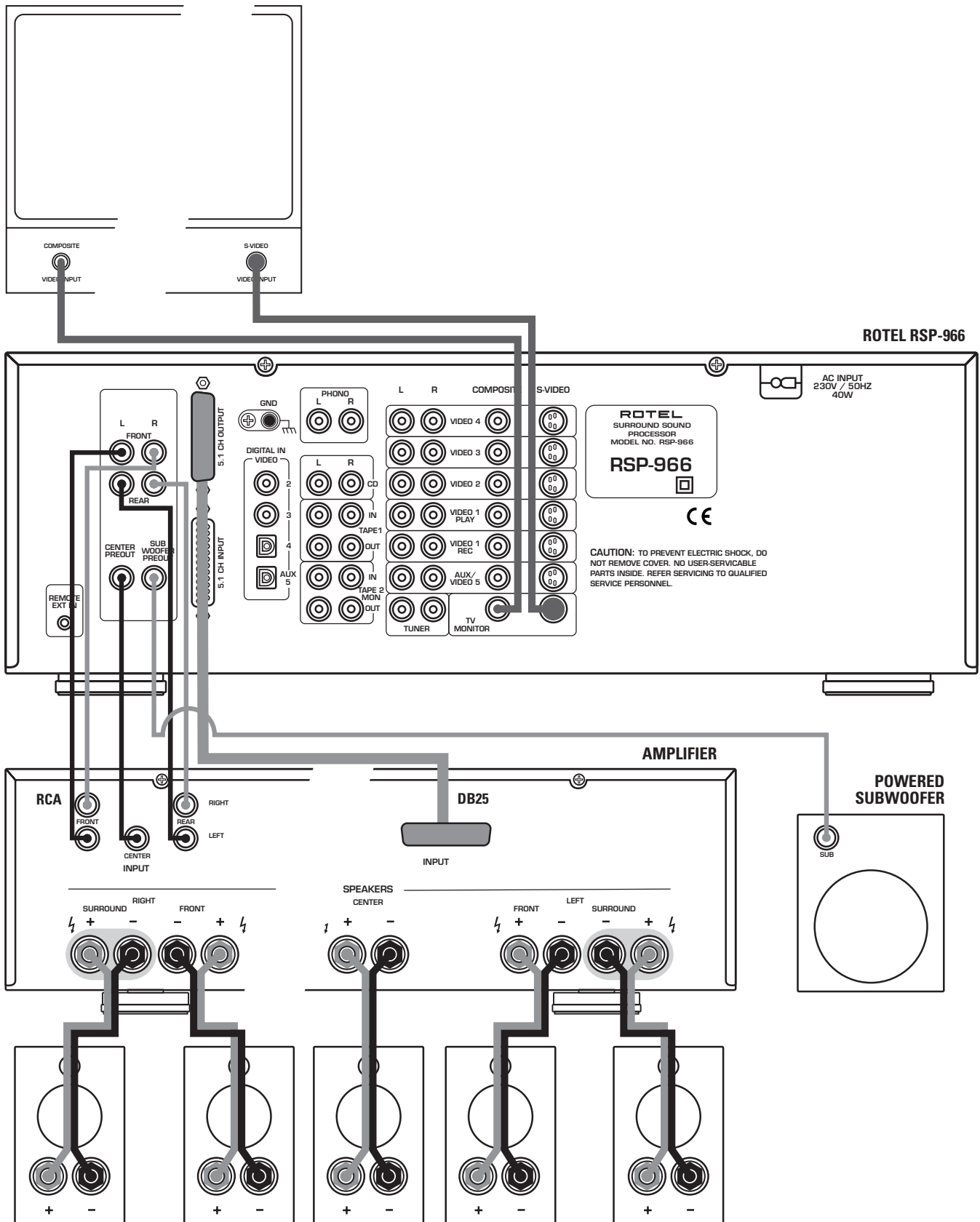
Figure 4: Output Connections
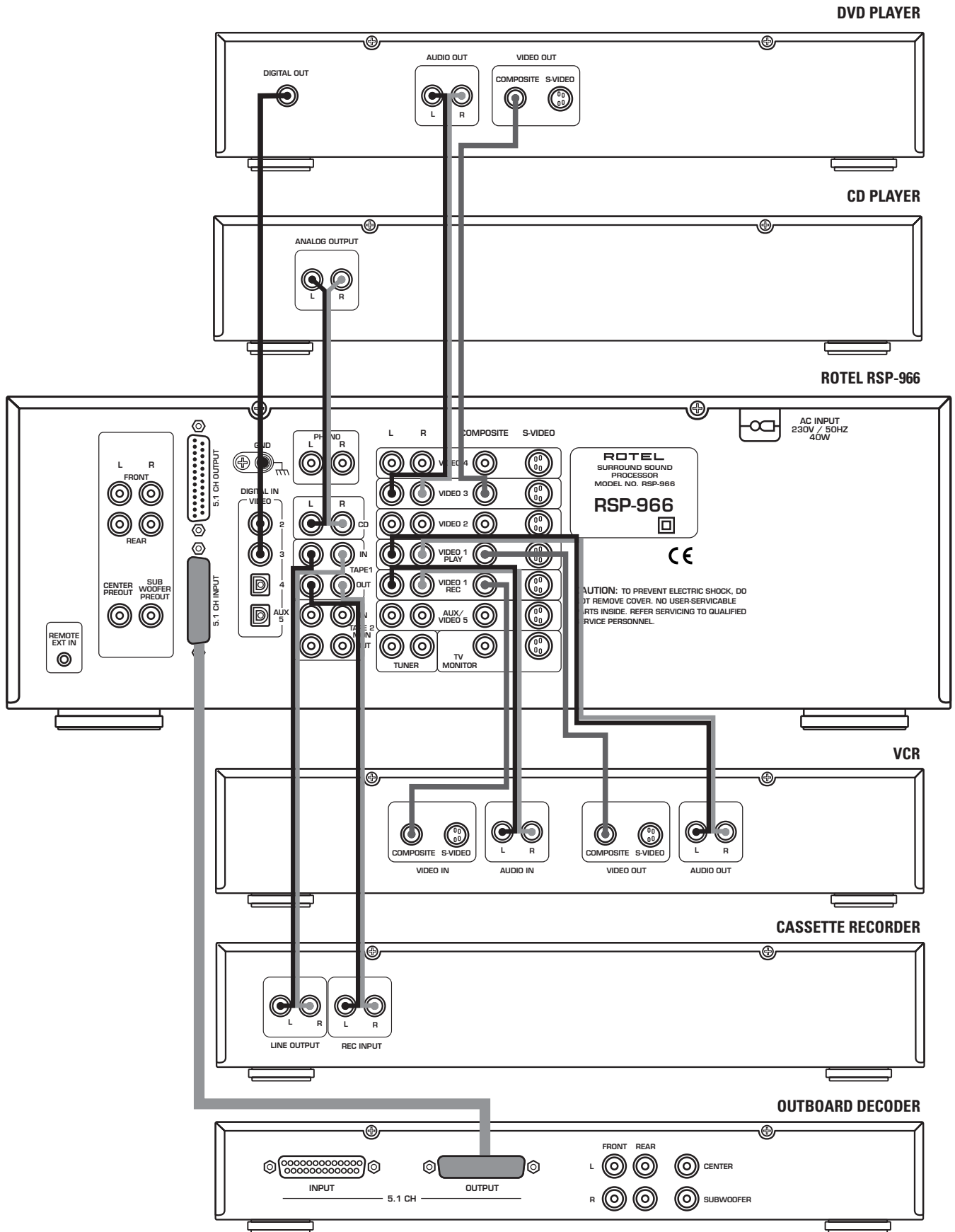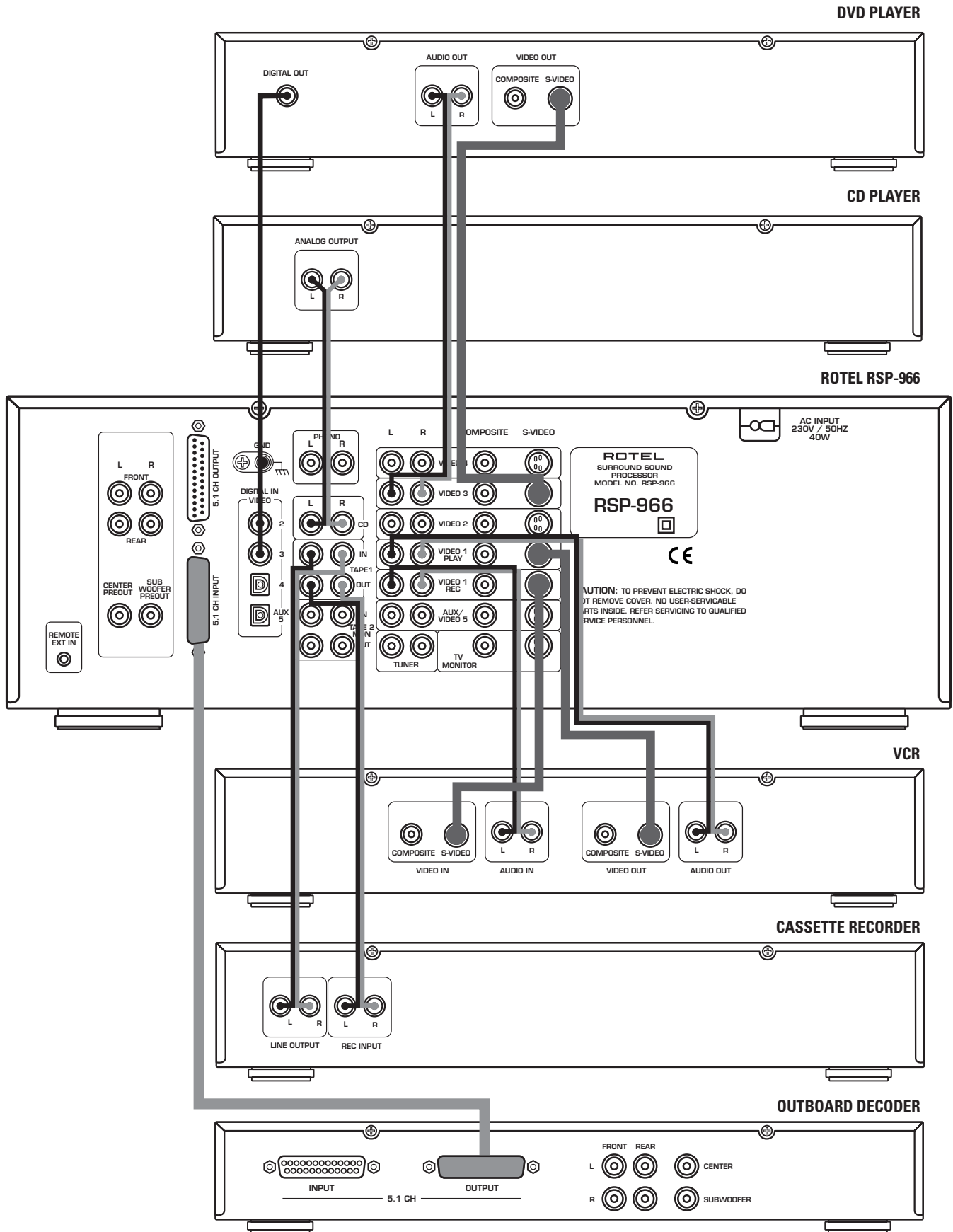
Figure 5: RCA Input Connections

