

UNCLASSIFIED

February 1960

Test-Associated Devices

ANTENNA

A-62



Antenna A-62

replaces the transmitting antenna for this purpose.

No field changes in effect at time of preparation (22 July 1959).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY RANGE: 20 to 27.9 mc.

MANUFACTURER'S OR CONTRACTOR'S DATA

International Detrola Corp., Detroit, Michigan.

Order No. 24665-PHILA-49.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

REFERENCE DATA AND LITERATURE

TM11-600, TO 16-40SCR508-5: Technical Manual for Radio Sets SCR-508-A, -C, -D, AM, CM, DM.

FUNCTIONAL DESCRIPTION

Antenna A-62 is a portable equipment that prevents signals from being radiated when adjusting, tuning, or checking the performance of radio sets. The circuit, having an adjustable input impedance, electrically

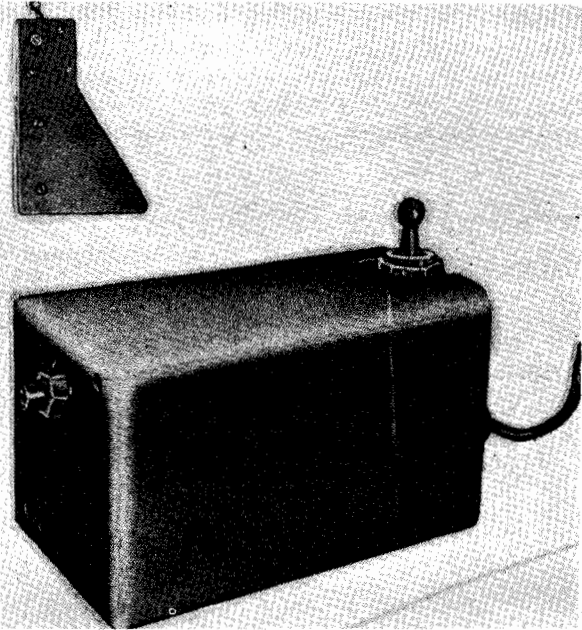
TYPE CLASSIFICATION (NAVY)
DESIGN COGNIZANCE USA, SIG C
PROCUREMENT COGNIZANCE ARMY SPEC (SIG C) 71-1522
STOCK NO.
R.D.B. IDENT. NO. 11.7

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Antenna A-62	3 X 3 X 6	3

UNCLASSIFIED

4.11 A-62: 1

ANTENNA**A-83***Antenna A-83***ELECTRICAL AND MECHANICAL CHARACTERISTICS**

FREQUENCY RANGE: 27 to 38.9 mc.

MANUFACTURER'S OR CONTRACTOR'S DATA

International Detrola Corp., Detroit,
Michigan.
Order No. 24665-PHILA-49.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

REFERENCE DATA AND LITERATURE

TM11-620, TO 16-40SCR608-5: Technical Manual
for RADIO SETS SCR-608-A, -B and SCR-
628-H.

FUNCTIONAL DESCRIPTION

Antenna A-83 is a portable equipment that prevents signals from being radiated when adjusting, tuning or checking the performance of radio sets. The circuit, having an adjustable input impedance, electrically replaces the transmitting antenna for this purpose.

No field changes in effect at time of preparation (24 July 1959).

TYPE CLASSIFICATION

DESIGN COGNIZANCE USA, SIG C

PROCUREMENT COGNIZANCE ARMY SPEC(SIG C)
71-1642

STOCK NO.

R.D.B. IDENT. NO. 11.7

EQUIPMENT SUPPLIED DATA

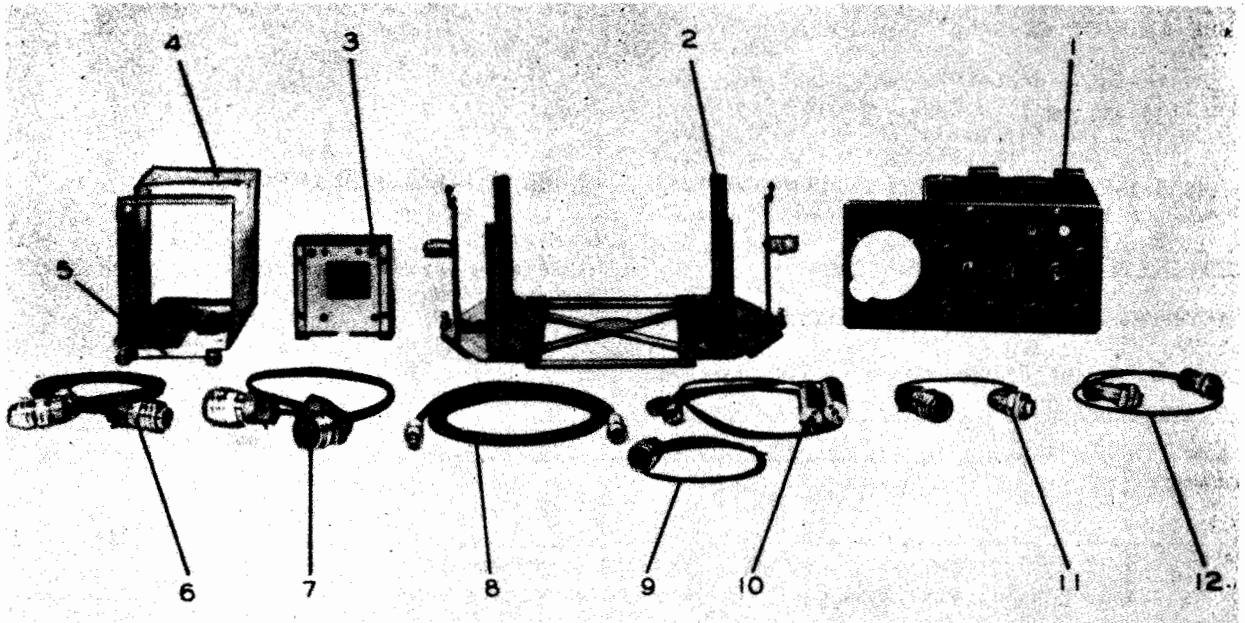
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Antenna A-83	3-1/2 X 4 X 6	1

October 1957

Test-Associated Devices

TEST BENCH CABLE SET

AN/ARM-9



Index No.	Nomenclature	Units per Assy	Index No.	Nomenclature	Units per Assy
1	Radio Set Control C-1296/ARM-9	1	8	RF Transmission Line CG-55B/U (4'0")	1
2	Mounting MT-1294/ARM-9	1	9	Special Purpose Cable Assembly CX-2458/U (3'2")	1
3	Mounting MT-1293/ARM-9	1	10	Antenna AT-459/ARM-9	2
4	Mounting MT-1295/ARM-9	1	11	Special Purpose Cable Assembly CX-2457/U (2'4")	1
5	Mounting MT-1296/ARM-9	1	12	Special Purpose Cable Assembly CX-2459/U (2'4")	1
6	Special Purpose Cable Assembly CX-2455/U (3'4")	1			
7	Special Purpose Cable Assembly CX-2456/U (2'4")	1			

Test Bench Cable Set AN/ARM-9

FUNCTIONAL DESCRIPTION

The AN/ARM-9 is designed to mount on a Model A Work Bench 312586 which is attached to the test bench provided for Radio Set AN/ARC-27. Radio Set AN/ARC-27 furnishes the DC power and the radio receiver necessary for operation of Direction Finder Group AN/ARA-25. A source of 115 v, single ph, 380 to 420 cps must be provided. Quick change mountings are provided for each electrical component of Direction Finder Group AN/ARA-25 so that large groups of equipments may be

checked with minimum expended time and effort. A test box is provided (but no meters) to sample the current and voltage in each supply source and to sample the wave form of the 100 cps voltage. A complete set of interconnecting cables is supplied.

This test cable set provides mounting facilities, interconnections and testing equipments with which to check the operational condition of the components Direction Finder Group AN/ARA-25.

No field changes in effect at time of preparation (20 February 1957).

October 1957

Test-Associated Devices

AN/ARM-9**TEST BENCH CABLE SET****RELATION TO OTHER EQUIPMENT**

Equipment Required but not Supplied: (1) Oscilloscope TS-239/UP or TS-34/AP, (1) Meter TS-80/UP, (1) Indicator ID-90A/ARN-6, (1) Signal Generator TS-497/URR, (1) Model A Work Bench 312586, (1) Test Bench Cable Kit MK-128/ARC-27, (1) Radio Set AN/ARC-27 and (1) Multi-meter TS-352/U or TS-292/U.

TUBE AND/OR CRYSTAL COMPLEMENT

(2) 1N34A
Total Crystals: (2)

REFERENCE DATA AND LITERATURE

AN16-30ARM9-2: Handbook of Operation and Service Instructions for Test Bench Cable Set AN/ARM-9.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

POWER SOURCE REQUIRED: 115 v, 380 to 420 cps single ph, 6 VA.

MANUFACTURER'S OR CONTRACTOR'S DATA

Collins Radio Co., Cedar Rapids, Iowa.
Contracts NOas-53-478-, dated 5 August 1953
Contracts NOas-52-943-, dated 4 March 1953

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUAER
PROCUREMENT COGNIZANCE
STOCK NO.
R.D.B. IDENT. NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
2	Antenna AT-459/ARM-9	1 X 5	1
1	Radio Set Control C-1296/ARM-9	7-3/4 X 10 X 11-3/4	6
1	Mounting MT-1294/ARM-9	6-5/8 X 15-3/8 X 17-3/4	8
1	Mounting MT-1295/ARM-9 (Includes Mounting MT-1296/ARM-9)	5-1/2 X 7-1/4 X 11-3/4	4
1	Mounting MT-1293/ARM-9	1-15/16 X 4-3/4 X 4-3/4	2
1	Cable Assy, R.F. CG-55B/U	48	0.9
1	Cable Assy CX-2455/U	40	0.7
1	Cable Assy, CX-2459/U	28	0.4
1	Cable Assy CX-2458/U	38	0.2
1	Cable Assy CX-2457	28	0.5
1	Cable Assy CX-2456/U	28	0.9
2	Adapter Plug UG-201/U	3/4 X 1-9/16	

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April 1959

Test-Associated Devices

RADAR TEST SET

AN/UPM-18

FUNCTIONAL DESCRIPTION

The AN/UPM-18 is a portable unit used with a synchroscope or cathode-ray oscilloscope in measuring or viewing output pulses from modulators of medium-power radar sets.

No field changes in effect at time of preparation (12 June 1958).

TUBE AND/OR CRYSTAL COMPLEMENT

Electron Tube and Crystal Data not Available.

REFERENCE DATA AND LITERATURE

Nomenclature Card for AN/UPM-18.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

VOLTAGE RANGE: 0 to 35,000 v (peak).
PULSE WIDTH: 0.5 to 10 usec.
REPETITION RATE: 0 to 1000 cps pulse.
DIVIDING RATIO: 50:1 and 200:1.
ACCURACY: Within 5%.

TYPE CLASSIFICATION
DESIGN COGNIZANCE
PROCUREMENT COGNIZANCE
STOCK NO.

EQUIPMENT SUPPLIED DATA

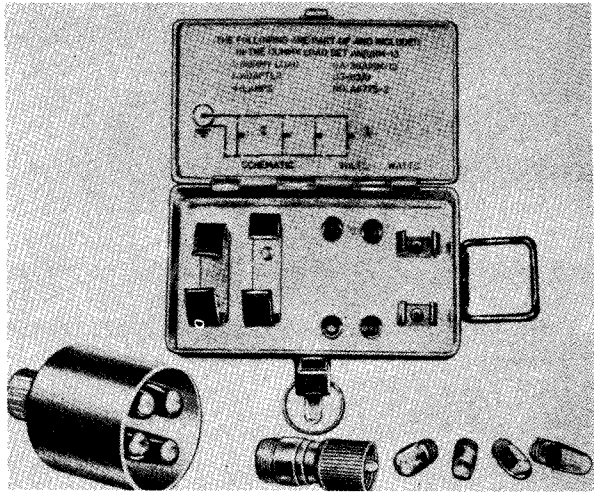
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS, (inches)	WEIGHT (lbs.)
1	Voltage Divider TS-359B/U		
1	Electrical Lead CX-1327/U		
1	Case CY-959/UPM-18		

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4.11 AN/UPM-18: 1

DUMMY LOAD SET

AN/URM-13



Dummy Load Set AN/URM-13

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY RANGE: 0 to 400 mc.
POWER INPUT RANGE: 3 to 10 W, 12 W (max).

MANUFACTURER'S OR CONTRACTOR'S DATA

Bendix Aviation Corp., Baltimore, Md.
Contract W33-038-ac-13465.
Contract AF33(038)-5652.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

FUNCTIONAL DESCRIPTION

Dummy Load Set AN/URM-13 is a portable test unit used in indicating rf radiant energy output in signal generating equipment.

No field changes in effect at time of preparation (24 March 1959).

RELATION TO OTHER EQUIPMENT

This equipment is similar to Phantom Transmitting Antenna TS-78/U except that the AN/URM-13 has an adapter and case.

REFERENCE DATA AND LITERATURE

NAVSHIPS 93003, Vol 1: Electronic Test Equipment.

TYPE CLASSIFICATION
DESIGN COGNIZANCE USAF
PROCUREMENT COGNIZANCE MIL-D-5859A(USAF)
STOCK NO.
R.D.B. IDENT. NO. 11.7

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Dummy Load Set AN/URM-13 Including:		
1	Case CY-777/URM-13	2-9/16 X 2-7/8 X 5	0.55
1	Dummy Load DA-38/URM-13	1-3/4 X 1-3/4 X 3	0.31
1	Adapter UG-83/U		
4	Lamps		

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Test-Associated Devices

ELECTRICAL DUMMY LOAD

AN/URM-62

FUNCTIONAL DESCRIPTION

The AN/URM-62 is a portable, high-power, waveguide-type radio-frequency equipment designed to terminate radio-frequency transmission lines of radio and radar sets to prevent radiation of energy while testing and adjusting certain system components.

No field changes in effect at time of preparation (22 July 1958).

Contract AF33(604)-9098.

Approximate Cost: \$66.00 with equipment spares.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY RANGE: 8200 to 12400 mc.

POWER RATING: 175 W average, 500 kw peak for 1 usec pulses.

VSWR: 1.15 max.

TEMPERATURE RANGE: -54 to +71 deg C.

HUMIDITY RANGE: 100% at +66 deg C.

ALTITUDE RANGE

OPERATING: Sea level to 10000 ft.

NONOPERATING: Sea level to 50000 ft.

REFERENCE DATA AND LITERATURE

TM11-487H-1: Technical Manual for Electronic Test Equipment.

Nomenclature Card for Electrical Dummy Load AN/URM-62.

TYPE CLASSIFICATION

DESIGN COGNIZANCE USAF

PROCUREMENT COGNIZANCE USAF Spec 7537

STOCK NO.

R.D.B. IDENT. NO. 11.7

MANUFACTURER'S OR CONTRACTOR'S DATA

Wac Engineering Co., Dayton, Ohio.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Electrical Dummy Load AN/URM-62 consisting of: (1) Case CY-769/URM-62 (1) Dummy Load DA-22/U	3-1/4 X 4 X 11-5/8 2-1/2 X 2-1/2 X 11	7

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4.11 AN/URM-62: 1

23 May 1962

FREQUENCY CONVERTER GROUP AN/USA-6

Cog Service:

FSN:

Functional Class:

USA

USN

USAF

TYPE CLASS:

MANUFACTURER'S NAME/CODE NUMBER: Stromberg-Carlson Company.

(No Illustration Available)

FUNCTIONAL DESCRIPTION:

The Frequency Converter Group AN/USA-6 is used to permit operation of electronic test equipment from variable-frequency power source, when operated in conjunction with Radio Test Set AN/ARM-22. It will provide 60 cycles per second, 115 volt output to operate the synchronous motors contained in the Radio Test Set AN/ARM-22. It is used in testing airborne TACAN equipment.

No field changes in effect at time of preparation (28 April 1961).

TECHNICAL CHARACTERISTICS:

INCOMING FREQUENCY RANGE: 50 to 420 cps.

RESULTANT FREQUENCY: 60 cps.

IMPEDANCE

INPUT: 58.6 ohms.

OUTPUT: 238.1 ohms.

OPERATING POWER RQMT: 103.5 to 126.5 v ac, 50 to 420 cps, single ph.

RELATION TO OTHER EQUIPMENT:

The AN/USA-6 is designed to be used with, but not a part of Radio Test Set AN/ARM-22 and Test Set, Indicator AN/ARM-31.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
	Frequency Converter Group AN/USA-6 consists of:		8-1/4 x 20 x 20-3/8	
1	Converter, Frequency Electronic CV-670/USA-6		7-11/16 x 19-9/16 x 20-3/4	
1	Case, Frequency Converter CY-2385/USA-6		10-21/32 x 21-7/16 x 28-7/8	
1	Cover, Test Set CW-468/USA-6		1-1/8 x 10-11/16 x 28-3/8	
1	Cable Assy, Power, Electrical Stromberg-Carlson type 666097-246			

AN/USA-6 FREQUENCY CONVERTER GROUP

REFERENCE DATA AND LITERATURE:

Nomenclature Card for Frequency Converter Group AN/USA-6.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: (1) 0A2WA (2) 12AT7WA (2) 5R4WG8A (1) 9726-6AL5W (1) 5751 (1) 5814A
(4) 6L6WGB

CRYSTALS: None used.

SEMI-CONDUCTORS: (1) 1N69A

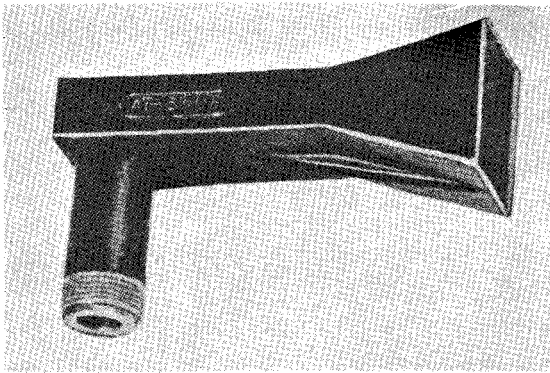
SHIPPING DATA

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

PROCURING SERVICE: DESIGN COG: USN, BuAer
SPEC &/OR DWG: MIL-F-19204(AER)

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Stromberg-Carlson Company Pt no. 666096-006	Rochester, New York	N0as-57-641	

PICK-UP ANTENNA

Pick-Up Antenna AT-68/UP

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY RANGE: 8500 to 9600 mc.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

TM11-1248: Technical Manual for Test Set AN/MPM-6.

FUNCTIONAL DESCRIPTION

The AT-68/UP is designed to be used with test equipment as either a radiating or pick-up antenna. It will transmit or receive energy in the 8500 to 9600 megacycle band. It is a small directional antenna assembly consisting of a tapered section of waveguide terminated by a probe coupling to a coaxial fitting.

No field changes in effect at time of preparation (5 September 1957).

TYPE CLASSIFICATION
 DESIGN COGNIZANCE BUAER
 PROCUREMENT COGNIZANCE
 STOCK NO.
 R.D.B. IDENT. NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Pick-Up Antenna AT-68/UP	2.3 X 4.5 X 6.8	0.3

8 February 1963
Cog Service: USN FSN:

VHF DETECTOR CAQI-417A
Functional Class: II

USA

USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Hewlett-Packard Company, (28480).



VHF Detector CAQI-417A

FUNCTIONAL DESCRIPTION:

VHF Detector CAQI-417A is a super-regenerative (AM) receiver covering all frequencies between 10 and 500 mc. It is designed for use with Bridge CAQI-803A.

No field changes in effect at time of preparation (4 February 1963).

TECHNICAL CHARACTERISTICS:

FREQUENCY RANGE: 10 to 500 mc, continuous coverage, 5 bands.

SENSITIVITY: Approx 5 uv over entire frequency range.

POWER REQUIREMENT: 115 or 230 v porm 10%, 50 to 60 cps, single ph, 35 W.

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

CAQI-417A VHF DETECTOR

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	VHF Detector CAQI-417A		9 x 9-1/4 x 12-1/2	18

REFERENCE DATA AND LITERATURE:

Technical Manual for Hewlett-Packard Electronic Measuring Instruments.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: Data not available.

CRYSTALS: Data not available.

SEMI-CONDUCTORS: Data not available.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1		31

PROCUREMENT DATA

PROCURING SERVICE: USN
SPEC &/OR DWG:

DESIGN COG: Commercial

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Hewlett-Packard Company Model no. 417A	Palo Alto, California	N0bsr-64167, 22 April 1954	\$271.17

31 May 1962
Cog Service: USN FSN:

FREQUENCY CONVERTER UNIT CAQI-525A
Functional Class: 11.8

USA

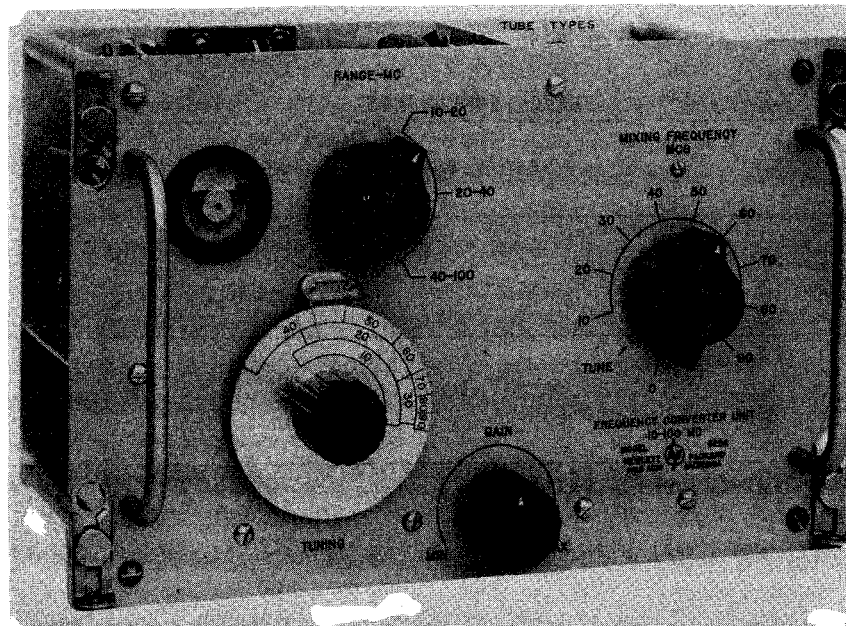
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Hewlett-Packard Co., (28480).



Frequency Converter Unit CAQI-525A

FUNCTIONAL DESCRIPTION:

Frequency Converter Unit CAQI-525A is designed to be inserted into a Frequency Counter CAQI-524C or 524D to extend the range of the counter to 100 mc.

No field changes in effect at time of preparation (16 March 1962).

TECHNICAL CHARACTERISTICS:

RANGE: As amplifier for counter, 10 cps to 10.1 mc. As converter for counter, 10.1 mc to 100 mc.

REGISTRATION: 8 places; first place indicated on converter selector switch labeled 0, 10, 20 . . . 90; next 7 as indicated by counter.

