



AV Receiver

TX-NR901

Instruction Manual

Thank you for purchasing the Onkyo AV Receiver.
Please read this manual thoroughly before making
connections and plugging in the unit.
Following the instructions in this manual will enable
you to obtain optimum performance and listening
enjoyment from your new AV Receiver.
Please retain this manual for future reference.

Contents

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

CAUTION:

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



WARNING
RISK OF ELECTRIC SHOCK
DO NOT OPEN

AVIS
RISQUE DE CHOC ELECTRIQUE
NE PAS OUVRIR



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

PORTABLE CART WARNING
S3125A
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Damage Requiring Service
Unplug the apparatus from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - A. When the power-supply cord or plug is damaged,
 - B. If liquid has been spilled, or objects have fallen into the apparatus,
 - C. If the apparatus has been exposed to rain or water,
 - D. If the apparatus does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the apparatus to its normal operation,
 - E. If the apparatus has been dropped or damaged in any way, and
 - F. When the apparatus exhibits a distinct change in performance this indicates a need for service.
16. Object and Liquid Entry
Never push objects of any kind into the apparatus through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock.
The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases shall be placed on the apparatus.
Don't put candles or other burning objects on top of this unit.
17. Batteries
Always consider the environmental issues and follow local regulations when disposing of batteries.
18. If you install the apparatus in a built-in installation, such as a bookcase or rack, ensure that there is adequate ventilation.
Leave 20 cm (8") of free space at the top and sides and 10 cm (4") at the rear. The rear edge of the shelf or board above the apparatus shall be set 10 cm (4") away from the rear panel or wall, creating a flue-like gap for warm air to escape.

Precautions

For U.S. Models

Note to CATV system installer:

This reminder is provided to call the CATV system installer's attention to Section 820-40 of the NEC which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

FCC Information for User

CAUTION:

The user changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

For Canadian model

NOTE: This class B digital apparatus complies with Canadian ICES-003.

For models having a power cord with a polarized plug:

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

Modèle pour les Canadien

REMARQUE: Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Sur les modèles dont la fiche est polarisée:

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

1. **Recording Copyright**—Unless it's for personal use only, recording copyrighted material is illegal without permission of the copyright holder.
2. **AC Fuse**— The AC fuse inside the TX-NR901 is not user-serviceable. If you cannot turn on the TX-NR901, contact your Onkyo dealer.
3. **Care**—Occasionally you should dust the TX-NR901 all over with a soft cloth. For stubborn stains, use a soft cloth dampened with a weak solution of mild detergent and water. Dry the TX-NR901 immediately afterwards with a clean cloth. Don't use abrasive cloths, thinners, alcohol, or other chemical solvents, because they may damage the finish or remove the panel lettering.

4. Power

WARNING

BEFORE PLUGGING IN THE UNIT FOR THE FIRST TIME, READ THE FOLLOWING SECTION CAREFULLY.

AC outlet voltages vary from country to country. Make sure that the voltage in your area meets the voltage requirements printed on the TX-NR901's rear panel (e.g., AC 230 V, 50 Hz or AC 120 V, 60 Hz).

The Worldwide model has a voltage selector for compatibility with power systems around the world. Before you plug in this model, make sure that the voltage selector is set to the correct voltage for your area.

For North American model

Setting the [STANDBY/ON] switch to STANDBY does not fully shutdown the TX-NR901. If you do not intend to use the TX-NR901 for an extended period, remove the power cord from the AC outlet.

Precautions	3
Features.....	6
Supplied Accessories	7
Before Using the TX-NR901	8
Setting the Voltage Selector (Worldwide model only)	8
Installing the Batteries.....	8
Using the Remote Controller.....	8
Front & Rear Panels	9
Front Panel.....	9
Display	11
Rear Panel	12
Remote Controller	14
Amp Mode.....	14
Net-Tune Mode	15
DVD Mode.....	16
CD Mode	18
MiniDisc Mode.....	19
Tape Mode	20
About Home Theater	21
Enjoying Home Theater	21
Connecting the TX-NR901.....	22
Before Making Any Connections.....	22
AV Cables & Connectors	22
Connecting speakers	23
Connecting Antenna.....	25
Connecting Your TV or Projector	27
Connecting the video component.....	28
Connecting a TV, Satellite/Cable Tuner, LD player, etc.....	31
Connecting a Camcorder, Games Console, etc.....	32
Connecting auxiliary power amplifier	34
Connecting to an external device with 12 V TRIGGER terminal.....	34
Connections for remote control ().....	35
Connecting the power cords from other devices.....	35
RS 232 port.....	35
Connecting the power cord	36
Turning on the power	36
Turning on the power from the remote controller	36
Basic Setup	37
OSD Map	37
Speaker Setup	38
Input Setup.....	42
Remote Setup	45
AM Frequency Step	46
TV Format (For all models other than North American and Australian models)	47
To change the display of the input source from TAPE to MD	47
Basic Playback Functions	48
Displaying Information.....	58
Adjusting the Speaker Balance Temporarily	59
Using Re-EQ function	59

Using the Late Night function (only for the Dolby Digital).....	59
Advanced Playback Functions.....	60
Using the Multi-Channel Inputs	61
Recording	62
Advanced Setup	64
Configuring the listening modes frequently you use (Listening Mode Preset)	64
Audio adjust	65
Preference.....	70
Other settings.....	72
Using Net-Tune	74
Connecting the TX-NR901 to your Ethernet Network	75
Enjoying Internet radio	76
Playing a music file saved on your PC.....	78
Music Server Setup.....	80
Network Setup.....	80
Using Zone 2.....	82
Connect the Speaker for ZONE 2 (Another Room).....	82
Operating components not reached by the remote controller signals (IR IN/OUT).....	83
Setting the ZONE 2.....	84
Enjoy the Movie/Music in Another Room	85
Using the Remote Controller with Other AV Components	87

Features

Amp

- 7-channel amplifier
- 110 watts per channel into 8 ohms, 20 Hz to 20 kHz, less than 0.08% total harmonic distortion (FTC rating)
- WRAT (Wide Range Amplifier Technology)
- Optimum Gain Volume Circuitry
- 192 kHz/24-bit D/A converters (not surround back channels)
- Multiroom (zone 2) capability, with independent source selection and volume control

Audio/Video

- THX Surround EX¹
- THX Select certified
- Dolby Digital, Dolby Digital EX, Dolby Pro Logic II²
- DTS, DTS-ES Discrete 6.1, DTS-ES Matrix 6.1, DTS Neo:6, and DTS 96/24³
- Theater-Dimensional virtual surround mode⁴
- Non-Scaling configuration
- Advanced 24-bit DSP chip (5 DSP soundfields)
- 96 kHz/24-bit D/A converters on all channels
- 2 component video inputs, 1 output
- Composite video to S-Video and S-Video to composite video conversion
- Composite and S-Video to component video conversion
- 6 S-Video inputs, 3 outputs
- 7 assignable digital inputs (4 optical, 3 coaxial), 2 digital outputs, 1 optical digital input for video 5 input
- Pre outs for front L/R, center, surround L/R, surround back L/R (or Zone 2 L/R), and Subwoofer

FM/AM Tuner

- 40 FM/AM presets
- FM auto tuning

Others

- Easy-to-use onscreen setup menus (OSD)
- Remote controller has scroll wheel and LCD display for quick and easy operation
- VLSC (Vector Linear Shaping Circuitry) for left, center, and right channels (not North American and Australian models)
- IntelliVolume
- Character input for naming radio presets and input sources
- Net-Tune for Internet radio and MP3, WAV, and WMA playback
- Ethernet port for use with Net-Tune

THX Select

Before any home theatre component can be THX Select certified, it must pass a rigorous series of quality and performance tests. Only then can a product feature the THX Select logo, which is your guarantee that the Home Theatre products you purchase will give you superb performance for many years to come. THX Select requirements define hundreds of parameters, including power amplifier performance, and pre-amplifier performance and operation for both digital and analog domains. THX Select receivers also feature proprietary THX technologies (e.g., THX Mode) which accurately translate film soundtracks for home theater playback.

1. THX is a trademark or registered trademark of THX Ltd.
 2. Manufactured under license from Dolby Laboratories. "Dolby," "Pro Logic," "Surround EX," and the double-D symbol are trademarks of Dolby Laboratories.
 3. "DTS," "DTS 96/24," "DTS-ES," and "Neo:6" are trademarks of Digital Theater Systems, Inc.
 4. "Theater-Dimensional" and "Net-Tune" are trademarks of Onkyo Corporation.
- Re-Equalization and the "Re-EQ" logo are trademarks of THX Ltd.



Windows Media, and the Windows logo are trademarks, or registered trademarks of Microsoft Corporation in the United States and/or other countries.

Intel and Pentium are registered trademarks of Intel Corporation.

MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thomson Multimedia.

"Xiva" is a registered trademark of Imerge Limited.

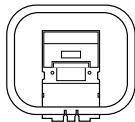
Xantech is a registered trademark of Xantech Corporation.

Niles is a registered trademark of Niles Audio Corporation.

Ethernet is a registered trademark of Xerox Corporation.

Supplied Accessories

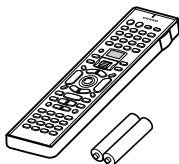
Make sure you have the following accessories:



AM loop antenna

North American model: RC-548M

Other models: RC-549M

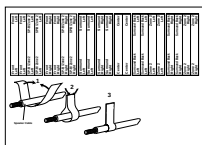


Remote controller & two batteries (AA/R6)

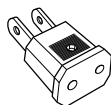


Indoor FM antenna

(Connector type varies from country to country.)

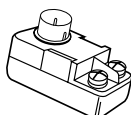


Speaker cable labels



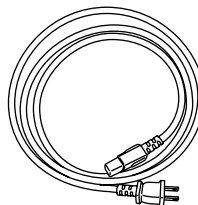
Power-plug adapter

(Only supplied in certain countries. Use this adapter if your AC outlet does not match with the plug on the TX-NR901's power cord. Adapter type varies from country to country.)



75/300-ohm antenna adapter

(Not supplied with North American model.)



Power cord

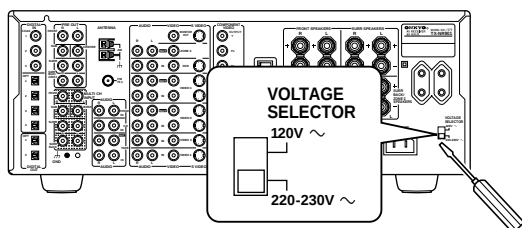
(Not supplied with North American and Australian models, which have an integral power cord.)

* In catalogs and on packaging, the letter added to the end of the product name indicates the color of the TX-NR901. Specifications and operation are the same regardless of color.

Before Using the TX-NR901

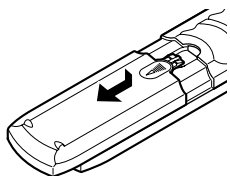
Setting the Voltage Selector (Worldwide model only)

The Worldwide model has a voltage selector for compatibility with power systems around the world. Before you plug in this model, make sure that the voltage selector is set to the correct voltage for your area. If it isn't, use a small screwdriver to set it as appropriate. For example, if the voltage in your area is 120 volts, set the selector to "120V." And if it's between 220 and 230 volts, set it to "220-230V."