DVD PLAYER

DIGITAL OUT

AUDIO OUT
VIDEO OUT

L R
COMPOSITE S-VIDEO

CD PLAYER

ANALOG OUTPUT

L R

ROTEL RSP-966

5.1 CH OUTPUT

L R
FRONT

REAR

CENTER PREOUT

SUB WOOFER PREOUT

REMOTE EXT IN

5.1 CH INPUT

GND

DIGITAL IN
VIDEO

2

3

4

5

AUX

PHONO
L R

L R
CD

IN
TAPE1
OUT

TAPE 2
IN
OUT

L R COMPOSITE S-VIDEO

VIDEO 4

VIDEO 3

VIDEO 2

VIDEO 1 PLAY

VIDEO 1 REC

AUX/ VIDEO 5

TUNER

TV MONITOR

ROTEL
SURROUND SOUND PROCESSOR
MODEL NO. RSP-966

RSP-966

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AC INPUT
230V / 50HZ
40W

CE

VCR

COMPOSITE S-VIDEO
VIDEO IN

L R
AUDIO IN

COMPOSITE S-VIDEO
VIDEO OUT

L R
AUDIO OUT

CASSETTE RECORDER

L R
LINE OUTPUT

L R
REC INPUT

OUTBOARD DECODER

INPUT

OUTPUT

5.1 CH

FRONT REAR
L

R

CENTER

SUBWOOFER

Figure 6: S-Video Input Connections

Figure 7: On-Screen Menus

```
        INPUT SELECTOR

        Video:  DVD
   ►    Audio:  TUNER
    Video REC:  DVD
    Audio REC:  TUNER
   5.1Ch Input: OFF
  Input Source: AUTO


 DOWN-selection  ENTER-change
 BACK-return    MENU-screen off
```

```
         SURROUND MODE

   Mode:  DOLBY PRO LOGIC

   Delay Time
        CENTER:  ____
   ►     REAR:   20ms
    BASS LEVEL:  +10dB


 DOWN-select ENTER/VOL-change
 BACK-return   MENU-screen off
```

```
          MAIN MENU

      Input Selector
   ►  Surround Mode
      Test Tone
      Tone/Balance
      Setup Menu


 DOWN-selection  ENTER-change
 BACK-return   MENU-screen off
```

```
           TEST TONE

      Front - L
      Center      0dB
      Front - R
      Rear - R    0dB
   ►  Rear - L   -5dB
      Subwoofer   0dB

 DOWN-selection  VOLUME-change
 BACK-return   MENU-screen off
```

```
         TONE / BALANCE

      Bass : +10dB
   ► Treble : +10dB

    Balance : L 10



 DOWN-selection  VOLUME-change
 BACK-return   MENU-screen off
```

```
          SETUP MENU

        Front:  LARGE
   ►     Rear:  SMALL
       Center:  LARGE
    Subwoofer:  YES
 Dynamic Range: MAX

  Menu Display:  SCREEN

 DOWN-selection  ENTER-change
 BACK-return   MENU-screen off
```

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Contents

About Rotel

A family whose passionate interest in music led them to manufacture high fidelity components of uncompromising quality founded Rotel over 30 years ago. Through the years that passion has remained undiminished and the family goal of providing exceptional value for audiophiles and music lovers regardless of their budget, is shared by all Rotel employees.

The engineers work as a close team, listening to, and fine tuning each new product until it reaches their exacting musical standards. They are free to choose components from around the world in order to make that product the best they can. You are likely to find capacitors from the United Kingdom and Germany, semi conductors from Japan or the United States, while toroidal power transformers are manufactured in Rotel's own factory.

