



THERMOMETERS

Thermometers are used on aircraft to indicate the temperatures of engine oil and coolant, cylinder head or barrel, carburetor air or mixture, and outside or cabin air. They warn the pilot or flight engineer of abnormal or dangerous temperature operating conditions.

Thermometers consist of an element responsive to temperature change and an indicator which will make the temperature visible to the pilot.

Three types of indicators are in use for aircraft. They are the Bourdon or mechanical type, the electrical type and the remote indicating (autosyn) type. Indicators referred to as dual thermometer indicators are equipped with two dial scales for measuring temperatures from two locations simultaneously, such as left and right engine.

The Bourdon tube indicator consists of a hollow metal tube bent in an arc of a circle and sealed at one end. When the pressure inside the tube is changed, the tube circle straightens out, or closes. The open end of the tube is fixed, and provides an inlet for the pressure. The sealed end is free, and its motion is transmitted to a pointer. The movement is proportional to the pressure in the tube.

Electrical indicators may be galvanometer type or ratio-meter type.

Autosyn indicators make remote indication of temperatures possible. This type of indicator is used in connection with a gage and transmitter so that an indication may be had remote from the location of the gage. The autosyn consists of 2 three-phase wound motors whose stators are electrically connected. One motor is used as a transmitter and the other as a receiver. Movement of the rotor of one of the autosyns (transmitter) causes a corresponding movement in the autosyn (receiver) to which it is connected. The gage initiates movement of the transmitter rotor.

Temperature responsive elements may be classified according to operating principle as follows:

- Vapor pressure (capillary)
- Bimetal
- Electrical resistance
- Thermocouple

The indicators and elements are used in the following combinations:

VAPOR PRESSURE THERMOMETER

Vapor pressure thermometers consist of a bulb connected to an indicator by capillary tubing. This tubing is made of copper, has a small inside diameter and is covered on the outside by flexible metallic braid. The bulb contains a liquid whose vapor pressure is transmitted through the tube to a Bourdon type gage. The vapor pressure varies with temperature, so the dial scale of the gage can be calibrated in degrees of temperature.

BIMETAL THERMOMETER

The bimetal thermometer consists of a spiral spring made by welding together strips of two dissimilar metals. These metals have different expansion rates, which causes the spring to wind

(Continued on Page 88)



THERMOMETERS

(Continued from Page 87)

or unwind when exposed to changing temperatures. One end of the spring is anchored, and the other end is attached to a pointer on the indicator.

ELECTRIC RESISTANCE THERMOMETER

The temperature sensitive element of this thermometer consists of a resistance element (such as nickel wire) enclosed in a bulb. The resistance of the element changes directly with temperature. This element is part of an electrical circuit known as the Wheatstone bridge, which is so arranged that a change in the resistance of the temperature element causes a galvanometer type instrument to indicate such changes.

Older models of resistance type thermometers require that the element and meter combinations be fixed by the manufacturer. Present day practice has standardized the characteristics so that any standard resistance bulb may be used with any standard indicator, regardless of manufacturer.

RATIO RESISTANCE THERMOMETER

The ordinary bridge type instrument is subject to error, because the airplane system voltage varies. This source of error has been overcome by the addition of a second moving coil in the galvanometer circuit. With this arrangement, any change of voltage in the aircraft electrical supply affects both coils equally, and the pointer is moved only when the ratio of the current is changed.

The ratio resistance thermometer is an electrical resistance type in which the standard resistance bulb is used with a ratio-meter type indicator.

THERMOCOUPLE THERMOMETER

This thermometer depends for its sensitive element upon the fact that two dissimilar metals, placed together and heated, generate a voltage, which can be conducted through wires to millivoltmeter type instruments.

For Army and Navy use, iron and constantan have been adopted as the two metals for the thermocouple. The Navy, in the past, used copper and constantan. In order that there be only one sensitive junction, it is necessary that the leads from the thermocouple and the connections to the instrument be made of the same material as the thermocouple itself. In addition, the leads for each instrument must have a definite resistance for proper calibration of the indicator. Newest designs incorporate a variable resistor, in order to adjust the resistance of the leads to the proper value for each installation, regardless of length of connection wires. The present standard thermocouple is a spark plug gasket type, manufactured according to drawing AND10200.

REMOTE INDICATING (AUTOSYN) THERMOMETER

By using a Bourdon tube to move an autosyn transmitter as described under "indicators" above, the autosyn thermometer enables the vapor pressure type element to indicate at a remote location.



INDICATOR — SINGLE THERMOMETER

AN5790-6 F. S. S. C. NUMBER 88-I-2720

NAMES: Single thermometer indicator
 Dial thermometer
 Electric thermometer
 Universal thermometer
 Electrical resistance type thermometer indicator
 Thermometer indicator
 Indicator — thermometer, electrical resistance type

DESCRIPTION: The AN5790-6 is an electrical resistance type universal thermometer, used to indicate the temperature of engine oil, coolant, carburetor mixture, carburetor air or free air.

CHARACTERISTICS:

- Range..... —70 to 150 degrees centigrade
- Dial size..... 1 7/8 inch round dial
- Lighting..... fluorescent
- Voltage..... 12 or 24 volts direct current (all models operate on either voltage)
- Electrical receptacle..... AND10066-14S-2P
- Electrical connector..... AN3106-14S-2S
- Overall dimensions..... approximately 3 1/2 by 2 5/8 by 2 5/8 inches
- Weight..... approximately 1 pound

RELATIONSHIP OF PARTS: Used with resistance bulb AN5525-1, A. E. Reference Number 61-8906, F. S. S. C. number 88-B-890; or AN5525-2, A. E. Reference Number 61-8901, F. S. S. C. number 88-B-895.

ARMY

A. E. REFERENCE NUMBER: 61-8902

SPECIFICATIONS:

- General... 94-27325-A
- Detail... AN-GG-I-522a
- Superseded AN-GG-I-522, 94-27991, 94-27947, 94-27949, 94-27945, 94-27990, 94-27927.

AN DRAWING NUMBER: AN5790

AN PART NUMBER: AN5790-6

A. S. C. STOCK NUMBER: 6100250280

(Refer to chart.)

PRODUCTION STATUS: Under procurement.

Supersedes Army types A-21, A-23, F-8, F-9, C-11, and C-12.

SHIPPING DATA: Shipped as a complete unit.

NAVY

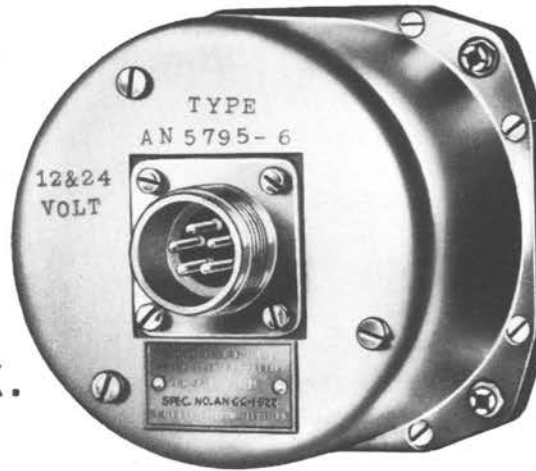
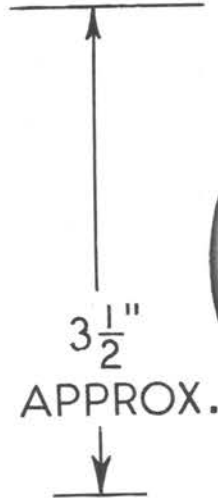
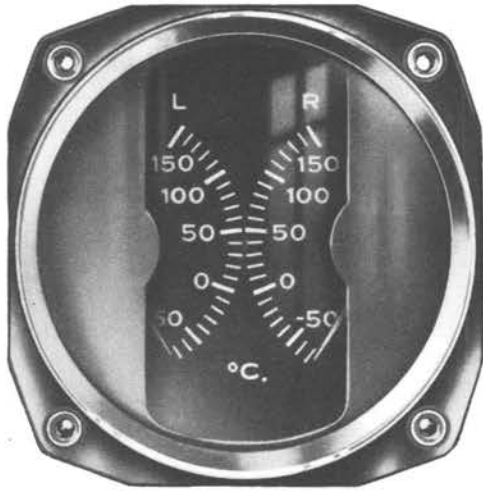
SPECIFICATIONS:

- Detail... AN-GG-I-522a
- Superseded... AN-GG-I-522, SQ-105
- AN DRAWING NUMBER: AN5790
- AN PART NUMBER: AN5790-6
- F. S. S. C. NUMBER: 88-I-2720
- PROCUREMENT STATUS: Standard — G. F. E.—Order through A. S. O. by F. S. S. C. number.

ALL MODELS BELOW ARE INTERCHANGEABLE
Models are used in services as noted in column 4
A-Army, N-Navy, B-British, C-Commercial

Manufacturer	Manufacturer's Model Identification	Manufacturer's Part Number	Used By	Air Service Command Stock Number	British Reference Number
Thomas A. Edison, Inc.		33204	A-N-B	6100250277	106A/1364
Electric Auto-Lite Co.		10283A	A-N-B	6100250275	106A/1364
Westinghouse Electric & Manufacturing Co.		1163617	A-B	6100250279	106A/1364
Weston Electrical Instrument Corp.	Model 727, Type 52	110077	A-N-B	6100250278	106A/1364
Edison-Splitdorf Corp.		33310	N		
General Electric Co.		8DJ23AAA	N		
Hickok Electrical Instrument Co.		60014	N		

THERMOMETERS INSTRUMENTS—ENGINE



INDICATOR—DUAL THERMOMETER

AN 5795-6 F. S. S. C. NUMBER 88-I-2700

NAMES: Dual thermometer indicator
Dial thermometer
Electric thermometer
Universal thermometer

Electrical resistance type thermometer indicator
Thermometer indicator
Indicator—thermometer, electrical resistance type

DESCRIPTION: The AN5795-6 is an electrical resistance universal dual thermometer, used to indicate the temperature of engine oil, coolant, carburetor mixture, carburetor air or free air.

