

12 September 1967

CONVERTER, FREQUENCY SHIFT CV-1066A/UX

Cog Service: USN FSN:

Functional Class:

USA

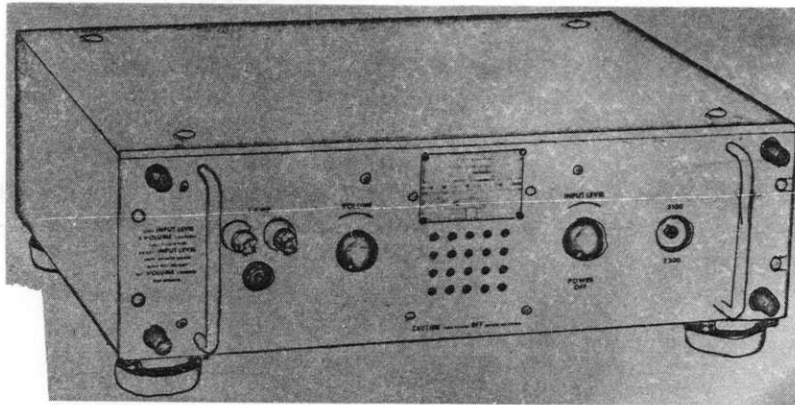
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Litton Systems Inc., Westrex Communication Division, (97983).



CONVERTER, FREQUENCY SHIFT CV-1066A/UX

FUNCTIONAL DESCRIPTION:

Converter, Frequency Shift CV-1066A/UX is used to convert 2300 to 3100 cps audio-frequency shift signals to amplitude-modulated signals for a facsimile recorder. The unit is employed as part of terminal equipment at the receiving end of a radio facsimile circuit of the audio frequency shift or radio frequency shift type. The signal from the radio receiver with either system is an audio-frequency-shifted signal in which 2300 cps represents maximum signal and 3100 cps represents minimum signal output from the facsimile transmitter at the sending terminal. The CV-1066A/UX converts this signal, from the radio receiver into a signal that can be used by the facsimile recorder.

No field changes in effect at time of preparation (11 January 1967).

RELATION TO OTHER EQUIPMENT:

The Converter, Frequency Shift CV-1066A/UX is two-way interchangeable with the CV-1066/UX

1.5 CV-1066A/UX: 1

CONVERTER, FREQUENCY SHIFT CV-1066A/UX

except maintenance parts.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

TECHNICAL CHARACTERISTICS:

INPUT IMPEDANCE: 500 ohms, balanced.
INPUT FACSIMILE SIGNAL: 2300 to 3100 cps.
INPUT SIGNAL LEVEL: 0 to 40 dbm.
OUTPUT IMPEDANCE: 500 ohms, balanced.
OUTPUT FACSIMILE SIGNAL: 2300 to 3100 cps (0.1 volt ac at 2300 cps).
OUTPUT ADJUSTABLE CONTRAST: 12 to 14 db.
POWER REQUIREMENTS: 100 to 130 volts ac, 50 to 60 cps, single ph.
POWER CONSUMPTION: 30 watts.

MAJOR COMPONENTS

QTY	ITEM	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Converter, Frequency Shift CV-1066A/UX	6-3/4 x 16-1/2 x 19-1/8	53

REFERENCE DATA AND LITERATURE:

NAVSHIPS 91628: Instruction Manual for Converter, Frequency Shift CV-172A/U.
NAVSHIPS 0967-050-2012: Technical Manual for Converter, Frequency Shift CV-1066A/UX,
Temporary Correction T-3.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1	3.5	55

PROCUREMENT DATA

PROCURING SERVICE: USN
SPEC &/OR DWG:

DESIGN COG: USN, NavShips

CONTRACTOR

LOCATION

CONTRACT OR ORDER NO.

APPROX. UNIT COST

Litton Systems Inc.,
Westrex Communication
Division
Part No. 45G-00-00-00

New Rochelle, N.Y.

N0bsr-93420
Nobsr-93088

2 August 1967

Cog Service: USN

FSN:

CABINET CY-614/G ()

Functional Class:

USA

USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Lawrence A. Karp, (06492).

FUNCTIONAL DESCRIPTION:

The Cabinet CY-614/G () is used for housing rack-mounted electronic equipment. It is part of Navy Signal Distribution Unit AF and RF; also a component of Teletype writer Repeater Set AN/FGC-7, 7A, and 7B. The interior of the cabinet has seven horizontal mounting rails on each side for mounting adjustable, vertical mounting angles. The Cabinet includes Switch Panel SA-238/G.

No field changes in effect at time of preparation (21 March 1966).

RELATION TO OTHER EQUIPMENT:

The CY-614/G () is similar to the CY-597()/G except has doors on front and rear.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

TECHNICAL CHARACTERISTICS:

POWER REQUIREMENT: 115 to 120 v ac, 50 to 60 cps, single ph, (one source for ea Equipment Cabinet).

TTY LOOP SUPPLY: 130 v dc, 20 to 60 ma, nominally, for each line.

POWER DISSIPATED: 3454 watts, (over-all, excluding convenience lights and outlets).

OPERATING TEMPERATURE RANGE: 0 deg C to 85 deg C except for Alphanumeric indicator, which must be stored at temperatures of approximately 20 deg C (± 13 deg C).

STORAGE HUMIDITY: 20 to 95 percent RH.

VERTICAL STRIP: With 12, 110 v ac outlets.

CABLE HANGER: 1 and an ac power Outlet box.

MAJOR COMPONENTS

QTY	ITEM	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Cabinet CY-614/G () includes:	22-3/8 x 24 x 86-3/4	
1	Switch Panel: SA-238/G		

REFERENCE DATA AND LITERATURE:

NAVSHIPS 94878: Technical Manual for Quality Monitor Control System Stelma Model QMCS-3.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
	1.2 CY-614/G ():	1

CABINET CY-614/G ()

PROCUREMENT DATA

PROCURING SERVICE: USN
SPEC &/OR DWG:

DESIGN COG: USN, BuShips

CONTRACTOR

LOCATION

CONTRACT OR
ORDER NO.

APPROX.
UNIT COST

Lawrence A. Karp

Greenwich, Conn.

N126s-26937
NObsr-42501
NObsr-52696
NObsr-64268

7 July 1965

Cog Service: USN FSN:

CABINET ELECTRICAL EQUIPMENT CY-2965/U

Functional Class:

USA

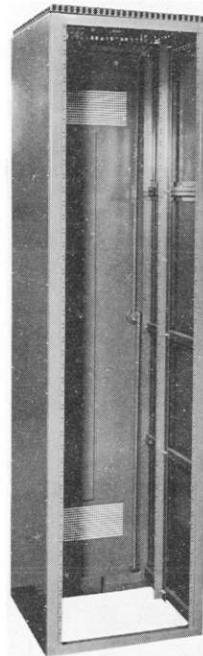
USN

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TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Tele-Signal Corporation, (10241).



CABINET ELECTRICAL EQUIPMENT CY-2965/U

FUNCTIONAL DESCRIPTION:

Cabinet Electrical Equipment CY-2965/U is a standard 19 inch rack mounting cabinet which is used in the AN/FGC-60(V) Telegraph Terminal equipment. It is equipped with removable side panels and hinge mounted door, at rear of cabinet, the top of the cabinet has labeling access holes. The bottom is open with provisions for bolting to the floor.

No field changes in effect at time of preparation (26 May 1965).

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

1.2 CY-2965/U: 1

CABINET ELECTRICAL EQUIPMENT CY-2965/U

TECHNICAL CHARACTERISTICS:

MATERIAL: Steel.

FINISH: Gray enamel.

PANEL MOUNTING: No. 12-24 tapped holes on 1-1/4 in. x 1/2 in. spacing.

ACCESS: One door at rear of cabinet.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Cabinet Electrical Equipment CY-2965/U		22 x 24 x 84	140

REFERENCE DATA AND LITERATURE:

NAVSHIPS 93841A: Technical Manual for Diversity/Non Diversity Telegraph Terminal AN/FGC-60(V).

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: Not required.

CRYSTALS: Not required.

SEMI-CONDUCTORS: Not required.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1	113.6	160

PROCUREMENT DATA

PROCURING SERVICE: USN
SPEC &/OR DWG:

DESIGN COG: USN, BuShips

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Tele-Signal Corporation	Hicksville, New York	NObsr-81467	

894

15 November 1966

Cog Service: USN FSN:

RECORDER CYZ-154-100BP

Functional Class:

USA

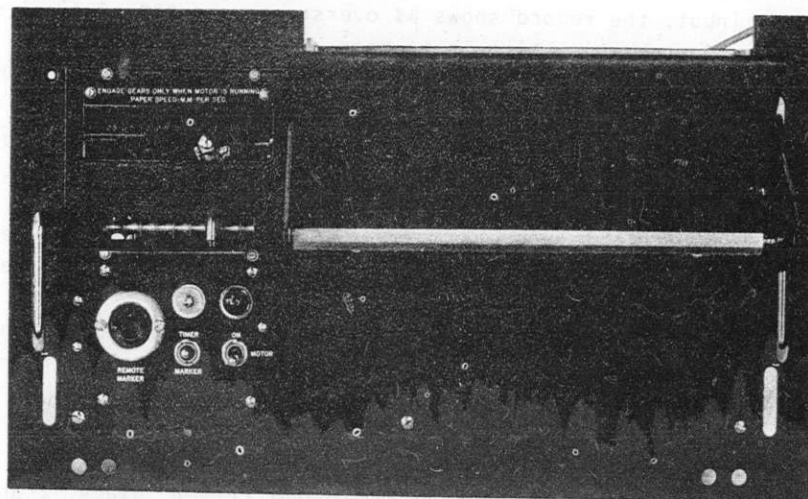
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USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Sanborn Company, (52983).



RECORDER CYZ-154-100BP

FUNCTIONAL DESCRIPTION:

The Recorder CYZ-154-100BP is a portable 4-channel recorder which includes a paper take-up unit, time-marker panel, time-marker chassis, and a latch-slide and frame support. The unit is contained in a case.

No field changes in effect at time of preparation (8 February 1966).

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

TECHNICAL CHARACTERISTICS:

GALVANOMETERS

RECORDER CYZ-154-100BP

TYPE: D'Arsonval type galvanometer, with a writing arm rigidly fastened to each moving coil, Each coil is in a separate 8000 field.

SENSITIVITY: 10 Milliampere per centimeter deflection, measured on the record. May be expressed as one millimeter on the chart per milliampere of current. Maximum deflection is 2.5 centimeters each side of center, or five centimeters full scale.

TORQUE: 20,000 dyne-centimeters per milliampere.

CIRCUIT: Each galvanometer coil has a total resistance of approximately 3200 ohms, tapped 20 ohms from center. One side of the coil has 40 ohms higher dc resistance than the other.

FREQUENCY: Undamped natural frequency is 42 cycles.

SOURCE IMPEDANCE: For critical damping, 900 ohms.

RESPONSE: Critically damped.

- (1) With unit step input, the record shows zero overshoot, and 75% of final deflection reached in first 10 msec. Rise time is 12 msec.
- (2) With sine wave input, response is 71% (3 db down) at 27 cycles, and 50% (6 db down) at 42 cycles.

DAMPING 71% OF CRITICAL:

- (1) With unit step input, the record shows 4% overshoot, and 90% of final deflection reached in first 10 msec. Rise time is 11 msec.
- (2) With sine wave input, response is 71% (3 db down) at 42 cycles, and 50% (6 db down) at 56 cycles.

RISE TIME: Defined as time required to reach final deflection, as measured by the best straight-line approximation to the initial rise of the recording with unit step input applied.

GALVANOMETER ERROR: The galvanometer error is less than $\pm 0.25\text{mm}$ over the central four centimeters of each recording channel, and is less than $\pm 0.50\text{mm}$ over the outer five millimeters of the channel.

CHANNELS: Two of four, not counting the timer-marker trace at the side. Each channel is five centimeters wide, permanent, instantaneous, direct-writing, and in true rectilinear coordinates.

PAPER DRIVE: Model 154-100 BP operates with 4, 2, 01 channel permapaper.

PAPER SPEEDS: Nine, 0.25, 0.50, 1.0, 2.5, 5.0, 10, 25, 50, and 100mm/sec.

RECORDING: On plastic coated Sanborn-designed Permapaper; green, black, translucent, or blank. Paper passes over knife-edge writing platen and is wiped by hot-wire ribbon stylus for true rectilinear coordinates. Stylus is michrome ribbon, welded to writing arm. Stylus heats are automatically controlled at the higher speeds to maintain constant trace density. Paper take-up device and paper footage indicator are standard equipment.

POWER REQUIREMENTS: 115 v ac, 60 cycles, single ph.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Recorder CYZ-154-100BP		12-1/4 x 18 x 19	95
	includes:			
1	Portable Case Model 151C-400		7-1/2 x 15-1/4 x 19-3/4	41

REFERENCE DATA AND LITERATURE:

NAVSHIPS 95703: Instruction Manual for Recorder Model 154-100BP (Portable).

