DSO Shell DIY Kit User Manual Rev. 04 Applicable models: 15001K, 15002K, and 15003K

See page 2 for tools needed

Before you start

- ① Check kit contents and part quantities/values by the photo at right and part list in page2 and page 3. Report missing or wrong parts to your vendor.
- ② Resistor values are easy to mis-read. It is strongly suggested to check their values before soldering them to board.
- (3) Make sure you understand the polarities and orientations of all parts.
- ④ 15003K does not include enclosure. Some instructions are not applicable.

Important !!!

If your have purchased 15002K kit (SMD not pre-soldered) you must install all SMD parts before mounting the through-hole parts. Please refer to the instructions below for SMD part installation. Otherwise, proceed to page2 to start through-hole part assembly.

SMD parts are only installed to the analog board (PCB PN# 109-15001-xxx).

- How to Solder SMD Parts

- 1. Before soldering check components against the part list to make sure you have correct parts.
- 2. Identify IC orientation and diode polarity (see photos).
- 3. Do not put iron on one pad for too long time. Otherwise, traces may peel off and get damaged.

SMD Part List

Loc/Ref	Qty	Descriptions	
U1	1	TL082, SO8	
U2	1	74HC4053, SO16	
U3	1	74HC4051, SO16	
U4	1	TL084, SO14	
U5	1	ICL7660, SO8	
R17	1	100,1%,0805	
R18, R23, R28	3	1K,1%,0805	
R19, R20, R21	3	100K,1%, 0805	
R22	1	300K,1%, 0805	
R24, R25	3	10K,1%,0805	
C8, C9, C15, C16, C17, C18, C19, C20, C21, C22	10	0.1uF, 50V, 0805	
D1	1	Zener, 3.0V, 0805	



Place IC in front of you so that its marking read from left to right. The first pin at lowerleft corner is pin 1.



Apply solder to a corner

pad

Solder ICs









Solder IC to the pad. MakeSolder the pin at the oppositesure pins are aligned to padscorner so as chip is fixed

Solder all the rest pins one by one

Solder two-terminal parts



Apply solder to one pad



Solder part to the pad





Diode D1 polarity

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Positive



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