INPUT VOLTAGE: 0.1 v rms min, 10 cps to 10.1 mc; 10 mv rms min, 10.1 mc to 100 mc.

INPUT IMPEDANCE: Approx. 1 meg shunted by 40 uuf, 10 cps to 10 mc; approx. 50 ohms, 10 mc to 100 mc.

CAQI-525A FREQUENCY CONVERTER UNIT

LEVEL CONTROL: Tuning eye aids frequency selection; indicates correct voltage level adjustment.

RELATION TO OTHER EQUIPMENT:

This equipment is designed for use only with Electronic Counters CAQI-524 Series.

EQUIPMENT REQUIRED BUT NOT SUPPLIED:

(1) Frequency Counter CAQI-524C or 524D.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBER	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Frequency Converter Unit CAQI-525A		7 x 7 x 10.5	5
2	Technical Manual		0.3 x 8.5 x 11	1

REFERENCE DATA AND LITERATURE:

NAVSHIPS 93772: Technical Manual for Frequency Converter Unit 525A.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: (5) 6AH6 (1) 6E5 (2) 5725

CRYSTALS: None used.

SEMI-CONDUCTORS: None used.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1	1.1	9

PROCUREMENT DATA

PROCURING SERVICE: USN DESIGN COG: Commercial
SPEC &/OR DWG:

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX.. UNIT COST
Hewlett-Packard Co.	Palo Alto, California	NObsr-75635	\$250.00
Model no. 525A		NObsr-75923	\$250.00
		NObsr-81232, 1 March 1960	\$250.00

FREQUENCY CONVERTER UNIT CAQI-525A

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Hewlett-Packard Co. Model no. 525A	Palto Alto, California	Nobsr-81371 Nobsr-81557, 27 June 1960 Nobsr 85327	\$230.23 \$231.15

21 February 1963

Cog Service: USN FSN:

FREQUENCY CONVERTER UNIT CAQI-525B

Functional Class: 11.8

USA

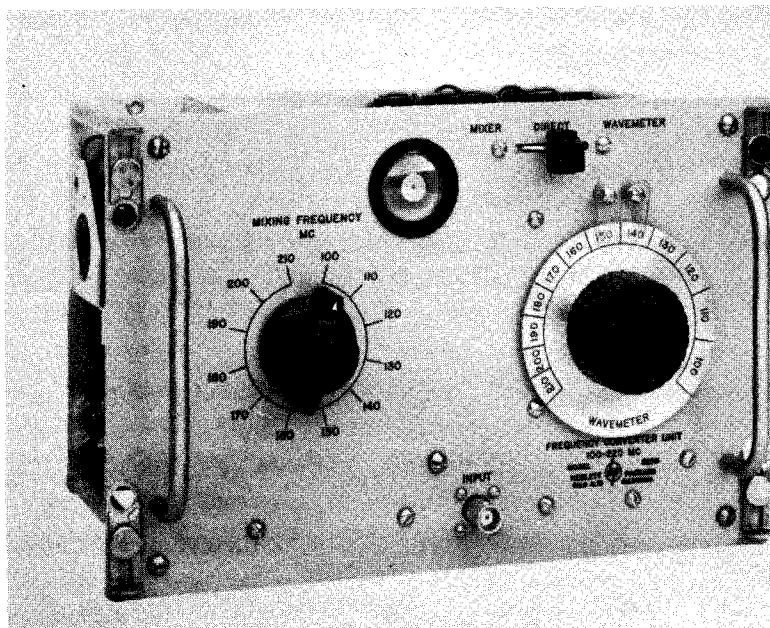
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Hewlett-Packard Company, (28480).



Frequency Converter Unit CAQI-525B

FUNCTIONAL DESCRIPTION:

Frequency Converter Unit CAQI-525B is designed to be inserted into a Frequency Counter CAQI-524C or 524D to extend the frequency range of the Frequency Counter to 220 mc.

No field changes in effect at time of preparation (22 December 1960).

TECHNICAL CHARACTERISTICS:

RANGE: 100 mc to 220 mc.

REGISTRATION: 9 places; first two places indicated on converter selector switch labeled 100, 110, 120, . . . 210, next 7 indicated by counter.

INPUT VOLTAGE: 0.2 v rms minimum.

INPUT IMPEDANCE: Approx 50 ohms.

LEVEL CONTROL: Tuning eye aids frequency selection; indicates correct voltage level adjustment.

CAQI-525B FREQUENCY CONVERTER UNIT

RELATION TO OTHER EQUIPMENT:

This equipment is designed for use only with Electronic Counters CAQI-524 series.

EQUIPMENT REQUIRED BUT NOT SUPPLIED:

(1) Electronic Counter CAQI-524 series.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Frequency Converter Unit CAQI-525B		7 x 7 x 10.5	5
2	Technical Manual		0.3 x 8.5 x 11	1

REFERENCE DATA AND LITERATURE:

NAVSHIPS 93773: Technical Manual for Frequency Converter Unit 525B.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: (1) 5654 (1) 5725 (2) 6AH6 (1) 6E5 (1) 64B5

CRYSTALS: None used.

SEMI-CONDUCTORS: (2) HD2135(Hughes)

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1	1.1	9

PROCUREMENT DATA

PROCURING SERVICE: USN
SPEC &/OR DWG:

DESIGN COG: Commercial

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Hewlett-Packard Company Model no. 525B	Palo Alto, California	N0bsr-75635	\$250.00
		N0bsr-75865, 22 June 1959	231.15
		N0bsr-75923	250.50
		N0bsr-81371	230.23
		N0bsr-85147	250.00

4.11 CAQI-525B: 2

FREQUENCY CONVERTER UNIT CAQI-525B

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
		NObsr-85299	\$226.48
		NObsr-85327	277.15

4 April 1962

TIME INTERVAL UNIT CAQI-526B

Cog Service:

FSN: 6625-630-9289

Functional Class:

USA

USN

USAF

TYPE CLASS:

MANUFACTURER'S NAME/CODE NUMBER: Hewlett-Packard Co.



Time Interval Unit CAQI-526B

FUNCTIONAL DESCRIPTION:

Time Interval Unit CAQI-526B converts an Electronic Counter CAQI-524B, C, or D into an accurate time measuring instrument. This instrument measures pulse width, pulse delay, or time between nearly any two electrical events, with a resolution of 0.1 usec. Separate input channels are provided so start and stop signals may be from unrelated sources.

No field changes in effect at time of preparation (6 June 1961).

TECHNICAL CHARACTERISTICS:

RANGE: 1 usec to 10^7 sec.

ACCURACY: Porm 1 period of standard frequency counted, porm stability of standard frequency.

INPUT VOLTAGE: 1 v peak min., direct-coupled input.

INPUT IMPEDANCE: Approx 1 meg, 40 uuf shunt.

CAQI-526B TIME INTERVAL UNIT

START STOP: Independent or common channels.

TRIGGER SLOPE: Pos or neg on start and/or stop channels.

TRIGGER AMPLITUDE: Both channels continuously adjustable from M192 to P192 v.

STANDARD FREQUENCY COUNTED: 10 cps, 1 or 100 kc; 10 mc from CAQI-524 or externally applied frequency.

READS IN: Seconds, milliseconds, or microseconds; decimal point automatically positioned.

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Time Interval Unit CAQI-526B		8 x 9 x 12	5

REFERENCE DATA AND LITERATURE:

NAVSHIPS 93774: Operating and Servicing Manual for 526B Time Interval Unit.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: (2) 5654/6AK5W (1) 5963

CRYSTALS: None used.

SEMI-CONDUCTORS: None used.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1		8

PROCUREMENT DATA

PROCURING SERVICE:
SPEC &/OR DWG:

DESIGN COG: Commercial

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Hewlett-Packard Co. Model no. 526B	palo Alto, Calif.	N0bsr-75923, 29 June 1959 N0bsr-81557, 30 June 1960 N0bsr-85138, 31 January 1961	\$175.50 \$148.60 \$166.06

4 April 1962
Cog Service:

FSN:

PERIOD MULTIPLIER CAQI-526C
Functional Class:

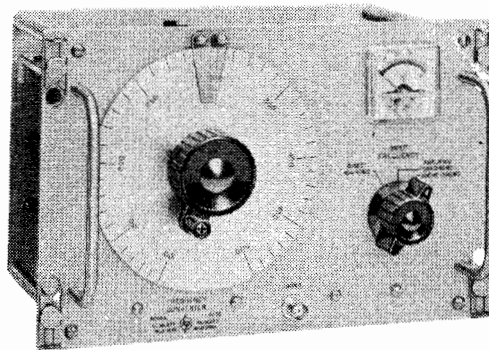
USA

USN

USAF

TYPE CLASS:

MANUFACTURER'S NAME/CODE NUMBER: Hewlett-Packard Co.



Period Multiplier CAQI-526C

FUNCTIONAL DESCRIPTION:

Period Multiplier CAQI-526C allows average measurements of 100, 1000, and 10,000 periods. This insures greater accuracy for midrange frequency measurements.

No field changes in effect at time of preparation (6 June 1961).

TECHNICAL CHARACTERISTICS:

RANGE: 0 to 100 kc.

GATE TIME: 1, 10, 100, 1000, and 10000 cyc of the unknown freq.

ACCURACY: Porm 1 count porm 0.3%/number of periods measured, porm time base accuracy.

STANDARD FREQUENCY COUNTED: 10 cps, 1 kc, 100 kc, 10 mc, on externally applied frequency.

READS IN: Seconds, milliseconds, or microseconds.

INPUT VOLTAGE: 1 v rms min.

INPUT IMPEDANCE: 1 meg, 40 uuf shunt.

CAQI-526C -PERIOD MULTIPLIER

RELATION TO OTHER EQUIPMENT:

This unit is used with CAQI-524 series equipment.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Period Multiplier CAQI-526C		8 x 9 x 12	5

REFERENCE DATA AND LITERATURE:

Operating and Servicing Manual for 526C Period Multiplier.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: Data not available.

CRYSTALS: Data not available.

SEMI-CONDUCTORS: Data not available.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1		8

PROCUREMENT DATA

PROCURING SERVICE:
SPEC &/OR DWG:

DESIGN COG: Commercial

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Hewlett-Packard Co. Model no. 526C	Palo Alto, Calif.	N0bsr-85138, 31 January 1961	\$212.06

28 February 1963

ATTENUATOR CN-45/UP

Cog Service: USN

FSN:

Functional Class: 11.5

USA

USN

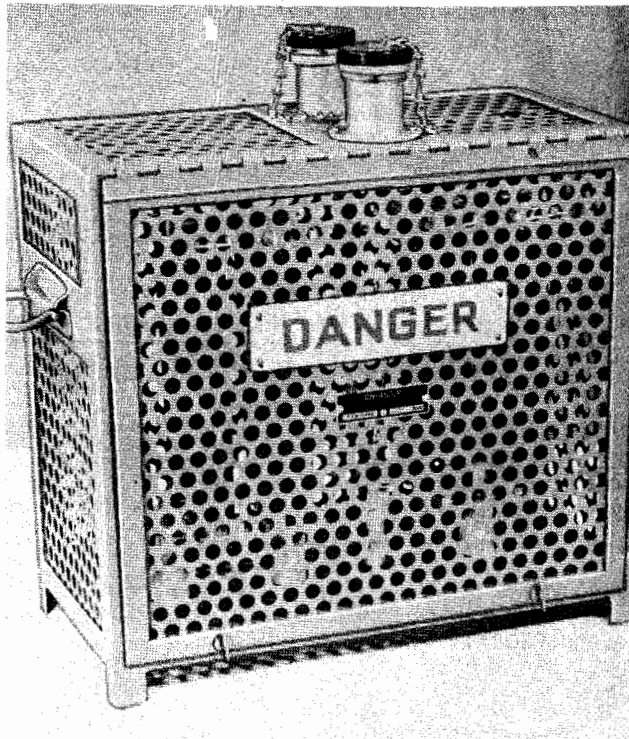
USAF

TYPE CLASS:

Std

Std

MANUFACTURER'S NAME/CODE NUMBER: Hill Diesel Engine Co., (86706).



Attenuator CN-45/UP

FUNCTIONAL DESCRIPTION:

Attenuator CN-45/UP is for use in testing Radar Sets AN/APS-20 and AN/APS-20A. It is connected to the modulator as a dummy load, or between the modulator and transmitter as a conditioner for the magnetron in the transmitter. It consists of ten non-inductive resistors and a single-layer inductance, all mounted on stand-off insulators and contained within a metal grill.

When used as a load for the modulator, the attenuator presents a non-inductive impedance of approx 25 ohms. When connected as a magnetron conditioner, the attenuator acts as an impedance of approx 10 ohms between the modulator and the radar transmitter, permitting the transmitter to operate at a safe level.

No field changes in effect at time of preparation (12 June 1962).

CN-45/UP ATTENUATOR

TECHNICAL CHARACTERISTICS:**POWER RATING**

MAGNETRON CONDITIONER: 640 W.

MODULATOR LOAD: 1,600 W.

INPUT RESISTANCE

ARTIFICIAL LOAD: 25 ohms porm 10%.

ATTENUATOR: 10 ohms porm 10%.

POWER DISSIPATION OF ARTIFICIAL LOAD: 1,500 W (avg).

ACCURACY: Porm 10%.

RELATION TO OTHER EQUIPMENT: None.**EQUIPMENT REQUIRED BUT NOT SUPPLIED:** None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Attenuator CN-45/UP includes:		9-1/2 x 18 x 19	28
1	Cable RG-28/U		48 lg	3.5

REFERENCE DATA AND LITERATURE:NAVAER 16-5S-511: Handbook of Operating and Maintenance Instructions for Attenuator
CN-45/UP.

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:

4. 11 CN-45/UP: 2

ATTENUATOR CN-45/UP

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Hill Diesel Engine Co.	Lansing, Mich.	NAer-00373 NOas-6789	
Hazeltine Electronics Corp.	Little Neck, L.I., N.Y.	N383s-75234 N383s-4576A	\$475.00

23 April 1962

CONVERTER, FREQUENCY, ELECTRONIC CV-766/U

Cog Service: USN FSN:

Functional Class: 11.8

USA

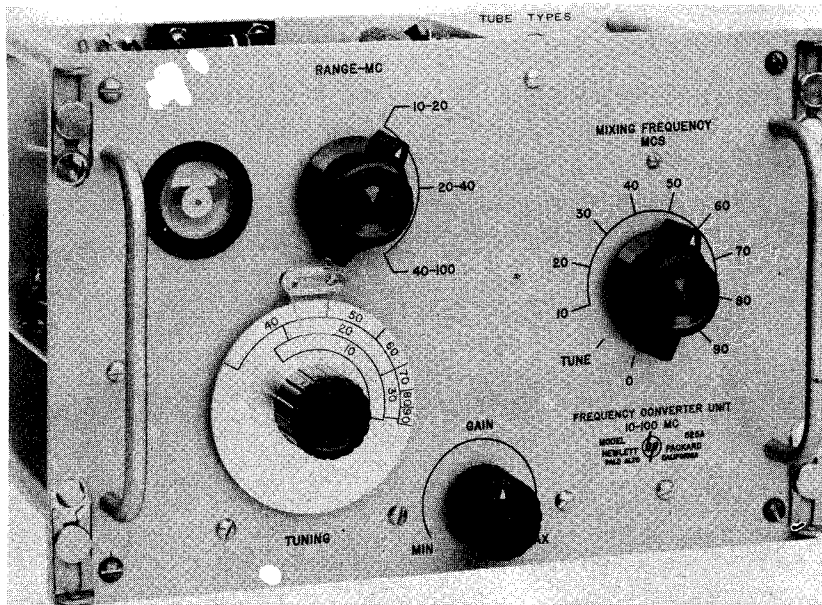
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Hewlett-Packard Co., (28480).



Converter, Frequency, Electronic CV-766/U

FUNCTIONAL DESCRIPTION:

Converter, Frequency, Electronic CV-766/U is designed to be inserted into Frequency Meter FR-132/U to extend the range of the Frequency Meter to 100 mc.

No field changes in effect at time of preparation (16 March 1962).

TECHNICAL CHARACTERISTICS:

RANGE

AS AMPLIFIER: 10 cps to 10.1 mc.

AS CONVERTER: 10.1 to 100 mc.

REGISTRATION: 8 places; first place indicated on converter selector switch labeled 0, 10, 20 . . . 90; next 7 as indicated by counter.

INPUT VOLTAGE: 0.1 v to 10 v rms, 10 cps to 10 mc; 10 mv to 1 v rms, 10 mc to 100 mc.

INPUT IMPEDANCE: Approx. 1 meg shunted by 40 uuf, 10 cps to 10 mc; approx. 50 ohms, 10 mc to

CV-766/U CONVERTER, FREQUENCY, ELECTRONIC

100 mc.

LEVEL CONTROL: Tuning eye aids frequency selection; indicates correct voltage level adjustment.

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED:

(1) Frequency Meter FR-132/U.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Converter, Frequency, Electronic CV-766/U		7 x 7 x 10.5	5

REFERENCE DATA AND LITERATURE:

NAVSHIPS 93326: Technical Manual for Converter, Frequency, Electronic CV-766/U.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: (5) 6AH6 (1) 6E5 (2) 5725/6AS6W

CRYSTALS: None used.

SEMI-CONDUCTORS: None used.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1	1.1	8

PROCUREMENT DATA

PROCURING SERVICE: USN
SPEC &/OR DWG:

DESIGN COG: USN, BuShips

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Hewlett-Packard Co.	Palo Alto, Calif.	N0bsr-75337	\$250.00

June 1957

FREQUENCY CONVERTER**CV-80/U****FUNCTIONAL DESCRIPTION**

Contract 42378.

The CV-80/U is used to extend the range of Noise-Field-Intensity Meter TS-507/U or TS-587A/U.

No field changes in effect at time of preparation (26 September 1956).

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

Nomenclature Card for Frequency Converter CV-80/U.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

CONVERTING SIGNALS: Received in the range of 375 to 5000 mc, to 375 mc.

INPUT POWER: 105 to 125 v, 50 to 1600 cps, single ph.

MANUFACTURER'S OR CONTRACTOR'S DATA

Stoddart Aircraft Mfg Co.

TYPE CLASSIFICATION DESIGN COGNIZANCE BUSHIPS PROCUREMENT COGNIZANCE STOCK NO. R.D.B. IDENT. NO.
--

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Frequency Converter CV-80/U	12 X 12 X 20	20

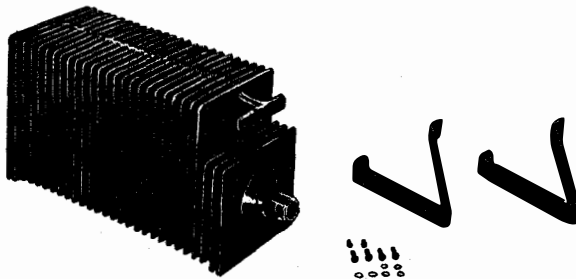
UNCLASSIFIED

January 1961

Test-Associated Devices

DUMMY LOAD, ELECTRICAL

DA-177/U



Dummy Load, Electrical DA-177/U

FUNCTIONAL DESCRIPTION

Electrical Dummy Load DA-177/U is a portable, general purpose 50-ohm coaxial line termination for use on either ship or shore installation. The equipment provides an accurate, dependable, practically non-reflective load adjustment and testing of transmitters under non-radiating conditions.

No field changes in effect at time of preparation (25 January 1960).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

INPUT IMPEDANCE: 50 ohms.

LOAD POWER RATING (UP TO 40° C AMBIENT): 50 W avg power, continuous duty.

VOLTAGE STANDING WAVE RATIO: Not greater than 1.2 (0 to 3300 mc), not greater than 1.15 (960 mc to 1215 mc).

MANUFACTURER'S OR CONTRACTOR'S DATA

Sierra Electronic Corp, Menlo Park, Calif.
 Part No. 160A-500 FLC. Dwg No. SP-8134-3A.
 Contract NObsr-71694, dated 15 February 1957.
 Approximate Cost: \$169.50.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

REFERENCE DATA AND LITERATURE

NAVSHIPS 93065: Technical Sheet for DUMMY LOAD ELECTRICAL DA-177/U.

TYPE CLASSIFICATION (NAVY)
 DESIGN COGNIZANCE USN, BUSHIPS
 PROCUREMENT COGNIZANCE
 STOCK NO.
 R.D.B. IDENT. NO. 11.7

EQUIPMENT SUPPLIED DATA

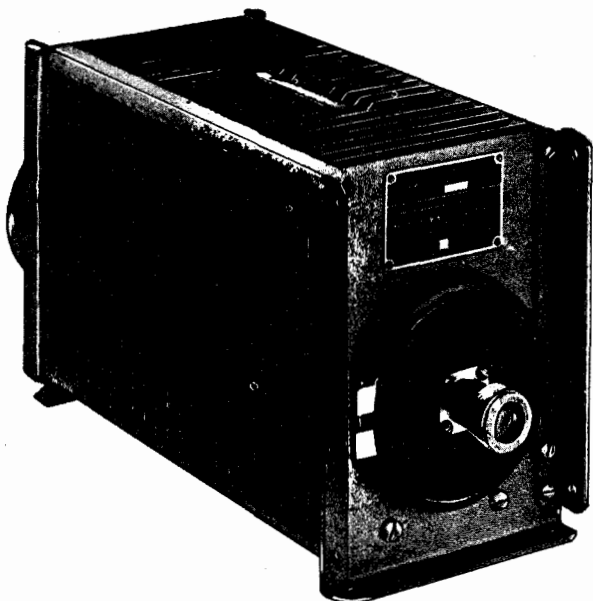
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Dummy Load, Electrical DA-177/U	6 X 8 X 17	28

UNCLASSIFIED

4.11 DA-177/U: 1

January 1961

Test-Associated Devices

DUMMY LOAD, ELECTRICAL**DA-177A/U***Dummy Load, Electrical DA-177A/U***FUNCTIONAL DESCRIPTION**

Electrical Dummy Load DA-177A/U is a portable, general purpose 50-ohm coaxial line termination for use on either ship or shore installation. The equipment provides an accurate, dependable, practically non-reflective load for adjustment and testing of transmitters under non-radiating conditions.

No field changes in effect at time of preparation (25 January 1960).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

INPUT IMPEDANCE: 50 ohms.

LOAD POWER RATINGS (UP TO 45° C AMBIENT):
500 W avg power-continuous duty; 15 kw

peak power.

VOLTAGE STANDING WAVE RATIO: Not greater than 1.15 (0 to 3300 mc).

MANUFACTURER'S OR CONTRACTOR'S DATA

Bird Electronic Corp., Cleveland, Ohio.

Pt/Dwg No. 820103, Model 8201 Dummy load.

Contract NObsr-75140, dated 5 March 1958.

Approximate Cost: \$165.00.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

REFERENCE DATA AND LITERATURE

NAVSHIPS 93281: Technical Sheet for DUMMY LOAD, ELECTRICAL DA-177A/U.