SHIPPING DATA

PKGS VOLUME (CU FT) WEIGHT (LBS)

PROCUREMENT DATA

PROCURING SERVICE: USN DESIGN COG: USN, BuShips
SPEC &/OR DWG:

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Sanborn Company	Waltham, Massachusetts	NOrd 17768	

19 September 1967

DUMMY LOAD, ELECTRICAL DA-446/FRT

Cog Service: USN FSN:

Functional Class:

USA

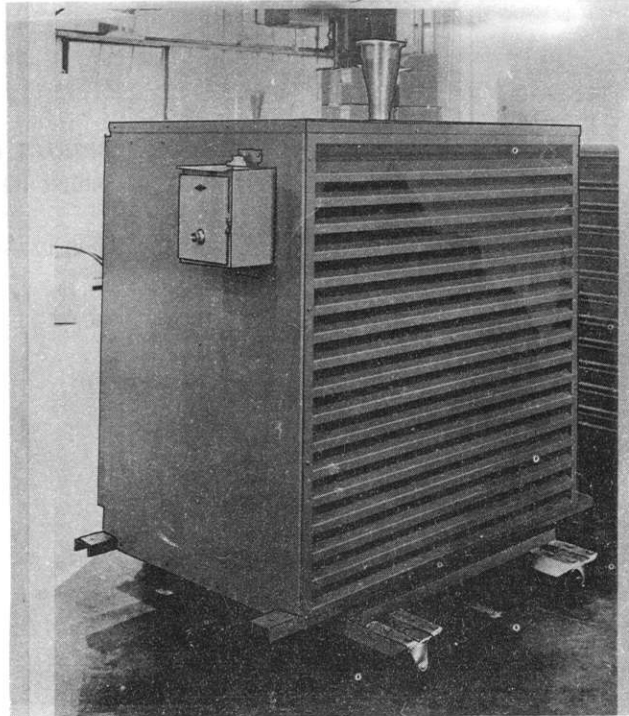
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Continental Electronics Mfg. Co., (08440).



DUMMY LOAD, ELECTRICAL DA-446/FRT

FUNCTIONAL DESCRIPTION:

The Dummy Load, Electrical DA-446/FRT is a complete unit designed to dissipate the output of an AN/FRT-72 Radio Transmitting Set.

This equipment includes the basic power dissipating elements with cooling equipment and is suitable for indoors or outdoors operation.

No field changes in effect at time of preparation (10 May 1966).

RELATION TO OTHER EQUIPMENT:

This equipment is designed to dissipate the full power output of a Radio Transmitting Set AN/FRT-72.

EQUIPMENT REQUIRED BUT NOT SUPPLIED:

A primary power source of 220 to 440 v ac, 500 va, 50 to 60 cps is required but not

1.2 DA-446/FRT: 1

DUMMY LOAD, ELECTRICAL DA-446/FRT

supplied as part of Contract N600(63133-126)64442.

TECHNICAL CHARACTERISTICS:

FREQUENCY RANGE: 30 kc/s to 150 kc/s.
POWER DISSIPATION: 50 kw average, nominal.
IMPEDANCE: 50 ohms, unbalanced.
POWER SOURCE REQUIREMENTS: 220 to 440 v ac, 500 va, 50 to 60 cycles.
TYPE INSTALLATION: Ground shore unit.

MAJOR COMPONENTS

QTY	ITEM	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Dummy Load, Electrical DA-446/FRT	40-5/8 x 53-3/4 x 60	625

REFERENCE DATA AND LITERATURE:

Continental Electronics Mfg. Co. Instruction Sheet for Dummy Load, Electrical DA-446/FRT.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1	121.85	1000

PROCUREMENT DATA

PROCURING SERVICE: USN
SPEC &/OR DWG:

DESIGN COG: USN, NavShips

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Continental Electronics Mfg. Co. Type 518A, Dwg No. 64726	Dallas, Texas	N600(63133-126)64442	

899

11 September 1967

FILTER, BANDPASS F-1039/U

Cog Service: USN

FSN:

Functional Class:

USA

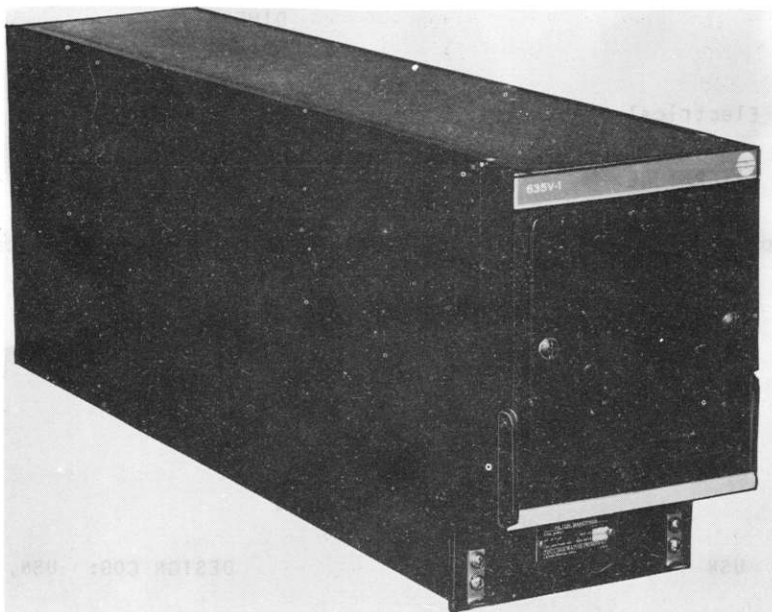
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Collins Radio Company, (13499).



FILTER, BANDPASS F-1039/U

FUNCTIONAL DESCRIPTION:

Filter Bandpass F-1039/U is an automatically, tuned active bandpass, filter. It is, capable of continuous unattended duty and is remotely controlled. It is a sharply selective bandpass filter with integral linear RF amplifiers. The filter receives and amplifies weak desired signals in the passband in the presence of very strong out-of-band signals such as those from nearby transmitters. The sensitivity of the RF amplifiers maintains receive-system weak signal performance. The filter eliminates the cross modulation and inter-modulation commonly associated with receiver operation in a strong signal environment, and provides positive protection for itself and a connected receiver against damage from RF overloads. To prevent receiver blocking or distortion from strong in-band signals, the operator may, reduce the gain of the bandpass filter from the remote control equipment. The bandpass filter provides a 12-kc minimum bandpass centered on the selected frequency. The bandpass filter is designed to allow receiving and transmitting antennas to be located in close proximity to each other if the transmitting frequency is removed from the receiver frequency

FILTER, BANDPASS F-1039/U

by at least 10 percent and the input RF is no more than 1400 volts peak.
No field changes in effect at time of preparation (5 May 1967).

RELATION TO OTHER EQUIPMENT: None

EQUIPMENT REQUIRED BUT NOT SUPPLIED:

(1) Filter Control (Col) 914B-3(C-7082/U); (1) Mounting Tray (Col) 352E-3.

TECHNICAL CHARACTERISTICS:

POWER REQUIREMENTS: 115 v ac \pm 10%, 400 cyc, 1 ph, 0.8 amp.

FREQUENCY RANGE: 2.0 to 29.999 mc, continuously tuned in 4 bands of 2 to 3.999 mc, 4 to 7.999 mc, 8 to 15.999 mc, and 16 to 29.999 mc.

CROSS MODULATION: 30 db below desired signal for 2 equal tones of 500 v rms per tone at \pm 10% from operating freq, 2 to 15.999 mc 350 v rms per tone, 16 to 29.999 mc.

INTERMODULATION

NORMAL GAIN: 30 db below 2 equal input tones of 0.1 v rms open circuit from 50 ohm source.

LOW GAIN: 30 db below 2 equal input tones of 0.5 v rms open circuit from 50 ohm source.

SENSITIVITY: Noise figure not more than 10 db at 2 mc increasing to not more than 7 db at 29.9999 mc (approx 0.25 uv input at 2 mc and 0.6 uv input at 29.999 mc for 10-db S+N/N ratio in 2.7 kc bandwidth).

INPUT OFF-FREQUENCY STRONG SIGNAL: 1400 v peak at frequencies separated 10% or more from operating freq, derated linearly with atmospheric pressure above sea level. RF input current 6 amp max.

OUTPUT OFF-FREQ STRONG SIGNAL: Less than 0.7 v peak to 50 ohm load for above strong signal input.

BANDPASS: Not less than \pm 6 kc from nom freq to - 2 db points.

GAIN: Normal - 6 to 18 db; Low - 35 db below normal gain.

INPUT, OUTPUT IMPEDANCE: 50 ohms nom unbalanced.

TUNING: Input 2-out-of-5 digital freq information to control tuning.

MAJOR COMPONENTS

QTY	ITEM	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Filter, Bandpass F-1039/U	4.875 x 7.625 x 19.563	23.7

REFERENCE DATA AND LITERATURE:

NAVSHIPS 0967-120-9010: Instruction Book for 635V-1 Bandpass Filter, 914B-3 Filter Control, and 352E-3 Mounting Tray.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1	2.3	34
	1.2 F-1039/U: 2	

901

PROCUREMENT DATA

PROCURING SERVICE: USN
SPEC &/OR DWG:

DESIGN COG: USN, NavShips

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Collins Radio Company	Cedar Rapids, Iowa	N0bsr 91310	

21 August 1967

FILTER, BANDPASS F-1039A/U

Cog Service: USN FSN:

Functional Class:

USA

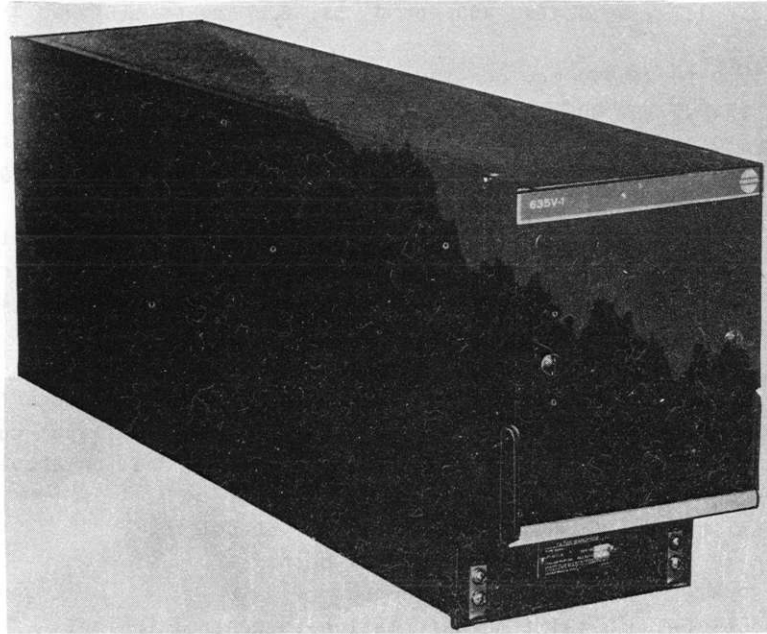
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Collins Radio Company, (13499).



FILTER, BANDPASS F-1039A/U

FUNCTIONAL DESCRIPTION:

Filter, Bandpass F1039A/U is an automatically tuned active bandpass filter. It is capable of continuous unattended duty and is remotely controlled. It is a sharply selective bandpass filter with integral linear RF amplifiers. The filter receives and amplifies weak desired signals in the passband in the presence of very strong out-of-band signals such as those from nearby transmitters. The sensitivity of the RF amplifiers maintains receive-system weak signal performance. The filter eliminates the cross modulation and intermodulation commonly associated with receiver operation in a strong signal environment, and provides positive protection for itself and a connected receiver against damage from RF overloads. To prevent receiver blocking or distortion from strong in-band signals, the operator may reduce the gain of the bandpass filter from the remote control equipment. The bandpass filter provides a 12-kc minimum bandpass centered on the selected frequency. The bandpass filter is designed to allow receiving and transmitting antennas to be located in close proximity to each other if the transmitting frequency is removed from the receiver frequency by at least 10% and the input RF is no more than 1400 volts peak.

No field changes in effect at time of preparation (4 May 1967).

FILTER, BANDPASS F-1039A/U

RELATION TO OTHER EQUIPMENT:

The F-1039A/U is similar to and one-way interchangeable w/the F-1039/U, except that the F-1039A/U will accept 115 v, 50 to 60 cycles.

EQUIPMENT REQUIRED BUT NOT SUPPLIED:

(1) Filter Control (COL)914B-3 (C-7082/U); (1) Mounting Tray (COL)352E-3.

TECHNICAL CHARACTERISTICS:

POWER REQUIREMENTS: 115 v ac \pm 10%, 400 cps \pm 5%, 0.8 amp or 115 v ac \pm 10%, 50 to 400 cps, 1.2 amp.

FREQUENCY RANGE: 2.0 to 29.999 mc, continuously tuned in 4 bands of 2 to 3.999 mc, 4 to 7.999 mc, 8 to 15.999 mc, and 16 to 29.999 mc.

