



Remote Control Translator Repeater



RCT4 Owner's Manual

McIntosh

Thank You

Thank you for your decision to own this McIntosh RCT-4 Remote Control Translator Repeater. The McIntosh dedication to "Quality," is assurance that it will provide you with many years of enjoyment.

Please take time to read this manual, as it will help you to become more familiar with your new McIntosh.

Please Take A Moment

The serial number, purchase date and dealer name are important for possible insurance claim or future service. The spaces below have been provided to record that information:

Serial Number: _____

Purchase Date: _____

Dealer Name: _____

Technical Assistance

If you have questions about this product, contact your McIntosh Dealer who is more familiar with your component system. If additional help is needed, you can receive technical assistance at:

McIntosh Laboratory, Inc.
2 Chambers Street
Binghamton, New York 13903
Phone: 607-723-3512
Fax: 607-723-3636

Customer Service

If your McIntosh product is in need of repair, it can returned to your dealer or the McIntosh Service Department. For assis-

tance on repair return procedure, contact the McIntosh Service Department at:

McIntosh Laboratory, Inc.
2 Chambers Street
Binghamton, New York 13903
Phone: 607-723-3515
Fax: 607-723-1917

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General Notes

- The Data Control Cable is available from the McIntosh Parts Department:
Data Control Cable Part No. 170-202
Six foot, 2 conductor shielded, with two 1/8 inch stereo mini phone plugs.*
- Additional IR Emitters, Item No. R826, are available from the McIntosh Sales Department.*
- For additional connection information, refer to the owner's manual(s) for any component(s) connected to the RCT-4.*

IMPORTANT SAFETY INSTRUCTIONS!

PLEASE READ THEM BEFORE OPERATING THIS EQUIPMENT.



WARNING SHOCK HAZARD - DO NOT OPEN.

The lightning flash with arrowhead, 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.



AVIS RISQUE DE CHOC - NE PAS OUVRIR.

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.



NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.



To prevent the risk of electric shock, do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified personnel.

General:

1. Read all the safety and operating instructions, contained in this owner's manual, before operating this equipment.
2. Retain this owner's manual for future reference about safety and operating instructions.
3. Adhere to all warnings and operating instructions.
4. Follow all operating and use instructions.
5. **Warning: To reduce risk of fire or electrical shock, do not expose this equipment to rain or moisture. This unit is capable of producing high sound pressure levels. Continued exposure to high sound pressure levels can cause permanent hearing impairment or loss. User caution is advised and ear protection is recommended when playing at high volumes.**
6. **Caution: to prevent electrical shock do not use this AC Adapter Plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.**
Attention: pour pevenir les chocs elecriques pas utiliser cette fiche polarisee avec un prolongateur, une prise de courant ou un autre sortie de courant, sauf si les lames peuvent etre inserees afond ans en laisser aucune partie a decouvert.

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7. For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning or power line surges.
8. Do not use attachments not recommended in this owner's manual as they may cause hazards.
15. Route the AC Adapter Power Output Cord so that it is not likely to be walked on or pinched by items placed upon or against it, paying particular attention to the cord at the point where it exits from the AC Adapter.
16. Do not overload wall outlets, extension cords or integral convenience receptacles as this can result in a risk of fire or electric shock.

Installation:

9. Locate the equipment for proper ventilation. The equipment should not be placed where the flow of air around the unit may be impeded.
10. Locate the equipment away from heat sources such as radiators, heat registers, stoves, or other appliance(s) (including amplifiers) that produce heat.
11. Mount the equipment in a wall or cabinet only as described in this owner's manual.
12. Do not use this equipment near water; for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement or near a swimming pool, etc.
13. Do not place this product on an unstable cart, stand, tripod, bracket, or table. The equipment may fall, causing serious injury to a person, and serious damage to the product.

Connection:

14. Connect the AC Adapter only to the type of AC power source as marked on the unit.

Care of Equipment:

17. Clean the instrument by dusting with a dry cloth. Unplug this equipment from the wall outlet and clean the panel with a cloth moistened with a window cleaner. Do not use liquid cleaners or aerosol cleaners.
18. Do not permit objects or liquids of any kind to be pushed, spilled and/or fall into the equipment through enclosure openings.
19. Unplug the AC Adapter from the AC power outlet when left unused for a long period of time.

