DESKTOP POWER SUPPLIES

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 up to 108W (9Amps).

- **We started making these for Motorola radios 12 years ago, now we have 24 varieties for 9 manufacturers.**
- **The desktop units are supplied with endplates configured to fit with your radio – see complete list on page 20.**
- **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 – *see list on Page 20*. 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 (3M "Dual Lock") to fix the transceiver securely to the power supply.
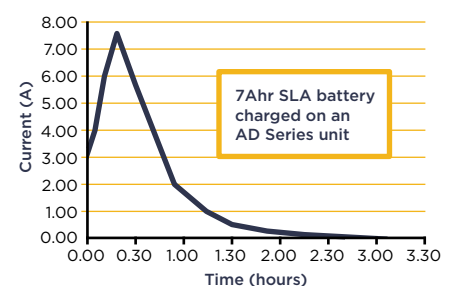
PRODUCT CODING

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. *See page 20 for a complete list.*	

BATTERY CHARGING CURVE

7Ahr SLA battery charged on an AD Series unit

Current (A) vs Time (hours)

TECHNICAL DATA

Input voltage range	Auto-select, 85-135Vac and 170-265Vac, 50Hz/60Hz
Output voltage options	13.6Vdc. Worst case limits are +/– 4%
Output Noise	<50mV pk-pk at continuous load
Power Conversion Efficiency	Typically 83%
Isolation between input and case/output Isolation between casework to ground	1.5kVac/3.0kVac rms Connected directly to mains input ground
Normal operating temperature	–25°C to +30°C to meet this specification table +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
Connections: Input Output Ground	IEC-320 C14 socket, C13 terminated cordset 6.3mm push-on blade terminals Stud with crimp eyelet, adjacent to input (additional external ground if required)
Output indicator	Green LED adjacent to output terminals
Mounting method	'Click 'n' fit' mounting clip or rubber feet. DIN rail clips available as a special order
Safe area protection: Over current Over heat Transients Catastrophic protection	Limited by current sensing circuit Limited by temperature sensing circuit Protected by filters and rugged component selection Protected by internal input and output fuses
Approvals	2004/108/EC The general EMC directive 2006/95/EEC The low voltage directive 93/68/EEC The CE marking directive
Designed to	EN60950, EN55022, EN61204-3
Markings	CE

	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 endplates protrude further to allow fixing to the radio.

FULL PRODUCT LIST

Brand	Alfatronix Part Number	Model	Width (mm)	Height (mm)	Depth (mm)
Motorola	AD MT-3100/DM	MTM800 Tetra	170	49	155
		PRO3100	177	56	176
		PRO5100	168	48	
		PRO7100	168	48	
		GM340	168	48	187
		GM640	168	48	187
		GM350	168	48	183
		GM360	168	48	183
		GM660	168	48	199
		GM380	168	48	199
		DM 3400/DM 3401	175	51	206
		DM 3600/DM 3601	175	51	206
		DM 4400/DM 4401	175	51	206
		DM 4600/DM 4601	175	51	206
Motorola	AD MT-CM	CM-140	169	44	118
		CM-160	169	44	118
		CM-340	169	44	118
		CM-360	169	44	118
Kenwood	AD KW TK-762	TK-760	140	40	145
		TK-860	140	40	145
		TK-762	140	40	145
		TK-780	140	40	145
		TK-880	140	40	145
		TK-980	140	40	145
		TK-981	140	45	145
Kenwood	AD KW TK-7102H	NX-700/800	160	45	157
		TK-7302/8302	160	43	137
		TK-7180	160	45	157
		TK-7189E	160	45	157
		TK-8180	160	45	157
		TK-8189E	160	45	157
		TK-7360/8360	160	43	160
Kenwood	AD KW TK-7160	TK-7160	160	43	107
		TK-7162	160	43	107
		TK-8160	160	43	107
		TK-8162	160	43	107
		TK-7102	160	43	107
		TK-8102	160	43	107
Icom	AD IC IC-F310	IC-F310s	140	40	170
		IC-F410s	140	40	170
		IC-F310	140	40	170
		IC-F410	140	40	170
		IC-F510	140	40	170
		IC-F610	140	40	170
		IC-F320s	140	40	170
		IC-F420s	140	40	170
		IC-F320	140	40	170
		IC-F420	140	40	170
		IC-F520	140	40	170
Icom	AD IC IC-F1700	IC-F1710	175	45	170
		IC-F2710	175	45	170
		IC-F1810	175	45	170
		IC-F2810	175	45	170
Icom	AD IC IC-F1010	IC-F1010	150	50	180
		IC-F2010	150	50	180
		IC-F1020	150	50	180
		IC-F2020	150	50	180
		IC-F1610	150	50	180
		IC-F2610	150	50	180
		IC-A110 Euro	150	50	180
Icom	AD IC IC-F110	IC-F110	150	40	117.5
		IC-F110S	150	40	117.5
		IC-F210	150	40	117.5
		IC-F210S	150	40	117.5
		IC-F5022	150	40	117.5
		IC-F6022	150	40	117.5
		IC-F121/IC-F121S	150	40	167.5
		IC-F221/ICF221S	150	40	167.5
		IC-F111/IC-F111S	150	40	167.5
		IC-F211/IC-F211S	150	40	167.5
		IC-F5122	150	40	167.5
		IC-F6122	150	40	167.5
		IC-F5012	150	40	167.5
		IC-F6012	150	40	167.5
Icom	AD IC IC-F5062	IC-F5062	160	45	150
		IC-F6062	160	45	150
Tait	AD TA-8000	TM8105	160	50	175
		TM8110	160	50	175
		TM8105	160	50	175
		TM8250	160	50	175
		TM8255	160	50	175
		TM9300			
Yaesu/Vertex	AD VS VX-2200	VX2200E/2100E	165	46	155
Yaesu/Vertex	AD VS VX-4500	VX-4500/4600	165	45	155

Brand	Alfatronix Part Number	Model	Width (mm)	Height (mm)	Depth (mm)
Yaesu/Vertex	AD VS FP-2500	VX-2000V VX-2000U FP-2500E	160 160 160	40 40 40	105 105 110
Yaesu/Vertex	AD VS VX-4104	VS-4104-0-50 VX4100E VX4200E	165 165 165	43 43 43	155 155 155
Maxon	AD MX PM160	PM100 PM160	174 174	58 58	167 167
Universal	AD UN UNI	Cleartone Hytera TM 800 Simoco Sepura			
Nokia EADS	AD NK EA-TMR880	TMR880	190	58	130
Nokia EADS	AD NK EA-TMR880i	TMR880i TMR880i remote head	182 190	60 72	125 36
Novel	AD NR-M400	NM-60-100 NM-60-400	225 225	47 47	180 180
Hytera	AD HYT TM 600	TM 600 TM 610	152 152	43 43	125 125
Hytera	AD HYT 785 Different screw kits	MD 785 MT 680	170 180	60 60	180 180

The Alfatronix range of Desktop Power Supplies provide bespoke solutions for radios from a wide range of manufacturers.
For any not listed the *AD UNI version* can be used with any radio.