

ONKYO®

RF Receiver

RFR-5

Instruction Manual

Thank you for purchasing the Onkyo RF 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 RF Receiver. Please retain this manual for future reference.

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Precautions

Care

From time to time you should wipe the front and rear panels and the cabinet with a soft cloth. For heavier dirt, dampen a soft cloth in a weak solution of mild detergent and water, wring it out dry, and wipe off the dirt. Following this, dry immediately with a clean cloth. Do not use rough material, thinners, alcohol or other chemical solvents or cloths since these could damage the finish or remove the panel lettering.

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.

NOTE:

If serial or parallel ports are configured, a filtered/shielded serial or parallel cable is recommended to minimize EMI and ensure FCC B compliance.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

For Canadian models

NOTE: THIS CLASS B DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003.

For models having a power cord with a polarized plug:

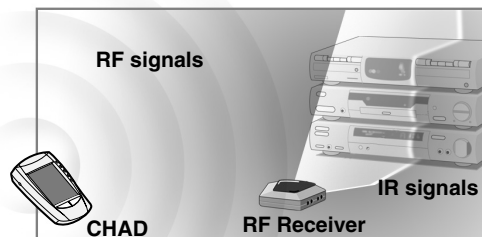
Modèle pour les Canadien

REMARQUE: CET APPAREIL NUMÉRIQUE DE LA CLASSE B EST CONFORME À LA NORME NMB-003 DU CANADA.

Introduction

About the RFR-5

Most remote controller systems have to be operated by pointing the remote controller directly towards a device. Any obstacle between the remote controller and the device disturbs the operating signal. But what if you like to place your devices inside a closed cabinet, a closet or even in another room? The RFR-5 provides the solution to overcome obstacles like furniture or walls. Your devices no longer have to be placed in line of sight but can be operated from virtually any location. The RFR-5 is a RF Receiver that is used in combination with the Chad Remote Controller. The RF Receiver receives radio frequency (RF) signals sent out by the Chad and converts them into infrared (IR) signals. These IR signals are then sent out to your TV, DVD, preamplifier and so on.

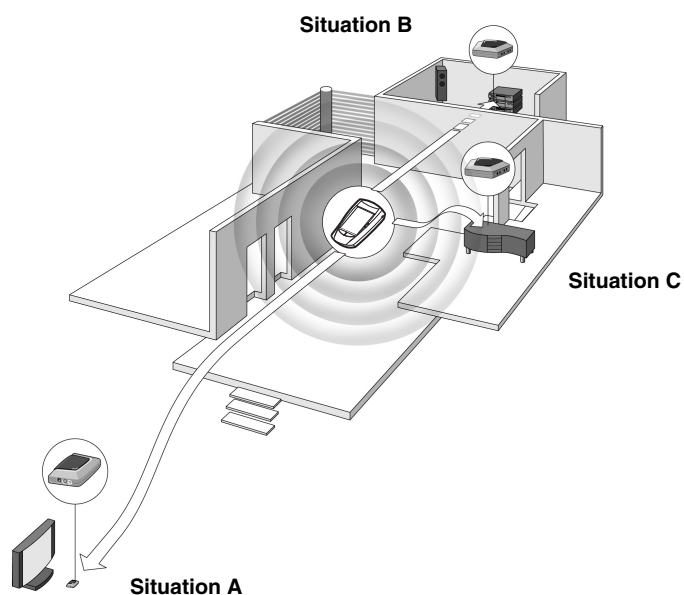


Introduction

Possible Set-ups

The RF Receiver can be used in several situations:

- Your devices can be remotely controlled while the RF Receiver is placed in line of sight (situation A).
- The RF Receiver controls devices placed in an adjacent room (situation B).
- The RF Receiver is placed inside a closet, a rack or another piece of furniture together with your devices (situation C).
- The set-ups in situation A, B and C can be combined. If you want to control devices in different locations, you have to place a RF Receiver in each location. You can control all RF Receiver with the same Chad Remote Controller. See Multiple RF Receiver on p. 8 to apply the necessary settings.



Installation

The following components should be present: RF Receiver, power adapter, 3 IR emitters, Mono cable and 4 screws.

Before you install the RF Receiver, you should decide which of the set-ups described on p. 2 apply to your needs. It is recommended to read through the entire User Guide.

Working Angle and Range of the IR blaster

Note:

The IR signals sent out by the RF Receiver always have to be able to reach the receiving eyes of your devices. Make sure that the IR blaster (dark plastic window on top of the RF Receiver) is aimed at your devices.

To get optimal results, it is recommended to place the RF Receiver horizontally with the IR blaster facing up or down.