CROSS MODULATION: 30 db below desired signal for 2 equal tones of 500 v rms per tone at \pm 10% from operating freq, 2 to 15.999 mc 350 v rms per tone, 16 to 29.999 mc.

INTERMODULATION

NORMAL GAIN: 30 db below 2 equal input tones of 0.1 v rms open circuit from 50 ohm source.

LOW GAIN: 30 db below 2 equal input tones of 0.5 v rms open circuit from 50 ohm source.

SENSITIVITY: Noise figure not more than 10 db at 2 mc increasing to not more than 7 db at 29.9999 mc (approx 0.25 uv input at 2 mc and 0.6 uv input at 29.999 mc for 10-db stn/n ratio in 2.7 kc bandwidth).

INPUT OFF-FREQ SIGNAL: 1400 v peak at frequencies separated 10% or more from operating freq, derated linearly with atmospheric pressure above sea level. RF input current 6 amp max.

OUTPUT OFF-FREQ STRONG SIG: Less than 0.7 v peak to 50 ohm load for above strong signal input.

BANDPASS: Not less than \pm 6 kc from nom freq to - 2 db points.

GAIN: Normal-6 to 18 db; Low-35 db below normal gain.

INPUT, OUTPUT IMPEDANCE: 50 ohms nom unbalanced.

TUNING: Input 2-out-of-5 digital freq information to control tuning.

MAJOR COMPONENTS

QTY	ITEM	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Filter, Bandpass F-1039A/U	4.875 x 7.625 x 19.563	23.7

REFERENCE DATA AND LITERATURE:

NAVSHIPS 0967-120-9010: Instruction Book for 635V-1. Bandpass Filter, 914B-3 Filter Control, and 352E-3 Mounting Tray.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1	2.3	34

1.2 F-1039A/U: 2

FILTER, BANDPASS F-1039A/U

PROCUREMENT DATA

PROCURING SERVICE: USN
SPEC &/OR DWG:

DESIGN COG: USN, NavShips

CONTRACTOR

LOCATION

**CONTRACT OR
ORDER NO.**

**APPROX.
UNIT COST**

Collins Radio Company

Cedar Rapids, Iowa

N0bsr 95034



905

28 July 1964

GENERATOR, D.C. G-43/G

Cog Service: USA FSN:

Functional Class:

USA

USN

USAF

TYPE CLASS: Std

MANUFACTURER'S NAME/CODE NUMBER: Howard Industries Incorporated, (81042).



GENERATOR, D.C. G-43/G

FUNCTIONAL DESCRIPTION:

Generator, D.C. G-43/G is a transportable hand-operated power supply used to furnish operating power for Receiver-Transmitter RT-77A/GRC-9, a component of Radio Set AN/GRC-9AX.

No field changes in effect at time of preparation (15 June 1964).

RELATION TO OTHER EQUIPMENT:

EQUIPMENT REQUIRED BUT NOT SUPPLIED:

G-43/G GENERATOR, D.C.

TECHNICAL CHARACTERISTICS:

CRANK SPEED: 50 to 70 rpm.
POWER OUTPUT TO TRANSMITTER
FILAMENT POWER: 1.4 v dc, 465 ma.
PLATE POWER: 105 v dc, 320 ma.
POWER OUTPUT TO RECEIVER
FILAMENT POWER: 6.3 v dc, 2.5 amp.
PLATE POWER: 425 v, 115 ma.
TOTAL OUTPUT POWER: 85 W (approx).
OPERATING TEMPERATURE RANGE: - 40 to + 125 deg F.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Generator, D.C. G-43/G includes:	6115-510-0611		22
1	Generator Unit	6115-569-9441	5-7/8 x 9-1/4 x 9-5/16	16
2	Crank GC-7	6115-498-4143	7 lg	1
1	Tripod, Generator MT-1643/U	6115-569-9440	4-1/2 x 6-1/2 x 35-1/2	5

REFERENCE DATA AND LITERATURE:

TM11-5122: Technical Manual for Direct Current Generator G-43/G.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: None used.

CRYSTALS: None used.

SEMI-CONDUCTORS: None used.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1	0.46	23
1	0.66	8

PROCUREMENT DATA

PROCURING SERVICE: USA
SPEC &/OR DWG:

DESIGN COG: USA, Sig C

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Howard Industries Inc.,	Racine, Wisconsin	32944-PH-55-81	

30 July 1964

DEHUMIDIFIER DESICCANT ELECTRIC HD-663/FRC-92(V)

Cog Service: USN FSN:

Functional Class:

USA

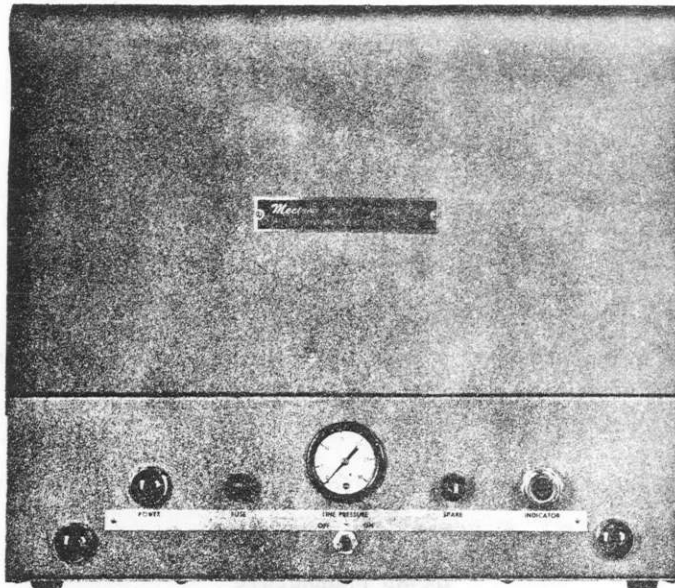
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Radio Engineering Lab Inc., (77633).



DEHUMIDIFIER DESICCANT ELECTRIC HD-663/FRC-92(V)

FUNCTIONAL DESCRIPTION:

Dehumidifier Desiccant Electric HD-663/FRC-92(V) is a fully automatic device designed to furnish a continuous flow of compressed dry air to the coaxial transmission lines, at pressures between 5 and 10 PSI at dewpoints generally below minus 40° F.

No field changes in effect at time of preparation (24 June 1964).

RELATION TO OTHER EQUIPMENT:

EQUIPMENT REQUIRED BUT NOT SUPPLIED:

HD-663/FRC-92(V) DEHUMIDIFIER DESICCANT ELECTRIC

TECHNICAL CHARACTERISTICS:

CONSTRUCTION: Ventilated steel base and removable cover.

FINISH: Grey.

CONNECTIONS

DRY AIR OUTPUT: 3/8 in. od copper tube.

DRAIN OUTLET: 3/8 in. od copper tube.

ELECTRICAL INPUT: 6 ft power cord with standard 2 prong plug.

ALARM LEADS: Connected to Type 958C Fault Indicator.

POWER: 115 ac, 60 cps, single ph, 800 W max.

MOTOR: 300 W.

HEATER: 500 W.

COMPRESSOR: Oil-free air delivery of 1.4 CFM to atmosphere.

MOTOR: 1/4 hp, 115 v ac, 60 cps, single ph, 1750 rpm.

CONTROL DEVICE COMPLEMENT

SOLENOID VALVES: 4.

TIMER (WITH CAMS AND SWITCHES): 1.

THERMOSTATS: 2.

PRESSURE CONTROL: 1.

PRESSURE ALARM: 1.

PRESSURE CONTROL SETTING: 5 to 10 PSI nom, factory adj.

PANEL MOUNTED DEVICES: Line pressure gauge, dry air indicator, power indicator light, fuse and spare, on and off power switch, reactivation on, left and right.

DESICCANT: Silica gel, 7 lbs per drying chamber.

DEW POINT: Generally below - 40° F.

LOW PRESSURE ALARM SETTING: 0 to 2 lbs. Adj for alarm requirements switch closes on lower pressure.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Dehumidifier, Desiccant Electric HD-663/FRC-92(V)		16-3/4 x 18-1/2 x 22	

REFERENCE DATA AND LITERATURE:

NAVSHIPS 94728: Book XI Instruction Manual and Parts List for HD-663/FRC-92(V) Dehumidifier, Desiccant Electric.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: Not required.

CRYSTALS: Not required.

SEMI-CONDUCTORS: Not required.

1.2 HD-663/FRC-92(V): 2

SHIPPING DATA

PKGS VOLUME (CU FT) WEIGHT (LBS)

PROCUREMENT DATA

PROCURING SERVICE: USN DESIGN COG: USN, BuShips
SPEC &/OR DWG:

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Radio Engineering Lab Inc.	Long Island, New York	N0bsr-87659	

18 April 1966

INDICATOR LIGHT ID-866/SG

Cog Service: USN FSM:

Functional Class:

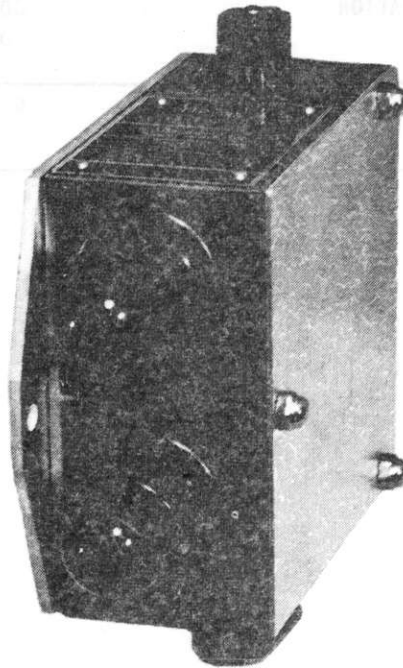
USA

USN

USAF

TYPE CLASS: Used by

MANUFACTURER'S NAME/CODE NUMBER: Taffet Electronics Corporation, (81849).



INDICATOR LIGHT ID-866/SG

FUNCTIONAL DESCRIPTION:

Indicator Light ID-866/SG is for use with the SA-734/SG Switch Box and serves as a visible warning device.

No field changes in effect at time of preparation (27 January 1966).

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED:

(1) Switch Box SA-734/SG.

TECHNICAL CHARACTERISTICS:

POWER REQUIREMENTS: 117 v, 60 cyc, 0.5 amp.

POWER TO TRANSFORMER: 2.5 v with a .100 amp secondary for ea lamp.

INDICATOR LIGHT ID-866/SG

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Indicator Light ID-866/SG		2 x 5-1/2 x 6	2.25

REFERENCE DATA AND LITERATURE:

NAVSHIPS 93757A: Technical Manual for Switch Box SA-734G and Light Indicator ID-866/SG.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
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PROCUREMENT DATA

PROCURING SERVICE: USN	DESIGN COG: USN, BuShips
SPEC &/OR DWG:	

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Taffet Electronics Corp.	Woodside, New York	N126-02462A	

913

30 July 1964

Cog Service: USN FSN:

INDICATOR, FREQUENCY CHANNEL ID-997/ARC
Functional Class:

USA

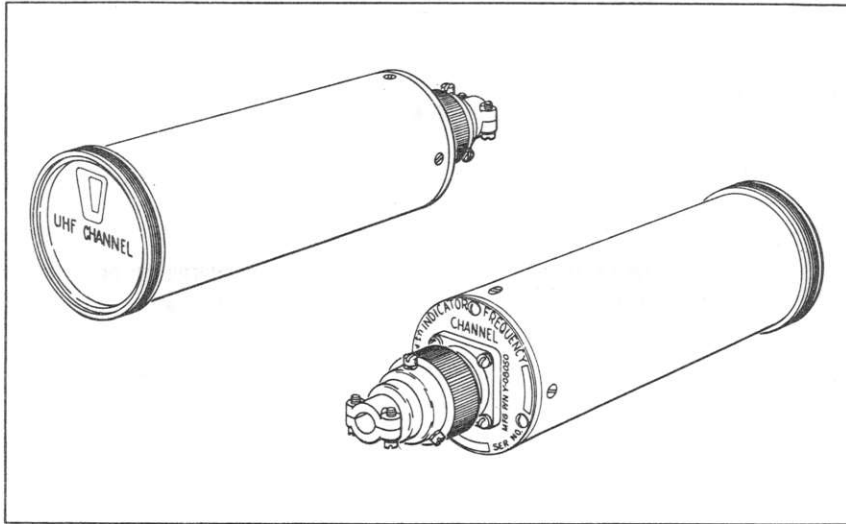
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Hayes International Corporation, (91763).



INDICATOR, FREQUENCY CHANNEL ID-997/ARC.

FUNCTIONAL DESCRIPTION:

Indicator, Frequency Channel ID-997/ARC is designed to indicate accurately, reliably, and legibly, any of twenty-two numbered channels, plus manual and guard channels that can be selected by positioning selector on control box. In addition, it will blank the channel number to prevent indication in the event 28 v dc power should fail.

No field changes in effect at time of preparation (1 July 1964).

RELATION TO OTHER EQUIPMENT:

EQUIPMENT REQUIRED BUT NOT SUPPLIED:

ID-997/ARC INDICATOR, FREQUENCY CHANNEL**TECHNICAL CHARACTERISTICS:**

OPERATIONAL VOLTAGE: 27.5 ± 0.5 v dc.

