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 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 (3M "Dual Lock") to fix the transceiver securely to the power supply.
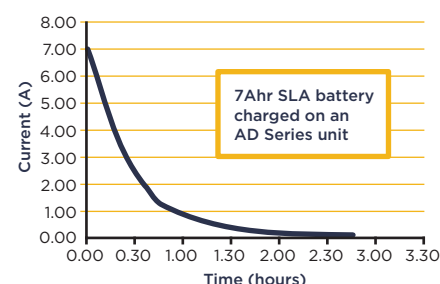
PRODUCT CODING

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.

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 & 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 **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
Casework	Anodized aluminum, glass-filled polycarbonate
Connections: **Input** **Output** **Ground**	IEC-320 C14 socket, C13 terminated cordset 6.3mm push-on blade terminals 6.3mm push-on blade terminals, adjacent to output (additional external ground if required)
Output indicator	Green LED mains output on Orange LED battery back up mode
Mounting method	By rubber feet on base and direct attachment to radio above.
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	2014/30/EU The general EMC directive 2014/35/EU 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 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

FULL PRODUCT LIST

Brand	Alfatronix Part Number	Model	Width (mm)	Height (mm)	Depth (mm)
Motorola	AD MT-3100/DM	MTM5400 Tetra	170	49	155
		MTM800 Tetra	170	49	155
		PRO3100	177	56	176
		PRO5100	186	59	179
		PRO7100	186	59	179
		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 1400/DM 1600	169	44	134
		DM2600	169	44	134
		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 NX 5000	NX5700/5800	171	48	176
Kenwood	AD KW TK-7102H	NX-700/800	160	45	157
		NX3720/NX3820	160	43	160
		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/IC-F221S	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
		IC-A120E	161	45	176
Icom	AD IC IC-F5400	IC-F5400D	174	55	150
		IC-F6400D	174	55	150

Brand	Alfatronix Part Number	Model	Width (mm)	Height (mm)	Depth (mm)
Icom	AD IC IP-501M	IP-501M	170	58	119
Tait	AD TA-8000	TM8105	160	50	175
		TM8110	160	50	175
		TM8250	160	50	175
		TM8255	160	50	175
		TM9300	160	50	175
		TM9400	160	50	175
Yaesu/Vertex	AD VS VX-2200	VX2200E/2100E	165	46	155
Yaesu/Vertex	AD VS VX-4500	VX-4500/4600	165	45	155
		EVX-5300/5400/5600	165	45	155
Yaesu/Vertex	AD VS FP-2500	VX-2000V	160	40	105
		VX-2000U	160	40	105
		FP-2500E	160	40	110
Yaesu/Vertex	AD VS VX-4104	VS-4104-0-50	165	43	155
		VX4100E	165	43	155
		VX4200E	165	43	155
Maxon	AD MX PM160	PM100	174	58	167
		PM160	174	58	167
Nokia EADS	AD NK EA-TMR880	TMR880	190	58	130
Nokia EADS	AD NK EA-TMR880i	TMR880i	182	60	125
		TMR880i remote head	190	72	36
Novel	AD NR-M400	NM-60-100	225	47	180
		NM-60-400	225	47	180
Hytera	AD HYT 600	TM 600	152	43	125
		TM 610	152	43	125
Hytera	AD HYT 615	MD 615	164	43	150
Hytera	AD HYT 785	MD 785	170	60	180
Hytera	AD HYT 680	MT 680	180	60	180
Hytera	AD HYT MD655	MD652/MD652G	165	46	140
		MD655/MD655G	165	46	140
Sepura	AD SP 8000	SBM800/SCM8000/SEM8000	177	60	184
Simoco	AD SIM SDM 700	SDM 700	170	60	120
Universal	AD UN UNI	Cleartone			
		Hytera TM 800			
		Simoco			
		Sepura			

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.

Motorola
1400/1600

Motorola
MTM800 TETRA

Motorola
DM3400

Hytera
MD785

Tait
TM8105

Hytera
TM600