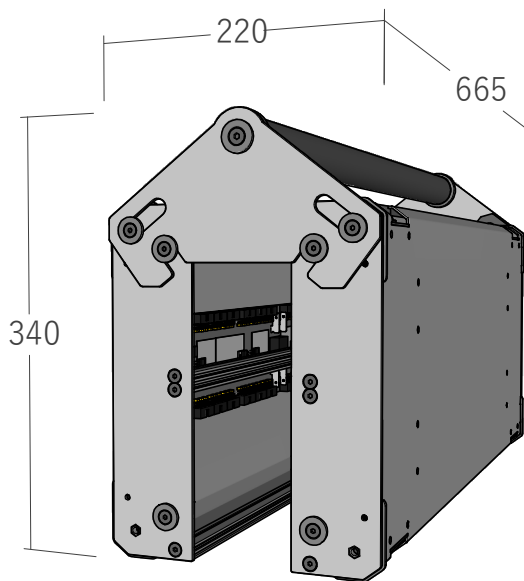
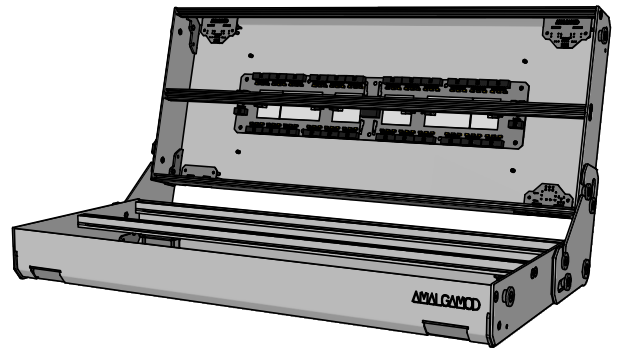


AMALGAMOD

12U/126HP Ultralight System User Guide

A Lightweight, Foldable Eurorack Travel Case.

Features: Quick Setup/Teardown, Patch Cable Clearance,
Removable Carrier Handle, 12U/6U Configuration,
Optional Low Noise Active Power Bus, Universal PSU,
I/O Modules, LED Lamps, Protective Cover/Shoulder Strap.



Case Specs

Folding Case: Aluminium Construction,
M3 Tapped Strips, 8 x I/O Module Slots,
Removable Carrier, High Density EVA Handle Grip.

Protective Cover: Heavy Duty Ripstop Canvas,
Foam Padding, Cotton Lining, Quick Release Strap.

Optional: AGM117 Active Bus, 15VDC@6A Universal
Desktop Adaptor (GST90A15), DC Y-Cable,
I/O Modules (USB Power, CV/Gate, Trunkline).
3 x Brightness Setting Gooseneck LED Lamps.

Dimensions: 665 x 340 x 220mm
Module Clearance: 60mm Internal Depth,
45mm Over Busboards, 42mm Over I/O Modules

Case Weight: 5.2kg (inc. Busboards)
Protective Cover/Shoulder Strap Weight: 1kg

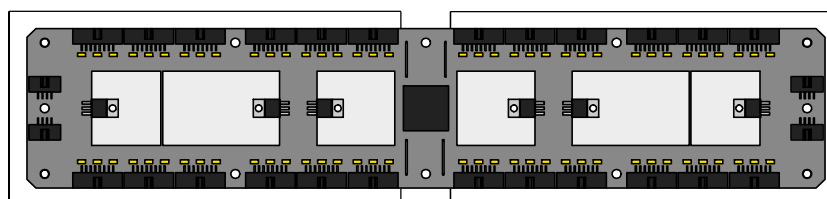
Power Specs

The AGM117 Active Bus features a total of 24 power headers split into two regulated 12 header zones. It is effectively two active busboards in one with the advantage of relative isolation between zones.

Although the total current rating for a 12U/126HP system is: +12V@3.6A / -12V@2.8A / +5V@2A
we recommend keeping each zone to a limit of: +12V@900mA / -12V@700mA / +5V@500mA

This should cover all but the most power hungry systems. It is possible to pull more current per zone, but this is limited by several factors such as ambient temperature, airflow inside the case (affected by module depth and ribbon cable clutter), and finally the 90W limit of the power brick. Keeping to the recommended current limit per zone will ensure your system is at a comfortable operating temperature.

