# AD SERIES
# DESKTOP POWER SUPPLIES

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The desktop power supplies, popularly called the "wedge" due to its distinctive, ergonomically friendly shape, offer a convenient way to convert 12Vdc mobile radio transceivers for use as desktop base stations. They will operate from AC supplies, either 115V or 230V without manual adjustment and output of 12Vdc at 9Amps.


- We started making these for Motorola radios in 2002, now we have 27 varieties for 11 manufacturers.
- The desktop units are supplied with end-plates configured to fit with your radio – see complete list.
- For a complete system, order our fully compatible battery back up box – P/N AD BBB (to include a 7Ah battery) or AD BBB NB (excluding the battery).

Radio Transceiver + Alfatronix Desktop Power Supply + Alfatronix Battery Back Up Box

## BATTERY BACK UP BOX

The AD Series Desktop Power Supplies include a battery back up output as standard. This can be connected to maintain charge in a lead acid battery to supply power in the event of a mains failure. As a neat alternative to a loose battery, Alfatronix also supply a battery back up box, *P/N AD BBB*. This is designed to fit underneath the desktop supply and radio assembly and includes a 7Ah lead acid gel battery, presenting all three components as one tidy desktop assembly.

The battery back up box also includes a speaker (mounted on the front of the unit) for those wishing to use hands free radio operation.

## CAN'T FIND WHAT YOU'RE LOOKING FOR?

Alfatronix Desktop "wedge" power supplies are configured to suit a wide range of radio transceivers from many manufacturers. However, if you use a variety of radio not listed, or cannot find a compatible unit, try our UNIVERSAL unit (P/N AD UN UNI). This uses a mechanical interlocking fixing system ("hook and loop") to fix the transceiver securely to the power supply.

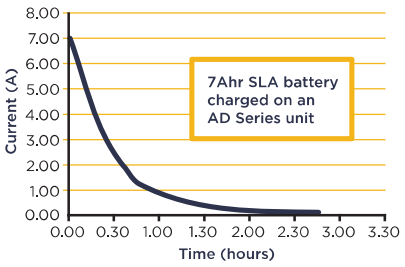
## PRODUCT CODING

The product codes are developed to be as intuitive as possible. Taking the Motorola AD MT CM as an example:

| | |
|---|---|
| **AD** | AC input & DC output |
| **MT** | Denotes the radio manufacturer, in this case Motorola |
| **CM** | Denotes a popular radio compatible with this unit |

**Please note: Like most part numbers, the CM fits a *range* of radios, not just the CM.**

## BATTERY CHARGING CURVE




# TECHNICAL DATA

| | |
|---|---|
| Input voltage range | Auto-select, 85-135Vac and 170-265Vac, 50Hz/60Hz |
| Output voltage & current | 13.6Vdc. Worst case limits are +/- 4% 108W (9A) |
| Output Noise | <50mV pk-pk at continuous load |
| Power Conversion Efficiency | Typically 83% |
| Isolation between input and case/output<br>Isolation between casework to ground | 1.5kVac/3.0kVac rms<br>Connected directly to mains input ground |
| Normal operating temperature | -25°C to +30°C to meet this specification table<br>+30°C to +70°C de rate linearly to 0A |
| Storage temperature | -25°C to +100°C |
| Max case temperature | 70°C at full load with 25°C ambient |
| Operating humidity | 95% max, non-condensing |
| Casework | Anodized aluminum, glass-filled polycarbonate |
| Connections: Input<br>Output<br>Ground | IEC-320 C14 socket, C13 terminated cordset<br>6.3mm push-on blade terminals<br>6.3mm push-on blade terminals, adjacent to output (additional external ground if required) |
| Output indicator | Green LED mains output on<br>Orange LED battery back up mode |
| Mounting method | By rubber feet on base and direct attachment to radio above. |
| Safe area protection: Over current<br>Over heat<br>Transients<br>Catastrophic protection | Limited by current sensing circuit<br>Limited by temperature sensing circuit<br>Protected by filters and rugged component selection<br>Protected by internal input and output fuses |
| Approvals | 2014/30/EU The general EMC directive<br>2014/35/EU The low voltage directive<br>93/68/EEC The CE marking directive |
| Designed to | EN62368 & EN61204-3 |
| Markings | CE & UKCA marked |

| | Weights and Dimensions | | | |
|---|---|---|---|---|
| | Width | Depth | Height | Weight |
| AD UN UNI | 168mm | 125mm | 58mm | 800g |
| AD BBB | 163mm | 145mm | 70mm | 2810g |
| AD BBB NB | 163mm | 145mm | 70mm | 318g |

**Note: The general body of all wedges measure as above. The end-plates protrude further to allow fixing to the radio.**

**Technical Note: AD BBB contains SLA Battery 12V 7Ahr, both AD BBB and AD BBB NB contain Speaker 8 OHM 3W**