CHARACTERISTICS:

- Range.....-70 to 150 degrees centigrade
- Dial size.....2 3/4 round dial
- Lighting.....fluorescent
- Voltage.....12 or 24 volts direct current (all models operate on either voltage)
- Electrical receptacle.....AND10066-14S-5P
- Electrical connector.....AN3106-14S-5S
- Overall dimensions.....approximately 3 1/2 by 3 1/2 by 3 1/2 inches
- Weight.....approximately 1 3/5 pounds

RELATIONSHIP OF PARTS: Used with resistance thermometer bulbs AN5525-1, A. E. Reference Number 61-8906, F. S. S. C. number 88-B-890, or AN5525-2, A. E. Reference Number 61-8901, F. S. S. C. number 88-B-895.

ARMY

A. E. REFERENCE NUMBER: 61-8911

SPECIFICATIONS:

- General.....94-27325A
- Detail.....AN-GG-I-522A
- Superseded.....AN-GG-I-522, 94-27944, 94-27999, 94-27997, 27946, 94-27998.

AN DRAWING NUMBER: AN5795

AN PART NUMBER: AN5795-6

A. S. C. STOCK NUMBER: 6100250285 (Refer to chart).

PRODUCTION STATUS: Under procurement. Supersedes Army type A-22, A-24, A-25, F-7, and F-10.

SHIPPING DATA: Shipped as a complete unit

NAVY

SPECIFICATIONS:

- Detail.....AN-GG-I-522A
- Superseded.....AN-GG-I-522, SQ-105

AN DRAWING NUMBER: AN5795

AN PART NUMBER: AN5795-6

F. S. S. C. NUMBER: 88-I-2700

PROCUREMENT STATUS: Standard—
G. F. E.—Order through A. S. O. by
F. S. S. C. number.

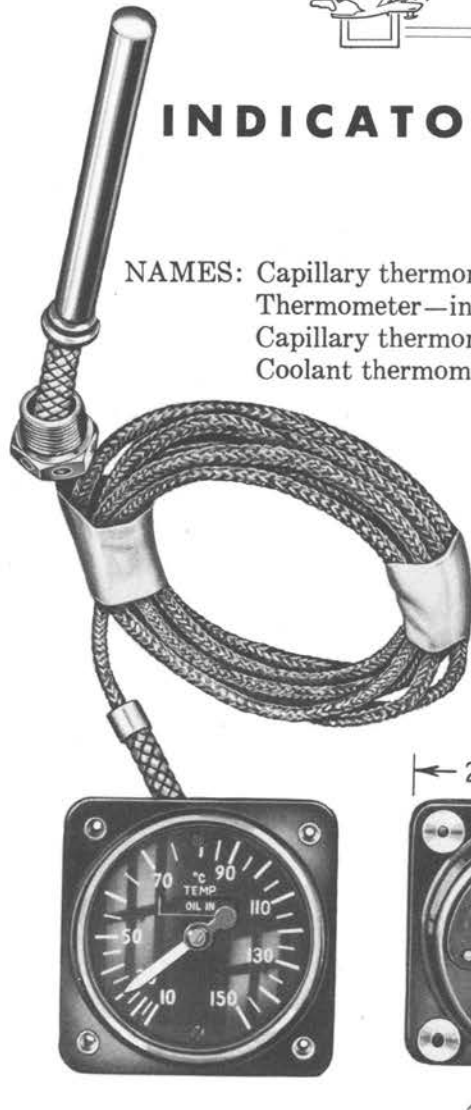
ALL MODELS BELOW ARE INTERCHANGEABLE
Models are used in services as noted in column 4
A-Army, N-Navy, B-British, C-Commercial

Manufacturer	Manufacturer's Model Identification	Manufacturer's Part Number	Used By	Air Service Command Stock Number	British Reference Number
Thomas A. Edison, Inc.		33205	A-N-B	6100250284	106A/1397
Electric Auto-Lite Co.		10284-A	A-B	6100250283	106A/1397
Hickok Electrical Instrument Co.		60015	A-N-B	6100250284-5	106A/1397
Sutton-Horsley Co., Ltd.		2213-9	A-B	6100250282	106A/1397
Wheeloo Instrument Co.		60015	A-B	6100250284-5	106A/1397
Westinghouse Electric & Manufacturing Co.		1163618	A-B	6100250284-8	106A/1397
Weston Electrical Instrument Co.	Model 828, Type 4	110612	A-N-B	6100250284-7	106A/1397
General Electric Company		8DJ24AAA	N		



INDICATOR—CAPILLARY THERMOMETER

ARMY TYPE A-20



NAMES: Capillary thermometer indicator
Thermometer—indicator
Capillary thermometer
Coolant thermometer

Dial thermometer
Oil thermometer
Vapor pressure thermometer

DESCRIPTION: This is a vapor pressure type thermometer, used for indicating either engine oil or engine coolant temperature.

CHARACTERISTICS:

- Markings fluorescent
- Range 10 to 150 degrees centigrade
- *Capillary length specified by procuring agency
- Dial 1 7/8 inches diameter
- Dimensions 2 1/2 by 2 3/8 by 2 3/8 inches

RELATIONSHIP OF PARTS: The bulb, capillary and indicator are permanently fitted together.

INSTALLATION PECULIARITIES: A movable plate permits the dial to be changed to read either "Oil in" or "Coolant".

ARMY

A. E. REFERENCE NUMBER: 61-8926

SPECIFICATIONS:

- General 94-27191
- Detail 94-27926-B
- Superseded 94-27926-A

TYPE DESIGNATION: A-20

A. S. C. STOCK NUMBER: 6100407511

TECHNICAL ORDER NUMBER: 05-40A-1

PRODUCTION STATUS: Under procurement

SHIPPING DATA: Shipped as a complete unit

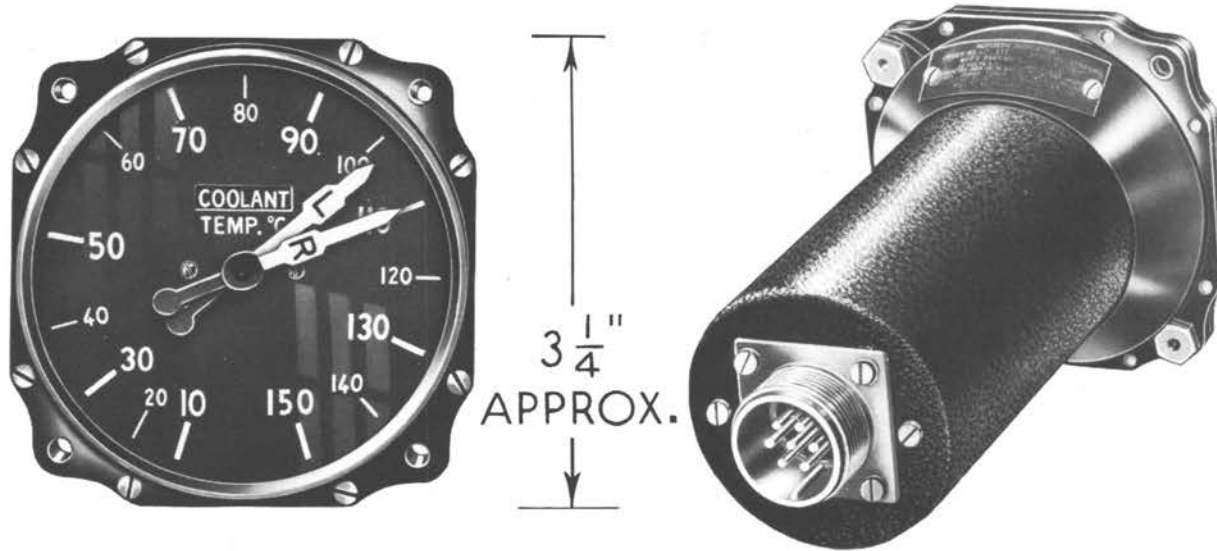
NAVY

There is no Navy equivalent for this item.

***TABULATED ITEMS BELOW ARE INTERCHANGEABLE**
Models are used in services as noted in column 3
A-Army, N-Navy, B-British, C-Commercial

Manufacturer	Manufacturer's Part and Drawing Number	Used By	Air Service Command Stock Number	British Reference Number	Remarks
The Electric Auto-Lite Co.	9755-A8	C	6100407512	106A/1349	8 feet capillary tube.
	9755-A13	A-B-C	6100407514		13 feet capillary tube.
	9755-A15	C	6100407516		15 feet capillary tube.
	9755-A22	C	6100407518		22 feet capillary tube.
	9755-A28	C	6100407520		28 feet capillary tube.
	9755-A34	C	6100407522		34 feet capillary tube.
	10177-A	A-B-C	6100407513	106A/1349	8 feet capillary tube.
United States Gauge Co.	AW-1 7/8-20-CI-8	A-B	6100407511	106A/1349	8 feet capillary tube.

