Universal Remote Control

OWNER'S MANUAL

simply MORE powerful™

RF20

MasterControl™

Congratulations!

Congratulations on purchasing Universal Remote Control's MASTERCONTROL™ RF20 Pre-programmed and Learning Remote Control! You now have the power to control your entire home entertainment system with one easy-to-use remote. The RF20 can be used with thousands of audio/video Components because of the extensive code library pre-programmed into the remote. And, the RF20's impressive lineup of special advanced features can automate and customize the operation of your system in many ways. So... get ready to sit back, relax and simplify your home entertainment experience.

The Quick Setup DVD Program Guide supplied with the RF20 will assist you in programming your remote by guiding you through an easy step-by-step process. This Owner's Manual is designed as a companion reference source to the DVD Guide, should you need to refer back to a particular section, or review certain instruction detail not covered in the DVD. However, if you are unable to watch the DVD Guide for some reason, everything you need to know about programming the RF20 is contained in this Manual.
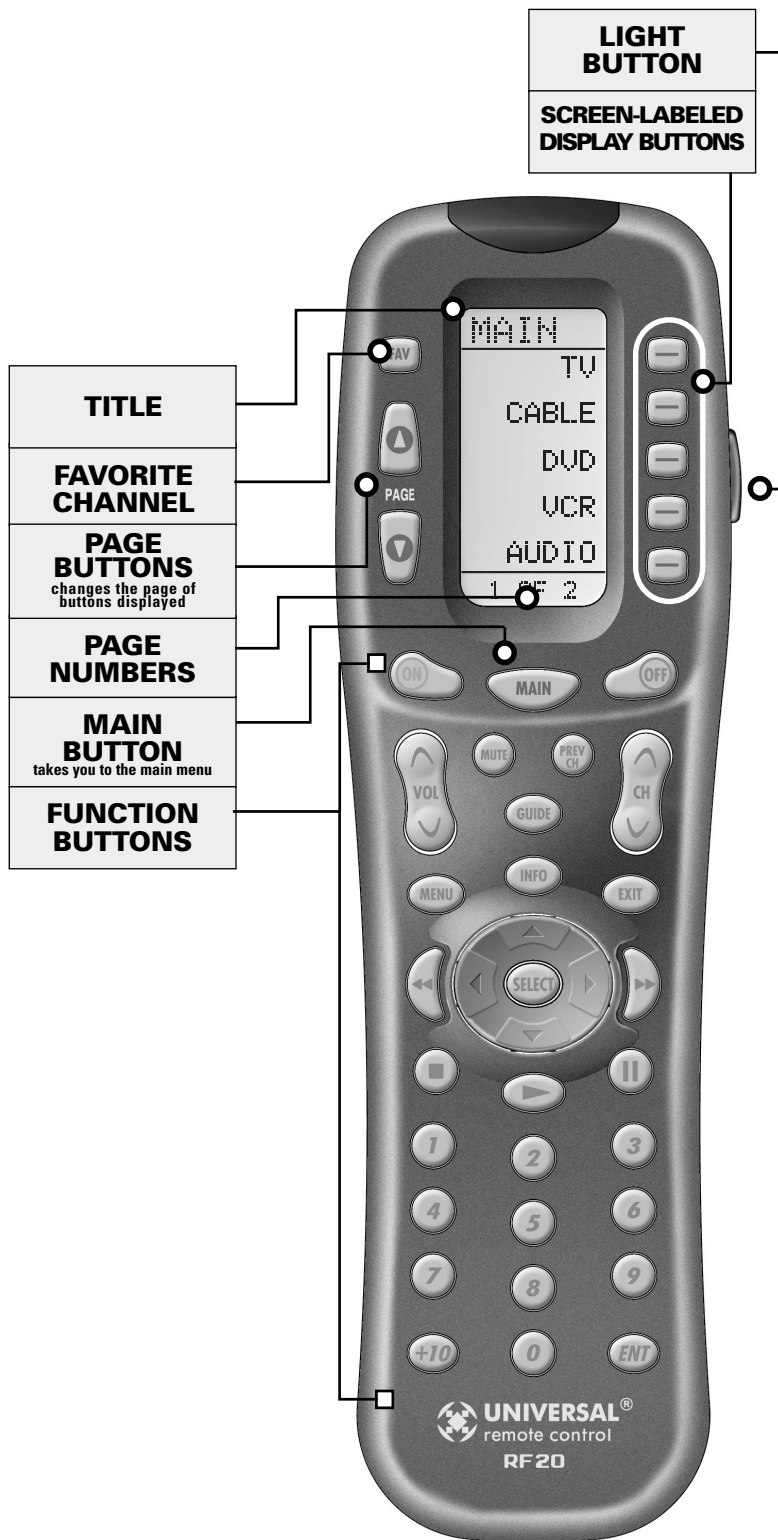
UNIVERSAL®
remote control

LIGHT BUTTON

SCREEN-LABELED DISPLAY BUTTONS

TITLE

FAVORITE CHANNEL

PAGE BUTTONS
changes the page of buttons displayed

PAGE NUMBERS

MAIN BUTTON
takes you to the main menu

FUNCTION BUTTONS

MAIN
TV
CABLE
DVD
VCR
AUDIO
1 OF 2

UNIVERSAL® remote control
RF20

Getting Started-Overview

This is what MASTERCONTROL™ RF20 is all about!

The RF20 is designed to operate up to 10 different Audio/Video Components and is pre-programmed to operate virtually all brands of TV, VCR, DVD and CD Players, Cable Set Top Boxes, Satellite Receivers, TiVo and other DVRs, Audio Components, Tape Decks, Multimedia PCs, XM Radio, Ipod, X-Box, Lighting Controls and other custom installation products. It also offers an impressive lineup of special features designed to provide you with many time-saving conveniences and enhance your overall entertainment experience. However, we strongly recommend that you fully complete all of the Basic Setup steps before proceeding to customize your RF20 with any of the special advanced features.

Battery Installation

The very first step is to insert the four AAA batteries that are included in the package into the battery compartment located in the back of the remote. Just press the tab and lift off the cover. Please be sure to insert the batteries correctly as you see in the diagram. Remember, there is a positive and negative end to each battery and you can

tell by the + (positive) and - (negative) symbols. Once the batteries are correctly installed, replace the cover. Now you're ready to start!
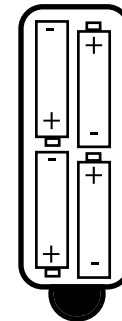
Activating Component Commands – Simple, Easy, Intuitive

Once you've programmed RF20 for your Components, all you have to do to operate a specific Component is first, press the MAIN button. This will display Page 1 of the MAIN menu on the LCD screen. Page 1 of the MAIN menu displays five Components. Then, simply select the Component you want to operate by pressing the corresponding Screen-Labeled Component Display Button on the right side of the LCD Screen. As an example, if you press the TV Display Button, the display label at the top of the screen will change from MAIN to TV, and all the buttons on RF20 will work your TV. To operate another Component, simply press the MAIN button again to return to Page 1 of the

MAIN menu and select the next Component you want to operate.

If you don't see the Component you want to control on Page 1 of the MAIN menu, just use the PAGE (▲) (▼) buttons on the left side of the screen to bring up Page 2 of the MAIN menu which displays an additional five Components.

Each Component is provided with five pages of pre-labeled command display buttons (or space for additional command display buttons). Once again, simply use the PAGE (▲) (▼) buttons to take you to the next command page, or return you to the previous command page.
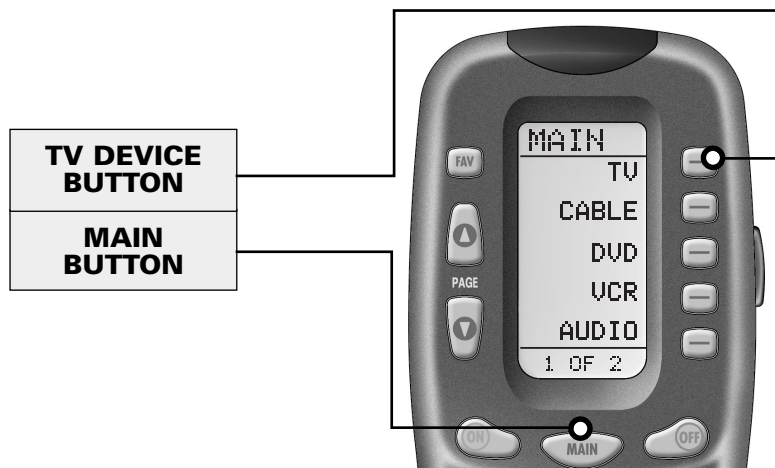
Light Button

The fully backlit keypad makes the RF20 easy to use in the dark or dim lighting conditions. Simply press the LIGHT button to backlight all the keypad buttons and LCD screen. To turn off the backlight, press the LIGHT button again, or just wait ten seconds (the backlight automatically shuts itself off). Lights out!

Try it out!

TV DEVICE BUTTON

MAIN BUTTON

LIGHT BUTTON
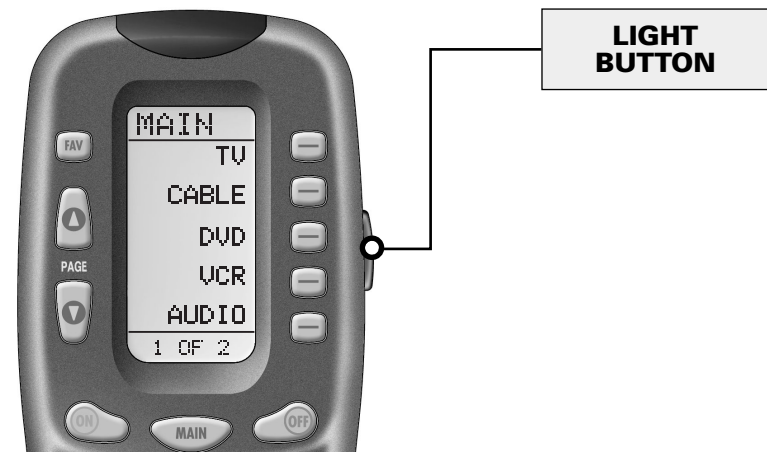
Basic Setup - Overview

There are two ways to program the RF20:

• **The Pre-Programmed Code Method**
• **The Learning Method**

The Pre-Programmed Code Method allows you to set up all the buttons at once, so it's the fastest and easiest of the two methods. The Learning Method allows you to transfer functions from other remotes (old or new), one button at a time.

Pre-Programmed Code Method

STEP 1:
The pre-programmed 3-digit codes are found in the back of this Manual on page 44. The codes are listed by Component category (i.e., TV, VCR, DVD, etc.), then by brand name. For instance, if you want to locate a code for a Sony TV, first locate the TV category, and then look for the Sony brand.

Once you have located the 3-digit code (or in some cases, several code numbers) for the Component that you want to operate with your RF20, write them ALL down on a piece of note paper. It's important that you write down all the codes because only one code is going to work for you.

STEP 2:
Now, turn on the Component you want to program... let's say your TV to start. Look up your TV's manufacturer setup code from your reference list.

