

DML Distortion Assembly Manual Rev.C

What you need:

- PCB & Panel
- Components
 - Included in the full kit
 - If you have the PCB kit, consult the BOM
- Soldering iron (10-20W, fine tip)
- Solder (lead-free)

This kit is of medium difficulty, the board doesn't have tightly packed or heat sensitive components.

You need approximately 1-2h, depending on your experience building modules.

General Tips:

Safety:

Soldering is dangerous. The iron is hot and so are the solder joints, at least for a few seconds.

The solder you use, lead-free or not, is not healthy. Don't eat or drink while soldering, wash your hands when you are done or take a break.

The fumes coming off of the solder flux are toxic, don't breathe them in. Work in a well ventilated area and use a fume extractor.

When cutting off component leads, keep one finger on them to prevent them flying into your eyes (caution, they might be hot.)

Assembly:

Sort the components before you start soldering.

Solder all components of the same value in groups, to avoid mistakes.

Components are placed on the board and soldered in order of their height.

Components are soldered on the side of the PCB that has their outline and part number printed. Most components are soldered to the same side of the board.

You can use painter's tape (masking tape) to secure components while you solder them.

Don't solder panel components right away. They might not line up with the panel and be at different heights, leading to stress on the solder joint which may cause it to fail.

Notes:

Step by Step:

Diodes:

Diodes have polarity. The white or black stripe on the diode and the white strip on the PCB must line up.

1N4001	2	D1 D2
--------	---	-------

Resistors:

Resistors have no polarity.

In the full kit, resistor values are labeled on the paper strip. If you source your own resistors, use a multimeter to confirm the values.

4.7k	6	R1-R6
33k	2	R9 R10
22k	2	R11 R12
1k	2	R13 R14
10k	2	R7 R8

IC Sockets:

Sockets have a notch on one side that must line up with the notch on the PCB.

14-Pin Socket	1	U1
---------------	---	----

Capacitors:

Ceramic capacitors have no polarity

Ceramic capacitors use a three digit labeling system.

10n	2	C3 C4
-----	---	-------

Electrolytic capacitors are labelled on the body.

Electrolytic capacitors have polarity. The stripe on the body and the shorter leg indicate the negative side. On the PCB, a stripe indicates the negative side and a plus symbol the positive side.

1u	2	C1 C2
10u	2	C5 C6

Headers:

If the 2x5 power header is shrouded, the notch must line up with the silkscreen image.

Header 2x5 M	1	Pow1
--------------	---	------

Panel components:

Place all components but don't solder them yet. Place the panel over the components and thread on the nuts. Push down to make sure all components are seated properly. Now solder the components.

3.5mm Mono

Jack	4	Con1-Con4
LED	4	D3-D6
10kB	2	Drive1 Drive2

ICs:

Place the ICs in their sockets.

TL074	1	U1
-------	---	----

Calibration:

Nothing to calibrate on this module.