Maximum distance: 16 feet (5 m)

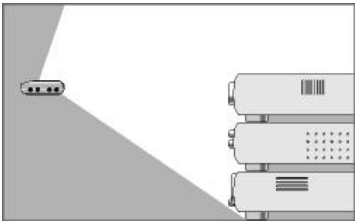


Figure 2: IR blaster facing up

Figure 2 represents the RF Receiver with the IR blaster facing up. The RF Receiver can be placed at a distance and higher than your devices. Make sure there are no objects between the RF Receiver and the receiving eyes of the devices.

Minimum distance: 4 inches (10 cm)

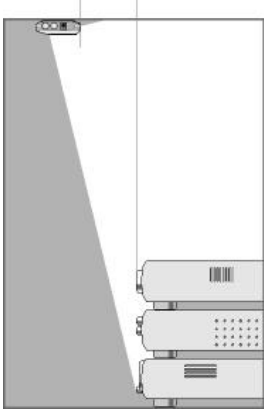


Figure 1: IR blaster facing down

Figure 1 represents the RF Receiver mounted up side down inside a closet. Always maintain a minimum distance of 4 inches (10 cm) between the RF Receiver and your devices.

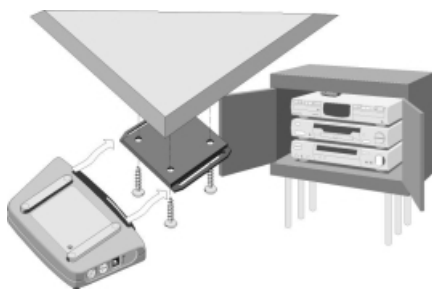
Installation

Mounting

The RF Receiver can be mounted to a piece of furniture using the included mounting plate and the 4 screws. Take into account the range and the working angle of the IR blaster as explained on p. 4. Also make sure to place the RF Receiver in a central position aimed directly at your devices.

Note:

It is advised not to place the RF Receiver inside a metal closet as RF signals can be disturbed by metal objects.



- 1 Remove the mounting plate from the bottom of the RF Receiver.**

- 2 Screw the plate to a rack, closet or another piece of furniture.**

Provide sufficient space to connect the power adapter and to slide the RF Receiver back on.

Note:

Depending on the surface, it may be possible to attach the RF Receiver to the furniture using a piece of 2-sided tape. Look for the right position and make sure there is sufficient space.

- 3 Slide the RF Receiver on the mounting plate.**

Using the IR Emitters

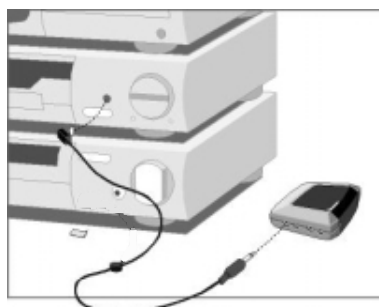
Like the IR blaster of the RF Receiver, the IR emitters send out IR signals. You can use the IR emitters as an alternative for the IR blaster.

Note:

It is advised not to place the RF Receiver inside a metal closet as RF signals can be disturbed by metal objects.

When to use the emitters

The IR emitters can control devices the IR blaster cannot reach, for instance when there is limited space around the receiving eyes of the devices, e.g. in a small closet.



Note:

The IR emitters can also be used in combination with the IR blaster of the RF Receiver. Both send out IR signals simultaneously. This allows you to operate several devices using both the IR blaster and the IR emitters.

Installation

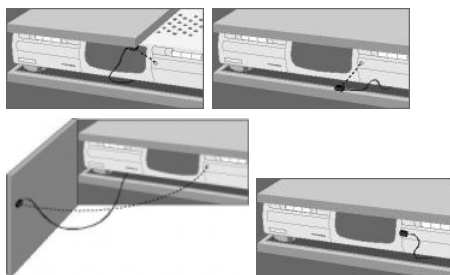
How to use the emitters

The IR emitters can be attached to the surrounding surface facing the receiving eyes or directly to the receiving eyes.

- 1 **Attach the emitters to a surface above, below or in front of the receiving eyes of your devices (for aesthetic appearance or when it is difficult to locate the receiving eye).**

–OR–

Attach the emitters directly to the receiving eyes of your devices.



- 2 **Plug the IR emitters into the RF Receiver.**

To avoid interference, the wires of the emitters should be kept away from the RF Receiver as far as possible.

Connecting Onkyo components equipped with IR IN terminal

The 3.5mm mono cable (included with the RF Receiver) can be used to connect the RF Receiver to Onkyo components equipped with IR IN terminal for controlling the Onkyo components.

Connecting the Power Adapter



When connecting the power adapter it is recommended that you plug the adapter into the RF Receiver before you plug it into the socket. When connected you will see a red LED on the RF Receiver.

Note:

To avoid interference, the adapter cable should not be placed directly above or below the RF Receiver.