STEP 3:
Press and hold the MAIN and ENT (Enter) buttons at the same time for approximately 3 seconds, until the word "SETUP" is displayed at the top of the LCD screen. This signals that you are now in setup mode.

IMPORTANT:
You now have 30 seconds to perform the next step while you are in SETUP mode. If you don't press a button within 30 seconds, SETUP will disappear from the screen, signaling that you have exited setup mode and you will need to start over.

MAIN
TV
CABLE
DVD
VCR
AUDIO
1 OF 2

**MAIN
BUTTON**

**ENTER
BUTTON**

STEP 4:
Press the P-PRO display button to select the Pre-Programmed Method.

The screen will then display the five Components from Page 1 of the MAIN menu.

To display Page 2 of the MAIN menu that lists an additional five Components, simply press the PAGE (▲) (▼) buttons.
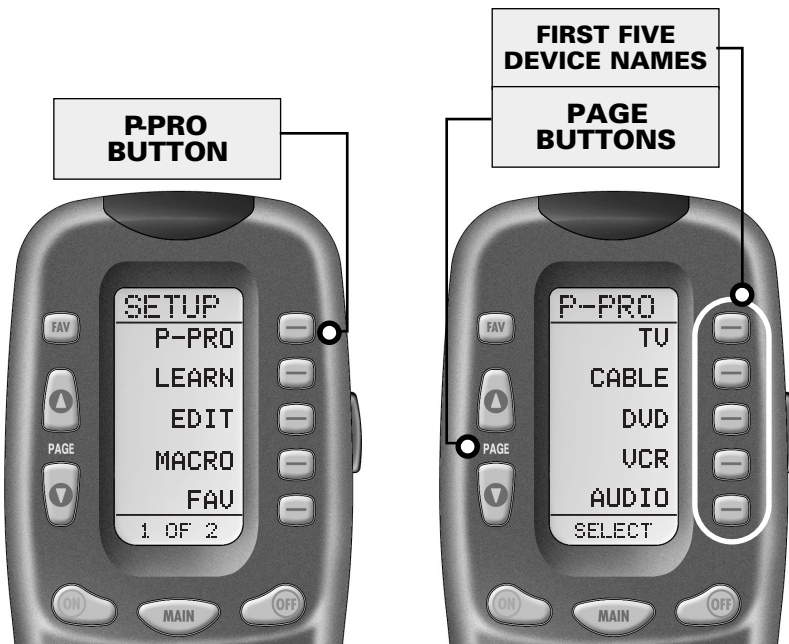
STEP 5:
Press the Component display button you want to program. For example: If you want to setup the TV Component button, press the TV Component display button. The display at the bottom of the LCD screen will flash "FROM - TABLE".

STEP 6:
In this step you verify the type of component you plan to operate with this component button. For example: If you plan to operate the TV component with the TV button, simply press the TV display button once again. However, if for example you are setting up AUX to operate a second DVD Player, you would first need to press AUX in Step 5, and then DVD in Step 6.

FIRST FIVE DEVICE NAMES

PAGE BUTTONS

P-PRO BUTTON

BASIC SETUP

BASIC SETUP

NOTE:
If the Component fails to turn off after you have entered all the code numbers listed for your brand, you can scan through all the other code numbers that are pre-loaded into the RF20 for that Component (in this case TV) by using the UP or DOWN display buttons on the screen. (There is a chance that your Component was actually manufactured by another brand.) However, most of the code tables are so large that it is usually faster to use the Learning Method on Page 15.

STEP 7:
Point the RF20 toward the Component you want to program, (in this example, TV), and punch in the 3-digit code that you wrote down for that specific Component. Use the Number buttons 0-9 on the remote to punch in the code. If the 3-digit code number that you just punched in is correct, the Component will turn off. If the Component does not turn off, continue entering code numbers from your list until the Component turns off. Some brands have several possible code numbers.

STEP 8:
When the Component turns off, press the ON button to turn the Component back on. Now you can test the Volume and Channel buttons (for TV), or PLAY and STOP (for VCR and DVD) to make sure they all work. If any of the buttons do not work properly, you need to find a new correct code. For

example, maybe your Sony TV turned off with code number 147, but the volume controls did not work properly. If this is the case, try the next code number listed for that Component until you find a perfect match.

BASIC SETUP

NUMBER BUTTONS

UP & DOWN BUTTONS

ON BUTTON

VOLUME BUTTONS

CHANNEL BUTTONS

PLAY BUTTON

STOP BUTTON
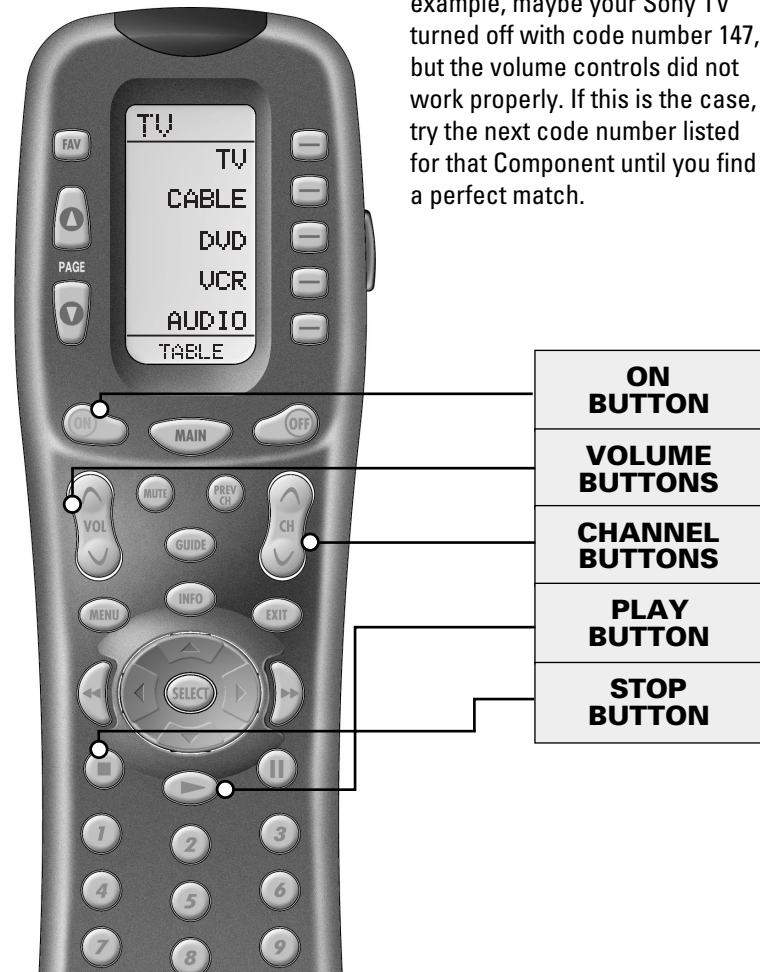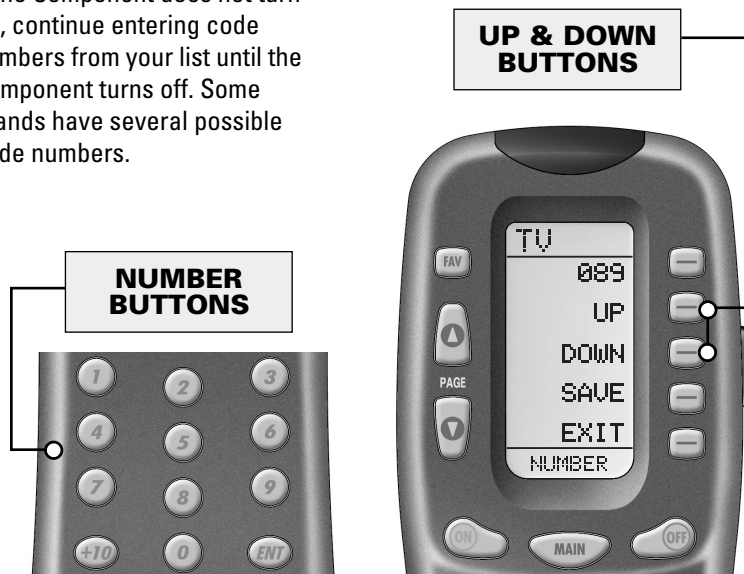
STEP 9:

Once you have found the right code, save the code number by pressing the SAVE display button that appears on the LCD screen. The LCD screen will blink "SAVED" two times, signaling that the code number has been successfully saved.
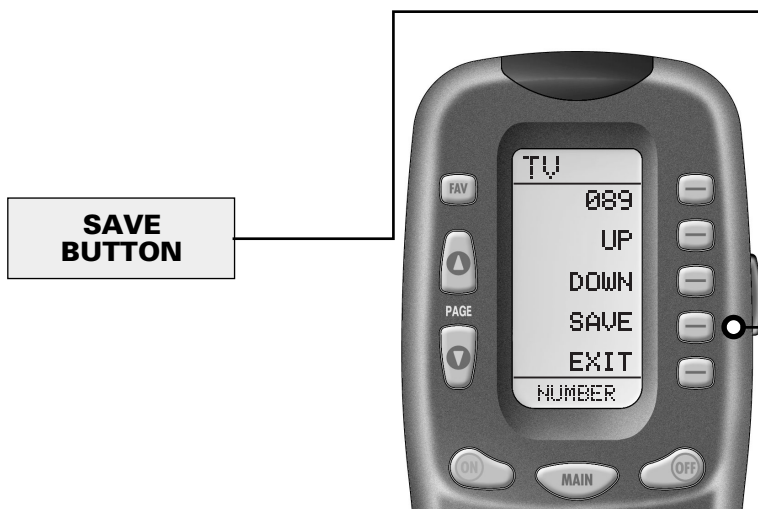
STEP 10:

Exit SETUP mode by pressing the MAIN button two times. When the LCD screen displays MAIN, you are back in normal operating mode.

NOW, PROGRAM THE REST OF YOUR COMPONENTS BY REPEATING STEPS 1 THROUGH 9. IN MOST SYSTEMS, YOU CAN FINISH BASIC SETUP IN JUST A FEW MINUTES AND PUT ALL YOUR OLD REMOTES AWAY.

IF YOU ARE STILL MISSING COMMANDS TO CONTROL ANY OF YOUR COMPONENTS, USE THE LEARNING METHOD ON PAGE 15.

BASIC SETUP

SAVE BUTTON

TV
089
UP
DOWN
SAVE
EXIT
NUMBER

TV
TV
CABLE
DVD
VCR
AUDIO
TABLE

FAV
PAGE
ON MAIN OFF

MAIN BUTTON

BASIC SETUP
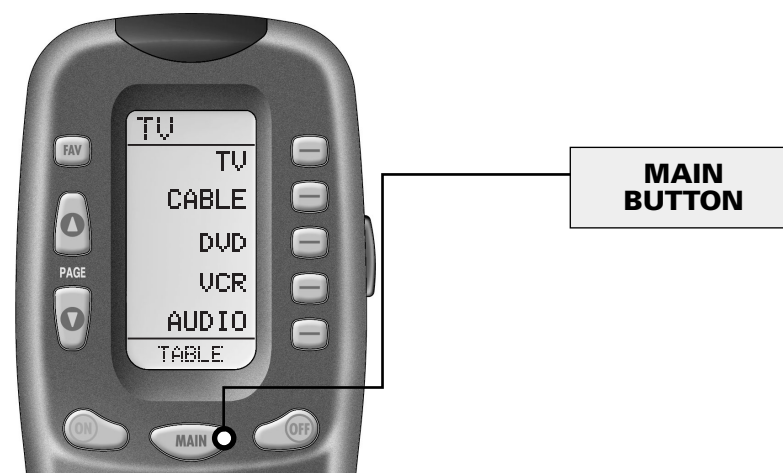
Learning Method

The RF20 can actually 'learn' commands from other remote controls (old or new), one-button-at-a-time, so it will never become obsolete. RF20 is the last remote you'll ever need! Just follow these simple steps:

STEP 1:
Line-up the RF20 with the other remote control, head-to-head, one or two inches apart.