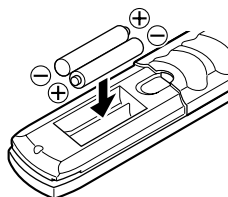


Installing the Batteries

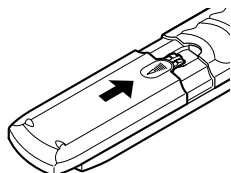
- 1 To open the battery compartment, press the small hollow and slide off the cover.



- 2 Insert the two supplied batteries (AA/R6) in accordance with the polarity diagram inside the battery compartment.



- 3 Put the cover onto the remote controller and slide it shut.

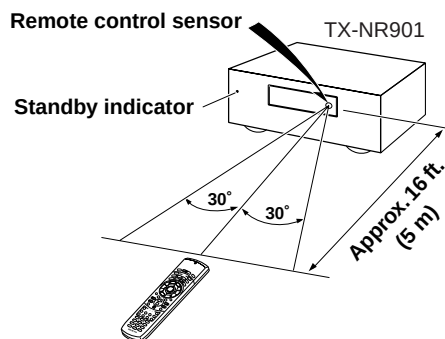


Notes:

- The batteries should last for about six months, although this will vary with usage.
- If the remote controller doesn't work reliably, try replacing the batteries.
- Don't mix new and old batteries or different types of batteries.
- If you intend not to use the remote controller for a long time, remove the batteries to prevent damage from leakage or corrosion.
- Expired batteries should be removed as soon as possible to prevent damage from leakage or corrosion.

Using the Remote Controller

To use the remote controller, point it at the TX-NR901's remote control sensor, as shown below.



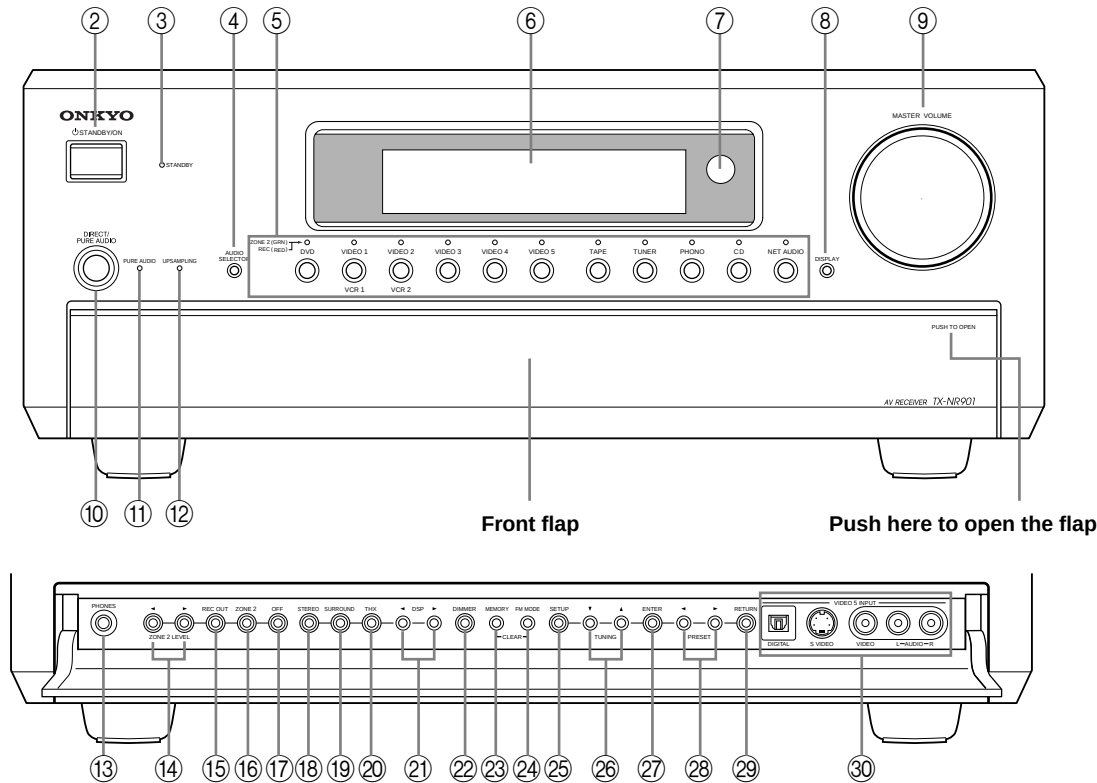
Notes:

- The remote controller may not work reliably if the TX-NR901 is subjected to bright light, such as direct sunlight or inverter-type fluorescent lights. Keep this in mind when installing.
- If another remote controller of the same type is used in the same room, or the TX-NR901 is installed close to equipment that uses infrared rays, the remote controller may not work reliably.
- Don't put anything, such as a book, on the remote controller, because the buttons may be pressed inadvertently, thereby draining the batteries.
- The remote controller may not work reliably if the TX-NR901 is installed in a rack behind colored glass doors. Keep this in mind when installing.
- The remote controller will not work if there's an obstacle between it and the TX-NR901's remote control sensor.

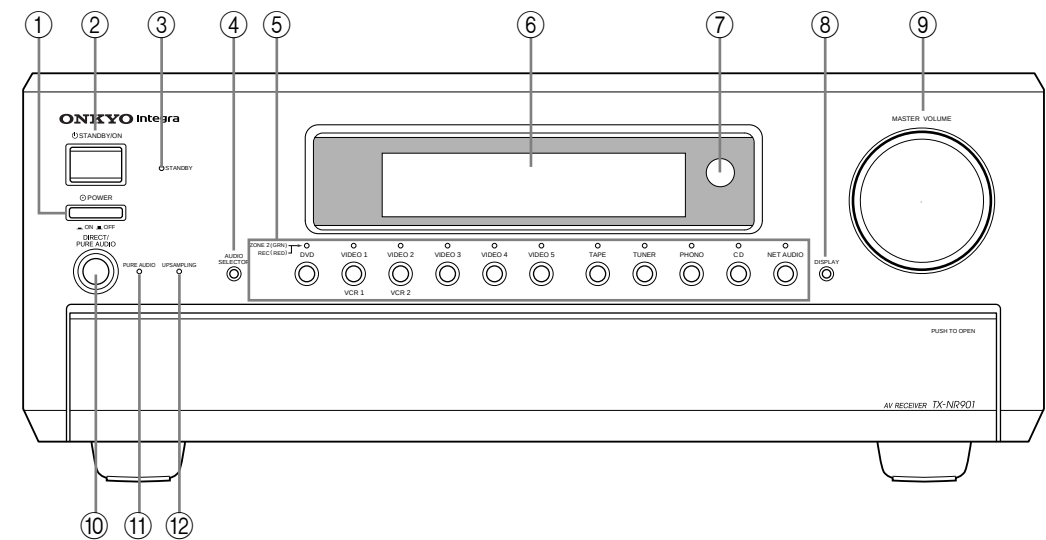
Front & Rear Panels

Front Panel

North American Model



Other Models



For detailed information, refer to the pages in parenthesis.

① **POWER switch (xx)**

North American and Australian models don't have this switch.

This is the main power switch. When set to OFF, the TX-NR901 is completely shutdown. When set to ON, the TX-NR901 is in Standby mode and the STANDBY indicator lights up.

Don't turn on the power until you've completed, and double checked all connections.

Note:

Turning on the TX-NR901 may cause a momentary power surge that might interfere with other electrical equipment on the same circuit. If this is a problem, plug the TX-NR901 into a different branch circuit.

② **STANDBY/ON button (xx)**

This button is used to set the TX-NR901 to On or Standby. For models with a POWER switch, this button has no effect unless the POWER switch is set to ON.

③ **STANDBY indicator (xx)**

This indicator lights up when the TX-NR901 is in Standby mode, and it flashes while a signal is being received from the remote controller.

④ **AUDIO SELECTOR button (xx)**

This button is used to select the audio input signal format: analog, digital, or multi-channel.

⑤ **Input selector buttons & indicators (xx)**

These buttons are used to select the following input sources: DVD, VIDEO 1–5, TAPE, TUNER, PHONO, CD, and NET AUDIO. The indicators show the currently selected input source.

The indicators also show which input source is selected for zone 2 (sub-room), in which case they light up green, or which input source is selected for recording (REC OUT), in which case they light up red.

⑥ **Display**

See "Display" on page 11.

⑦ **Remote-control sensor (xx)**

This sensor receives control signals from the remote controller.

⑧ **DISPLAY button (xx)**

This button is used to display various information about the currently selected input source.

⑨ **MASTER VOLUME control (xx)**

This control is used to set the volume of the TX-NR901 from 0 to 100.

⑩ **DIRECT/PURE AUDIO button (xx)**

This button is used to select the Direct and Pure Audio listening modes.

⑪ **PURE AUDIO indicator (xx)**

This indicator lights up when the Pure Audio listening mode is selected.

⑫ **UPSAMPLING indicator (66)**

This indicator lights up when the Upsampling function is on.

⑬ **PHONES jack (xx)**

This 1/4-inch phone jack is for connecting a standard pair of stereo headphones for private listening.

⑭ **ZONE 2 LEVEL [◀] [▶] buttons (xx)**

These buttons are used to set the volume in zone 2 (sub-room).

⑮ **REC OUT button (62)**

This button is used to select the input source that you want to record via the REC OUTs (i.e., TAPE OUT, VIDEO 1 OUT, VIDEO 2 OUT).

⑯ **ZONE 2 button (85)**

This button is used to select the input source that you want play in zone 2 (sub-room).

⑰ **OFF button (62, 85)**

This button is used to turn off the REC OUTs (i.e., TAPE OUT, VIDEO 1 OUT, VIDEO 2 OUT) or zone 2.

⑱ **STEREO button (52)**

This button is used to select the Stereo listening mode.

⑲ **SURROUND button (52)**

This button is used to select the Dolby and DTS listening modes.

⑳ **THX button (52)**

This button is used to select the THX listening modes.

㉑ **DSP [◀] [▶] buttons (52)**

These buttons are used to select the DSP (digital signal processor) listening modes.

㉒ **DIMMER button (xx)**

This button is used to adjust the display brightness.

㉓ **MEMORY button (xx)**

This button is used when storing and deleting radio presets.

㉔ **FM MODE button (xx)**

This button is used to select the FM radio Auto and Mono modes.

㉕ **SETUP button (37, 64)**

This button is used to access the onscreen setup menus (OSD) that appear on the TV that's connected to the composite video or S-Video MONITOR OUT.

㉖ **TUNING [▲] [▼] buttons (xx)**

These buttons are used to tune into radio stations and to select items on the onscreen setup menus (OSD).

27 ENTER button

This button is used when navigating the onscreen setup menus (OSD), entering names, and confirming settings.

28 PRESET [◀] [▶] buttons (xx)

These buttons are used to select radio presets and to select items on the onscreen setup menus (OSD).

