USER GUIDE FOR J.O.W. USB ENCODERS

Preliminary test

On receipt of the encoder, a preliminary test is recommended to test the encoder is working and familiarise yourself with it.

If the encoder has expressions sockets, plug a keyboard expression pedal into one of them.

Connect the encoder to your computer using the USB cable provided.

Test using MIDI software , eg MIDI-OX or Hauptwerk.

The encoder's name should appear in the list of connected devices, eg "J.O.W. 32" or "J.O.W. 40+3"

If using Hauptwerk, assign the encoder to one of the organ's keyboards manually, setting the MIDI channel to 1.

Test digital terminals (if present) by using a length of wire to bridge from one of the GRND terminals to one of the pedal or piston terminals. Each touch should produce a NOTE ON and a NOTE OFF message, or sound the note in Hauptwerk..

Test expression socket (if present) by moving the pedal. Each move should produce a sequence of control change messages. If using Hauptwerk, auto-detect the pedal first, then check it moves the pedal/slider onscreen.

Disconnect the encoder from the computer.

Disconnect expression pedal (if used)

Mounting the encoder

The base of the encoder has either three or four countersunk holes to allow it to be attached to the frame of a pedalboard or organ console. Suitable for 4mm (#8) woodscrews or 4mm studs or bolts.

Wiring the encoder's digital terminals (if present)

The digital terminals will normally be used for pedal keys and/or pistons. One side of all the pedal/piston contacts must be connected together in common and connected to the GRND terminals. The other sides are connected individually to the remaining terminals. For pedal keys it is vital that they are connected in the correct order, from the lowest note (CC) to the highest (g). Pistons can be connected in any order. If the pedalboard has less than 32 notes, the remaining terminals can be used for pistons.

Connecting expression pedals (if used)

If you are using an off-the-shelf keyboard expression pedal (eg the Yamaha FC-7 or the Bespeco VM18L) it is simply a case of inserting the jack plug into the expression socket. Make sure the plug is pressed fully home. It is safest to do this when the encoder is powered off. Suitable pedals will have a ¼" stereo jack plug, ie one which is in 3 segments. Pedals with a two-segment plug are known as "in-line" expression pedals, and are not suitable.

If you are using an expression pedal without a jack plug fitted, you can solder the leads to the unused terminals on the other sides of the expression sockets. *In this case, it is essential to remove the uninsulated wire which links the first and second terminals together, otherwise the encoder could be damaged*. You will then need to be able to identify the leads, using a resistance meter if necessary. It is *essential* that the "slider" lead goes to the central terminal (opposite orange, yellow or green wire respectively). The lead corresponding to the "quiet" end of the potentiometer goes to the first terminal (opposite black wire) and the "loud" end to the third terminal (opposite red wire). If the latter two are accidentally switched, the pedal will still work, but in reverse. There is a tick box within Hauptwerk which can be used to correct the problem.

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