TYPE CLASSIFICATION (NAVY)
DESIGN COGNIZANCE USN, BUSHIPS
PROCUREMENT COGNIZANCE
STOCK NO.
R.D.B. IDENT. NO. 11.7

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Dummy Load, Electrical DA-177A/U	6 X 8-1/2 X 18-1/2	21

7 June 1962

DUMMY LOAD, ELECTRICAL DA-201/U

Cog Service:

FSN:

Functional Class:

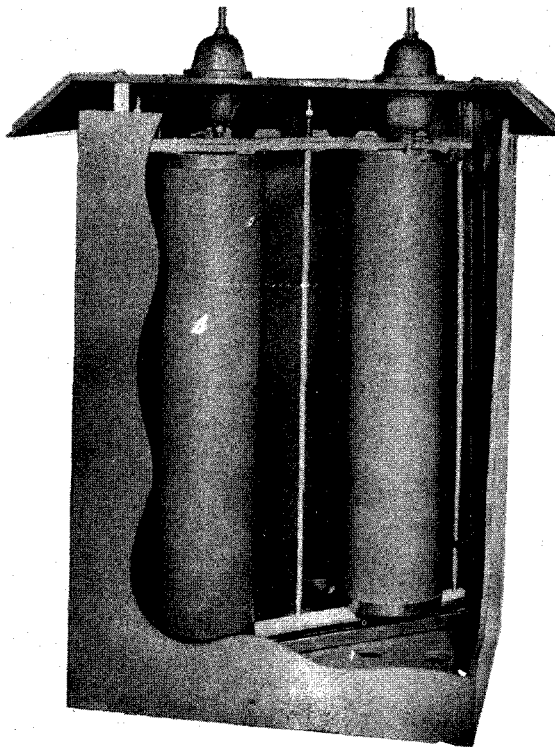
USA

USN

USAF

TYPE CLASS:

MANUFACTURER'S NAME/CODE NUMBER: The Technical Materiel Corporation.



Dummy Load, Electrical DA-201/U

FUNCTIONAL DESCRIPTION:

Electrical Dummy Load DA-201/U is a general purpose, resistive termination capable of dissipating R.F. energy from dc to 30 mc at 600 ohms impedance. It is used with, but not of, AN/FRT-39 and other radio transmitters. The power dissipation is 10,000 watts peak and 5,000 watts nominal. Two connector-type terminations are provided.

The DA-201/U is mounted with brackets and support rods. The special pyrex-glass resistors are shock-mounted. The insulation is teflon. Spark gaps protect against overload. The protective case is reinforced fiberglass.

No field changes in effect at time of preparation (7 April 1961).

TECHNICAL CHARACTERISTICS:

FREQUENCY RANGE: DC to 30 mc.

NOMINAL IMPEDANCE: 600 ohms.

DA-201/U DUMMY LOAD, ELECTRICAL

POWER RATING: 5000 W.

OPERATING TEMPERATURE: M40 to P100 deg F (ambient).

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Dummy Load, Electrical DA-201/U		23-3/4 x 46-3/4 x 63-1/2	

REFERENCE DATA AND LITERATURE:

TMC BULLETIN 188B: Technical Data Sheet for Dummy Loads DA-199/U, DA-200/U, DA-201/U.

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	52.0	125

PROCUREMENT DATA

PROCURING SERVICE:

DESIGN COG: USN, BuShips

SPEC &/OR DWG:

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
The Technical Materiel Corp.	Mamaroneck, New York	N0bsr-75597,	\$1,500.00
Model no. TER-5000(600)		4 November 1958	

24 May 1962
Cog Service:

FSN:

DUMMY LOAD, ELECTRICAL DA-209/U
Functional Class:

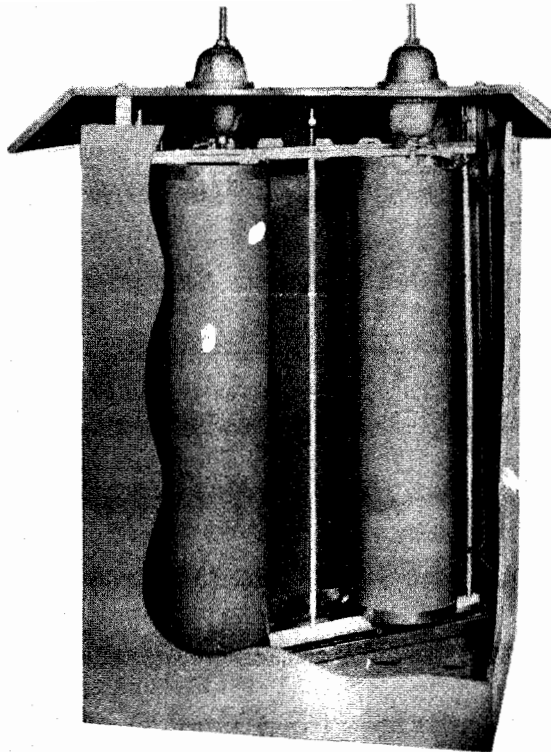
USA

USN

USAF

TYPE CLASS:

MANUFACTURER'S NAME/CODE NUMBER: The Technical Materiel Corp.



Dummy Load, Electrical DA-209/U

FUNCTIONAL DESCRIPTION:

Electrical Dummy Load DA-209/U is a general-purpose, resistive termination capable of dissipating R.F. energy from dc to 30 mc at 50 ohms impedance. It is used with, but is not part of, AN/FRT-39 and other radio transmitters. The power dissipation is 10,000 watts peak and 5,000 watts nominal. Two connector-type terminations are provided.

The DA-209/U is mounted with brackets and support rods. The special pyrex-glass resistors are shock mounted. The insulation is teflon. Spark gaps protect against overload. The protective case is reinforced fiberglass.

No field changes in effect at time of preparation (7 April 1961).

TECHNICAL CHARACTERISTICS:

FREQUENCY RANGE: DC to 30 mc.

NOMINAL IMPEDANCE: 50 ohms.

DA-209/U DUMMY LOAD, ELECTRICAL

POWER RATING: 5000 W.
OPERATING TEMPERATURE: M40 to P100 deg F (ambient).

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Dummy Load, Electrical DA-209/U		23-3/4 x 46-3/4 x 63-1/2	

REFERENCE DATA AND LITERATURE:

TMC BULLETIN 188B: Technical Data Sheet for Dummy Loads DA-199/U, DA-200/U, DA-201/U, DA-209/U, DA-210/U.

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	52.0	125

PROCUREMENT DATA

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

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
The Technical Materiel Corp. Model no. TER-5000(50)	Mamaroneck, N. Y.	N0bsr-75597, 4 November 1958	\$1,500.00

23 May 1962
Cog Service:

FSN: 5820-799-8438

DUMMY LOAD, ELECTRICAL DA-210/U
Functional Class:

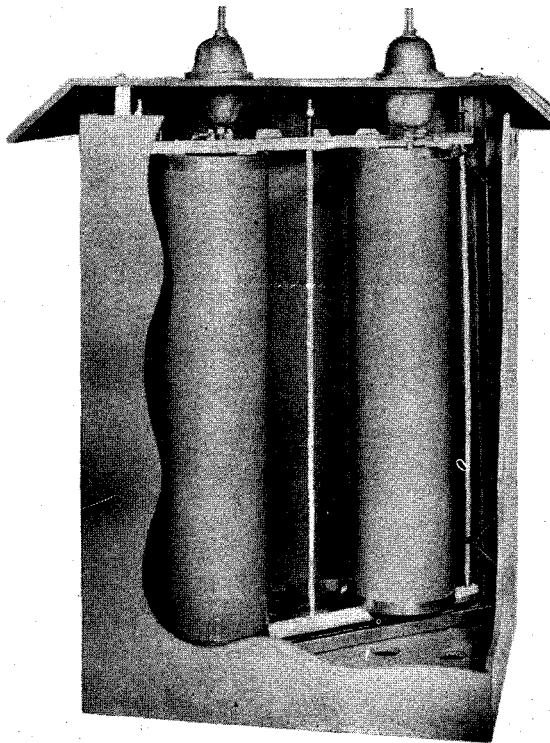
USA

USN

USAF

TYPE CLASS:

MANUFACTURER'S NAME/CODE NUMBER: The Technical Materiel Corp.



Dummy Load, Electrical DA-210/U

FUNCTIONAL DESCRIPTION:

Electrical Dummy Load DA-210/U is a general purpose, resistive termination capable of dissipating rf energy from dc to 30 mc at 70 ohms impedance. It is used with, but is not a part of, AN/FRT-39 and other radio transmitters. The power dissipation is 10,000 watts peak and 5,000 watts nominal. Two connector-type terminations are provided.

The DA-210/U is mounted with brackets and support rods. The special pyrex-glass resistors are shock mounted, insulation is teflon. Spark gaps protect against overload. The protective case is reinforced fiberglass.

No field changes in effect at time of preparation (7 April 1961).

TECHNICAL CHARACTERISTICS:

FREQUENCY RANGE: DC to 30 mc.

NOMINAL IMPEDANCE: 70 ohms.

DA-210/U DUMMY LOAD, ELECTRICAL

POWER RATING: 5000 W.

OPERATING TEMPERATURE: M40 to P100 deg F (ambient).

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Dummy Load, Electrical DA-210/U		23-3/4 x 46-3/4 x 63-1/2	

REFERENCE DATA AND LITERATURE:

TMC BULLETIN 188B: Technical Data Sheet for Dummy Loads DA-199/U, DA-200/U, DA-201/U, DA-209/U, DA-210/U.

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	52.0	125

PROCUREMENT DATA

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

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
The Technical Materiel Corp. Model no. TER-5000(70)	Mamaroneck, N. Y.	N0bsr-75597, 4 November 1958	\$1,500.00
		N0bsr-81394, 24 May 1960	\$1,500.00

13 February 1963

Cog Service: USN FSN:

DUMMY LOAD, ELECTRICAL DA-218/U

Functional Class: 11.7

USA

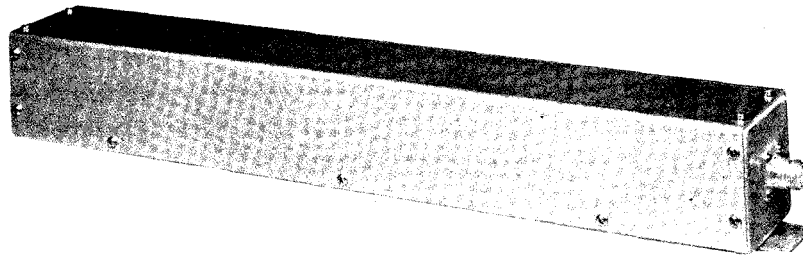
USN

USAF

TYPE CLASS:

Std

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



Dummy Load, Electrical DA-218/U

FUNCTIONAL DESCRIPTION:

Dummy Load, Electrical DA-218/U is used in lieu of an antenna to dissipate the output of a transmitter. It may be used for testing, or to tune a transmitter under conditions of radio silence.

No field changes in effect at time of preparation (14 June 1962).

TECHNICAL CHARACTERISTICS:

POWER RATING: 500 W continuous with cooling of 50 lbs of air per hr.

FREQUENCY RANGE: 2 to 30 mc.

INPUT RESISTANCE: 50 ohms porm 10%.

INPUT STANDING WAVE RATIO: 1.18 to 1 or less from 2 to 3 mc.

MOUNTING: Four 0.187 in. dia holes spaced on 1.0 in. x 20-1/4 in. centers.

DA-218/U DUMMY LOAD, ELECTRICAL

RELATION TO OTHER EQUIPMENT:

This unit is used with, but is not part of Radio Set AN/URC-32.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Dummy Load, Electrical DA-218/U		2-5/8 x 2-7/8 x 20-7/8	4

REFERENCE DATA AND LITERATURE:

NAVSHIPS 93285(A): Technical Manual for Radio Set AN/URC-32.

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
SPEC &/OR DWG:

DESIGN COG: USN, BuWeps

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Collins Radio Co.	Cedar Rapids, Iowa	NObsr-75279 NObsr-81220	

13 February 1963
Cog Service: USN FSN:

DUMMY LOAD, ELECTRICAL DA-242/U
Functional Class: 11.7

USA

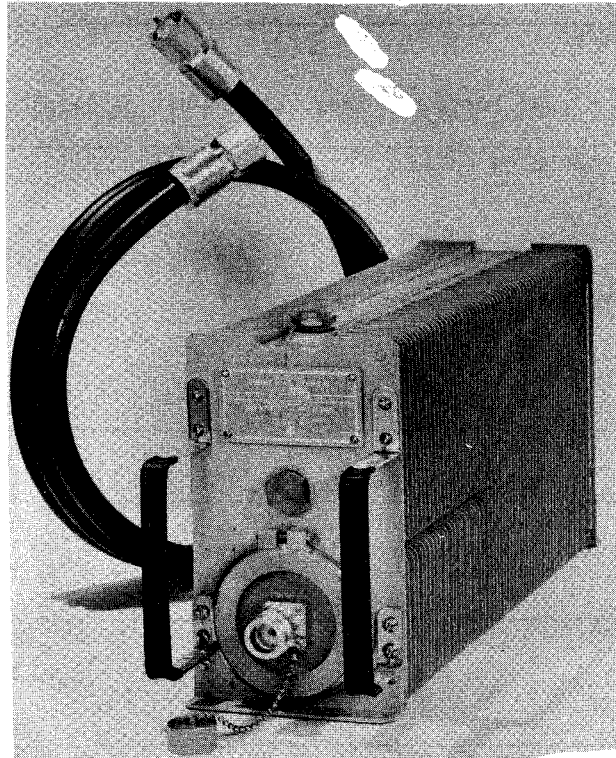
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Bird Electronic Corp., (70998).



Dummy Load, Electrical DA-242/U

FUNCTIONAL DESCRIPTION:

Dummy Load, Electrical DA-242/U is designed as a low-reflection and nonradiating termination for the coaxial rf transmission lines to assist in tuning and trouble-shooting of transmitting equipment within its rating.

No field changes in effect at time of preparation (22 November 1962).

TECHNICAL CHARACTERISTICS:

FREQUENCY RANGE: DC to 1000 mc.
INPUT IMPEDANCE: 50 ohms, nominal.

POWER INPUT: 2500 W, continuous.
VSW RATIO: 1.1 to 1.0 max.

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

DA-242/U DUMMY LOAD, ELECTRICAL

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Dummy Load, Electrical DA-242/U		6-3/8 x 11-1/8 x 24-5/16	33.5
1	Cable p/O DA-242/U		1-1/2 dia x 120	5.3
2	Technical Manual NAVSHIPS 93762		1/4 x 9 x 11-1/2	0.5

REFERENCE DATA AND LITERATURE:

NAVSHIPS 93762: Technical Manual for Dummy Load, Electrical DA-242/U.

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
SPEC &/OR DWG: SHIPS-D-3312

DESIGN COG: USN, BuShips

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Bird Electronic Corp. Model no. 8894	Solon, Ohio	N0bsr-81048, 18 September 1959	\$970.00

13 February 1963
Cog Service: USN FSN: F5985-679-5718

DUMMY LOAD, ELECTRICAL DA-88A/U
Functional Class: 11.7

USA

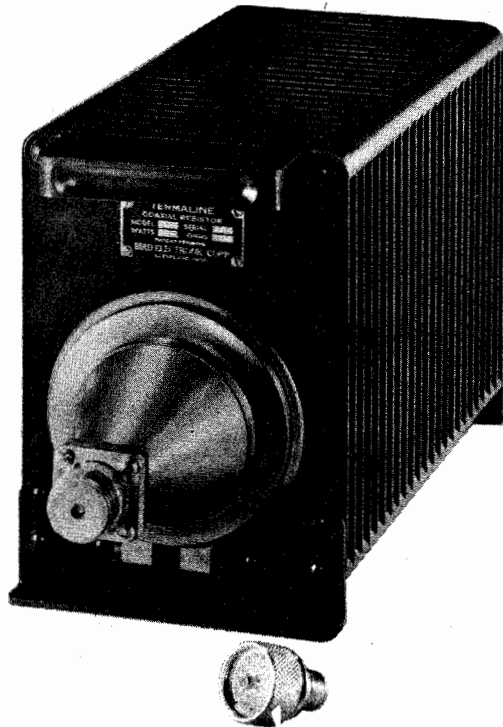
USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Bird Electronic Corp., (70998).



Dummy Load, Electrical DA-88A/U

FUNCTIONAL DESCRIPTION:

Electrical Dummy Load DA-88A/U is a general purpose, standard type line for 51.5 ohm radio frequency transmission lines. It furnishes a practically nonreflective power dissipating unit for the adjustment and testing of transmitters under nonradiating conditions.

No field changes in effect at time of preparation (28 December 1962).

TECHNICAL CHARACTERISTICS:

FREQUENCY RANGE: 0 to 3300 mc.

POWER RATING: 500 W.

IMPEDANCE: 50 ohms.

VSWR: Less than 1.1 to 1000 mc.

AMBIENT TEMPERATURE: M60 deg C to P45 deg C.

DA-88A/U DUMMY LOAD, ELECTRICAL

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Dummy Load, Electrical DA-88A/U		5-15/16 x 8-7/16 x 18-1/2	17

REFERENCE DATA AND LITERATURE:

NAVSHIPS 93289: Instruction Sheet for Dummy Load, Electrical DA-88A/U.

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, BuShips

SPEC &/OR DWG:

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Bird Electronic Corp.	Cleveland, Ohio	NObsr-75296	\$107.25
Model no. 82A		NObsr-75594	\$105.65

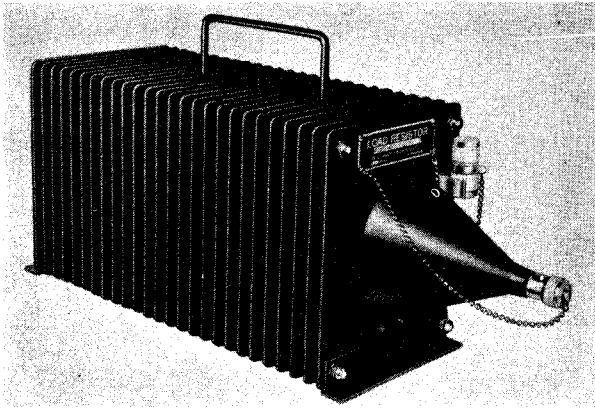
UNCLASSIFIED

January 1981

Test-Associated Devices

ELECTRICAL DUMMY LOAD

DA-91/U



Electrical Dummy Load DA-91/U

FUNCTIONAL DESCRIPTION

Electrical Dummy Load DA-91/U is a portable terminating device which presents a 51 ohm impedance to coaxial cables. It is used when aligning, adjusting, or testing medium power transmitters or low impedance rf circuits.

No field changes in effect at time of preparation (21 April 1960).

MANUFACTURER'S OR CONTRACTOR'S DATA

FREQUENCY RANGE: 0 to 3000 mc.
 POWER DISSIPATION: 600 W.
 INPUT IMPEDANCE: 51 ohms.
 VOLTAGE STANDING WAVE RATIO: 1.2:1.

MANUFACTURER'S OR CONTRACTOR'S DATA

Federal Telephone and Radio Corp., Clif-

ton, New Jersey.

Dwg No. B-2140330-B.

Contract NObsr-52021, dated 1 September 1950.

Federal Telephone and Radio Corp., Clifton, New Jersey.

Contract NObsr-63444

Federal Telephone and Radio Corp., Clifton, New Jersey.

Dwg No. C-2142772-A.

Contract NObsr-75216.

M. C. Jones Electronics Co. Inc., Bristol, Connecticut.

Model No. 632 modified.

Contract NObsr-81183.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

REFERENCE DATA AND LITERATURE

NAVSHIPS 91833(A): Technical Manual for RADIO TRANSMITTING SETS AN/URT-2, -3, -4.

TYPE CLASSIFICATION (STD)
 DESIGN COGNIZANCE USN, BUSHIPS
 PROCUREMENT COGNIZANCE
 STOCK NO.
 R.D.B. IDENT. NO. 11.7

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Electrical Dummy Load DA-91/U	1	7-1/2 x 9-1/4 x 20-1/4	16-3/4

EQUIPMENT SUPPLIED DATA

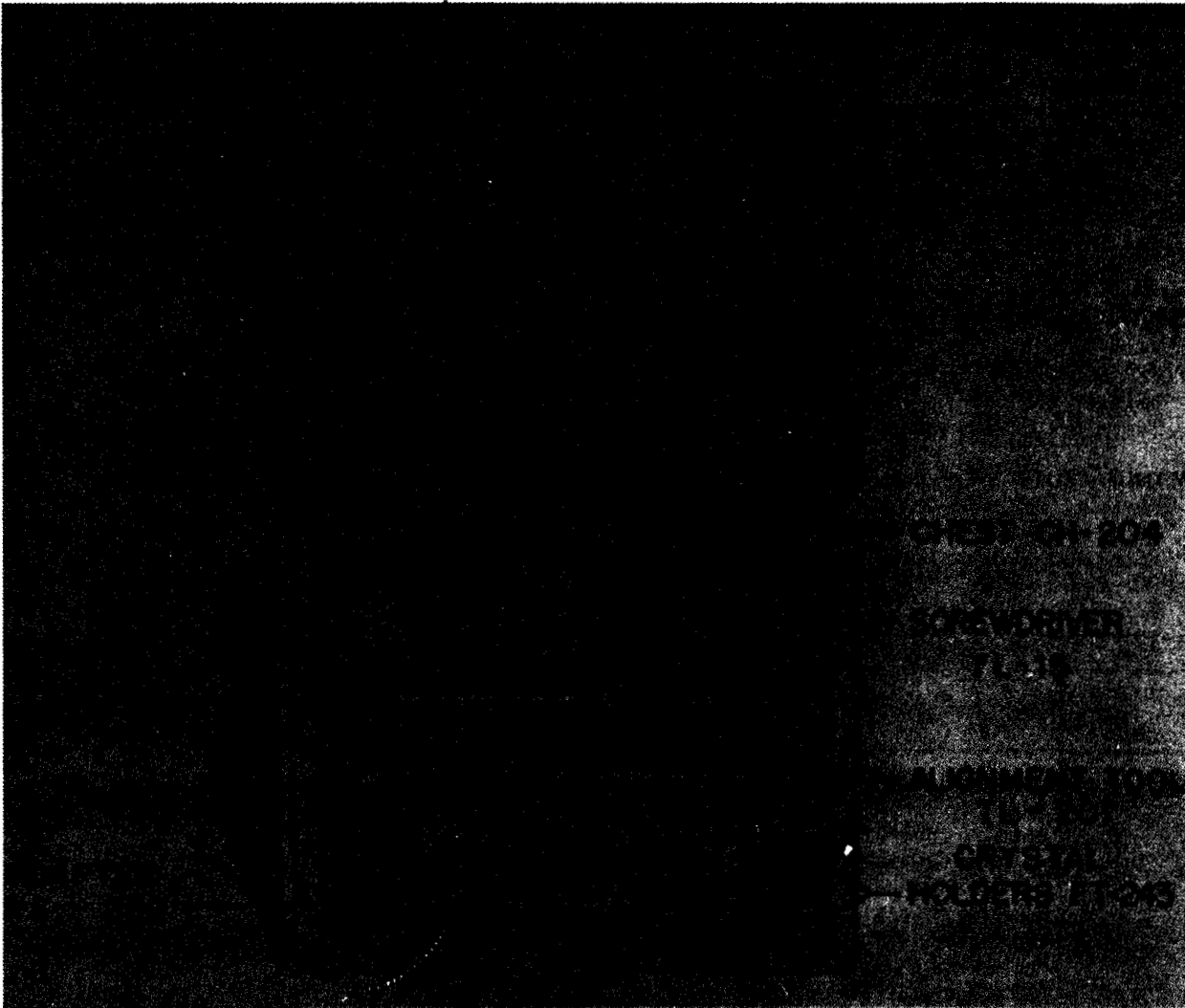
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Electrical Dummy Load DA-91/U	6 x 7-1/8 x 18-5/8	

UNCLASSIFIED

4.11 DA-91/U: 1

ALIGNMENT EQUIPMENT

ME-73



Alignment Equipment ME-73

FUNCTIONAL DESCRIPTION

The ME-73 consists of instruments and tools to be used with Adapters M-394 and M-399 to adjust and align Radio Sets SCR-509, SCR-510, SCR-609, SCR-610.

