

Radar Beacon AN/UPN-2, sometimes known as BUPS, is an ultra portable beacon for ground, paratroop or shipborne use with a range of 35-50 miles. It is similar to AN/UPN-1 except for power source. The airborne version of AN/UPN-2 is known as Radar Beacon AN/APN-29. The set is capable of being interrogated by airborne radars of the proper frequency on beacon function and replying with a coded signal permitting the beacon to be located in range and azimuth.

This beacon is housed in a rectangular chassis containing a control panel with a knob for selecting operation (on-off-standby-tune), a knob for selecting codes, and knob for tuning the transmitter. It transmits signals on 3256 mc. and receives over the frequency range of 3267 to 3333 mc.

Power input of 150 watts, 50-2400 cycles, 115 or 230 volts produces a peak power output of 50 watts.

Radar Beacon AN/UPN-2 requires a ground Antenna Assembly AS-171/UP consisting of a dual linear array of six dipoles each (receiving and transmitting) housed in a weatherproof plastic cylinder and having horizontal polarization.

Twelve experimental ac units were built for field tests and are now in operational use. Production deliveries were being made in April 1945.

Test equipment used in the maintenance of Radar Beacon AN/UPN-2 includes Test Set TS-3/AP, Test Set

TS-14/AP, Oscilloscope TS-34/AP, Voltmeters IS-189 and IS-185, and Audio Oscillator Hewlett-Packard 200C.

Army Air Forces requirements as of 1 February 1945 were 304 for the calendar year of 1945 and 18 for 1946.

POWER INPUT	150 WATTS AT 115/230 VOLTS, 50-2400 CPS
POWER OUTPUT	50 WATTS (PEAK)
FREQUENCY	RECEIVER: 3267 TO 3333 MC; TRANSMITTER: 3256 MC
TYPE OF SIGNAL	PULSE
RANGE	35-50 MILES
SENSITIVITY (RECEIVER)	0.05 MICROWATTS
PULSE LENGTH	0.5 MICROSECONDS
BLANKING GATE LENGTH	500 MICROSECONDS

TUBE COMPLEMENT			
NO.	TYPE	NO.	TYPE
3	6AK5	1	OD3/VR-150
7	6SL7GT	1	10-4B
1	2X2	1	446B
2	2C26	2	OC3/VR-105
1	5R4GY	2	IN27



Radar Beacon AN/UPN-2 on being interrogated by airborne radar (on beacon function) replies in code permitting the beacon to be located in range and azimuth.

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Antenna Assembly
AS-171/UP Mounted On
Antenna Support AB-49/UP



Receiver Transmitter RT-73/UPN-2
In Case CY-223/UP-2

RADAR BEACON AN/UPN-2

TOTAL WEIGHT 80 LBS.

Component	Nomenclature	Size	Weight
Transponder Assembly	RT-73/UPN-2	7" x 14" x 20"	40 Lbs.
Case	CY-223/UPN-2	7" x 13" x 21"	5 Lbs.
Harness	MX-254/UPN-2		1 Lb.
*Chest	CY-224/UPN-2		12 Lbs.
Antenna Support	AB-49/CP	32" high	5 Lbs.
Case	CY-225/CP	6" x 6" x 40"	1 Lb.
Cord	CX-237/U	50'	2 Lbs.
Antenna Assembly	AS-171/UP	36" x 4" Diameter	10 Lbs.
Cord	CG-92/U (2 each)	5'	**

* includes operating spare parts

** weight less than one pound.

Section 4 - Graphic Survey

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