*Commercial manufacturers have made this thermometer in varying capillary tube lengths up to thirty-five feet. The commercial thermometers could be substituted in case of emergency where the substitution has the longer capillary tube lengths.



INDICATOR — DUAL THERMOMETER
ARMY TYPE A-22

NAMES: Dual thermometer indicator
Autosyn thermometer
Coolant thermometer
Dial thermometer

Oil thermometer
Thermometer; oil or coolant, Type A-22

DESCRIPTION: This is an electrical self-synchronous (autosyn) thermometer indicator, used for simultaneously indicating oil temperatures of two engines.

CHARACTERISTICS:

Markings..... fluorescent
Range..... 10 to 150 degrees centigrade
Power supply..... 26 volts, 400 cycles
Electric receptacle..... 7 pin, AN3102-16S-1P
Weight..... approximately 1 1/4 pounds
Dial size..... approximately 2 3/4 inches
Dimensions..... approximately 6 by 3 1/4 by 3 1/4 inches

RELATIONSHIP OF PARTS: Used with: Two transmitters, Army type A-22, A. E. Reference Number 61-8952

ARMY

A. E. REFERENCE NUMBER: 61-8951

SPECIFICATIONS:

General..... 94-27864-A
Detail..... 27946

TYPE DESIGNATION: A-22

A. S. C. STOCK NUMBER: Refer to chart

TECHNICAL ORDER NUMBER: 05-55B-1

PRODUCTION STATUS: Not under procurement for initial installation. Superseded by AN5795-6, A. E. Reference Number 61-8911

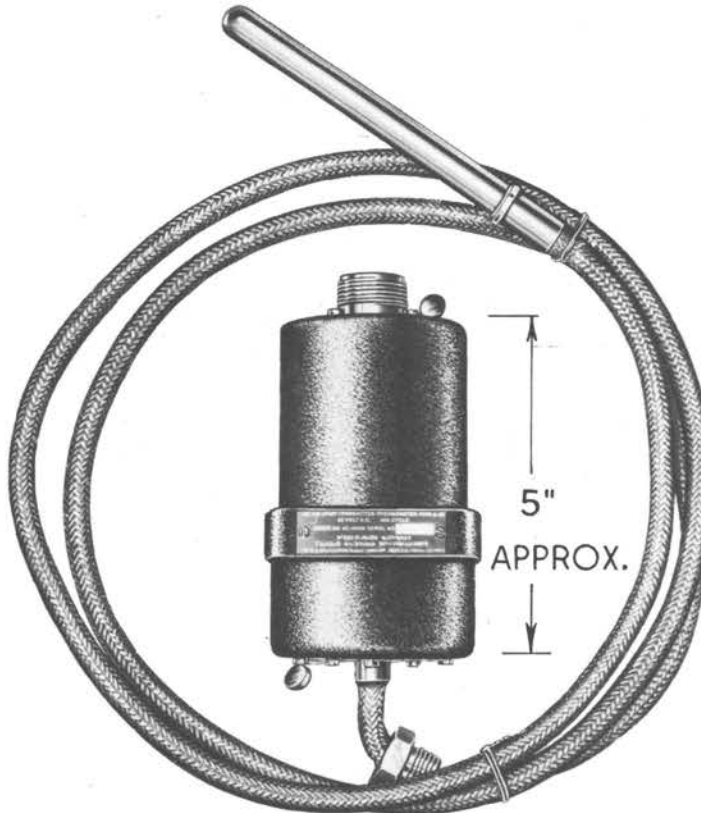
SHIPPING DATA: Shipped as a complete unit.

NAVY

There is no Navy equivalent for this item.

MODELS BELOW ARE INTERCHANGEABLE
Models are used in services as noted in column 3
A-Army, N-Navy, B-British, C-Commercial

Manufacturer	Manufacturer's Part Number	Used By	Air Service Command Stock Number	British Reference Number
Pioeger Instrument Division	6007-3B-7-A	A-B	6100250130	106A/932
	6007-3C-7-A	A-B-C	6100250140	106A/932



TRANSMITTER—THERMOMETER
ARMY TYPE A-22

NAMES: Thermometer transmitter
Autosyn transmitter

Vapor type thermometer transmitter
Instrument, (aircraft) Remote indicating self
synchronous

DESCRIPTION: This is an electric autosyn thermometer transmitter, with vapor type bulb, capillary tube, and Bourdon type actuating mechanism, used for transmitting engine oil temperature to an indicator.

CHARACTERISTICS:

Range (degrees C.)	10 to 150 degrees centigrade
Power supply	26 volts, 400 cycles
Electric receptacle	4 pin, AN3102-14S-2P
Weight	approximately 1 1/4 pounds
Dimensions	approximately 6 by 3 1/4 by 3 1/4 inches

RELATIONSHIP OF PARTS: Used with:

Dual thermometer autosyn indicator A. E. Reference Number 61-8951

ARMY

A. E. REFERENCE NUMBER: 61-8952

SPECIFICATIONS:

General	94-27864-A
Detail	27946

MANUFACTURER'S PART NUMBER: Pioneer Instrument Division 4455-3C-A3

TYPE DESIGNATION: A-22

A. S. C. STOCK NUMBER: 6100439025

TECHNICAL ORDER NUMBER: 05-55B-1

PRODUCTION STATUS: Not under procurement for initial installation. Superseded by A-24

SHIPPING DATA: Shipped as a complete unit

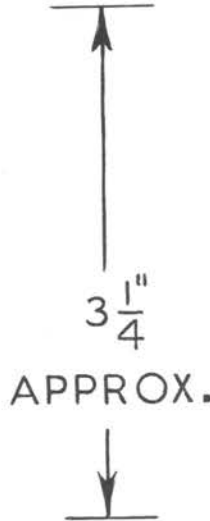
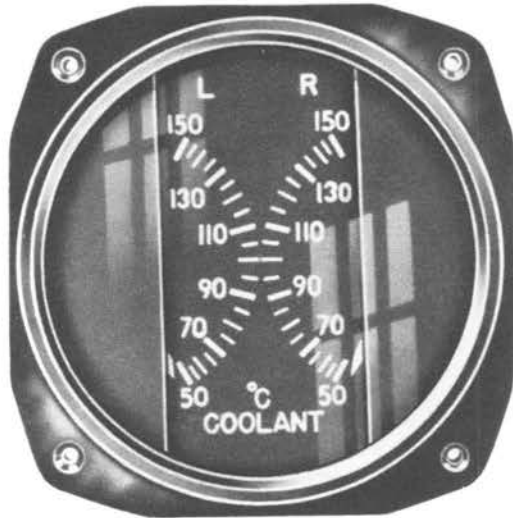
NAVY

There is no Navy equivalent for this item.

BRITISH

REFERENCE NUMBER: 106A/917

THERMOMETERS INSTRUMENTS—ENGINE



INDICATOR—DUAL ELECTRIC THERMOMETER ARMY TYPE A-25

NAMES: Dual electric thermometer indicator
Coolant thermometer
Dial thermometer

Dual thermometer
Electric thermometer
Ratio meter type indicator

DESCRIPTION: Electric ratio meter type thermometer indicator, used for indicating simultaneously on a single dial, two separate engine coolant temperatures.

CHARACTERISTICS:

Markings..... fluorescent
Range..... 50 to 150 degrees centigrade
Electric receptacle..... 4 pins, AND10066-14S-2P
Electric connector..... AN3106-14S-2S
Weight..... approximately 1 pound

Dial size..... 2 3/4 inches
Voltage..... 24 volts, direct current
Depth..... approximately 3 1/2 inches
Diameter..... approximately 3 1/4 inches

RELATIONSHIP OF PARTS: Any of the following long bulbs with AN connectors may be used:

- Weston—part numbers—100732, 101731, 102172, 103710, 106347 (AN5525-2)
- Edison-Spittdorf—part number B-2202 (AN5525-2)
- Sutton-Horsley—part number R-322-3 (AN5525-2)

ARMY

A. E. REFERENCE NUMBER: 61-9026

SPECIFICATIONS:

Detail..... 94-27999
Superseded..... 27999

TYPE DESIGNATION: A-25

A. S. C. STOCK NUMBER: Refer to chart

TECHNICAL ORDER NUMBER: O5-40B-1

PRODUCTION STATUS: Under procurement. Superseded by universal thermometer AN5795-6, A. E. Reference Number 61-8911.

SHIPPING DATA: Shipped as a complete unit.

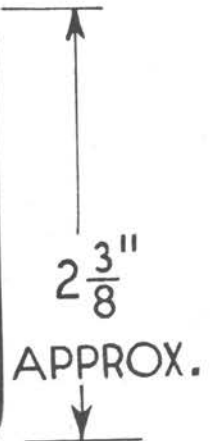
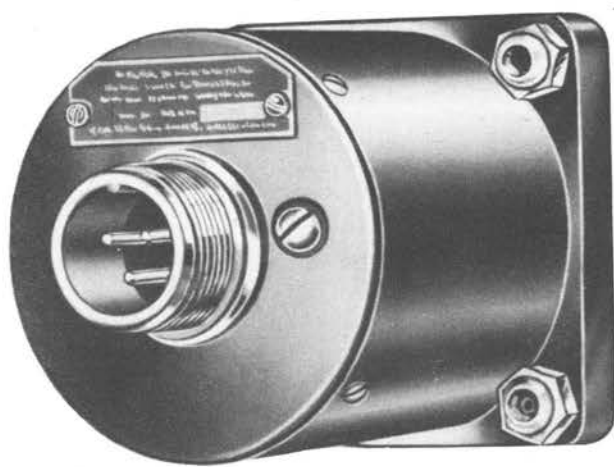
NAVY

There is no Navy equivalent for this item.