Installation

Settings

As the RF Receiver “communicates” with the Chad Remote Controller, you have to set the same Receiver ID (identity) on both appliances. The settings depend on whether you have a single RF Receiver or multiple RF Receiver.

Single RF Receiver

When you use only one RF Receiver, you can accept the default setting for the Receiver ID (ID=0). Make sure your Chad Remote Controller is set to the same default setting (see the Chad User Guide for more details).

Multiple RF Receiver

If you want to operate several of your devices independently, e.g. grouped on different locations, you will need multiple RF Receiver. When using several RF Receiver, it is important to assign a unique Extender ID to each RF Receiver. 16 Extender IDs (from 0 to 9 and from A to F) can be assigned.

- 1 **Choose an Receiver ID for the RF Receiver by turning the ID dial with a small screwdriver.**



- 2 **On the Chad Remote Controller, choose the same Extender ID for each device controlled by the RF Receiver.**

Refer to the Chad User Guide for more information.

- 3 **Try to operate your devices with the Chad Remote Controller.**

The red LED will blink when the RF Receiver receives a correct command.

- 4 **Repeat this procedure for every RF Receiver.**

RF Interference

If your devices are not responding to commands or if the red LED on the IR blaster is blinking without sending commands, it might be possible that there is RF interference. This can be the case when other RF appliances are operated nearby, for instance by your neighbours.

When you notice RF interference, you have to choose another channel on your RF Receiver. 4 channels (CH from 0 to 3) can be assigned.

- 1 **Choose a channel for the RF Receiver by turning the CH dial with a small screwdriver.**
- 2 **On the remote controller, choose the same channel for each device controlled by the RF Receiver.**
Refer to the Chad manual for more information.
- 3 **Try to operate your devices with the remote controller.**

Troubleshooting

Devices do not respond properly

- Check if the power adapter is connected and the red LED is on.
- Check if the ID and channel numbers on the RF Receiver match with the ID and channel numbers on the Chad Remote Control (see p. 8). Refer to the Chad User Guide for more details on the settings of the Remote Control.
- Check the placement of the RF Receiver:
 - Check the range and the working angle of the IR blaster (see p. 5).
 - Check if the RF Receiver is placed in a central position relative to your devices (see p. 6).
 - Make sure that the distance between the RF Receiver and your device is at least 4 inches (10 cm).
 - Make sure that the distance between the RF Receiver and your device is at most 16 feet (5 meters).
 - Make sure the IR signals between the RF Receiver and the receiving eyes of your devices are not disturbed by any objects.
 - Check if metal objects, for instance a metal closet, wires or cables, surrounding the RF Receiver do not disturb the RF signals.
 - If you are using the IR emitters, make sure they are connected properly and that they are placed within range of the receiving eyes (see p. 7).
- It might be possible that some commands cannot be sent out as RF signals. In that case you will have to reconfigure the Chad Remote Control to operate your devices with IR signals again.

The red LED on the RF Receiver blinks without using the Chad Remote Control

- This indicates RF interference. Another device in the proximity is sending out RF signals. Change the channel (CH) on the RF Receiver (see p. 8).

There is no red LED on my RF Receiver

- Check if the power adapter is connected properly.

The IR emitters are no longer adhesive

- Replace the adhesive with a fresh piece of the 2-sided tape.

I cannot find the exact location of the device's receiving eye

- Check the manual of the device.
When still in doubt, contact your supplier or the manufacturer.

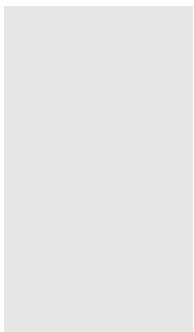
Specifications

The specifications and design of this product are subject to change without notice.

Hardware	Red LED (continuously on when powered, blinking during RF reception) 16 IDs and 4 CHs 4 outputs for IR emitters Possibility to have multiple RF Receiver in one home not interfering Positioning: freestanding, mounted horizontally or hanging up side down
Dimensions	4.5 x 3.2 x 1.1 inch (112.9 x 81.2 x 26.8 mm)
Operating temperature	32 °F to 122 °F (0 °C to 50 °C)
IR frequency range	Operating distance: 16 feet (5 meters) IR frequency range: DC/flash codes, 36kHz-550kHz
Radio frequency (RF)	Operating distance: approximately 100 feet (30 meters) depending on the surrounding conditions Frequency: 418 MHz (US)
IR emitters	Number of IR emitters : 3 3.5mm mono mini-plug Cable length: 7 feet (2.0 meters) Max. range: 3 feet (75 cm)
Cable	3.5 mm mono male to male cable length: 7 feet (2.0 meters)
Accessories	120V AC Power adapter (400mA/12V DC adapter, UL-approved) Mounting kit (Plate and 4 screws)
Approvals	The device complies with part 15.19(a)(3) of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received including interference that may cause undesired operation.



Memo



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