

Universal Remote Control
(150-1901A)

Features

The Realistic Universal Remote Control (URC) replaces the infrared remote controls for up to eight audio/video components by learning their remote control command codes. In today's complex audio/video systems, this eliminates confusion about which remote control to use and does away with an ugly pile of remote controls on your end table or night stand.

However, replacing the individuals remote controls is only a part of what the URC can do. You can program the URC to perform sequences of up to 48 commands that involve several different remote control components. And, the URC has a built-in clock and five times that can automatically activate a sequence of commands.

Teaching remote control commands to the URC is a simple process, but it requires attention to details. Be sure to read and follow all of the instructions.

Other features include:

- Large, easy-to-read liquid crystal display

- Display light for easy viewing in low-light conditions

- Key pad overlay that helps you remember when you teach a URC key a command that is not related to the name of the key or use a command key to designate a command sequence.

For your own protection, we urge you to record the serial number of this unit in the space provided. The serial number is on the label on the back of the unit.

Serial # _____

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Battery Installation

The URC is powered by four AA batteries. Use only alkaline batteries (Radio Shack Cat. No. 23-552). The URC requires the extra power of alkalines and might not perform properly with standard or rechargeable batteries.

1. Remove the battery compartment cover by pressing it in the direction of the arrow.
2. Install four new AA batteries, observing the polarity (+ and -) marked in the compartment.
3. Using a pen or pencil, press [RESET] inside the battery compartment.

NOTE: Press [RESET] only when you are installing batteries for the first time or if the microprocessor locks up. See "Troubleshooting," Faxback Doc. # 41170.

4. Replace the compartment cover.

NOTES: A set of batteries provides power for up to six months of normal use. However, to avoid loss of the learned commands and command sequences, replace the batteries as soon as you see the BAT LO indicator on the display.

If you use the URC after the BAT LO indicator lights, BATTERY flashes or lights steadily on the display. When BATTERY appears, immediately replace the batteries to avoid loss of the URC's memory information.

The URC holds learned commands and command sequences in memory for 5 minutes without batteries. Be sure you have new batteries ready to install before you remove the old batteries.

You must reset the clock and the timers each time you replace the batteries.

Never leave weak batteries in the URC. They can leak damaging chemicals.

Do not mix old and new batteries.

Universal Remote Control (150-1901A) Operation

UNDERSTANDING THE URC

To use the URC, it is helpful to understand a little about how it works.

USING SOME KEYS SEVERAL TIMES

The URC has 24 programmable command keys. You can teach each command key up to eight different remote control commands. But how does the URC know which of the eight codes you want to use when you press the key?

Well ...it wouldn't know without the [SELECT] keys and the device indicators. You can teach a URC key a different command for each of the eight device indicators. So, before you teach or use a command key, you must press [SELECT >] or [SELECT <] to display the desired device indicator.

Each time you press a [SELECT] key, the next device indicator in the direction of the [SELECT] key's arrow appears on the display. After you reach the last device indicator at either end of the display, the display wraps to the indicator at the opposite end of the display.

Although some of the device indicators have specific names (TV, VCR, SAT, CABLE, and so forth), you can teach remote control commands for any remote control component using any device indicator setting. The names are only for reference.

The names on the command keys are also only for reference. And, although it is best to use a URC key that has the same name (or a similar name) as the remote control key whose command it is being taught, you can use any remote control command to learn any URC key.

For example, you can teach the repeat-play command for your CD player to the [TV/VCR] key on the URC. Indicate unusual key uses on the key label. See "Using the Key Label."

MEMORY CAPACITY

The URC can remember up to 119 commands or command sequences. A little quick multiplication tells you that you'll run out of memory space if you try to use all 24 command keys for all eight device indicator settings. And, there is no room left for command sequences!

However, this is not really a serious problem. Most people don't have eight remote components. And even if you do, few remote controls have 24 commands for the URC to learn. Also, each command sequence only uses the memory space for one command. You should have plenty of memory space.

If you do run out of memory space, there is still an answer. A second URC, of course.

CAN THE URC LEARN ANY REMOTE CONTROL COMMAND?

