



Keypad - 12 Button

COM-08653 ROHS ✓

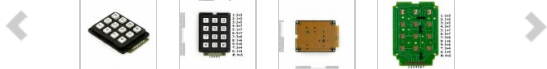
★★★★☆ 9

DESCRIPTION

DOCUMENTS

A basic 12 button keypad for user input. The buttons are setup in a matrix format. This allows a microcontroller to 'scan' the 7 output pins to see which of the 12 buttons is being pressed.

Check the examples below for correct pin-outs and such.



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Keypad - 12 Button Product Help and Resources

SKILLS NEEDED

Core Skill: Soldering

This skill defines how difficult the soldering is on a particular product. It might be a couple simple solder joints, or require special reflow tools.



Skill Level: Rookie - The number of pins increases, and you will have to determine polarity of components and some of the components might be a bit trickier or close together. You might need solder wick or flux.

[See all skill levels](#)

Core Skill: Electrical Prototyping

If it requires power, you need to know how much, what all the pins do, and how to hook it up. You may need to reference datasheets, schematics, and know the ins and outs of electronics.



Skill Level: Competent - You will be required to reference a datasheet or schematic to know how to use a component. Your knowledge of a datasheet will only require basic features like power requirements, pinouts, or communications type. Also, you may need a power supply that's greater than 12V or more than 1A worth of current.

[See all skill levels](#)

COMMENTS 93

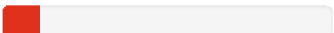
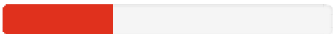
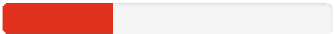
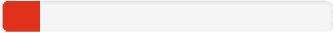
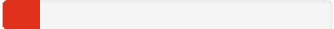
REVIEWS ★★★★★ 9

Customer Reviews



3.2 out of 5

Based on 9 ratings:

5 star		1
4 star		3
3 star		3
2 star		1
1 star		1

Currently viewing all customer reviews.

1 of 1 found this helpful:

★★★★☆ **fragile**

about 3 years ago by **Member #117992**  verified purchaser

If you can figure out how to keep it from coming apart, you'll be golden. For a few dollars though, not bad. Mentioned before but put headers on it so you won't need to resolder it and maybe some hot glue on the back to help the little rivet like posts hold it together.

2 of 2 found this helpful:

★★★★☆ **You get what you pay for**

about 2 years ago by **anthrolume**  verified purchaser

This thing is cheap, and that's the best thing it's got going for it. A few caveats:

- It is unlikely to work well for long wire runs, esp. if you're using 3.3V logic
- The device presents significant resistance due to the use of resistive paint inside
- The buttons are like calculator buttons - the plastic caps press down on silicon spring forms that ultimately make connections on the circuit board, so the keypress feedback feels about the same as a calculator.

In order to get this thing to work for my application, I had to significantly (and tediously) remanufacture it. Specifically, I replaced the three conductive paint jumpers on the board with actual wire jumpers to remove their ~84 ohms resistance. And even more tediously, I put aluminum tape caps on the insides of the silicone spring forms, so that the buttons themselves would also have near-zero resistance. Then I had to superglue the thing back together, because it is heat-welded and not meant to ever be disassembled.

If my application were different, I would likely have been able to use this keypad out of the box. It's not bad, but the decision to save by not either a) having a double-sided circuit board, or b) soldering three jumpers onto the board really did cause problems for me.

As for programming, it is trivial. I used 7 GPIOs on a Pi, driving the columns with three outputs and polling the rows with four inputs. No external components required.

I gave the thing a three-star rating because I largely disagree with the corners that were cut in its manufacturing (which are not technically Sparkfun's fault - this is an off-the-shelf part). But for simple applications, physically close to the microcontroller, this part will work fine.

2 of 2 found this helpful:

★★★★☆ **Quality must have improved**

about a year ago by **Member #783993**  verified purchaser

I didn't have any of the issues that other reviewers had. This worked perfectly out of the box. I don't have to press the buttons too hard.

1 of 1 found this helpful:

★★★★☆ **Good for the price**

about 3 years ago by **Hivoltage**  verified purchaser

I used this for a custom number sign. Worked fine. Word of caution do not use a cold soldering iron on this as it will fry the traces. :)

2 of 2 found this helpful:

☆☆☆☆☆ **Works fine, after some fixing...**

about 3 years ago by **claim**  verified purchaser

Look at the diagram of the PCB, see the black traces? They are conductive paint (or something) and on mine at least, they don't conduct. I was able to fix it by cutting off the melted plastic that keeps the case closed,

off the black stuff until the underlying pads at each end were exposed, and then soldering

fine wire between the three pairs of pads. While you are in there, gently sand the exposed metal where the keys are supposed to press down, or half the keys will need to be pressed REALLY hard to register. Put it all back together and apply superglue where the melted plastic was on the back of the case. NOW it works like it should have out-of-the-box.

👤 **Single T** replied on March 23, 2015:

Sorry for all the extra trouble. These should work better out of the box. If you get one that gives you trouble, please let us know. <https://www.sparkfun.com/returns>

1 of 1 found this helpful:

★★★★☆ Button Mashing Still Required: September 2015

about 3 years ago by **Member #507159** ✓ verified purchaser

Like someone else said, these buttons work by pushing down a connection on some electrical paint on the circuit. Just pushing the buttons is inadequate.

You must mash the buttons deep into the next dimension to get a clean reading (or in my case, any reading).

2 of 2 found this helpful:

★★★★☆ Adequate

about 2 years ago by **Member #470715** ✓ verified purchaser

For the price it works okay, its still a conductive pad type of keypad, no frank, satisfying click when you press a button and most of them need to be pressed quite a bit to get a decent reading. I found that some of the buttons had over 50 and even up to 100 ohm of resistance on the line even when pressed, so take that into account if, say, you use a voltage divider in front of some pins and are expecting a precise reading.

★★★★★ Great little keypad

about 3 years ago by **vsg1990** ✓ verified purchaser

Once I soldered some pins and figured out how to hook it up properly to my PIC18F4550 it worked great! Solid little keypad.

★★★★☆ Works great, so far!

about 3 years ago by **Member #704098** ✓ verified purchaser

So far, works like a beauty. However, this DOES NOT have headers pre-soldered. I would recommend products/115 or 553.





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