

MISSILE GUIDANCE AND CONTROL OUTFIT MAA

MAA

SUMMARY OF DATA

PURPOSE

To provide the radio control link over which the demands from the aimer's joystick are passed to the SEACAT missile.

TYPE OF TRANSMISSION

Amplitude modulated sequentially by supersonic tone generators.

FREQUENCY RANGE

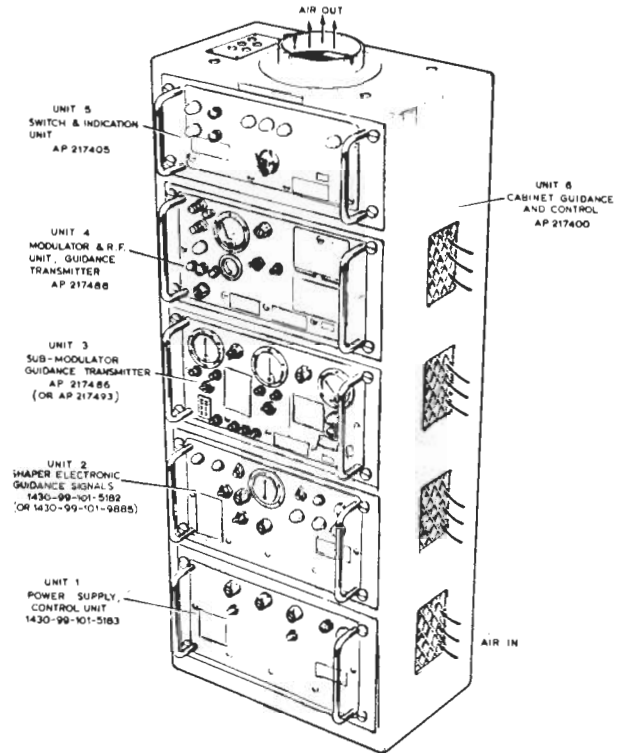
Any two of 31 crystal-controlled channels in the band 400-420 MHz provided they are separated by not more than 3.4 MHz.

BRIEF TECHNICAL DESCRIPTION

The equipment comprises a UHF transmitter in the band 400 - 420 MHz, amplitude modulated by a time sequence of two pairs of frequencies 21 - 28 kHz and 36 - 48 kHz. The joystick demand voltages are modified by the shaping circuits and control the relative duration of these frequencies.

MAJOR UNITS

The Cabinet, Guidance and Control with its contents and the Aerial Unit comprise the operational units, the Cabinet, Spares Stowage with its contents and the Cradle, Test are for maintenance purposes. Maintenance units are normally supplied on the basis of one set for two operational equipments.



GUIDANCE AND CONTROL CABINET

PHYSICAL DATA

Unit	Pattern No.	Title	Height	Width	Depth	Weight
1	1430-99-101-5183	Power Supply Control Unit	9 in	19 in	11 in	44 lb
2	1430-99-101-5182 1430-99-101-9885	Shaper, Electronic, Guidance Signals	9 in	19 in	11 in	28 lb
3	217486 217493	Sub-Modulator, Guidance Transmitter	9 in 9 in	19 in 19 in	11 in 11 in	32 lb 45 lb
4	217488	Modulator and R.F. Unit Guidance Transmitter	9 in	19 in	11 in	44 lb
5	217405	Switch and Indication Unit	7 3/4 in	19 in	11 in	23 lb
6	217400	Cabinet, Guidance and Control	52 in	21 in	12 in	130 lb
7	186165	Aerial Unit	36 in dia.		21 in	51 lb
8	217406	Cabinet, Spares Stowage	52 in	21 in	12 in	130 lb
9	217407	Cradle, Test	25 1/2 in	31 in	25 in	174 lb

ELECTRICAL CHARACTERISTICS

R.F. Power Output	15 W Nominal
R.F. Load Impedance	75 ohms
Output Frequency	Crystal Frequency x 12
Frequency Stability	± 8 kHz
Minimum Channel Spacing	0.6 MHz
Maximum Channel Spacing	3.4 MHz
Inputs (each plane)	± 10 V d.c.

RESTRICTED

POWER REQUIREMENTS

Mains Input	115 V \pm 5% 60 Hz \pm 2 $\frac{1}{2}$ % 1 ph	8.0 A
Conditioning Heaters	115 V a.c. or d.c.	1.4 A
	230 V a.c. or d.c.	0.7 A
	24 V -3 V +2 V d.c.	2.0 A

CONTROL CIRCUITS

Normal operation: remote control, but local test facilities provided.

HEAT DISSIPATION

Cabinet, Guidance and Control (fitted with all units)	600 watts
Cabinet, Spares Stowage	80 watts
Cradle, Test (without chassis)	80 watts
Cradle, Test (with chassis)	400 watts

AERIAL SYSTEM

A four turn helix which is part of the outfit.

HANDBOOK

BR 2541.

ESTABLISHMENT LIST

E 1250.

INSTALLATION SPECIFICATIONS

B 897.