Rotel's reputation for excellence has been earned through hundreds of good reviews and awards from the most respected reviewers in the industry, who listen to music every day. Their comments keep the company true to its goal - the pursuit of equipment that is musical, reliable and affordable.

All of us at Rotel, thank you for buying this product and hope it will bring you many hours of enjoyment.

Getting Started

Thank you for purchasing the Rotel RSP-966 Surround Sound Processor. The RSP-966 combines a digital audio/video processor to decode Dolby® Pro Logic® analog and Dolby Digital® and DTS® digital surround sound signals with a full-featured audio/video control center for analog and digital components.

RSP-966 Key Features

- *Rotel's Balanced Design Concept combines advanced circuit board layout, comprehensive parts evaluation, and extensive listening tests for superior sound and long term reliability.*

- *Dolby® Pro Logic® decoding for analog sources. Dolby Digital® and DTS® decoding for 5.1 channel digital sources*

- *5.1 channel input for outboard adaptor and future upgradeabilty*

- *User friendly ON-SCREEN DISPLAY with programmable labels for video components.*

- *Comprehensive digital and analog input and output connections for audio and video sources, including digital inputs, composite video inputs and S-Video inputs*

- *User friendly ON-SCREEN DISPLAY with programmable labels for video components.*

- *Programmable remote control to operate the RSP-966 and up to seven other components.*

Unpacking

Remove the unit carefully from its packing. Look for the handheld remote control and other accessories. Save the packing and box as it will protect the RSP-966 if you move or need to return it for maintenance.

Placement

Place the RSP-966 on a solid, dry, level surface away from direct sunlight, excessive heat, high humidity, or strong vibrations.

Make sure the RSP-966 is close to the other components in your audio/video system and, if possible, place it on its own shelf. This will make initial cable routing, hookup, and any subsequent system changes easier. It also minimizes potential interference or heat buildup from other components.

The RSP-966 can generate heat during normal operation. Do not block ventilation openings. Allow a minimum of 10 cm (4 inches) of unobstructed open space around the unit. If installed in a cabinet, make sure that there is adequate ventilation.

Make sure there is enough room behind the RSP-966 for easy hookup. Remember, you are connecting many other components to this unit and you'll probably need more space than you think.

Don't stack other objects (components or other items) on top of the RSP-966. Don't let water fall into the RSP-966 as this could damage delicate circuitry.

Front Panel: Basic Controls

We suggest you look over the RSP-966's front and rear panels before you start connecting other components to it. The following explanations will help you get familiar with the units connections, features, and controls, with number references corresponding to the illustrations at the front of this manual.

Most functions are duplicated on the front panel and on the handheld remote control shipped with your unit. A few may be available only on one or the other. When two numbers appear, one refers to the location of the button on the front panel, the other to the location of the button on the handheld remote control.

Power Switch ❶ and Standby Switch ❷ ㉟

The RSP-966 has two pushbuttons for powering on and off. The POWER switch completely shuts down all of the circuitry, similar in effect to removing the power cord from the AC outlet. The STANDBY switch deactivates the unit, but preserves power to some circuits such as those that store memorized circuits. When in STANDBY mode, a front panel STANDBY LED indicator lights. The STANDBY Switch is duplicated on the RSP-966's remote.

In normal operation, use the STANDBY switch to deactivate the unit when you are finished listening and leave the POWER switch ON at all times. This will preserve memory functions.

Remote Sensor ③

This sensor receives infrared signals from the handheld remote control. Make sure you do not accidentally block this sensor with cables or accessories.

Front Panel Display ④

The large fluorescent display in the upper portion of the RSP-966 provides status information used in operating the unit.

Master Volume Control ⑤ ㉝

The MASTER VOLUME control adjusts the level of all output channels simultaneously. Rotate the control clockwise to increase the volume. Rotate counterclockwise to decrease the volume. MASTER VOLUME buttons are also available on the RSP-966's handheld remote control.

When you adjust the volume, a digital readout will appear in the RSP-966 front panel display and an indication of the new setting will appear on your TV monitor.

Tone Controls ⑱

BASS and TREBLE controls increase and decrease the audio signal's low and high frequency content respectively. Rotate clockwise to increase output in the respective frequency range and counterclockwise to reduce it. The center detent removes each control from the audio path for maximum signal integrity. The front panel display and an ON-SCREEN DISPLAY will show tone control settings as you adjust them.

Balance Control ⑲

Turn the BALANCE control clockwise to increase the output level of the right channel speakers. Turn counterclockwise to increase the output level of the left channel speakers. The center detent position removes the control from the circuit and provides equal output from both left and right channels.

SUBWOOFER/REAR/CENTER +/– Buttons ⑰

These three pairs of buttons are used to adjust the output level of the subwoofer channel, the rear surround speakers, and the center channel speaker.

To change the output volume of the subwoofer , press the SUBWOOFER + or – buttons. To change the output volume of the rear surround channels press the REAR + or – buttons. To adjust the output of the center channel, press the CENTER + or – button.

Note: The same adjustments can also be made using the ON-SCREEN MENU system and test tones during system setup.

ENTER Button ⑭

The ENTER button is used to confirm and memorize various settings in the setup and operation of the RSP-966. Its use is described in detail in the relevant sections below.

Front Panel: Input Selection/ Recording Controls

Input Source Buttons ⑥ ㊴

Ten large front panel buttons directly select an audio or video input source (such as a CD player, a tuner, a tape recorder, video sources, etc.) for listening. Push any of these buttons (or the duplicates on the handheld remote) to select the desired source. You will hear this source and, if you have selected a video source, see its picture on your TV monitor.

Both the front panel display and the ON-SCREEN DISPLAY will show the current source selection. These labels can be customized to match your components (see the VIDEO LABELS button below).

Note: Four video inputs accept analog audio/video signals and digital signals including Dolby Digital and DTS surround material. If a digital signal is present when the source is selected, the digital input is automatically activated and the proper surround choice enabled – unless the automatic sensing has been overridden for that input in the setup procedure described in the section on System Configuration. If no digital signal is present or if the auto sensing has been disabled, the analog inputs are selected.

TAPE MONITOR INPUTS: Two of the INPUT SOURCE buttons have a special function. The TAPE 1 and TAPE 2 MONITOR buttons activate the analog inputs of a tape monitor loop consisting of a pair of outputs and a matching set of inputs. Traditionally, this tape monitor loop has been used to play a tape deck connected to these inputs or for real time monitoring of a recording in progress on an audio tape deck. Alternatively, the tape monitor loop could be used to pass a signal to a graphic equalizer and listen to the processed signal by pressing the corresponding TAPE MONITOR button. An indicator appears in the front panel display when TAPE 2 MONITOR is activated.

5.1 CH Input ⑫ ㊷

This button overrides all other inputs (both analog and digital) and directly connects an external digital adaptor to the RSP-966's MASTER VOLUME control and outputs. This allows the RSP-966 to remain the central controller for even the most advanced audio/ video systems and provides an upgrade path to future software standards. When activated, the RSP-966's inboard digital processing is bypassed. An indicator appears in the front panel display and the ON-SCREEN DISPLAY when the 5.1 CH input is activated.

The 5.1 CH button is duplicated on the handheld remote control.