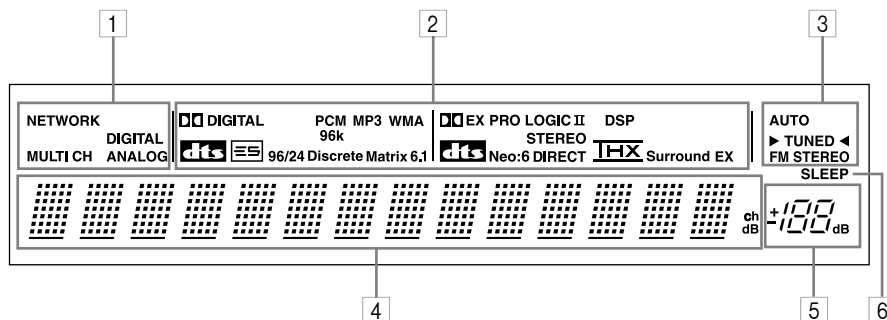
29 RETURN button (xx)

This button is used to return to the previously displayed onscreen setup menu (OSD).

30 VIDEO 5 INPUTs (xx)

These optical digital audio, S-Video, composite video, and analog audio inputs can be used to connect a video camera, games console, and so on.

Display



For detailed information, refer to the pages in parenthesis.

1 Audio input format indicators

These indicators show the audio input format for the currently selected input source.

2 Listening mode & digital audio format indicators

These indicators show the currently selected listening mode and digital audio format.

3 Tuning indicators

AUTO indicator:

This indicator lights up when the tuner is tuned to an FM station and Stereo mode is selected. It goes off when Mono mode is selected.

TUNED indicator:

This indicator lights up when the tuner is tuned into an AM or FM station.

FM STEREO indicator:

This indicator lights up when the tuner is tuned to a stereo FM station. It goes off when Mono mode is selected.

4 Multipurpose display area

Normally, the name of the currently selected input source is displayed here. When you select the AM or FM input source, the radio frequency and preset number are displayed. If you press the [DISPLAY] button, the currently selected listening mode and digital audio format are displayed.

5 Volume level

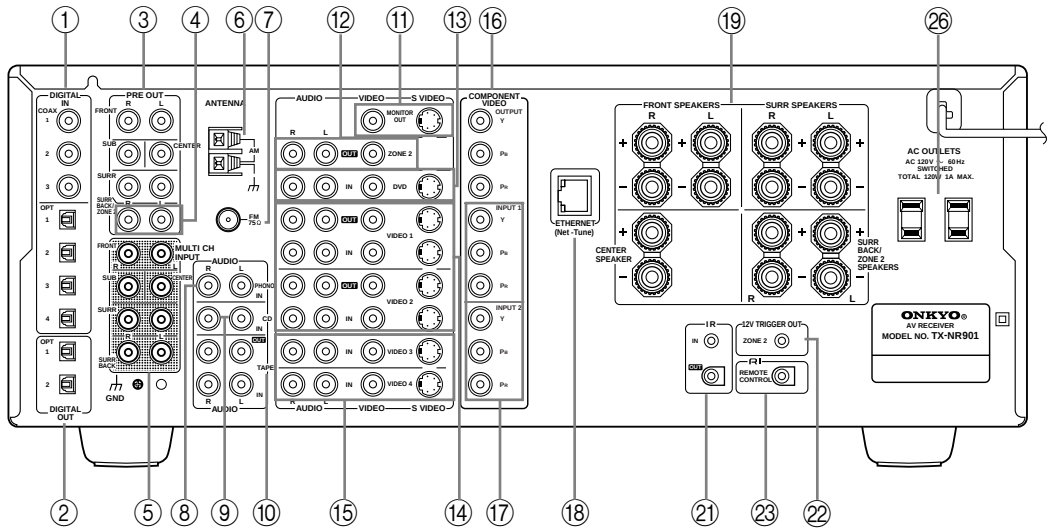
The volume level is displayed here.

6 SLEEP indicator

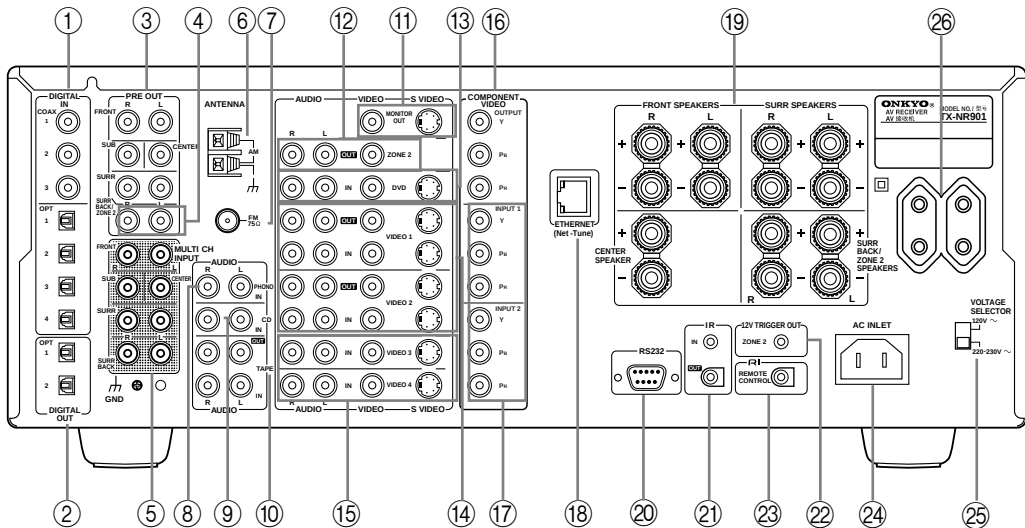
This indicator lights up when the Sleep function has been set.

Rear Panel

North American Model



Other Models



For detailed information, refer to the pages in parenthesis.

① DIGITAL IN COAX 1–3, OPT 1–4 (xx)

These coaxial and optical digital audio inputs can be used to connect CD, DVD, or LD (laser disc) players and other AV components with digital audio outputs.

② DIGITAL OUT OPT 1 & 2 (xx)

These optical digital audio outputs can be used to connect a CD recorder or other component with digital inputs.

③ PRE OUT—FRONT L/R, SUB, CENTER, SURR L/R (xx)

If you use the TX-NR901 as a preamp, these analog audio outputs can be connected to the inputs on a separate power amp. The SUB output is used to connect a powered subwoofer.

④ PRE OUT—SURR BACK/ZONE 2 (xx)

These analog audio outputs can be used to feed the L/R surround back inputs on a separate power amp when the TX-NR901 is used as a preamp, or to feed a power amp in zone 2 (sub-room).

- ⑤ **MULTI CH INPUT—FRONT L/R, SUB, CENTER, SURR L/R, SURR BACK L/R (xx)**
These analog audio inputs can be used to connect AV components with multiple analog audio outputs, including DVD players with individual 7.1 surround analog audio outputs.
- ⑥ **AM ANTENNA (xx)**
These push terminals are for connecting an AM antenna.
- ⑦ **FM ANTENNA (xx)**
This connector is for connecting an FM antenna.
- ⑧ **PHONO IN (xx)**
These analog inputs can be used to connect a turntable with a moving-magnet cartridge.
- ⑨ **CD IN (xx)**
These analog inputs can be used to connect a CD player with analog outputs.
- ⑩ **TAPE IN/OUT (xx)**
These analog inputs and outputs can be used to connect a cassette recorder, Mini Disc recorder, or other recorder with analog inputs and outputs.
- ⑪ **MONITOR OUT (xx)**
This S-Video or composite video output can be connected to the video input on your TV or projector. The onscreen setup menus (OSD) are displayed on the TV that's connected here.
- ⑫ **ZONE 2 OUT (xx)**
These composite video and analog audio outputs can be used to feed a TV, or a TV and separate power amp in zone 2 (sub-room).
- ⑬ **DVD IN (xx)**
These S-Video, composite video, and analog audio inputs can be used to connect a DVD player.
- ⑭ **VIDEO 1 & 2 IN/OUT (xx)**
These S-Video, composite video, and analog audio inputs and outputs can be used to connect one or two video recorders (e.g., VCRs).
- ⑮ **VIDEO 3 & 4 IN (xx)**
These S-Video, composite video, and analog audio inputs can be used to connect one or two video sources (e.g., cable TV, satellite TV, or a set-top box).
- ⑯ **COMPONENT VIDEO OUTPUT (xx)**
This component video output can be used to connect a TV or projector with a component video input.
- ⑰ **COMPONENT VIDEO INPUT 1 & 2 (xx)**
These component video inputs can be used to connect one or two AV components with component video outputs, such as a DVD player.
- ⑱ **ETHERNET (Net-Tune) (74)**
This port is for connecting the TX-NR901 to your Ethernet network for use with Net-Tune (i.e., Internet radio and MP3, WAV, and WMA playback).
- ⑲ **SPEAKERS (xx)**
These terminal posts are for connecting your speakers. The SURR BACK/ZONE 2 terminals can be used with surround back speakers in the main room or speakers in zone 2 (sub-room).
- ⑳ **RS232 (xx)**
This port is for connecting the TX-NR901 to home automation and external controllers.
North American and Australian models don't have this port.
- ㉑ **IR IN/OUT (83)**
If you want to use the remote controller to control the TX-NR901 from zone 2 (sub-room), or if the TX-NR901 is installed in a cabinet and the line of sight between the TX-NR901 and the remote controller is obstructed, a commercially available IR receiver can be connected to the IR IN. A commercially available IR emitter can be connected to the IR OUT to pass the IR signals along to another AV component.
- ㉒ **ZONE 2 12V TRIGGER OUT (82)**
This output can be connected to the 12-volt trigger input on a power amp in zone 2 (sub-room). The power amp can then be turned on or off automatically from the TX-NR901.
- ㉓ **RI REMOTE CONTROL (xx)**
This **RI** (Remote Interactive) jack can be connected to the **RI** jack on another Onkyo AV component. The TX-NR901's remote controller can then be used to control that component. To use **RI**, you must make an analog RCA/phono audio connection between the TX-NR901 and the other AV component, even if they are connected digitally.
- ㉔ **AC INLET (xx)**
The supplied power cord should be connected here. North American and Australian models do not have an AC INLET. They have an integral power cord instead.
- ㉕ **VOLTAGE SELECTOR (xx)**
This voltage selector provides compatibility with power systems around the world.
North American and Australian models don't have this selector.
- ㉖ **AC OUTLETS (xx)**
These switched AC outlets can be used to supply power to other AV components. The connector type depends on the country in which you purchased your TX-NR901.

Remote Controller

The TX-NR901's remote controller is a multipurpose device that can be used to control not just the TX-NR901 but your other AV components as well. This section explains how it's various operating modes can be used to control the TX-NR901 and various **RI**-compatible Onkyo components. See page 87 for information on using the remote controller to control Onkyo components without **RI** and TVs, VCRs, and AV components made by other manufacturers.

For detailed information, refer to the pages in parenthesis.

