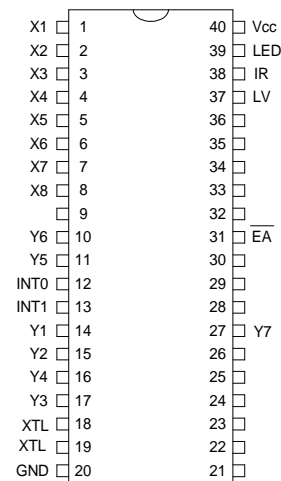


# IC4001 UNIVERSAL REMOTE CONTROL INTEGRATED CIRCUIT

## FEATURES

- Fully Integrated Solution
- Low power "Sleep Mode" for long battery life
- Program code read-back
- Easy to program
- Choice of
  - Manual Programming
  - Manual Search Mode
  - Automatic Search Mode
- Controls any combination of TV/VCR/Cable/Satellite and DVD
- Broad Coverage of All Popular Entertainment Models
- Up to 64 keys
- Punch-Through Operation

## PIN CONFIGURATION



## DESCRIPTION

The IC4001 Universal Remote Integrated Circuit is a fully integrated solution for a complete four-in-one universal remote control. The IC4001 includes the comprehensive Innotech library of entertainment remote control codes for the highest possible coverage of consumer products. The IC4001 may be used to control up to four different entertainment devices, typically a TV, VCR, Satellite, and cable box. All basic operations are supported. The IC4001 may be customized to include OEM-specific remote control codes. The choice of programming methods ensures the easiest-possible customer operation.

## BUTTON DESCRIPTION

Device Buttons: [TV] [VCR] [C/SAT] These buttons are used to select the device to control. For example, the [C/SAT] button switches the remote

to cable/satellite mode and the remote control functions control the cable box. Pressing TV switches the remote to TV mode. Some controls



may function even when their normal device is not selected (Punch Through). For example, when in cable box mode, the volume controls may still work with the television, and the VCR controls may still control the VCR. The availability of this feature depends on what type of TV, VCR, and cable box.

[Power] This button is used to turn the TV, VCR, or cable box on or off.

[CH+] [CH-] Channel Up / Channel Down

[VOL+] [VOL-] Raise or lower the volume.

[PLAY] [FF] [REW] [PAUSE] [STOP] [REC] VCR Play, Fast Forward, Rewind, Pause, Stop. These operate as conventional VCR controls, but [REC] must be pressed twice to start recording.

[TV/VCR] Toggles between TV and VCR functions.

[MUTE] This button turns muting on and off.

Numeric Pad: The numbers on this pad control channel settings on TVs, VCRs, and cable boxes.

[ENTER] Some TVs require [ENTER] be pressed when changing channels with the numeric pad.

[PREV] Returns to the previous channel selected on TV's that support this function.

The [PROG] [AUTO] Program and auto search buttons used for programming the remote to work with your specific TV, VCR, and cable box. Programming the remote is described later in the manual.

## PROGRAMMING GUIDE

### QUICK PROGRAMMING GUIDE

Press the device button for the device you wish to program (1 flash)	[TV] or [VCR] or [C/SAT] ✨
Press the PROG button (2 flashes)	[PROG] ✨✨
Input the corresponding code from the code list. (Flashes once for each digit pressed)	[1] ✨ [2] ✨ [3] ✨
When you have entered the correct code, press PROG. (3 flashes)	[PROG] ✨✨✨

Repeat steps 1-4 for each device (TV, VCR, or cable box.)	
---	--

### DETAILED PROGRAMMING GUIDE

To program A Device:

1. Select the device you wish to program with a device key (TV, VCR, Cable). For instance to program the VCR, press the VCR device button. The light on the remote will flash once.
2. Press the [PROG] button. The light will flash twice.
3. Find the correct code from the code list that follows. If a brand has more than one code, the



first codes are the latest models.

4. Enter the correct code on the number pad. The light will flash once for each key pressed.

5. Press the [PROG] button again to lock in the code. The light should flash 3 times, and programming is finished. For example, to program a Sony TV:

First, find the Sony codes in the code list.