No field changes in effect at time of preparation (26 Mar 1957).

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

TM11-318: Technical Manual for ALIGNMENT EQUIPMENT ME-73.

TYPE CLASSIFICATION DESIGN COGNIZANCE TASSA PROCUREMENT COGNIZANCE STOCK NO. R.D.B. IDENT. NO.
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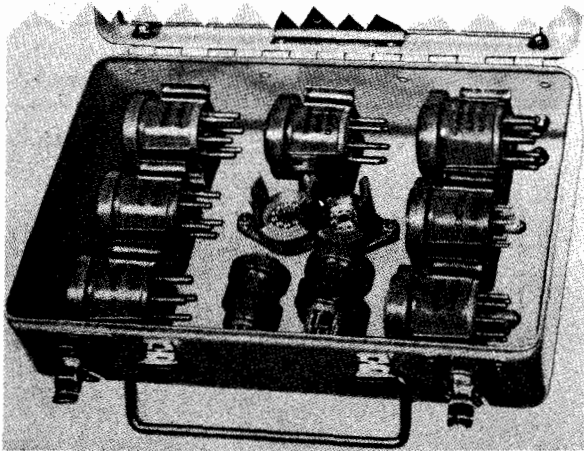
ME-73

ALIGNMENT EQUIPMENT

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Chest CH-204 consists of:	2-1/2 x 6-1/2 x 7-1/4	2.12
1	Adapter RS-259		
1	Alignment Tool TL-207		
1	Crystal Holder FT-243, w/2.88 mc crystal		
1	Crystal Holder FT-243, w/4.3 mc crystal		
1	Screwdriver TL-15		
1	wrench, 5/16 in.		
2	Technical Manual TM11-318		

Apr 11 1958

TUBE SOCKET ADAPTER KIT**MX-1258/U**

Tube Socket Adapter Kit MX-1258/U

FUNCTIONAL DESCRIPTION

The MX-1258/U consists of nine types of adapters, mounted within an aluminum transit case, complete with handle. The adapters are secured within the case by means of mounting clips. An additional clip for securing the instruction book is provided in the case lid. Pin straighteners for the 7 and 9 pin miniature bases are permanently mounted in the center of the transit case.

This Tube Socket Adapter Kit is intended for use in general electronics testing of equipment employing electron tubes. The nine adapters contained in the Kit provide the facility for testing circuit conditions with practically all of the commonly used electron tubes.

No field changes in effect at time of preparation (12 February 1958).

RELATION TO OTHER EQUIPMENT

Replaces Navy Type - 49992 Adapter Kit.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

PIN CONNECTIONS: Base pin connected through to equivalent socket terminals.

TEST PROBE ACCOMMODATION: Radial metal tabs at top of adapter w/small hole in center of each tab.

VOLTAGE: Relatively high across adjacent terminals w/o danger of flashover.

MANUFACTURER'S OR CONTRACTOR'S DATA

Vector Electronic Co, Los Angeles, Calif.

Contract: NObsr-57246 dated 26 February 1952.

Contract: NObsr-63213, NObsr-64669, NObsr-71702.

Approximate Cost: \$35.00 with equipment spares for NObsr-57246.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals.

REFERENCE DATA AND LITERATURE

NAVSHIPS 91798, Technical Manual for Tube Socket Adapter Kit MX-1258/U.

TYPE CLASSIFICATION
 DESIGN COGNIZANCE BUSHIPS
 PROCUREMENT COGNIZANCE MIL-T-16144 (SHIPS)
 STOCK NO.
 R.D.B. IDENT. NO.

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Tube Socket Adapter Kit MX-1258/U incl (9) Adapters (1) Pin Straighteners (2) Technical Manuals	0.083	3 x 6-1/2 x 8-3/4	3

Test-Associated Devices

MX-1258/U

TUBE SOCKET ADAPTER KIT

April 1958

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Adapter, Tube Socket (4 prong) U-97/U	1-9/16 dia x 2 in.	
1	Adapter, Tube Socket (5 prong) U-98/U	1-9/16 dia x 2	
1	Adapter, Tube Socket (6 prong) U-99/U	1-9/16 dia x 2	
1	Adapter, Tube Socket (7 prong, small) U-100/U	1-9/16 dia x 2	
1	Adapter, Tube Socket (7 prong, large) U-101/U	1-3/4 dia x 2	
1	Adapter, Tube Socket (octal) U-102/U	1-9/16 dia x 2-1/8	
1	Adapter, Tube Socket (L octal) U-103/U	1-9/16 dia x 1-15/16	
1	Adapter, Tube Socket (7 prong) U-104/U	1-1/32 dia x 1-3/4	
1	Adapter, Tube Socket (9 prong) U-105/U	1-5/32 dia x 1-3/4	
1	Duplex Tube Pin Straightener		

7 May 1962

Cog Service: USN FSN: 6625-506-4359

TEST ADAPTER MX-2012/U

Functional Class: 11.2.1

USA

USN

USAF

TYPE CLASS:

Used by

MANUFACTURER'S NAME/CODE NUMBER: Radio Corp. of America, RCA Victor Div.



Test Adapter MX-2012/U

FUNCTIONAL DESCRIPTION:

Test Adapter MX-2012/U, when used with a tube tester of the TV-3/U series, provides convenient facilities for testing subminiature vacuum tubes wired into subassemblies of three different types. Interconnections in the Test Adapter between the subassembly jacks and the mate octal plug enable the tube tester facilities to be connected to the mounted tubes for normal testing. Subassemblies from the following radio receiving sets can be accommodated: AN/FRR-18, -19, -21, -22, -23, -24, AN/MRR-1, -2, -3, AN/SRR-11, -12, -13, and -13A. In addition, unmounted type 5644 tubes can be tested.

No field changes in effect at time of preparation (10 January 1962).

TECHNICAL CHARACTERISTICS: None.

RELATION TO OTHER EQUIPMENT: None.

MX-2012/U TEST ADAPTER

EQUIPMENT REQUIRED BUT NOT SUPPLIED:

(1) Tube Tester TV-3/U, TV-3A/U, TV-3B/U, or TV-3C/U; (1) Technical Manual for Tube Tester.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Test Adapter MX-2012/U		4.5 x 5.25 x 8	1.75

REFERENCE DATA AND LITERATURE:

NAVSHIPS 92743: Technical Manual for Test Adapter MX-2012/U.

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	0.3	5

PROCUREMENT DATA

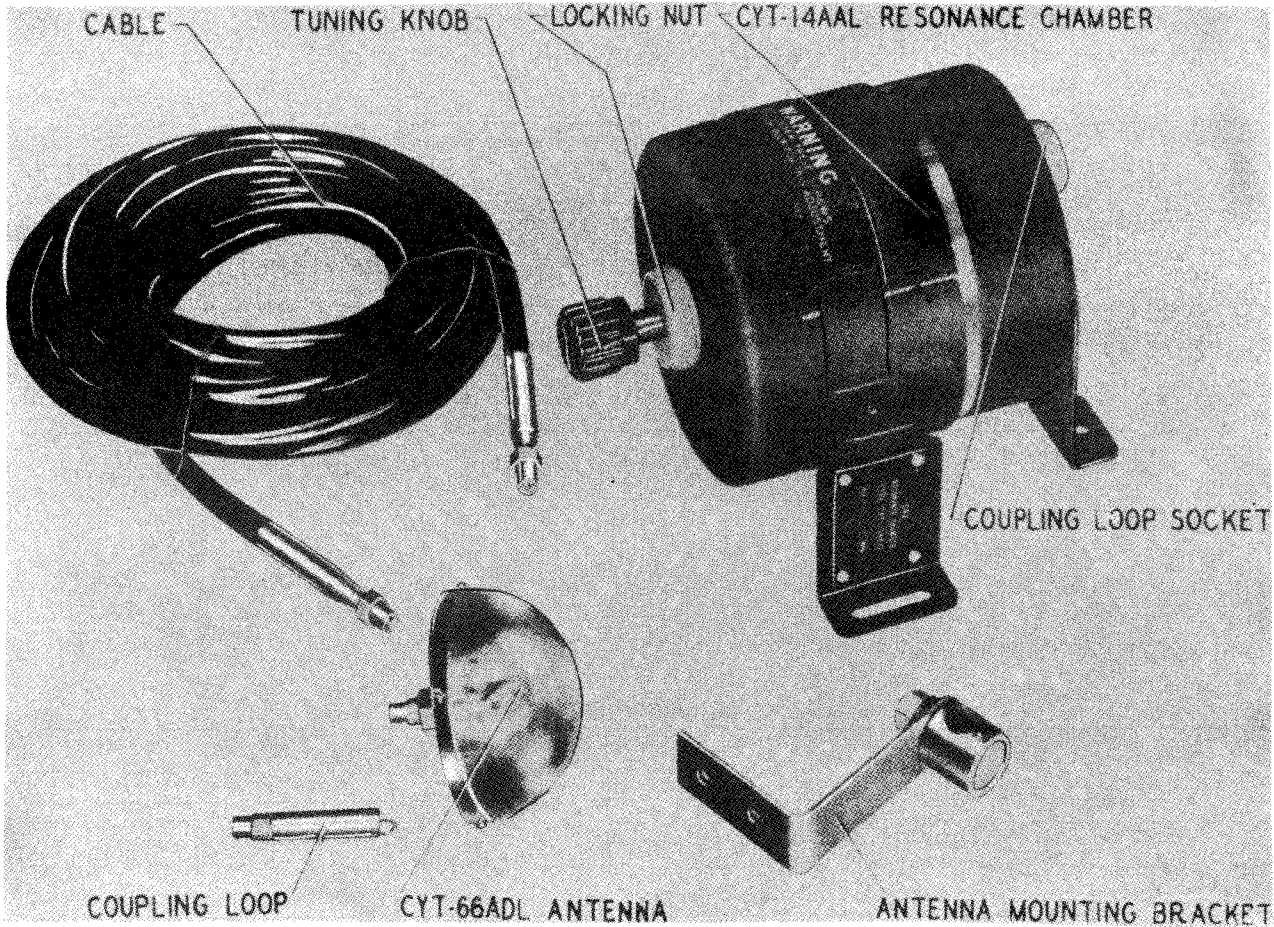
PROCURING SERVICE: USN
SPEC &/OR DWG:

DESIGN COG: USN, BuShips

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Radio Corp. of America, RCA Victor Div. Pt/dwg no. 755956	Camden, N. J.	NObsr-71157, 3 January 1956	\$ 75.09
		NObsr-71857, 25 June 1957	\$101.73
		NObsr-75103, 11 February 1958	\$ 64.70
		NObsr-75628	\$ 59.02

August 1957

Test-Associated Devices

PHANTOM TARGET EQUIPMENT**OAJ***Phantom Target Equipment OAJ***FUNCTIONAL DESCRIPTION**

The Model OAJ is designed to be permanently installed in aircraft to check the performance of Aircraft Radar Equipment operating at 10 centimeters. It is designed to reflect a signal on the indicator tubes of the Aircraft Radar Equipment and will provide a continuously available source of a target signal. By rotating the spinner of the radar equipment a pattern will be obtained on the PPI and PRI that will indicate the radiation pattern of the radar antenna.

No field changes in effect at time of preparation (28 November 1956).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY: 3300 mc bands.

RESONANCE CHAMBER

OSCILLATION TIME: Approx 28 usec.

INDICATOR TUBES SIGNAL: Solid from 0 to at least 2.25 mi.

MANUFACTURER'S OR CONTRACTOR'S DATA

Philco Corporation, Philadelphia, Pa.
Contract NXs 3932.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

UNCLASSIFIED

4.11 OAJ: 1

August 1957

Test-Associated Devices

OAJ

PHANTOM TARGET EQUIPMENT

REFERENCE DATA AND LITERATURE

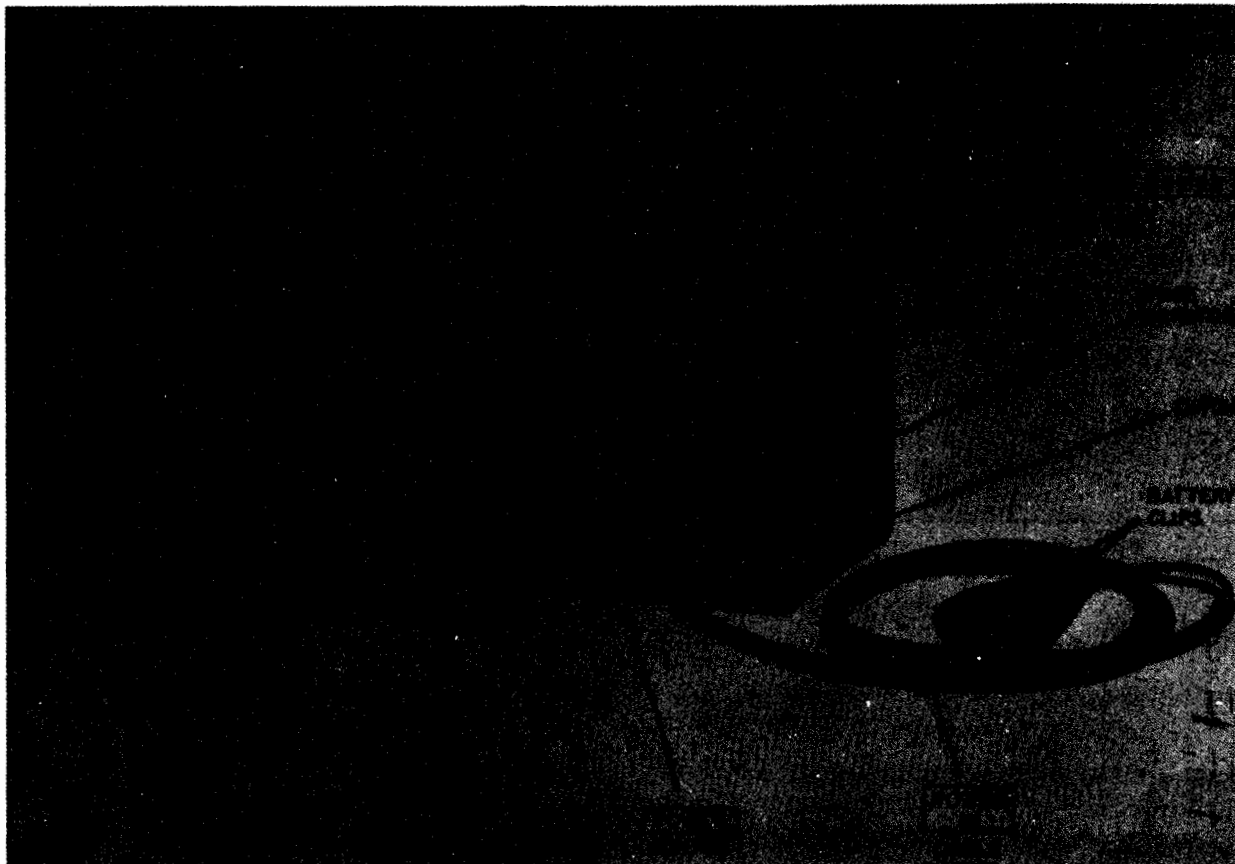
NAVSHIPS 95160: Technical Manual for Navy
Models OAJ, OAJ-1, OAK Test Equipment.

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUAER
PROCUREMENT COGNIZANCE
STOCK NO.
R.D.B. IDENT. NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Resonance Chamber NT-14AAL	5-5/8 X 8-3/8 X 9-3/8	2.81
1	Antenna Assembly NT-66ADL	2-3/4 X 3/3/8 X 3-3/8	0.19
1	Antenna Mounting Bracket	1 X 3-1/4 X 3-1/2	0.34
1	Coupling Loop	3/8 X 13/16 X 2-3/8	0.03
1	Cable *	240 lg	2.19
		264 lg	2.4
		132 lg	1.2

* Cable supplied in either of three lengths depending on type of aircraft in which it is to be installed.

VIBRATOR PACK PP-68/U, 68A/U, 68B/U, 68C/U

Vibrator Pack PP-68/U

FUNCTIONAL DESCRIPTION

The PP-68/U, PP-68A/U, PP-68B/U, and PP-68C/U are portable vibrator-type power supplies designed to provide 100 to 110 volts alternating current at 60 cycles with a primary power source of a 6 or 12 volt storage battery. They can be continuously operated at a high-power output of 50 watts or a low-power output of 15 watts, and may be used to supply power, at locations where 110 volts alternating current is not available, for Tube Tester I-177, Electron Tube Test Set TV-7/U, or any other electrical equipment that operates on 110 volts, 60 cycles with a maximum power consumption of 50 watts.

They are interchangeable in application, and the mechanical and electrical differences between models are relatively minor.

No field changes in effect at time of preparation (16 April 1957).

RELATION TO OTHER EQUIPMENT

Equipment Required but not Supplied: (1) Storage Battery, 6 or 12 volt.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

OUTPUT: 100 to 110 v, 60 cps, 50 or 15 w.
INPUT DATA

Test-Associated Devices

PP-68/U,68A/U,68B/U,68C/U

VIBRATOR PACK

VOLTAGE: 6.3 or 12.6 v DC.
CURRENT

6.3 v INPUT: 6.0 amps for 15 W output,
13.0 amps for 50 W output.

12.6 v INPUT: 2.0 amps for 15 W output,
6.5 amps for 50 W output.

OPERATING TEMPERATURE (NORMAL): -40 to +55
deg C (-40 to +130 deg F).

REFERENCE DATA AND LITERATURE

TM11-2648: Technical Manual for Vibrator
Packs PP-68/U, PP-68A/U, PP-68B/U and
PP-68C/U.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

TYPE CLASSIFICATION
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.
R.D.B. IDENT. NO.

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Vibrator Pack PP-68/U including: (1) Set of Running Spares (2) Technical Manual TM11-2648	0.73	10 x 10 x 12-1/2	24.5
1	Vibrator Pack PP-68A/U including: (1) Set of Running Spares (2) Technical Manual TM11-2648	0.77	10-1/4 x 10-1/4 x 12-1/2	25.5
1	Vibrator Pack PP-68B/U or PP-68C/U including: (1) Set of Running Spares (2) Technical Manual TM11-2648	1.49	12-1/2 x 13-1/2 x 15	33

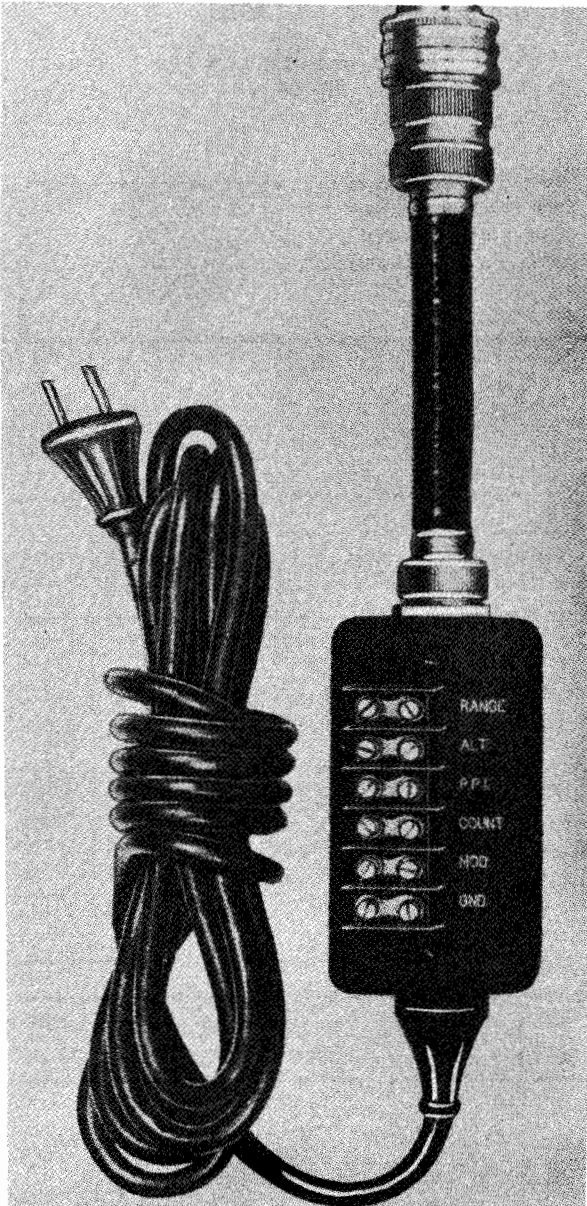
EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	PP-68/U Vibrator Pack PP-68/U	8-3/8 x 8-3/4 x 9-3/8	22
1	Set of Running Spares		
2	Technical Manual TM11-2648		
1	PP-68A/U Vibrator Pack PP-68A/U	8-3/8 x 8-3/4 x 9-3/8	22
1	Set of Running Spares		
2	Technical Manual TM11-2648		
1	PP-68B/U Vibrator Pack PP-68B/U	8-5/8 x 9-5/8 x 11-1/4	29.5
1	Set of Running Spares		
2	Technical Manuals TM11-2648		
1	PP-68C/U Vibrator Pack PP-68C/U	8-5/8 x 9-5/8 x 11-1/4	29.5
1	Set of Running Spares		
2	Technical Manual TM11-2648		

4.11 PP-68/U: 2

TEST LOAD UNIT

TS-101/AP



Test-Load Unit TS-101/AP

FUNCTIONAL DESCRIPTION

The TS-101/AP is a small, auxiliary connector and load box designed for use with Test Oscilloscope TS-100/AP in testing Range Units CP-5/APS-15, CP-4A/APS-15, CP-11/APS-15A and CP-11A/APS-5A. This unit provides specified circuit test connections and dummy operating loads for these circuits.

The TS-101/AP consists of 5 capacitors which are active only when being used in their respective test circuits.

No field changes in effect at time of preparation (29 November 1956).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

OPERATING POWER: 115 v, 400 to 2400 cps.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

AN16-35TS101-2: Technical Manual for Test Load Unit TS-101/AP.