Repair of Equipment:

20. Unplug this equipment from the wall outlet and refer servicing to a qualified service personnel under the following conditions:
 - A. The AC Adapter or the output power cord has been damaged.
 - B. Objects have fallen, or liquid has been spilled into the equipment.
 - C. The equipment has been exposed to rain or water.

Introduction and Performance Features

- D. The equipment does not operate normally by following the operating instructions contained within this owner's manual. 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 product to its normal operation.
 - E. The equipment has been dropped or damaged in any way.
 - F. The equipment exhibits a distinct change in performance - this indicates a need for service.
21. Do not attempt to service beyond that described in the operating instructions. All other service should be referred to qualified service personnel.
 22. When replacement parts are required, be sure the service technician uses replacement parts specified by McIntosh or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
 23. Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

Introduction

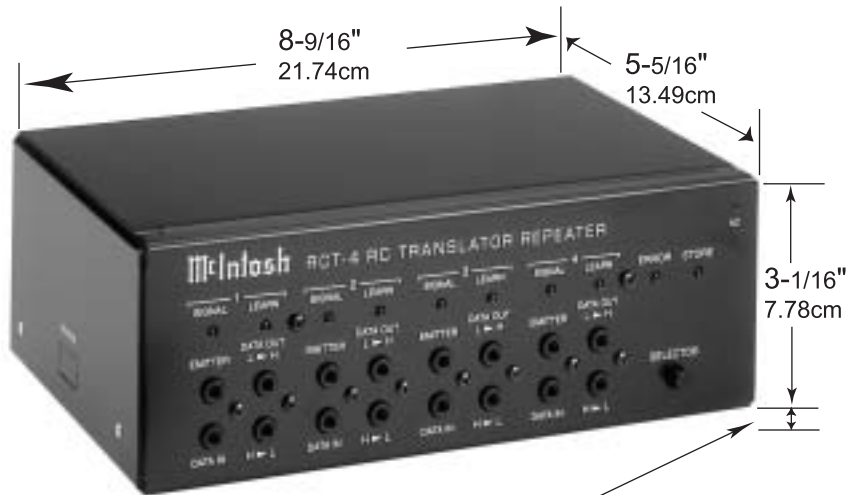
The McIntosh RCT-4 Remote Control Translator Repeater allows other brand remote controlled products to be operated in a McIntosh system.

Performance Features

- The RCT-4 provides the same functionality of a universal remote control without the disadvantages.
- The RCT-4 can translate up to 29 IR (Infra-Red) commands of most other brand components and fourteen commands can be continuous.
- Four individual translator circuits allow four other brand components to be controlled.
- The Translator operates from McIntosh Remote Controls or Keypads.
- Control is possible with IR emitters or by data cables.
- Easy learning requires only a McIntosh Remote Control and the Remote Control of the other brand component.
- All four RCT-4 channels automatically operate as a Repeater even though a channel(s) has learned commands.
- All Learning functions are permanently stored in memory.

Dimensions

The following dimensions can assist in determining the best location for your RCT-4.



Note: Add 1/8" (0.32cm) to allow for recessed feet on the bottom

Installation

The RCT-4 can be placed upright on a table or shelf, standing on its four feet. Cool operation ensures the longest possible operating life for any electronic instrument. Do not install the RCT-4 directly above a heat generating component such as a high powered amplifier.

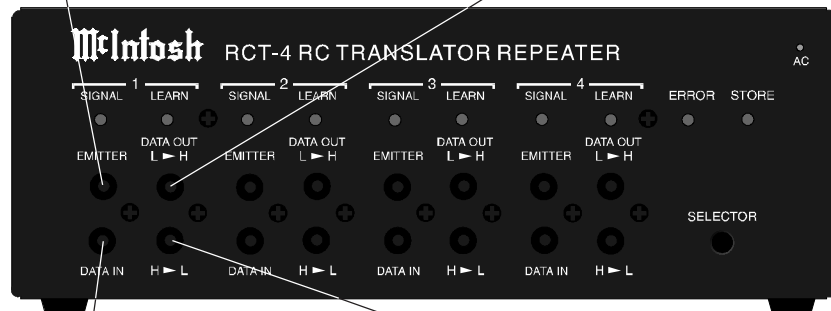
Consideration should be given to allow easy access to the RCT-4 for the Learning Operation Procedure; at least one foot of

space to the left of the RCT-4 for placing the remote controls. If the RCT-4 is to be used as a repeater, the distance between the RCT-4, the other brand component(s) and the emitter device should be considered. There is also needed additional space required for the cable connections to the front and rear of the RCT-4.