VIDEO 1 REC Button ⑯

The RSP-966 permits recording from any source connected to the VIDEO 2 through 5 inputs to a VCR connected to the VIDEO 1 outputs while allowing simultaneous listening to another input source. To select a VIDEO INPUT SOURCE for recording, press the VIDEO 1 REC button. Each time you press the button, one of the VIDEO INPUT sources will be shown in the front panel display and

selected for recording. For example, the first time you press the button, VIDEO 2 will be displayed as the recording source, a second press of the button will display VIDEO 3, and so on until you have cycled through VIDEO 4 and AUX/VIDEO 5 as well. Stop when you reach the input you wish to record from and its signal will be available to record on a VCR connected to the VIDEO 1 outputs. Remember, this selection is independent of the listening source. While recording, you may still select an audio source (for example, the CD or the TUNER input) for listening.

Note: The RECORD function requires analog signals. Thus, if you are using a digital connection from a CD player or DVD for listening, you should also connect an analog signal for recording. See the section on Rear Panel Input Connections.

Front Panel: Surround Sound Controls

The RSP-966 is equipped to properly decode Dolby® Pro Logic®, Dolby Digital®, and DTS® surround sound source material as well as synthesizing several different ambience simulations for musical source material.

Dolby Digital and DTS activation are fully automatic (unless the auto sensing is disabled during system setup). When a digital signal encoded with either of these surround signals is detected, the RSP-966 automatically activates the proper decoding. In most cases, the RSP-966 will also recognize a digital signal encoded with Dolby Pro Logic for automatic processing.

Additionally, five small buttons allow manual control of the surround sound/ambience settings as described below. Keep in mind that **there are no right or wrong settings**. Just because a mode is labelled STEREO does not mean that you must use this mode every time you play a stereo CD or listen to a stereo FM broadcast. To the contrary, many people find that they prefer one of the other surround modes. We have provided a note with each surround mode description suggesting when the setting may be appropriate along with alternative settings.

As a general rule, we recommend using PRO LOGIC mode for all sources labeled Dolby Pro Logic. Beyond that, use whatever settings sound best to **you** in **your** room with **your** system.

Note: Some users understandably find the choice of surround modes overwhelming, particularly until they have had a chance to live with the system and experiment for a while. Others simply prefer "set it and leave it" convenience. In both cases, we recommend PRO LOGIC mode as a satisfactory choice for virtually any source material.

PRO LOGIC Button ❼

Provides proper playback decoding and processing for any Dolby Pro Logic encoded surround sound material, whether it be a music CD, videotape, videodisc, conventional stereo TV broadcast, or radio broadcast. It also can be used successfully to create additional ambience in 2-channel musical source material. Front, center, and rear speakers are activated and an indicator lights in the front panel display when the PRO LOGIC button is pressed.

*Note: Many users will find that leaving the RSP-966 in the PRO LOGIC mode offers the most satisfactory performance and convenience for **all** source materials. It provides automatic decoding of analog surround sound material. It allows automatic selection (unless overridden) of digital processing when a Dolby Digital or DTS source is played. It also provides very satisfying surround-sound ambience with musical sources.*

3 STEREO Button ❽

Provides the proper playback of Dolby Pro Logic source material on systems that have front and center speakers, but lack rear surround speakers. Adds the rear channel signals to the front speakers for a larger, more ambient sound than conventional stereo. An indicator lights in the front panel display to show that this mode has been activated.

DSP Button ❾

This button activates digital synthesis of four different ambience modes (MUSIC 1: THEATER, MUSIC 2: HALL, MUSIC 3: STADIUM, and MUSIC 4: CHURCH) which simulate different acoustic environments and are primarily used to recreate ambience when listening to music sources and/or other sources that lack surround sound encoding.

These four modes vary in the length and type of delay used for the rear surround channel signals. Experiment to find a setting which is most pleasing for a particular recording or broadcast. Press the button to activate the DSP mode. Each subsequent press of the button will step forward to the next mode in the following order: **MUSIC 1 > MUSIC 2 > MUSIC 3 > MUSIC 4**. An indicator lights in the front panel display when DSP mode has been activated.

Note: As a general rule, the DSP modes provide more exaggerated ambience effects than playing the same recording in PRO LOGIC mode, which provides a subtle ambience synthesis on musical recordings. You may prefer PRO LOGIC as your "everyday" setting, experimenting with the more spectacular DSP modes for particular recordings or effects.

STEREO Button ⑩

Activates conventional 2-speaker stereo direct bypass mode with no surround sound or other processing. This is "pure" stereo, using the front left and front right speakers only, with no surround channels and no center channel.

When used with Dolby Digital or DTS source material, the STEREO button engages a "downmix" feature which combines all of the available channels and sends them to the front speakers only. The spatial effects of surround sound are lost, but all of the information on the original recording will be heard in 2-channel stereo.

Note 1: We provide the STEREO mode as an alternative for those who want to hear the recording in its original two-channel form, as if it were being played over a conventional 2-speaker stereo system. Conversely, many listeners find that they prefer the additional ambience from multi-speaker surround sound processing of 2-channel music recordings. We suggest PRO LOGIC mode for subtle ambience synthesis or the DSP modes for more spectacular effects. Use the setting that sounds best to you.

DYNAMIC RANGE Button ⑪ ㊹

Today's digital sources are capable of extremely high dynamic range (the difference between the softest and loudest sounds). In some cases, the available dynamic range may tax amplifiers and/or speakers. In other cases, it may be desirable to reduce the dynamic range, for example, when listening at low volume levels. Pressing the DYNAMIC RANGE button steps through the three available dynamic range settings:

- **OFF (no compression/full dynamic range)**
- **MID (moderate compression)**
- **MIN (maximum compression/minimum dynamic range).**

An indicator lights on the front panel display to show the current selection.

Note: The DYNAMIC RANGE feature is only available in Dolby Digital. It is inactive at all other times.

Front Panel: Configuration Controls

VIDEO LABELS Button ⑮

You may customize the labels of the VIDEO INPUT SOURCE buttons so that the names of your particular components are displayed in the front panel display and the ON-SCREEN DISPLAY when selected. For example, you could choose to have DVD displayed in place of VIDEO 2. Labels may be up to 9 characters long. Inputs that can be relabelled are VIDEO 1, VIDEO 2, VIDEO 3, VIDEO 4, and AUX/VIDEO 5. To relabel the video inputs:

1. Select the VIDEO INPUT you wish to relabel.

2. Press and hold the VIDEO LABELS button for 3 seconds. The 9 segments of the front panel display turn to bars, each representing one available character. The first bar blinks.

3. Press the CH UP/DOWN buttons on the remote control repeatedly to step back or forward through the available characters until you find the first letter or character in the desired name. Available characters include the 26 letters of the alphabet, the numbers 0 – 9, and nine special characters. When the desired character is displayed, press the ENTER button to move to the next character in the display. The next segment in the display will blink.

4. Repeat step 3 above until you have entered all nine characters in the desired video label, including "blanks" for unused characters. As soon as you press the ENTER button following the ninth character, the new label will be stored.

SPEAKER MODE Button ⑬

Home theater speaker systems vary considerably in their size and performance, particularly in their bass output. For this reason, today's surround sound processors feature elaborate logic which can send thunderous bass information from movie soundtracks to the speaker(s) best able to handle it – subwoofers and/or large speakers. For optimum surround sound performance, it is necessary to tell the RSP-966 what speakers your system includes and what type they are.

The following configuration instructions refer to LARGE and SMALL speakers. The size refers more to the bass performance of the speaker than its physical size. A full-range speaker that has extended bass response is considered LARGE. A compact minispeaker with limited bass response or power handling is considered SMALL.