Almost...

First, it can learn only infrared commands. Old fashioned ultra-sonic remote controls aren't compatible with the URC.

Next, there are a few remote control that use IR frequency variation commands. The URC can't handle those.

And finally, there are some remote controls that have built-in memory (for alternate-channel, favorite-channel, or memory scanning features). You can't program the URC for these particular features, but it can learn the other commands from this type remote control.

The URC does not always automatically repeat commands, such as volume up or down. You might have to send the command several times to get the desired effect.

TEACHING THE URC

In the remainder of this manual, the Universal Remote Control is always called "URC." The remote controls for your system components are called "remote control."

ALIGNING THE URC AND REMOTE CONTROL

You must properly align the URC's IR receiver window with the remote control whose commands you want to teach to the URC. Do this with each remote control, before you begin teaching its commands to the URC. Also be sure both units have good batteries.

1. Set the RUN/LEARN switch to LEARN. SEL KEY appears on the display.
2. Lay the URC and remote control on flat, non-reflective surface. Then, point the remote control at the URC's IR receiver window, with the remote control about 5 inches from the window.
3. Press any key on the remote control. If the URC's send-receive indicator lights, alignment is correct. If it does not, reposition the remote control closer to the URC and try again. It may also be necessary to move the remote control slightly to left or right to achieve proper alignment.
4. When alignment is correct, leave the RUN/LEARN switch set to LEARN, and process to "Teaching Commands to the URC" without moving the URC or remote control.

TEACHING COMMANDS TO THE URC

1. Use the [SELECT] keys to choose the desired device indicator.

If possible, choose a device indicator that matches the component to be controlled (TV, CABLE, and so forth). Use the AUX 1 and AUX 2 indicator for unusual components.
2. Press the URC command key you want to teach. ([POWER], for example.) BEGIN appears on the display.

If you accidentally press the wrong URC key, set the RUN/LEARN switch

to RUN and back to LEARN. Then, repeat this step.

You must use the URC's two [REC] keys together. Press them simultaneously for learning or sending commands. Use them to learn a record command or any other command that must not be accidentally activated.

3. Press the remote control key that you want the URC to learn. The send-receiver indicator flashes.

Release the remote control key when STORED appears on the display. SEL KEY automatically returns to the display in 3 seconds.

If ERROR appears on the display, see "Troubleshooting," Faxback Doc. # 41170.

4. Repeat Steps 2 and 3 to teach the URC more commands from the same remote control.

Return to "Aligning the URC and Remote Control" to teach the URC commands from a different remote control.

5. When teaching is complete, set the RUN/LEARN switch to RUN. The clock appears on the display.

If the remote control has more than 24 keys for the URC to learn, you can store the remaining commands using a different device indicator setting. Be sure to make a record of what command you store and where they are stored.

To change the command learned by a particular command key with a particular device indicator setting, simply repeat the teaching procedure. The URC erases the old command when it learns the new one.

If MEM FULL appears on the display, the URC's memory is full. See "Deleting a Command or a Command Sequence."

NOTE: After teaching the commands to the URC, remove the batteries from the remote controls and store the remote controls. You might need to relearn the codes to the URC.

USING THE LEARNED COMMANDS

SENDING COMMANDS

Follow this procedure to use the learned commands. If you have just taught a group of commands to the URC, use this procedure to test each command key. If you find a key that does not have the desired effect, teach the button again.

1. Set the RUN/LEARN switch to RUN. The clock appears on the display. Do not attempt to set the clock at this time.
2. Use the [SELECT] keys to choose the desired device indicator.
3. Point the URC at the component you want to control, and press the desired URC key. The key name appears on the display.

If you press a key that you have not taught a command, ERROR appears on the display.

The clock returns to the display after a few seconds.

NOTES: The maximum control range of the URC is about 25 feet (7.5m) at an angle of 30 degrees.

If you hold down a URC key, the URC stops sending the command after about 4 minutes. This prevents the unit from continuously sending commands if a heavy object is accidentally placed on top of the URC.

Press [LIGHT] to view the display in low-light conditions.