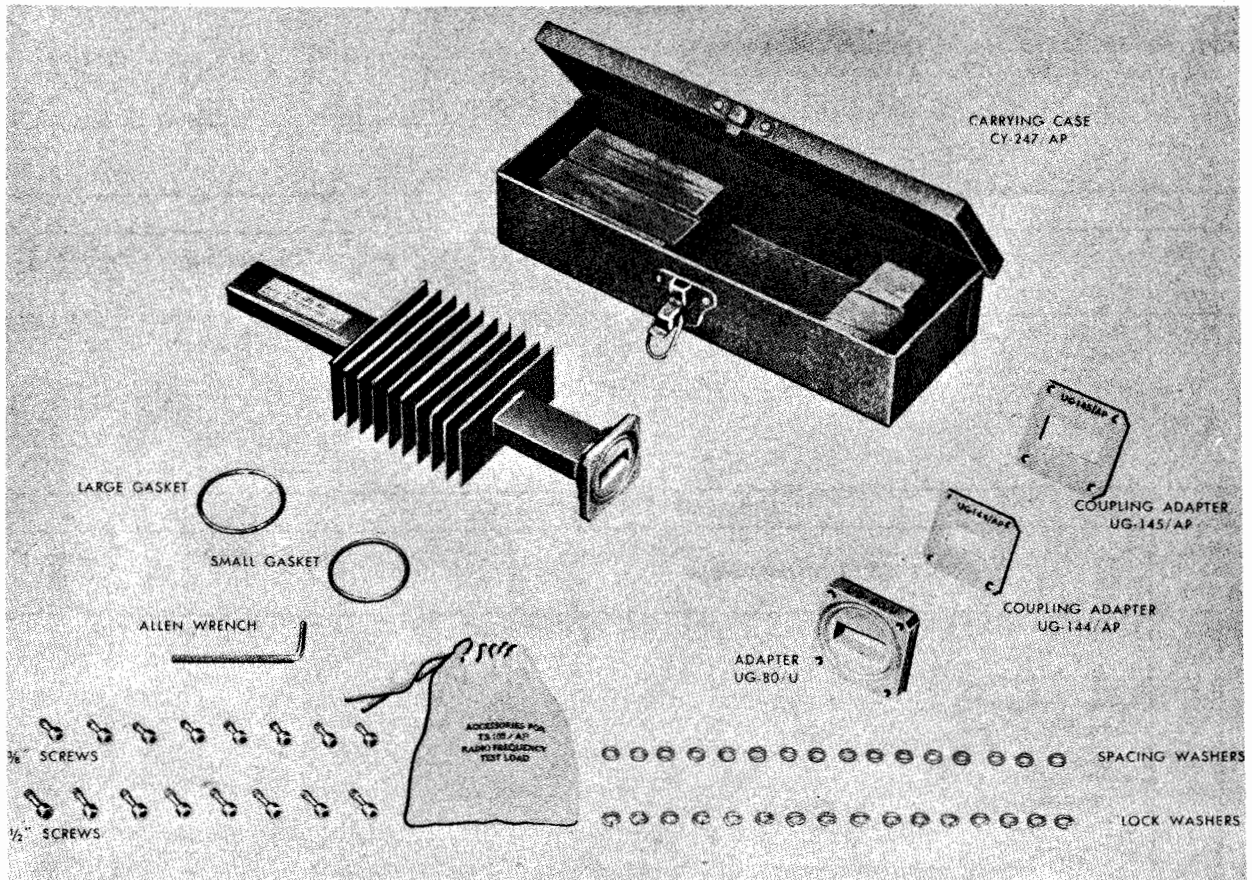
TYPE CLASSIFICATION
 DESIGN COGNIZANCE USAF
 PROCUREMENT COGNIZANCE
 STOCK NO.
 R.D.B. IDENT. NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Test Load Unit TS-101/AP	2-3/16 x 2-3/4 x 11-3/8	1.5
1	Cord CX-237/U	120 lg	

RADIO FREQUENCY TEST LOAD

TS-108/AP, TS-108A/AP



Radio Frequency Test Load TS-108/AP

FUNCTIONAL DESCRIPTION

The TS-108/AP and TS-108A/AP are portable units providing a matched load that absorbs rf energy without appreciable reflection or radiation in bench testing of X-band radar equipment.

No field changes in effect at time of preparation (16 April 1958).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY RANGE: 9,300 to 9,450 mc.
POWER RANGE: 0 to 150 W (avg); 0 to 200 KW (peak).

STANDING WAVE RATIO: 1.05 (max); 1.10 (with adapters).

MANUFACTURER'S OR CONTRACTOR'S DATA

TS-108/AP
Bernard Rice and Sons Inc, NY, NY.
Contract NOa(s)-3670.
Order No. 365-DAY-44.
Order No. 837-DAY-45RA.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

**TS-108/AP,
TS-108A/AP**

RADIO FREQUENCY TEST LOAD

REFERENCE DATA AND LITERATURE

NAVAER 08-5QS-15: Handbook of Maintenance Instructions for Radio Frequency Load TS-108/AP.
NAVAER 08-5S-78: Manual of Test Equipment.

TYPE CLASSIFICATION	
DESIGN COGNIZANCE	BUSHIPS
PROCUREMENT COGNIZANCE	BuAER SPEC 2674, Navy
STOCK NO.	SPEC RE13A988
R.D.B. IDENT. NO.	

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Radio Frequency Test Load TS-108/AP	0.1	3 x 5 x 11	6.5
1	Radio Frequency Test Load TS-108A/AP			

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
TS-108			
/AP			
A/AP			
1	Radio Frequency Test Load TS-108/AP	1-5/8 x 3 x 9-3/16	1.02
1	Radio Frequency Test Load TS-108/AP	1-5/8 x 3 x 5-1/2	
1	Case CY-247/AP	2 x 3-11/16 x 9-1/2	1.16
1	Adapter UG-80/U	13/32 x 1-3/4 x 1-3/4	0.27
1	Adapter UG-144/AP	1/32 x 1-5/8 x 1-5/8	0.02
1	Adapter UG-145/AP	1/32 x 1-13/16 x 1-13/16	0.02
1	Gasket	1.659 od x 0.105 thk	0.002
1	Gasket	1.522 od x 0.092 thk	0.094
1	Bag of Screws, Washers etc.		

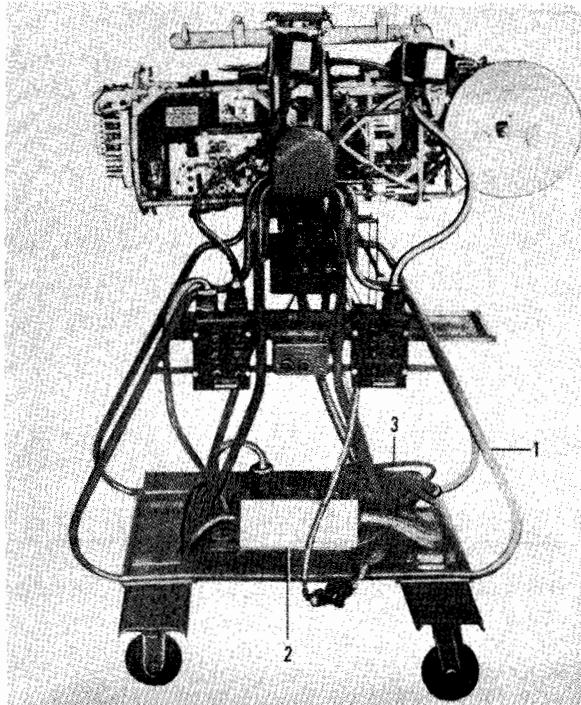
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January 1958

Test-Associated Devices

TEST BENCH

TS-188/APS-4



Test Bench TS-188/APS-4

No field changes in effect at time of preparation (10 July 1957).

MANUFACTURER'S OR CONTRACTOR'S DATA

Western Electric Company, New York, N.Y.
Contract NXsa-16394.
Contract NXsa-25502.
Contract NXsa-96394.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

NAVAER 08-5S-78: Manual of Test Equipment for Airborne Electrical and Electronic Equipment.

FUNCTIONAL DESCRIPTION

TS-188/APS-4 is a rack designed for holding Radar Set AN/APS-4 to facilitate servicing. It is mobile and is equipped with a junction box and a set of cables similar to those used in an aircraft radar installation. It contains provisions for mounting the radar indicators, the indicator-amplifier, and the control box which are to be tested or serviced, and has a crank used for tilting the gear to any desired position.

TYPE CLASSIFICATION	
DESIGN COGNIZANCE	BUAER
PROCUREMENT COGNIZANCE	
STOCK NO.	
R.D.B. IDENT. NO.	

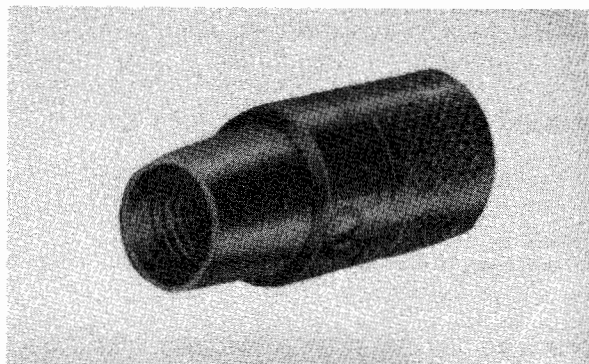
EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Test Bench TS-188/APS-4	36 X 42 X 60	
1	Junction Box		
1	Set of Interconnecting Cables		

UNCLASSIFIED

4.11 TS-188/APS-4: 1

DUMMY ANTENNA



Dummy Antenna TS-208/MPM

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

TM11-1200: Technical Manual for Radar Test Equipment.

FUNCTIONAL DESCRIPTION

The TS-208/MPM is used with Test Antenna TS-210/MPM for aligning IFF receivers.

No field changes in effect at time of preparation (3 December 1956).

TYPE CLASSIFICATION
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.
R.D.B. IDENT. NO.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY RANGE: 157 to 187 mc.

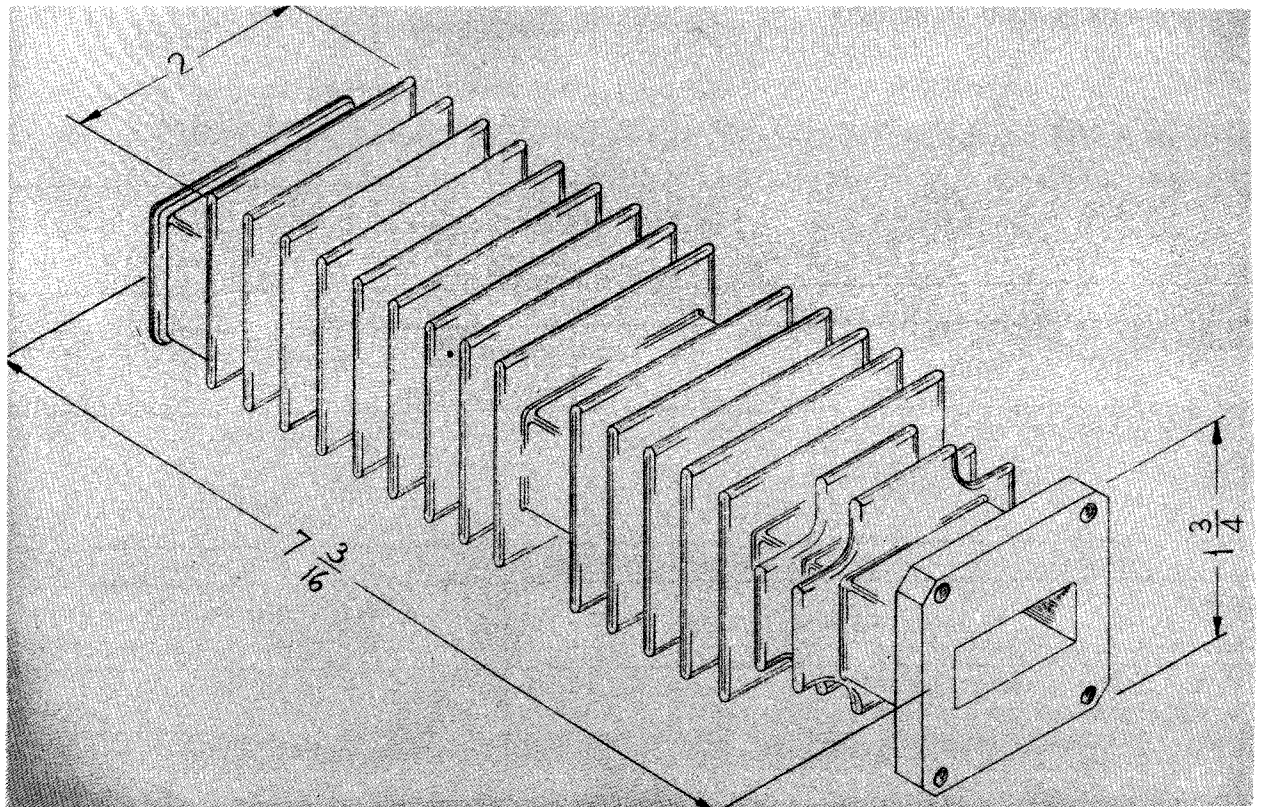
INPUT IMPEDANCE: 50 ohms.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Dummy Antenna TS-208/MPM		

DUMMY ANTENNA

TS-231/AP,
TS-231A/AP



Dummy Antenna TS-231A/AP

FUNCTIONAL DESCRIPTION

The TS-231/AP and TS-231A/AP are used as an RF load in aligning and testing radar sets. It provides a power-absorbing termination for the RF transmission line waveguide into which the radar transmitter can work without radiating energy into space.

No field changes in effect at time of preparation (18 April 1958).

RELATION TO OTHER EQUIPMENT

This equipment is identical with Dummy Antenna 66AHT and similar to Dummy Antenna TS-108/AP.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY RANGE: 8,600 to 9,600 mc.

POWER RANGE: 200 W (avg) at 7,000 v (peak).
VOLTAGE STANDING WAVE RATIO: 1.05 (max).
IMPEDANCE: 50 ohms.
TEMPERATURE RANGE: -40° C to +49° C.

MANUFACTURER'S OR CONTRACTOR'S DATA

TS-231/AP

Western Electric Co., New York, N.Y.

Contract N5sr-11831, 10 August 1945.

Contract NObsr-52001.

King Microwave Co., Inc, New Rochelle, N.Y.

Contract NObsr-52511, 29 May 1951.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

**TS-231/AP,
TS-231A/AP**

DUMMY ANTENNA

REFERENCE DATA AND LITERATURE

NAVSHIPS 900,869: Technical Manual for Dummy Antenna TS-231/AP.
NAVSHIPS 92125: Technical Manual for Dummy Antenna TS-231A/AP.

TYPE CLASSIFICATION	
DESIGN COGNIZANCE	BUSHIPS
PROCUREMENT COGNIZANCE	Navy Spec RE-13A1027
STOCK NO.	(TS-231/AP) CS-745
R.D.B. IDENT. NO.	(TS-231A/AP)

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Dummy Antenna TS-231A/AP w/carrying case	0.44	2-1/2 X 3-3/4 X 8-1/8	2.28

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Dummy Antenna TS-231/AP	1-3/4 X 2 X 7-1/4	1
1	Dummy Antenna TS-231A/AP including:	1-3/4 X 2 X 7	0.812
1	carrying Case CY-1939/U	2-1/4 X 3-1/2 X 7-7/8	0.877

December 1956

DUMMY LOAD**TS-234/UP***Dummy Load TS-234/UP***FUNCTIONAL DESCRIPTION**

The TS-234/UP is power absorbing termination designed to absorb power pulses from radar modulators during radar equipment performance tests.

This unit presents a 16 ohm resistance to pulse voltage and include a voltage divider circuit connected to a meter jack on the front panel.

This meter circuit provides a means of measuring and viewing the output pulse from the modulator with an oscilloscope.

No field changes in effect at time of preparation (10 August 1956).

RELATION TO OTHER EQUIPMENT

EQUIPMENT REQUIRED BUT NOT SUPPLIED (1) Meter Cable.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY: 2 mc, maximum.
 POWER RATINGS: 18000 W.
 PEAK OPERATING VOLTAGE: 5000 v.
 NOMINAL IMPEDANCE: 16 ohms.

MANUFACTURER'S OR CONTRACTOR'S DATA

Western Electric Co. New York, N.Y. Pt/
 dwg-BX-409129,
 CONTRACT-NXss-38866, dated---,
 NObsr-42337, dated 14 May 1948.
 Approximate Cost: \$330.00 With Equipment
 Spares.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes

REFERENCE DATA AND LITERATURE

NAVSHIPS-900458(A) Technical Manual for
 Dummy Load TS-234/UP.

TYPE CLASSIFICATION
 DESIGN COGNIZANCE USAF
 PROCUREMENT COGNIZANCE
 STOCK NO.
 R.D.B. IDENT. NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Dummy Load TS-234/UP	8 x 9-3/16 x 18-1/2	15
1	Cord CG-40/TPS-1	72	5/16

25 May 1962
Cog Service: USAF FSN:

DUMMY LOAD TS-234A/UP
Functional Class: 11.7

USA

USN

USAF

TYPE CLASS:

MANUFACTURER'S NAME/CODE NUMBER: Network Manufacturing Company, (82854).

(No Illustration Available)

FUNCTIONAL DESCRIPTION:

Dummy Load TS-234A/UP absorbs power pulses from modulators of radars. It is used to terminate the modulator output during radar performance tests. The dummy load presents a 16 ohm resistance to pulse voltage. The unit contains a voltage divider circuit connected to a meter jack on the front panel. This meter circuit affords a convenient means of measuring and viewing the output pulse of the modulator with an oscilloscope.

No field changes in effect at time of preparation (13 March 1962).

TECHNICAL CHARACTERISTICS:

FREQUENCY RANGE: 0 to 2 mc.
POWER DISSIPATION RATING: 1,275 W.
VOLTAGE RATING: 5,000 v.
VOLTAGE DIVISION RATIO: 100:1.
INPUT IMPEDANCE: 16 ohms, resistive.

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Dummy Load TS-234A/UP includes:		8 x 9-3/16 x 18-1/2	15
1	Cord CG-40A/TPS-1		72 lg	0.31

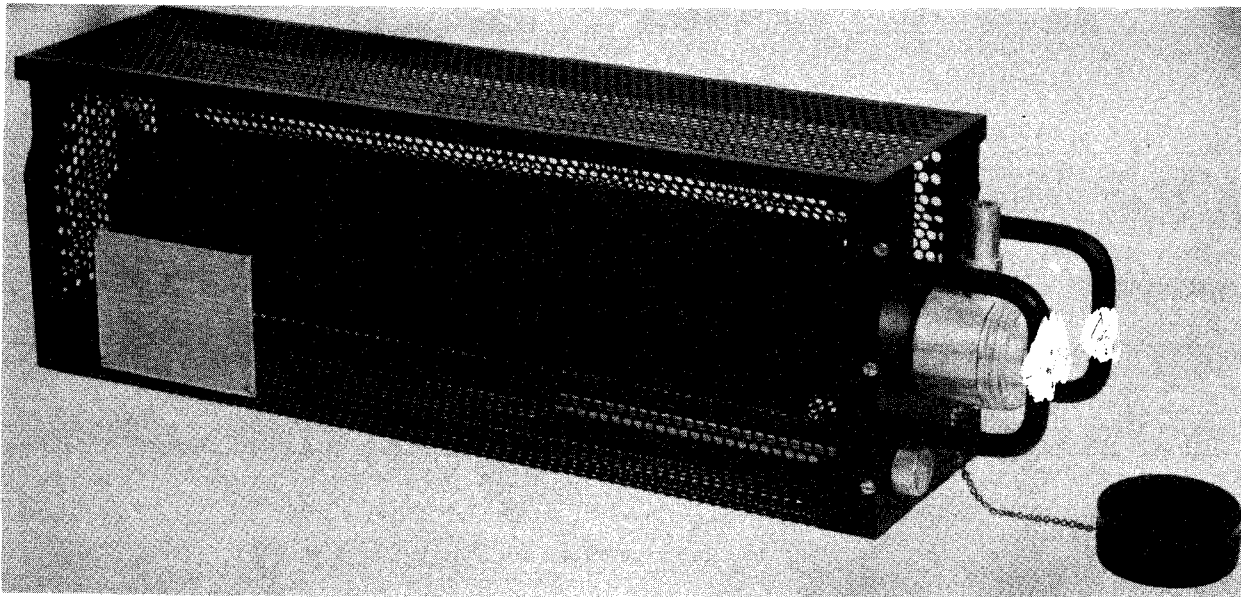
REFERENCE DATA AND LITERATURE: None.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: None used.

CRYSTALS: None used.

SEMI-CONDUCTORS: None used.

DUMMY LOAD ELECTRICAL**TS-235B/UP***Electrical Dummy Load TS-235B/UP***FUNCTIONAL DESCRIPTION**

The TS-235B/UP is designed to be used for terminating a radio frequency (R.F.) transmission line to prevent propagating radio frequency radiations into the atmosphere. Its purpose is to simulate the impedance of the antenna and provide a proper load termination for the transmitter. It functions to absorb the output radio frequency energy of the transmitting device. The dummy antenna is employed in tuning, testing and trouble shooting radio frequency transmitting. The unit includes a test terminal connector probe for coupling test equipment to the transmission line, to enable signals to be measured through a known loss. This feature makes it easy to couple an echo box to the dummy antenna and facilitates measurement and waveform diagnosis of the radio frequency signal.

No field changes in effect at time of preparation (9 January 1959).

RELATION TO OTHER EQUIPMENT

The TS-235B/UP functions in the same man-

ner as the preceding model TS-235A, it is electrically and mechanically interchangeable. But the fan and associated circuitry have been eliminated and maintenance parts differ.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

STANDING WAVE RATIO: 1.2 to 1 max.
 NOMINAL TERMINATING IMPEDANCE: 50 ohms.
 PROBE IMPEDANCE: Approx 50 ohms.
 PROBE COUPLING LOSS AT 1300 MC: 50 db.
 FREQUENCY RANGE: 500 to 1,600 mc.
 PEAK VOLTAGE: 10,000 v.
 POWER RATING: 1000 W average, 10 kilovolts
 for 0.0008 duty cycle.

MANUFACTURER'S OR CONTRACTOR'S DATA

Lieco Inc., Oceanside, L.I., N.Y.
 Contract NObsr-71660.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

Test-Associated Devices

April 1959

TS-235B/UP

DUMMY LOAD ELECTRICAL

REFERENCE DATA AND LITERATURE

NAVSHIPS 900457A: Technical Manual for the
Dummy Load Electrical TS-235B/UP.