OPERATING TEMPERATURE RANGE: - 54 to + 71° C (- 65.2 to + 159° F).

LAMP VOLTAGE: 27.5 ± 0.5 v dc.

AVAILABLE CHANNELS: 24.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Indicator, Frequency Channel ID-997/ARC	R5821-856-6579	2 dia x 5-13/64	1

REFERENCE DATA AND LITERATURE:

NAVWEPS 16-35ID997-1: Handbook of Overhaul Instructions for Frequency Channel Indicator ID-997/ARC.

NAVWEPS 16-35ID997-2: Illustrated Parts Breakdown for Frequency Channel Indicator ID-997/ARC.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: None used.

CRYSTALS: None used.

SEMI-CONDUCTORS: None used.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
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PROCUREMENT DATA

PROCURING SERVICE: USN

DESIGN COG: USN, BuWeps

SPEC &/OR DWG: MIL-I-23158

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Hayes International Corp.	Birmingham, Alabama	NOw(A)62-1003-f	\$143.78

20 September 1967

PANEL, STATUS DISPLAY ID-1288/GYK-3(V)

Cog Service: USN FSN:

Functional Class:

USA

USN

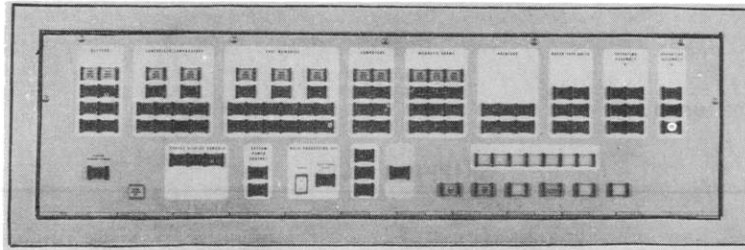
USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER:

Burroughs Corporation, (15416).



PANEL, STATUS DISPLAY ID-1288/GYK-3(V)

FUNCTIONAL DESCRIPTION:

The Panel, Status Display ID-1288/GYK-3(V) provides control and monitoring functions for the AN/GYK-3(V) System. The Control functions include the turnon and turnoff of all system components except for the printers, paper tape units, and the "0" and V operating assemblies and the automatic turnoff of the main frame components and magnetic drum units when primary power exceeds certain tolerances. The power status and overall operating status of each system component are monitored by the status display consoles; indications of operational errors and of local or remote power control are displayed.

No field changes in effect at time of preparation (31 May 1966).

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

1.5 ID-1288/GYK-3(V): 1

PANEL, STATUS DISPLAY ID-1288/GYK-3(V)

TECHNICAL CHARACTERISTICS:

POWER REQUIREMENTS

VOLTAGE: 120 to 208 v \pm 10%.
FREQUENCY: 60 cps.
PHASE: Single phase, 2 wire; three phase 4 wire.
POWER: 1.8 kva.
POWER FACTOR: 0.930.

ENVIRONMENTAL PARAMETERS

AMBIENT TEMPERATURE: 32 deg F to 104 deg F.
RELATIVE HUMIDITY: 100% (max).
AMBIENT LIGHTING: 50 ft candles (max).

MAJOR COMPONENTS

QTY	ITEM	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Panel Status Display ID-1288/GYK-3(V)	8 x 17-1/2 x 54	150

REFERENCE DATA AND LITERATURE:

NAVSHIPS 96056: Technical Manual Service for Console, Status Display ID-1289/GYK-3(V) and Panel, Status Display ID-1288/GYK-3(V).

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1	14.75	240

PROCUREMENT DATA

PROCURING SERVICE: USN
SPEC &/OR DWG: SHIPS-D-4542
DESIGN COG: USN, NavShips

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Burroughs Corporation Mfr's Dwg No. 4433-5000	Paoli, Pennsylvania	NObsr-91181	

1.5 ID-1288/GYK-3(V): 2

23 August 1967

Cog Service: USN FSN:

CONSOLE, STATUS DISPLAY ID-1289/GYK-3(V)

Functional Class:

USA

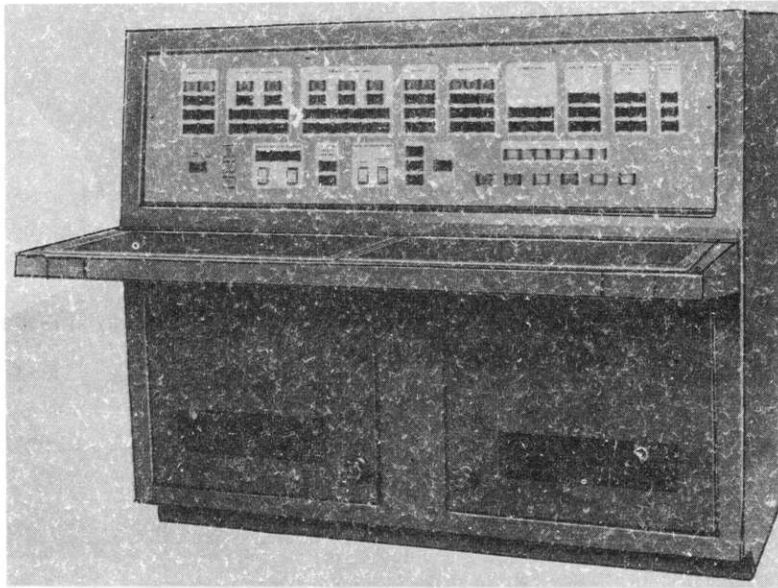
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Burroughs Corporation, (15416).



CONSOLE, STATUS DISPLAY ID-1289/GYK-3(V)

FUNCTIONAL DESCRIPTION:

The Console, Status Display ID-1289/GYK-3(V) provides control and monitoring functions for the AN/GYK-3(V) system. The control functions include the turn-on and turn-off of all system components except for the printers, paper tape units, and the "O" and "V" operating assemblies and the automatic turn-off of the main frame components and magnetic drum units when primary power exceeds certain tolerances. The power status and overall operating status of each system component are monitored by the status display consoles; indications of operational errors and of local or remote power control are displayed.

No field changes in effect at time of preparation (27 May 1966).

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED:

(1) Oscilloscope, Tektronix type 545A; (1) Plug-in unit Tektronix type CA; (1) Probe Tektronix type P6000; (1) Mobil-Cart Tektronix type 500/53A; (1) Multimeter Triplet Model

CONSOLE, STATUS DISPLAY ID-1289/GYK-3(V)

630NA; (1) Transistor-Tester TS-1100/U; (1) Viewing Hood Tektronix type 016-001; (1) Card Extractor Burroughs BUC-71440; (1) Equipment Dolly Standard Press Steel Model 432-2028-R; (1) Pivoting Test Adapter Burroughs BUC-71209; (1) Coaxial Hand Tool AMP-45639 and 45740; (1) Coaxial Extractor Tool AMP-305141-1; (1) Differential Voltmeter Fluke Model-803; (1) Spring-Tip Probe Tektronix Type 206-061.

TECHNICAL CHARACTERISTICS:

POWER REQUIREMENTS

VOLTAGE: 120 to 208 v \pm 10%.

FREQUENCY: 60 cps.

PHASE: Single phase, 2 wire; three phase, 4 wire.

POWER: 1.8 kva.

POWER FACTOR: 0.930.

GROUNDING-REQUIREMENTS: Earth ground.

EQUIPMENT PLACEMENT

STATUS DISPLAY CONSOLE: Computer area.

REMOTE STATUS DISPLAY-UNIT: Operations area.

HOUSING AREA REQUIREMENTS

STATUS DISPLAY CONSOLE

FLOOR AREA: 15.4 sq ft.

ACCESS AREA: 7.5 sq ft.

REMOTE STATUS DISPLAY UNIT

WALL AREA: 6.6 sq ft.

FLOOR AREA: 3.0 sq ft.

ACCESS AREA: 5.0 sq ft.

FLOOR LOADING

STATUS DISPLAY CONSOLE: 65 psf.

REMOTE STATUS DISPLAY-UNIT: N/A.

HEAT DISSIPATION

STATUS DISPLAY CONSOLE: 2901 BTU per hr.

REMOTE STATUS DISPLAY UNIT: 1024 BTU per hr.

ENVIRONMENTAL PARAMETERS

AMBIENT TEMPERATURE: 32 deg F to 104 deg F.

RELATIVE HUMIDITY: 100% (max).

AMBIENT LIGHTING: 50 foot-candles (max).

AMBIENT NONOPERATING TEMPERATURE: - 65 to + 160 deg F.

MAJOR COMPONENTS

QTY	ITEM	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Console Status Display ID-1298/GYK-3(V)	41 x 45 x 54	1000

REFERENCE DATA AND LITERATURE:

NAVSHIPS 96056: Technical Manual Service for Console Status Display ID-1289/GYK-3(V) and Panel, Status Display ID-1288/GYK-3(V).

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1	70.5	1325
1	13.8	125

PROCUREMENT DATA

PROCURING SERVICE: USN
 SPEC &/OR DWG: SHIPS-D-4542

DESIGN COG: USN, NavShips

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Burroughs Corporation Mfr's Dwg No. 4433-4000	Paoli, Pennsylvania	N0bsr 91181	

23 August 1967

INDICATOR, PANORAMIC IP-751/URR

Cog Service: USN FSN:

Functional Class:

USA

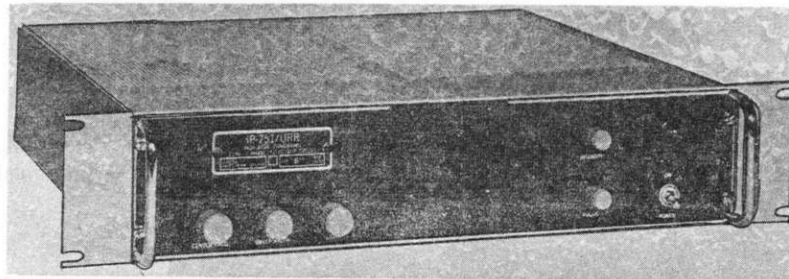
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USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Communications Electronics Inc. (14632).



INDICATOR, PANORAMIC IP-751/URR

FUNCTIONAL DESCRIPTION:

The Indicator, Panoramic IP-751/URR is used with an appropriate receiver to provide a visual display of signals present about the Frequency to which the receiver is tuned. Such a display is an aid in analyzing signals intercepted by the receiver, and can be used to determine such things as the amplitude and type of modulation of the signals. The signal monitor is designed for use with a receiver having an IF frequency of 21.4 mc. It displays signals within a frequency range continuously adjustable from 0 to 3 mc. The sensitivity of the unit is such that a 10 microvolt signal at the input will result in a one inch vertical deflection of the signal trace on the screen of the CRT. Resolution is such that two signals 20 kc apart appear on the screen as separate traces with a 6 db valley between them.

No field changes in effect at time of preparation (17 April 1967).

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

TECHNICAL CHARACTERISTICS:

POWER REQUIREMENTS: 115 v ac, 50 to 400 cps, 1 ph, 17 W.
 NUMBER OF INPUTS: 1 (BNC Type).
 INPUT IMPEDANCE: 50 ohms.
 INPUT CENTER FREQUENCY: 21.4 mc.
 SWEEPWIDTH: 0 to 3 mc, continuously variable.
 RANGE OF CENTER FREQUENCY CONTROL: ± 200 kc.
 FLATNESS OF RESPONSE: 3 mc ± 2 db.
 RESOLUTION: Using approx 100 kc sweepwidth, 2 signals 20 kc apart will be displayed w/at least 6 db valley between peaks.
 SENSITIVITY: 10 uv input at 21.4 mc produces at least 1 in. deflection of signal trace.
 SWEEP RATE: 30 cps ± 6 cps.
 FIRST IF FREQUENCY: 4.3 mc.
 SECOND IF FREQUENCY: 950 kc.
 IMAGE REJECTION: 50 db.
 IF REJECTION: 70 db.

MAJOR COMPONENTS

QTY	ITEM	DIMENSIONS (INCHES)	WEIGHT (LBS))
1	Indicator, Panoramic IP-751/URR	3.5 x 16.9 x 19	

REFERENCE DATA AND LITERATURE:

Communication Electronics Inc. Technical Manual for Type IP-751/URR Panoramic Indicator.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
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PROCUREMENT DATA

PROCURING SERVICE: USN	DESIGN COG: USN, NavShips
SPEC &/OR DWG:	

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Communications Electronics Inc.	Rockville, Md.	N600(11)61557	

1 December 1966

CODER RADIO BEACON KY-76C/URN

Cog Service: USN FSN:

Functional Class:

USA

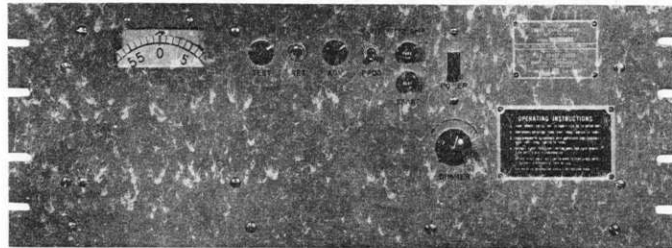
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Monitor Electronics Co., (01609).