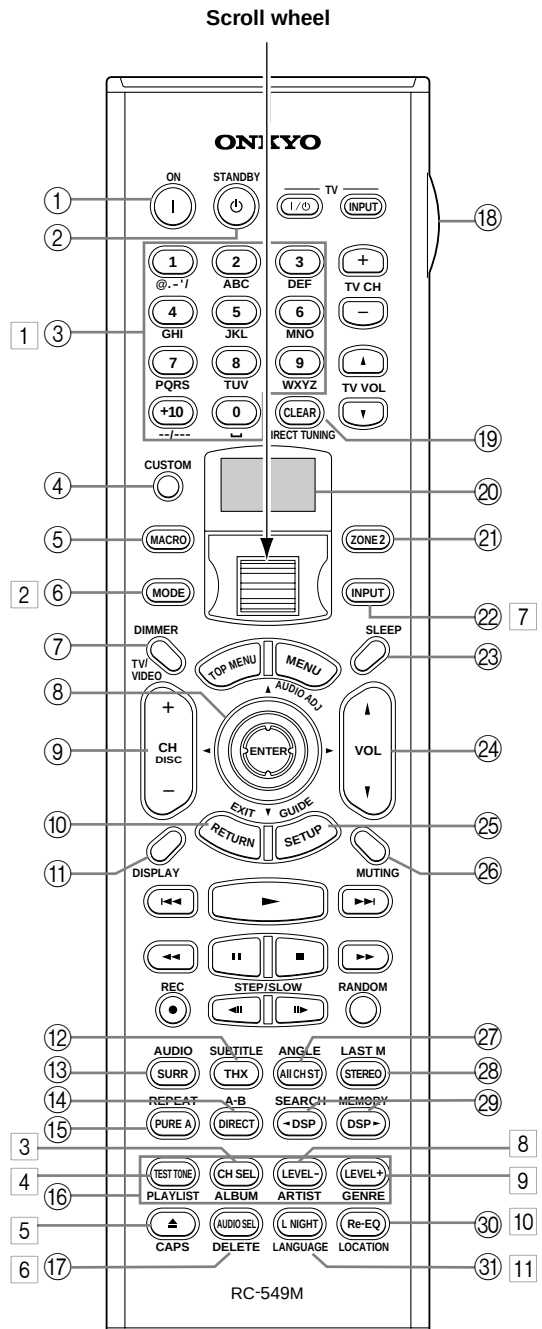
Amp Mode

Amp mode is used to control the TX-NR901. To select Amp mode, press the [MODE] button, and then roll the scroll wheel until "AMP" appears on the display.

Boxed numbers are for Net-Tune mode (page 15).

- ① **ON button**
This button is used to turn on the TX-NR901.
- ② **STANDBY button**
This button is used to set the TX-NR901 to Standby.
- ③ **Number/letter buttons**
These buttons are used to enter numbers and letters.
- ④ **CUSTOM button**
This button is used to access various settings that you can use to customize the operation of the remote controller.
- ⑤ **MACRO button**
This button is used with the Macro function.
- ⑥ **MODE button**
This button is used with the scroll wheel to select the remote controller modes. Press this button first, and then roll the scroll wheel until "AMP" appears on the display.
- ⑦ **DIMMER button**
This button is used to adjust the display brightness.
- ⑧ **[▲] [▼] [◀] [▶] & ENTER buttons**
These buttons are used to select items on the onscreen setup menus (OSD). The ENTER button is also used to enter names and to confirm settings.
- ⑨ **CH/DISC +/- button**
This button is used to select radio presets.
- ⑩ **RETURN/EXIT button**
This button is used to return to the previously displayed onscreen setup menu (OSD).
- ⑪ **DISPLAY button**
This button is used to display various information about the currently selected input source.
- ⑫ **THX button**
This button is used to select the THX listening modes.

- ⑬ **SURR button**
This button is used to select the Dolby and DTS listening modes.
- ⑭ **DIRECT button**
This button is used to select the Direct listening mode.
- ⑮ **PURE A button**
This button is used to select the Pure Audio listening mode.



- 16 TEST TONE, CH SEL, LEVEL– & LEVEL+ buttons**
These buttons are used to adjust the level of each speaker individually. These functions can be set only with the remote controller.
- 17 AUDIO SEL button**
This button is used to select the audio input signal format: analog, digital, or multi-channel.
- 18 LIGHT button**
This button is used to turn on or off the remote controller's illuminated buttons.
- 19 DIRECT TUNING button**
This button is used with the number buttons to select a radio station by entering its frequency. Press this button first, and then use the number buttons to enter the frequency.
- 20 Display**
The top line of this LCD display shows the name of the currently selected input source. The bottom line shows the currently selected remote controller mode.
- 21 ZONE 2 button (85)**
This button is used when you want to set the volume and input source for zone 2 (sub-room).
- 22 INPUT button**
This button is used to select the input source. Press this button first, and then roll the scroll wheel until the name of the input source appears on the display.
- Note:**
While neither the [MODE] button nor [INPUT] button is illuminated, rolling the scroll wheel changes both lines of the display.
- 23 SLEEP button**
This button is used to set the Sleep function. This function can be set only with the remote controller.
- 24 VOL Up/Down [▲]/[▼] button (xx, 85)**
This button is used to set the volume of the TX-NR901. They can also be used to set the volume in zone 2 (sub-room).
- 25 SETUP/GUIDE button**
This button is used to access the onscreen setup menus (OSD) that appear on the TV that's connected to the composite video or S-Video MONITOR OUT.
- 26 MUTING button**
This button is used to mute the TX-NR901. This function can be set only with the remote controller.
- 27 All CH ST button**
This button is used to select the All Ch Stereo listening mode.
- 28 STEREO button**
This button is used to select the Stereo listening mode.
- 29 [◀DSP] & [DSP▶] buttons**
These buttons are used to select the DSP (digital signal processor) listening modes.

- 30 Re-EQ button**
This button is used to turn on and off the Re-EQ function.
- 31 L NIGHT button**
This button is used to set the Late Night function.

Net-Tune Mode

Net-Tune mode is used with the Net-Tune functions. To select Net-Tune mode, press the [MODE] button, and then roll the scroll wheel until "NET-T" appears on the display.

- 1 Number/letter buttons**
These buttons are used to enter numbers and letters when searching for music in your Net-Tune Central music library.
- 2 MODE button**
This button is used with the scroll wheel to select the remote controller modes. Press this button first, and then roll the scroll wheel until "NET-T" appears on the display.
- 3 ALBUM button**
This button is used to search your Net-Tune Central music library by album.
- 4 PLAYLIST button**
This button is used to search your Net-Tune Central library by playlist.
- 5 CAPS button**
This button is used to select lowercase letters, uppercase letters, and numbers when searching for Net-Tune Central music by album, artist, or playlist.
- 6 DELETE button**
This button is used to delete characters entered with the number/letter buttons.
- 7 INPUT button**
This button is used to select the input source. Press this button first, and then roll the scroll wheel until "MSRV" (Music Server—Net-Tune Central) or "IRD" (Internet Radio) appears on the display.
- Note:**
While neither the [MODE] button nor [INPUT] button is illuminated, rolling the scroll wheel changes both lines of the display.
- 8 ARTIST button**
This button is used to search your Net-Tune Central music library by artist.
- 9 GENRE button**
This button is used to search your Net-Tune Central music library by genre, and to search for Internet radio stations by genre.
- 10 LOCATION button**
This button is used to search for Internet radio stations by country.
- 11 LANGUAGE button**
This button is used to search for Internet radio stations by language.

Connecting your **RI**-compatible Onkyo DVD player, CD player, MiniDisc recorder, or cassette recorder to the TX-NR901's RI jack allows you to control it with the TX-NR901's remote controller. Since you only need to point the remote controller at the TX-NR901, you can even control Onkyo components that are installed in a cabinet. See page 35 for connection information.

To use the RI function, you must make an RI connection and an analog RCA/phono audio connection between the AV component and your TX-NR901, even if they are connected digitally.

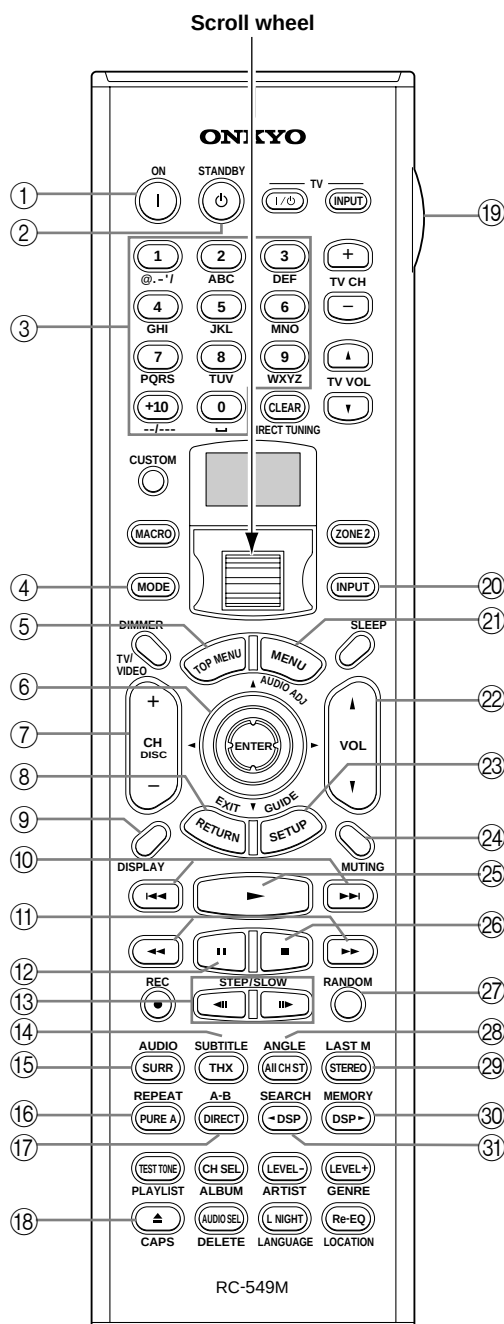
DVD Mode

DVD mode is used to control an Onkyo DVD player connected to the TX-NR901 via **RI**. To select DVD mode, press the [MODE] button, and then roll the scroll wheel until "DVD" appears on the display.

- ① **ON button**
This button is used to turn on the DVD player.
- ② **STANDBY button**
This button is used to set the DVD player to Standby.
- ③ **Number/letter buttons**
These buttons are used to enter title, chapter, and track numbers and to enter times for locating specific points in time.
- ④ **MODE button**
This button is used with the scroll wheel to select the remote controller modes. Press this button first, and then roll the scroll wheel until "DVD" appears on the display.
- ⑤ **TOP MENU button**
This button is used to select the DVD-Video disc's top menu.
- ⑥ **[▲] [▼] [◀] [▶] & ENTER buttons**
These buttons are used to navigate DVD-Video menus and the DVD player's onscreen setup menus. The ENTER button is used to start playback of the selected menu title, chapter, or track and to confirm settings.
- ⑦ **CH/DISC +/- button**
This button is used to select discs on a DVD changer.
- ⑧ **RETURN/EXIT button**
This button is used to exit the DVD player's onscreen setup menu and to restart menu playback.
- ⑨ **DISPLAY button**
This button is used to display information about the current disc, title, chapter, or track, including the elapsed time, remaining time, total time, and so on.
- ⑩ **Previous/Next [◀◀] [▶▶] buttons**
The Previous [◀◀] button is used to select the previous chapter or track. During playback it selects the beginning of the current chapter or track. The Next

[▶▶] button is used to select the next chapter or track.