TYPE CLASSIFICATION
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE
STOCK NO.
R.D.B. IDENT. NO. 11.7

SHIPPING DATA

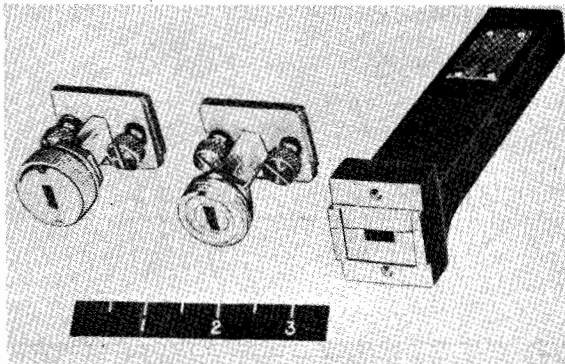
NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Dummy Load Electrical TS-235B/UP	0.76	6-1/2 X 8-1/4 X 25	21

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Adapter Connector	0.625 dia X 7 X 7-5/64	10 oz

February 1960

Test-Associated Devices

DUMMY LOAD**TS-253/AP***Dummy Load TS-253/AP*

POWER RANGE: 35 W (avg); 115 kw (peak).
 VOLTAGE STANDING WAVE RATIO: 1.15 (max).
 TEMPERATURE RANGE: -40° C to +55° C.
 HUMIDITY RANGE: To 95%.
 ALTITUDE RANGE: To 10,000 ft (operating);
 to 50,000 ft (non operating).

MANUFACTURER'S OR CONTRACTOR'S DATA

Bernard Rice's Sons Inc., New York, N. Y.
 Order No. 490-DAY-45RA.
 Order No. 879-45AR, dated 4 June 1945.

FUNCTIONAL DESCRIPTION

Dummy Load TS-253/AP is a portable rf waveguide-type equipment used in matching load absorbing rf energy output of radar sets under test without appreciable reflection or radiation. Application is in field and depot testing.

No field changes in effect at time of preparation (15 July 1959).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY RANGE: 23,500 to 24,500 mc.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

TYPE CLASSIFICATION

DESIGN COGNIZANCE USAF, WADC

PROCUREMENT COGNIZANCE USAF SPEC S-7004;
 USAF DWG C-6073-A

STOCK NO.

R.D.B. IDENT. NO. 11.7

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Dummy Antenna TS-253/AP Including:	1-1/4 X 1-1/2 X 6-1/16	4
1	Transmission Line CG-362/U	1-9/16 lg	
1	Transmission Line CG-363/U	1-9/16 lg	
1	Case CY-374/AP	2 X 3 X 8-1/2	
1	Instruction Book		

26 February 1963
Cog Service: USA

FSN:

VOLTAGE DIVIDER TS-265/UP
Functional Class: 11.12

USA

USN

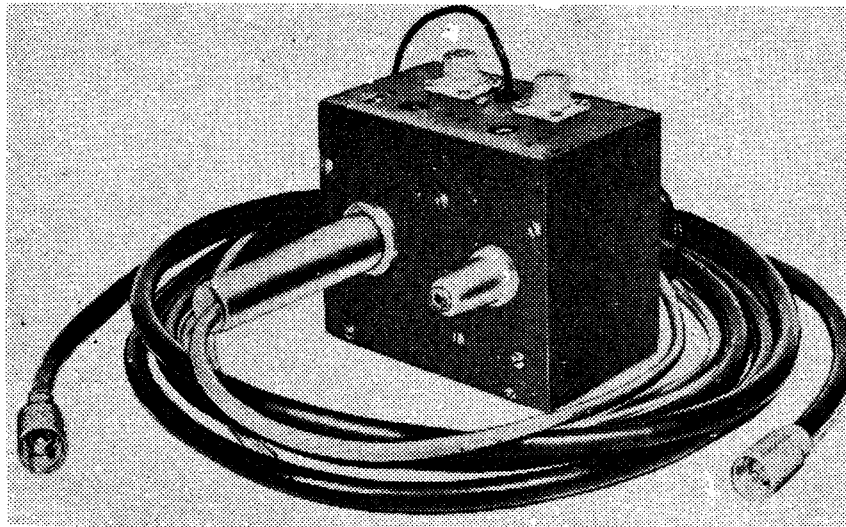
USAF

TYPE CLASS:

Std

Std

MANUFACTURER'S NAME/CODE NUMBER: Sperry Gyroscope Co., (56232).



Voltage Divider TS-265/UP

FUNCTIONAL DESCRIPTION:

Voltage Divider TS-265/UP is a portable, general purpose test equipment designed to step down high ac voltages by a known stepdown ratio of either 10 to 1 or 100 to 1 to allow the pulses to be observed on a standard oscilloscope or synchroscope. All measurements are made on associated test equipment.

No field changes in effect at time of preparation (14 June 1962).

TECHNICAL CHARACTERISTICS:

AC VOLTAGE MAXIMUM INPUTS

10:1 RATIO SECTION: 5 kv, peak-to-peak.

100:1 RATIO SECTION: 50 kv, peak-to-peak.

TS-265/UP VOLTAGE DIVIDER

RELATION TO OTHER EQUIPMENT:

This equipment is similar to Voltage Divider TS-89/AP, is part of AN/MPM-6, -7, -11, and -15, and Radar Test Set AN/TPM-3.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Voltage Divider TS-265/UP includes:		3 x 5 x 10	4
1	Adapter, Connector			
1	Cord		120 lg	
1	Test Lead		18 lg	
1	Test Lead		36 lg	

REFERENCE DATA AND LITERATURE:

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: USA
SPEC &/OR DWG:

DESIGN COG: USA, Sig C

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Sperry Gyroscope Co.	Great Neck, L.I., N.Y.		

26 February 1963
Cdg Service: USA FSN:

MULTIPLIER, ELECTRICAL INSTRUMENT TS-265A/UP
Functional Class: 11.12

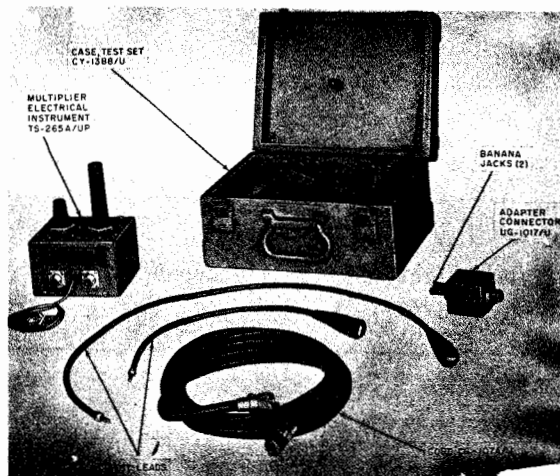
USA

USN

USAF

TYPE CLASS: Std

MANUFACTURER'S NAME/CODE NUMBER: Forway Industries Inc., (00641).



Multiplier, Electrical Instrument TS-265A/UP

FUNCTIONAL DESCRIPTION:

Multiplier, Electrical Instrument TS-265A/UP is a portable, general purpose test equipment designed to step-down high ac voltages by a known step-down ratio of either 10 to 1 or 100 to 1 to allow the pulses to be observed on a standard oscilloscope or synchroscope. All measurements are made on associated test equipment.

No field changes in effect at time of preparation (14 June 1962).

TECHNICAL CHARACTERISTICS:

AC VOLTAGE-DIVIDING RATIOS

10:1 RATIO SECTION: Porm 5%.

100:1 RATIO SECTION: Porm 5%.

AC VOLTAGE MAXIMUM INPUTS

10:1 RATIO SECTION: 5 kv, peak-to-peak.

100:1 RATIO SECTION: 50 kv, peak-to-peak.

TS-265A/UP MULTIPLIER, ELECTRICAL INSTRUMENT

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Multiplier, Electrical Instrument TS-265A/UP includes:		5-3/8 x 4-3/4 x 6-3/4	2.1
1	Case, Test Set CY-1388/U		6-1/4 x 8-1/2 x 11-1/4	6.5
1	Adapter, Connector UG-1017/U		1-5/8 x 1-7/8 x 3-1/2	0.5
1	Cord CG-107A/U		120 lg	0.5
1	Test Lead		18 lg	0.5
1	Test Lead		36 lg	0.5
2	Technical Manual TM11-6625-415-15			

REFERENCE DATA AND LITERATURE:

TM11-6625-415-15: Operator, Organizational, Field and Depot Maintenance Manual for Multiplier, Electrical Instrument TS-265A/UP.

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	1.8	45

PROCUREMENT DATA

PROCURING SERVICE: USA
SPEC &/OR DWG: MIL-V-14274 (Sig C)

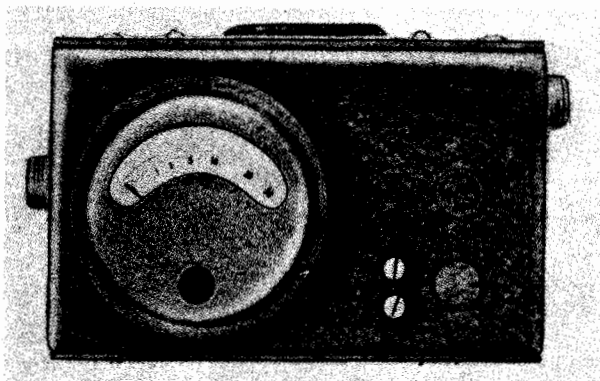
DESIGN COG: USA, Sig C

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Forway Industries Inc.	Woodbury, N.J.	4568-PP-61-A3-A3	

March 1957

DUMMY LOAD

Test Associated Devices

TS-307/ARW*Dummy Load TS-307/ARW***FUNCTIONAL DESCRIPTION**

The TS-307/ARW is a self-contained dummy load unit provided with a calibrated wattmeter which is used to measure the average power output of radio transmitters. It incorporates an internal RF transformer which makes available a fraction of the signal dissipated by the transmitter into the dummy load for monitoring purposes.

It is sometimes used, and supplied together with, Test Set TS-306/ARW which is used for the testing and setting of EM transmitters and receivers.

No field changes in effect at time of preparation (21 August 1956).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

POWER RANGE: 0 to 30 W.
 FREQUENCY RANGE: 30 to 75 mc.
 INPUT IMPEDANCE: 50 ohms.
 OUTPUT VOLTS: 0.5 v for 30 W input.

MANUFACTURER'S OR CONTRACTOR'S DATA

Link Radio Corporation, New York, N.Y.
 Contract N5sa-4660

TUBE AND/OR CRYSTAL COMPLEMENT

(1) 1N34
 Total Crystals: (1)

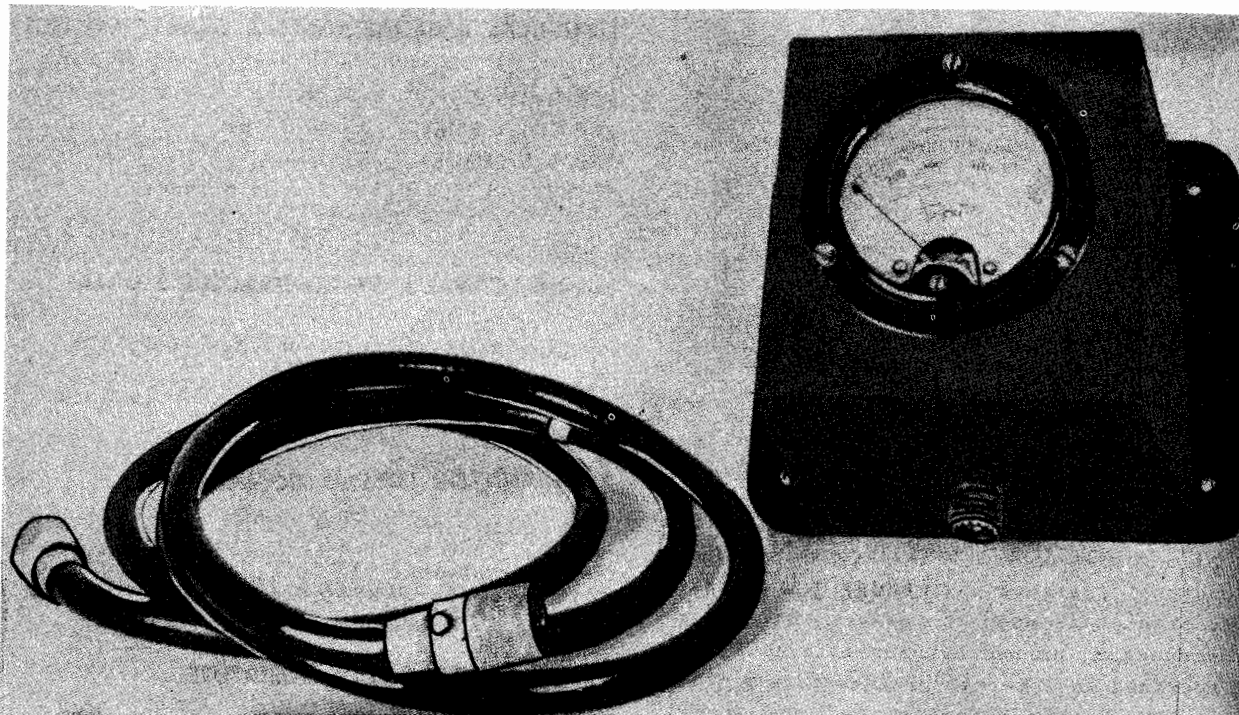
REFERENCE DATA AND LITERATURE

AN-16-35-TS306-3: Technical Manual of maintenance Instructions for TS-306/ARW, and Dummy Load TS-307/ARW.

TYPE CLASSIFICATION DESIGN COGNIZANCE BUAER PROCUREMENT COGNIZANCE STOCK NO. R.D.B. IDENT. NO.
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EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Dummy Load TS-307/ARW	3-3/4 X 6-1/2 X 5-1/2	1.75
1	Technical Manual AN16-35 TS306-3		

DUMMY ANTENNA**TS-329/U***Dummy Antenna TS-329/U***FUNCTIONAL DESCRIPTION**

IMPEDANCE: 50 ohms at 160 mc.

The TS-329/U provides an RF output load for bench testing of transmitters. It consists of a noninductive 50 ohm resistance in series with a 0 to 500 RF milliammeter. It is used with Radio Set AN/ARC-1, Radio Transmitting-Receiving Equipment AN/ARC-4 and Radio Equipment AN/ARC-4.

No field changes in effect at time of preparation 1 (May 1958).

MANUFACTURER'S OR CONTRACTOR'S DATA

Western Electric Co., New York, N. Y.
Contract NOas-5423, NXsa-51579, and
NXsa-71336.

Manufactured by General Industries Co.,
Elyria, Ohio

Approximate Cost: \$13.00 with equipment
spares.

RELATION TO OTHER EQUIPMENT**TUBE AND/OR CRYSTAL COMPLEMENT**

The TS-329/U is identical to Antenna A-68-A.

No Electron Tubes or Crystals Used.

ELECTRICAL AND MECHANICAL CHARACTERISTICS**REFERENCE DATA AND LITERATURE**

FREQUENCY RANGE: 0 to 160 mc.
MAX POWER: 12.5 W.

NAVAER 08-5S-78: Technical Manual of Test
Equipment.

April 1958

Test-Associated Devices

TS-329/U**DUMMY ANTENNA**

NAVSHIPS 900155 Vol II: Technical Manual of
Electronic Test Equipment.

NAVAER 16-5Q-513: Technical Manual for TS-
329/U Test Equipment.

TYPE CLASSIFICATION DESIGN COGNIZANCE BUSHIPS PROCUREMENT COGNIZANCE Spec RE9122 STOCK NO. R.D.B. IDENT. NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Dummy Antenna TS-329/U	3 X 4 X 5	2
1	Cable, Astatic No. US-23167		
2	Technical Manual		

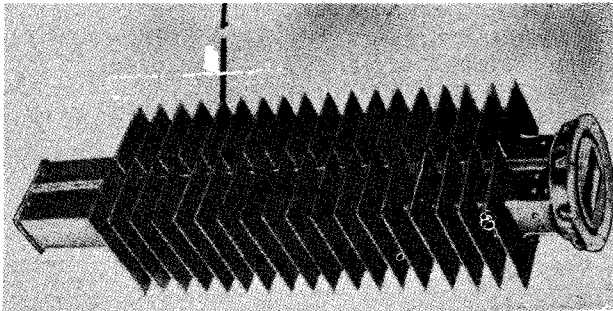
UNCLASSIFIED

January 1958

Test-Associated Devices

DUMMY LOAD

TS-338/UP



Dummy Load TS-338/UP

VSWR

ADAPTOR ATTACHED: 1.2 to 1.
WITHOUT ADAPTOR: 1.1 to 1.

MANUFACTURER'S OR CONTRACTOR'S DATA

General Electric Company, Schenectady,
N.Y.
Contract NXsr-66725.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

FUNCTIONAL DESCRIPTION

The TS-338/UP is designed to be used in place of the antenna when bench testing a radar transmitter. It is used to properly terminate and load the radar transmitter of AN/APS-20 and AN/APS-20A.

No field changes in effect at time of preparation (15 July 1957).

REFERENCE DATA AND LITERATURE

NAVAER 08-5S-78: Manual of Test Equipment for Airborne Electrical and Electronic Equipment.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY RANGE: 2500 to 3750 mc.
DISSIPATION: 600 W average power or 1 megawatt peak power for 4 hrs continuously.

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUAER
PROCUREMENT COGNIZANCE
STOCK NO.
R.D.B. IDENT. NO. 11.7

EQUIPMENT SUPPLIED DATA

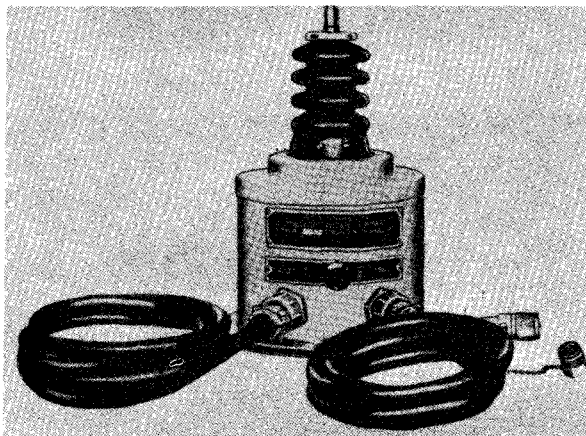
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Dummy Load TS-338/UP	6 x 7-1/2 x 25	25
1	Cover, Metal Disc		
1	Transmission Line CG-384/U	4 lg	

UNCLASSIFIED

4.11 TS-338/UP: 1

February 1960

Test-Associated Devices

VOLTAGE DIVIDER**TS-359/U***Voltage Divider TS-359/U***FUNCTIONAL DESCRIPTION**

Voltage Divider TS-359/U is a portable unit used with a synchroscope or cathode-ray oscilloscope in measuring or viewing output pulses from modulators of medium-power radar sets

No field changes in effect at time of preparation (17 July 1959).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY RANGE: Above 5,000 cy.

VOLTAGE RANGE: 35 kv (peak).

CAPACITANCE: 30 uuf.

TEMPERATURE RANGE: -35° C to +65° C.

HUMIDITY RANGE: 0 to 95%.

MANUFACTURER'S OR CONTRACTOR'S DATA

Radiation Laboratory.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

REFERENCE DATA AND LITERATURE

Nomenclature Card for Voltage Divider TS-359/U.

TYPE CLASSIFICATION
 DESIGN COGNIZANCE USAL, RADC
 PROCUREMENT COGNIZANCE
 STOCK NO.
 R.D.B. IDENT. NO. 11.12

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Voltage Divider TS-359/U	1.4	11 X 13-3/4 X 15-3/4	19

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIP	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Voltage Divider TS-359/U	9-5/8 X 6-1/2 dia	5.75

20 June 1962

Cog Service: USAF FSN:

DUMMY LOAD, ELECTRICAL TS-366B/TPS-10

Functional Class: 11.7

USA

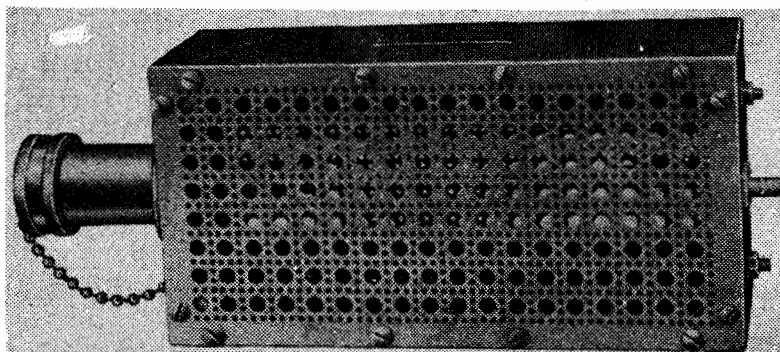
USN

USAF

TYPE CLASS:

s/Std

MANUFACTURER'S NAME/CODE NUMBER: Munston Mfg. and Service Co., Inc., (74096).



Dummy Load, Electrical TS-366B/TPS-10

FUNCTIONAL DESCRIPTION:

Dummy Load, Electrical TS-366B/TPS-10 is a portable resistor-type unit used in absorbing the rf output of modulators to prevent radiation during testing.

No field changes in effect at time of preparation (13 March 1962).

TECHNICAL CHARACTERISTICS:

POWER RANGE: 320 W (avg); 1,257 W (peak).

IMPEDANCE: 50 ohms.

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

TS-366B/TPS-10 DUMMY LOAD, ELECTRICAL

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Dummy Load, Electrical TS-366B/TPS-10		3-1/2 x 5-5/8 x 15-1/4	4-1/2

REFERENCE DATA AND LITERATURE:

TO 33AA7-22-1: Operation and Service Instructions for Dummy Load TS-366B/TPS-10.
TO 33AA7-22-4: Parts Catalog for Dummy Load TS-366C/TPS-10.

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	0.25	10

PROCUREMENT DATA

PROCURING SERVICE: USAF
SPEC &/OR DWG:

DESIGN COG: USAF, RADC

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Munston Mfg. and Service Co., Inc.	New York, New York	AF33(038)12588	\$85.00

UNCLASSIFIED

August 1957

Test-Associated Devices

ELECTRICAL DUMMY LOAD

TS-366C/TPS-10

FUNCTIONAL DESCRIPTION

The TS-366C/TPS-10 is a portable, special purpose, resistor type modulator dummy load used to absorb radio frequency output of Modulator MD-141A/TPS-10 to prevent radiation during test. It has provisions for attaching to an oscilloscope for viewing the pulsed output of the modulator, includes a voltage divider with a 100 to 1 ratio to permit viewing of the high voltage pulses.

No field changes in effect at time of preparation (13 December 1956).

MANUFACTURER'S OR CONTRACTOR'S DATA

Artisan Electronics Corp, Morristown, N.J.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

Nomenclature Card for DUMMY LOAD, ELECTRICAL TS-366C/TPS-10.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

OPERATING FREQUENCY: 0 to 2 mc.

POWER DISSIPATION: 320 w. 7500 v peak.

TYPE CLASSIFICATION
DESIGN COGNIZANCE USAF
PROCUREMENT COGNIZANCE
STOCK NO.
R.D.B. IDENT. NO.