ALL MODELS BELOW ARE INTERCHANGEABLE
Models are used in services as noted in column 4
A-Army, N-Navy, B-British, C-Commercial

Manufacturer	Manufacturer's Model Identification	Manufacturer's Part Number	Used By	Air Service Command Stock Number	Type
Thomas A. Edison, Incorporated		33400	A	6100250265	A-25
The Electric Auto-Lite Co.		10284-A	A	6100250283	A-25
The Hickok Electrical Instrument Co.	58-600	60016	A	6100250267	A-25
Wheelco Instrument Company		60016	A	6100250267	A-25

NOTE: Indicator AN5795-6 on page 90 is interchangeable with all Thermometer indicators listed above, but requires an auxiliary plate to indicate function.



INDICATOR—SINGLE ELECTRIC THERMOMETER

ARMY TYPE A-23

NAMES: Single electric thermometer indicator
Thermometer—indicator
Coolant thermometer

Dial thermometer
Electric thermometer
Radio meter type thermometer indicator

DESCRIPTION: Electric ratio meter type thermometer indicator, used for indicating engine coolant temperature.

CHARACTERISTICS:

Markings.....	fluorescent	Dial size.....	1 7/8 inches
Range.....	50 to 150 degrees centigrade	Voltage.....	24 volts direct current
Electric receptacle.....	3 pins, AND10066-14S-1P	Depth.....	approximately 3 1/2 inches
Weight.....	approximately 1 pound	Diameter.....	approximately 2 3/8 inches

RELATIONSHIP OF PARTS: Any of the following long bulbs with AN connectors may be used:

- Weston—part numbers—100732, 101731, 102172, 103710, 106347 (AN5525-2)
- Edison-Splitdorf—part number—B-2202 (AN5525-2)
- Sutton-Horsley—part number—R-322-3 (AN5525-2)

ARMY

A. E. REFERENCE NUMBER: 61-8976

SPECIFICATIONS:

General.....	94-27325-A
Detail.....	94-27947-A
Superseded.....	94-27947

TYPE DESIGNATION: A-23

A. S. C. STOCK NUMBER: Refer to chart

TECHNICAL ORDER NUMBER: Refer to chart

PRODUCTION STATUS: Under procurement. Superseded by universal thermometer AN5790-6.

SHIPPING DATA: Shipped as a complete unit.

NAVY

There is no Navy equivalent for this item.

(Continued on Page 96)



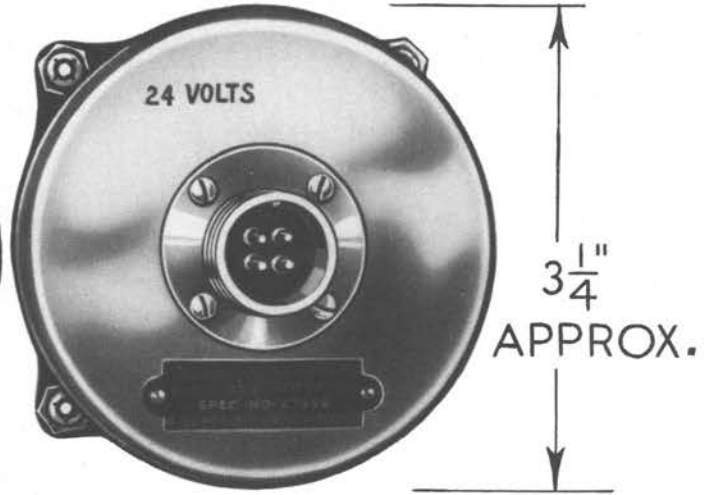
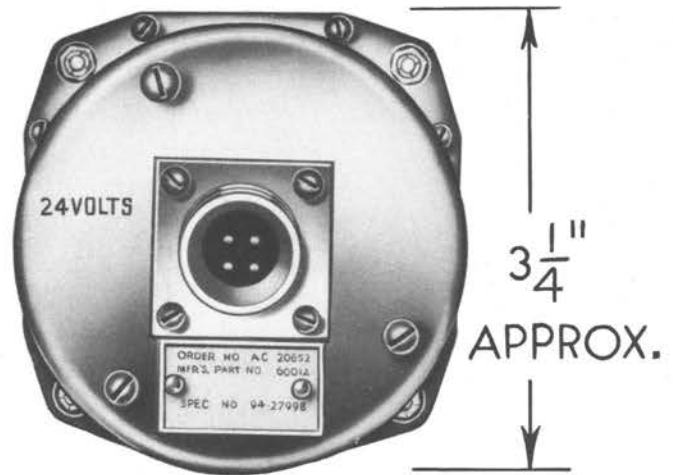
INDICATOR—SINGLE ELECTRIC THERMOMETER

(Continued from Page 95)

ALL MODELS BELOW ARE INTERCHANGEABLE
Models are used in services as noted in column 4
A-Army, N-Navy, B-British, C-Commercial

Manufacturer	Manufacturer's Model Identification	Manufacturer's Part Number	Used By	Air Service Command Stock Number	Army Technical Order Number	British Reference Number	Army Type	Electrical Connectors
Thomas A. Edison, Inc.		33201	A-B	6100250170	05-40B-1	106A/862	A-23	AN3106-14S-1S
Weston Electrical Instrument Corp.	Model 727, Type 24	102116	A-B	6100250180	05-40B-1	106A/862	A-23	AN3106-14S-1S
	Model 727, Type 45	108260	A-B	6100250190	05-40B-1	106A/862	A-23	AN3106-14S-1S
	Model 727, Type 32		A-B	6100246616	05-40B-1	106A/862	A-23	AN3106-14S-1S

Note: Indicator AN5790-6, on page 90, is interchangeable with all thermometer indicators listed above, but requires an auxiliary plate to indicate function (Oil Temp.)



INDICATOR — DUAL ELECTRIC THERMOMETER

ARMY TYPE A-24

NAMES: Dual electric thermometer indicator
Dial thermometer
Dual thermometer indicator

Electric thermometer
Oil thermometer
Ratio meter type indicator

DESCRIPTION: Electric ratio meter type thermometer indicator, used for simultaneously indicating, on a single dial, oil temperatures of two engines.

CHARACTERISTICS:

Markings fluorescent	Dial size 2 3/4 inches
Range 20 to 120 degrees centigrade	Voltage 24 volts, direct current
Electric receptacle 4 pins, AND10066-14S-2P	Depth approximately 3 1/2 inches
Weight approximately 1 pound	Diameter approximately 3 1/4 inches

RELATIONSHIP OF PARTS: Any of the following long bulbs with AN connectors may be used:

- Weston — part numbers — 100732, 101731, 102172, 103710, 106347 (AN5525-2)
- Edison-Splitdorf — part number — B-2202 (AN5525-2)
- Sutton-Horsley — part number — R-322-3 (AN5525-2)

(Continued on Page 98)

ARMY

A. E. REFERENCE NUMBER: 61-9001

SPECIFICATIONS:

General.....94-27325-A
 Detail.....94-27998
 Superseded.....27998

TYPE DESIGNATION: A-24

A. S. C. STOCK NUMBER: Refer to chart

TECHNICAL ORDER NUMBER: Refer to chart.

PRODUCTION STATUS: Under procurement. Superseded by universal thermometer AN5795-6, A. E.
 Reference Number 61-8911.

SHIPPING DATA: Shipped as a complete unit.

NAVY

There is no Navy equivalent for this item.

ALL MODELS BELOW ARE INTERCHANGEABLE
Models are used in services as noted in column 4
A-Army, N-Navy, B-British, C-Commercial

Manufacturer	Manufacturer's Model Identification	Manufacturer's Part Number	Used By	Air Service Command Stock Number	Army Technical Order Number	British Reference Number	Army Type	Electrical Connectors	Remarks
Thomas A. Edison, Inc.		33207	A-B	6100250220		106A/944	A-24	AN3106-14S-2S	
The Hickok Electrical Instrument Co.		60017-A	A-B	6100250235		106A/944	A-24	AN3106-14S-2S	One movement single pole, double throw switch, interchangeable with 60012. Universal thermometer
	58-600	60012	A-B	6100250225	05-40B-3	106A/944	A-24	AN3106-14S-2S	
Sutton-Horsley Co., Ltd.		7-121	A-B			106A/944	A-24	AN3106-14S-2S	Universal thermometer
Weston Electrical Instruments Corporation	Model 828, Type 2	103107	A-B	6100250240	05-40B-1	106A/944	A-24	AN3106-14S-2S	
Wheelco Instrument Co.	58-600	60012	A-B	6100250225		106A/944	A-24	AN3106-14S-2S	Universal thermometer

Note: Indicator AN5795-6, on page 90, is interchangeable with all thermometer indicators listed above. Universal thermometers marked "°C" require an auxiliary plate to indicate function.

(Continued from Page 97)

INDICATOR—DUAL ELECTRIC THERMOMETER

THERMOMETERS
INSTRUMENTS—ENGINE

(RESTRICTED)

(RESTRICTED)



3 1/4"
APPROX.



