

## INTELLIGENT TOUCH-TYPE UNIVERSAL REMOTE CONTROL

### BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to a universal remote control and, more particularly, to an intelligent touch-type universal remote control that is user-friendly to operate.

[0003] 2. Description of Related Art

[0004] Currently, many household appliances are operated by remote controls so as to make the operation of the household appliances more convenient. However, because each electrical appliance is provided with its own remote control, the use of respective remote controls becomes inconvenient if the quantity of electrical appliances is relatively large. For example, the user may use an incorrect remote control to try to operate an electrical appliance since the remote controls are so similar in appearance.

[0005] To overcome such an inconvenience a universal remote control is provided for operating the user's respective household appliances. Although, the use of the universal remote control does make the control of the electrical appliances easier, it is still not satisfactory. For example, there are too many buttons on a universal remote control for controlling various kinds of electrical appliances. The user must be very careful in pressing a correct one among so many buttons for performing a desired operation. Besides, because lots of buttons have to be arranged on the universal remote control, the dimension of each button is made as small as possible and the user has to pay a lot of attention to avoid pressing a wrong button.

[0006] Furthermore, the use of conventional universal remote control in a learning mode is not convenient enough. It is known that the universal remote control is able to have the control function of the original remote control after performing a learning procedure in a learning mode. Generally, there are two kinds of learning mode available for performing the learning procedure. The first one is accomplished by one button to one button learning. That is, the user has to continuously press a specific button of the universal remote control, and simultaneously press a corresponding button of the original remote control, so that the remote control code from the original remote control can be learned to correspond to the specific button of the universal remote control. Such a learning procedure is not convenient or user-friendly as the user has to operate the universal remote control and the original one using both hands.

[0007] The second kind of learning mode is accomplished by automatically searching the default remote control codes in the universal remote control, and this learning mode is further divided into an automatic mode and a manual mode. In using the automatic mode to perform the learning procedure, the user must hold the universal remote control to face the controlled appliance and press a button to be programmed and the universal remote control will automatically transmit remote control codes of different manufacturers' appliances sequentially until a remote control code is matched. As such, the user can test the matched one, and if the test is successful, set the button to transmit the matched code. However, because the quantity of remote control codes built in the universal remote control may be as many as 200

to 300, the user generally needs to wait for about 5 to 20 minutes to program a button, and if the user fails to take notice of a code being matched, the whole learning procedure must be repeated again. Therefore, the operation of such a learning mode is deemed too complicated.

[0008] As to the manual mode, the user has to repeatedly press a power on button of the universal remote control for transmitting remote control codes of different manufacturers' appliances until a remote control code is matched. Therefore, if there are 200-300 codes built in the universal remote control, the user may need to press the power on button 200-300 times for programming the button. Accordingly, this operation is even more inconvenient than the other examples given earlier.

[0009] Moreover, the conventional remote control may be provided with a macro function for executing a series of operations, generally initiated by pressing a plurality of buttons, by simply pressing a macro button. Such a macro function is particularly useful in operating audio and video systems, which usually needs to perform a series of operations to accomplish a user's demand. For example, if a user wants to watch the program of a video tape, the user has to perform the following operations: (1) powering on the TV, (2) selecting the channel for the VCR, (3) powering on the VCR, and (4) pressing the play button of the VCR. Furthermore, if the user also wants to adjust the volume or turn on an amplifier, there are even more operations to be followed. Therefore, the use of the macro function to perform all the above operations by only pressing one button does greatly enhance the convenience in using the universal remote control. However, in practical application, such a macro function sometimes does not work due to the fact that, although the universal remote control has transmitted all remote control codes after the macro button has been pressed, some of the electrical appliances, which are just powered on by the power-on remote control codes, may not properly receive the other remote control codes. Accordingly, the user is unable to use the macro function to conveniently control the electrical appliances.

[0010] In addition cable TV is getting increasingly popular and there are generally dozens of channels provided to satisfy the requirements of the viewers. As the number of channels available gets larger, the selection of a desired channel among those channels becomes inconvenient. Although most of the cable TV companies have already put the channels of the same type as close as possible to each other the viewer usually has certain favorites which may not correspond to the provided groupings, thus resulting in dissatisfaction. Therefore, there is a desire to have a novel universal remote control to mitigate and/or obviate the aforementioned problems.

### SUMMARY OF THE INVENTION

[0011] The object of the present invention is to provide an intelligent touch-type universal remote control that is user-friendly to operate.

[0012] To achieve the object, the intelligent touch-type universal remote control of the present invention includes; a body; a touch-type screen arranged on the body; an infrared transmitter arranged on a predefined position of the body for transmitting remote control codes; an infrared receiver arranged on a predefined position of the body for receiving