- ⑪ **FR/FF [◀◀] [▶▶] buttons**
The FR [◀◀] button is used to start fast reverse. The FF [▶▶] button is used to start fast forward.
- ⑫ **Pause [||] button**
This button is used to pause DVD playback.
- ⑬ **STEP/SLOW [◀||] [||▶] buttons**
These buttons are used for frame-by-frame playback and slow-motion playback.



⑭ **SUBTITLE button**

This button is used to select subtitles.

⑮ **AUDIO button**

This button is used to select foreign language soundtracks and audio formats (e.g., Dolby Digital or DTS).

⑯ **REPEAT button**

This button is used to set the repeat playback functions.

⑰ **A-B button**

This button is used to set the A–B repeat playback function.

⑱ **Open/Close [▲] button**

This button is used to open and close the disc tray.

⑲ **LIGHT button**

This button is used to turn on or off the remote controller's illuminated buttons.

⑳ **INPUT button**

This button is used to select the input source. Press this button first, and then roll the scroll wheel until “DVD” appears on the display.

Note:

While neither the [MODE] button nor [INPUT] button is illuminated, rolling the scroll wheel changes both lines of the display.

㉑ **MENU button**

This button is used to select the DVD-Video disc's menu.

㉒ **VOL Up/Down [▲]/[▼] button (xx)**

This button is used to set the volume of the TX-NR901.

㉓ **SETUP/GUIDE button**

This button is used to access the DVD player's onscreen setup menus.

㉔ **MUTING button**

This button is used to mute the TX-NR901. This function can be set only with the remote controller.

㉕ **Play [▶] button**

This button is used to start DVD playback.

㉖ **Stop [■] button**

This button is used to stop DVD playback.

㉗ **RANDOM button**

This button is used with the random playback function.

㉘ **ANGLE button**

This button is used to select different camera angles.

㉙ **LAST M button**

This button is used with the last memory function, which allows you to resume DVD playback from where you left off.

㉚ **MEMORY button**

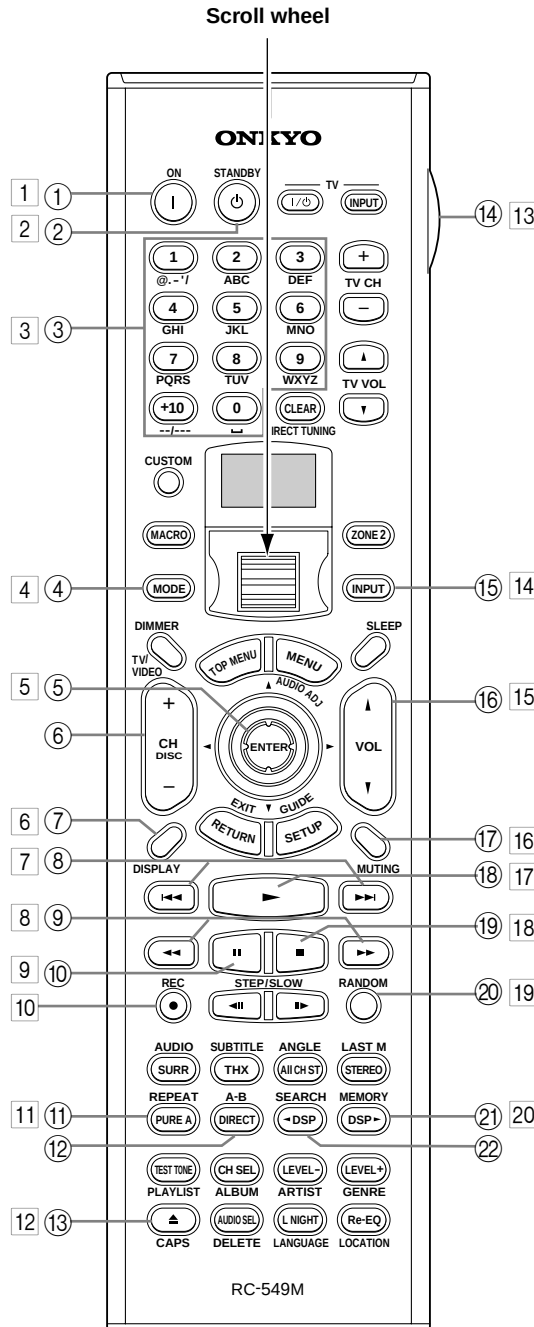
This button is used with the memory playback function, which allows you to create a custom playlist of titles, chapters, or tracks.

㉛ **SEARCH button**

This button is used to search for titles, chapters, tracks, and specific points in time.

CD Mode

CD mode is used to control an Onkyo CD player connected to the TX-NR901 via **RI**. To select CD mode, press the [MODE] button, and then roll the scroll wheel until “CD” appears on the display.



Boxed numbers are for MiniDisc mode (page 19).

- ① **ON button**
This button is used to turn on the CD player.
- ② **STANDBY button**
This button is used to set the CD player to Standby.

- ③ **Number/letter buttons**
These buttons are used to enter track numbers and to enter times for locating specific points in time.
 - ④ **MODE button**
This button is used with the scroll wheel to select the remote controller modes. Press this button first, and then roll the scroll wheel until “CD” appears on the display.
 - ⑤ **ENTER button**
The ENTER button is used to confirm settings.
 - ⑥ **CH/DISC +/- button**
This button is used to select discs on a CD changer.
 - ⑦ **DISPLAY button**
This button is used to display information about the current disc or track, including the elapsed time, remaining time, total time, and so on.
 - ⑧ **Previous/Next [◀◀]/[▶▶] buttons**
The Previous [◀◀] button is used to select the previous track. During playback it selects the beginning of the current track. The Next [▶▶] button is used to select the next track.
 - ⑨ **FR/FF [◀◀]/[▶▶] buttons**
The FR [◀◀] button is used to start fast reverse. The FF [▶▶] button is used to start fast forward.
 - ⑩ **Pause [⏸] button**
This button is used to pause CD playback.
 - ⑪ **REPEAT button**
This button is used to set the repeat playback functions.
 - ⑫ **A-B button**
This button is used to set the A-B repeat playback function.
 - ⑬ **Open/Close [▲] button**
This button is used to open and close the disc tray.
 - ⑭ **LIGHT button**
This button is used to turn on or off the remote controller’s illuminated buttons.
 - ⑮ **INPUT button**
This button is used to select the input source. Press this button first, and then roll the scroll wheel until “CD” appears on the display.
- Note:**
While neither the [MODE] button nor [INPUT] button is illuminated, rolling the scroll wheel changes both lines of the display.
- ⑯ **VOL Up/Down [▲]/[▼] button (xx)**
This button is used to set the volume of the TX-NR901.
 - ⑰ **MUTING button**
This button is used to mute the TX-NR901. This function can be set only with the remote controller.

- 18 **Play [▶] button**
This button is used to start CD playback.
- 19 **Stop [■] button**
This button is used to stop CD playback.
- 20 **RANDOM button**
This button is used with the random playback function.
- 21 **MEMORY button**
This button is used with the memory playback function, which allows you to create a custom playlist of tracks.
- 22 **SEARCH button**
This button is used to search for tracks and specific points in time.

MiniDisc Mode

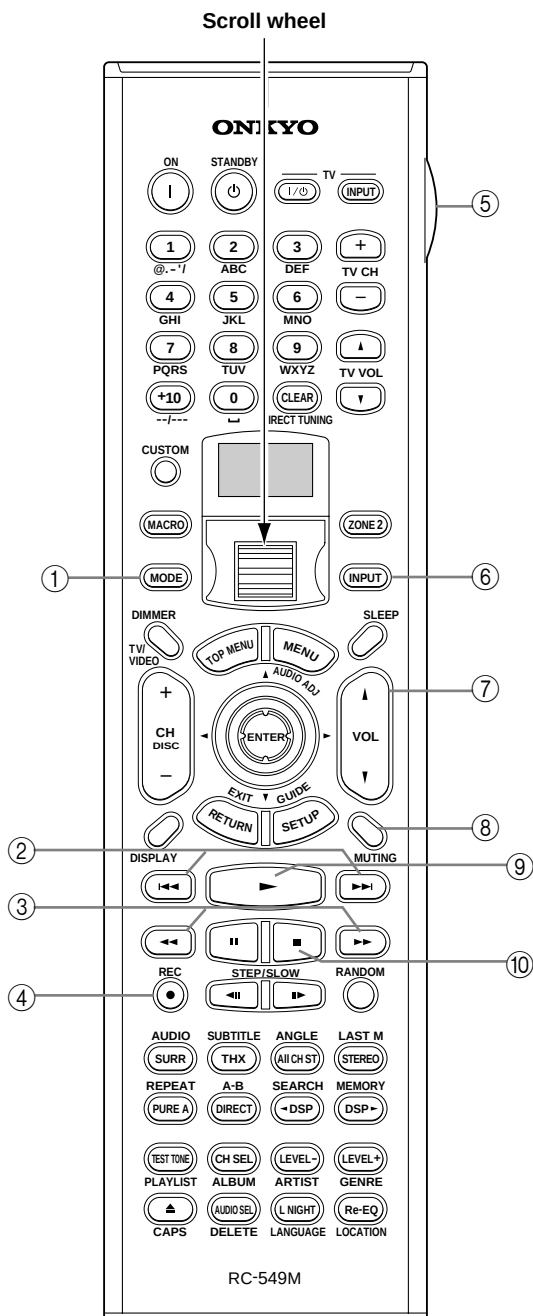
MiniDisc mode is used to control an Onkyo MiniDisc recorder connected to the TX-NR901 via **RI**. To select MiniDisc mode, press the [MODE] button, and then roll the scroll wheel until “MD” appears on the display.

- 1 **ON button**
This button is used to turn on the MiniDisc recorder.
- 2 **STANDBY button**
This button is used to set the MiniDisc recorder to Standby.
- 3 **Number/letter buttons**
These buttons are used to enter track numbers and to enter times for locating specific points in time.
- 4 **MODE button**
This button is used with the scroll wheel to select the remote controller modes. Press this button first, and then roll the scroll wheel until “MD” appears on the display.
- 5 **ENTER button**
The ENTER button is used to confirm settings.
- 6 **DISPLAY button**
This button is used to display information about the current disc or track, including the elapsed time, remaining time, total time, and so on.
- 7 **Previous/Next [◀◀]/[▶▶] buttons**
The Previous [◀◀] button is used to select the previous track. During playback it selects the beginning of the current track. The Next [▶▶] button is used to select the next track.
- 8 **FR/FF [◀◀]/[▶▶] buttons**
The FR [◀◀] button is used to start fast reverse. The FF [▶▶] button is used to start fast forward.
- 9 **Pause [||] button**
This button is used to pause MiniDisc playback.
- 10 **REC [●] button**
This button is used to start MiniDisc recording.
- 11 **REPEAT button**
This button is used to set the repeat playback functions.
- 12 **Eject [▲] button**
This button is used to set eject the MiniDisc.
- 13 **LIGHT button**
This button is used to turn on or off the remote controller’s illuminated buttons.
- 14 **INPUT button**
This button is used to select the input source. Press this button first, and then roll the scroll wheel until “MD” appears on the display.