Zone 1
+12V@900mA
-12V@700mA
+5V@500mA



Zone 2
+12V@900mA
-12V@700mA
+5V@500mA

Power Connection

Only use the supplied Class 1 desktop power adaptor (GST90A15) with an earthed mains outlet. If you are in a region that does not use mains earth please contact us for a suitable alternative power supply.

Connect the power brick (GST90A15) to each 6U boat via the supplied DC Y-cable. Each AGM117 features a set of LED indicators for the power rails in each zone (+12V/-12V/+5V). If all 6 LED's do not light up, immediately power off as this indicates a fault condition (most likely from plugging a module in backwards). In the event of a fault, remove all modules and test the power rails using a digital multimeter.

When installing your modules, it is good practice to power down, install one module, then power up while keeping an eye on the LED indicators (rinse and repeat). That way if there is problem, you will have isolated it to the most recent module plugged in. Leave the LED indicators visible up until the last modules are connected.

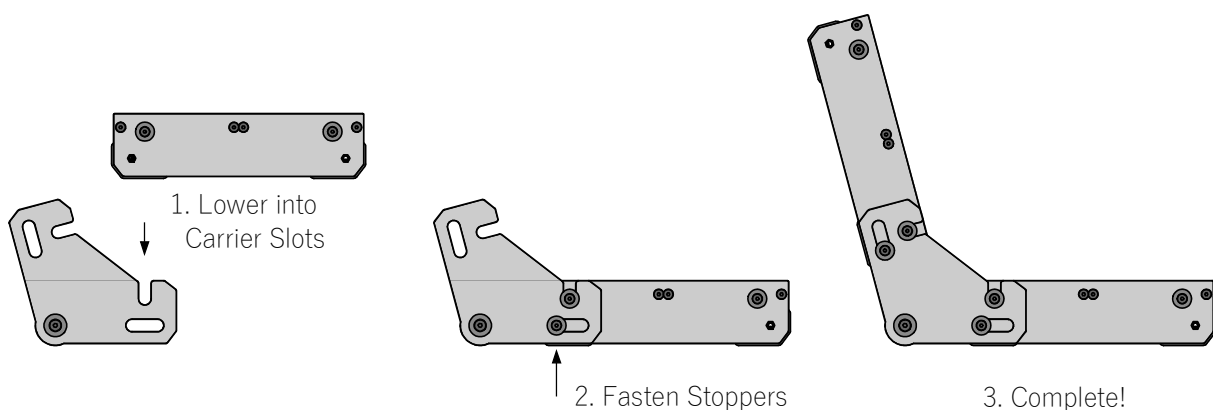
Make sure your ribbon IDC cables are not in contact with the PCB heatsinks on the busboard. Where possible, avoid using excessively long IDC cables and arrange your cabling to allow for maximum airflow.

The AGM117 uses keyed headers so be sure your IDC power cables are assembled correctly (arrow to red stripe) to avoid backwards connection and potential damage to your modules as unfortunately not all modules have reverse polarity protection. When you have confirmed your cables are good, it is recommended to plug/unplug at the busboard. This way you can use the keyed headers to your benefit. If in doubt, ensure -12V on the module is connected to -12V on the busboard as per the markings on the PCB.

Each busboard can be positioned between rows or under either row to allow room for deeper modules. Use the supplied hex wrench and unscrew the mounting screws, lift the busboard, relocate tube spacers and the rubber bumper on each side of the busboard to their new positions. When installing the bumpers use a pair of pliers to pull them through the mounting holes while supporting the busboard PCB so it doesn't flex. Align the busboard mounting holes with the standoffs and install screws/washers firmly while being careful no to overtighten.

Folding Carrier Assembly

1. Align and lower hinge washers into open carrier slots.
2. Insert stopper washer into closed slot, align with threaded nut, insert screw and finger tighten.
3. Tighten up each screw just tight enough so the washer does not rotate when folding the case. Again, be careful not to overtighten or cross-thread the fasteners as this may cause damage to the threaded inserts.



Care Instructions

Use only in a dry environment. Avoid touching the metalwork with dirty or oily fingers. Particularly be careful not to use orange/citrus handwash, sunscreen, solvents as the acid content can react with and damage the powder coated surface. Clean with a dry, soft microfibre cloth. To remove dirt/grime use a damp microfibre cloth with mild/PH neutral detergent. Do not use abrasive cleaning products. Do not apply excessive force when closing the case. Use protective cover while in transit. Transport with handle upward where possible and if not, avoid heavy objects being placed on the case while closed.

If in doubt, contact info@amalgamod.com for assistance.