EQUIPMENT SUPPLIED DATA

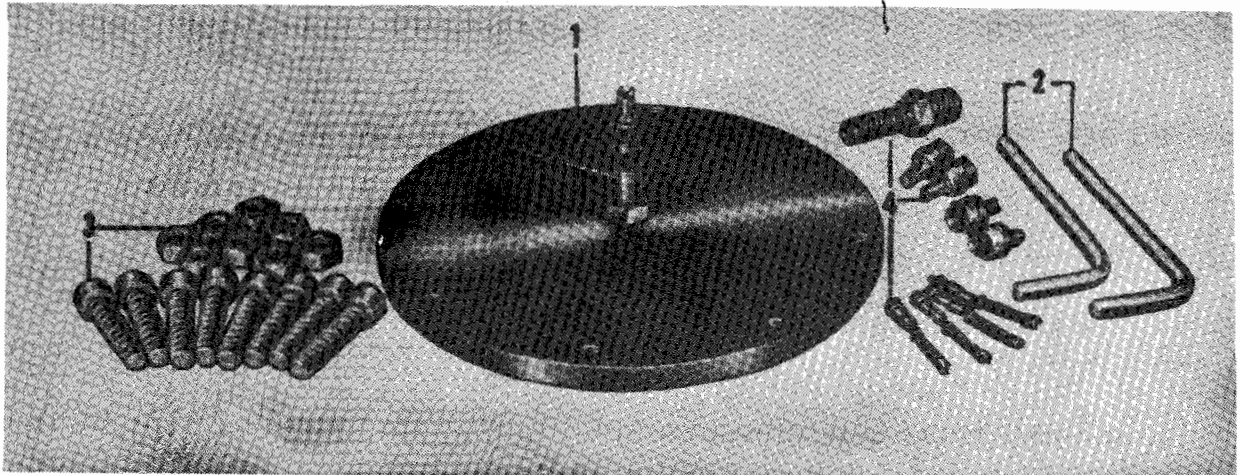
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Dummy Load, Electrical TS-366C/TPS-10	3-3/8 x 5-11/16 x 13-5/8	

UNCLASSIFIED

4.11 TS-366C/TPS-10: 1

PRESSURIZING PLATE

TS-378/UP



Pressurizing Plate TS-378/UP

FUNCTIONAL DESCRIPTION

The TS-378/UP primary purpose is to be used as a seal in order to test sections of waveguides for air leaks. It consists of a brass plate designed to be mounted on a 1-1/2 by 3 inch waveguide flange which is provided with an air valve to permit pressurizing.

No field changes in effect at time of preparation (16 July 1957).

RELATION TO OTHER EQUIPMENT

Equipment Required but not Supplied: (1) Pump.

MANUFACTURER'S OR CONTRACTOR'S DATA

Gisholt Machine Company, Madison, Wis.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

NAVAER 08-5S-78: Manual of Test Equipment for Airborne Electrical and Electronic Equipment.

TYPE CLASSIFICATION DESIGN COGNIZANCE BUAER PROCUREMENT COGNIZANCE STOCK NO. R.D.B. IDENT. NO.
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EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Pressurizing Plate TS-378/U	1/4 x 5-1/8 dia	1.5
2	Allen Wrench		
8	Nut and Bolt		
1	Set of Valve Parts and Fittings		

April 1959

Test-Associated Devices

RESISTOR DECADE**TS-665/U****FUNCTIONAL DESCRIPTION**

The TS-665/U is designed as an assembly consisting of a number precision resistors varying in submultiples and multiples of ten, inclosed in a box with convenient means of selecting any desired ohmic value within its range

No field changes in effect at time of preparation (9 October 1958).

ELECTRICAL AND MECHANICAL CHARACTERISTICS**RANGE DATA**

RANGE: 0 to 1110 ohms.

INCREMENTS: 1 ohm.

ACCURACY: $\pm 0.1\%$ accuracy on 10 and 100 ohm steps; $\pm 0.25\%$ accuracy on 1 ohm steps.

TYPE OF ADJUSTMENT: Rotary switch type.

NUMBER OF ADJUSTMENTS: 3.

MANUFACTURER'S OR CONTRACTOR'S DATA

General Radio Co., Cambridge, Mass.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

REFERENCE DATA AND LITERATURE

Nomenclature Card TS-665/U for the Resistor Decade.

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUSHIPS
PROCUREMENT COGNIZANCE
STOCK NO.
R.D.B. IDENT. NO. 11.6

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Decade Resistor TS-665/U	5 X 5 X 10-3/8	

1 March 1963

Cog Service: USN FSN:

DECADE CAPACITOR TS-671/U

Functional Class: II

USA

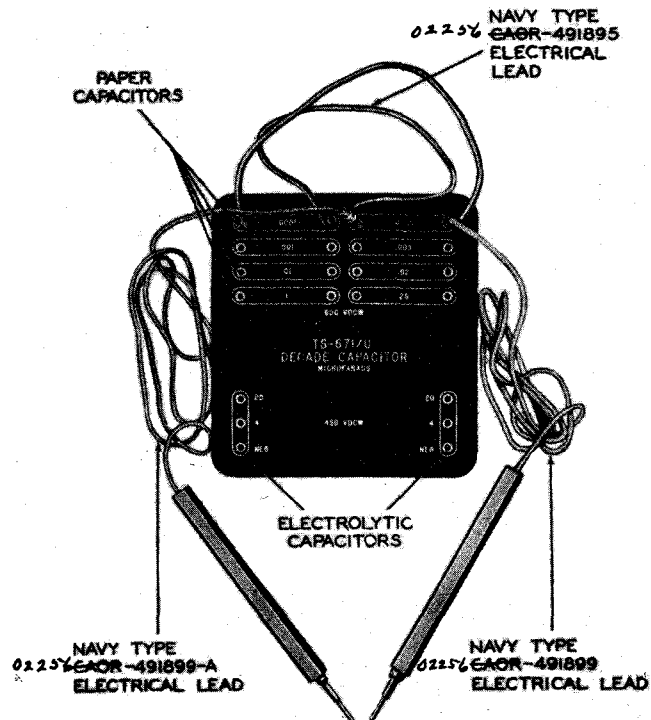
USN

USAF

TYPE CLASS:

Std

MANUFACTURER'S NAME/CODE NUMBER: Radio Frequency Laboratory, (49673).



Decade Capacitor TS-671/U

FUNCTIONAL DESCRIPTION:

Decade Capacitor TS-671/U is a portable, general purpose unit used for the test and repair of electrical and electronic equipment. Test results are indicated by the proper operation of the equipment under test. The Decade Capacitor is composed of paper and electrolytic capacitors used to give a range of capacities. The capacitors are individually terminated in jacks with a common negative terminal.

No field changes in effect at time of preparation (10 August 1962).

TECHNICAL CHARACTERISTICS:

RANGE: 0.0001 to 48 uf.

TOLERANCE: Porm 10% (paper); 0 to P75% (electrolytic).

VOLTAGE RATINGS: 500 v dc (paper); 450 v dc (electrolytic).

TS-671/U DECADE CAPACITOR

RELATION TO OTHER EQUIPMENT:

This equipment is part of Test-Tool Set AN/USM-3, AN/USM-3A, and AN/USM-38.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Decade Capacitor TS-671/U		1-1/4 x 4-3/8 x 4-3/4	

REFERENCE DATA AND LITERATURE:

NAVSHIPS 91146: Technical Manual for Test-Tool Set AN/USM-3.
NAVSHIPS 91688: Technical Manual for Test-Tool Set AN/USM-3A and AN/USM-38.

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
SPEC &/OR DWG:

DESIGN COG: USN, BuShips

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Radio Frequency Laboratory	Boonton, New Jersey	N0bsr-42100, 17 February 1948 N0bsr-52269, 23 May 1951	
Newark Controls Company	Bloomfield, New Jersey	N0bsr-64817, 16 June 1955	

UNCLASSIFIED
April 1959

Test-Associated Devices
TS-679/U

RESISTOR DECADE

FUNCTIONAL DESCRIPTION

The TS-679/U is designed as an assembly consisting of a number of precision resistors varying in submultiples and multiples of ten, inclosed in a box with convenient means of selecting any desired ohmic value within its range.

No field changes in effect at time of preparation (10 October 1958).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

RANGE DATA

RANGE: 0 to 111,111 ohms.
INCREMENTS: 0.1 ohm.
ACCURACY: 0.25% accuracy on the 1 ohm step;
1% accuracy on the 0.1 ohm step; 0.1% accuracy on all other steps.
NUMBER OF ADJUSTMENTS: 6 adjustments.
TYPE OF SWITCH: Rotary switch.

MANUFACTURER'S OR CONTRACTOR'S DATA

Project 24630-PH-49-7(SC), dated 16 August 1950.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals Used.

REFERENCE DATA AND LITERATURE

Nomenclature Card TS-679/U for the Resistor Decade.

TYPE CLASSIFICATION
DESIGN COGNIZANCE TASSA
PROCUREMENT COGNIZANCE 71-3337
STOCK NO.
R.D.B. IDENT. NO. 11.6

EQUIPMENT SUPPLIED DATA

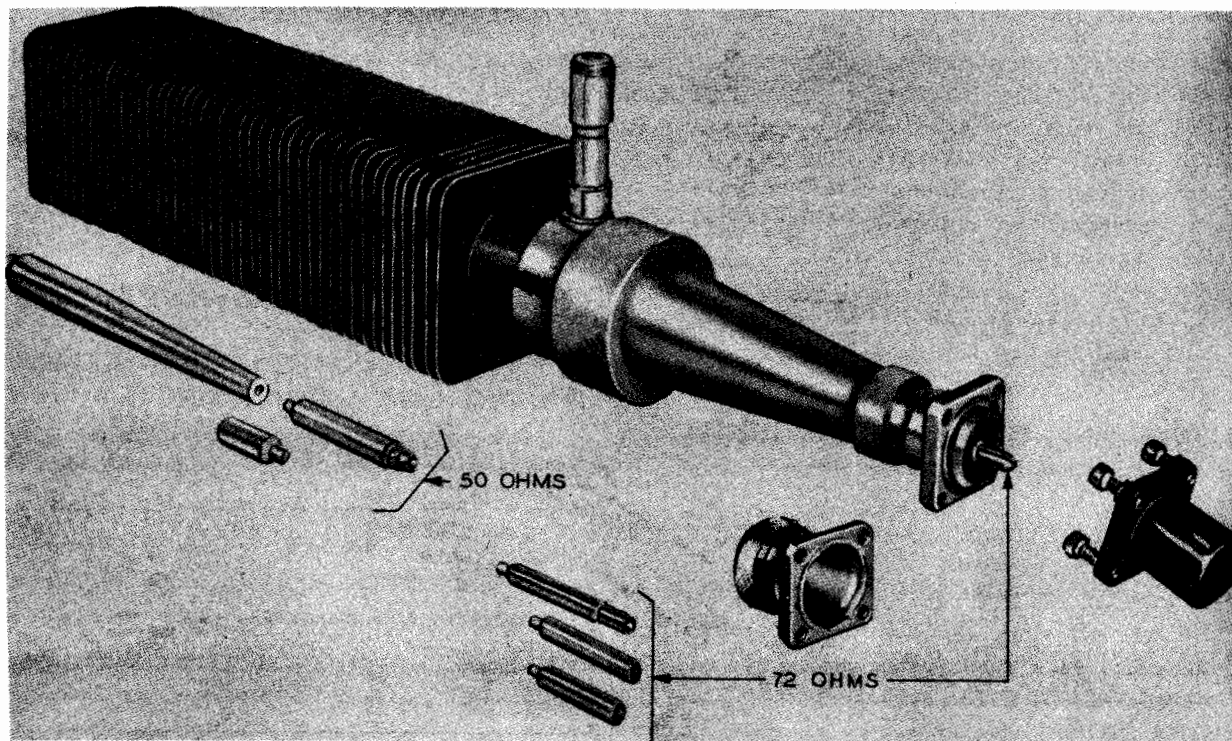
QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Resistor Decade TS-679/U	5 X 5 X 18	

UNCLASSIFIED

4.11 TS-679/U: 1

PHANTOM ANTENNA AND ATTENUATOR

TS-74/UPM



Phantom Antenna and Attenuator TS-74/UPM

FUNCTIONAL DESCRIPTION

The TS-74/UPM is a power absorbing termination for rf transmission lines used in testing radar sets. A probe for coupling test equipment to the transmission line is included so that sensitivity, frequency and power measurements may be made with suitable measuring equipment.

No field changes in effect at time of preparation (16 April 1958).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY RANGE: 2,700 to 3,400 mc.
POWER DISSIPATION: 200 W (max avg); 250 KW (max peak).
VOLTAGE STANDING WAVE RATIO: 1.5 or 1.19 db (max).
INPUT IMPEDANCE: 50 or 72 ohms.
ATTENUATION: 25 to 30 db.
COUPLING LOSS: 36 db \pm 0.5 db.
TEMPERATURE RANGE: -40 deg F to +120 deg F.

MANUFACTURER'S OR CONTRACTOR'S DATA

Galvin Mfg Corp, Chicago, Ill.

Contract 329-DAY-44.
Western Electric Co, NY, NY.
Contract 816-45RA, dated 21 November 1944.
Contract 2108-45, dated 15 March 1945.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

REFERENCE DATA AND LITERATURE

AN 16-35TS74-2: Handbook of Maintenance Instructions for Phantom Antenna and Attenuator TS-74/UPM.

TYPE CLASSIFICATION
DESIGN COGNIZANCE USAF
PROCUREMENT COGNIZANCE
STOCK NO.
R.D.B. IDENT. NO.

TS-74/UPM

PHANTOM ANTENNA AND ATTENUATOR

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Phantom Antenna and Attenuator TS-74/UPM	0.56	5 x 8 x 24	12

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Phantom Antenna and Attenuator TS-74/UPM including:	3 x 5 x 20	10
1	Technical Manual AN16-35TS74-2		
1	Tapered Center Conductor 50 ohm		
1	Tapered Center Conductor 72 ohm		
2	Adapter for Center Conductor 50 ohm		
4	Adapter for Center Conductor 72 ohm		
1	Cup		
1	Tapered Outer Conductor		
2	Line Coupling		

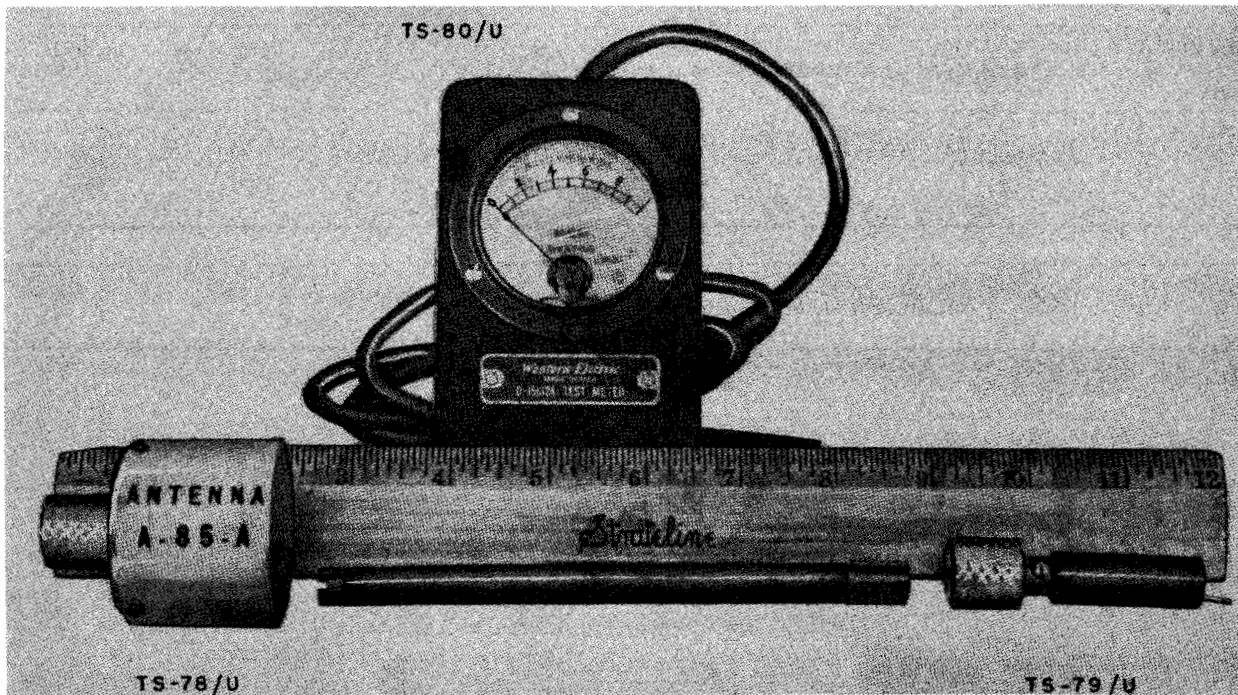
UNCLASSIFIED

April 1958

Test-Associated Devices

TEST SET

TS-78/U,-79/U,-80/U



Test Set for AN/ARC-1 and AN/ARC-4; TS-78/U, TS-79/U, TS-80/U

FUNCTIONAL DESCRIPTION

The TS-78/U Phantom Transmitter Antenna, TS-79/U Phantom Receiver Antenna, and TS-80/U Test Meter are combined as a single unit for aircraft VHF radio communication equipments. Application is in field and bench testing.

No field changes in effect at time of preparation (14 April 1958).

RELATION TO OTHER EQUIPMENT

Phantom Transmitter Antenna TS-78/U is interchangeable with Dummy Antenna A-85-A, and Phantom Receiver Antenna TS-79/U is identical with Dummy Antenna A-69-A. The TS-80/U has been superseded by Multimeters ME-48/U and TS-352/U.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY RANGE

TS-78/U: 100 to 156 mc.

TS-79/U: 100 to 156 mc.

LOAD

TS-78/U: 50 ohms, 12 W.

TS-79/U: 50 ohms, 0.5 W.

CURRENT RANGE: 0 to 1 ma DC (TS-80/U).
RESISTANCE: 125 ohms (TS-80/U).

MANUFACTURER'S OR CONTRACTOR'S DATA

Western Electric Co., New York, N. Y.
Contract N5sa-7270 (TS-78/U, 79/U).
Contract NXsa-12591 (TS-79/U).
Contract NXsa-71322 (TS-80/U).

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals Used.

REFERENCE DATA AND LITERATURE

NAVSHIPS 93003: Vol. 1 (TM11-487H-1) Electronic Test Equipment.

TYPE CLASSIFICATION

DESIGN COGNIZANCE BUAER

PROCUREMENT COGNIZANCE SPEC NO. RE13A734

STOCK NO.

R.D.B. IDENT. NO.

UNCLASSIFIED

4.11 TS-78/U: 1

TS-78/U,-79/U,-80/U

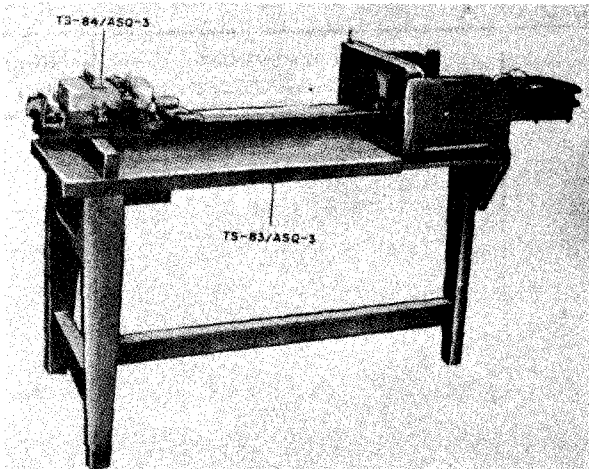
TEST SET

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Phantom Transmitter Antenna TS-78/U or Phantom Receiver Antenna TS-79/U or Test Meter TS-80/U including Alignment Tool	2 dia x 3 3/4 dia x 3	

January 1958

Associated Devices

TEST BENCH**TS-83/ASQ-3***Test Bench TS-83/ASQ-3*

It is a part of a test set used for testing AN/ASQ-3 and AN/ASQ-3A equipments designed for magnetic detection of submarines from aircraft.

No field changes in effect at time of preparation (9 September 1957).

MANUFACTURER'S OR CONTRACTOR'S DATA

Western Electric Company, New York, N.Y.
NOas-833.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

NAVAER 08-5S-78: Technical Manual for Airborne Electrical and Electronic Equipment.

TYPE CLASSIFICATION DESIGN COGNIZANCE BUAER PROCUREMENT COGNIZANCE STOCK NO. R.D.B. IDENT. NO.

FUNCTIONAL DESCRIPTION

The TS-83/ASQ-3 is a test fixture with a mechanism to permit simulating the roll and pitch of an aircraft, and a yoke for mounting Magnetic Loop Assembly DT-2/ASQ-3 or DT-4/ASQ-3A. The yoke may be locked in place when it is used with Test Mechanism TS-84/ASQ-3.

EQUIPMENT SUPPLIED DATA

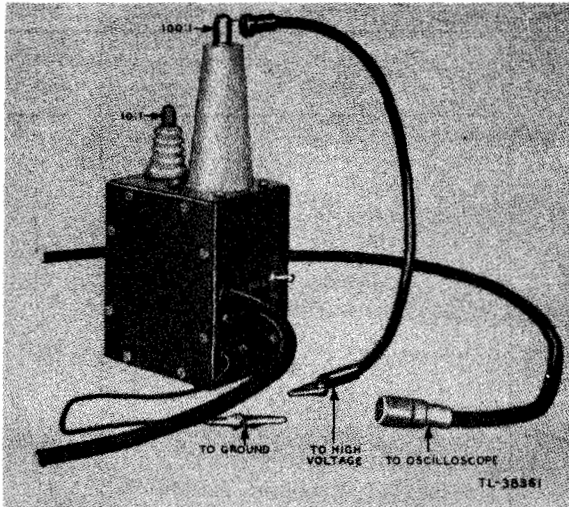
QUANTITY PER EQUIP	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Test Bench TS-83/ASQ-3	17-1/2 x 30-1/2 x 40	56.5

UNCLASSIFIED
April 1958

Test Associated Devices

VOLTAGE DIVIDER

TS-89/AP, TS-89A/AP, TS-89B/AP



Voltage Divider TS-89/AP

TEMPERATURE: -40 deg C to +55 deg C (operating), -65 deg C to +85 deg C (nonoperating).

HUMIDITY RANGE: To 90% (operation).

ALTITUDE RANGE: Sea level to 5,000 ft (operating), sea level to 50,000 ft (nonoperating).

ACCURACY: $\pm 15\%$ of designated ratio.

MANUFACTURER'S OR CONTRACTOR'S DATA

TS-89/AP

Western Electric Co, NY, NY.

Contract NAER 00168.

Contract NAER 00340.

TS-89A/AP

Century Metalcraft Corp, Los Angeles, Calif.

Contract AF33(600)-8715, dated 20 Feb 1952.

TS-89B/AP

Mercury Electronics Corp, Red Bank, N.J.

FUNCTIONAL DESCRIPTION

The TS-89/AP, TS-89A/AP, and TS-89B/AP are a portable equipment used with an oscilloscope in measuring video pulse voltages in high impedance circuits. Application is in field and depot testing.

No field changes in effect at time of preparation (15 April 1958).

RELATION TO OTHER EQUIPMENT

FREQUENCY RANGE: 150 cycle to 5 mc (video).