While understanding the terms LARGE and SMALL is useful, it is probably more important to understand what these different speaker types mean in terms of *system* performance. This will help determine how you should configure your system. **As a general rule, the system will redirect bass information away from SMALL speakers and send it to the LARGE speakers and/or the SUBWOOFER in your system.**

Things become a little more complex in systems with a subwoofer. **For example, the system will generally not redirect bass information away from a LARGE speaker to the subwoofer.** Thus, the decision you often need to make when faced with a choice of LARGE or SMALL is whether you want the particular speaker to play the deep bass or whether you would prefer that the deep bass be sent to the subwoofer. If you have invested in a subwoofer for your system, you might decide to send all of the bass to it, regardless of how capable the other speakers in the system may be. In this case, you would tell the RSP-966 that all of your speakers are SMALL, without regard to how big they may actually be.

An alternative configuration for setting up front SMALL speakers with a subwoofer would be to follow the speaker manufacturer's instructions, wiring the SMALL speakers to the subwoofer's crossover and then connecting the subwoofer directly to the front speaker connection terminals. In this arrangement, the speakers would be classified as LARGE and the subwoofer setting would be OFF for all surround modes. No information will be lost during playback because the system knows to redirect the bass information to the front LARGE speakers. This configuration may be optimal for many users as it can improve the way the bass integrates into the listening room and ensure correct satellite speaker operation by using the speaker manufacturer's own crossovers.

The following speaker options are available:

FRONT SPEAKERS (small/large): This menu setting determines what kind of main front left and right speakers you are using. Use the LARGE setting if your main left and right speakers are full range designs with good bass response capability. If you are using minispeakers, use the SMALL setting.

CENTER SPEAKER (small/large/none): Use the LARGE position (not available with SMALL front speakers) if your system's center channel speaker is capable of full-range, extended bass response. Use the SMALL position if your center channel speaker has more limited low frequency capability, or if you prefer that the bass be sent to the subwoofer. Select the NONE setting if your system does not have a center channel speaker.

REAR SPEAKERS (small/large/none): If your rear surround speakers are capable of sustained low frequency output, select the LARGE setting (not available with SMALL front speakers). If your rear speakers have limited bass capability or if you would prefer that the bass go to a subwoofer, use the SMALL setting. If your system has no rear surround speakers, select the NONE setting (surround information will be added to the front speakers).

SUBWOOFER (yes/no): Use the YES setting if your system has a subwoofer. If your system does not have a subwoofer, select NO.

Note 1: Speaker configuration need only be done one time. The configuration will apply to all surround modes.

*Note 2: The available options during the configuration procedure may vary depending on the current surround mode setting. For this reason, **select one of the surround modes, either Dolby Pro Logic or Dolby Digital, before setting the speaker configuration.***

Note 3: Dolby Digital and DTS modes are automatically activated based on software codes; there is no manual mode setting. Therefore, to use one of these modes for configuring the speaker settings, play a Dolby Digital or DTS digital recording to activate these modes and then press the SPEAKER MODE button to configure the speakers.

There are two ways to configure your speaker system. One is the ON-SCREEN MENU system (described later in this manual). The other method uses the front panel SPEAKER MODE button:

1. Select the Dolby Pro Logic surround mode with the front panel buttons or by playing a Dolby Digital or DTS digital source.

2. Press and hold the SPEAKER MODE button for at least 2 seconds to activate the FRONT speaker configuration. An indicator will appear in the front panel display.

3. Quickly press the SPEAKER MODE button in succession to toggle through the available options for the FRONT speakers (large/small). The selection will appear on front panel display.

4. When the correct size configuration for your FRONT speakers appears, press the ENTER button to store the setting. This will automatically take you to the configuration options for the next type of speaker, for example, the CENTER speaker.

5. Repeat steps 3 and 4, pressing the SPEAKER MODE button quickly in succession until you reach the desired setting and then confirm the selection by pressing the ENTER button. Continue until you have set the proper configuration for all speakers.

Once complete, you can check the current settings at any time by briefly pushing the SPEAKER MODE button repeatedly to toggle through the various speaker settings.

RR-949 Remote Control

The RSP-966 includes a handheld remote control that does far more than operate the RSP-966. The RR-949 is a full-function programmable remote control that can operate up to 8 audio/video components.

A separate manual, included with the remote, gives detailed information on programming and using the RR-949 to replace all of the remote controls in your system. This section is intended to provide only that information which pertains to the use of the RR-949 to operate the RSP-966.

Note: Many functions duplicate the RSP-966 front panel controls and are listed here only for your reference. Please refer to the previous Front Panel Controls section of this manual if you need additional information.

To operate the RSP-966 with the remote, make sure that the AUDIO mode is active by pressing the AUD button on the remote before you start. If it is active, pressing command keys on the RR-949 will cause the AUDIO button to flash red. Once the AUDIO mode is active, it will stay active unless you press one of the other DEVICE buttons to control a different component.

Programming the RR-949

The RR-949 is preprogrammed from the factory to operate the RSP-966. Should the AUDIO command set on your RR-949 not operate the RSP-966, it's possible that the programming has been inadvertently changed. **To program the remote to operate the RSP-966 (AUDIO Code = 001):**

1. Press the AUDIO button at the top of the remote while simultaneously pressing the MUTE button and hold both for at least one second. The AUDIO button will light in red for 20 seconds, indicating that you have entered the program mode. The next step must be done within this 20 second period, or the RR-949 will revert to its standard operating mode.

2. Use the NUMERIC buttons to enter the 3-digit code (001) for the RSP-966 – press 0, then 0, then 1. The AUDIO button will flash each time you enter a digit.

3. Store the code number by pressing the corresponding AUDIO button again. The button will blink twice to confirm the storage of the code in memory.

POWER Button 35

Duplicates the function of the STANDBY switch on the front panel. Press to activate the RSP-966. Press again to deactivate. The main POWER button on the front panel must be in the ON position for the remote standby function to operate.

VOLUME Buttons 33

A pair of buttons which duplicate the function of the front panel volume control. Press VOLUME UP to increase the volume and press VOLUME DOWN to decrease the volume.

MUTE Button 36

Push this button once to turn the sound off. A mute indication will appear in the front panel and on-screen displays. Press the MUTE button again to restore previous volume levels.

CH Buttons 34

A pair of buttons, labeled CH UP/DOWN, which are only used with the RSP-966 in changing characters in the DISPLAY when programming VIDEO LABELS. See VIDEO LABELS button for detailed information.

INPUT SOURCE Buttons 39

Two rows of buttons duplicate the function of the ten INPUT SOURCE buttons on the front panel. Select an input source by pressing the appropriate button. The AUX 1 and AUX 2 buttons correspond to the front panel VIDEO 4 and VIDEO 5 buttons.

5.1 Button 42

Duplicates the 5.1 CH button on the front panel. Selects the 5.1 Channel input, overriding any other source selection.

NUMERIC Buttons 38

Ten numeric buttons, labeled 0 through 9, are used to program the correct operating code for the RSP-966. See the previous section Programming the RR-949 for additional information.

STOP Button 44

Duplicates the DYNAMIC RANGE button on the front panel. Selects from three available dynamic range settings.

MENU button 40

Push this button to turn on the ON-SCREEN MENU system. If the menu system is already visible, push this button to cancel the Display.

Note: The RSP-966 ON-SCREEN DISPLAY will automatically be turned off following 20 seconds without any control activity.

Rear Panel Connections: Overview

The RSP-966 provides rear panel connections for video sources, audio sources, and a phono input for use with a turntable. These connections include standard RCA audio inputs and outputs, composite video inputs and outputs, S-Video inputs and outputs, plus digital inputs (coaxial/RCA jack and optical).