PROGRAMMING A COMMAND SEQUENCE

You can program a command sequence of up to 48-step for each of the 24 command keys, as long as memory space is available. Use this feature to accomplish any often used sequence of commands.

For example, you can program a command sequence to...turn on your satellite receiver...move the satellite dish to your favorite satellite channel... turn on your VCR...and begin recording on your VCR. Of course, you must load a tape into the VCR first.

In addition, you can activate command sequences using the URC's timers.

NOTES: In a sequence, you should use only command keys that have already learned a remote control command. And, if you device a command from a URC key that is used in a command sequence, the deleted key is ignored when you use the command sequence.

If you change the command for a URC key that is used in a command sequence, the command is also changed in the command sequence.

Write out and organize the sequence of commands before you program them.

To program a sequence:

1. Set the RUN/LEARN switch to LEARN. SEL KEY appears on the display.
2. Press [SEQ] followed by any one of the command keys. ENTER appears on the display.

Using a command key to designate a sequence does not affect other commands learned by that key.

3. Using the [SELECT] keys, display the name of the device whose commands you want to first program in the sequence.

The device name appears on the large letter-number portion of the display; the device indicator setting at the bottom of the display does not change.

4. Press [DOWN ARROW]. ENTER returns to the display.
5. Press the command key for the first command you want to program in the sequence. The key name appears on the display.
6. Press [DOWN ARROW]. ENTER returns to the display.
7. Repeat Steps 5 and 6 for all commands you want to program for the device name you selected in Step 3.

If you make errors during sequence programming, continue and complete the sequence. You can edit it later.

If you want to exit sequence programming without storing the sequence, press [CANCEL] before pressing [SET/STO] in Step 9.

8. Return to Step 3 to enter the commands for another device name settings.
9. After you enter all sequence commands, press [SET/STO]. STORED appears on the display.
10. Set the RUN/LEARN switch to RUN. The clock appears on the display.

You can store one command sequence for each of the 24 command keys on the URC, as long as memory space is available.

Programming a Pause

Some components require a pause between commands. For example, a TV might not accept a channel change for a second or so after it is turned on. Or, a cable box might not accept commands immediately after parental lock is disengaged.

In such cases, you can program a pause between commands in a sequence. Simply press [TMR/WAIT] as one of the commands in the sequence and a 1/2-second pause is added at that point.

The pause duration is cumulative. For example, to program 1-second pause in a command sequence, enter:

Using the Key Label

Use the key label to help you remember which command buttons you use to designate sequence.

Use a pencil or a pen to pry off the clear label cover. Then, lift out the key label, and write a word that reminds you of the sequence's function next to the appropriate button.

You can also use the key label to remind you of a key command that is not related to the name on the URC key.

Replace the label and snap in the clear label cover.

USING A COMMAND SEQUENCE

Follow this procedure to use a command sequence. If you have just taught a command sequence to the URC, use this procedure to test the sequence. If the sequence does not work properly, use the procedure in "Editing a Command Sequence" to check and correct the sequence. If it still doesn't work properly, individually test each key you used in the sequence.

1. Set the RUN/LEARN switch to RUN. The clock appears on the display.
2. Point the URC directly toward the components that the sequence affects.

Be sure the components are within the URC's control range.

3. Press [SEQ] followed by the command key you used to designate the sequence.

The sequence name (the name of the command button you used to designated the sequence) appears on the display, and the send-receive indicator blinks as the URC sends the programmed commands.

EDITING A COMMAND SEQUENCE

Use the following procedure to check or correct errors in a command sequence or to add or delete commands in a command sequence.

1. Set the RUN/LEARN switch to LEARN. SEL KEY appears on the display.
2. Press [SEQ] followed by the command key you used to designate the sequence you want to edit.
3. The first command in the sequence (the first device name you selected) appears on the display.
4. Press [DOWN ARROW] repeatedly to advance through the sequence of commands to the point you want to change. If you advance too far, press [UP ARROW] to go back.
5. To delete the displayed command, press [DEL].