RCT-4 Front and Rear Panel Connections

Sends data to a McIntosh IR Emitter used to control operation of a component

Sends DATA Signals (Low to High) to the DATA input of the device being controlled



Receives data from DATA ports on a McIntosh Control Center

Sends DATA Signals (High to Low) to the DATA input of the device being controlled

Note: The RCT-4 Front Panel Connections for all four control channels are identical.



Connect to the supplied RCT-4 AC Adapter

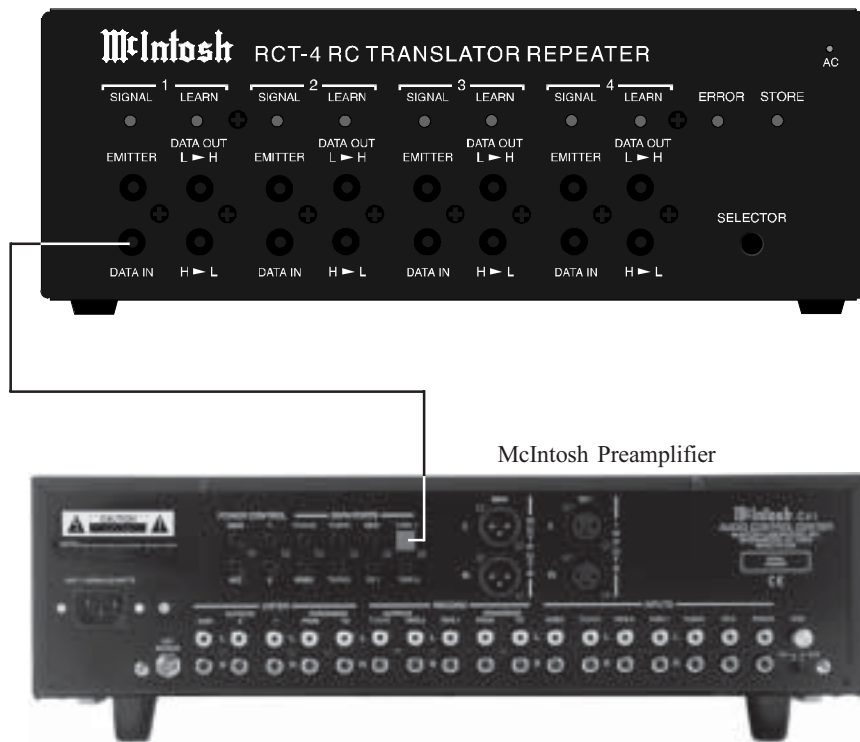
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Connection to Control Center or Preamplifier

1. Connect a data cable from the DATA port on the McIntosh Control Center or Preamplifier that corresponds to the component you wish to control, to any DATA IN (Control Channel 1, 2, 3 or 4) on the RCT-4.

Note: The example below would be for a Tape Deck that is connected to the Tape 1 Input on the Preamplifier. The Control Data from the RCT-4 may be

sent to the other brand component(s) either via an R826 IR Emitter or by direct connection. Please refer to the following pages for the appropriate method.



