

Box Contents

- 1 x W5-2
- 1 x PSU + mains lead
- 4 x Self-adhesive feet
- 2 x 3.5mm 3 way terminal blocks
- 1 x 3.5mm 2 way terminal block
- 4 x 5mm 2 way terminal blocks
- 1 x Loop logo
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- **Optional Accessories**
 - W5-2 cable tray & fixings



For full operating and maintenance instructions, plus design templates and other associated information please visit www.ampetronic.com/w52



This symbol is used to alert the user to important operating or maintenance instructions.



The Lightning bolt triangle is used to alert the user to the risk of electric shock.

1. SAFETY

1. It is important to read these instructions, and to follow them.
2. Keep this quick start guide in an accessible place.
3. Clean only with a dry cloth. Cleaning fluids may affect the equipment.
4.  The amplifier generates some heat during normal operation and needs adequate ventilation. Do not install in a fully enclosed space.
5. Do not install this equipment near any heat sources such as radiators, heating vents or other apparatus that produces heat.
6. Refer all servicing to qualified personnel. Servicing is required when the apparatus has been damaged in any way, such as a power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to any rain or moisture, does not operate normally or has been dropped.
7.  **WARNING** – To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

2. TOOLS AND EQUIPMENT

Small hand tools including a wire stripper, small flat blade and posi screwdrivers will be required. A magnetic field strength meter, Loopworks Measure App & R1 Receiver, or at minimum an induction loop receiver is vital to check that the loop system is providing the desired level of performance.

3. OPTIONAL CABLE TRAY

Most W5-2 drivers are provided with an additional cable tray which must be mounted to the underside of the driver following the diagrams below.

There are attachment points for the power supply and cable strain relief, in addition to several knock outs that allow cable entry from different sides.

Suitable grommets, glands or conduit fittings should be attached as required.

4. INPUTS AND OUTPUTS

The driver has three inputs labelled 100V, INPUT 1 and INPUT 2. Inputs 1 & 2 can be separately configured to mic or line signal level using a rear panel push switch. Global 24V phantom power can be enabled to supply an input set to mic level. 100V can accept a 100V line level signal using a dedicated 2 pin socket.



Warning: Connection to a 100V line system may involve the risk of electric shock and therefore must be carried out by an instructed or skilled person.

The driver has two loop outputs labelled LOOP OUTPUT A and LOOP OUTPUT B. In order to achieve correct operation it is recommended the loop and feed resistance should be between 0.2 and 1.5Ohms (at DC).

Ensure a suitable loop layout has been installed. See www.ampetronic.com/w52 to download design templates for small rooms. If these are unsuitable for your space use Loopworks Design or contact Ampetronic support (support@ampetronic.com / +44 1636 610062) for a bespoke design.

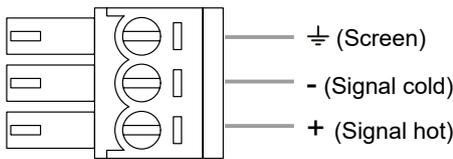


Figure 1: Input 1 & 2

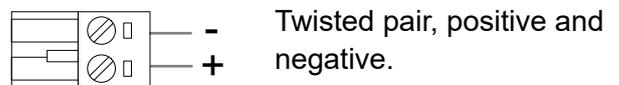


Figure 2: Output connections



Do not run input and output cables close together

5. SETTINGS



- | | |
|--|---|
| <p>A. 100V Gain: Level control.</p> <p>B. Input 1 & 2 Gain: Level control.</p> <p>C. Input Indicator: Indicates input signal in AGC (green) or overload (red).</p> <p>D. Loop Output Current Indicators: Indicates current (green) and clipping (red).</p> | <p>E. Status Indicator: Indicates power (green) or fault (red).</p> <p>F. Metal Loss Control: Level control.</p> <p>G. Loop Output Current Control: Level control.</p> |
|--|---|

1. Turn all controls fully anti-clockwise.
2. Connect inputs and outputs as required.
3. Turn on power, The STATUS LED should illuminate green.
4. Set the Test Signal switch to the middle "Field" position. Turn the CHA and CHB output current controls clockwise until the CHA and CHB output current indicators light up green.

5. The loop system should now be providing a magnetic field inside the area of the loop. Use a Field Strength Meter or Loopworks R1 to measure signal levels. Field strength should achieve 0dB +/-3dB re. 400mA/m in all intended listening positions.

Adjust the CHA and CHB controls until this performance is achieved. In most cases the two output channels should be set to the same level.

Once the correct field strength level is achieved the CHA and CHB controls should NOT need re-adjusting.

6. Set the Test Signal switch to the right "Freq" position. The driver will now be outputting 3 sinewaves simultaneously at 100Hz, 1kHz and 5kHz to measure the frequency response of the system.

With a Field Strength Meter adjust the receiver height until 0dB is measured in the 1kHz setting, then check the signal level at 100Hz and 5kHz, these should both be within +/-3dB of the 1kHz level. If 5kHz is too low turn the MLC control clockwise until a flat frequency response is achieved, making sure that the 100Hz level does not drop below -3dB.