Note:
While neither the [MODE] button nor [INPUT] button is illuminated, rolling the scroll wheel changes both lines of the display.
- 15 **VOL Up/Down [▲]/[▼] button (xx)**
This button is used to set the volume of the TX-NR901.
- 16 **MUTING button**
This button is used to mute the TX-NR901. This function can be set only with the remote controller.
- 17 **Play [▶] button**
This button is used to start MiniDisc playback.
- 18 **Stop [■] button**
This button is used to stop MiniDisc playback.
- 19 **RANDOM button**
This button is used with the random playback function.
- 20 **MEMORY button**
This button is used with the memory playback function, which allows you to create a custom playlist of tracks.

Tape Mode

Tape mode is used to control an Onkyo cassette recorder connected to the TX-NR901 via **RI**. To select Tape mode, press the [MODE] button, and then roll the scroll wheel until “AMP” appears on the display.



① MODE button

This button is used with the scroll wheel to select the remote controller modes. Press this button first, and then roll the scroll wheel until “AMP” appears on the display.

② Previous/Next [◀◀]/[▶▶] buttons

The Previous [◀◀] button is used to select the previous track. During playback it selects the beginning of the current track. The Next [▶▶] button is used to select the next track.

The Previous/Next [◀◀]/[▶▶] buttons make not work properly with some cassette tapes depending on how they were recorded.

③ Rewind/FF [◀◀]/[▶▶] buttons

The Rewind [◀◀] button is used to start rewind. The FF [▶▶] button is used to start fast forward.

④ REC button

This button is used to start tape recording.

⑤ LIGHT button

This button is used to turn on or off the remote controller’s illuminated buttons.

⑥ INPUT button

This button is used to select the input source. Press this button first, and then roll the scroll wheel until “TAPE” appears on the display.

Note:

While neither the [MODE] button nor [INPUT] button is illuminated, rolling the scroll wheel changes both lines of the display.

⑦ VOL Up/Down [▲]/[▼] button (xx)

This button is used to set the volume of the TX-NR901.

⑧ MUTING button

This button is used to mute the TX-NR901. This function can be set only with the remote controller.

⑨ Play [▶] button

This button is used to start tape playback.

⑩ Stop [■] button

This button is used to stop tape playback.

Using the Remote Controller with Other Components

You can use the TX-NR901's remote controller (RC-549M) to control your other AV components, including those made by other manufacturers. To do this you can:

- Enter a remote control code for the component that you want to control (e.g., DVD, TV, VCR).
- Learn commands directly from the other component's remote controller (see page 94).
- Use the Macro function to learn a sequence of actions (see page 95).
- You can also edit the remote controller modes (see page 97).

Entering a Remote Control Code

By entering the appropriate remote control code for each of your components, you can control each component by selecting the relevant remote controller mode: DVD, TV, VCR, CBL (cable), or SAT (satellite).

1	Look up the appropriate remote control code for the component. See "Remote Control Codes" on page 88
2	Press and hold down the [CUSTOM] button for more than three seconds. The remote controller enters Custom mode.
3	Roll the scroll wheel to select PRGRM, and then press the scroll wheel.
4	Roll the scroll wheel to select the the remote controller mode you want to use with the component, and then press the scroll wheel. The following remote controller modes can be selected: DVD, TV, VCR, CBL, or SAT.

5	Use the number buttons to enter the 4-digit remote control code. If the code is accepted, the following appears on the display for awhile, and then the normal display reappears. If the code is not accepted, after the message "RETRY" has been displayed, the code entry display reappears, and you should try entering the code again. To cancel this procedure at any point, press the [CUSTOM] button.
6	Select the remote controller mode, point the remote controller at the component, and check its operation. The remote controller buttons that can be used in DVD mode are shown on page 17. Those that can be used with the TV, VCR, CBL, and SAT modes are listed on pages 92 and 93.

Remote Control Codes for an Onkyo DVD player

The remote control code that you use with an Onkyo DVD player depends on whether it's connected via **RI**, as follows:

- 5001:** Use this code if you've connected an **RI** cable and an RCA/phono analog audio cable to your DVD player. This is the default setting, so if you're using **RI**, you don't need to change it. Point the remote controller at the TX-NR901 to operate the DVD player.
- 5002:** Use this code if your DVD player doesn't have an **RI** socket, or you're not using **RI**. Point the remote controller at the DVD player to operate it.

Using the Remote Controller with Other Components—Continued

Remote Control Codes

When two or more codes are given, try each one in turn, and choose the one that works best.

DVD (DVD player)

Manufacturer	Control code
Aiwa	5010
Akai	5019
Apex	5015, 5016
CyberHome	5027
Denon	5017, 5020
GE	5003
Hitachi	5009
JVC	5023
Kenwood	5017
Magnavox	5004, 5021
Marantz	5025, 5026
Mitsubishi	5005
Onkyo	5001, 5002
Panasonic	5011, 5017, 5020
Philips	5004, 5021, 5028
Pioneer	5006
Proscan	5003
RCA	5003
Sanyo	5012
Sony	5007, 5013, 5018, 5029
Technics	5020
Thomson	5022, 5024
Toshiba	5008, 5021
Xbox	5022
Yamaha	5020
Zenith	5014, 5021

SAT (satellite receiver)

Manufacturer	Control code
Alba	4014, 4017, 4025, 4027
Allsat	4015, 4027
Alltech	4022, 4025
Amstrad	4013, 4019, 4025, 4030, 4031
Anglo	4025
Ankaro	4025
Antron	4017
Apollo	4017
Arcon	4016
Armstrong	4013
Asat	4016
Astra	4013, 4016, 4024
Astro	4019, 4020
AudioTon	4015
Bush	4012, 4014
Condor	4024
Conrad	4024
Cosat	4015, 4023
Crown	4013
Daewoo	4016, 4017, 4025
Diamond	4022
Dishnet	4008
Dual	4016
EchoStar	4010, 4018, 4025
Einhell	4013, 4017, 4025
Elta	4015, 4017
Engel	4025
Eurosat	4013, 4022

SAT (satellite receiver)

Manufacturer	Control code
Eurosky	4013, 4024
Eurostar	4024
Fagor	4015, 4023
Ferguson	4012
Fidelity	4030
Fracarro	4017
FTE	4025, 4030
Fuba	4017
Galaxis	4015, 4023
GE	4001, 4002
General Instruments	4003
GMI	4013
Grundig	4021, 4029, 4031
Hinari	4017
Hirschmann	4019, 4035
Hitachi	4036, 4037
Hughes Network Systems	4011
Huth	4013, 4015, 4024
Imperial	4014
Intertronic	4013
Intervision	4015, 4023, 4024
Johansson	4015
JVC	4009, 4021
Kathrein	4025
Kolon	4017
K-SAT	4025
Kyostar	4017
Lasat	4013, 4020, 4024
Lenco	4016, 4017, 4025
Lennox	4023
Loewe	4013
Lorenzen	4024
Macab	4022
Manhattan	4015, 4020, 4023
Maspro	4021, 4025
Matsui	4021
Mediamarkt	4013
Medion	4025
Metronic	4013, 4017, 4020
Micro Technology	4025
Minerva	4021
Morgan's	4013, 4015, 4025
Mysat	4025
Neuhaus	4019, 4023, 4024, 4025
Neusat	4025
Nikko	4013, 4025, 4027
Nokia	4033
Nordmende	4017, 4020
Oceanic	4022
Octagon	4016, 4017
Okano	4013
Optex	4015, 4023
Orbit	4016
Orbitech	4017, 4019
Pace	4012, 4026, 4031
Pacific	4022
Palladium	4013, 4017, 4021
Palsat	4019
Panasonic	4006, 4031
Panda	4024
Philips	4021, 4029
Phonotrend	4015, 4023
Predki	4017
Premier	4023

SAT (satellite receiver)

Manufacturer	Control code
Primestar	4007
Proscan	4001, 4002
Protek	4022
Pye	4021
Quelle	4024
Radix	4035
RCA	4001, 4002
Roadster	4025
Rover	4025
Saba	4014, 4020, 4024, 4027
Samsung	4017
Satcom	4024
SatPartner	4017, 4020, 4027, 4030
Schneider	4029
Sedea Electronique	4017
Seemann	4013
SEG	4017, 4028
Seleco	4015, 4023
Skymaster	4025, 4034
Skyvision	4015
Sony	4005, 4031
Strong	4016, 4017, 4020
Sunstar	4013
Techniland	4015, 4023
TechniSat	4019
Teco	4013, 4016
Teleciel	4027
Telefunken	4017
Teleka	4013
Telemaster	4020
Telewire	4015, 4023
Tensai	4016
Thomson	4024, 4025
Thorens	4022
Tonna	4015, 4023, 4025
Toshiba	4004
Triasat	4019
Tristar	4016
Unisat	4013
Universum	4021, 4024
Vortec	4017
Wela	4025
Zehnder	4020
Zenith	4032

Using the Remote Controller with Other Components—Continued

CBL (cable receiver)	
Manufacturer	Control code
ABC	3001, 3002, 3021
Archer	3006
Cabletime	3028, 3032
Cableview	3004
Contec	3009
Eastern	3010
GE	3001, 3002
Gemini	3011
General Instruments	3002, 3022
Grundig	3031
Hamlin	3012
Hitachi	3002
Jerrold	3002, 3011, 3013, 3021, 3022, 3023, 3026
Magnavox	3014
Memorex	3015
Movie Time	3016
NEC	3003
Nokia	3033
NSC	3016
Oak	3009
Panasonic	3020
Philips	3007, 3008, 3014
Pioneer	3017, 3024
Proscan	3001, 3002
RCA	3004, 3020, 3022
Realistic	3006
Sagem	3034
Salora	3029
Samsung	3017
Signature	3002
Sprucer	3020
Standard Component	3018
Starcom	3011, 3021
Stargate	3011
Tele+1	3030
Tocom	3013
United Cable	3021, 3023
Universal	3005, 3006
Videoway	3025
View Star	3009, 3014, 3016
Zenith	3019

VCR	
Manufacturer	Control code
Aiwa	2012, 2046, 2047
Akai	2003, 2004, 2022
Alba	2033, 2041, 2044, 2045, 2047
Anitech	2033
ASA	2034
Baird	2036
Bell & Howell	2007
Blaupunkt	2039, 2042
Bush	2033, 2041, 2044, 2045, 2047
Canon	2010, 2011
Carver	2014
Cimline	2033
Citizen	2008, 2009
Colortyme	2005
Craig	2008
Crown	2033
Curtis Mathes	2001, 2005, 2008, 2009, 2010, 2011, 2023, 2026