CODER RADIO BEACON KY-76C/URN

FUNCTIONAL DESCRIPTION:

Coder Radio Beacon KY-76C/URN is designed for use at U.S. Coast Guard ship and shore stations for controlling the program of operation of radio beacons, lights, fog signals and similar aids to navigation.

No field changes in effect at time of preparation (23 March 1966).

RELATION TO OTHER EQUIPMENT:

The KY-76C/URN is functional and mechanically 2-way interchangeable with KY-76/URN, KY-76A/URN and KY-76B/URN. Changes have been made to component parts and clock movement.

EQUIPMENT REQUIRED BUT NOT SUPPLIED:

(1) Radio Beacon Primary Clock MT-188-A; (1) Receiver Power Supply PP-2330/U.

CODER RADIO BEACON KY-76C/URN

TECHNICAL CHARACTERISTICS:

CAM-OPERATED CONTACTS FOR CONTROL OF EXTERNAL CIRCUITS

1/60 RPM: 5 cams; operated in one-min steps; contacts rating 1/4 amp at 110 v dc.

1/3 RPM: 8 cams; contacts rating 7 amps at 220 v ac.

30 RPM: 2 cams; contacts rating 7 amps at 220 v ac.

INPUT CLOCK CONTACT CURRENT: 1.0 to 1.7 ma.

AMBIENT TEMPERATURE RANGE: 0° to + 50° C.

POWER SOURCE: 95 to 140 v dc at 5 amp.

MAJOR COMPONENTS

QTY	ITEM	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Coder Radio Beacon KY-76C/URN includes:	8-3/4 x 12-1/8 x 24	54
2	Technical Manual CG-273-89	1/2 x 9 x 11-1/2	
1	Set of Installation Dwgs	8 x 11	
2	Sets of servicing dwgs plastic laminated	1/4 x 11 x 15	

REFERENCE DATA AND LITERATURE:

CG-273-89: Technical Manual for Radio Beacon Coder KY-76C/URN.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1	5.9	92

PROCUREMENT DATA

PROCURING SERVICE: USN
SPEC &/OR DWG:

DESIGN COG: USN, USCG

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Monitor Electronics Co.	Montclair, N. J.	TCG-41882 (CG-53,573-A)	

924

28 June 1965

DECODER, TRANSPONDER SET KY-200A/UPX-12

Cog Service: USN

FSN:

Functional Class:

USA

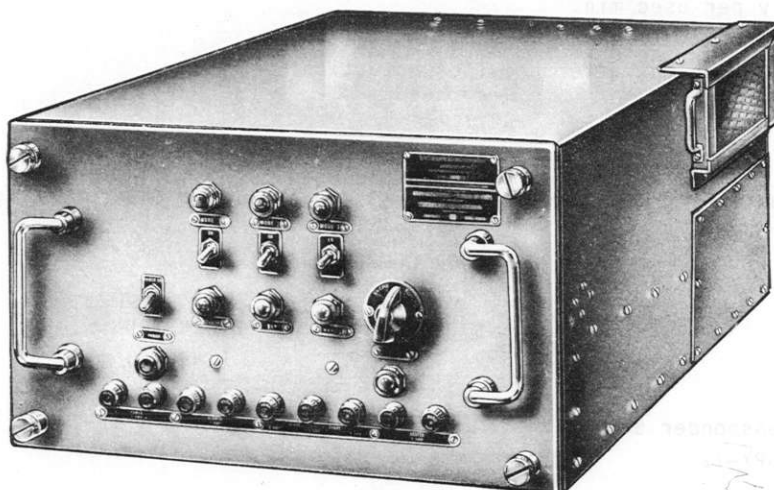
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TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Radio Receptor Company, Incorporated, (98008).



DECODER, TRANSPONDER SET KY-200A/UPX-12

FUNCTIONAL DESCRIPTION:

Decoder, Transponder Set KY-200A/UPX-12 has the circuits necessary to perform the following functions: (a) Amplify and shape the output of the amplifier; (b) Decode the paired pulse interrogation signals, accepting only paired pulses of the proper characteristics, and rejecting certain types of undesired received signals.

In addition, the decoder is designed to permit either normal or SIF reply operation, depending on the type of reply signal desired. Upon acceptance of a proper interrogation signal, the reply circuits in either the decoder or the associated video coder may be activated to form the reply triggers to be delivered to the modulator circuit of the receiver-transmitter.

No field changes in effect at time of preparation (13 April 1965).

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED:

(1) Decoder, Transponder Set AN/UPX-12.

TECHNICAL CHARACTERISTICS:

INPUT PULSE CHARACTERISTICS

POLARITY: Positive.

DURATION: 0.9 to 1.2 usec at 50% peak amplitude.

RISE TIME: Less than 1.5 usec, 10 to 90% of peak amplitude.

PULSE RECURRENCE FREQUENCY OF INTERROGATION SIGNAL: 20 to 400 paired pulses per sec, received at antenna receptacle.

PEAK NOMINAL VOLTAGE: 5 to 50 v across 75 ohm load.

SUPPRESSION-PULSE INPUT TRIGGER CHARACTERISTICS

AMPLITUDE: 3 to 50 v min positive across 75 ohm load.

DURATION: 1 to 3 usec to remain at 3 v for 0.5 usec min.

RISE TIME: 15 v per usec min.

OVERSHOOT: 2.0% max.

RECYCLING TIME: 15 usec max after previous actuation.

INPUT IMPEDANCE: 75 ohms.

POWER CONSUMPTION: 240 W.

TYPE OF CONTROL: Manual or automatic.

OPERATING POWER RQMT: 105 to 125 v ac, 57 to 63 cps or 360 to 440 cps, single ph.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Decoder, Transponder Set KY-200A/UPX-12		10-1/2 x 18-7/8 x 26-3/4	101

REFERENCE DATA AND LITERATURE:

NAVSHIPS 92820: Technical Manual for Transponder Set AN/UPX-12A.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: (1) 0A2 (1) 5687 (1) 0A3/VR-75 (1) 6101/6J6WA (1) 5R4/GY (1) 6AG7
 (1) 5Y3GT (1) 6AG5 (2) 6AK5 (4) 6AL5 (1) 6AN5 (4) 6AS6 (1) 6AS7G
 (1) 6AU6 (7) 6J6 (3) 12AU7

CRYSTALS: Not required.

SEMI-CONDUCTORS: (6) 1N69

DECODER, TRANSPONDER SET KY-200A/UPX-12

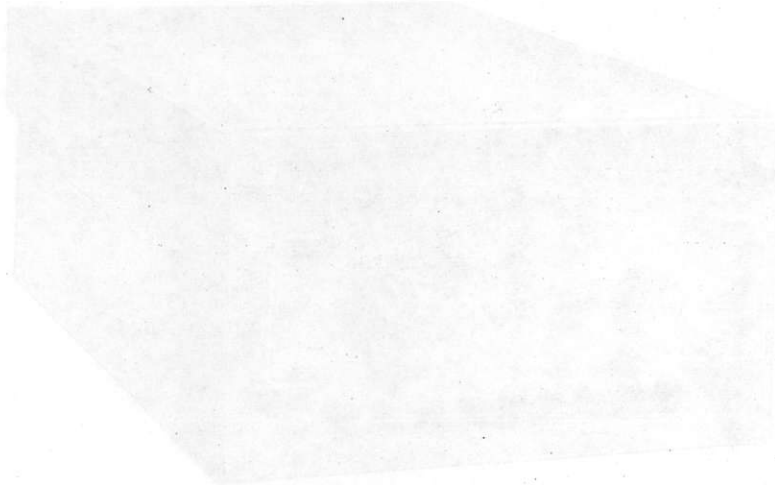
SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1	11.9	169

PROCUREMENT DATA

PROCURING SERVICE: USN
SPEC &/OR DWG: MIL-T-17963 and MIL-F-18083
DESIGN COG: USN, BuShips

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Radio Receptor Company, Incorporated,	Brooklyn, New York	N0bsr 64568	



927

26 July 1965

DECODER TRANSPONDER SET KY-200B/UPX-12

Cog Service: USN

FSN:

Functional Class:

USA

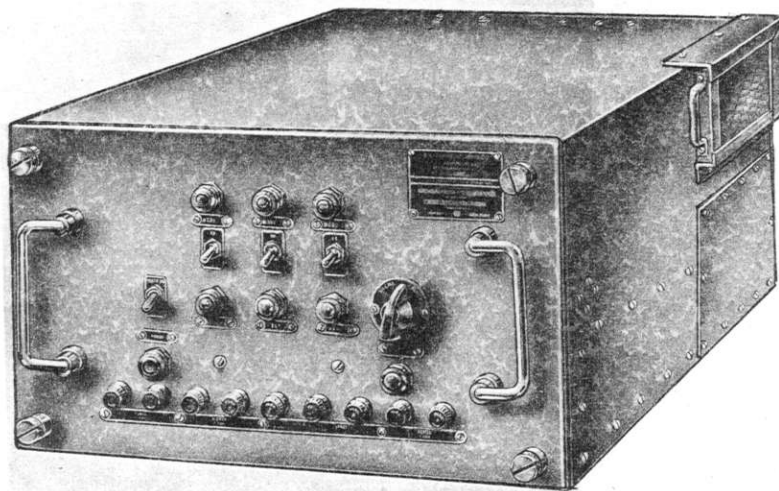
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Radio Receptor Co., Inc. (98008).



DECODER TRANSPONDER SET KY-200B/UPX-12

FUNCTIONAL DESCRIPTION:

Decoder Transponder Set KY-200B/UPX-12 has the circuits necessary to perform the following functions: (a) Amplify and shape the output pulses of the IF amplifier. (b) Decode the paired-pulse interrogation signals, accepting only paired-pulses of the proper characteristics, and rejecting certain types of undesired received signals.

In addition, the decoder is designed to permit either normal or SIF reply operation, depending on the type of reply signal desired. Upon acceptance of a proper interrogation signal, the reply circuits in either the decoder or the associated video coder may be activated to form the reply triggers to be delivered to the modulator circuit of the receiver-transmitter.

No field changes in effect at time of preparation (15 April 1965).

RELATION TO OTHER EQUIPMENT: None.

DECODER TRANSPONDER SET KY-200B/UPX-12

EQUIPMENT REQUIRED BUT NOT SUPPLIED:

- (1) Transponder Set AN/UPX-12B.

TECHNICAL CHARACTERISTICS:

INPUT PULSE CHARACTERISTICS

POLARITY: Positive.

DURATION: 0.9 to 1.2 usec at 50% peak amplitude.

RISE TIME: Less than 1.5 usec 10 to 90% of peak amplitude.

PULSE RECURRENT FREQ OF INTERROGATION SIGNAL: 20 to 400 paired pps, received at antenna receptacle.

PEAK NOMINAL VOLTAGE: 5 to 50 v across 75 ohm load.

SUPPRESSION-PULSE INPUT TRIGGER CHARACTERISTICS

AMPLITUDE: 3 to 50 v min positive across 75 ohm load.

DURATION: 1 to 3 usec to remain at 3 v for 0.5 usec min.

RISE TIME: 15 v per usec max.

OVERSHOOT: 20% max.

RECYCLING TIME: 15 usec max after previous actuation.

INPUT IMPEDANCE: 75 ohms.

POWER CONSUMPTION: .240 W.

TYPE OF CONTROL: Manual or automatic.

OPERATING POWER RQMT: 105 to 125 v ac, 57 to 63 cps or 360 to 440 cps., single ph.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Decoder Transponder Set KY-200B/ UPX-12		10-1/2 x 18-7/8 x 26-3/4	101

REFERENCE DATA AND LITERATURE:

NAVSHIPS 92820: Technical Manual for Transponder Set AN/UPX-12B.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: (1) 0A2 (3) 12AU7 (1) 0A3/MR-75 (1) 5687 (1) 5R4/GY (1) 6101/6J6WA (1) 5Y3GT
 (1) 6AG5 (1) 6AG7 (2) 6AK5 (4) 6AL5 (1) 6AN5 (4) 6AS6 (1) 6AS7G (1) 6AU6
 (7) 6J6

CRYSTALS: Not required.