3 1/4"
APPROX.

INDICATOR—THERMOCOUPLE THERMOMETER ARMY TYPE B-9

NAMES: Thermocouple thermometer indicator
Thermometer assembly—thermocouple

DESCRIPTION: Electrical thermometer indicator, for use with a thermocouple to indicate cylinder head temperatures.

CHARACTERISTICS:

Markings fluorescent
Range 0 to 350 degrees centigrade
Lead resistance 2 ohms
Type of terminal 2 studs
Weight approximately 1 1/4 pounds

Dial size 2 3/4 inches
Depth approximately 2 3/4 inches
Diameter approximately 3 1/4 inches
Thermocouple and leads . iron constantan

RELATIONSHIP OF PARTS: Used with: Thermocouple, iron-constantan type, drawing number AND10200

(Continued on Page 100)

ARMY

A. E. REFERENCE NUMBER: 61-9101

SPECIFICATIONS:

Detail.....94-27928-B

Superseded.....94-27928-A; 94-27928

AN OR A. A. F. DRAWING NUMBER: AND10401 (Case)

TYPE DESIGNATION: B-9

A. S. C. STOCK NUMBER: Refer to chart.

TECHNICAL ORDER NUMBER: Refer to chart.

PRODUCTION STATUS: Under procurement.

SHIPPING DATA: Shipped as a complete unit, not including thermocouple or leads.

NAVY

There is no Navy equivalent for this item.

ALL MODELS BELOW ARE INTERCHANGEABLE
Models are used in services as noted in column 4
A-Army, N-Navy, B-British, C-Commercial

Manufacturer	Manufacturer's Model Identification	Manufacturer's Part Number	Used By	Air Service Command Stock Number	Army Technical Order Number	British Reference Number	Lighting and Dial Finish (**)	Army Type	Mounting	Remarks
Weston Electrical Instrument Corporation	Model 602, Type 113	102316	A-B	6100255540	05-40-3	106A/846	(B)	B-9	Back	
	Model 602, Type 122	110430	A-B			106A/846	(B)	B-9	Front or back	
	Model 602, Type 80	86884	A-B	6100254250	05-40-3	106A/889	Individual (A)	B-7	Back	Make cutout in panel for light
DeJur-Amsco Corporation		Z-22.24	A-B	6100255535		106A/846	(B)	B-9	Front or back	
		17AT4B	A-B	6100255525	05-40-3	106A/846	(B)	B-9	Front or back	
The Lewis Engineering Company		17AT2	A-B	6100254000	05-40-3	106A/889	Individual (A)	B-7	Back	Make cutout in panel for light

(**) Details on finish of dial markings appear in this Index under the heading of "Dial—Instrument Lighting."

(A) Major graduations finished with radium luminous material.

(B) Dial markings finished with phosphorescent or fluorescent luminous materials for use with external fluorescent (ultra-violet) lighting.



(Continued from Page 99)



3 1/4"
APPROX.



3 1/4"
APPROX.

INDICATOR—DUAL THERMOCOUPLE THERMOMETER

ARMY TYPE B-11

NAMES: Dual thermocouple thermometer indicator
Thermometer assembly—thermocouple

Thermocouple thermometer
Cylinder head temperature indicator

DESCRIPTION: Electric millivoltmeter type indicator, used to give two simultaneous cylinder head temperature readings when connected with two thermocouples.

CHARACTERISTICS:

Markings fluorescent
Range 0 to 350 degrees C.
Weight approximately 1 1/2 pounds
Dial size 2 3/4 inches

Dimensions approximately 3 1/16 by
3 1/4 by 3 1/4 inches
Thermocouples and leads . . iron-constantan
Lead resistance 8 ohms
Type terminal 4 studs

RELATIONSHIP OF PARTS: Used with: Thermocouple, iron-constantan type, drawing AND10200

(Continued on Page 102)



INDICATOR—DUAL THERMOCOUPLE THERMOMETER

(Continued from Page 101)

ARMY

A. E. REFERENCE NUMBER: 61-9126

SPECIFICATIONS:

Detail 94-27971-B
Superseded 94-27971-A

TYPE DESIGNATION: B-11

A. S. C. STOCK NUMBER: Refer to chart.

TECHNICAL ORDER NUMBER: AN 05-40D-1 (General instructions)

PRODUCTION STATUS: Under procurement.

SHIPPING DATA: Shipped as a complete unit, not including thermocouples or leads.

NAVY

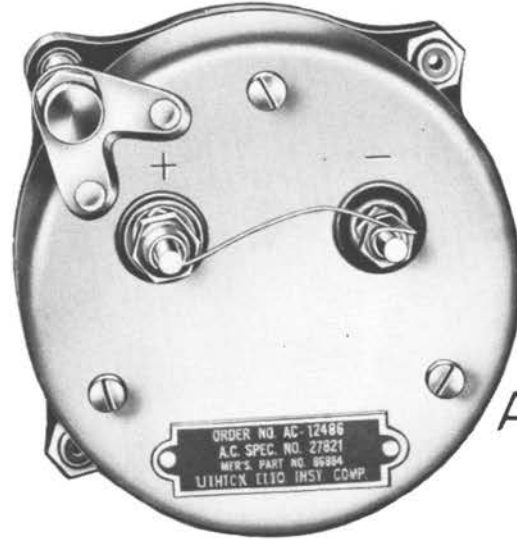
There is no Navy equivalent for this item.

ALL MODELS BELOW ARE INTERCHANGEABLE
Models are used in services as noted in column 4
A-Army, N-Navy, B-British, C-Commercial

Manufacturer	Manufacturer's Model Identification	Manufacturer's Part Number	Used By	Air Service Command Stock Number	Army Technical Order Number	British Reference Number	Pointers	Mounting
Weston Electrical Instrument Corp.	Model 635, Type 35	102319	A-B	6100255640	05-40-3	106A/919	Crossed	Back
	Model 635, Type 54	110507	A-B			106A/919	Crossed	Front or back
	Model 827, Type 2	110586	A-B			106A/919	Opposed	Front or back
	Model 635, Type 45		C				Crossed	Back
The Lewis Engineering Company		76AT3	A-B	6100255635	05-40-3	106A/919	Opposed	Front or back
		76AT3B	A-B	6100255637		106A/919	Opposed	Front or back
		76AT3C	C				Opposed	Front or back
		76AT3D	C				Opposed	Front or back
DeJur Amsco Corporation		Z-22.22	A-B	6100255633		106A/919	Opposed	Front or back



THERMOMETERS INSTRUMENTS — ENGINE



INDICATOR — THERMOCOUPLE THERMOMETER ARMY TYPE B-7

NAMES: Thermocouple thermometer indicator
Thermometer assembly—thermocouple

Thermocouple thermometer
Cylinder head temperature indicator

DESCRIPTION: Electrical thermometer indicator, used with a thermocouple to indicate cylinder head temperature.

CHARACTERISTICS:

Markings radioactive
Lighting individual
Range 0 to 350 degrees centigrade
Lead resistance 2 ohms
Type of terminal 2 studs

Weight approximately 2 pounds
Dial size approximately 2 3/4 inches
Depth approximately 2 3/4 inches
Diameter approximately 3 1/4 inches
Thermocouples and leads iron-constantan

RELATIONSHIP OF PARTS: Used with: Thermocouple, iron-constantan type, drawing number AND10200.

ARMY

A. E. REFERENCE NUMBER: 61-9051

SPECIFICATIONS:

Detail 94-27821A
Superseded 94-27821

TYPE DESIGNATION: B-7

A. S. C. STOCK NUMBER: Refer to chart.

TECHNICAL ORDER NUMBER: Refer to chart.

PRODUCTION STATUS: Not under procurement for initial installation.

SHIPPING DATA: Shipped as a complete unit, not including thermocouples or leads.

NAVY

There is no Navy equivalent for this item.

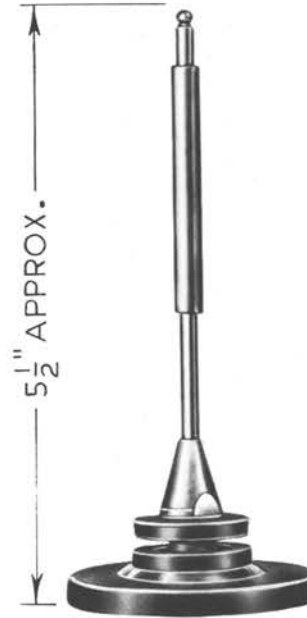
ALL MODELS BELOW ARE INTERCHANGEABLE Models are used in services as noted in column 4 A-Army, N-Navy, B-British, C-Commercial

Manufacturer	Manufacturer's Model Identification	Manufacturer's Part Number	Used By	Air Service Command Stock Number	Army Technical Order Number	British Reference Number	Lighting and Dial Finish (**)	Army Type	Mounting
Weston Electrical Instrument Corp.	Model 602, Type 80	86884	A-B	6100254250	05-40-3	106A/889	Individual (A)	B-7	Back
	Model 602, Type 113	102316	A-B	6100255540	05-40-3	106A/846	(B)	B-9	Back
	Model 602, Type 122	110430	A-B			106A/846	(B)	B-9	Front or Back
The Lewis Engineering Co.		17AT2	A-B	6100254000	05-40-3	106A/889	Individual (A)	B-7	Back
		17AT4B	A-B	6100255525	05-40-3	106A/846	(B)	B-9	Front or Back
DeJur-Amsco Corporation		Z-22.24	A-B	6100255535		106A/846	(B)	B-9	Front or Back

(**) Details on finish of dial markings appear in this Index under the heading of "Dial—Instrument Lighting."
(A) Major graduations finished with radium luminous material.
(B) Dial markings finished with phosphorescent or fluorescent luminous materials for use with external fluorescent (ultra-violet) lighting.