To add a command immediately before the displayed command:

Press [INS]. ENTER appears on the display.

If the command you want to insert is for a device that was not used previously in the sequence, use the [SELECT] keys to display the desired device name.

Press [DOWN ARROW] and [INS] then press the desired command key.

6. Repeat Step 4 and 5 to make additional edits.
7. When editing is complete, press [SET/STO] to update the sequence memory.

If you do not press [SET/STO], the sequence is not changed.

8. Set the RUN/LEARN switch to RUN. The clock appears on the display.

You can exit the edit mode without changing the sequence by pressing [CANCEL] any time before you press [SET/STO].

DELETING A COMMAND OR A COMMAND SEQUENCE

If MEM/FULL appears on the display, the memory is full. You must delete commands or command sequences from memory if you want to enter new ones.

1. Set the RUN/LEARN switch to LEARN. SEL KEY appears on the display.
2. Using the [SELECT] keys, select the device indicator for the command you want to delete.
3. Press [DEL] ENTER appears on the display.
4. Press the key for the command you want to delete.

If you want to delete a sequence, press [SEQ] followed by the command key that you used to designate the sequence.

The command or sequence is deleted, and SEL KEY returns to the display.

5. Set the RUN/LEARN switch to RUN. The clock appears on the display.

USING THE TIMERS

SETTING THE CLOCK

To use the URC's built-in timers, you must first set the clock.

NOTE: The URC's clock stops when you are teaching commands to the URC keys. Therefore, be sure you have taught all commands before setting the clock. Reset the clock if you teach the URC new or additional commands.

1. Set the RUN/LEARN switch to LEARN. SEL KEY appears on the display.
2. Press [CLOCK]. The hour digits flash.

Press [DOWN ARROW] or [UP ARROW] until the correct hour appears on the display.

The clock uses 12-hour, AM/PM format. Be sure that AM or PM is correctly displayed.

3. Press [SELECT >]. The minute digits flash.

Press [DOWN ARROW] or [UP ARROW] until the correct minute appears on the display.

4. Press [SELECT >]. The day display flashes.

Press [DOWN ARROW] or [UP ARROW] until the correct day appears on the display.

If you make a mistake, you can press [SELECT <] to return to, and reset, the hour or minute digits.

5. Press [SET/STO] to start the clock at the displayed time.

Even though seconds are not displayed, they begin counting when you press [SET/STO]. Use this feature to set the clock as accurately as possible.

NOTE: If you pause more than 20-25 seconds between steps, the display returns to SEL KEY, and you must start over.

SETTING A TIMER

You can set each of the URC's five timers to activate a previously programmed comm and sequence at a day and time you select. See "Turning a Timer On or Off."

1. Set the RUN/LEARN switch to LEARN. SEL KEY appears on the display.

2. Press [TMR/WAIT]. TIMER appears on the display.

3. Press a number key (1-5) to select the desired time program. Any previous day and time setting for the selected timer appears on the display.

4. Press [SET/STO]. The hour digits flash.

5. If you do not want to change the day or time, press [SET/STO] again and skip to Step 9.

6. Press [SELECT >]. The minute digits flash.

Press [DOWN ARROW] or [UP ARROW] to set the timer activation minute.

7. Press [SELECT >]. The day display flashes.

Press [DOWN ARROW] or [UP ARROW] to display the desired timer activate day.

If you want the timers to activate the sequence every day, press [DOWN ARROW] or [UP ARROW] until DA appears on the display.

If you want to continue to activate the previously used sequence whose name was displayed in step 8, press [SET/STO].

10. Set the RUN/LEARN switch to RUN. The clock appears on the display.

Now place the URC so that it is pointed toward the component(s) affected by the command sequence that will be activated by the timer. At the set time, the commands are sent.

NOTE: If you are using the URC manually at the time the timer is supposed to activate, the timer might not function properly.

You can use a second timer to activate a sequence that turns off the components that are turned on by the first timer's sequence. Do not set

two or more timers for exactly the same day and time.

CHECKING A TIMER SETTING

To check a timer setting, press [TMR/WAIT] followed by the number key (1-5) for the timer you want to check. The programmed information appears on the display for 20-25 seconds. Then, the clock returns to the display.