Then, try the first (latest model) code. Press:

[TV] [PROG] [0] [3] [8] [PROG]

When finished, try to operate the TV with the remote. If the remote works with the TV, the programming for the TV is finished. If the remote does not work, try the next code: 141, and so-on, until the correct code is found. If you cannot find the correct code, refer to the Auto Search feature.

## SPECIAL FEATURES

The IC4001 Universal Remote Control Integrated circuit has several special features:

### Punch Through

Some TVs, VCRs, and cable box controls may work at the same time. For example, after you press the [C/SAT] or [VCR] buttons, the volume controls may still work with the television. Other functions may also work this way. Availability of this feature varies depending on the type of TV, VCR, and cable box used.

### Read Back Programmed Code

The remote can read back the codes selected for TV, VCR, and cable box, so they can be written down and used for future reference. To do this:

1. Press the device key that you want the code read back for. For example, if you want to get the code for your TV, press the [TV] key.

2. Press [PROG]. The light should flash twice.

3. Press [1] and then [PROG]. The light will flash the number of the first digit of the code. For instance, if the TV's code is 567, the light will flash five times. If a digit of code is zero, the light will not flash.

4. Repeat the last two steps to get the second and third digits of the TV code, by pressing [2] and [PROG] for the second digit (light flashes six times) and [3] and [PROG] for the third digit (light flashes seven times). This procedure can then be repeated for the VCR and cable box.

### Substitute Devices

Users can substitute devices with universal remote controls based on the IC4001. All of the three device buttons (TV, VCR, and C/SAT) can be programmed as either a TV, VCR, or cable box. To program a TV on the VCR device button:

1. Press [VCR] and then [PROG]. The light will flash twice.

2. Instead of entering a VCR code, enter the TV code for the desired TV. The light will flash once for each digit.

3. Press [PROG], and the light will flash 3 times. Now the VCR button will act as a second TV. This works with all three devices, so it is possible to program up to three TV's, VCR's, and cable boxes. For example, to program a Sony TV in the cable boxes place, press:

[C/SAT] [PROG] [0] [3] [8] [PROG]

Now the C/SAT button will act as a Sony TV.



## Auto Search For Correct Code

If users have trouble programming the remote, or can't find the correct code in the manual, the remote can cycle through available codes rapidly to help locate a usable code. It is recommended that this feature be used only when all other methods have failed, as users may have to cycle through many codes before finding a usable one.

1. Manually turn on the device to control.
2. [TV] or [VCR] or [C/SAT] ✨  
Press the device key for the device code being searched for. For example, to search for a TV code, press [TV] once. (1 Flash)
3. [PROG] ✨ ✨  
Press the [PROG] button once. (2 Flashes)
4. [AUTO] Press the Auto button. ✨

The remote control will now search through the library for the target device code in 3 second intervals. Every 3 seconds the user will be prompted by the light flashing and the remote will attempt to turn the power off.

When the device turns off, the user should immediately press the [PROG] key to save the code. Check the other buttons to ensure they all work with the target device. If they do not, repeat the preceding auto search steps.

To stop Auto Search, press any key except [AUTO].

## Manual Search For Correct Code

The user can manually toggle through the device codes to find the correct code for a TV, VCR or Cable/Satellite.

1. Manually turn on the device.
2. [TV] or [VCR] or [C/SAT] ✨  
Press the device key for the device code you want to search for. For example, to search for a TV code, press [TV] once. (1 Flash)
3. [PROG] ✨ ✨  
Press the [PROG] button once. (2 Flashes)
4. [0] ✨ [0] ✨ [0] ✨  
Press [0] [0] [0] (Flashes once for each digit pressed)
5. [PROG] ✨ ✨ ✨  
Press the [PROG] to change to the next device code. Every time [PROG] is pressed, the device code will increment..
6. [TV] or [VCR] or [C/SAT] ✨

Press the device key again to lock in the code.

NOTE: Some devices, such as cable boxes, may not support power buttons on the remote. In this case, you can substitute [CH+] or any other supported button to test the code.

## DEVICE CODES

For a code list of supported devices and associated ISI codes, please contact Innotech Systems for the document "Index of Device Codes."