THERMOMETERS INSTRUMENTS — ENGINE



THERMOMETER — BIMETAL DIRECT READING

ARMY TYPE C-13, C-13A F. S. S. C. NUMBER 88-T-1560

NAMES: Bimetal direct reading thermometer
Thermometer indicator
Bimetal thermometer

Dial thermometer
Direct reading thermometer
Free air thermometer

DESCRIPTION: Bimetal type direct reading thermometer, used for indicating free air temperature.

CHARACTERISTICS:

- Markings..... flourescent
- Range..... -70 to 50 degrees Centigrade
- Weight..... approximately 1/8 pound
- Dial..... 1 7/8 inches diameter
- Dimensions..... approximately 5 1/2 by 2 1/8 by 2 1/8 inches

ARMY

A. E. REFERENCE NUMBER: 60-8701
SPECIFICATIONS:

- Detail..... 94-27328
- Superseded..... 27328

TYPE DESIGNATION: C-13, C-13A

A. S. C. STOCK NUMBER: Refer to chart.

TECHNICAL ORDER NUMBER: Refer to chart.

PRODUCTION STATUS: Under procurement.
Type C-13A supersedes type C-13.

SHIPPING DATA: Shipped as a complete unit.

NAVY

The Navy procures this item to the Army specification.

F. S. S. C. NUMBER 88-T-1560

PROCUREMENT STATUS: Standard—

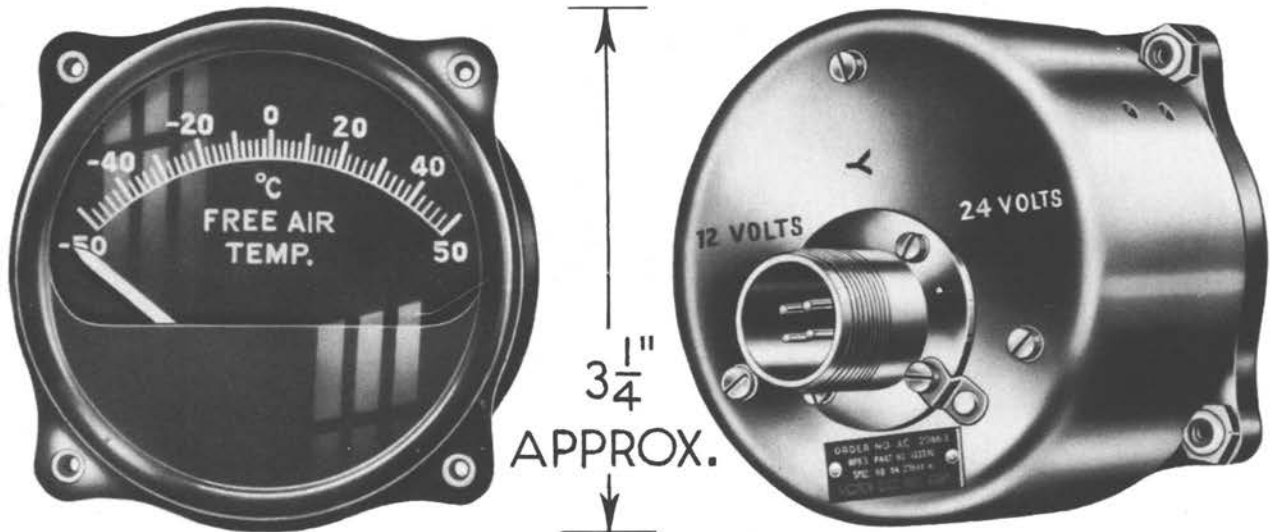
G. F. E.—Order through A. S. O. by F. S. S. C. number.

BRITISH

BRITISH REFERENCE NUMBER:
106A/1128 (for C-13 only)

ALL MODELS BELOW ARE INTERCHANGEABLE
Models are used in services as noted in column 4
A-Army, N-Navy, B-British, C-Commercial

Manufacturer	Manufacturer's Model Identification	Manufacturer's Part and Drawing Number	Used By	Air Service Command Stock Number	Army Technical Order Number	Army Type	British Reference Number	Remarks
Rochester Mfg. Co.		1585	A-B	6000257123		C-13	106A/1128	Has short sunshade.
The Ohio Thermometer Co., Inc.		A-261	A	6000257122	05-40-16	C-13A		Combined sun shield and mounting rest.
Weston Electrical Instrument Co.	Type 227 L 001	96200	A	6000257125	05-40-9	C-13	106A/1128	Has short sunshade.
	Type 227 L 002	96317	A	6000247560		C-13A		Increased length of mounting threads for mounting through one inch wall thickness.
	Type 227 L 004	96362	A	6000247560		C-13A		Increased length of mounting threads for mounting through one inch wall thickness.
	Type 227 L 003	96356	N					Shield and mounting nut combined into one assembly.



INDICATOR — ELECTRIC THERMOMETER
ARMY TYPE C-10

NAMES: Electric thermometer indicator
Thermometer indicator
Dial thermometer
Electric thermometer
Free air thermometer
Ratio meter type thermometer
Resistance thermometer

DESCRIPTION: This is an electric ratio meter type thermometer indicator, used for registering free air temperature.

CHARACTERISTICS:

Markings	fluorescent	Weight	approximately 1 1/2 pounds
Range	-50 to 50 degrees Centigrade	Dial size	approximately 2 3/4 inches
Voltage	12 or 24 volts, direct current	Depth	approximately 3 1/2 inches
Electric receptacle	6 pins, AND10066-14S-2P	Diameter	approximately 3 1/4 inches
		Mounting	back mounting only

RELATIONSHIP OF PARTS: Used with: Any of the following short bulbs with AN connectors may be used in Weston assemblies numbers 106415 and 93144:

- Weston part numbers—94176
- 94177
- 93195
- 106346 (AN5525-1)
- Edison-Splitdorf part number—B-2201 (AN5525-1)

ARMY

A. E. REFERENCE NUMBER: 60-8627

SPECIFICATIONS:

General	94-27325A
Detail	94-27948A
Superseded	94-27948

TYPE DESIGNATION: C-10

A. S. C. STOCK NUMBER: Refer to chart.

TECHNICAL ORDER NUMBER: 05-40B-1

PRODUCTION STATUS: Not under procurement for initial installation.

SHIPPING DATA: Shipped as a complete unit.

NAVY

There is no Navy equivalent for this item.

MODELS BELOW ARE INTERCHANGEABLE
Models are used in services as noted in column 4
A-Army, N-Navy, B-British, C-Commercial

Manufacturer	Manufacturer's Model Identification	Manufacturer's Part Number	Used By	Air Service Command Stock Number
Weston Electrical Instrument Corp.	Model 728, Type 28	102330	A-B	6000257040
	Model 728, Type 33	108303	A-B	



THERMOMETERS INSTRUMENTS—ENGINE



INDICATOR—SINGLE ELECTRIC THERMOMETER

ARMY TYPE C-11

NAMES: Single electric thermometer indicator
Thermometer indicator
Dial thermometer
Electric thermometer

Free air thermometer
Radio meter type thermometer
Resistance thermometer

DESCRIPTION: This is an electrical ratio meter type thermometer indicator, used for registering free air temperature.

CHARACTERISTICS:

Markings	fluorescent	Dial size	approximately 1 7/8 inches
Voltage	24 volts, direct current	Depth	approximately 3 1/2 inches
Range	-45 to 45 degrees Centigrade	Diameter	approximately 2 3/8 inches
Electric receptacle	3 pins, AND10066-14S-1P	Weight	approximately 1 pound

RELATIONSHIP OF PARTS:

Any of the following short bulbs with AN connectors may be used in Weston assemblies numbers 106415 and 93144:

- Weston—part numbers 94176
94177
93195
106346 (AN5525-1)
- Edison-Splitdorf—part number B-2201 (AN5525-1)

ARMY

A. E. REFERENCE NUMBER: 60-8651

SPECIFICATIONS:

General	94-27325-A
Detail	94-27949-A
Superseded	94-27949

TYPE DESIGNATION: C-11

A. S. C. STOCK NUMBER: Refer to chart.

TECHNICAL ORDER NUMBER: Refer to chart.

PRODUCTION STATUS: Under procurement.

Superseded by universal thermometer AN5790-6. A. E. Reference Number 61-8902

SHIPPING DATA: Shipped as a complete unit.