VOLTAGE RANGE: 200 to 2,000 v; 2,000 to 20,000 v.

INPUT IMPEDANCE: 2,000 ohms in series with 10 uuf.

OUTPUT IMPEDANCE: 4 meg in parallel with 20 uuf.

ATTENUATION RATIO: 10:1 for 200 to 2,000 v; 100:1 for 2,000 to 20,000 v.

FREQUENCY RESPONSE: ± 1 db.

PULSE DURATION: 1 to 100 usec.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

REFERENCE DATA AND LITERATURE

AN16-35TS89-3: Handbook of Maintenance Instruction for Voltage Divider TS-89/AP.

T.O. No. 16-35TS89-11: Handbook Service Instructions for Voltage Divider Test Sets TS-89A/AP and TS-89B/AP.

TYPE CLASSIFICATION

DESIGN COGNIZANCE USAF

PROCUREMENT COGNIZANCE SPEC MIL-V-4306

STOCK NO. (USAF), 18 Jun 1951

R.D.B. IDENT. NO.

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Voltage Divider TS-89/AP, TS-89A/AP or TS-89B/AP (Shelf package, water-resistant carbon)	0.25	6 x 6 x 12	6

UNCLASSIFIED

4.11 TS-89/AP: 1.

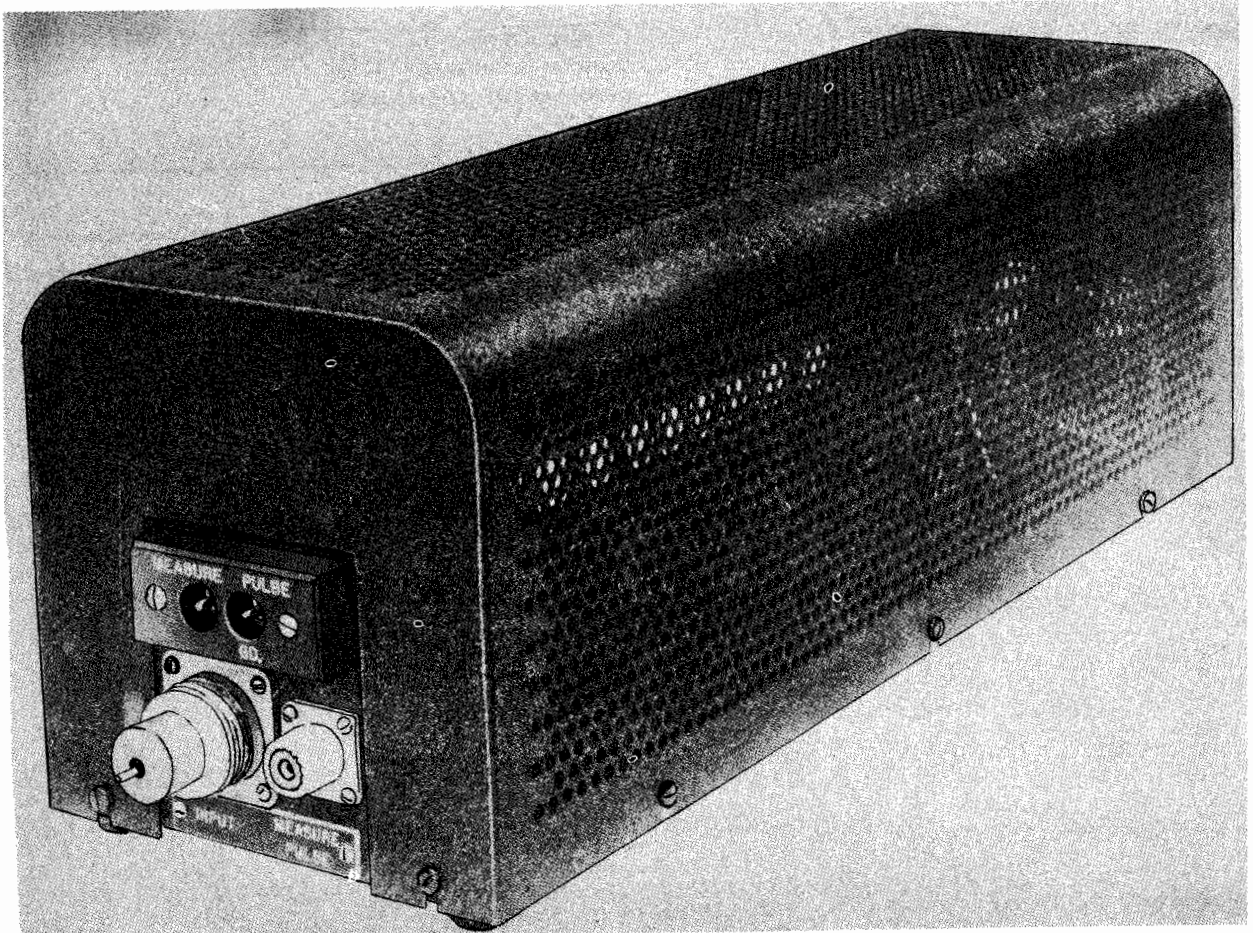
TS-89/AP, TS-89A/AP,
TS-89B/AP

VOLTAGE DIVIDER

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
	TS-89/AP		
1	TS-89/AP		
1	Voltage Divider TS-89/AP including:	4 x 5 x 10	4
1	Test Lead	39 lg or 60 lg	
1	Technical Manual		
	TS-89A/AP		
1	TS-89A/AP		
1	Voltage Divider TS-89A/AP including:	3-1/2 x 5-1/2 x 10	3
1	Test Lead CX-1903/U	1/2 dia x 16	0.5
1	Technical Manual		
	TS-89B/AP		
1	TS-89B/AP		
1	Voltage Divider TS-89B/AP including:	3-1/2 x 5-1/2 x 10	3
1	Test Lead CX-2409/U		
1	Technical Manual		

December 1956

DUMMY LOAD**TS-90/AP***Dummy Load TS-90/AP***FUNCTIONAL DESCRIPTION**

The TS-90/AP is designed to provide a 50 ohm termination for making over-all performance test on the modulator of radars such as AN/TPS-1 and Mark 20.

The termination is in the form of a voltage divider of known ratio for the purpose of measuring and viewing the output pulse of the modulator with an oscilloscope.

No field changes in effect at time of preparation (16 July 1956).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

The dummy load provides a 50 ohm termination into which the modulator can work. The load is made up of one 49 ohm resistance

element and a one ohm element connected in series providing the 50 to 1 ratio voltage divider used to measure the output of the modulator.

The resistors together are capable of standing about 500 watts of power at a peak voltage of about 5000 volts. The electrical connection to the modulator is made with high voltage pulse cable of the radar system.

MANUFACTURER'S OR CONTRACTOR'S DATA

Western Electric Company, New York, N.Y.
Contract NOrd 3456.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

TS-90/AP

DUMMY LOAD

December 1956

REFERENCE DATA AND LITERATURE

NAVSHIPS 900,533: Technical Manual for
Load TS-90/AP.

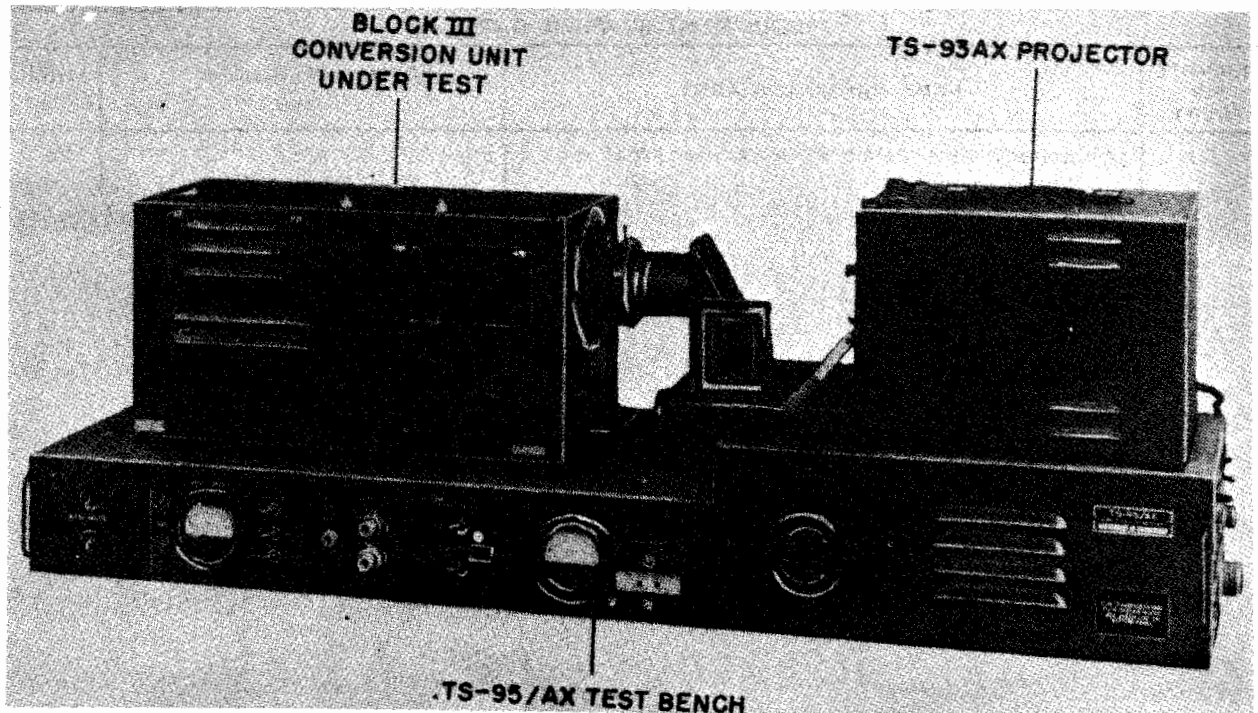
TYPE CLASSIFICATION DESIGN COGNIZANCE BUORD PROCUREMENT COGNIZANCE STOCK NO. R.D.B. IDENT. NO.
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EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Dummy Load TS-90/AP	6 X 6-1/2 X 20	9

ALIGNMENT TEST BENCH

TS-95/AX



Alignment Test Bench TS-95/AX

FUNCTIONAL DESCRIPTION

The TS-95/AX incorporates in a single unit the facilities for testing block I and block III equipments and is used with the TS-93/AX Projector. It is designed to accommodate these equipments in a desirable test position, while maintaining optical alignment with the projector. All components are mounted in the steel cabinet which comprises the bench.

No field changes in effect at time of preparation (15 July 1957).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

DUMMY LOAD DATA

MAXIMUM RF DISSIPATION: 25 W average.

IMPEDANCE: 50 ohms at 380 to 250 mc,
approaches 72 ohms at 250 to 100 mc.

STANDING WAVE RATIO: 75% min, 100 to 380
mc.

POWER REQUIREMENTS: 115 v, 50 to 60 cps.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

NAVAER 08-5S-78: Manual of Test Equipment
for Airborne Electrical and Electronic
Equipment.

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUAER
PROCUREMENT COGNIZANCE
STOCK NO.
R.D.B. IDENT. NO. 12.12.6

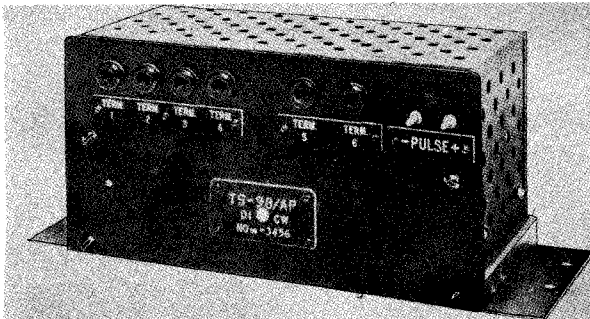
TS-95/AX

ALIGNMENT TEST BENCH

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Alignment Test Bench TS-95/AX including: Dummy Load	7-1/2 x 12 x 52	40

December 1956

VOLTAGE DIVIDER**TS-98/AP***Voltage Divider TS-98/AP***FUNCTIONAL DESCRIPTION**

The TS-98/AP is designed for use in testing the air units of the modulators of certain radar systems such as AN/TPS-1 and Mark XX.

It provides a termination which replaces the oil unit and enables the air unit to operate without an oil unit.

Arrangements are included in the divider for measuring the output of the air unit without exposing the operator to voltages that are dangerous to human life.

No field changes in effect at time of preparation (13 July 1956).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

The voltage divider provides an 800 ohm

termination for the output pulse circuit of the air unit.

The resistors of the divider form three voltage dividers of known ratios for measuring various voltages of the air unit of the modulator.

MANUFACTURER'S OR CONTRACTOR'S DATA

Western Electric Company, Inc., New York
N.Y.
Contract NOrd 3456.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes.

REFERENCE DATA AND LITERATURE

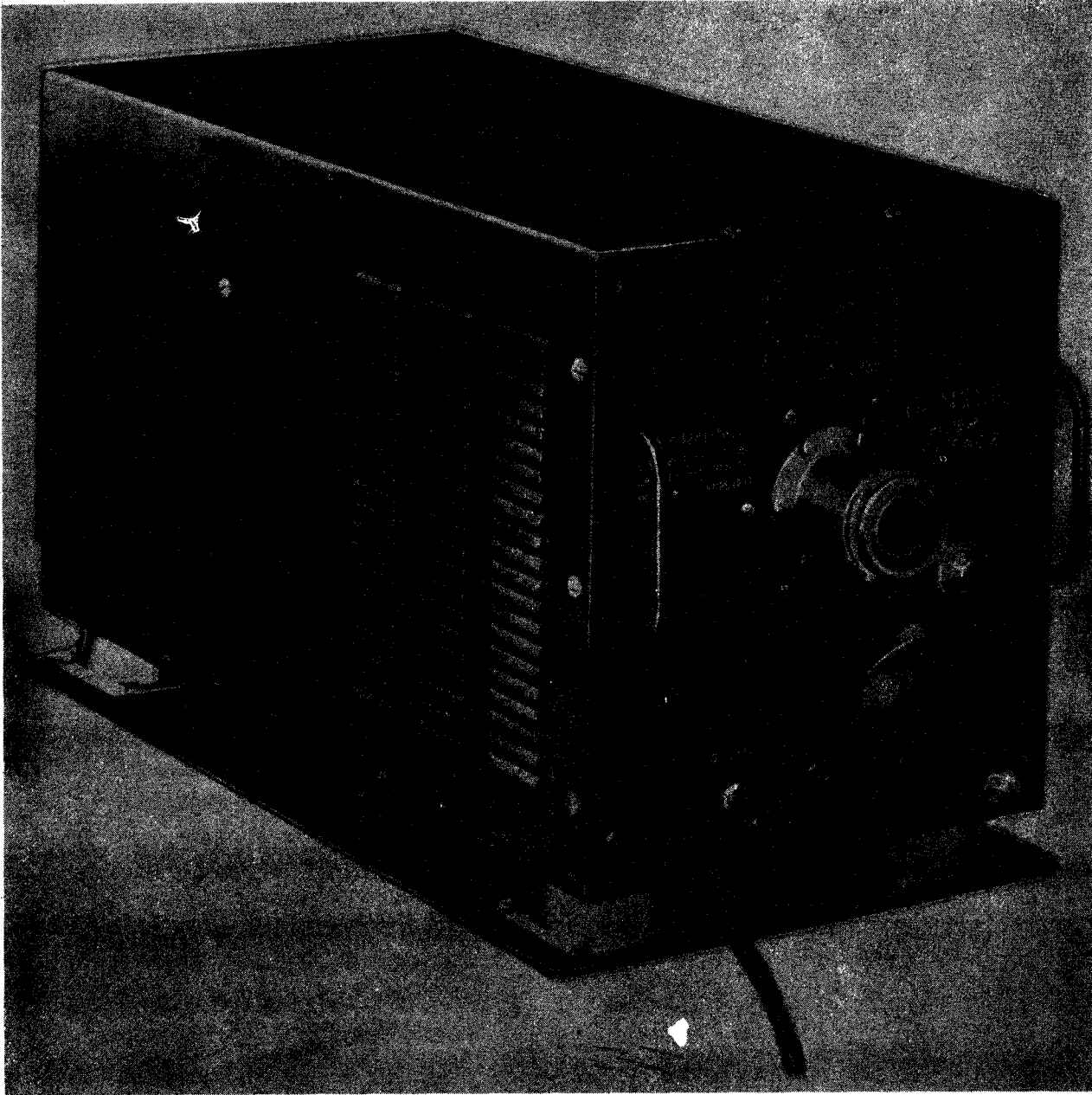
NAVSHIPS 900,568: Technical Manual for Voltage Divider TS-98/AP.

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUORD
PROCUREMENT COGNIZANCE
STOCK NO.
R.D.B. IDENT. NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Voltage Divider TS-98/AP	3-1/2 X 4 X 10	3

DUMMY LOAD



Dummy Load 14ACN

FUNCTIONAL DESCRIPTION

Dummy Load 14ACN is for use with the SX Radar Equipment to dissipate the pulse power from the modulator. It is a self-contained unit complete with blower and air filter.

No field changes in effect at time of

preparation (25 April 1960).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

OPERATING POWER: 115 v, 60 cyc, single ph,
1.5 amp.

January 1981

Test-Associated Devices

14ACN**DUMMY LOAD**

OPERATING FREQUENCY: 4.5 mc.
 INPUT IMPEDANCE: 50 ohms.
 POWER RATING: 3 kw (avg).

REFERENCE DATA AND LITERATURE

NAVSHIPS 91010: Technical Manual for DUMMY
 LOAD CAWY-14ACN.

MANUFACTURER'S OR CONTRACTOR'S DATA

General Electric Co., Schenectady, N.Y.
 Contract NXsr-76195 dated 12 September
 1944.
 Contract NXsr-96353 dated 13 March
 1945.

TYPE CLASSIFICATION (NAVY)
 DESIGN COGNIZANCE TASSA
 PROCUREMENT COGNIZANCE 71-2507(USA)
 STOCK NO.
 R.D.B. IDENT. NO.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Dummy Load 14ACN	3.51	13-1/4 X 15 X 30-1/2	85
1	Spare Parts	2.8	11-1/8 X 18-1/2 X 23-1/2	76

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Dummy Load 14ACN includes:	11-3/4 X 13-1/4 X 26	44
1	Pulse Cable		
1	Spare Parts	9-3/8 X 16-3/4 X 20-1/8	67

April 1958

Test-Associated Devices

ADAPTER SET**49416****FUNCTIONAL DESCRIPTION**

Adapter Set Navy Type-49416 consists of five different tube socket adaptors designed to permit the testing of certain large tubes when using Vacuum Tube Analyzing Equipments Models OD Series, or Vacuum Tube Testing Equipments Model OQ Series.

No field changes in effect at time of preparation (5 May 1958).

RELATION TO OTHER EQUIPMENT

Adapter Set Navy Type-49416 is similar to Adapter Set Navy Type-49598. The latter does not include Adapter NT-49414. Navy Type-49416 provides a means of testing type 316A, 703A, 707A, 708A, and 446 electron tubes with Vacuum Tube Testers Navy Models OD and OQ.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

These adapters are made to withstand a breakdown voltage test of 1000 volts ac, between pin terminals.

NT-49411: 4 round male contacts one end, 4 round female contacts other end. Adapts 316A tubes to UX four prong socket, straight type.

NT-49412: 4 round male contacts one end, 4 round female contacts other end. Adapts 703A tubes to standard UX four prong socket, straight type.

NT-49413: 1 round male contact one end, 4 spring leaf contacts other end. Permits use of 707A tubes without resonant cavity, straight type. Has a U shaped shell connected to GR type 274U jack by cable.

NT-49414: 4 round male contacts one end, 4 round female contacts other end. Adapts 708A tube to UX four prong sockets, straight type.

NT-49415: 1 round male contact one end, spring leaf contact other end. Permits use of GL-446 tubes without coaxial mounting. Straight type, includes cylindrical shell connected to GR type 274U jack by cable.

MANUFACTURER'S OR CONTRACTOR'S DATA

Weston Electrical Instrument Corp.,
Newark, N.J.
Contract NXs-28614.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

REFERENCE DATA AND LITERATURE

NAVSHIPS 93003 VOL I: Electronic Test Equipment.

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUSHIPS
PROCUREMENT COGNIZANCE 11.2.1
STOCK NO.
R.D.B. IDENT. NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Adaptor NT-49411	1-5/8 x 1-1/2 dia	
1	Adaptor NT-49412	1-5/8 x 1-1/2 dia	
1	Adaptor NT-49413	3/4 x 1-3/8 x 1-7/8	
1	Adaptor NT-49414	1-5/8 x 1-1/2 dia	
1	Adaptor NT-49415	1-3/8 dia x 1-1/2	
1	Clip Lead		
1	Wooden Box	2-3/4 x 4-1/4 x 7-1/4	

ADAPTER KIT

49992



Adapter Kit NT-49992

FUNCTIONAL DESCRIPTION

The Navy Type 49992 adaptor kit is a set of tube socket adaptors which can be placed in tube sockets so that electrical measurements can be made at the tube location. The tube is placed in the adaptor so that the circuit may operate as usual, except for a few VHF and UHF circuits, where tube capacitors are especially important.

Data on this sheet reflects the following field changes: F/C No. 1 for NT-49992.

RELATION TO OTHER EQUIPMENT

The adaptors in this kit are also a part of Navy Model OE-12 Series Radio Receiver Analyzing Equipment. Field change No. 1-49992 provides a metal case so that this adaptor kit may be used as a separate equipment.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

The adaptor kit consists of eight adaptors

Test-Associated Devices

49992

ADAPTER KIT

and an adaptor puller. A drilled oak block was originally supplied, but is discarded when Navy Field Change No. 1-49992 is applied. The adaptors are provided with tabs connected to each tube pin for measurement of potential or resistance. They are suitable for use with all commonly used tube types. Navy Field Change No. 1-49992 provides a metal case to stow the adaptors and adaptor puller.

REFERENCE DATA AND LITERATURE

NAVSHIPS 900,781(A): Instructions for Adaptor Kit Navy Type CV-49992.
NAVSHIPS 98173: Electronics Field Change Bulletin No. 1-49992.

MANUFACTURER'S OR CONTRACTOR'S DATA

Weston Electrical Instrument Corp., Newark,
N.J.
Contract NObsr-39232.

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUSHIPS
PROCUREMENT COGNIZANCE
STOCK NO.
R.D.B. IDENT. NO. 11.2.1

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	4 Prong Adaptor NT-49514	3/4 x 1-3/8 dia	
1	5 Prong Adaptor NT-49515	3/4 x 1-3/8 dia	
1	6 Prong Adaptor NT-49516	3/4 x 1-3/8 dia	
1	7 Prong Adaptor NT-49517	3/4 x 1-3/8 dia	
1	7 Prong Adaptor NT-49527	3/4 x 1-3/8 dia	
1	Octal Adaptor NT-49518-A	1-3/16 x 1-1/2 dia	
1	Loctal Adaptor NT-49528	1-1/16 x 1-3/8 dia	
1	Miniature Adaptor NT-49519	31/32 dia x 1-1/4	
1	Adaptor Puller		
1	Storage Box NT-11968		