7. If not already done so, steps can now be taken to integrate the W5-2 into a PA / mixer arrangement following standard audio techniques. If any unusual effects are experienced refer to the **Troubleshooting** section.

NOTE: Ideally, each input signal level should be set to just illuminate the INPUT LED with the quietest level of input likely to be used. This will maximise the dynamic range of the system and ensure satisfactory performance.

8. Repeat the above procedure for each input used. When adjusting each input, make sure the signals are removed from the other inputs. This ensures that all signals are set to equivalent loudness and drive the AGC properly.

6. TROUBLESHOOTING

Any RED LED showing on the front panel indicates an error:

INPUT – Input level is too high. Reduce gain control or input signal level. Check mic/line switch is set correctly.

CH A/B – Loop output clipping. Check the loop connections are correctly terminated and the loop itself is not open circuit.

STATUS – Thermal or power related fault. Check the loops are correctly rated. Check there is sufficient ventilation. If a thermal fault has occurred a power cycle will be necessary.

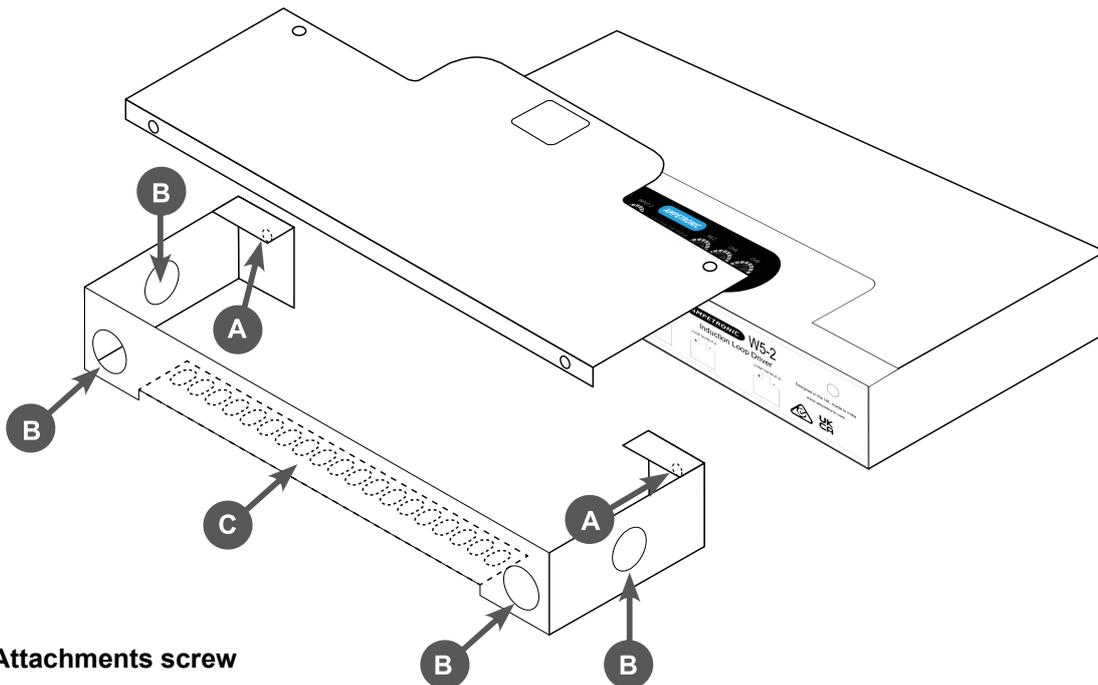
7. ASSOCIATED DOCUMENTS

UP1AE01-1 W5-2 Installation Handbook and Maintenance Manual

UP3AE01-1 W5-2 Datasheet

W5-2 Design templates available from www.ampetronic.com/w52

8. CABLE TRAY SCHEMATIC



A. Attachments screw

B. Conduit knock-out

C. Cable/PSU tie points

WARRANTY

This product carries a five year parts and labour warranty from date of shipment from Ampetronic. To qualify for the five year warranty, the product must be registered at www.ampetronic.com (products/warranty), without which the warranty will be valid for two years only.

The warranty could be invalidated if the instructions in this handbook are not followed correctly, or if the unit is misused in any way.

DECLARATION OF CONFORMITY

Manufacturer: Ampetronic Ltd.
Unit 2, Trentside Business Village
Farndon Road
Newark
NG24 4XB

Declares that the product:

Description: Induction Loop Driver

Type name: W5-2

Conforms to the following Directive(s) and Norm(s):

Directive 2014/30/EU

EMC: EN 55032:2015+A11:2020 Emission
EN 55035:2017+A11:2020 Immunity

Directive 2014/35/EU

Safety: EN 62368-1:2020+A11:2020

Directive 2011/65/EU RoHS

Date: November 2023

J.R. Pieters

Managing Director

Ampetronic Ltd