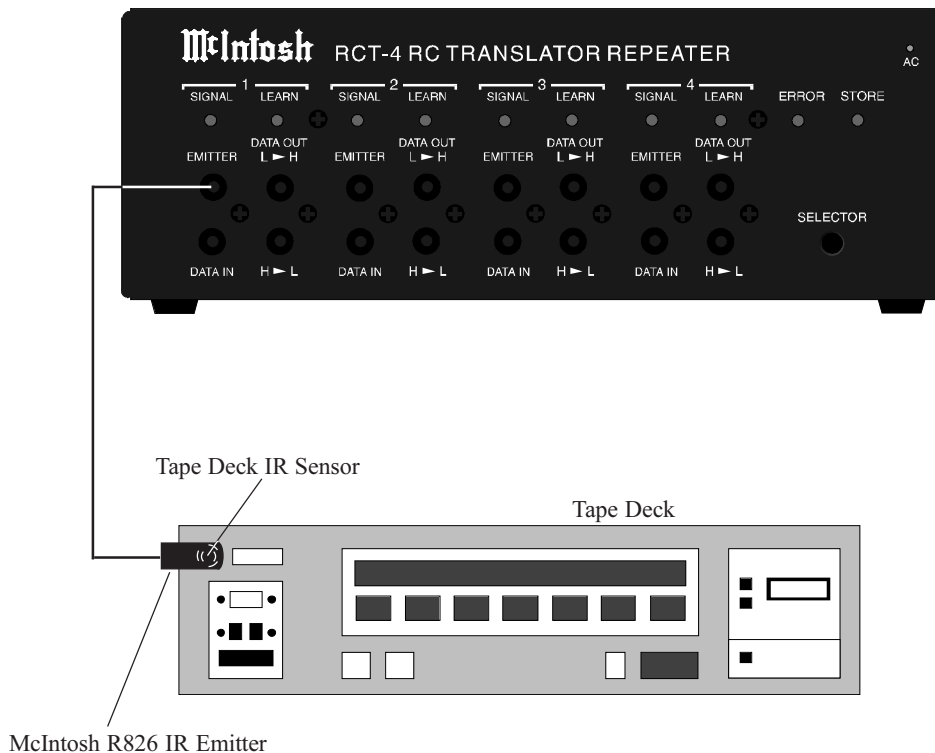
Front Panel Connection

IR Emitter Connection

1. Connect the cable of a McIntosh IR Emitter to the matching RCT-4 EMITTER jack. Attach the IR Emitter to the component being controlled, either in front of, or near its IR sensor.

Note: When the component being controlled through its IR sensor, is located in the same area with a McIntosh Control Center, the McIntosh IR Emitter should be installed in the Alternate OPAQUE configuration. Refer to the instructions included with the McIntosh R826 Emitter for the

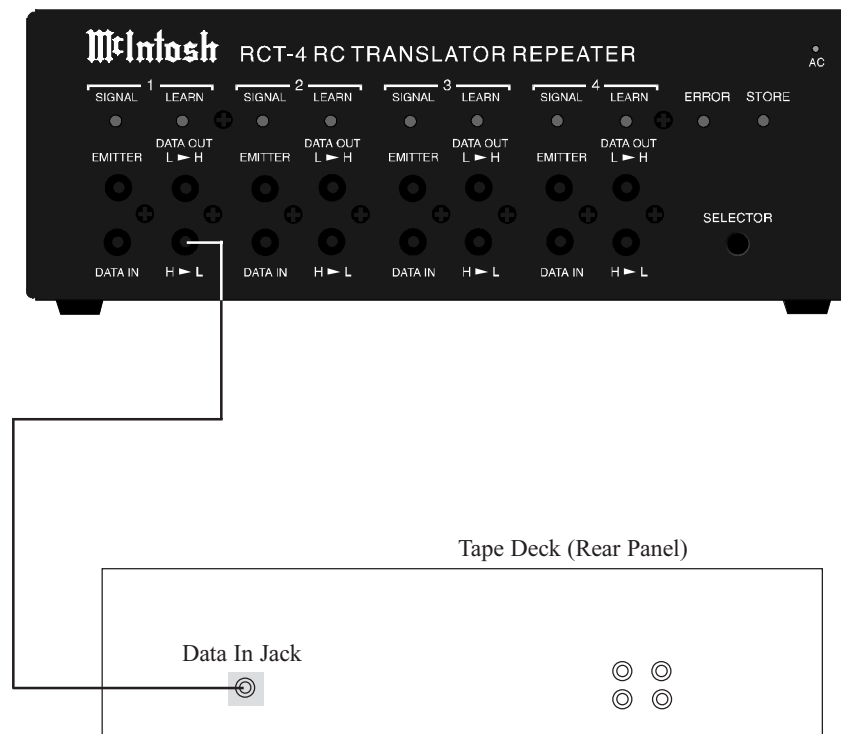
Opaque installation information. The Opaque mounting blocks the other brand component IR sensor from receiving conflicting signals directly from a remote control, allowing only the signals from the McIntosh Emitter to operate the unit. One McIntosh R826 IR Emitter is included with the RCT-4.



