ACCESS (v1.3)
DIY BUILD GUIDE

This build guide assumes the user has basic knowledge of through hole components, soldering skills and various tools required to Do-It-Yourself. The steps are very general, but the silk screen on the boards are self-explanatory.
The Bill of Materials covers the full module including PCB 1/3 and PCB 2/3.

STEP BY STEP (part 1)

1. Locate PCB 1/3 as shown to the right.

2. Populate all resistors according to the values on the silkscreen. Solder and clip leads.

3. Populate all of the ceramic capacitors according to the values on the silkscreen. Solder and clip leads.

4. Populate all of the ICs, taking care that the notch at the top of the IC lines up with the notch shown on the PCB. Solder leads.

5. Populate the electrolytic capacitors, taking care to line up the black stripe on the caps with the outlined via on the PCB. Solder and clip leads.

6. Place each the of the jacks and pots into the board and install the faceplate. Finger tighten each nut in place to ensure the jacks are straight. Solder them once you are satisfied.

7. Remove the PCB from the faceplate. Carefully check the solder of each component for bridges and any solder joints that may have been missed. Clean excess flux with alcohol.
Move on to the next page for part 2 of the guide.

BILL OF MATERIALS

Resistors

☐ 6x	100K
☐ 16x	1K
☐ 15x	499R
☐ 2x	4.99K

Ferrite Beads

☐ 2x	68R

Diodes

☐ 2x	1N4001

Ceramic Capacitors

☐ 14x	100n(104)

Integrated Circuits

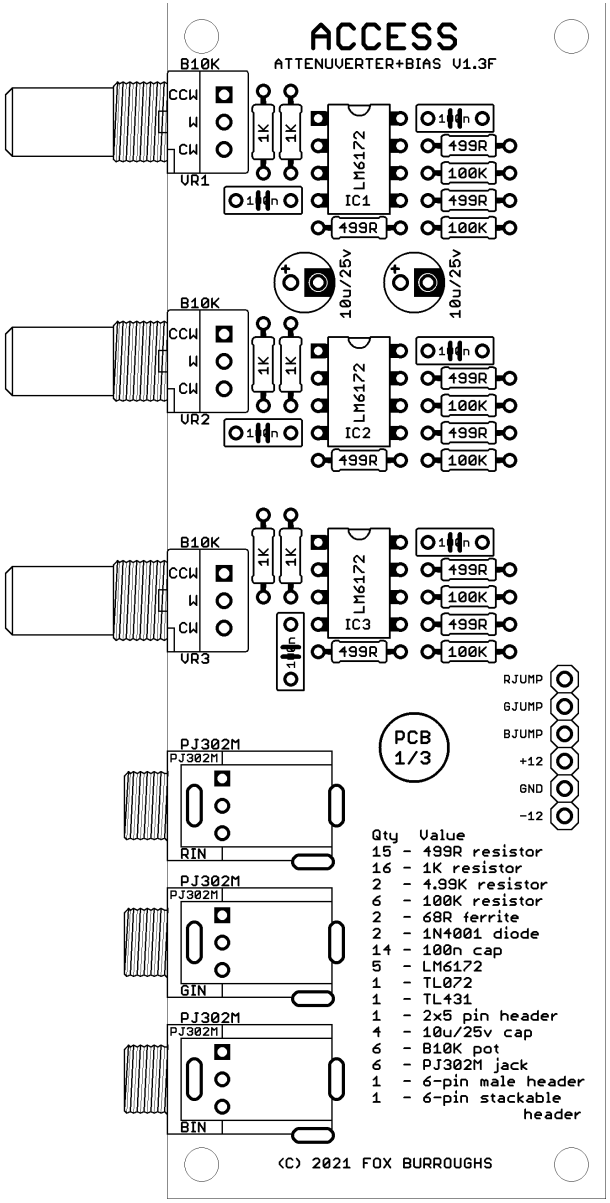
☐ 5x	LM6172
☐ 1x	TL072
☐ 1x	TL431

Electrolytic Capacitors

☐ 4x	10u/25v

Other Parts

☐ 6x	PJ302M Jacks
☐ 6x	Alpha 9mm Pots – Right-Angle T18
☐ 6x	Befaco Pot Nuts (Black)
☐ 2x	Befaco Bananuts (Red)
☐ 2x	Befaco Bananuts (Green)
☐ 2x	Befaco Bananuts (Blue)
☐ 2x	Micro Knobs - T18 shaft (Red)
☐ 2x	Micro Knobs - T18 shaft (Green)
☐ 2x	Micro Knobs - T18 shaft (Blue)
☐ 1x	2x5 Polarized IDC Power Header
☐ 1x	10-16 Ribbon Cable
☐ 1x	ACCESS PCB 1/3
☐ 1x	ACCESS PCB 2/3
☐ 1x	ACCESS Faceplate
☐ 1x	6-pin female stackable header
☐ 1x	6-pin male pin header



STEP BY STEP (part 2)

1. Locate PCB 2/3 as shown to the right.

2. Populate all resistors and ferrite beads according to the values on the silkscreen. Solder and clip leads. The values of RF1 and RS1 are listed just below the parts.

3. Populate all diodes, taking care to align the black band on the diode with the stripe shown on the PCB. Solder and clip leads.

4. Populate all of the ceramic capacitors. Solder and clip leads.

5. Populate all of the TL072 and both LM6172 ICs, taking care that the notch at the top of the IC lines up with the notch shown on the PCB. Solder leads.

6. Populate the TL431, taking note of the flat side which lines up on the silk screen. Solder and clip leads.

7. Populate the IDC power connector, taking care to line up the notch on the part with the notch shown on the PCB. Solder in place.

8. Populate the electrolytic capacitors, taking care to line up the black stripe on the caps with the outlined via on the PCB. Solder and clip leads.

9. Place each the of the jacks into the board and install the faceplate. Finger tighten each nut in place to ensure the jacks are straight. Solder them once you are satisfied.

10. Remove the PCB from the faceplate. Carefully check the solder of each component for bridges and any solder joints that may have been missed. Clean excess flux with alcohol.
Move on to the next column for part 3 of the guide.

STEP BY STEP (part 3)

1. Place both boards back into the faceplate. Finger tighten a few nuts in place to ensure the boards are secured. PCB2/3 should be facing out so the power connector is accessible.

2. Now, connect both 6-pin male header and 6-pin stackable headers together in hand. Place the header between boards. Solder the pins on the top side of PCB 2/3 and solder the pins on the backside of PCB 1/3.

3. The module may now be tested for functionality. If the module works, you may now assemble the rest of the nuts and knobs.

4. Congratulations! Enjoy your new module.