

# MUSICA™ Application Note

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## Using Macros in *Musica*

This application note covers the use of macros in the *Musica* product line. A macro is a series of commands that can be automated into a single key press. Macros expand the capabilities of the system and simplify the user's experience with the system.

### Learning Tips

The following tips are useful when programming macros:

- Stay away from direct sunlight and fluorescent lighting.
- Have fresh batteries available.
- When learning IR for alternating IR remotes, point the remote control away from the keypad on the second press of the button and back for the third to skip learning the alternate IR code.
- Keep the same distance between the remote and keypad when learning IR commands.

### Programming Methods

The following procedures show you how to program macros using *Musica* keypads.

### Programming Macros for *Musica* Keypads

These procedures relate to the MU5066KP25, MU5066KP25S, and MU566KP50 keypads (see Figure 1). You can program two macros with up to four steps each on any MU5066 keypad.

The  
IP-Based  
Distributed  
Entertainment  
Company.

#### Products Included:

##### *Musica*

MU5066KP25  
MU5066KP25S  
MU5066KP50





**Figure 1** MU5066 Keypad Models

To program macros for all MU5066 keypads, complete the following steps:

1. Learn all IR codes into all source buttons.
2. Select **S1** through **S4** to build the macro for that device.
3. Press the Menu button and scroll (using the right arrow key) to the “**IR**” **location** on the menu bar.
4. Scroll (using the up arrow key) to **Macro 11** or **Macro 12**.
5. Scroll (using the right arrow key) to **Start**.

You are prompted to press a source button for step 1 on the LCD screen.

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**NOTE:** Both short and long presses of the hard buttons are available to be used in programming these macros.

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6. Press the desired source button (0 through 9) for step 1.
7. Press the desired source button (0 through 9) for step 2.
8. Press the desired source button (0 through 9) for step 3.
9. Press the desired source button (0 through 9) for step 4.

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**NOTE:** Macros can contain 1, 2, 3, or 4 steps.

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10. Press the **Menu** button or wait for the keypad to time-out to exit the macro programming mode.

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**NOTE:** You can add time delays using the procedure in the *Adding Time Delays* section of this document.

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## Ten-Button Macro Programming for MU5066KP50

The *Musica* MU5066KP50 keypad (see Figure 2) has the ability to program ten individual macros with up to four steps for each source.

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**NOTE:** A short or long press command can be either a single IR command (for example, “Play”, “Stop”, or “Pause”) or a macro, but not both. Macros are contained only in the short press command on the keypad.

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**Figure 2** MU5066KP50 Keypad

To program the keypad, complete the following steps:

1. Press the **Menu** button.
2. Scroll (using the right arrow) to the **IR** location on the menu bar.
3. Scroll (using the right arrow) to **Start**.  
You are prompted to select a keypad 1-10 button to learn on the LCD screen.

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**NOTE:** When assigning the macro, remember to select short press on the keypad button.

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4. Select the keypad button for the macro code to be learned.
5. With the remote control for the source, point the remote control at the IR receiver window on the *Musica* keypad.
6. Press the button for the code you want to learn.
7. You are prompted to press a remote button again on the LCD screen.
8. Press the same button on the remote control to confirm the code.
9. You are prompted that IR learn is complete and to press ➤ for the macro. This indicates that the first step of the macro programming is complete.
10. Press the right arrow (➤) on the keypad to continue to the next programming phase.
11. Repeat steps 1. through 10. as needed to complete programming.
12. To exit macro programming mode, press the Menu button or wait for the keypad to time-out and return to the source display.

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**NOTE:** You can add time delays using the procedure in the *Adding Time Delays* section of this document.

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## Adding Time Delays

Time delays add a short delay between steps in a macro. This allows time for the source to register the IR command. The selected time delay is applied to all macros on the keypad. To add time delays, complete the following steps:

1. Press the **Menu** button and scroll (using the right arrow) to **IR location** on the menu bar.
2. Scroll (using the up arrow) to **Timing**.
3. Scroll (using the right arrow) to enter the timing selection window. In this window you can select 500MSEC, 1 SEC, or 2 SEC.
4. To make a selection, scroll (using the up arrow or down arrow keys) to highlight the desired selection.

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**NOTE:** This selection is applied to all steps for all macros on the keypad.

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5. To exit the Timing programming mode, press the **Menu** button or wait for keypad to time-out *PANVP500* and return to the source display.

## Examples

The following are some examples of how you might use macros in a *Musica* environment:

### ***XM Tuner Macro***

A one-button macro might be programmed to perform the following steps:

1. Turn the tuner on.
2. Enter a **2** and a **0**.
3. Select **Enter**.

When the programmed button was pressed, the XM tuner would be turned on, and channel 20 would be selected.

### ***Multiple-Step Configuration***

With an MU5066KP50 keypad and a *PAN6400*, the capabilities are extended to include video and audio control.

A multiple-step macro might be programmed to perform the following:

1. Turn the TV on.
2. Switch the TV to video 1.
3. Turn the DVD on.
4. Select **Play** on the DVD.

This configuration would turn the TV and DVD player on, switch sources on the *Musica* ADC, and set the DVD to play.