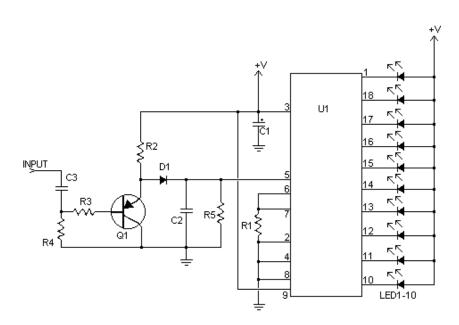
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# Sound Level Meter

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This nifty sound level meter is a perfect one chip replacement for the standard analog meters. It is completely solid state and will never wear out. The whole circuit is based on the LM3915 audio level IC and uses only a few external components. This circuit can also be integrated into audio amp projects.

## **Schematic**



## **Parts**

Part	Total Qty.	Description	Substitutions
C1	1	2.2uF 25V Electrolytic Capacitor	
C2, C3	1	0.1uF Ceramic Disc Capacitor	
R1, R3	2	1K 1/4W Resistor	
R2	1	10K 1/4W Resistor	
R4	1	100K 1/4W Resistor	
R5	1	1M 1/4W Resistor	
D1	1	1N914 Silicon Diode	
Q1	1	2N3906 PNP Transistor	
LED1-LED10	10	Standard LED or LED Array	
U1	1	LM3915 Audio Level IC	
MISC	1	Board, Wire, Socket For U1	



#### **Notes**

- 1. V+ can be anywhere from 3V to 20V.
- 2. The input is designed for standard audio line voltage (1V P-P) and has a maximum input voltage

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of 1.3V.

3. Pin 9 can be disconnected from +V to make the circuit use a moving dot display instead of a bar graph display.

4. Thanks to help from **the forum**, this circuit has been improved from the original version to include a peak detector for a more stable and viewable output. This page has been updated with the new circuit.

#### **Related Circuits**

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### **Comments**

**anonymous** Sound Level Meter Saturday, March 21, 2009 5:00:25 PM Putting an audio signal in makes no difference. Also when I connect the power all LEDs turn bright on too how can I fix this? Any help would be appriciated,

John

Sound Level Meter

Sunday, December 28, 2008 10:28:02 AM

Hi, i'm new in this kind of things, but have always loved electronics, actually thats what im going to study when i graduate, but i have two questions, all of those triangles pointing down are ground conections, right? And the second is what kind of input can i use and how do i connect it? Can i use a normal rca jack microphone, an electret microphone or what?

darkshadow6921

Sound Level Meter

Tuesday, December 09, 2008 5:09:45 PM

Built several of these, Works great. Thanks!

joan\_ece\_student

Sound Level Meter

Thursday, October 09, 2008 12:03:06 PM

1N491 diode is not available here. can you give me another as a substitute because the circuit doesn't work. i just used 4148 diode. is it ok? pls response.. tnx!

anonymous

Sound Level Meter

Tuesday, August 26, 2008 8:23:39 PM

I have just built this project and i can't seem to get it to work. The problem is there are some many errors I could make here. I have a feeling it is either the PnP transistor, or the Silicon Diode. If u can help me out, plus email me.

anonymous

Sound Level Meter

Saturday, August 02, 2008 11:06:29 AM

looks nice but when i turn the power on all LEDs glow bright too, anyone knows how to fix it? thanks

Christiaan

Sound Level Meter

Tuesday, June 03, 2008 11:33:30 AM

Thanks for the circuit works well

anonymous

Sound Level Meter

Friday, May 23, 2008 1:36:23 AM

It works. Used 100k pot for R4.

anonymous

Sound Level Meter

Tuesday, May 20, 2008 9:11:28 AM

Thanks for the site, though im having a few problems with this circuit. I have tried making a stripboard of it and now just tried a PCB. With each, all of the LEDs light brightly when the voltage is supplied. Putting an audio signal in makes no difference. Any help would be appriciated, cheers.

Audioguru

Sound Level Meter

Friday, March 21, 2008 1:19:03 PM

The circuit will work with any little PNP transistor. The old version of the project doesn't work.

The last 10 comments are currently shown. Show All Comments.

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If you would like to leave a comment, you can do so using the form below. Comments can be things like suggestions, successes or failures, improvements, similar circuits, error reports, an answer to a previous commenter's question, or anything in between. However if you would like to ask a question it is suggested that you use **the forum** instead. The forum provides a more robust environment for discussion.

Important: If you post a technical question here, there is no guarantee it will be answered. All technical questions should be posted to the forum. The owner of this site generally does not answer questions in comments.

All comments are subject to approval before they are displayed here, so your comment will not appear immediately. This is done mainly to prevent spam and other abuse. If you wish to remain anonymous, simply enter "anonymous" for your name and/or email.

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Email:	anonymous
Subject:	Sound Level Meter
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