STEP 2:
On the RF20, press and hold the MAIN and ENT (Enter) buttons at the same time for approximately three seconds, until the word "SETUP" is displayed at the top of the LCD screen. This signals you are now in SETUP mode.

IMPORTANT
You now have 30 seconds to perform the next step while you are in SETUP mode. If you don't press a button within 30 seconds, SETUP will disap-pear from the screen, signaling that you have exited setup mode and you will need to start over.

MAIN BUTTON

ENTER BUTTON

STEP 3:
Press the LEARN display button on the LCD screen. The top of the screen will change to "LEARN" and display the five Components from Page 1 of the MAIN menu.

LEARN

To display Page 2 of the MAIN menu that lists an additional five Components, simply press the PAGE (▲) (▼) buttons.

STEP 4:
Select the Component you want to teach commands to by pressing that Component display button on the LCD screen (in this example, TV). The top of the TV screen will change to "TV".

TV

NOTE: If you want to teach any command to a Component button, press the desired Component display button once the top of the screen displays "MAIN", by pressing the PAGE button.The top of the screen wil change to "READY". Then go to STEP 6.

LEARN BUTTON

BASIC SETUP

BASIC SETUP
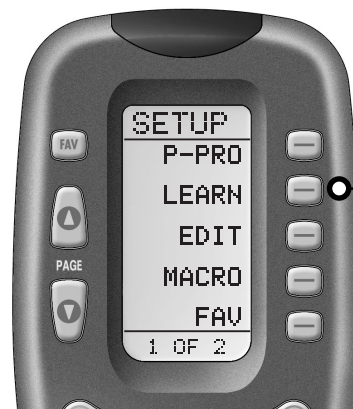
STEP 5:
Press any button on the RF20 that you want to teach a command to. The top of the screen will change to "READY" and the bottom of the screen will display the button name you pressed.

READY

NOTE: If you don't see the display button you would like to teach on the LCD screen, use the PAGE (▲) (▼) buttons. The only buttons you can't teach are the PAGE and MAIN buttons.

STEP 6:
Press and hold the button on the other remote control that you want to 'teach' to the RF20 until the LCD display on the RF20 changes to either "GOOD" or "FAILD". If the "GOOD" label appears on top of the display, you were successful. If the "FAILD" label appears on top of the display, try 'teaching' the same button to the RF20 once again by repeating STEPS 5 and 6.

GOOD   FAILD

STEP 7:
Now, continue to teach the RF20 any other commands from your other remotes by repeating STEPS 4 through 6 (to go back to STEP 4, simply press MAIN once).

STEP 8:
Once you have completed teaching all the button commands to the RF20, return to normal operation by pressing the MAIN button twice.

NOTE: Test all your new commands. If any of them don't work, try the Learning Method again, following these suggestions:

• Move to another room. Plasma TVs, sunlight, halogen or quartz lighting can interfere with the learning process.

• Even though the old remote seems to be working fine, put in fresh alkaline batteries.

• Gradually vary the distance between the remote controls. Try 1", 2" and so on, up to 4 feet.

• Try tapping the button on your old remote instead of pressing and holding it during the learning process.

Some additional Information regarding the Learning Process:

• Learned functions override any existing pre-programmed functions on the remote control.

• All buttons can be learned except for the PAGE, MAIN and LIGHT buttons.

• Learned functions are automatically erased when a new function is learned on the same button.

• Learned functions are retained even after a different Setup Code Number is programmed into the remote.

• To return to an original pre-programmed function, a learned function must be erased.

Transmitting (Busy Signal) Icon

When a command is being transmitted, an icon will appear in the upper right corner of the LCD screen. This indicates that a signal is being sent. This is particularly useful when setting up Macros and FAVs, since it flashes with every step of a sequence of commands.

Customizing Your RF20 with Special Advanced Features

After you've finished all your basic setup, you can choose to make operation easier by customizing the RF20 just the way you want, using the Special Advanced Setup Features described in this section.

Customizing the LCD Screen

You can easily edit or change the name of any of the display buttons (including Favorite Channels) on the LCD screen by following these steps:

CHILD LOCK FEATURE

This 'child-lock' feature prevents the unauthorized use of the remote control by children. It blocks all operations of the remote control.

To Activate:
Press the +10 and ENT (Enter) buttons simultaneously for 3 seconds. The bottom of the LCD will blink "LOCKED" three times and then display "LOCKED".

To Return to Normal Operation:
Press the +10 and ENT (Enter) buttons simultaneously again for 3 seconds. The LCD will display the last use mode.

STEP 1:
Press and hold the MAIN and ENT (Enter) buttons at the same time for approximately 3 seconds, until the word "SETUP" is displayed at the top of the LCD screen. This signals that you are now in setup mode.

> **IMPORTANT:** You now have 30 seconds to perform the next step while you are in SETUP mode. If you don't press a button within 30 seconds, SETUP will disappear from the screen, signaling that you have exited setup mode and you will need to start over.

STEP 2:
Press the EDIT display button. The LCD display will change to the EDIT menu.

STEP 3:
Press the TEXT display button. The screen will display the list of Components and "EDIT" will appear at the top of the screen.

STEP 4:
Navigate to the Component and page where there is a button label you want to EDIT, selecting between the FAV, MAIN, COMPONENT display buttons; then using the PAGE button.

> **NOTE:** If you wish to change the name of a Component button, press the Page (▲) Up button twice. The top of the display will change to MAIN, and you can navigate to MAIN page 1 or page 2 before going on to Step 5.

STEP 5:
Press the button you wish to edit. The first character space of your button label will start to blink.

UP CURSOR
Button deletes all text

LEFT CURSOR
**Moves blinking
character left**

DOWN CURSOR
**deletes the currently
blinking character**

RIGHT CURSOR
**Moves blinking
character right**

BLINKING
CHARACTER

DVD
OP-CL
ZOOM
▮PROG
REPEA
A-B
EDIT
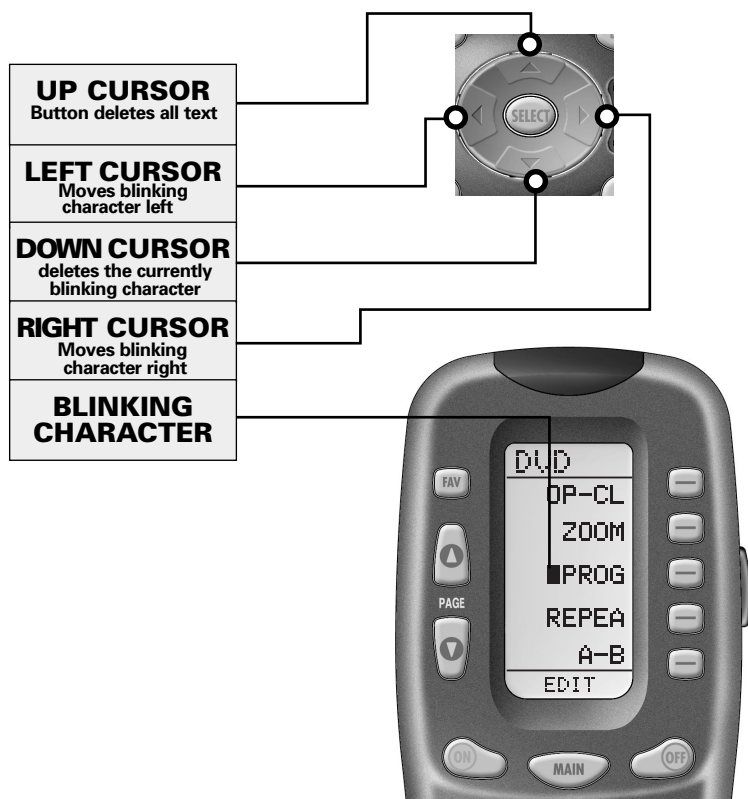
STEP 6:
Change the character by using any of the number keys. Each press of the same number button selects the next character of that number's group, as shown in the diagram below.

A,B,C,1 D,E,F,2 G,H,I,3
J,K,L,4 M,N,O,5 P,Q,R,6
S,T,U,7 V,W,X,8 Y,Z,9
+10 0 ENT

0 ! ▶◀▲▼■ ❚❚▶▶ ◀◀
& ( ) + - . / _ "

RF20

STEP 7:
Once the character you want appears, move to the next space by pressing the Right cursor button.

STEP 8:
When you are finished editing the button, press the button you edited and "SAVED" will flash at the bottom of the display.

To change any other button labels on the same Component, press the next button, then repeat steps 6-8. If you wish to edit a button on another Component, press the MAIN button once, then repeat Steps 4-8.

STEP 9:
Once you've finished editing buttons, press the MAIN button four times to return to normal operation.

FAV

PAGE

ON   MAIN   OFF

Favorite Channel Setup

This is one of RF20's most desirable features. Once it's set up, you can select up to 40 favorite channels with the press of a button - without the need to remember or type in a channel number. Let the channel surfing begin!

To access Favorite Channel listings, simply press the FAV button to display Page 1 of Favorite Channel listings. There are eight pages of Favorite Channels, with five Channels on each page, for a total of 40 Channels. Just use the PAGE (▲) (▼) buttons to locate the Channel you want to setup. Each Channel can be setup to be instantly selected with the press of one button.

To setup a Favorite Channel button, follow these steps:

STEP 1:
Press and hold the MAIN and ENT (Enter) buttons at the same time for approximately 3 seconds, until the word "SETUP" is displayed at the top of the LCD screen. This signals that you are now in setup mode.

IMPORTANT:
You now have 30 seconds to perform the next step while you are in SETUP mode. If you don't press a button within 30 seconds, SETUP will disappear from the screen, signaling that you have exited setup mode and you will need to start over.

STEP 2:
Press the FAV display button.

The top of the display will show "FAV". The bottom of the display will flash "SELECT"

STEP 3:
Use the PAGE (▲) (▼) buttons until you locate the name (i.e.,ABC, CBS, NBC) of the favorite channel you want to setup.

STEP 4:
Press the favorite channel display button you want to setup. The top of the screen will change to show the channel name. The bottom of the screen displays "STEP0", indicating that you have not entered the channel number yet.

STEP 5:
Press either the TV, SAT or CABLE Component button (select the Component you use to enter channel numbers).

STEP 6:
Press each of the number buttons for the channel.

