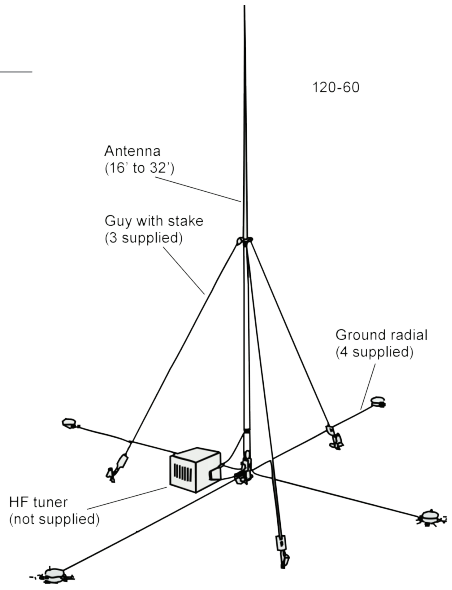
SHAKESPEARE®

120 - SERIES

HF ANTENNAS & ACCESSORIES | 2-30 MHZ

Shakespeare®'s 120-Series is a versatile, transportable HF antenna system engineered for reliable military and field communications. Operating across the 2–30 MHz frequency range (with an external antenna tuner), the system accommodates a variety of antenna heights, mounting options, and configurations for vehicular and stationary applications.

Designed for vehicular HF frequencies,120-Series antennas are constructed with durable fiberglass sections in 4 ft (1.2 m) lengths, offered in 16 ft (4.8 m) with four sections, 24 ft (7.3 m) with six sections, or 32 ft (9.7 m) with eight sections. Shakespeare's exclusive taper-rolled thread ferrules provide mechanical strength and positive electrical contact, even when the antenna flexes. Supporting up to 1 kW of power, 120-Series antennas feature vertical polarization and an omnidirectional radiation pattern for broad-area communications. Available configurations include vehicular antennas, transportable kits, and stationary systems, with optional mounting bases, guy rope kits, ground radials, and carrying cases to meet diverse deployment requirements.





MODELS			
PART NO.	MILITARY NOMENCLATURE	NSN	DESCRIPTION
120-20	AT-1039/U	5985-00733-6042	Tip Antenna Element Section
120-2	AT-1040/U	5985-00-733-6043	Second Antenna Element Section
120-34	AT-1041/U	5985-00-733-6044	Third Antenna Element Section
120-8	AT-1042/U	5985-00-733-6045	Fourth Antenna Element Section
120-14	AT-1043/U	5985-00-733-6046	Extension Antenna Section
120-14-4			Extension Antenna Section (Bundle of 4)
120-58		5985-01-475-2367	Canvas Case, Military Green
120-59			Guy Rope Kit
120-47		5985-01-397-6971	Ground Radial Kit (4) with Bag
120-49		5985-01-539-1084	Four-section, 16' (4.8 m) Vehicular Antenna Without Base
120-31		5985-01-320-7703	Eight-section, 32' (9.7 m) Stationary Antenna
120-16B			Four-section, 16' (6.8 m) Vehicular Antenna with 120-28 base
120-55	AT-1011/U	5985-00-846-6442	Eight-section, 32' (9.7 m) Stationary Antenna with 120-28 base
120-60		5985-01-453-4775	Transportable 32' (9.7 m) Antenna Kit with Case, Ground Radials, Guy Rope Kit, and Tools Needed for Assembly
120-28		5985-00-733-6047	75421 A.T. (Stand Off Flange Base)
120-43		5985-00-931-9106	76011 (Feed Thru Base 400 Watts)

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IMPEDANCE CHARTS – 120 SERIES

	4-SECTION 16' (4.8 m) ANTENNA ON 24X24 GROUND PLANE TIED INTO FACTORY ROOF GIRDERS		4-SECTION 16' (4.8 m) ANTENNA ON M-113A ARMORED PERSONNEL CARRIER		8-SECTION 32' (9.7 m) ANTENNA ON 24X24 GROUND PLANE TIED INTO FACTORY ROOF GIRDERS		5-SECTION 20' (6 m) ANTENNA ON M-113A ARMORED PERSONNEL CARRIER		3-SECTION 12' (3.6 m) ANTENNA ON 24X24 GROUND PLANE TIED INTO FACTORY ROOF GIRDERS		3-SECTION 12' (3.6 m) ANTENNA ON M-113A ARMORED PERSONNEL CARRIER	
Frequency MHz	R ohms	X ohms	R ohms	X ohms	R ohms	X ohms	R ohms	X ohms	R ohms	X ohms	R ohms	X ohms
1.5	1.7	-3900	36	-1750	3.3	-1170	62	-1420	1.6	-2500	78	-1870
2.0	1.8	-3400	18	-1300	4.9	-845	23	-1070	1.6	-1900	43	-430
4.0	10	-650	10	-645	40	-304	35	-1524	2.2	-910	8	-785
6.0	9	-348	15	-400	43	93	28	-380	5.2	-575	30	-530
8.0	18	-263	20	-250	112	95	30	-170	9.7	-399	13	-360
10.0	26	-157	26	-150	237	323	42	-56	12	-288	17	-250
12.0	23	-36	32	-68	763	847	80	68	15	-211	19	-180
14.0	24	6	10	25	530	-1130	130	240	13	-142	19	-110
16.0	30	114	82	142	83	469	110	649	13	-77	30	-52
18.0	60	260	100	300	45	-236	1550	138	16	-10	46	33
20.0	183	597	508	497	36	-80	423	-760	22	70	84	92
22.0	1500	800	1020	-354	48	99	128	-495	54	177	190	170
24.0	853	-839	564	-479	170	500	93	-350	131	303	260	150
26.0	283	-611	288	-497	1600	-680	53	-260	386	473	410	190
28.0	146	-440	150	-390	236	-561	40	-108	679	497	617	96
30.0	92	-332	78	-310	94	-322	42	-110	1080	-270	762	-302

SPECIFICATIONS

Frequency:	2-30 MHz with tuner (not supplied)
Power Rating:	1 KW
Polarization:	Vertical
Construction:	Shakespeare Fiberglass Process (antenna sections)
Environmental:	For all weather environments
Salt Fog Resistant:	5% salinity solution
Operating Temp:	-40°F (-40°C) to +176 (+80°C)
Radiation:	Omnidirectional
Base Diameter:	1.25" (.0317 m) (nominal)
Tip Diameter:	.25" (0.006 m) (nominal)
Length:	16' (4.8 m) 4 sections | 24' (7.3 m) 6 sections | 32' (9.7 m) 8 sections
Weight:	30 lbs (.45 kg) nominal
Finish:	AT-1011/U
Altitude:	Up to 15,000 ft (4572m)

WIND RATING

(depending on soil conditions)	
Unguyed 16' (4.8 m)	Up to 80 MPH (128.7 km/h)
Unguyed 32' (9.7 m)	Up to 35 MPH (56.3 km/h)
Guyed 32' (9.7 m)	Up to 90 MPH (144.84 km/h)
For 0.5" radial ice, reduce wind rating by 40%	