The RSP-966 includes a full complement of RCA preamp outputs for use with external amplifiers. In addition, a pair of video output (composite and S-Video) connect the unit to your TV monitor.

The RSP-966 also includes 25-pin 5.1 channel input and output connections and a remote IR sensor connection.

Note: DO NOT plug any system component into an AC source until system hookup is complete and you are confident that all component-to-component connections have been properly made.

All video cables should have a 75 ohm impedance rating. Although conventional audio interconnects will pass a video signal, their construction and limited bandwidth impose a performance penalty because, in part, they do not adhere to the 75 ohm standard. The S/PDIF digital audio interface standard specifies a 75 ohm transmission line and all good digital cables adhere to this requirement. Because the video and S/PDIF standards are so close, you can use a video cable for digital audio data transmission. We strongly advise that you NOT substitute a conventional analog audio interconnect cable for either digital or video.

When making signal connections, make sure that you always preserve proper channel consistency, i.e. connect LEFT channels to LEFT channel jacks and RIGHT channels to RIGHT channel jacks. All RCA-type connections on the RSP-966 follow these standard color codes:

Left channel audio	=	*RCA jack with white inset*
Right channel audio	=	*RCA jack with red inset*
Composite video	=	*RCA jack with yellow inset*

Rear Panel: Audio Source Connections

Connect your audio-only source components to these RCA inputs and outputs:

Phono Inputs ㉓ and Phono Ground ㉒

Connect the left and right output cables of a turntable to this pair of RCA inputs. Connect the ground wire from your turntable to the phono ground lug, labeled GND.

CD Inputs ㉔

Connect the left and right analog outputs from a CD player to the RCA input jacks labeled CD.

TUNER Inputs ㉚

Connect the left and right analog outputs from a tuner to the RCA input jacks labeled TUNER.

Tape Inputs and Outputs ㉙

The RSP-966 provides two sets of audio tape deck connections labeled TAPE 1 and TAPE 2. Each set has a pair of inputs and a pair of record outputs that allow you to record on either tape deck.

Connect the left and right analog outputs from an audio tape deck to the TAPE 1 IN input jacks. Connect the TAPE 1 OUT output jacks to the INPUTS on the audio tape deck.

Connect a second tape deck to the TAPE 2 connections – the outputs of the tape deck to the IN jacks on the RSP-966 and the OUT jacks on the RSP-966 to the inputs on the second tape deck.

Rear Panel: Video Source Connections

There are groups of connections for up to five video source components. Each group includes a pair of RCA analog audio inputs, a composite video input, and an alternative S-Video input. One group, VIDEO 1, also includes a set of record outputs (in the same formats) for sending audio and video signals to a VCR.

VIDEO 1 Inputs/Outputs ㉕

Connect your VCR to the VIDEO 1 group of inputs and outputs. This set of connections allows recording.

Connect the analog audio **outputs** of the VCR to the VIDEO 1 PLAY left and right RCA audio jacks. Connect the VIDEO 1 REC left and right RCA audio output jacks to the analog audio line **inputs** on the VCR.

If you have decided to use composite video connections in your system, connect the RCA composite video **output** of the VCR to the RCA composite video **input** labeled VIDEO 1 PLAY. If you prefer to use S-Video connections, connect the S-Video **output** of the VCR to the VIDEO 1 PLAY S-Video **input**.

Hookup the VIDEO 1 REC video output (either RCA composite or S-Video) to the video line recording input on your VCR.

VIDEO 2 – 5 Inputs ㉕

These four sets of audio/video inputs allow connection of four additional video components such as a play-only VCR, DVD player, LaserDisc player, or satellite TV receiver.

Connect the RCA analog audio outputs of the first video component to the left and right RCA analog audio inputs labeled VIDEO 2. Then, connect either the RCA composite video or S-Video output of the video source to the corresponding RCA composite or S-Video connection labeled VIDEO 2.

Repeat for additional video components, using VIDEO 3, VIDEO 4, and AUX/VIDEO 5.

Note: Any of the video source inputs may also be used for an audio-only source. Simply omit the video connection.

Digital Inputs ㉘

The RSP-966 features a complete D/A conversion capability which accepts digital input signals from source components such as CD players, satellite TV receivers, and 5.1 channel Dolby Digital or DTS signals from DVD and Laser Disc players. The D/A automatically senses and adjusts to the correct sampling rates.

These digital inputs are available for VIDEO 2 (coaxial), VIDEO 3 (coaxial), VIDEO 4 (optical), and AUX/VIDEO 5 (optical).

To use the digital inputs, connect the appropriate cable (optical or coaxial) from the digital output of your source component to the corresponding DIGITAL INPUT on the RSP-966. Make sure that if you have connected the analog signals from a source to VIDEO 2, that you also connect its digital output to VIDEO 2, etc.

Even when using digital connections, you should still make the analog input connections described above. The analog connection is necessary should you wish to record from that source component to an audio tape deck or VCR.

5.1 Channel Audio Input ㉗

This female DB25 25-pin input connects six discrete channels of analog information from an outboard processor in a single cable.

Many external adaptors provide a choice of RCA or DB25 outputs. We suggest that you use a DB25-to-DB25 cable to reduce the number of cables and to insure proper channel-to-channel continuity. If your external adaptor does not have a DB25 output, you will need to purchase a multi-RCA to DB25 adaptor cable from your authorized Rotel dealer. Make sure to observe proper channel continuity. **See Figure 3 for DB25 pin assignments.**

Rear Panel Output Signal Connections

This section of the manual provides complete information on the audio and video signal output connections on the rear panel of the RSP-966. These are used for routing the output signals to television monitors, audio amplifiers, and recording devices. For convenience, each topic begins with an overview of the particular connection, followed by detailed hookup instructions.

TV Monitor Output ㉛

The video output of the RSP-966 sends the video signal to your TV monitor. Both RCA composite and S-Video connectors are provided. Simply connect the TV MONITOR output, either RCA composite or S-Video, to an input on your television monitor. Whatever input source is selected on the RSP-966 will appear on screen.

RCA Preamp Outputs ⑳

The RSP-966 provides a set of RCA preamp audio outputs: one for a powered subwoofer and five more (FRONT LEFT/FRONT RIGHT/CENTER/RIGHT REAR/LEFT REAR) that allow you to use external amplifiers in place of one or more of the built-in amps.

To hook up a powered subwoofer, connect a standard RCA audio cable from the SUBWOOFER OUTPUT jack to the input on the subwoofer's power amp.

To hook up the RCA main audio outputs, connect a standard audio cable from each output to the input of the amplifier channel that will power the corresponding speaker. In a full home theater system using external amplifiers for all channels, you will need to make six different connections corresponding to the six speakers (left front, center front, right front, left surround, right surround, and subwoofer).

It is important to make sure that you have the correct output connected to the proper amplifier channel (front right, left rear, etc.). Take your time.

5.1 CHANNEL Preamp Outputs ㉑

As an alternative to the RCA preamp outputs , the RSP-966 also provides a male DB25 multi-pin output connector which carries all six output channels in a single cable. The DB25 output connector provides exactly the same signal as the RCA outputs, but is more convenient for use with Rotel, or other, multichannel amplifiers equipped with a matching DB25 input. Choose whichever is most convenient for your system hookup.