SEMI-CONDUCTORS: (6) 1N69

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1	11.9	169

1.2 KY-200B/UPX-12: 2

929

DECODER TRANSPONDER SET KY-200B/UPX-12

PROCUREMENT DATA

PROCURING SERVICE: USN

DESIGN CODE: USN, BuShips

SPEC &/OR DWG: MIL-T-17963 and MIL-F-18083

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Radio Receptor Co., Inc.	Brooklyn, N.Y.	NObsr-64568	

21 August 1967

Cog Service: USN FSN:

KEYER, TELEGRAPH TRANSMITTER KY-469/UG

Functional Class:

USA

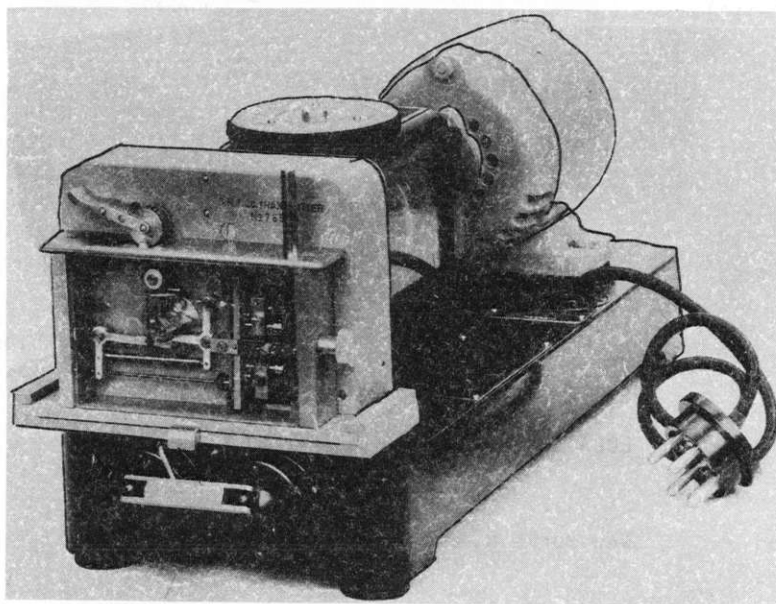
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Telcolab Corporation, (05601).



KEYER, TELEGRAPH TRANSMITTER KY-469/UG

FUNCTIONAL DESCRIPTION:

The Keyer, Telegraph Transmitter, KY-469/UG is used for transmission of Morse Signals from a perforated tape. Used in fixed or mobile central telegraph stations.

No field changes in effect at time of preparation (1 June 1966).

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

TECHNICAL CHARACTERISTICS:

TYPE OF TRANSMISSION: Single Channel Morse Unit Code perforated 12 mm. Morse-tape fully punched.

POWER SOURCE REQUIRED: 115 volts, 50 to 60 cycles, single phase.

PERTINENT ELECTRICAL AND MECHANICAL CHARACTERISTICS: Single Channel transmitter for Morse Unit Code. It has a variable speed from 13 to 250 wpm. This variable speed range is obtained without gear change and without stopping the motor, by turning a single dial.

KEYER, TELEGRAPH TRANSMITTER KY-469/UG

Speed governed at all settings, variations being smaller than perm 1/2%.

MAJOR COMPONENTS

QTY	ITEM	DIMENSIONS (INCHES)	WEIGHT (LBS)
137	Keyer, Telegraph Transmitter KY-469/UG	6-3/4 x 7-1/8 x 17-3/8	23 ea

REFERENCE DATA AND LITERATURE:

Telecolab Corp., Manuscript for Keyer, Telegraph Transmitter KY-469/UG. (Contractors Identifying Number GNT-112).

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1	6.0	93

PROCUREMENT DATA

PROCURING SERVICE: USN
SPEC &/OR DWG:

DESIGN COG: USN, NavShips

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Telcolab Corporation Model, GNT-112	New York, N. Y.	NObsr 87513	

932

26 July 1965

Cog Service: USN FSN:

KEYER, FREQUENCY SHIFT KY-510/SRC-17
Functional Class:

USA

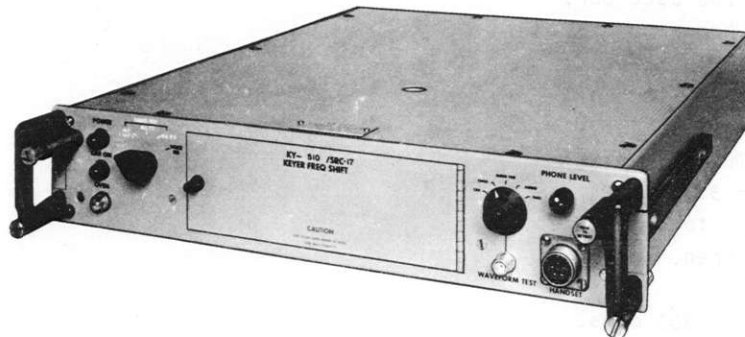
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Manson Laboratories Inc., (93279).



KEYER, FREQUENCY SHIFT KY-510/SRC-17

FUNCTIONAL DESCRIPTION:

Keyer, Frequency Shift KY-510/SRC-17 is designed to operate with an electrical frequency synthesizer and terminal equipment. The keyer which is basically an FM modulator, accepts speech or binary data inputs and converts them to telephony or telegraphy output signals which are fed to the synthesizer for low level modulation. A built-in reactance controlled radio frequency oscillator, enclosed in a temperature regulated oven for optimum stability, provides the center carrier frequency. The reactance control shift (frequency modulates) the frequency of the 10 mc oscillator in accordance with the speech or data input signal. The input may be speech, which is phone fed through audio amplifier stages that include automatic gain control and a bandpass filter network, or it may be binary data in the form of teletype signals (from terminal equipment) or simulated binary data test signals (from a test data simulator). A front panel MODE switch selects the operating mode of the keyer.

No field changes in effect at time of preparation (16 April 1965).

KEYER, FREQUENCY SHIFT KY-510/SRC-17

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED:

(1) Electronic Installation and Maintenance Book NAVSHIPS 900000; (1) Handbook for Electronic Circuits NAVSHIPS 900000.102; (1) Handset H-169/U; (1) Electronic Multimeter (VTVM) AN/USM-116; (1) Oscilloscope AN/USM-105A; (1) Electronic Counter CAQI-524D; (1) Audio Oscillator AN/URM-127; (1) RF Voltmeter CCVD-91CA; (1) Transistor Test Set TS-1100A/U; (1) Differential Voltmeter CCUH-801; (1 ea) Instruction Book for AN/USM-116, AN/USM-105A, CAQI-524D, AN/URM-127, CCVD-91CA, TS-1100A/U, CCUH-801 and (1) Tech Manual NAVSHIPS 91727.

TECHNICAL CHARACTERISTICS:

INPUT

CONTROL MESSAGE DATA

MARK: 0.0 to - 0.5 v dc.
SPACE: - 3.0 to - 4.5 v dc.
TIME SLOT: 200 usec per.
BITS: 5000 per sec.

TEST CONTROL MESSAGE SIMULATED DATA

MARK: 0.0 to - 0.5 v dc.
SPACE: - 3.0 to - 4.5 v dc.
TIME SLOT: 200 usec per.
BITS: 5000 per sec.

CARRIER (T/R GATE)

TRANSMIT: - 3.0 to - 4.5 v dc.
RECEIVE: 0.0 to - 0.5 v dc.

TEST CARRIER (TEST T/R GATE)

TRANSMIT: - 3.0 to - 4.5 v dc.
RECEIVE: 0.0 to - 0.5 v dc.

SPEECH: Audio freq.

IMPEDANCE

DATA AND T/R: 200 ohms.
SPEECH: 33 ohms.

OUTPUT

CARRIER FREQUENCY: 10 mc.
DATA MODULATED: 10 mc \pm 6.7 kc.
SPEECH MODULATED: 10 mc \pm 3.3 kc.
LEVEL: 1 v rms.
IMPEDANCE: 50 ohms.

STABILITY

LONG TERM: 5 parts in 10^6 per day.
SHORT TERM: 5 parts in 10^7 per minute.
OVER TEMPERATURE RANGE: 1 part in 10^6 .

CRYSTAL

DESIGNATION: HC-18.
CRYSTAL FREQ: 10.016 mc \pm 100 cps.
OSCILLATION FREQ: 10 mc \pm 6.7 kc.
SPURIOUS: 40 db min.
TEMPERATURE COEFFICIENT: \pm 0.001% from 0 to 65° C.
OPERATING TEMPERATURE: 75° C (167° F).
AUDIO RESPONSE: 300 to 3500 cps \pm 3 db.

KEYER, FREQUENCY SHIFT KY-510/SRC-17

AMBIENT ENVIRONMENT

TEMPERATURE: - 0 to + 50° C (+ 32 to 122° F).

HUMIDITY: 0% to 95% rh.

INPUT POWER REQUIREMENTS: 115 v ac ± 10%, 50 to 400 cps, single ph, 150.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Keyer, Frequency Shift KY-510/SRC-17 includes:		3-1/2 x 17-1/2 x 22	34.5
2	Technical Manual NAVSHIPS 95812		3/4 x 8-1/2 x 11	
1	Maintenance Standards NAVSHIPS 95812.42		1/2 x 9 x 11-1/2	
4	Relay Rack			5
1	Cable Power		72	

REFERENCE DATA AND LITERATURE:

NAVSHIPS 95812: Technical Manual for Frequency Shift Keyer KY-510/SRC-17.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: Not required.

CRYSTALS: (1) HC-18

SEMI-CONDUCTORS: (1) PC-115 (2) 1N2976B (1) 1N748A (8) 1N647 (2) 1N937B (2) 1N270
 (3) 1N753A (1) 1N823A (2) 1N915 (3) 2N916 (1) 2N697 (2) 2N404A
 (6) 2N1309 (3) 2N336 (1) 2N338 (1) 2N560

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
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PROCUREMENT DATA

PROCURING SERVICE: USN
SPEC &/OR DWG:

DESIGN COG: USN, BuShips

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Manson Laboratories Inc.	Wilton, Conn.	NObsr-87289	

935

17 August 1967

CODER, AUDIO FREQUENCY KY-537/U

Cog Service: USN FSN:

Functional Class:

USA

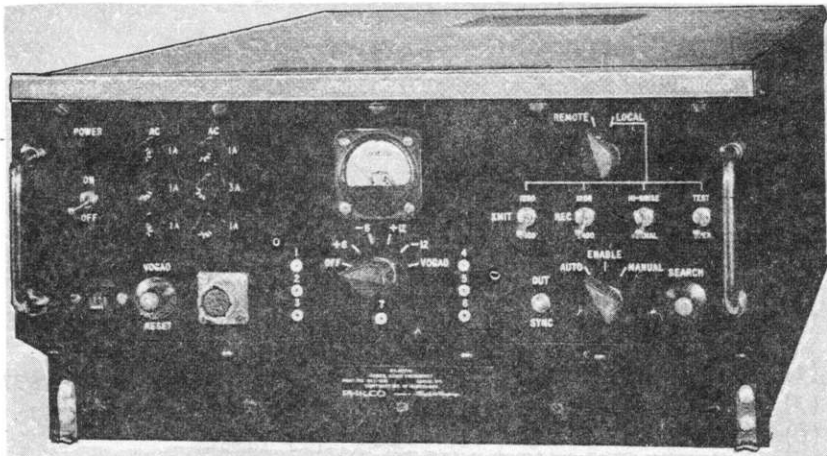
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Philco Corp., Communications and Electronics Division,
(15124).



CODER, AUDIO FREQUENCY KY-537/U

FUNCTIONAL DESCRIPTION:

The Coder Audio Frequency KY-537/U is to reduce the analog bandwidth required in a speech transmission channel by transmitting, in digital form, only that portion of the speech signal that is necessary for speech intelligibility with reasonable quality.

No field changes in effect at time of preparation (2 March 1967).

RELATION TO OTHER EQUIPMENT:

The KY-537/U is similar to the KY-537A/U except addition of interphone capabilities which allow conversation between handset located at equipment and a remote telephone which is used with this equipment; capability for remotely disabling the data output whenever the unit is out of synchronization.

1.2 KY-537/U: 1

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

TECHNICAL CHARACTERISTICS:

AUDIO INPUT SIGNAL

INPUT LEVEL: 0dbm (local handset) - 20 dbm (remote source).
 INPUT-IMPEDANCE: 600 ohms.
 INPUT-S/N: 35 db min overall; 45 db min for 70 - 200 cps range.
 AUDIO FREQUENCY INPUT: 70 to 4000 cps.

BIT RATE: 2400 or 1200 bits per second nom(independent operation in transmitter and receiver of same unit).

EXTERNAL TIMING INPUTS (TRANSMITTER)

LEVEL: 2 to 10 volts peak-to-peak, sine wave or square wave.
 FREQUENCY: 2400 or 1200 cps nominal.
 INPUT IMPEDANCE: 6000 ohms min floating.

EXTERNAL TIMING INPUTS(RECEIVER)

LEVEL: 2 to 10 volts peak-to-peak, sine wave or square wave.
 FREQUENCY: 2400 to 1200 cps nominal.
 INPUT IMPEDANCE: 6000 ohms min floating.

PCM SIGNALS (TRANSMITTER)

MARK: +4 to +6 volts.
 SPACE: 0 to 0.2 volt.
 LOAD-IMPEDANCE: 1000 ohms-min.

PCM-SIGNALS (RECEIVER)

MARK: +3 to +18 volts.
 SPACE: 0 to 0.2 volt.
 INPUT IMPEDANCE: 5000 to 6000 ohms.

