

FCC Form 442
Enclosure 1

SPECIFICATIONS OF MODEL 1730

SCANNER UNIT

1. Radiator: Slotted Waveguide Array (housed in radome)
2. Radiator Length: 54cm
3. Horizontal Beamwidth: 4°
4. Vertical Beamwidth: 20°
5. Sidelobe Attenuation:
 - Within $\pm 20^\circ$ of mainlobe: -18dB or less
 - Outside $\pm 20^\circ$ of mainlobe: -23dB or less
6. Polarization: Horizontal
7. Antenna Rotation: 24 r.p.m. nominal

TRANSCEIVER MODULE (contained in radome)

1. Transmitting Tube: Magnetron 9M302/E3513
2. Frequency & Modulation: 9410MHz $\pm$ 30MHz, P0N
3. Peak Output Power: 3kW nominal
4. Pulselength & Pulse Repetition Rate:

Range (nm)	0.25	0.5	1	2	4	8	16	24
Item								
Pulse Repetition Rate	Approx. 2100Hz		Approx. 1200Hz		Approx. 600Hz			
Pulselength	0.08us (Short)		0.3us (Mid.)		0.8us (Long)			

5. Modulator: FET Switching Method
6. I.F.: 60MHz
7. Tuning: Manual
8. Receiver Front End: MIC (Microwave IC)
9. Bandwidth:
 - 7MHz (short pulse)
 - 3MHz (mid./long pulses)
10. Duplexer: Circulator with diode limiter
11. Noise Figure: 9dB nominal (standard)

DISPLAY UNIT

1. Indication System: Raster scan, Daylight display
2. Picture Tube: 7-inch diagonal, green phosphor CRT

3. Range (nm):
4. Range Ring Interval (nm):
5. Number of Rings:
6. Bearing Resolution:
7. Bearing Accuracy:
8. Minimum Range:
9. Range Ring Accuracy:
10. VRM Accuracy:
11. Mark Indication:
12. Numeral/Character Indication:
13. Interference Rejector:
14. External Sig. In/Out Terminals:

0.25	0.5	1	2	4	8	16	24
0.125	0.125	0.25	0.5	1	2	4	4
2	4	4	4	4	4	4	6

4.5°

Better than 1°

Better than 29m

0.9% or 8m, whichever is the greater.

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Heading Mark, Bearing Scale, Range Ring, VRM, EBL, Tuning Bar, Alarm Zone

Range, Range Ring Interval, EBL, VRM, Interference Rejection (IR), ST-BY, Rain Clutter Rejection (FTC), Echo Stretch (ES), Radar Alarm (ALARM), Latitude/Longitude (Option)

Built-in

NMEA 0183 terminal (In)

External Buzzer terminal (Out)

Monitor terminal (Out)

ENVIRONMENT CONDITION

1. Vibration:
2. Ambient Temperature:
3. Humidity:

Vibration Freq.	Total Amplitude
1 to 12.5 Hz	± 1.6 mm
12.5 to 25 Hz	± 0.38 mm
25 to 50 Hz	± 0.10 mm

Scanner Unit ----- -25°C to +70°C

Display Unit ----- -15°C to +55°C

Relative humidity, 95% or less at +40°C

POWER SUPPLY & POWER CONSUMPTION

10.2VDC - 40.0VDC, 47W approx. (25W approx. in economy mode)
 100/110/220/230VAC, 50/60Hz, 1ø (rectifier required)

COMPASS SAFE DISTANCE

	Standard Compass	Steering Compass
Display Unit	0.5 m	0.4 m
Scanner Unit	3.1 m	1.75 m

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