



Observe all safety information both on the equipment and in this leaflet.

For all other user documentation please go to www.asl-control.co.uk/downloads or scan the QR code.

WEIGHT



The V2000 mainframe with amplifier and interface cards fitted is heavy (max. 15 kg). Move and handle with care to avoid strain or impact injuries. Install amplifier modules after mounting mainframe into the equipment rack.



Do not use the handles to lift or carry the mainframe. The handles are designed for sliding the unit into and out of the equipment rack, and not to support its weight.

Use the underside edges of the mainframe to lift and carry it.



The supporting rails must be capable of safely bearing the weight of the V2000 (max. 15 kg).

INSTALLATION



The V2000 is designed for professional use only and must be installed in a restricted access location such that there is no operator access to the V2000 equipment, wiring or battery.



The V2000 is suitable only for mounting on concrete or other non-combustible surfaces. This requirement can be met by mounting the V2000 within an equipment rack on rack slides.

ENVIRONMENTAL



Always ensure that adequate ventilation is provided for the V2000 by following the rack design rules and guidelines provided in the ASL System Design Guide.



The temperature and humidity ranges shown in the specifications for the V2000 must not be exceeded.



The V2000 should not be installed at altitudes exceeding 2000 m.



The V2000 should not be used in tropical environments.



The V2000 must not be installed in an area that is subject to a corrosive atmosphere, excessive moisture or may allow water or other liquids to come into contact with the unit or its external connections.



Objects containing liquids should not be placed upon the V2000.

Do not place anything other than the Thermal Switch for the Rack Fan Tray on top of the V2000.

EMC

In the close proximity of some radio frequency transmitters, the signal to noise ratio of the V2000 may be reduced. If this occurs, re-location of the V2000 or the signal cables is recommended.

GROUND LOOPS

It is possible to form a ground loop (earth loop or hum loop) when connecting pieces of audio equipment using unbalanced connections that provide alternative earth connections via their cable screens. Such ground loops result in audible "hum" from the system.



Never disconnect the mains earth from the plug to attempt to cure a ground loop. In the event of a fault, the V2000 casing could become live.

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POWER CONNECTIONS



Ensure that the power supply cabling is adequately rated for the unit's operating current and temperature, and is protected against short-circuit by a correctly rated fuse or circuit breaker. This is particularly important for supply feeds from the 24 V backup batteries which can deliver short-circuit currents exceeding 1000 amps.

Using too thin a cable can cause a safety hazard and will give excessive voltage drop and operational failure.



Always ensure that the V2000 is correctly earthed by connection to an AC mains supply with a protective earthing connection.



If the V2000 is connected as a system which is permanently connected to the mains, then an all-pole mains isolator with a separation of 3 mm in each pole shall be incorporated in the electrical installation.



The V2000 is protected from overload by single pole phase fusing. If connected to an unpolarised mains supply, the building installation must provide double pole phase/neutral fusing of appropriate rating.

ISOLATION OF MULTIPLE POWER SOURCES



The V2000 has more than one connection supplying hazardous voltages or hazardous energy levels. Prominent markings located close to the entry point provided for a service person to gain access to the hazardous points shall be provided to indicate which disconnection device or devices isolate the equipment completely and which disconnect devices can be used to isolate each section of the equipment.

Disconnect devices should remain accessible at all times.

SERVICING AND INSTALLATION



Servicing and installation work should be carried out by qualified personnel only.

The V2000 contains wiring that is energised to 230 V AC mains and 100 V RMS audio signals at up to 20 kHz.



Terminals marked with the ⚡ symbol are hazardous, and the external wiring connected to these terminals requires installation by instructed personnel.



The V2000 may be energised after operation of a fuse or power off by the front panel MAINS and BATTERY switches.



Caution! Electrical shock hazard. Disconnect all power supplies.



Always isolate the mains and battery supplies by switching off the rack mains and battery supply isolation switches before installation, servicing or maintenance. In installations where the rack mains and/or battery supply isolation switches are not accessible, unplug the power supply cables from the V2000.



The V2000 may still be energised after isolating the mains and battery supplies.

After the mainframe "processor" LED has stopped flashing, leave the V2000 for another 5 minutes before attempting internal servicing.



Use caution when working with the V2000. The mainframe case temperature can exceed 70°C.

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ESD PRECAUTIONS



The V2000 mainframe, interface cards and amplifier modules contain static-sensitive devices. Observe ESD precautions when handling the interface cards, the amplifier modules or the mainframe with cover removed.

FUSE REPLACEMENT



Always replace blown fuses with the correct type and rating.

BATTERY REPLACEMENT, HANDLING AND STORAGE

Caution! Risk of explosion if battery is replaced by an incorrect type.



Replace with YUASA NPL65-12IFR or Power Sonic PS-12750 FR, PG-12V75T FR, PG-12V65 FR or PG-12V80 FR.

Do not mix battery types with different Ah ratings within a battery backup system.

Caution! Ensure that the battery case flammability rating is correct for the installation.



Batteries are available with cases which are rated to one of these two flammability classifications: UL 94-V0 or UL 94-HB. Certain site installation policies may require the use of UL 94-V0 rated battery cases in any Rack Built System, otherwise the standard battery casing rating of UL 94-HB can be used. ASL recommend batteries rated to UL 94-V0 flammability. If in doubt, please contact the site installation manager for policy guidance.

Note that any Power Sonic batteries without FR (V0) product codes are only rated to UL 94-HB flammability.



Batteries are heavy (max. 25 kg each). Please move and handle with care to avoid personal injuries and/or damage to the batteries.

External 24 V DC batteries connected to this unit can deliver very high currents that could cause fire or burns.



Take care to avoid short-circuits of the battery supply by tools or jewellery.

Insulated battery terminal covers must always be fitted.

Do not allow tools or unconnected cables to rest on top of batteries.

Always use insulated tools.



When reconnecting the battery always ensure that the BATTERY switch is OFF before the battery circuit breaker is turned on.



Batteries should not be exposed to temperatures exceeding 25°C or stored for periods of more than a few weeks without charging as this can significantly reduce their service life.



Dispose of all batteries responsibly by using authorised Waste Contractors and by ensuring all relevant local waste regulations are followed.



Dispose of used batteries according to the instructions.

Never bury in the ground or incinerate at end-of-life.

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AMPLIFIER AND INTERFACE CARD REPLACEMENT



Use caution when replacing amplifiers and/or interface cards. The Electronics Module case temperature and amplifier temperature can exceed 70°C.



Caution! Electrical shock hazard. Disconnect all power supplies.



Always isolate the mains and battery supplies by switching off the rack mains and battery supply isolation switches before installation, servicing or maintenance. In installations where the rack mains and/or battery supply isolation switches are not accessible, unplug the power supply cables from the V2000.



The V2000 may still be energised after isolating the mains and battery supplies.

After the mainframe “processor” LED has stopped flashing, leave the V2000 for another 5 minutes before attempting internal servicing.

BLANKING PLATE DISPOSAL



Any blanking plates removed from the V2000 as part of the installation process ideally should be recycled as metal or otherwise responsibly disposed of by following WEEE protocols.