AUDIO OUTPUT SIGNAL

OUTPUT LEVEL: 0 dbm (normal condition); +6 dbm (high noise condition).
 OUTPUT IMPEDANCE: 600 ohms.
 S/N FROM "0" OHM REFERENCE: 45 db min.
 AUDIO FREQUENCY BAND: 200 to 3820 cps.

POWER REQUIREMENTS

LINE VOLTAGE: 115 volts ac (± 10 percent).
 FREQUENCY: 60 cps (± 5 percent).
 POWER: 60 W.

NUMBER OF CHANNELS

10 Frequency Selective Channels for 1200 cps operation, or 16 Separate Frequency Selective Channels for 2400 bits operation.

MAJOR COMPONENTS

QTY	ITEM	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Coder, Audio Frequency KY-537/U	7-5/8 x 15-3/8 x 22-3/32	70

997

REFERENCE DATA AND LITERATURE:

NAVSHIPS 0967-010-2010: Technical Manual of Preliminary Installation and Operating Instructions for Audio Frequency Coder KY-537/U.

NAVSHIPS 0967-010-2020: Technical Manual of Preliminary Servicing Instructions for Audio Frequency Coder KY-537/U.

SHIPPING DATA

PKGS VOLUME (CU FT) WEIGHT (LBS)

PROCUREMENT DATA

PROCURING SERVICE: USN
SPEC &/OR DWG:

DESIGN COG: USN, NavShips

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Philco Corp., Com- munications and Elec- tronics Division Part no. 367-1651 Request no. 2384-1	Blue Bell, Pennsylvania	AF19(628)586	

22 August 1967

Cog Service: USN FSN:

CODER, AUDIO FREQUENCY KY-537A/U
Functional Class:

USA

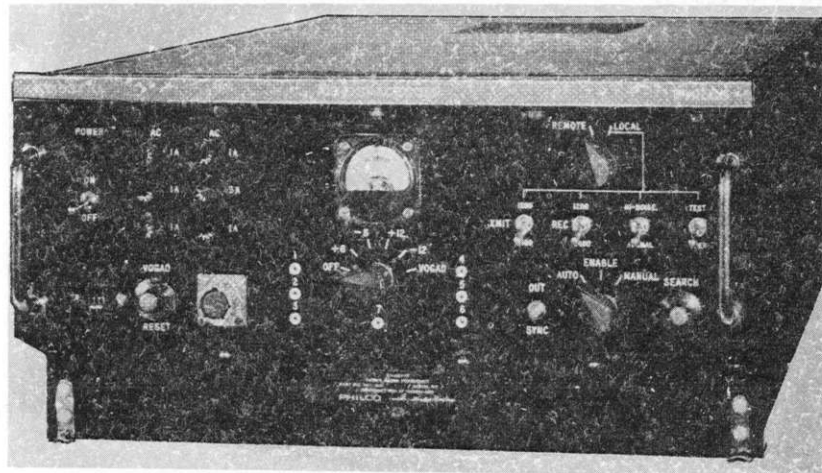
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Philco Corp., Communications and Electronics Div., (15124).



CODER, AUDIO FREQUENCY KY-537A/U

FUNCTIONAL DESCRIPTION:

The Coder, Audio Frequency KY-537A/U is a bandwidth-compression device which, in the transmitter, converts an input audio signal to a low bit-rate digital signal for transmission over 3 kc communications channels and, in the receiver, reconverts the digital signal to an accurate representation of the original audio signal.

The equipment also provides for duplex conversion of speech to 1200 or 2400 bits per second serial data.

No field changes in effect at time of preparation (1 March 1967).

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

TECHNICAL CHARACTERISTICS:

OPERATING POWER REQUIREMENTS: 115 v ac, 60 cps, single phase, 60 watts.

CODER, AUDIO FREQUENCY KY-537A/U

AUDIO INPUT SIGNAL

INPUT LEVEL: 0 dbm (local handset), - 20 dbm (remote source).

INPUT IMPEDANCE: 600 ohms.

INPUT-S/N 35 db min overall; 45 db min for 70-200 cps range.

AUDIO FREQUENCY INPUT: 70 to 4000 cps.

BIT RATE: 2400 or 1200 bits per second nom (independent) operation in transmitter and receiver of same unit.

EXTERNAL TIMING INPUTS (TRANSMITTER)

LEVEL: 2 to 10 volts peak-to-peak, sine wave or square wave.

FREQUENCY: 2400 to 1200 cps nominal.

INPUT IMPEDANCE: 6000 ohms min. floating.

EXTERNAL TIMING INPUTS (RECEIVER)

LEVEL: 2 to 10 volts peak-to-peak sine wave or square wave.

FREQUENCY: 2400 to 1200 cps nominal.

INPUT IMPEDANCE: 6000 ohms min. floating.

PCM SIGNALS (TRANSMITTER)

MARK: + 4 to + 6 volts.

SPACE: 0 to + 0.2 volt.

LOAD IMPEDANCE: 1000 ohms min.

PCM SIGNALS (RECEIVER)

MARK: + 3 to + 18 volts.

SPACE: 0 to + 0.2 volt.

INPUT IMPEDANCE: 5000 to 6000 ohms.

AUDIO OUTPUT SIGNAL

OUTPUT LEVEL: 0 dbm (normal condition), + 6 dbm (high noise condition).

OUTPUT IMPEDANCE: 600 ohms.

S/N FROM "0" OHM REFERENCE: 45 db min.

AUDIO FREQUENCY BAND: 200 to 3820 cps.

NUMBER OF CHANNELS

10 Frequency Selective Channels for 1200 bps operation, or 16 separate Frequency Selective Channels for 2400 bits operation.

MAJOR COMPONENTS

QTY	ITEM	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Coder, Audio Frequency KY-537A/U	7-5/8 x 15-3/8 x 22-3/32	70

REFERENCE DATA AND LITERATURE:

NAVSHIPS 0967-010-2010: Technical Manual of Preliminary Installation and Operating Instructions for Audio, Frequency Coder KY-537A/U.

NAVSHIPS 0967-010-2020: Technical Manual of Preliminary Servicing Instructions for Audio Frequency Coder KY-537A/U.

SHIPPING DATA

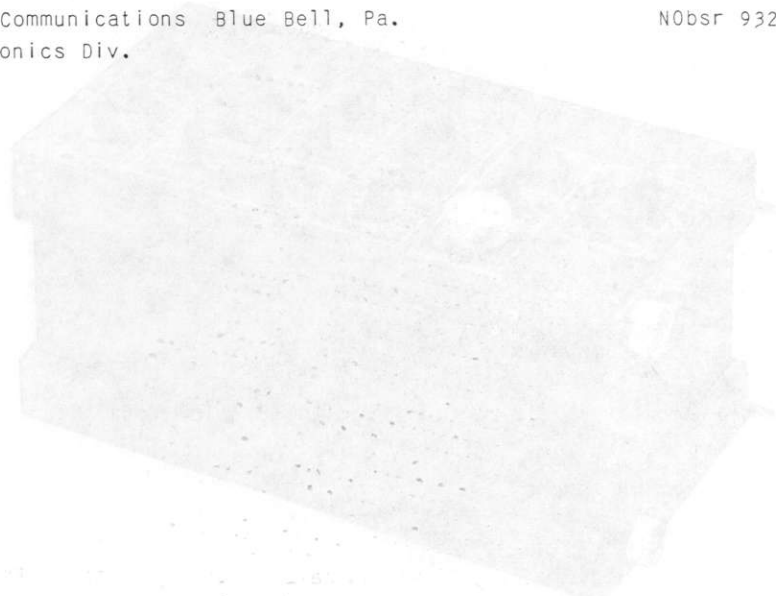
PKGS VOLUME (CU FT) WEIGHT (LBS)

PROCUREMENT DATA

PROCURING SERVICE: USN
SPEC &/OR DWG:

DESIGN COG: USN, NavShips

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Philco Corp. Communications and Electronics Div.	Blue Bell, Pa.	NObsr 93238	



941

18 August 1967

Cog Service: USN FSN:

CONTROL AIRCRAFT CAMERA PARAMETER LA-311A(PCU)
Functional Class:

USA

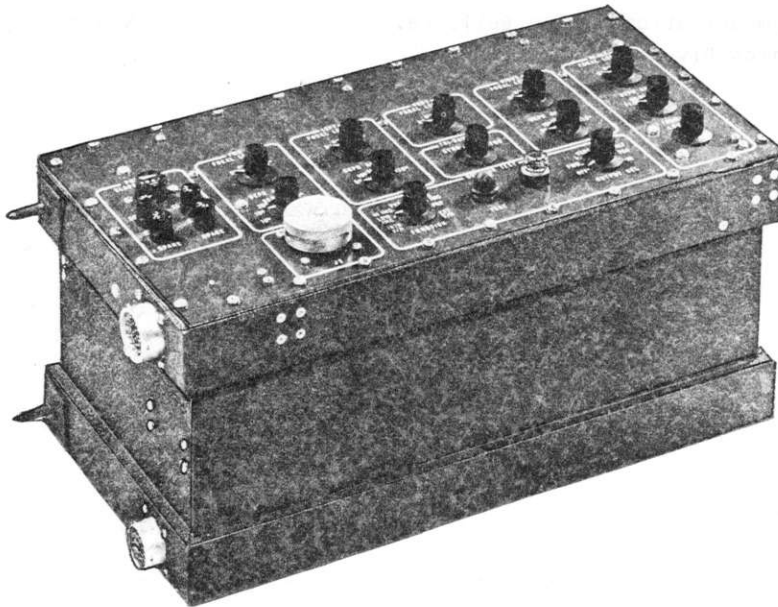
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Electronic Specialty Company, (72152).



CONTROL AIRCRAFT CAMERA PARAMETER LA-311A(PCU)

FUNCTIONAL DESCRIPTION:

The Control Aircraft Camera Parameter LA-311A(PCU), is part of the airborne photographic reconnaissance system. It is the master control unit for the aircraft photographic reconnaissance cameras. The PCU provides camera shutter-tripping pulses to expose successive film frames, and image motion compensation (IMC) signals which causes the film in the camera to move during exposure to prevent blurring the picture due to motion of the aircraft. The PCU also provides fiducial pulses for the radar mapping system (hereafter referred to as SLR), data demand pulses for the data display system (hereafter referred to as ADAS), ejector pulses for the photo flash cartridge ejector, fiducial pulses and IMC signals to the infrared detecting system (hereafter referred to as (P), and special IMC signals to the low and high altitude panoramic cameras.

No field changes in effect at time of preparation (10 March 1967).

CONTROL AIRCRAFT CAMERA PARAMETER LA-311A(PCU)

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

TECHNICAL CHARACTERISTICS:

INPUT

EMF: 115 ± 4.5 v ac at 400 ± 20 cps, single phase.
CURRENT: 434 ma.
VOLT AMPERES: 50.
EMF: 28 ± 4.0 v dc.
CURRENT: 1.20 amperes (Pulsed).
POWER: 33.6 watts (Pulsed).

INTERNAL POWER SUPPLY

INPUT

EMF: $115 - 4.5$ v ac, at 400 ± 20 cps.
OUTPUT (VDC): ± 15 , + 3, + 8, + 10, + 30, + 90 and + 160.
ALTITUDE: 70,000 feet.
TEMPERATURE RANGE: $- 55^{\circ}$ C ($- 67^{\circ}$ F) to $+ 71^{\circ}$ C ($+ 160^{\circ}$ F).
HUMIDITY (MAXIMUM): 100%.

MAJOR COMPONENTS

QTY	ITEM	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Control Aircraft Camera Parameter LA-311A(PCU)	7-3/4 x 8-1/2 x 14-1/2	18

REFERENCE DATA AND LITERATURE:

NAWWEPS 10-10 AG-26: Technical Manual of Service Instructions for Aircraft Camera Parameter Control LA-311A and LA-311B.
NAWWEPS 10-10 AG-26: Technical Manual of Service Instructions for Aerial Photography Control LA-312A(PCU).

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1	0.4	28

PROCUREMENT DATA

PROCURING SERVICE: USN
SPEC &/OR DWG: MIL-H-6757(ASG) MIL-M-5474C
MIL-STD-12, 15A, 16B, and
T.O. 10A6-8-19-4.
DESIGN COG: USN, NavAer

CONTROL AIRCRAFT CAMERA PARAMETER LA-311A(PCU)

CONTRACTOR

LOCATION

CONTRACT OR
ORDER NO.