Direct Data Connection

1. Connect a Data cable from the appropriate RCT-4 DATA OUT jack to the DATA Input of the component being controlled.
2. The (L ► H) DATA OUT feeds data signals consisting of positive pulses. The (H ► L) DATA OUT feeds data signals consisting of negative pulses.

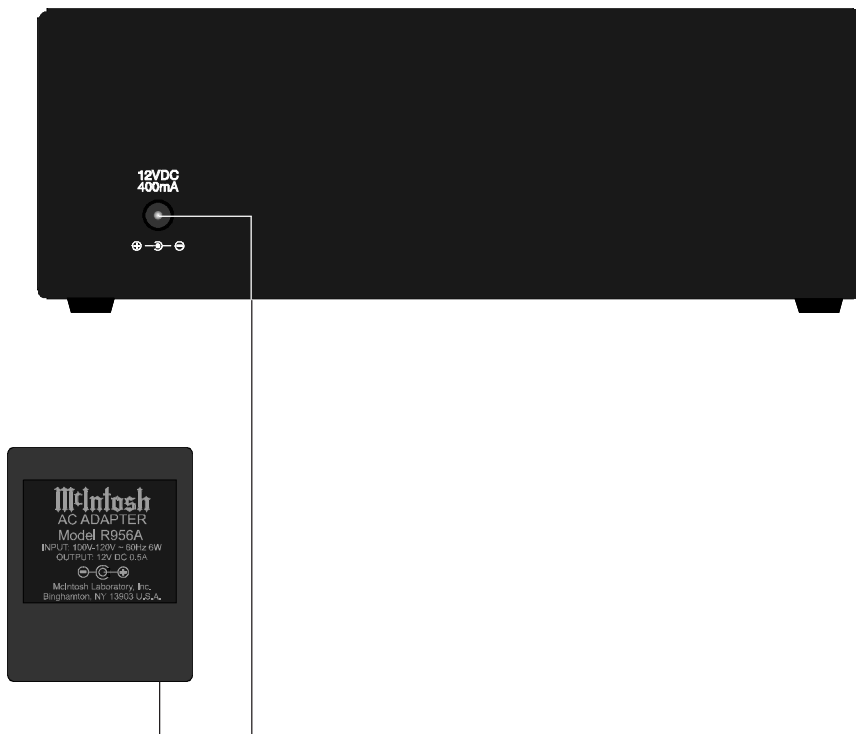
Note: Determine which DATA OUT to use by trying first one and then the other, use the one which works best.



AC Adapter Connection

1. Connect the RCT-4 AC Adapter power output cable to the 12V connector on the back panel of the RCT-4. Plug the AC Adapter into an AC outlet. The Front Panel green AC LED should turn on, which indicates the RCT-4 is in Run Mode and ready for use.

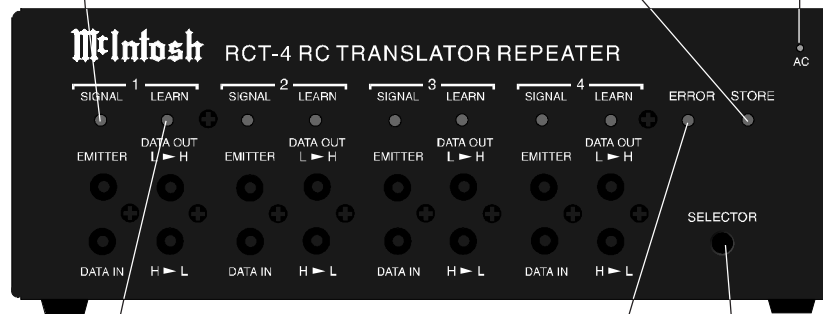
Note: The RCT-4 AC Adapter must be connected to a non-switched AC outlet.