Press [CANCEL] to immediately return to the clock display.

TURNING A TIMER ON OR OFF

Unlike VCR timer settings, the URC's timer settings remain in memory until you change them. If you set a timer to activate a sequence at 4:00 a.m. Tuesday, it activates the sequence every Tuesday from this time on, unless you change the program or turn off the timer.

1. Press [TMR/WAIT] followed by the number button for the timer you want to turn off.

The timer information appears on the display. An asterisk (*) between the minute digits and the day display means the timer is on.

When you set a timer, it is automatically on.

2. Press [ON/OFF]. The * disappears, and the timer is off.
3. Press [ON/OFF] again to turn on the timer.

You can check or turn a timer on or off in the learn or run mode. To prevent accidental changing of the timer setting, the run mode is preferred.

However, to check which command sequence will be activated by a timer, you must use the learn mode as follows:

1. Set the RUN/LEARN switch to LEARN.
2. Press [TMR/WAIT] followed by the number key for the timer (1-5).
3. Press [SET/ST0] twice. The key used to designate the command sequence appears on the display.
4. Set the RUN/LEARN switch to RUN.

ERROR appears on the display during teaching:

Check the URC's batteries. Commands cannot be stored if the batteries are weak.

Check URC-to-remote control alignment and spacing. The URC's send-receive indicator should flash when you press a remote control key.

The remote control might use control signals that the URC cannot learn.

The URC does not function when you press a key:

Be sure you have taught the URC the desired commands.

Be sure you have selected the correct device indicator.

If one particular key is a problem, repeat the teaching process.

BATTERY appears on the display when you press a button or BATTERY is displayed continuously and the URC does not respond to any commands:

Immediately replace the URC's batteries.

ERROR appears in the run mode:

You have not taught a command to the key you pressed.

MEM FULL appears when teaching commands or programming command sequences:

The URC's memory is full. Delete some commands or sequences.

The URC looks up (does not respond to any key):

Press the [RESET] button (located in the battery compartment).

Remove the batteries and press the Display LIGHT key for at least 30-45 seconds. This procedure clears all URC memory, including command key codes and command sequences.

A URC command works when you use it manually but does not work when it is used in a sequence:

Try storing the command repeatedly in the sequence. For example, if power does not respond in a sequence, try storing power two or more times in the sequence (POWER DOWN ARROW POWER DOWN ARROW POWER).

Your URC is an example of superior design and craftsmanship, and should be treated with care. The suggestions below will help you enjoy this product for many years.

Keep it dry. If water should get in, wipe it off. Water contains minerals that can corrode electronic circuits.

Do not store in hot areas. High temperatures can shorten the life of electronic devices, damage batteries and warp or melt certain plastics.

Do not drop it. This might cause permanent damage. The circuit boards and case can be broken.

Do not use or store it in dusty, areas. This will cause premature wear of moving parts.

Do not use harsh chemicals, cleaning solvents, or strong detergents to clean it. Wipe it with a soft cloth dampened in a mild soap-and-water solution.

Be sure batteries are the correct type-do not use general purpose batteries if alkaline batteries are recommended. Remove old, weak batteries - they can leak chemicals that damage electronic circuits.

To prevent damage, do not twist the unit.

If the unit is not working properly, take it to your local Radio Shack. The personnel there will assist you and, if necessary, arrange service.

Universal Remote Control
(150-1901A) Specifications

Power:.....4 x AA alkaline batteries (6.0 V)
Low Battery Condition:.....4.6 V min.
Too Low Battery Condition:.....4.0 V min
Memory Hold Time Without Batteries:.....5 minutes min.
IR Control Range (typical):.....25 feet (7.5 m) 30 degrees
IR Carrier Frequency Range:.....22 kHz - 89.5 kHz
Display:.....8-digit LCD display
Dimension (H x W x D):.....1-3/8 x 3-5/ 64 x 8-55/64 inch
37 x 78 x 225 mm
Weight (without batteries):.....7 oz (200 g)