Note: If a number is repeated when setting the channel (for example, channel "33" or "522"), it is usually best to set a half second delay in between the identical numbers by pressing the (II) PAUSE button. Each press of the PAUSE button increases the delay by a half second.

FAV
BUTTON

SETUP
P-PRO
LEARN
EDIT
MACRO
FAV
1 OF 2

FAV
SAVE
UNDO
EXIT
SELECT

PAUSE
BUTTON

NOTE: Some brands of television require an ENT (Enter) command after the channel numbers.

MacroPower™ Setup

MacroPower™ is a unique feature that enables you to turn all of your Components ON or OFF, at the same time, simply with the press of one button.
We call that a "Macro". What would normally take multiple remotes and button pushes, the RF20 can accomplish with the press of one button. In addition to the Power ON or OFF buttons, any of the Display buttons (on any Component or Page) can be set to be Macro buttons as well. Feel the power!

To setup a Power ON macro button that will turn ON several components at the same time (for example, TV, VCR and CABLE), follow these easy steps:

CUSTOMIZING

STEP 7:
Press the LIGHT button after you enter the channel number.
A new screen appears displaying SAVE, UNDO or EXIT.

STEP 8:
To save the channel you entered, press the SAVE display button. The UNDO display button lets you erase the last entry. The EXIT display button erases all entries for this button.

STEP 9:
When you are finished setting up Favorite Channel buttons, press the MAIN button twice to return to normal operation.

SAVE
BUTTON

STEP 1:
Press and hold the MAIN and ENT (Enter) buttons at the same time for approximately 3 seconds, until the word "SETUP" is displayed at the top of the LCD touch screen. This signals that you are now in setup mode.

IMPORTANT: You now have 30 seconds to perform the next step while you are in SETUP mode. If you don't press a button within 30 seconds, SETUP will disappear from the screen, signaling that you have exited setup mode and you will need to start over.

STEP 2:
Press the MACRO display button on the LCD screen. The top of the screen will display "MACRO". The bottom of the display will flash "SELECT".

STEP 3:
Press the ON button. "ON" will display at the top of the LCD screen. "STEP0" will display at the bottom of the screen indicating that no macro steps have been entered yet.

STEP 4:
Press the first component display button you want the Macro to turn on (in this example, TV) and "TV" will display at the top of the screen and "STEP 1" at the bottom.

STEP 5:
Then, press the ON button to confirm the command and "STEP 2" will display at the bottom of the screen. (NOTE: Whenever a button is pressed, another Macro step is counted and displayed at the bottom of the screen.)

STEP 6:
Now, press the MAIN button to return to the Main Component listing. ("STEP 3" will display at the bottom of the screen.)

CUSTOMIZING

STEP 7:

Press the second component display button that you want the Macro to turn on (in this example, VCR) and "VCR" will display at the top of the screen. ("STEP 4" will display at the bottom of the screen.)

STEP 8:

Then, press the ON button to confirm the command. ("STEP 5" will display at the bottom of the screen.)

STEP 9:

Now, press the MAIN button to return to the Main Component listing. ("STEP 6" will display at the bottom of the screen.)

STEP 10:

Press the third component display button that you want the Macro to turn on (in this example, CABLE) and "CABLE" will display at the top of the screen. ("STEP 7" will display at the bottom of the screen.)

STEP 11:

Then, press the ON button to confirm the command. ("STEP 8" will display at the bottom of the screen.)

> **NOTE : Don't worry about the number of steps. Each macro button can store up to 190 steps, so you are not likely to run out of steps!**

You can also program delays in between commands by pressing the (II) PAUSE button. Each press adds half a second to the delay.
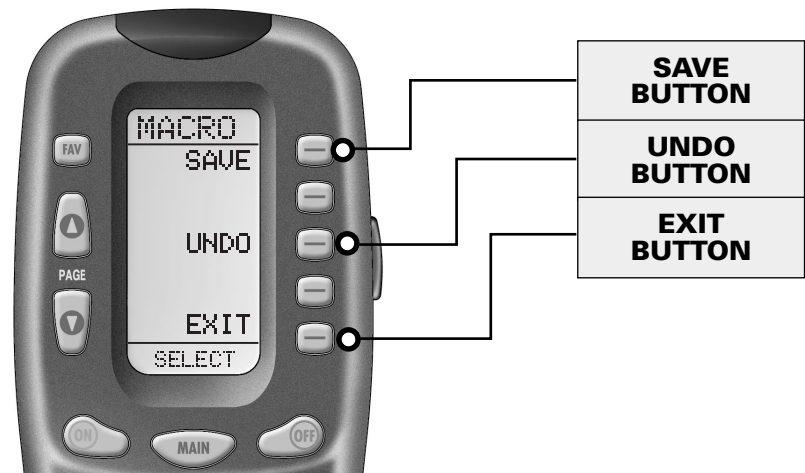
STEP 12:

Press the LIGHT button to end your macro. A new screen will appear:

STEP 13:

If you are satisfied with your macro, press the SAVE display button. The UNDO display button lets you erase the last step. The EXIT display button erases all the macro steps.

STEP 14:

Press the MAIN button twice to return to normal operation.

Advanced Macro Options:

SETTING UP A POWER OFF MACRO:
Simply follow the same steps as outlined above, except press the OFF button in place of the ON button.

SETTING A COMPONENT BUTTON AS MACRO:
If you wish to set one of the Component buttons as a macro, in STEP 3, press the Page Up button twice. The top of the display will change to MAIN, and you can navigate to MAIN page 1 or page 2. Press the Component button you want to set as a Macro button. The top of the screen will display the button label you selected. Select the Component and Page that has a button you want in your Macro using the MAIN, Component and Page buttons. Simply press the button(s) with the command(s) you want in your Macro. Then complete and save the Macro by following STEPs 12 and 13 as outlined above.

PROGRAMMING A "PRESS & HOLD" MACRO:
Another option for Component button macros is to only send the macro if the button is pressed and held. This is setup by entering a delay as the first step of the macro. The amount of delay determines how long the user must press the button before the macro is sent. The advantage of this option is that a normal press of the COMPONENT button will simply switch Components without sending the macro command.

SimpleSound™ Setup & Other 'Punch Throughs'

SimpleSound™ is a dynamic feature that gives you total volume control over all the Components in your system, even those without their own built-in volume control, such as TiVo, DVD and VCR... saving you the hassle and inconvenience of constantly needing to switch between Component modes on the remote. With SimpleSound™, you can set the RF20's volume control buttons to always control the sound in your system, even when you're in VCR or DVD mode, without switching back to AUDIO or TV. Even more exciting, SimpleSound™ is what is called a 'Punch Through' feature and is not limited strictly to volume control. Click and enjoy!

STEP 1:
In a basic home entertainment system, the sound may come from your TV. In a more advanced system, the sound may come from your audio Component such as a Surround Sound Receiver or Home Theatre system. So, first, you need to identify which Component you want to use in your system for sound.

STEP 2:
Press and hold the MAIN and ENT (Enter) buttons at the same time for approximately 3 seconds, until the word "SETUP" is displayed at the top of the LCD screen. This signals that you are now in setup mode.

IMPORTANT:You now have 30 seconds to perform the next step while you are in SETUP mode. If you don't press a button within 30 seconds, SETUP will disappear from the screen, signaling that you have exited setup mode and you will need to start over.

STEP 3:
Press the PAGE (▲) UP button to display Page 2 of the Setup Menu on the LCD screen. Press the PUNCH display button.

STEP 4:
Then press the VOL (Volume) display button. The screen will display "VOL" at the top. This sets up the group of three buttons (Volume Up, Volume Down and Mute) in one action!

VOLUME BUTTON

The bottom of the display flashes "PUNCH TO". Press the button for the Component that doesn't have volume control commands yet (i.e.,DVD). This is the Component you are going to PUNCH TO for the volume and mute commands.

NOTE: If you want to PUNCH TO the MAIN Component, press the POWER OFF button at this time.

STEP 5:
The bottom of the display will then flash "PUNCH FROM". Now select the Component that has the volume commands you want to use (i.e.,TV for systems using the TV speakers, AUDIO for systems with surround sound receivers). The bottom of the display will flash "SAVED".

STEP 6:
Repeat STEPS 4-5 until all your Components operate the volume perfectly.

STEP 7:
Press the MAIN button twice to return to normal operating mode and test your SimpleSound™ settings.

NOTE:The Punch Through feature is not limited to volume and can also be applied to channel selection or other functions. If you find yourself switching to a particular Component frequently to use a group of controls, consider using Punch Through for another group, as listed here:

VOL   Volume Up,Volume Down
         and Mute
CH   Channel Up, Channel Down,
         Previous Ch and Channel
         (0-9) buttons.
PLAY   Play, Stop, Pause, Rewind
         and Fast Forward
VOD   Guide, Menu, Info, Exit, Up,
         Down, Left, Right, Select

Simply perform the steps outlined above, but in STEP 4, press one of the control options (CH, PLAY or VOD).

Setting Backlight Options

You can customize the backlighting feature to suit your specific preferences by following these simple steps:

Adjusting Length of Backlight Time
You can adjust the amount of time that the RF20 backlight stays on by entering the SETUP mode and proceeding to page 2 (using the PAGE (▲) UP button), then pressing the LIGHT display button on the LCD screen (not the Backlight button). Then enter the amount of time you would like the light to stay on using the number pad (0-99 seconds). After making your selection, press the SAVE display button.

Adjusting Contrast
You can make the text darker by pressing both the MAIN and cursor UP buttons at the same time. To make the text appear lighter, press both the MAIN and cursor DOWN buttons at the same time.

Turning OFF Backlighting
If you don't want backlighting at all (this extends battery life), press the ON display button that appears on the screen. The ON will change to OFF. Press the SAVE display button. Exit the setup mode by pressing the MAIN button.

| MAIN BUTTON |
| UP & DOWN CURSOR |
| HIGH CONTRAST |
| LOW CONTRAST |
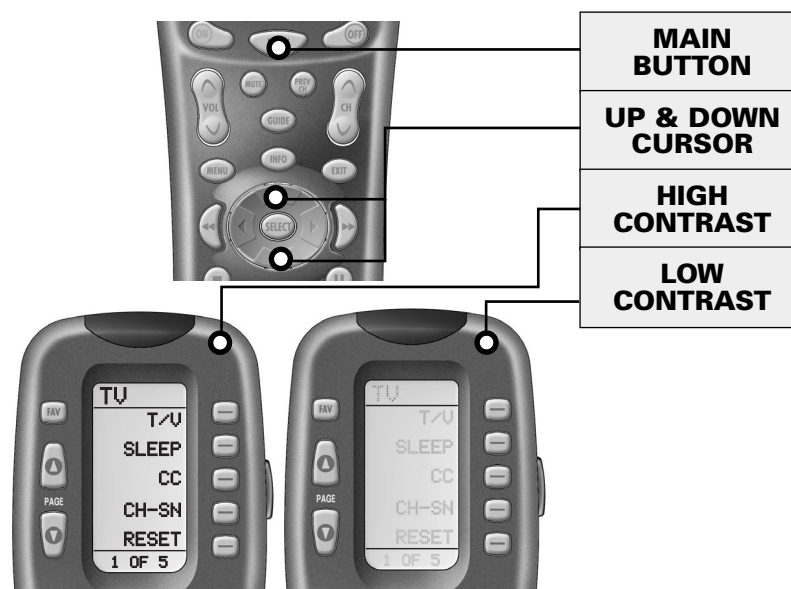
Hiding and Adding Pages

Each of your RF20 Components actually contains eight pages. However, only five pages are visible in the factory default setting. Three page are hidden in each Component. If you wish to use the hidden pages, you can ADD it. If you don't want to use some of the existing pages, you can HIDE them. You can add or hide pages on Components OR on your favorite channel pages using this simple process:

NOTE: Be sure to program your Macros before you hide pages with potential macros in them. You can't access hidden pages during macro setup. However, after you finish Macro setup, you can hide pages without affecting operation of your macros.