SIGNAL LED flashes to indicate signals are being processed to operate the component; it will also show the received IR Signal Strength

AC LED indicates that the RCT-4 is on and ready to operate

STORE LED flashes to indicate a successful learning operation has been performed



LEARN LED flashes to indicate when a Learn Process is being successfully performed for each component

ERROR LED flashes to indicate an unsuccessful operation has occurred in the learning process

The SELECTOR push-button switch cycles through five separate modes

Note: The RCT-4 Front Panel Display Signal and Learn LED's are the same for all four control channels. The SIGNAL 1 LED also flashes to indicate an adequate signal is being received during the learning functions for all four control channels.

How to Operate

A successful learning process requires an adequate IR signal from both the McIntosh and other brand remote controls. Please make sure that all the remote controls have fresh batteries installed in them and then perform the initial learning tests below.

Initial Learning Tests

First perform the following tests on all McIntosh and other brand remote controls before attempting to have the RCT-4 learn commands.

1. Press the SELECTOR push-button once. This selects Channel 1 for both learning and testing remote control IR signal strength. Refer to diagram on opposite page.

Note: The Channel 1 LEARN LED will start flashing. To properly observe the RCT-4 LEDs, you must look at them straight on and not from an angle.

2. Position the remote control pointing toward, and approximately 1 to 3 inches from, the IR sensor on the left side panel



Figure 1

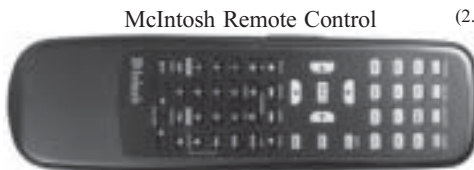


Figure 2

1 to 3 inches
(2.54 to 7.62cm)

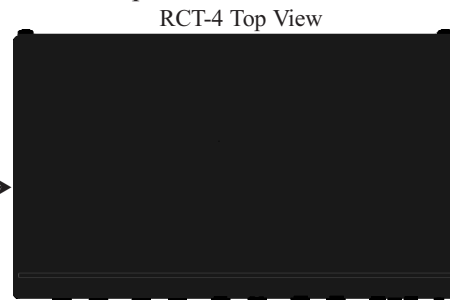


Figure 3

- of the RCT-4. Refer to figures 1, 2 and 3.

Note: Since the remote controls must not be moved while pressing the push-buttons during learning, it will be convenient to elevate each remote control off the surface with an object such as a small magazine or book of the correct thickness to allow the remote control to lie flat and point directly at the sensor window. The RCT-4 IR sensor must be receiving an adequate IR signal for the learning process to be successful.

3. Press any key on the remote control to determine if it is aimed correctly and if its IR output signal is adequate. The Channel 1 SIGNAL LED will flash if it is receiving a good signal. If the LED does not flash, reposition the remote control until an adequate signal is received.
4. After all remote controls have been verified as functioning correctly for the RCT-4 learning process, press the SELECTOR push-button four more times to exit and return to the Normal Mode of operation.

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Momentary Control Commands

The following McIntosh Remote Control or Keypad Push-Buttons can be used for Momentary Control Commands with the RCT-4. Refer to figure 4.

0 through 9, AM, FM, SEEK UP, SEEK DOWN, REVIEW, PLAY, STOP, FAST-FORWARD, NEXT, REWIND, BACK, CHANNEL UP, CHANNEL DOWN, LEFT, RIGHT, UP, DOWN, SELECT, TITLE, DISPLAY, MENU, ACCESSORY ON, ACCESSORY OFF



Figure 4

Continuous Control Commands

The following McIntosh Remote Control or Keypad Push-Buttons can be used for Continuous Control Commands with the RCT-4. Refer to figure 5.

CHANNEL UP, CHANNEL DOWN, SEEK UP, SEEK DOWN, NEXT, BACK, LEFT, RIGHT, UP, DOWN, SELECT, TITLE, DISPLAY, MENU



Figure 5

Note: The McIntosh Remote Controls in figures 4 and 5 may have a different arrangement of push-buttons, than the McIntosh Remote Control you are using.

Learning Commands

1. Press the SELECTOR push-button once. Refer to figure 6.

Note: The SELECTOR push-button switch cycles through five separate modes. Press once to enter learning mode for Channel 1, with each additional button press the learning mode switches in sequence to the next channel. Press the push-button a fifth time, and the RCT-4 switches back to the normal mode.

