JDS LABS

ObjectiveDAC
DIY Assembly Instructions

Installation in a Standalone Case

The following steps guide you in installing an ODAC circuit board into your own enclosure. You will need:

- (1x) ODAC circuit board
- (1x) 3.5mm jack, or (2x) RCA jacks
- (1x) Custom enclosure
- Soldering iron and solder
- Screwdriver

If using the recommended 3.5mm jack:

1. Solder SMT jumpers J1 and J2 on bottom side of the ODAC. The exposed pads of each SMT jumper should be completely covered to form a single solder joint.
2. Solder 3.5mm jack to ODAC circuit board
3. Insert completed ODAC circuit board into enclosure. Attach front and rear endplates.

If using RCA jacks:

1. Solder short wires between RCA jacks and the line-output header of the ODAC circuit board. Pinout of the line-output header is: Left, Right, Gnd, Gnd. Do *not* alter jumpers J1, J2.
2. Insert completed ODAC circuit board into enclosure. Attach front and rear endplates.

Retrofitting ODAC to an Objective2 Amplifier

The ODAC can be wired to an Objective2 in one of two ways. Method 1 allows direct access to the ODAC's line-level output via the O2's rightmost 3.5mm jack. Since the O2's input jack does *not* bypass the ODAC in this configuration, you should unplug the USB cable when using the 3.5mm jack for analog input. Connect ODAC only to external amplifiers with an input impedance of at least 10kΩ in this configuration.

An O2+ODAC assembled as per Method 2 results in the same DAC functionality, except the 3.5mm analog input jack bypasses the ODAC when a 3.5mm cable is connected. This means it's not necessary to unplug the USB cable in this configuration. Instead, the 3.5mm cable must be unplugged in order to use the ODAC. Method 2 provides no direct access to ODAC's line-output.

Both methods require permanent removal of the O2's batteries. You will need:

- (1x) ODAC circuit board
- (1x) Nylon mounting kit
- (1x) Machined endplate
- Soldering iron and solder
- Screwdriver
- Wire, 12 in (30cm)
- Wire cutters
- Sharp blade
- Hex key/allen wrench

O2+ODAC Assembly: Method 1

1. Remove front panel and O2 board from enclosure. Avoid damaging ground wire (see Fig. 1).
2. Insert nylon screw through bottom mounting hole of O2 circuit board. Secure with single hex nut.
3. Cut both center traces of the O2 input jack with a sharp blade (Fig. 1).
4. Cut wire into three equal pieces, about 4 in (10 cm) in length. Strip ends of wires.
5. Solder from Objective2 header P1 to the ODAC circuit board.
   O2 Header P1 pinout (top to bottom): L, GND, R
   ODAC pinout: L, R, GND, GND [*Ignore extra GND pin]*
6. Position ODAC onto the Objective2 using nylon screw and hex nut. It may necessary to bend the centermost battery terminals to achieve good fit.
7. Slide O2+ODAC combo into enclosure.
8. Attach front and rear endplates and volume knob to enclosure.

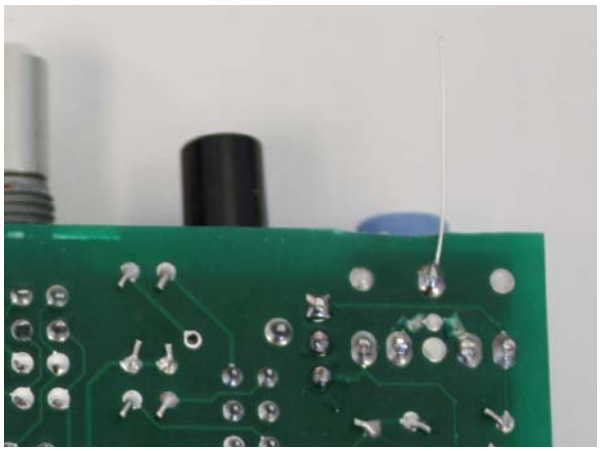

Figure 1: Cut center traces of input jack

Figure 2: Completed O2+ODAC Combo (step 6)

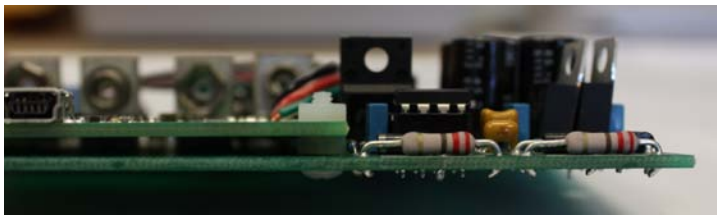

Figure 3: Side view of completed O2+ODAC Combo (step 6)

O2+ODAC Assembly: Method 2

1. Remove front panel and O2 from enclosure.
2. De-solder the two innermost 9V battery terminals.
3. Insert nylon screw through bottom mounting hole of O2 circuit board. Secure with single hex nut.
4. Cut both center traces of the O2 input jack with a sharp blade (Fig 1).
5. Cut & strip wire into three equal pieces, about 6 in (15 cm) in length.
6. Solder wires to the O2 input jack as shown in Figure 4. Pass wires from the bottom of the O2 board to the top through the removed battery terminal holes.
7. Solder L, R, and GND wires to the corresponding pins of the ODAC PCB.
8. Position ODAC onto the Objective2 using nylon screw and hex nut.
9. Slide O2+ODAC combo into enclosure. Attach front and rear endplates and volume knob to enclosure.

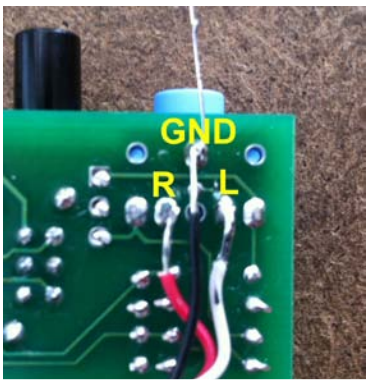

Figure 4: Method 2 Wiring