To use the DB25 output connections, simply connect a female-to-male DB25 audio cable from the output of the RSP-966 to the matching input on the multichannel power amplifier. **See Figure 3 at the front of this manual for DB25 pin assignments.**

Rear Panel AC Power Connections

AC Input ㉜

Your RSP-966 is configured at the factory for the proper AC line voltage in the country where you purchased it (115 volts/60Hz AC for the USA and 230 volts /50 Hz AC for Europe). The AC line configuration is noted on a decal on the back of your unit.

Plug the supplied cord into the AC INPUT receptacle on the back of the unit.

### Remote External Sensor Jack ㉖

This 3.5 mm mini-jack receives command codes from industry-standard infrared receivers (Xantech, etc.) via hard-wired connections. This feature could prove useful when the unit is installed in a cabinet and the front-panel sensor is blocked. Consult your authorized Rotel dealer for information on these external repeaters and the proper wiring of a jack to fit the mini-jack receptacle.

On-Screen Display / Configuration

The RSP-966 features two on-screen systems to help operate the system. The first consists of simple status displays that appear on the TV screen whenever primary settings (Volume, Input, etc.) are changed. These status displays are self-explanatory.

A more comprehensive ON-SCREEN MENU system is available at any time by pressing the MENU button on the remote control. This system includes intuitive menus that guide you through the setup and operation of virtually every function and setting of your RSP-966.

Navigation Buttons �33 ㊲ ㊵ ㊶ ㊸ ㊺
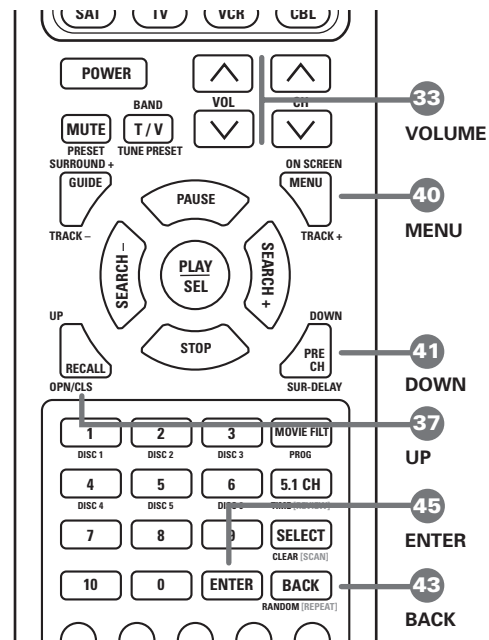
The following buttons are used to navigate the ON-SCREEN MENU system:

MENU Button: ㊵ To display the MAIN screen. All other menus are reached from this menu. If a menu is already visible, push this button to cancel the Display.

DOWN/UP Buttons: ㊲ ㊶
To move up and down in the lists that appear on the ON-SCREEN MENU system.

VOLUME DOWN/UP Buttons: �33
To change the current settings for a selected menu choice on some menus in the ON-SCREEN MENU system.
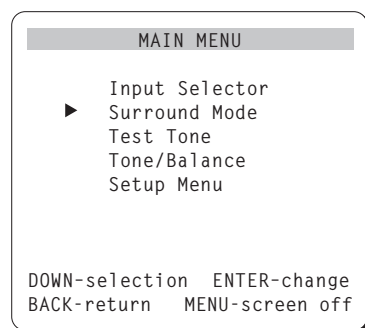
ENTER Button: ㊺
To toggle through available settings for a selected menu choice on some menus.

BACK Button: ㊸
The BACK button is used to cancel a selection on an ON-SCREEN MENU and return to the previous menu.

Note: There is no need to memorize these buttons. A brief help system at the bottom of each ON-SCREEN MENU reminds you which buttons to press. All screens disappear automatically following 20 seconds of inactivity.
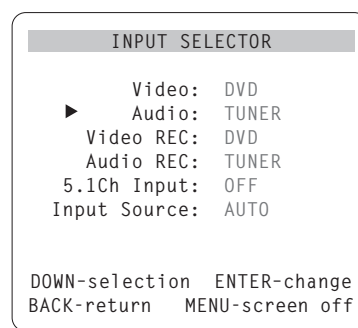
Figure 7 at the front of this manual shows the menus that constitute the ON-SCREEN MENU system and how to reach them. Most of the menus are used to configure the system and will not typically be used during normal operation. Details of each menu follow:

MAIN Menu

```
        MAIN MENU

     Input Selector
  ▶  Surround Mode
     Test Tone
     Tone/Balance
     Setup Menu


DOWN-selection  ENTER-change
BACK-return   MENU-screen off
```

The MAIN menu provides a starting point for reaching all other screens and menus. This screen is available at any time by pressing the MENU button on the remote control. To go to another menu, move the cursor to the desired line using the UP/DOWN buttons on the remote and confirm the selection by pressing the ENTER button. The screen disappears automatically after 20 seconds of inactivity or by pressing the BACK or ENTER button.

INPUT SELECTOR Menu

```
        INPUT SELECTOR

      Video:  DVD
  ▶   Audio:  TUNER
  Video REC:  DVD
  Audio REC:  TUNER
 5.1Ch Input: OFF
 Input Source: AUTO


DOWN-selection  ENTER-change
BACK-return   MENU-screen off
```

The INPUT SELECTOR menu provides status information and configuration options for the source inputs. This screen is available from the MAIN menu. The screen displays the following status information:

VIDEO: the currently selected video source
AUDIO: the currently selected audio source
VIDEO REC: the currently selected source for VIDEO 1 REC outputs
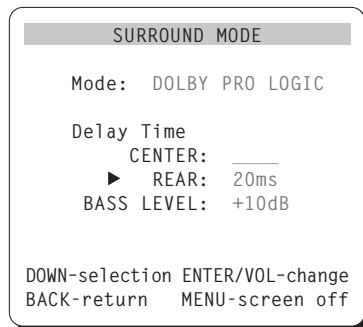**AUDIO REC:** the currently selected source for audio recording, cannot be independently changed
5.1 CH INPUT: whether or not the 5.1 channel input is active
INPUT SOURCE: AUTO or ANALOG. With the AUTO setting (the factory default), the selected input source will check first to see if there is a signal present at the digital inputs. If so, it will play the digital signal, automatically activating DOLBY DIGITAL or DTS surround processing depending on the source. If no digital signal is present, the analog inputs will be automatically enabled for that source. With the ANALOG setting, the automatic sensing is disabled and the system will always revert to the analog inputs. A digital signal will be ignored even if present and there will be no DOLBY DIGITAL or DTS processing. Generally, this setting should be left in the default AUTO mode unless you wish to override the digital inputs for some reason.

Change any setting by moving the cursor to the desired line using the UP/DOWN buttons on the remote, adjust the setting using the ENTER buttons. Return to the MAIN menu by pressing the BACK button. Turn off the ON-SCREEN DISPLAY by pressing MENU.

SURROUND MODE Menu

```
┌─────────────────────────────────┐
│      SURROUND MODE              │
│                                 │
│   Mode:  DOLBY PRO LOGIC        │
│                                 │
│   Delay Time                    │
│       CENTER:  ____             │
│     ▶   REAR:  20ms             │
│    BASS LEVEL: +10dB            │
│                                 │
│                                 │
│ DOWN-selection ENTER/VOL-change │
│ BACK-return   MENU-screen off   │
└─────────────────────────────────┘
```

The SURROUND MODE menu provides status information and configuration options pertaining to the surround operation. This screen is available from the MAIN menu. The screen displays the following status information:

MODE: the currently selected surround sound mode (PRO LOGIC, DSP, 3-STEREO, etc.) Remember that Dolby Digital and DTS are automatically enabled based on source material encoding and, therefore, no setting is required.