This page is hidden. To ADD it, press the LIGHT button.

This page is visible.To HIDE it, press the LIGHT button.

STEP 1:
Press and hold the MAIN and ENT (Enter) buttons at the same time for approximately 3 seconds, until the word "SETUP" is displayed at the top of the LCD screen. This signals that you are now in setup mode.

IMPORTANT:You now have 30 seconds to perform the next step while you are in SETUP mode. If you don't press a button within 30 seconds, SETUP will disappear from the screen, signaling that you have exited setup mode and you will need to start over.

STEP 2:
Press the EDIT display button on the LCD screen.

STEP 3:
Press the PAGE display button once the screen changes to EDIT mode.

STEP 4:
"PAGE" appears at the top of the screen. Now, you can navigate to any page, using the MAIN, COMPONENT, FAV, and PAGE display buttons.

STEP 5:
When you select a page, the top of the screen indicates whether you want to "ADD?" or "HIDE?" the page displayed. When you want to change a page's visibility (i.e., either ADD or HIDE), simply press the LIGHT button.

STEP 6:
You can continue to ADD or HIDE pages on other Components by repeating Steps 4 and 5.

STEP 7:
When you are finished adding and hiding pages, press the MAIN button four times to return to normal operation.

EDIT BUTTON

PAGE BUTTON

PAGE BUTTON

FAV BUTTON

COMPONENT BUTTONS

MAIN BUTTON
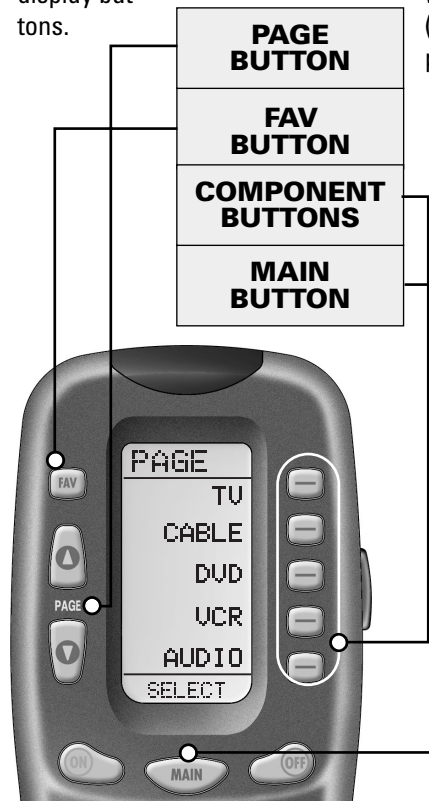
Recalling Pre-Programmed Setup Code Numbers

In case you didn't write down the Pre-Programmed Code Numbers that you used to set up your RF20, you can easily recall them using this simple process:

Cloning Other RF20s

If you are fortunate enough to own more than one RF20, you'll be happy to know that you can easily copy and transfer all the setup from one RF20 to another. Just follow these easy steps:

STEP 1:
Press and hold the MAIN and ENT (Enter) buttons at the same time for approximately 3 seconds, until the word "SETUP" is displayed at the top of the LCD touch screen. This signals that you are now in setup mode.

> **IMPORTANT:You now have 30 seconds to perform the next step while you are in SETUP mode. If you don't press a button within 30 seconds, SETUP will disappear from the screen, signaling that you have exited setup mode and you will need to start over.**

STEP 2:
Go to Page 2 of the Setup Menu by pressing the PAGE (▲) button.

STEP 3:
Press the RECAL display button on the LCD screen. The display will change to the Recall screens. The screen automatically switches between four screens, alternately flashing Page 1 components and code numbers, then Page 2 components and code numbers.

STEP 4:
Write down the code numbers as they appear for future reference. Page 43 of this manual provides a convenient space for you to record your code numbers.

STEP 5:
Return to normal operation by pressing the MAIN button twice.

STEP 1:
For both the programmed RF20 that you want to clone, and unprogrammed RF20, press and hold the MAIN and ENT (Enter) buttons at the same time for approximately 3 seconds, until the word "SETUP" is displayed at the top of their respective LCD screens. This signals that both remotes are now in setup mode.

> **IMPORTANT:You now have 30 seconds to perform the next step while you are in SETUP mode. If you don't press a button within 30 seconds, SETUP will disappear from the screen, signaling that you have exited setup mode and you will need to start over.**

STEP 2:
Press a PAGE button on each remote to bring up Page 2 of Setup and display the CLONE button.

STEP 3:
Press the CLONE button on each remote.

STEP 4:
Align the two RF20s head-to-head, about an inch apart.

STEP 5:
Press the RECV display button on the unprogrammed RF20 that you want to setup by cloning.

STEP 6:
Press the SEND display button on the programmed RF20 that you want to clone.

STEP 7:
Press the START button on the unprogrammed RF20, and then press the START button on the programmed RF20 that you want to clone.

> **NOTE: Cloning typically takes about 40 seconds. After successful cloning is completed, the newly cloned RF20 will flash "GOOD".**

STEP 8:
Return to normal operation by pressing the MAIN button twice.

Erasing Commands - Overview

You can erase an individual button with a learned command, a macro or a favorite channel. You can erase an ENTIRE Component's learned command or macro buttons. You can also erase ALL your learned commands on all Components or all your macros or favorite channels everywhere.

If you really want a fresh start, it is possible to reset everything to the factory default settings.

Erasing Learned Buttons, Macros or Favorite Channels

STEP 1:
Press and hold the MAIN and ENT (Enter) buttons at the same time for approximately 3 seconds, until the word "SETUP" is displayed at the top of the LCD screen. This signals that you are now in setup mode.

> **IMPORTANT:You now have 30 seconds to perform the next step while you are in SETUP mode. If you don't press a button within 30 seconds, SETUP will disappear from the screen, signaling that you have exited setup mode and you will need to start over.**
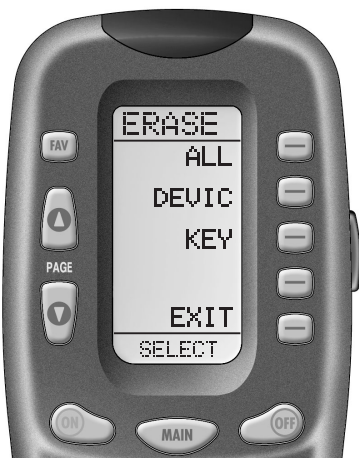
STEP 2:
Press a PAGE button to display Page 2 of Setup.

STEP 3:
Press the ERASE display button on the LCD screen.

STEP 4:
Press either the LEARN, MACRO or FAV button. The following screen appears:

ALL - Erases ALL of the specified (Learned, Macro or FAV buttons everywhere in the RF20)

DEVICE - Erases all learned or Macro buttons in a single Component (NOTE: This option is not available for FAVs.)

KEY - Erases one button only.

STEP 5:
If you press ALL, the RF20 displays a "SURE?" button. After the SURE button is pressed, all the buttons will be erased.

If you press DEVICE, a list of Components will appear. Press the Component button that you wish to erase. The bottom of the screen will flash ERASE twice, then ERASED.

If you press KEY, you'll have to navigate to the Component and Page you want using the MAIN, COMPONENT and PAGE buttons. Press a button to erase it. The bottom of the display will flash ERASE twice, then ERASED.

STEP6:
To return to normal operating mode, press the MAIN button four times.

SURE
BUTTON

ERASING COMMANDS

ERASING COMMANDS

Re-setting RF20 to Original Factory Default Settings

If you want to start with a clean slate, you can re-set the RF20 its original factory default settings by performing the following steps.

NOTE: This process will essentially erase EVERYTHING you have programmed into the RF20.

STEP 1:
Press and hold both the MAIN and the STOP buttons for 10 seconds.

STEP 2:
After 10 seconds, the RESET screen appears. Press the ALL button. The RF20 will display a "SURE?" button. Press the SURE button to erase all of your settings and return to the factory default setup

MAIN
BUTTON

STOP
BUTTON

SURE
BUTTON

RESET
SURE?

EXIT
SELECT

ERASING COMMANDS
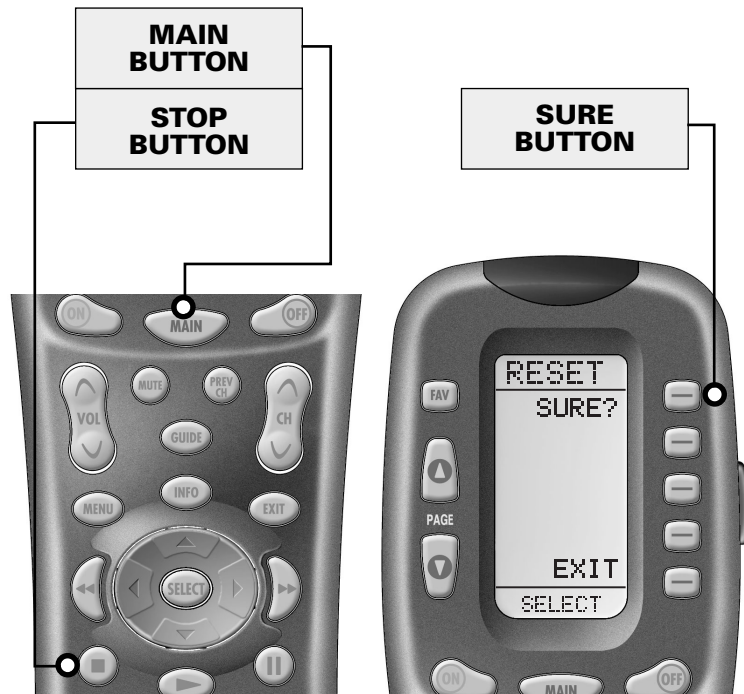
The Optional PowerBlaster™ (for 'barrier-free' RF control) [Sold separately]

Of all the fabulous RF20 features, this is probably the most exciting. When used in combination with the optional PowerBlaster™, the RF20 becomes an amazing remote control powerhouse that sends multi-directional RF (Radio Frequency) signals that pass through walls, doors and floors - both indoors and outdoors.

This changes everything! It enables you to control Components that are completely out-of-sight, up to 100' away. The PowerBlaster™ picks up RF20's radio frequency signals from any direction, regardless of distance, so RF20 doesn't need to be pointed directly at any Component. Just imagine - no more pointing! Now you can close your entertainment center doors, hide your Components, and still control them with ease. Control outdoor speakers on your patio. Control your Components anywhere!