VCR	
Manufacturer	Control code
Cyrus	2034
Daewoo	2012
Dansai	2033
Decca	2034
Dimensia	2001, 2026
Dumont	2034, 2036, 2037
Elcotech	2033
Emerson	2003, 2010, 2012, 2022
ESC	2043
Ferguson	2035
Finlandia	2034, 2036
Finlux	2034, 2036, 2037
Firstline	2033, 2041
Fisher	2007, 2030, 2036
Fuji	2004, 2010, 2024
Funai	2012
Garrard	2012
GE	2001, 2002, 2008, 2010, 2011, 2023, 2025, 2026
GEC	2034
GoldHand	2033
GoldStar	2005, 2009
Goodmans	2031, 2033
Gradiente	2012
Graetz	2036, 2043
Granada	2030, 2034, 2036
Grandin	2033
Grundig	2029, 2033, 2034, 2039, 2040, 2042, 2044
Harman Kardon	2005
HCM	2033, 2044
Hinari	2028, 2033, 2043, 2044, 2047
Hitachi	2013, 2021, 2025, 2028, 2037, 2038, 2043
Ingersol	2028
Interfunk	2034
ITT	2030, 2036, 2043, 2048
JC Penney	2005, 2006, 2007, 2008, 2010, 2011, 2013, 2014, 2021
Jensen	2013
JVC	2005, 2006, 2007, 2009, 2032, 2035, 2040, 2048
Kaisui	2033
Kendo	2041, 2046
Kenwood	2005, 2006, 2007, 2009
Kodak	2010
Loewe	2028, 2034
Logik	2028, 2043
Luxor	2030, 2031, 2036
Magnavox	2010, 2011, 2014, 2019, 2020
Marantz	2005, 2006, 2007, 2009, 2010, 2014, 2031, 2034
Matsui	2028, 2041, 2046, 2047
Matsushita	2010
Memorex	2007, 2008, 2010, 2012, 2019, 2030, 2036
Metz	2039
MGA	2022
Minerva	2039
Minolta	2013, 2021
Mitsubishi	2013, 2022, 2032, 2034
Motorola	2010
MTC	2008
Multitech	2008, 2012, 2033

VCR	
Manufacturer	Control code
NEC	2005, 2006, 2007, 2009, 2032
Neckermann	2034
Nesco	2033
NOBLEX	2008
Nokia	2030, 2036, 2043
Nordmende	2048
Okano	2046
Olympus	2010
Optonica	2017
Orion	2028, 2041, 2045, 2046, 2047
Osaki	2033
Otto Versand	2034
Palladium	2033
Panasonic	2010, 2011, 2042
Pentax	2013, 2021, 2025, 2037
Pentex Research	2009
Philco	2010, 2011, 2014
Philips	2010, 2014, 2017, 2034, 2048
Phonola	2034
Pioneer	2006, 2013, 2032, 2034
Proline	2044
Proscan	2001, 2002, 2026
Pye	2034
Quasar	2010, 2011
Quelle	2034
Radio Shack	2017
Radio Shack/Realistic	2007, 2008, 2010, 2011, 2012, 2017
Radiola	2034
RCA	2001, 2002, 2003, 2008, 2010, 2013, 2021, 2023, 2025, 2026, 2027
Realistic	2007, 2008, 2010, 2011, 2012, 2017
Rex	2048
Roadstar	2033, 2043
Runco	2019
Saba	2040, 2048
Saisho	2028, 2041
Salora	2030
Samsung	2008, 2043, 2049
Sansui	2006, 2032
Sanyo	2007, 2008, 2030, 2036
Saville	2047
SBR	2034
Schaub Lorenz	2036
Schneider	2033, 2034
Scott	2015
Sears	2007, 2010, 2013, 2021
SEG	2043
SEI	2028, 2034
Sharp	2016, 2017, 2031
Shintom	2004, 2033, 2036
Shorai	2028
Siemens	2034, 2036, 2039
Singer	2010
Sinudyne	2028, 2034
Sonolor	2030, 2031
Sony	2004, 2018, 2024

Using the Remote Controller with Other Components—Continued

VCR	
Manufacturer	Control code
STS	2010, 2021
Sunkai	2046
Sylvania	2010, 2011, 2012, 2014
Symphonic	2012
Tandy	2007
Tatung	2034
Teac	2012
Technics	2010, 2042
Teknika	2010, 2012
Telefunken	2048
Thomson	2048
Thorn	2035, 2036
Toshiba	2013, 2015, 2022, 2034, 2048
Totevision	2008
Uher	2043
Unitech	2008
Universum	2034, 2039, 20403
Vector Research	2005, 2006
Video Concepts	2005, 2006, 2022
Wards	2008, 2010, 2012, 2013, 2017, 2021, 2027
XR-12000	2010, 2012
Yamaha	2005, 2006, 2007, 2009
Yoko	2043
Zenith	2004, 2019, 2024

TV	
Manufacturer	Control code
Admiral	1026, 1040, 1062
Akai	1002, 1067
Akura	1045
Alba	1035, 1043
Amplivision	1063
Amstrad	1035, 1067
Amtron	1009
Anam National	1003, 1009
Anitech	1035
AOC	1004, 1005, 1006
Arc en Ciel	1066
Arcam	1063
ASA	1040
Audiovox	1009
Autovox	1040, 1068
Baird	1069
Bang & Olufsen	1040
Baur	1036, 1054, 1055, 1058, 1059, 1068
Beko	1052
Bell & Howell	1010, 1017
Binatone	1063
Blaupunkt	1041, 1042, 1044, 1058, 1059
Boots	1063
Brionvega	1040
Bruns	1040
BSR	1048
Bush	1035, 1043, 1048, 1050, 1053, 1057
Cascade	1035
Celebrity	1002
Century	1040
Cimline	1035, 1043
Citizen	1004, 1006, 1009, 1017, 1022, 1025

TV	
Manufacturer	Control code
Ciatronic	1052
Colortyme	1004, 1006
Condor	1052
Contec	1035
Contec/Cony	1007, 1009
Continental Edison	1066
Craig	1009
Crosley	1040
Crown	1009, 1014, 1035, 1052
Curtis Mathes	1001, 1004, 1006, 1010, 1017, 1022, 1025, 1034
Daewoo	1004, 1005, 1006, 1025, 1035, 1053
Daytron	1004, 1006, 1025, 1035
Decca	1067
Dimensia	1001, 1034
Dixi	1035
Dual	1057, 1068
Dumont	1004, 1039, 1040
Electroband	1002
Electrohome	1002, 1003, 1004, 1006, 1008
Elita	1035
Emerson	1004, 1006, 1007, 1009, 1010, 1017, 1025, 1027, 1029, 1033, 1040
Envision	1004, 1006
Erres	1037
Europhon	1067
Fidelity	1068
Finlux	1039, 1040, 1067
Firstline	1035, 1043, 1048, 1049, 1063
Fisher	1010, 1017, 1052, 1063, 1068
Formenti	1040
Frontech	1045, 1062
Funai	1009, 1045, 1048
GE	1001, 1003, 1004, 1006, 1011, 1012, 1019, 1034
GEC	1038, 1063, 1067, 1069
Geloso	1035
Genexxa	1062
GoldStar	1004, 1005, 1006, 1007, 1008, 1025, 1047, 1063
Goodmans	1043, 1053, 1063
Gorenje	1052
Graetz	1062, 1069
Granada	1063, 1067
Grundig	1039, 1041, 1042, 1058, 1059, 1064
Hallmark	1004, 1006
Hanseatic	1060, 1068
Hantarex	1067
HCM	1035
Hinari	1035, 1043
Hitachi	1004, 1006, 1007, 1013, 1027, 1038, 1062, 1063, 1069
Huanyu	1053
ICE	1045, 1063
Imperial	1052
Infinity	1014
Inno Hit	1056, 1067
Interfunk	1055, 1062, 1066, 1069
Intervision	1045, 1063
ITT	1062, 1068, 1069
JBL	1014

TV	
Manufacturer	Control code
JC Penney	1001, 1004, 1005, 1006, 1011, 1012, 1016, 1019, 1022, 1025, 1034
Jensen	1004, 1006
JVC	1007, 1012, 1013, 1015, 1033
Kaisui	1035, 1063
Kapsch	1062, 1069
Kathrein	1060
Kawasho	1002, 1004, 1006
Kendo	1043
Kenwood	1004, 1006, 1008
Kloss Novabeam	1009
Korting	1040
KTV	1009, 1025
LG	1005
Loewe	1014, 1040, 1055
Luxman	1004, 1006
LXI	1001, 1006, 1010, 1014, 1016, 1017, 1034
M Electronic	1035, 1053, 1062, 1063
Magnadyne	1040, 1067, 1068
Magnafon	1067
Magnavox	1004, 1006, 1008, 1014, 1018, 1020
Marantz	1004, 1006, 1014, 1060
Matsui	1035, 1043, 1048, 1050, 1063, 1064, 1067, 1068
Megatron	1006
Memorex	1005, 1006, 1010, 1017, 1035
Metz	1040, 1051, 1058
MGA	1004, 1005, 1006, 1008
Minerva	1039, 1058, 1059, 1064
Mitsubishi	1004, 1005, 1006, 1008, 1040, 1055, 1058
Mivar	1047, 1056, 1067
Motorola	1003, 1026
MTC	1004, 1005, 1006, 1022, 1055
Multitech	1009, 1035
NAD	1006, 1016
NEC	1003, 1004, 1005, 1006
Neckermann	1040, 1041, 1054, 1059, 1060
Nikkai	1045
Nikko	1006
Oceanic	1062
Onwa	1009
Optonica	1021, 1026
Orion	1029, 1043, 1048, 1049, 1050, 1067, 1068
Osaki	1045, 1063
Otto Versand	1036, 1041, 1043, 1054, 1055, 1058, 1059, 1060, 1063
Palladium	1052
Panasonic	1003, 1012, 1014, 1031, 1044, 1046, 1051, 1061, 1062, 1069
Pathe Marconi	1066
Philco	1003, 1004, 1005, 1006, 1007, 1008, 1014, 1018, 1040

Using the Remote Controller with Other Components—Continued

TV	
Manufacturer	Control code
Philips	1003, 1004, 1007, 1008, 1014, 1018, 1019, 1020, 1037, 1038, 1040, 1053
	1059, 1060
Phoenix	1040
Phonola	1037, 1040
Pioneer	1004, 1006, 1027, 1062
Portland	1004, 1005, 1006, 1025
Price Club	1022
Prism	1012
Profex	1035
Proline	1049
Proscan	1001, 1034
Protech	1035, 1045, 1063
Proton	1004, 1006, 1007
Pye	1037
Quasar	1003, 1012, 1031
Quelle	1036, 1039, 1054, 1055, 1058, 1059, 1068
Radio Shack	1010, 1017, 1034
Radio Shack/Realistic	1001, 1004, 1006, 1007, 1009, 1010, 1017, 1021, 1025
Radiola	1037
Radiomarelli	1040, 1067
RCA	1001, 1003, 1004, 1005, 1006, 1008, 1027, 1034
Realistic	1010, 1017, 1034
Rex	1045, 1062
RFT	1040
Roadstar	1035, 1045
Saba	1040, 1062, 1066, 1069
Saisho	1035, 1043, 1045, 1067, 1068
Salora	1062
Sambers	1056, 1067
Sampo	1004, 1006, 1025
Samsung	1004, 1005, 1006, 1007, 1008, 1022, 1025, 1035, 1045, 1047, 1052, 1056
	1060, 1063, 1065
Sansui	1029
Sanyo	1004, 1010, 1017
SBR	1037, 1038
Schaub Lorenz	1069
Schneider	1068
Scott	1004, 1006, 1007, 1009
Sears	1001, 1004, 1006, 1008, 1010, 1015, 1016, 1017, 1028, 1034
SEG	1045, 1063
SEI	1036, 1040, 1048, 1067, 1068
Seleco	1062
Sharp	1004, 1006, 1007, 1021, 1023, 1025, 1026
Shorai	1048
Siarem	1040, 1067
Siemens	1041, 1042, 1058, 1059
Singer	1040
Sinudyne	1036, 1040, 1043, 1067, 1068
Solavox	1062
Sonoko	1035
Sonolor	1062
Sony	1002, 1030, 1032, 1036, 1054
Soundesign	1004, 1006, 1009
Starlite	1009