APPROX.
UNIT COST

Electronic Specialty Co., Los Angeles, California
 Part nos. 107104 and
 116274
 Model nos. SY-144B, SY-144B-1
 SY-144B-1 and SY-144C

NOW-(A)64-0001-f

944
GPO

18 August 1967

CONTROL AIRCRAFT CAMERA PARAMETER LA-311B(PCU)

Cog Service: USN FSN:

Functional Class:

USA

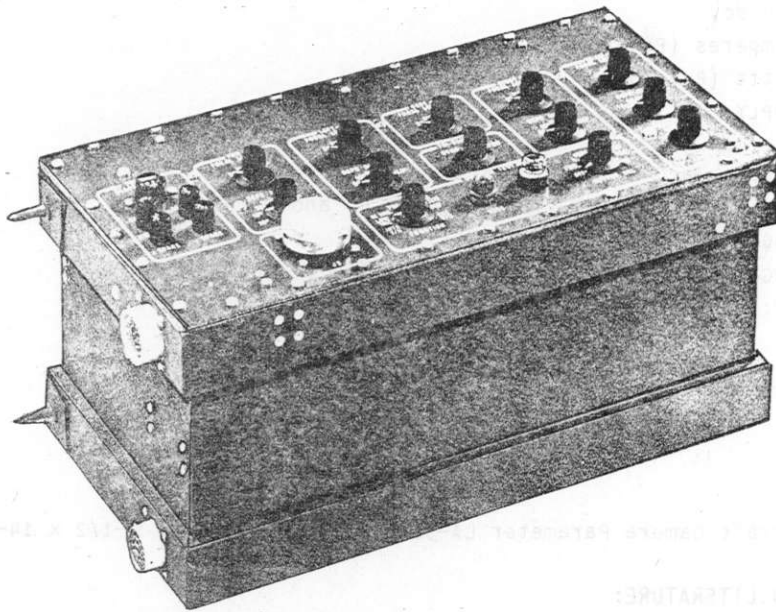
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Electronic Specialty Company, (72152).



CONTROL AIRCRAFT CAMERA PARAMETER LA-311B(PCU)

FUNCTIONAL DESCRIPTION:

The Control Aircraft Camera Parameter LA-311B(PCU), is part of the airborne photographic reconnaissance system. It is the master control unit for the aircraft photographic reconnaissance cameras. The PCU provides camera shutter tripping pulses to expose successive film frames, and image motion compensation (IMC) signals which causes the film in the camera to move during exposure to prevent blurring the picture due to motion of the aircraft. The PCU also provides fiducial pulses for the radar mapping system (hereafter referred to as SLR), data demand pulses for the data display system (hereafter referred to as ADAS), ejector pulses for the photo flash cartridge ejector, fiducial pulses and IMC signals to the infrared detecting system (hereafter referred to as IR), and special IMC signals to the low and high altitude panoramic cameras.

No field changes in effect at time of preparation (10 March 1967).

CONTROL AIRCRAFT CAMERA PARAMETER LA-311B(PCU)

RELATION TO OTHER EQUIPMENT:

The LA311B(PCU) is similar to the LA-311A(PCU) except maintenance parts.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

TECHNICAL CHARACTERISTICS:

INPUT

EMF: 115 ± 4.5 v ac at 400 ± 20 cps, single phase.

CURRENT: 434 ma.

VOLT AMPERES: 50.

EMF: 28 ± 4.0 v dc.

CURRENT: 120 amperes (Pulsed).

POWER: 33.6 watts (Pulsed).

INTERNAL POWER SUPPLY

INPUT

EMF: 115 ± 4.5 v ac, at 400 ± 20 cps.

OUTPUT (VDC): - 15, + 3, + 8, + 10, + 30, + 90 and + 160.

ALTITUDE: 70,000 feet.

TEMPERATURE RANGE: - 55° C (- 67° F) to + 71° C (+ 160° F).

HUMIDITY (MAXIMUM): 100%.

MAJOR COMPONENTS

QTY	ITEM	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Control Aircraft Camera Parameter LA-311B(PCU)	7-3/4 x 8-1/2 x 14-1/2	18

REFERENCE DATA AND LITERATURE:

NAVWEPS 10-10AG-26: Technical Manual of Service Instructions for Aircraft Camera Parameter Control LA-311A and LA-311B(PCU).

NAVWEPS 10-10AGAG-26: Technical Manual of Service Instructions for Aerial Photography Control Computer LA-312A(PAU).

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1	0.4	28

PROCUREMENT DATA

PROCURING SERVICE: USN

DESIGN COG: USN, NavAer

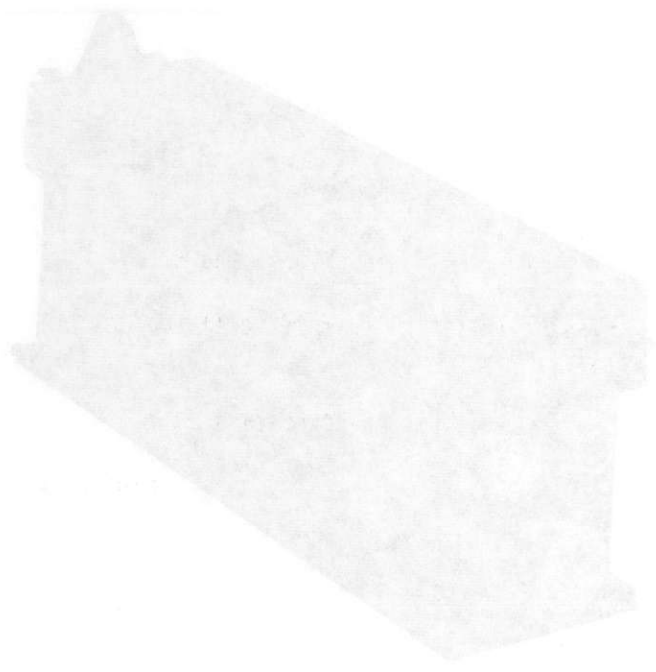
SPEC &/OR DWG: MIL-H-6757(ASG) MIL-M-5474C

MIL-STD-12-15A-16B and T.O. 10A6-8-19-4.

1.2 LA-311B(PCU): 2

CONTROL AIRCRAFT CAMERA PARAMETER LA-311B(PCU)

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Electronic Specialty Co. Part no. - 108715 Model - SY-144A	Los Angeles, California	Now-(A)64-0001-f	



947

23 August 1967

AERIAL PHOTOGRAPHY CONTROL COMPUTER LA-312(PAU)

Cog Service: USN FSN:

Functional Class:

USA

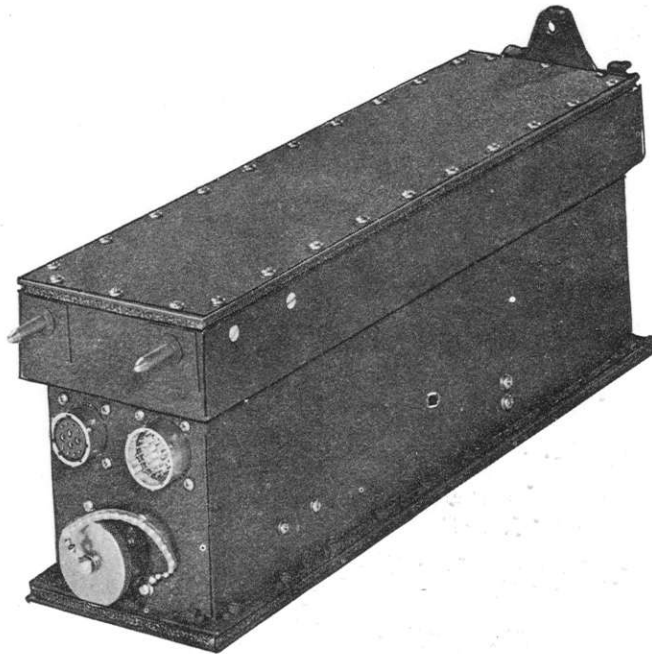
USN

USAF

TYPE CLASS:

Used by:

MANUFACTURER'S NAME/CODE NUMBER: Electronic Specialty Company, (72152).



AERIAL PHOTOGRAPHY CONTROL COMPUTER LA-312A(PAU)

FUNCTIONAL DESCRIPTION:

The Aerial Photography Control Computer LA-312A(PAU), accomplishes the purpose for which it was built by receiving inputs from the altimeter, air speed indicator, viewfinder and two controls that give a manually set V/H input. It processes these inputs and applies them to the PCU, ADAS, area D cameras and LA-17 amplifiers. The PAU may be operated in the manual mode, automatic mode, and an automatic mode.

No field changes in effect at time of preparation (13 March 1967).

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

TECHNICAL CHARACTERISTICS:

INPUT

EMF: 115 ± 4.5 v ac, 400 ± 20 cps, single phase.
 CURRENT: 350 ma.
 VOLT-AMPERES: 40.
 EMF: 28 ± 1.4 v ac, 400 ± 20 cps, single phase.
 CURRENT: 500 ma.
 VOLT-AMPERES: 14.
 EMF: 28 ± 4.0 v dc.
 CURRENT: 50 ma (pulsed).
 POWER: 1.5 watts (pulsed).

INTERNAL POWER SUPPLY

INPUT

EMF: 115 ± 4.5 v ac, at 400 ± 20 cps.

OUTPUT (VDC) - 15, + 10, + 25.15 and + 32:

ALTITUDE: 70,000 feet.

TEMPERATURE RANGE: - 55° C (- 67° F) to + 71° C (+ 160° F).

HUMIDITY (MAXIMUM): 100%.

MAJOR COMPONENTS

QTY	ITEM	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Aerial Photography Control Computer LA-312A(PAU)	4-1/16 x 5-1/2 x 14-1/2	9

REFERENCE DATA AND LITERATURE:

NAVWEPS 10-10AG-26: Technical Manual of Service Instructions for Aerial Photography Control Computer LA-312A(PAU).

NAVWEPS 10-10AG-26: Technical Manual of Service Instructions for Aircraft Camera Parameter Control LA-311A and LA-311B(PCU).

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1	1.87	14

PROCUREMENT DATA

PROCURING SERVICE: USN

DESIGN COG: USN, NavAer

SPEC &/OR DWG: MIL-H-6757(ASG), MIL-M-5474C

MIL-STD-12-15A-16B and

T. O. 10A6-8-19-4

1.2 LA-312A(PAU): 2

AERIAL PHOTOGRAPHY CONTROL COMPUTER LA-312(PAU)

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Electronic Specialty Company Los Angeles, Calif. Part No. 107284 Model SY-170		NOW(A)64-0001-f	

930

8 August 1967

LOUDSPEAKER DYNAMIC LS-305A/SIC

Cog Service: USN FSN:

Functional Class:

USA

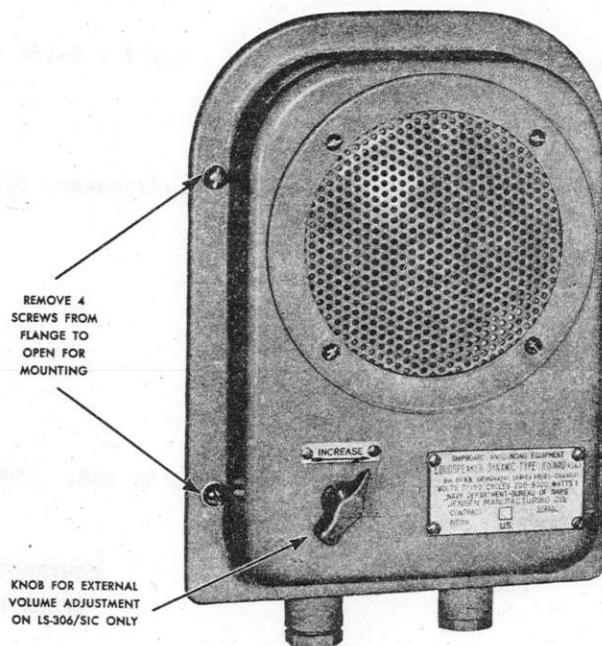
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Jenson Manufacturing Co., (32001).



LOUDSPEAKER DYNAMIC LS-305A/SIC

FUNCTIONAL DESCRIPTION:

Loudspeaker Dynamic LS-305A/SIC is a cone type speaker with a phenolic diaphragm. The equipment is waterproof, immersion resistant, and shockproof.

No field changes in effect at time of preparation (11 March 1966).

RELATION TO OTHER EQUIPMENT:

The LS-305A/SIC is two-way interchangeable with the LS-305/SIC except for maintenance parts. The male and female plug assembly has been replaced by a terminal board.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

LOUDSPEAKER DYNAMIC LS-305A/SIC

TECHNICAL CHARACTERISTICS:

FREQUENCY RANGE: 200 to 8000 ±7.5 db variation in output.
VOICE COIL IMPEDANCE: 10 ohms.
PEAK INPUT RATING: 1 W.
TYPE: Cone.
PRIMARY RATING: 50 or 70 v, 1 W.

MAJOR COMPONENTS

QTY	ITEM	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Loudspeaker Dynamic LS-305A/SIC	4-1/2 x 8-1/4 x 11	

REFERENCE DATA AND LITERATURE:

Jenson Manufacturing Instruction Note No. 171-A: for Loudspeaker, Dynamic LS-305/SIC and LS-306/SIC.

SHIPPING DATA

PKGS VOLUME (CU FT) WEIGHT (LBS)

PROCUREMENT DATA

PROCURING SERVICE: USN
SPEC &/OR DWG: MIL-A-20222

DESIGN COG: USN, BuShips

CONTRACTOR

LOCATION

CONTRACT OR
ORDER NO.

APPROX.
UNIT COST

Jenson Manufacturing Co.

Chicago, Ill.

M126-03756A

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