One of the best things about this is -- nothing has to be done to the RF20 for this feature to work.
Every time you press a button on the RF20, it sends both a standard IR (Infrared Command) AND an RF (Radio Frequency) signal. If you install the PowerBlaster™ kit, it will automatically receive RF20's radio signals and translate them into the infrared commands that control your Components.

NOTE: The RF20's radio signals will not control Components directly. You must have a PowerBlaster™ to receive the RF20's radio signals. Components that came with "no pointing" radio remote controls cannot be operated by the RF20 unless the Component can be switched to standard IR (Infrared Control) via its internal menus. Some remote control ceiling fans are radio only and cannot be operated by the RF20.

The RF20 sends radio signal to the PowerBlaster™, which is a radio receiver
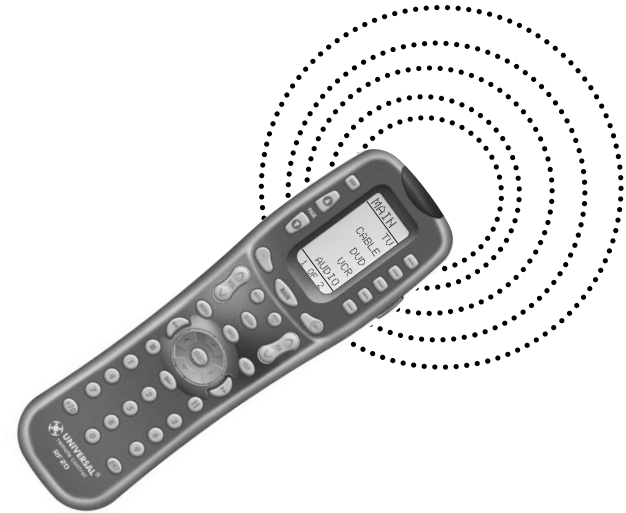
The PowerBlaster™ converts radio signals to standard infrared commands and sends them out via a built-in front blaster to Components in the same cabinet space.
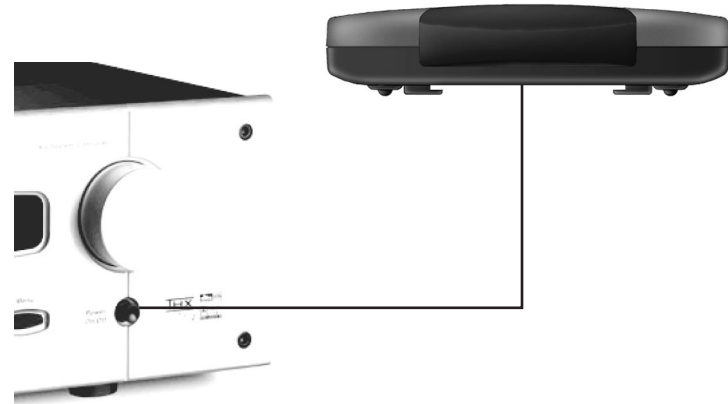
Self-adhesive "flashers" (included in the PowerBlaster™ kit) affix to the front panels of your Components. The flashers relay infrared commands to Components out-of-sight of the PowerBlaster's front blaster. The flashers plug into PowerBlaster's rear flasher line output jacks. Each flasher has a 10' cable to easily reach Components on nearby shelves.

Pre-Programmed Code Notes

Record the three digit codes for your system here

AUDIO _____

DVD _____

CD _____

SAT _____

TV _____

VCR _____

CABLE _____

AUX _____

LIGHT _____

TAPE _____

PHONO _____

TV2 _____

VCR2 _____

DVR _____

LDP _____

XM RADIO _____

IPOD _____

X-BOX _____

Pre-Programmed Code Tables

The RF20's Pre-Programmed code library is divided into categories (TV, VCR, AUX, etc.). Each category actually includes many types of Components. For example, the VCR category includes TV/VCR combo units.

Within each category, the code numbers are listed in rows by brand (Sony, Panasonic, B & K, etc.). Some brands have more than one three digit code for you to try. Just circle the correct row and refer to it while you setup (step by step instructions for using Pre-Programmed codes are found on page 7).

TV   TVs, Plasmas, Projectors and Monitors

CABLE   Cable TVs and Web TVs

DVD   DVD Players and TV/DVD Combos

VCR   VCRs and TV/VCR Combos

AUDIO   Amps, Preamps, A/V Receivers and XM Radios

SAT   Satellite Receivers

CD   CD Players and CD Changers

DVR   TiVo, Replay and other DVR's

AUX   Tape Decks, Lighting Controls, Multimedia PCs, Xbox, iPod and Custom Installation Products

TV

BRAND	CODE NUMBERS	BRAND	CODE NUMBERS
ADMIRAL	072 081 161 160	KENWOOD	197 070
ADVENT	247	KLOSS	002 059
AKAI	197 146 248	KMC	143
A MARK	112 143	KTV	043 197 143 154
AMPRO	167 073 157 183	LG	113 116 102 004 106 112 119 127 143 243 284 363 365
AMSTRAD	052	LODGENET	072
ANAM	043 054 056 080 112 131	LOEWE	164
AOC	197 004 112 058	LOGIK	072
APEX DIGITAL	006 310	LUXMAN	004
AUDIOVOX	076 273	LXI	166 007 015 052 081 160 164
BARCO	233	MAGNAVOX	164 059 197 003 060 061 004 063 064 127 022 160 094 239
BLAUPUNKT	088		226 273
BROKSONIC	238	MARANTZ	197 164 184
CAIRN	201	MATSUI	164
CANDLE	197 002 003 004	MAXENT	242
CAPEHART	058	MEMOREX	007 072 004
CETRONIC	043	METZ	088
CITIZEN	197 002 003 004 043 101 103 143	MGA	197 004 024 028 042
CLASSIC	043	MINERVA	088
CONCERTO	004	MITSUBISHI	109 124 024 004 028 040 042 146 191
CONTEC	043 050 051	MTC	197 004 062 101
CORONADO	143	NAD	015 025
CRAIG	043 054	NEC	132 130 134 197 040 016 024 056 019 236 237 262 272
CROWN	043 143	NIKEI	043
CURTIS MATHES	197 101 004 143	NUVISION	351
CXC	043	ONKING	043
DAEWOO	004 016 043 044 076 103 114 125 127 143	ONWA	043
DAYTRON	004 143	OPTONICA	019 081
DELL	319 320 321	OPTOMA	265 270
DREAMVISION	235 345	ORION	096
DWIN	177 257	PANASONIC	034 056 080 092 164 208
DYNASTY	043	PHILCO	197 003 059 060 064 164 004 024 056 063
DYNATECH	062	PHILIPS	164 005 093 038 197 003 004 059 127 184 206 239 259
EIKI	187	PIONEER	135 025 197 018 023 116 190 234 335
ELECTROHOME	143 024 076 196	POLAROID	138 268 328 353 354 356 388
EMERSON	028 048 043 155 005 197 004 047 050 051 076 096 143 151	PORTLAND	004 143
	153 154	PROSCAN	144 160 161 165 167
EPSON	324	PROTON	004 131 058 143 171 173 193
ESA	323	QUASAR	034 056 092
FISHER	007 057	RADIO SHACK	019 004 143 043 127
FUJITSU	198 246 346	RCA	160 165 065 156 144 161 197 004 024 056 152 023 074 333
FUNAI	028 043	REALISTIC	007 019 043 047
FUTURETECH	043	ROCTEC	186
GATEWAY	242 268	RUNCO	168 169 178 179 180 181 182 183 073 157 340
GE	160 144 165 073 197 008 009 034 056 074 130 155 161 004	SAMPO	197 058 004 202
	091 157 183	SAMSUNG	050 089 101 105 004 127 143 160 228 229 258
GOLDSTAR	113 116 102 004 106 112 119 127 143	SANYO	166 007 020 053 057 082 187
HALL MARK	004	SCEPTRE	276
HANNSPREE	381	SCOTT	028 043 004 048 143
HITACHI	011 163 166 004 009 010 012 023 075 143 158 072	SEARS	015 030 004 007 028 057 143 094 160 082 165 166
HP	316 327 378	SELECO	189 200 205 227
HYUNDAI	337 338	SHARP	081 019 014 170 028 029 004 022 143 175 251
INFINITY	164	SIEMENS	088
INFOCUS	230 330 333	SIM2	189 200 205 227
INSIGNIA	350	SIGNATURE	072
JBL	164	SOLE	231 232
JCPENNEY	004 024 197 008 009 030 065 101 143 156 160	SONY	070 139 147 126 185 194 085 213 277 279
JENSEN	013	SOUNDESIGN	028 004 003 043
JVC	038 034 070 083 145 199 210 240 241	SPECTRICON	112
KEC	043	SSS	004 043

BRAND	CODE NUMBERS	BRAND	CODE NUMBERS
SUPRE MACY	002	ABC	004 103 003 039 042 046 053
SVA	328	ADELPHIA	043 074
SYLVANIA	197 003 059 060 063 064 164 044 160 127	ADVANCED NEWHOUSE	043
SYNTAX OLEVIA	376	ALTRIO	043
TANDY	081	AMERICAST	099
TATUNG	056 062	ARCHER	005 007 014
TECHNICS	034 080	ARMSTONG	074
TECHWOOD	004	AT&T BROADBAND	074
TEKNIKA	002 003 004 024 028 043 072 101 143	ATLANTIC BROADBAND	043 074
TELEFUNKEN	037 046 086 087	BELL SOUTH	099
TELERENT	072	BLUE RIDGE	043 074
TERA	172	BRESNAN	074
TMK	004	BRIGHT HOUSE	043 110
TOSHIBA	015 138 030 007 040 062 101 325	BUCKEYE COMM	074
TOTEVISION	143	CABLEVISION	043 074 108
UNIVERSAL	008 009	CENTURION	092
VIDEO CONCEPTS	146	CENTURY	007
VIDIKRON	174 184 188 192 340	CHARTER	043 074
VIDTECH	004	CITIZEN	007
VIEWSONIC	242	COGECO	074
VIZIO	386 387	COMBANO	080 081
WARDS	004 008 009 019 028 060 061 063 064 072 074 143 164 034	COMCAST	043 074 110
WESTING HOUSE	076 280	COMSAT	074
WINBOOK	339	COX DIGITAL	043 074
YAMAHA	197 004	DIGICABLE	101
YORK	004	EAGLE	020 030 040
YUPITERU	043	EASTERN	057 066
ZENITH	073 072 095 103 157 183 243 284	ECHOSTAR	106
ZONDA	112	ELECTRICORD	032
		GEMINI	008 054
		GENERAL ELECTRIC	072
		GENERAL INSTRUMENT	074 103 104
		GNC	099
		GOLDEN CHANNEL	030
		HAMLIN	049 050 055
		HITACHI	103 055
		INSIGHT	074
		JERROLD	074 004 103 002 003 008 009 010 069
		MAGNAVOX	010 012 064 079 095 094
		MASSILLON	074
		MEDIA ONE	107
		MEDICOM	074
		MEMOREX	052
		MITSUBISHI	102
		MOTOROLA	074 110 109 111
		MOVIE TIME	028 032
		MOXI	111
		NCTC	074
		NSC	015 028 038 071
		OAK	031 037 053
		PACE	043 074
		PANASONIC	044 047
		PARAGON	052
		PHILIPS	006 012 013 020 085 095
		PIONEER	043 103 034 051 063 076 105
		PRUCER	059
		PULSAR	052
		RCA	047
		RCN	074
		RECOTON	098