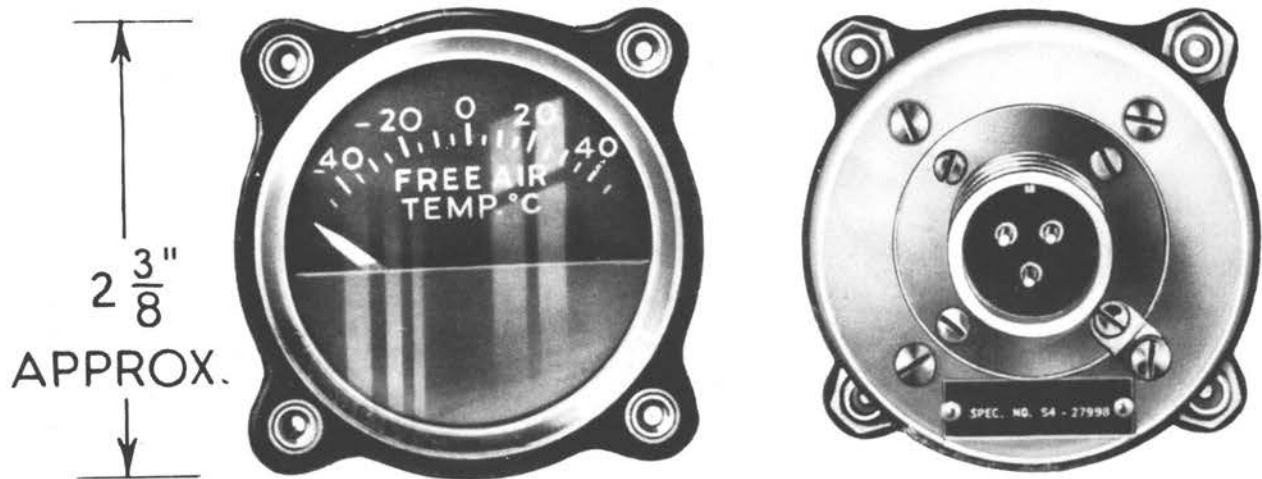
NAVY

There is no Navy equivalent for this item.

ALL MODELS BELOW ARE INTERCHANGEABLE
Models are used in services as noted in column 4
A-Army, N-Navy, B-British, C-Commercial

Manufacturer	Manufacturer's Model Identification	Manufacturer's Part Number	Used By	Air Service Command Stock Number	Army Technical Order Number	British Reference Number	Army Type
Thomas A. Edison, Incorporated		33206	A-B	6000257085		106A/852	C-11
Weston Electrical Instrument Co.	Model 727, Type 25	102138	A-B	6000257090	05-40B-1	106A/852	C-11
	Model 727, Type 36	106497	A-B	6000257095	05-40B-1	106A/852	C-11
	Model 727, Type 33		B-C			106A/852	C-11

NOTE: Indicator AN5790-6, on page 89, is interchangeable with all thermometer indicators listed above, but requires an auxiliary plate to indicate function.



INDICATOR — ELECTRIC THERMOMETER
ARMY TYPE C-12

NAMES: Electric thermometer indicator
Thermometer indicator
Dial thermometer
Electric thermometer

Free air thermometer
Ratio meter type thermometer
Resistance thermometer

DESCRIPTION: This is an electrical ratio meter type thermometer indicator, used for registering free air temperature.

CHARACTERISTICS:

Markings.....	fluorescent
Range.....	—45 to 45 degrees Centigrade
Electric receptacle.....	3 pins, AND10066-14S-1P
Dual size.....	approximately 1 7/8 inches
Voltage.....	12 volts, direct current
Length.....	approximately 3 1/2 inches
Diameter.....	approximately 2 3/8 inches
Weight.....	approximately 1 pound

RELATIONSHIP OF PARTS: Used with:

Thermometer bulb and sunshield assemblies 93144 and 106415. Any of the following short bulbs with AN connectors may be used in Weston assemblies numbers 106415 and 93144:

- Weston—part numbers 94176
- 94177
- 93195
- 106346 (AN5525-1)
- Edison-Splitdorf part—number B-2201 (AN5525-1)

(Continued on Page 108)



INDICATOR — ELECTRIC THERMOMETER

(Continued from Page 107)

ARMY

A. E. REFERENCE NUMBER: 60-8676

SPECIFICATIONS:

General 94-27325
 Detail 94-27990
 Superseded 27990

TYPE DESIGNATION: C-12

A. S. C. STOCK NUMBER: Refer to chart.

TECHNICAL ORDER NUMBER: Refer to chart.

PRODUCTION STATUS: Not under procurement for initial installation. Superseded by universal thermometer AN5790-6, A. E. Reference Number 61-8902.

SHIPPING DATA: Shipped as a complete unit.

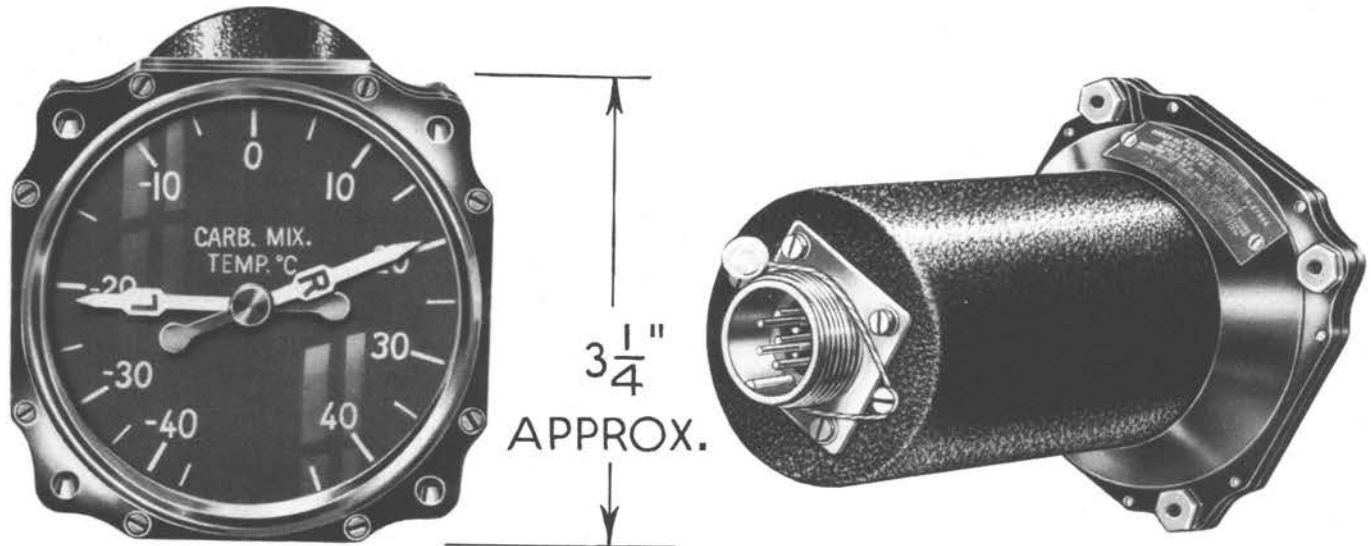
NAVY

There is no Navy equivalent for this item.

ALL MODELS BELOW ARE INTERCHANGEABLE
Models are used in services as noted in column 4
A-Army, N-Navy, B-British, C-Commercial

Manufacturer	Manufacturer's Model Identification	Manufacturer's Part Number	Used By	Air Service Command Stock Number	Army Technical Order Number	British Reference Number	Army Type	Electrical Connector	Remarks
Weston Electrical Instrument Co.	Model 727, Type 26	102134	A-B	6000257110	05-40B-1	106A/1114	C-12	AN3106-14S-1S	
	Model 727, Type 37	106498	A-B	6000257115	05-40B-1	106A/1114	C-12	AN3106-14S-1S	

Note: Indicator AN5790-6, on page 89, is interchangeable with all thermometer indicators listed above, but requires an auxiliary plate to indicate function.



INDICATOR — DUAL THERMOMETER

ARMY TYPE F-7

NAMES: Dual thermometer indicator
Autosyn thermometer
Carburetor thermometer

Dial thermometer
Self-synchronous indicator
Thermometer; carburetor, type F-7

DESCRIPTION: Dual electrical self-synchronous (autosyn) thermometer indicator, which indicates carburetor air or fuel air mixture temperatures.

CHARACTERISTICS:

Markings	fluorescent
Range	—45 to 45 degrees Centigrade
Power supply	26 volts, 400 cycles
Electric receptacle	7 pin, AN3102-16S-1P
Weight	approximately 1 1/4 pounds
Dial size	approximately 2 3/4 inches
Depth	approximately 6 by 3 1/4 by 3 1/4 inches

RELATIONSHIP OF PARTS: Used with:

Two autosyn thermometer transmitters..... A. E. Reference Number 61-9152

ARMY

A. E. REFERENCE NUMBER: 61-9151

SPECIFICATIONS:

General	94-27864-A
Detail	94-27944
Superseded	27944

MANUFACTURER: Pioneer Instrument Division

PART NUMBER: 6007-31A-7-A

TYPE DESIGNATION: F-7

A. S. C. STOCK NUMBER: 6100262540

TECHNICAL ORDER NUMBER: 05-55B-1

PRODUCTION STATUS: Not under procurement for initial installation. Superseded by universal thermometer AN5795-6, A. E. Reference Number 61-8911, but not interchangeable.

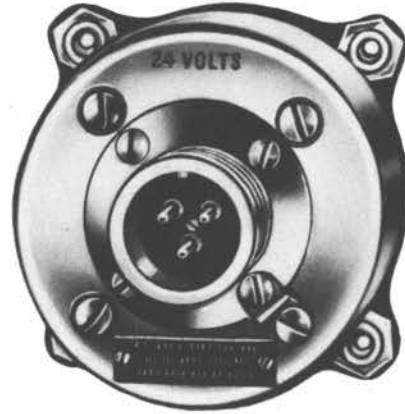
SHIPPING DATA: Shipped as a complete unit.