TV	
Manufacturer	Control code
Stern	1062
Sunkai	1043, 1048, 1049, 1050
Sylvania	1004, 1006, 1008, 1014, 1018, 1020
Symphonic	1009, 1028
Tandy	1026, 1062, 1063
Tashiko	1038, 1063
Tatung	1003, 1063, 1067
Tec	1063
Technics	1012, 1044, 1061
Techwood	1004, 1006, 1012
Teknika	1004, 1005, 1006, 1007, 1009, 1022, 1025, 1031
Teleavia	1066
Telecaption	1024
Telefunken	1066
Teletex	1035
Teleton	1063
Tensai	1048
Thomson	1066
Thorn	1054, 1055, 1058
Toshiba	1010, 1016, 1017, 1022, 1024, 1039
Totevision	1025
Triumph	1067
Universal	1011, 1019
Universum	1045, 1052, 1058
Voxson	1040, 1062
Waltham	1063
Wards	1001, 1004, 1005, 1006, 1008, 1011, 1014, 1018, 1019, 1020, 1021, 1034
Watt Radio	1068
Wega	1040
Yamaha	1004, 1005, 1006, 1008
Yoko	1045, 1063
Zenith	1004

Controlling a Satellite Receiver

1. Press the [MODE] button, and then roll the scroll wheel to select SAT.
2. Point the remote controller at your satellite receiver, and use the following buttons (you must enter appropriate remote control code first).

[ON], [STANDBY]	Set the satellite receiver to On or Standby
[MENU]	Display menu
[CH/DISC]	Select satellite channels
[▲]/[▼]/[◀]/[▶]	Select menu items
[ENTER]	Confirm selection
Number buttons	Enter numbers

The following buttons control the TX-NR901.

[VOL]	Adjust the TX-NR901 volume
[MUTING]	Mute the TX-NR901

Controlling a VCR

1. Press the [MODE] button, and then roll the scroll wheel to select VCR.
2. Point the remote controller at your VCR, and use the following buttons (you must enter appropriate remote control code first).

[ON], [STANDBY]	Set the VCR to On or Standby
[CH/DISC]	Select TV channels
[TV INPUT]	Select TV or VCR input
[▶]	Play
[■]	Stop
[◀◀]	Rewind
[▶▶]	Fast forward
[⏸]	Pause
Number buttons	Enter numbers

The following buttons control the TX-NR901.

[VOL]	Adjust the TX-NR901 volume
[MUTING]	Mute the TX-NR901

Controlling a TV

1. Press the [MODE] button, and then roll the scroll wheel to select TV.
2. Point the remote controller at your satellite receiver, and use the following buttons (you must enter appropriate remote control code first).

TV [⏻/⏻]	TV on/off
TV CH [+]/[-]	Select TV channels
[ENTER]	Confirm selection
Number buttons	Enter numbers
TV VOL [▲]/[▼]	Adjust the TV volume

The following buttons control the TX-NR901.

[VOL]	Adjust the TX-NR901 volume
[MUTING]	Mute the TX-NR901

Controlling a Cable Receiver

1. Press the [MODE] button, and then roll the scroll wheel to select CBL.
2. Point the remote controller at your satellite receiver, and use the following buttons (you must enter appropriate remote control code first).

[ON], [STANDBY]	Set the cable receiver to On or Standby
[CH/DISC]	Select cable channels
[ENTER]	Confirm selection
[TV INPUT]	Select TV or VCR input
Number buttons	Enter numbers

The following buttons control the TX-NR901.

[VOL]	Adjust the TX-NR901 volume
[MUTING]	Mute the TX-NR901

Learning Commands from Another Remote Controller

You can teach the TX-NR901's remote controller new commands simply by transmitting commands from another remote controller one at time. For example, by transmitting the Play and Stop commands from your CD player's remote controller, the TX-NR901's remote controller can be taught to transmit those commands when its Play [▶] and Stop [■] buttons are pressed in CD mode.

1	Press and hold the [CUSTOM] button for more than three seconds. The remote controller enters Custom mode.
2	Roll the scroll wheel to select LEARN, and then press the scroll wheel.
3	Roll the scroll wheel to select the remote controller mode you want to teach a new command, and then press the scroll wheel. The following remote controller modes can be selected: DVD, TV, VCR, CBL, or SAT.
4	On the TX-NR901's remote controller, press the button you want to teach the new command. If you press a button that cannot be taught a new command, the message "RETRY" appears and you should press another button.

5	Point the remote controllers at each other, about 2 to 6 inches (5–15 cm) apart, and then, on the other remote controller, press the button whose command you want to learn. When the command has been learnt successfully, "OK" appears on the display. You may need to press the button several times. If the command is not learnt successfully, after the message "FAIL" has been displayed, the mode select display reappears (step 3), and you should try again.
6	To teach the TX-NR901's remote controller more new commands, repeat steps 3 through 5. Press the [CUSTOM] button when you've finished.

Note:

- The following buttons cannot be taught new commands: [LIGHT], [CUSTOM], [MACRO], [MODE], [INPUT], [ZONE 2], and the scroll wheel button.

Using Macros

With the Macro function you can program the remote controller to perform a sequence of actions with one press of a button. For example, normally you need to perform the following actions to use a CD player that's connected to the TX-NR901:

- 1. Press the scroll wheel, (to select AMP mode).
- 2. Press the [ON] button (to turn on the TX-NR901).
- 3. Roll the scroll wheel to select CD (to select the CD remote controller mode and the CD input source).
- 4. Press the Play [▶] button (to start the CD player).

With the Macro function you can program the remote controller to do all of this with one press of a button.

Making Macros

You can make up to eight macros, and each macro can perform up to eight actions.

1	Press and hold the [CUSTOM] button for more than three seconds. The remote controller enters Custom mode.
2	Roll the scroll wheel to select MACRO, and then press the scroll wheel.
3	Roll the scroll wheel to select EDIT, and then press the scroll wheel.
4	Roll the scroll wheel to select a macro, and then press the scroll wheel. Macros are numbered from 1 to 8. Macro #1 selected Action #1

5	On the remote controller, press the buttons whose actions you want to program into the macro in the order you want them performed. To program the CD example in the left column into a macro: press the scroll wheel, press the [ON] button, roll the scroll wheel to select CD, press the scroll wheel, and then press the Play [▶] button. Actions are numbered from 1 to 8. Macro #1 selected 8 actions learnt After each button is pressed, "SET" followed by "KEY" is displayed. To add an action that selects an input source for the main room or Zone 2, press the [INPUT] button or [ZONE 2] button, respectively, roll the scroll wheel to select the input source, and then press the scroll wheel.
6	When you've finished, press the [MACRO] button. After the following appears on the display, the display returns to normal.

Running Macros

Programmed macros can be run as follows.

1	Press the [MACRO] button.
2	Press the number button corresponding to the macro's number. The actions in the macro are performed in the order in which they were programmed.

Naming Macros

You can name your macros as follows. Names may contain of up to five characters.

1	Press and hold the [CUSTOM] button for more than three seconds. The remote controller enters Custom mode.
2	Roll the scroll wheel to select MACRO, and then press the scroll wheel.
3	Roll the scroll wheel to select NAME, and then press the scroll wheel.
4	Roll the scroll wheel to select the number of the macro that you want to name, and then press the scroll wheel. Macro #1 selected 1st character
5	Roll the scroll wheel to select a character, and then press the scroll wheel to set it. The following characters are available. 0 1 2 3 4 5 6 7 8 9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z + - = < > _ ^ / \ space 1st character set

6

Repeat step 5 until you've entered all 5 characters.

The previous menu reappears.

If the name you are entering consists of less than five characters, enter spaces at the end to make it up to five.

Editing Remote Controller Modes

Adding New Remote Controller Modes

You can add additional modes (DVD, TV, VCR, CBL, SAT) to the remote controller. This is useful if, for example, you have several DVD players or TVs.

1	Press and hold the [CUSTOM] button for more than three seconds. The remote controller enters Custom mode.
2	Roll the scroll wheel to select MODE, and then press the scroll wheel.
3	Roll the scroll wheel to select ADD, and then press the scroll wheel.
4	Roll the scroll wheel to select the type of mode you want to add, and then press the scroll wheel. You can add up to 5 additional DVD modes, 3 TV modes, 2 VCR modes, and 2 CBL modes.

Reordering the Remote Controller Modes

You can change the order in which the remote controller modes appears when you roll the scroll wheel. The position of the AMP mode cannot be changed.

1	Press and hold the [CUSTOM] button for more than three seconds. The remote controller enters Custom mode.
2	Roll the scroll wheel to select MODE, and then press the scroll wheel.
3	Roll the scroll wheel to select SORT, and then press the scroll wheel.
4	Roll the scroll wheel to select the mode you want to move, and then press the scroll wheel.
5	Roll the scroll wheel to select the mode before which you want to insert the specified mode, and then press the scroll wheel. Here the specified mode will be inserted before the “VCR” mode. If the move is successful, after “OK” has been displayed, the SORT display (step 3) reappears.

Deleting Remote Controller Modes

You can delete remote controller modes that you don't need, such as modes for components that you don't have. The AMP mode cannot be deleted.

1	Press and hold the [CUSTOM] button for more than three seconds. The remote controller enters Custom mode.
2	Roll the scroll wheel to select MODE, and then press the scroll wheel.
3	Roll the scroll wheel to select DEL, and then press the scroll wheel.
4	Roll the scroll wheel to select the mode you want to delete, and then press the scroll wheel. If the mode is deleted successfully, after "OK" has been displayed, the DEL display (step 3) reappears.

Assigning Remote Controller Modes

With this function you can assign a remote controller mode to an input source. This is useful when you connect, say, a CD recorder to the TAPE IN/OUT sockets. In this case it's convenient to assign the remote controller's CD mode to the TAPE input source.

1	Press and hold the [CUSTOM] button for more than three seconds. The remote controller enters Custom mode.
2	Roll the scroll wheel to select MODE, and then press the scroll wheel.
3	Roll the scroll wheel to select ASSIGN, and then press the scroll wheel.
4	Roll the scroll wheel to select the mode you want to assign, and then press the scroll wheel.
5	Roll the scroll wheel to select the input source you want to assign to the specified mode, and then press the scroll wheel. If the assignment is successful, after "OK" has been displayed, the ASSIGN display (step 3) reappears.

Resetting the Remote Controller

You can reset the remote controller to its default settings.

1	Press and hold the [CUSTOM] button for more than three seconds. The remote controller enters Custom mode.
2	Roll the scroll wheel to select MODE, and then press the scroll wheel.
3	Roll the scroll wheel to select RESET, and then press the scroll wheel.
4	Roll the scroll wheel to select YES, and then press the scroll wheel. The remote controller is reset to its default settings.