BRAND	CODE NUMBERS	BRAND	CODE NUMBERS
REGAL	049 050	AIWA	146
REGENCY	057	ALPINE	098
RODGERS	043	APEX DIGITAL	087 111 115 112 116
SAMSUNG	030	ARCAM	122
SCIENTIFIC ATLANTA	043 011 003 041 042 045 046	CAMBRIDGE AUDIO	215
SEREN	043	CARY AUDIO DESIGN	174
SERVICE ELECTRIC	074	CLASSE	167
SHAW	074	COBY	258
SIGECOM	043	DENON	007 080 173
SONY	096 108	FUNAI	143
SPRUCER	047 078	GATEWAT	175
STARCOM	002 004 008 009	GE	026 027
STARGATE	008 030 097 104	GO VIDEO	137 218 220 221 222
SUSQUEHANNA	043 074	HARMAN KARDON	084 140
TIME WARNER	043 074	HITACHI	101
TOCOM	039 040 056	ILO	268
TOSHIBA	052	INTEGRA	142 180
UNITED CABLE	004 053	JVC	012
UNIVERSAL	005 007 014 032 035	KENWOOD	151
VIDEOTRON	043	KISS	179 279
VIEWSTAR	012 015 018 086 087 088 089	KLH	135
WIDE OPEN WEST	043 099	KRELL	104
ZENITH	052 060 093 100	LEXICON	148
		LG	091 057 074
		LITEON	264 265
		MAGNAVOX	066 096
		MALATA	267
		MARANTZ	083 095
		MERIDIAN	153
		MITSUBISHI	017
		MYRYAD	102 134
		NAD	088 155
		NAKAMICHI	103
		ONKYO	076 035 180
		OPPO	266
		PANASONIC	021 042 138 139 144 150
		PHILIPS	066 083 095 105 166
		PIONEER	023 092 099 107 108 131
		POLAROID	233 234 237
		PRIMARE	193 194
		PROCEED	086
		PROSCAN	026 027
		RCA	026 027
		RJTECH	269
		ROTEL	204
		SAMSUNG	056 070 119 165 170 137 159
		SANSUI	154
		SANYO	147
		SENSORY SCIENCE	222 223
		SHARP	094
		SONY	033 118 145 126 191
		SYLVANIA	143
		SYMPHONIC	143
		TAG MCLAREN	156
		TATUNG	102
		TEAC	270
		THOMPSON	026 027
		THULE	177
		TOSHIBA	035 034 130 141 164 188
		VENTURER	149

BRAND	CODE NUMBERS	BRAND	CODE NUMBERS
VINC	161	THETA DIGITAL	032
YAMAHA	042 089 166 195 197	TOSHIBA	152 106
ZENITH	057 074 091	YAMAHA	043 129
DVD-TV/DVD Combos			
AIWA	146		
FUNAI	143		
SAMSUNG	165		
SYLVANIA	143		
SYMPHONIC	143		
TOSHIBA	130		
DVD-TV/DVD/VCR Combos			
MAGNAVOX	143		
PANASONIC	144		
SYLVANIA	143		
TOSHIBA	164		
DVD-DVD/VCR Combos			
GO VIDEO	137 218		
PANASONIC	150		
PHILIPS	105 (VCR Functions for VCR 067)		
POLAROID	234		
SAMSUNG	137 159		
SANSUI	154		
SONY	145 191		
TOSHIBA	141		
ZENITH	091 (VCR Functions for VCR171)		
DVD-DVD Recorder			
GATEWAY	175		
GO VIDEO	220 221 222		
ILO	268		
KISS	279		
LITEON	265		
PANASONIC	139		
SENSORY SCIENCE	222		
SONY	191		
TOSHIBA	188		
DVD-LD			
DENON	206 207		
FUNAI	120		
KENWOOD	152 013		
MAGNAVOX	032 121		
MARANTZ	211		
MITSUBISHI	121		
NAD	121		
OPTIMUS	049 013		
PANASONIC	113		
PHILIPS	032		
PIONEER	106 117 121		
RADIO SHACK	120		
RCA	002		
REALISTIC	049		
RUNCO	127		
SANYO	075		
SHARP	152 013		
SONY	053 110		
TECHNICS	113		

BRAND	CODE NUMBERS	BRAND	CODE NUMBERS
AIWA	034 161	RCA	107 109 144 147 158 041 145 013 020 140 034 040
AKAI	016 146 043 046 124 125 142	REALISTIC	003 008 010 014 031 034 040 053 054 101
AMPRO	072	RICO	058
ANAM	031	RUNCO	148
AUDIO DYNAMICS	012 023 039 043	SALORA	014
BROOKSONIC	035 037 129	SAMSUNG	102 104 113 115 112 120 032 040 066 107 109 122 125
CANON	028 031	SANSUI	022 043 048 135
CAPEHART	108	SANYO	003 010 007 014 134 102
CRAIG	003 040 135	SCOTT	017 037 112 129 131
CURTIS MATHES	031 041	SEARS	003 008 010 014 081 013 101 009 017 073 112
DAEWOO	111 116 117 119 005 007 010 065 108 110 112	SHARP	149 054 031 159 165
DAYTRON	108	SHINTOM	024
DBX	012 023 039 043	SIGNATURE	034
DYNATECH	034 053	SONY	056 057 058 077 052 003 078 076 031 149 154
ELECTROHOME	059	SOUNDESIGN	034
EMERSON	006 029 035 017 025 027 031 034 036 037 046 101 129 131	STS	013
	138 153 162 116	SYLVANIA	031 034 059 067
FISHER	003 010 008 009	SYMPHONIC	034
FUNAI	034	TANDY	010 034
GE	031 072 147 063 107 109 144	TATUNG	039 043
GO VIDEO	132 136 155 040 115	TEAC	034 039 043
GOLDSTAR	101 106 114 013 020 012 123	TECHNICS	031 070
HARMAN KARDON	012 045	TEKNIKA	031 019 034 101
HITACHI	004 026 150 018 034 043 063 137 160 013	THOMAS	034
INSTANTREPLAY	031	TMK	006
JCL	031	TOSHIBA	112 131 079 008 059 047 082 013 042 081
JCPENNEY	012 013 015 040 066 101	TOTEVISION	040 101
JENSEN	043	UNITECH	040
JVC	048 043 130 150 055 060 012 031 050 152 166	VECTOR RESEARCH	012
KENWOOD	014 048 034 047	VICTOR	048
LG	101 106 114 013 020 012 123	VIDEO CONCEPTS	012 034 046 141
LLOYD	034	VIDEOSONIC	040
LXI	034 003 009 017 106	WARDS	003 013 017 024 031 034 040 053 054 131
MAGIN	040	YAMAHA	012 034 039 043
MAGNAVOX	067 031 034 068 041 156 164	ZENITH	072 080 056 048 101 034 058
MARANTZ	067 069 012 031 156		
MARTA	101	**VCR-TV/VCR Combos**	
MATSUI	027 030	DAEWOO	005 117
MEI	031	EMERSON	153
MEMOREX	101 003 010 014 031 034 053 072 102 134 139	FUNAI	034
MGA	045 046 059	GOLDSTAR	101 123
MINOLTA	013 020	HITACHI	034
MITSUBISHI	059 061 151 013 020 045 046 051 142 049 168	JCPENNEY	101
MTC	034 040	LG	101 123
MULTITECH	024 034	LLOYD	034
NEC	012 023 039 043 048	MAGNAVOX	034 067
NORDMENDE	043	MEMOREX	101
OPTONICA	053 054	PANASONIC	070 167
ORION	025	PHILIPS	034 067
PANASONIC	066 070 145 083 133 140 157 163 074 167	RADIO SHACK	123
PENTAX	013 020 031 063	RCA	034
PHILCO	031 034 067	SEARS	101
PHILIPS	031 067 034 101 054 071 156	SONY	057 154
PILOT	101	SYLVANIA	067
PIONEER	021 013 048	SYMPHONIC	034
PORTLAND	108	THOMAS	034
PULSAR	072	ZENITH	034
QUARTZ	002 014		
QUASAR	066 145 075		
RADIO SHACK	123		

BRAND	CODE NUMBERS	BRAND	CODE NUMBERS
ADC	007	KENWOOD	026 066 145 146 181 190 197 192 182 199 151 222 180 005
ADCOM	082 092 225 161 269 355 356 366		280 374 550
AIWA	170 018 104 202 203 213 211 188	KINERGETICS	220 140
AKAI	138 189	KLH	331
AMC	125 126 127 128 258 281 282 038	KOSS	216 573
AMEND	054	KRELL	150 072 376 384
AMX	196	KYOCERA	007
ANGSTROM	142	LEXICON	120 235 236 237 357 358 359 360 361 362 363 364
ANTHEM	335 336 337 338 339	LINN	124 377
ARCAM	141 418 419	LUXMAN	137 139 052 165 115 004 009
ATLANTIC TECHNOLOGY	342	LXI	076 056
AUDIO ACCESS	147	MAGNAVOX	086 164 152 208
AUDIO ALCHEMY	135	MARANTZ	006 028 031 040 063 185 186 251 265 119 289 296 492
AUDIO DESIGN	194 221 011	MCINTOSH	238 286
AUDIO EASE	021 196 207	MCS	076
AUDIO FILE	071	MERIDIAN	100 012 013
AUDIO MATRIX	167	MITSUBISHI	242 243 204
AUDIO SOURCE	273	MONDIAL	157 158 042 043 081 112
AUDIO TECHNICA	134	MYRYAD	276 293
B & K	096 097	NAD	186 113 283 478 479
BOSE	070 170 224 347 409 459 460 532	NAKAMICHI	111 244 245 172 183 287
BOSTON ACOUSTICS	447	NEC	176
BRYSTON	023	NIRO	343
CAMBRIDGE AUDIO	522	NILES	403
CARVER	006 028 061 071 201 214 226 180 185 022 029 077 284	ONKYO	017 046 064 107 108 187 079 080 090 179 209 270 275 438
CASIO	076	OPTIMUS	026 041 138
CHIRO	140	OUTLAW	342
CINEMA SOUND	034 134	PANASONIC	032 195 219 177 292 383 516
CITATION	148 272	PARASOUND	129 130 132 261 294 295 333 334
CLARION	026	PHAST	196
CLASSE	537	PHILIPS	249 250 251 063 119
COMPAQ	382	PIONEER	014 033 039 044 045 050 069 159 168 116 035 078 198 480
CURTIS MATHES	076	POLKAUDIO	029 515
DELPHI	415 515	PRIMARE	464
DENON	002 034 109 215 229 230 027 037 234 259 330 340 341 349	PROCEED	144 268
	350 400 401 402 444 564	RCA	010 048 117 156 067 288
EAD	466	REALISTIC	019 056 073 075 095
EIGER	149	REQUEST	351
ELAN	057 290	REVOX	162
ENLIGHTENED AUDIO	099 098	ROTEL	074 083 085
ESCIENT	368 381 451 452 453 454	RUSSOUND	379 391 392
FANFARE	352	SAMSUNG	016 571
FISHER	047 214 180 182 297	SANSUI	040 048 110 119 065 228
FLEXTRONICS	378	SANYO	047 059
FOSGATE	062 231	SCOTT	019 091
FOSGATE AUDIONICS	342	SEARS	076
GE	056 260	SHARP	026 094 131 175 181
GOLDSTAR	008	SHERWOOD	024 038 055 102 103 105 106 051 030 447
HAFLER	174	SONY	018 093 223 247 248 160 166 015 101 184 218 271 353 369
HARMAN KARDON	231 233 254 153 154 118 121 227 277 317 318 365		372 380 417 421
HITACHI	020	SOUNDESIGN	036
IMERGE	371	SOUNDMATTERS	375
INKEL	197	SOUNDSTREAM	084 088
INTEGRA	354 438	SSI	068
JAMO	398	SUMO	171
JBL	263	SUNFIRE	344 345 346 494
JCPENNEY	076 216	TAEKWANG	138
JEFF ROWLAND	206	TEAC	005 019 049 111 212 217
JENSEN	058	TECHNICS	122 176 193 219 178 177 200 257 262
JVC	240 163 191 114 266 279 291	THETA DIGITAL	136