2. Position the McIntosh Remote Control pointing toward, and approximately 1 to 3 inches from, the IR sensor on the left side panel of the RCT-4.
3. Decide which push-button on the remote control you wish to use for the first learning function on the other brand component. Press and hold the desired push-button until the LEARN 1 LED stops flashing and stays On continuously.

Note: When performing the following steps, be sure to press and hold down the remote control push-button until the RCT-4 STORE LED flashes at least

one time. If the remote control push-button is released before the STORE LED flashes, the RCT-4 will not send out the correct command for that function. When the remote control push-button is pressed more than once, the ERROR LED may start flashing. If this happens, wait until the ERROR LED stops flashing, and then repeat steps 2 and 3.

4. Place the other brand remote control in position and press the desired push-button for the control function. If the learning is successful, the STORE LED will flash and the LEARN LED will start to flash On and Off again indicating the RCT-4 is ready for learning the next command.

Note: If the learning process is not successful, the ERROR LED will flash On and Off, then repeat steps 3 and 4 again. If the learning process is not successful after the second attempt, the RCT-4 will still be able to repeat the remote command through the system using the other brand remote control.



Figure 6

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5. Repeat steps 2, 3 and 4 to for the RCT-4 to learn more operating functions for Channel 1.
6. If additional components are to be controlled, press the SELECTOR push-button to switch to Channels 2, 3 and 4 and repeat the above learning process.
7. After completeing the RCT-4 learning process, press the SELECTOR push-button to exit, which returns the RCT-4 to the Normal Mode of Operation.

Clearing a Specific Command

1. Press the SELECTOR push-button to select the specific channel (1, 2, 3 or 4) for which you wish to clear a specific learned function. Refer to figure 7
2. Position the McIntosh Remote Control pointing toward, and approximately 1 to 3 inches from, the IR sensor on the left side panel of the RCT-4.
3. Press and hold the specific push-button on the McIntosh Remote Control for the learned function you wish to clear, until the LEARN LED stops flashing

and stays On. Then press the SELECTOR push-button once to clear the function. The ERROR and STORE LED's will flash On and Off for a few seconds, then turn Off; the LEARN LED will start to flash On and Off again, indicating the clear operation was successful.

4. Repeat steps 2 and 3 for any additional learned functions you wish to clear.
5. After all clearing functions are complete, press the SELECTOR push-button to exit which returns the RCT-4 to the Normal Mode of Operation.

Clearing All Commands

1. Remove the RCT-4 Power Supply Adapter from the AC outlet.
2. PRESS and HOLD the SELECTOR push-button while you reconnect the RCT-4 Power Supply adapter to the AC outlet. The ERROR and STORE LED's will flash On and Off for a few seconds; they both will turn Off, indicating all learned functions for all channels are cleared.



Figure 7

How to Operate, con't

Channel 1 Push-Button Commands		
Device Name -		
	McIntosh	Other Brand
1		
2		
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4		
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28		
29		

Channel 2 Push-Button Commands		
Device Name -		
	McIntosh	Other Brand
1		
2		
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28		
29		

McIntosh

Channel 4 Push-Button Commands		
Device Name -		
	McIntosh	Other Brand
1		
2		
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4		
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7		
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10		
11		
12		
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Channel 4 Push-Button Commands		
Device Name -		
	McIntosh	Other Brand
1		
2		
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Specifications and Packing Instructions

Specifications

Power Requirements

12 Volts, D.C. @100mA

Dimensions

8-9/16 inches (21.74cm) Wide, 3-1/16 inches (7.78cm) High, 5-5/16 inches (13.49cm) Depth

Weight

3.8 pounds (1.7 Kg) net, 4.5 pounds (2 Kg) shipping

Packing Instructions

In the event it is necessary to repack the equipment for shipment, use the original shipping carton and interior parts only if they are all in good serviceable condition. If a shipping carton or the interior bubble pack is needed, please call or write Customer Service Department of McIntosh Laboratory. Please see the Part List for the correct part numbers.

<u>Quantity</u>	<u>Part Number</u>	<u>Description</u>
1	033719	Shipping carton
1	033085	Bubble Pack



McIntosh Laboratory, Inc.
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Binghamton, NY 13903

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