DELAY TIME (center): the current delay setting for the center channel speaker; only available in Dolby Digital mode
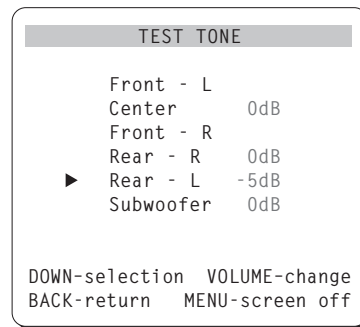
DELAY TIME (rear): the current delay setting for the rear surround speakers

BASS LEVEL: Increases or decreases the level of the bass information for the selected surround mode. You can set one bass level for theater surround modes and one bass level for music modes (DSP and STEREO). Unlike the front panel bass control, these settings are memorized and engaged automatically each time a music or theater surround mode is selected.

In many systems, the factory delay settings will be satisfactory. However, delay times may need to be adjusted depending on the relative distance from the listening position to the front and rear speakers so that you do not hear, for example, an explosion in a soundtrack start in the rear of the room instead of the front. Increase the relative delay to the rear speakers if they are located closer to the seating area than the front speakers.

Change a setting by moving the cursor to the desired line using the UP/DOWN buttons on the remote, adjust the setting using the ENTER or VOLUME remote button. Return to the MAIN menu by pressing the BACK button. Cancel the ON-SCREEN DISPLAY by pressing the MENU button.

TEST TONE Menu

```
┌─────────────────────────────────┐
│        TEST TONE                │
│                                 │
│     Front - L                   │
│     Center      0dB             │
│     Front - R                   │
│     Rear - R    0dB             │
│   ▶ Rear - L   -5dB             │
│     Subwoofer   0dB             │
│                                 │
│                                 │
│ DOWN-selection  VOLUME-change   │
│ BACK-return   MENU-screen off   │
└─────────────────────────────────┘
```

This menu is used to set equal volume levels for all speakers (front, center, rear, and subwoofer) for proper surround sound reproduction. To access this menu and perform the test tone calibration you must be in one of the surround modes. To do this, press any of the MODE buttons except STEREO. Then, enter the ON-SCREEN MENU system and select TEST TONE from the MAIN menu to reach this screen.
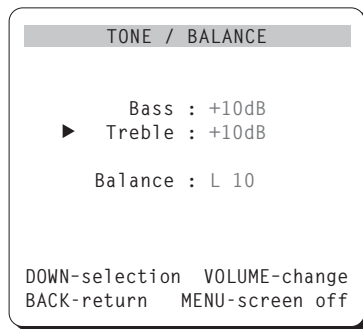
When you enter the TEST TONE menu, you will hear a test tone coming from the highlighted speaker. Highlight different speakers by moving the cursor to the desired line using the UP/DOWN buttons on the remote. The test tone will shift accordingly to the selected speaker.

While seated in the normal listening location, switch the test tone to the various speakers. Using the front speakers as a fixed reference (there is no adjustment for the front), listen to hear if the center speaker or the rear speakers are noticeably louder or quieter than the front speakers. If so, adjust the speaker's volume levels up or down to match the front speakers using the VOL UP/ DOWN remote buttons. Continue switching among the speakers and adjusting until the center speaker and both of the rear speakers sound as loud as the front speakers.

Return to the MAIN menu by pressing the BACK button. Cancel the ON-SCREEN DISPLAY by pressing MENU.
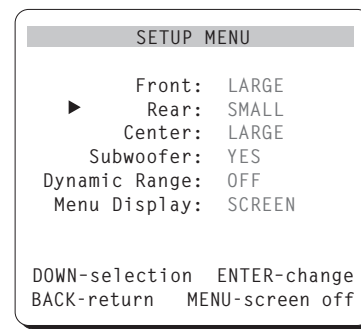
Note to Perfectionists: This calibration will be more accurate if you use a sound pressure level (SPL) meter to measure the output of each speaker instead of relying on your ear. SPL meters are available from electronics stores, or your authorized Rotel dealer may loan you one. Set the meter to its SLOW response time with C-weighting and be sure to hold it away from your body. The goal is to adjust each speaker so that the meter provides the same reading for each of the speakers in your system.

TONE/BALANCE Menu

```
        TONE / BALANCE

        Bass : +10dB
   ▶    Treble : +10dB

        Balance : L 10


DOWN-selection  VOLUME-change
BACK-return    MENU-screen off
```

This menu duplicates the functions of the front panel TREBLE, BASS, and BALANCE controls and provides a method of changing them with the remote control. Select a line in the menu using the UP/DOWN buttons on the remote, then adjust the setting using the VOL UP/DOWN remote buttons. Return to the MAIN menu by pressing the BACK button. Cancel the ON-SCREEN DISPLAY by pressing MENU.

SETUP Menu

```
           SETUP MENU

        Front:    LARGE
   ▶     Rear:    SMALL
       Center:    LARGE
     Subwoofer:   YES
 Dynamic Range:   OFF
 Menu Display:    SCREEN


DOWN-selection  ENTER-change
BACK-return    MENU-screen off
```

The SETUP menu provides status information and configuration options for a variety of system parameters. Some of these settings duplicate the function of front panel controls.

Note 1: See the discussion of speaker configuration under the SPEAKER MODE button heading in the Front Panel Controls section of the manual. Detailed instructions for choosing speaker types are presented there.
Note 2: Speaker configuration must be performed for each surround mode.
Note 3: Some options described below will not be available in some surround modes and some system configurations.

FRONT: whether the front speakers are LARGE (full bass response) or SMALL (limited bass output)
REAR: whether the rear speakers are LARGE, SMALL, or NONE
CENTER: whether the center speaker is LARGE, SMALL, or NONE
SUBWOOFER: whether there is a subwoofer in the system: YES or NO
DYNAMIC RANGE: whether the dynamic range compression is turned OFF (full dynamic range/no compression), MID (moderate dynamic range/moderate compression), or MIN (minimum dynamic range/maximum compression). Only available in Dolby Digital mode.
MENU DISPLAY: determines whether status information will appear on screen when volume, input, or other selections are made – choices are SCREEN (display on) or OFF (display off).

Change any setting by moving the cursor to the desired line using the UP/DOWN buttons on the remote, change the setting by pressing the ENTER button to step through the choices. Return to the MAIN menu by pressing the BACK button. Cancel the ON-SCREEN DISPLAY by pressing MENU.

• •

RSP-966 Specifications

Audio

Total Harmonic Distortion:	<0.03%
Intermodulation Distortion (60 Hz: 7 kHz):	<0.03%
Frequency Response (line level):	10 Hz - 70 kHz, ±3 dB
Signal to Noise Ratio (IHF "A" weighted):	92 dB (Stereo)
	70 dB (Dolby Digital)

Input Sensitivity/Impedance

Line Level:	200 mV/47 kohms
Phono Input:	3.5 mV/47 kohms
Tone Controls (Bass/Treble):	±8 dB at 100 Hz/10 kHz

Video

Frequency Response:	3 Hz-10 MHz, ±3 dB
Signal to Noise Ratio:	45 dB
Input Impedance:	75 ohms
Output Impedance:	75 ohms
Output Level:	1 volt

General

Power Consumption:	40 watts
Power Requirements (AC):	115 volts, 60Hz (USA)
	230 volts, 50Hz (Europe)
Weight:	6.9 Kg/15.2 lb.
Dimensions (W x H x D):	450 x 158 x 303 mm
	17 3/4" x 6 1/4" x 12"

All specifications are accurate at the time of printing.
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RSP-966
SURROUND SOUND PROCESSOR