BRAND	CODE NUMBERS	BRAND	CODE NUMBERS
TOSHIBA	060 087 198 278	CABLEVISION / VOOM	148
WARDS	180	DIRECTV	173
YAMAHA	026 253 169 067 173 205 264 232 089 264 274 285 332 373 432 433	ECHOSTAR / DISH	122 167 168
		EXPRESSVU	122
ZENITH	143 210	GENERAL ELECTRIC	151 106 150
		GENERAL INSTRUMENT	148
AUDIO-XM Radios & Tuners		GOI	122
BOSE	170 532	HITACHI	139 140
DELPHI	415 515	HTS	122
FANFARE	352	HUGHES	161 162 068 154 165 166 108 117
KENWOOD	550	JVC	122
POLKAUDIO	515	LG	170
SONY	380	MAGNAVOX	136
		MEMOREX	136
		MITSUBISHI	068 154
		MOTOROLA	148
		NEXT LEVEL	148
		PANASONIC	142 160
		PANSAT	172
		PAYSAT	136
		PHILIPS	152 153 156 068 154 136 108 117
		PROSCAN	151 106 150
		RADIOSHACK	148
		RCA	151 106 150
		SAMSUNG	123 155 163 169 175
		SKY	164
		SONY	103
		STAR CHOICE	148
		TOSHIBA	127 068 154 157 158
		UNIDEN	136
		ZENITH	159

CD

BRAND	CODE NUMBERS	BRAND	CODE NUMBERS
ADCOM	062 042	PROCEED	239
AIWA	059 065 088 089 105 122 170 187	PROTON	044 107 228
AKAI	085 195 202	QUASAR	103 008
AMC	231 232	RADIO SHACK	182
AMEND	118	RCA	017 042 150
ARCAM	238	REALISTIC	042 050 051 102 181 182 187
AUDIO ACCESS	119 147	ROTEL	044 107 161 178 250
AUDIO EASE	165	SAE	044 107
AUDIO TECHNICA	046	SANSUI	044 069 107 128 171 190 125
BSR	037 057	SANYO	050
CALIFORNIA AUDIO	103 008	SCOTT	069 102
CAPETRONIC	063	SHARP	026 031 051 066
CARRERA	057 080	SHERWOOD	003 019 051 096 112 115 119 166
CARVER	185 041 044 050 086 107 130 134 135 138 139 203 204 167	SIGNATURE	033
CASIO	111 182	SONY	048 081 097 126 133 177 225 226 164
CLARINETTE	182	SOUNDESIGN	251
CREEK	159	SUMO	155
CROWN	035	SYLVANIA	044 107
DENON	002 123	SYMPHONIC	052 181
EMERSON	042 069 102	TAEKWANG	195 085
FISHER	050 185 134 008	TANDY	010
FRABA	111	TEAC	015 034 036 051 052 101 131 140 079
GENEXXA	010 069 102	TECHNICS	060 103 200 172 184 008 068
GOLDSTAR	080	TECHWOOD	076
HAITAI	093	THETA DIGITAL	234 235
HARMAN KARDON	018 033 047 208	TOSHIBA	006 067 091 160 148
HITACHI	042 175	VECTOR RESEARCH	080
INKEL	130 143 144	VICTOR	004 022 114 124
JCPENNEY	014 061 092 141	WARDS	185 033
JENSEN	158	YAMAHA	024 046 054 186 183 245
JVC	004 022 136 163 213 214 242 243	YORX	182
KENWOOD	185 007 023 055 071 072 142 137 254		
KOSS	061		
KRELL	241		
KYOCERA	005		
LOTTE	102		
LUXMAN	011 028 070 076 249 252		
LXI	059		
MAGNAVOX	044 107		
MARANTZ	027 041 044 051 077 107 209 246		
MCINTOSH	212 247		
MCS	014 073 092		
MEMOREX	010		
MISSION	044 107		
MITSUBISHI	179		
MITSUMI	153		
MODULAIRE	182		
MONDIAL	147		
MYRYAD	244 155		
NAD	006 005 067 178		
NAKAMICHI	217 218 219 095		
NEC	014 062		
NIKKO	046		
NSM	044 107		
ONKYO	030 038 039 168 169		
OPTIMUS	010 050 057 058 081 082 083 085 093 195		
PANASONIC	103 201 172 008 068 248		
PARASOUND	233 240		
PHILIPS	041 044 107 246 253		
PIONEER	010 020 025 056 174 175 176		

BRAND	CODE NUMBERS	BRAND	CODE NUMBERS
DISH	122	3M	152
ECHOSTAR	122	AIWA	164
HUGHES	108 117	APPLE/iPod	401
HUMAX	117	ARCHER	155
JVC	122	AURORA MULTIMEDIA	220
PHILIPS	108 090 117	AUTON	191
RCA	109	BOSE	409
REPLAY NETWORKS	075	CELADON	221
SONY	104 105	CRESTRON	213 214 215 216 217 218
TIVO	090 117	DELL	261 262
TOSHIBA	117	DMX	156
		DRAPER SCREEN	204
		DREAMVISION	097
		DWIN	080 253
		EVERQUEST	206
		EXTRON	151
		FAROUDJA	184
		FUJI	209
		GATEWAY	261 262
		HAUPPAUGE	294 295
		HP	261 262
		HUNTERDOUGLAS	219
		JERROLD	153
		JVC	185
		KENWOOD	185
		KENSINGTON	406
		KEYSPAN	297
		LITE-TOUCH	208 257
		LUTRON	158 159 077
		MAKITA	186 201
		MICROSOFT/XBOX	408 107
		MINDPATH	205
		NILES	160 187
		NSM	161
		PIANO DISC PLUS	085
		POLKAUDIO	162
		RUSSOUND	081
		SCIENTIFIC ATLANTA	163 156
		SIMA	082
		SOLO ELECTRONICS	207
		SOMFY	078 079
		SONY	164 165 166 261 262
		STARCOM	153
		TURBOSCAN	167
		VELODYNE	203
		X-10	183 093
		XANTECH	168 169 170 171 172 188 189
		AUX-TAPE	
		AIWA	015 071 100 114
		CARVER	006 008 027 024 036
		DENON	105 227 229
		FISHER	064
		GOLDSTAR	011
		HARMAN KARDON	233
		JVC	106 116 239 240
		KENWOOD	005 013 023 026 064 145 146 181 190
		LINN	124
		LUXMAN	035 137 139
		MAGNAVOX	027

AUX

NOTES

BRAND	CODE NUMBERS	NOTES
MARANTZ	014 027 056 065 087	
MCINTOSH	238	
MITSUBISHI	242 243	
NAD	029 048	
NAKAMICHI	244 245 025	
ONKYO	002 012 016 017 018 019 115	
OPTIMUS	026 054 055	
PANASONIC	007 010 032 088 195	
PHILIPS	027 087	
PIONEER	003 039 047 050 066 098 222	
QUASAR	007 088	
SANSUI	027 113 119 224	
SHARP	026 057 131 175 181	
SHERWOOD	038 004 028 030 033 034	
SONY	020 022 052 084 089	
TEAC	009 059 212	
TECHNICS	007 010 076 088 109 122 193	
TOSHIBA	112	
VICTOR	106	
YAMAHA	021 026 031 067 040	
AUX-Media PC Controls		
DELL	261 262	
GATEWAY	261 262	
HAUPPAUGE	294 295	
HP	261 262	
KEYSPAN	297	
SONY	261 262	
TOSHIBA	261 262	
WINBOOK	261 262	
AUX - XBox Controls		
MICROSOFT/XBOX	408 107	
AUX-iPod Controls		
APPLE/iPod	401	
BOSE	409	
KENSINGTON	406	

CODE TABLES

NOTES

Frequently Asked Questions

What is a "macro" button?

A "macro" is a button on the RF20 that you setup to make a lot of things happen when you press it. For example, to watch a DVD in most home theaters requires several remote controls and many button presses (power up the TV, power up the surround sound, power up the DVD player, set the TV to the correct video input, set the surround sound to the correct audio input and finally; press play on the DVD player remote control).

Instead of pressing all of those buttons one at a time, the RF20 enables you to setup one button that does all those steps automatically with one press. For more information on how and why you should setup macro buttons, watch the Quick Setup DVD Program Guide or refer to pages 26-29 in this Manual.

If the batteries run out, will I lose my settings?

No. The RF20 stores all of your settings in non-volatile FLASH memory. You could remove the batteries for months, replace them at your convenience, and the RF20 would still remember your settings.

Who can I call for more answers?

The Universal Remote Control Technical Support and Customer Service staff are ready to answer any questions you might have.

Call us at 1-914-835-4484
Monday - Friday, 9AM to 6PM (EST)

Warranty

Universal Remote Control's Mastercontrol™ RF20 is covered against any manufacturers defects or workmanship for a period of one year from the date of purchase if purchased from an authorized Universal Remote Control dealer. Units purchased from online auction sites or other unauthorized resellers have no warranty. This warranty does not cover the following items:

- Damage from misuse, neglect, or acts of nature
- Products that have been modified or incorporated into other products
- Products purchased more than 12 months ago
- Units purchased from unauthorized dealers or companies

Specifications

Learning Capability - 825 IR commands at standard frequencies (15kHz to 100kHz)
Macro Capability - 453 Macros of up to 190 steps each
IR Range (Line of Sight via Infrared): 30-50 feet, depending on the environment
RF Range (radio frequency): 50 to 100 feet, depending upon the environment
RF Frequency: 418MHz
Weight: 7.1 oz. (with batteries)
Size: 8.5" x 2.5" x 1"
Batteries: Four AAA Alkaline batteries included
LCD Size: 0.88" x 1.88"

RF20
MasterControl™

OWNER'S MANUAL

simply MORE powerful™

UNIVERSAL®
remote control