NAVY

There is no Navy equivalent for this item.

BRITISH

BRITISH REFERENCE NUMBER: 106A/788



← 2 3/8" APPROX. →

INDICATOR — ELECTRIC THERMOMETER

ARMY TYPE F-8

NAMES: Electric thermometer indicator
Thermometer—indicator
Carburetor thermometer
Dial thermometer

Electric thermometer
Ratio meter type thermometer
Resistance thermometer

DESCRIPTION: Electric ratio meter type thermometer indicator, used for indicating carburetor air or mixture temperature.

CHARACTERISTICS:

Markings.....	fluorescent
Range.....	—45 to 45 degrees centigrade
Electrical receptacle.....	3 pins, AND10066-14S-1P
Weight.....	approximately 1 pound
Dial size.....	approximately 1 7/8 inches
Voltage.....	24 volts direct current
Depth.....	approximately 3 1/2 inches
Diameter.....	approximately 2 3/8 inches

RELATIONSHIP OF PARTS:

Any of the following short bulbs with AN connectors may be used for carburetor mixture temperatures:

- Weston—part numbers 94176
- 94177
- 93195
- 106346 (AN5525-1)

Edison-Splitdorf—part number B-2201 (AN5525-1)

Any of the following long bulbs with AN connectors may be used for carburetor air temperatures:

- Weston—part numbers 100732
- 101731
- 102172
- 103710
- 106347 (AN5525-2)

Edison-Splitdorf—part number B-2202 (AN5525-2)

Sutton-Horsley—part number R-322-3 (AN5525-2)

(Continued on Page 112)



INDICATOR — ELECTRIC THERMOMETER

(Continued from Page III)

ARMY

A. E. REFERENCE NUMBER: 61-9178

SPECIFICATIONS:

General	94-27325-A
Detail	94-27945-A
Superseded	94-27945

TYPE DESIGNATION: F-8

A. S. C. STOCK NUMBER: Refer to chart.

TECHNICAL ORDER NUMBER: Refer to chart.

PRODUCTION STATUS: Under procurement. Superseded by universal thermometer AN5790-6,
A. E. Reference Number 61-8902.

SHIPPING DATA: Shipped as a complete unit.

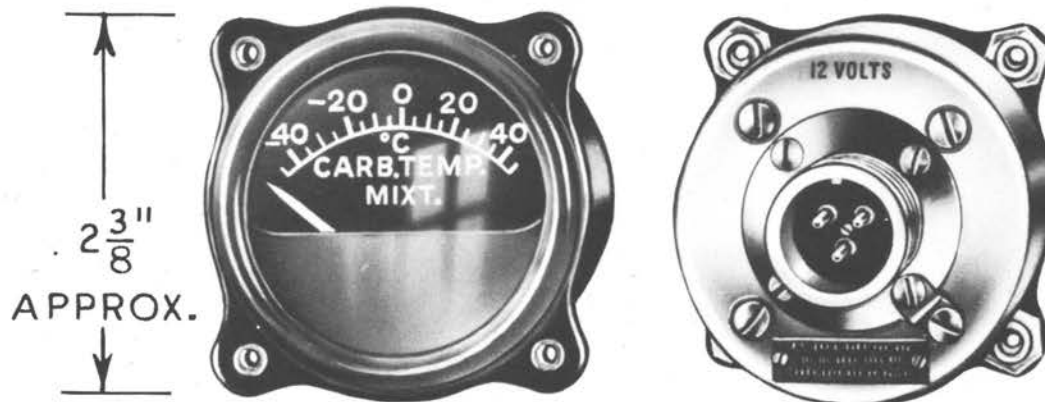
NAVY

There is no Navy equivalent for this item.

ALL MODELS BELOW ARE INTERCHANGEABLE
Models are used in services as noted in column 4
A-Army, N-Navy, B-British, C-Commercial

Manufacturer	Manufacturer's Model Identification	Manufacturer's Part Number	Used By	Air Service Command Stock Number	Army Technical Order Number	British Reference Number	Army Type	Electrical Connector
Thomas A. Edison, Incorporated		33200	A-B-C	6100262560		106A/845	F-8	AN3106-14S-1S
Weston Electrical Instrument Corp.	Model 727, Type 27	102114	A-B	6100262570	05-40B-1	106A/845	F-8	AN3106-14S-1S
	Model 727, Type 46	108261	A-B	6100262855		106A/845	F-8	AN3106-14S-1S
	Model 727, Type 39		B-C			106A/845	F-8	AN3106-14S-1S

Note: Indicator AN5790-6, on page 89, is interchangeable with all thermometer indicators listed above, but requires an auxiliary plate to indicate function.



INDICATOR—ELECTRIC THERMOMETER

ARMY TYPE F-9

NAMES: Electric thermometer indicator
Thermometer indicator
Carburetor thermometer
Dial thermometer

Electrical thermometer
Ratio meter thermometer
Resistance thermometer

DESCRIPTION: Ratio meter type electric thermometer indicator is used for registering carburetor air or mixture temperatures.

CHARACTERISTICS:

Markings.....	fluorescent
Range.....	—45 to 45 degrees centigrade
Electrical receptacle.....	3 pins, AND10066-14S-1P
Weight.....	approximately 1 pound
Dial size.....	approximately 1 7/8 inches
Voltage.....	12 volts direct current
Depth.....	approximately 3 1/2 inches
Diameter.....	approximately 2 3/8 inches

RELATIONSHIP OF PARTS: Any of the following short bulbs with AN connectors may be used for carburetor mixture temperatures:

Weston—part numbers 93195, 94176, 94177

Edison-Splitdorf—part number 106346 (AN5525-1), B-2201 (AN5525-1)

Any of the following long bulbs with AN connectors may be used for carburetor air temperatures:

Weston—part numbers 100732, 101731, 102172, 103710, 106347 (AN5525-2)

Edison-Splitdorf—part number B-2202 (AN5525-2)

Sutton-Horsley—part number R-322-3 (AN5525-2)

(Continued on Page 114)



INDICATOR — ELECTRIC THERMOMETER

(Continued from Page 113)

ARMY

A. E. REFERENCE NUMBER: 61-9201

SPECIFICATIONS:

- General.....94-27325-A
- Detail.....94-27991
- Superseded.....27991

TYPE DESIGNATION: F-9

A. S. C. STOCK NUMBER: Refer to chart

TECHNICAL ORDER NUMBER: Refer to chart

PRODUCTION STATUS

Under procurement. Superseded by universal thermometer AN5790-6, A. E. Reference Number 61-8902.

SHIPPING DATA: Shipped as a complete unit.

NAVY

There is no Navy equivalent for this item.

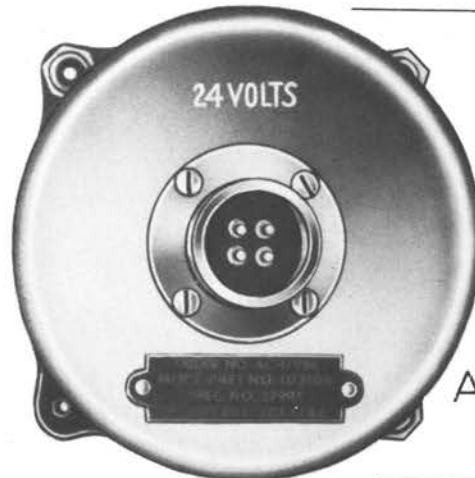
MODELS BELOW ARE INTERCHANGEABLE
Models are used in services as noted in column 4
A-Army, N-Navy, B-British, C-Commercial

Manufacturer	Manufacturer's Model Identification	Manufacturer's Part Number	Used By	Air Service Command Stock Number	Army Technical Order Number	British Reference Number	Army Type	Electrical Connectors
Weston Electrical Instrument Corp.	Model 727, Type 28	102130	A-B	6100262630	05-40B-1	106A/1112	F-9	AN3106-14S-1S
	Model 727, Type 38	106499	A-B	6100262635	05-40B-1	106A/1112	F-9	AN3106-14S-1S

Note: Indicator AN5790-6, on page 89, is interchangeable with thermometer indicators listed above, but requires an auxiliary name plate to indicate function.



3 1/4
APPROX.



3 1/4
APPROX.

INDICATOR — DUAL ELECTRIC THERMOMETER

ARMY TYPE F-10

NAMES: Dual electric thermometer indicator
Dual thermometer indicator
Carburetor thermometer

Dial thermometer
Ratio meter type thermometer
Resistance thermometer

DESCRIPTION: Electric ratio meter type thermometer indicator, used to indicate simultaneously, on a single dial, two carburetor air or mixture temperatures.

CHARACTERISTICS:

Markings	fluorescent
Range	—45 to 45 degrees Centigrade
Weight	approximately 1 pound
Dial size	approximately 2 3/4 inches
Voltage	24 volts direct current
Depth	approximately 3 1/2 inches
Diameter	approximately 3 1/4 inches
Electric receptacle	4 pins, AND10066-14S-2P
Electric connector	AN3106-14S-2S

RELATIONSHIP OF PARTS: Any of the following short bulbs with AN connectors may be used for carburetor mixture temperatures: Weston—part numbers 94176, 94177, 93195, 106346 (AN5525-1) Edison-Splitdorf—part number B-2201 (AN5525-1)
Any of the following long bulbs with AN connectors may be used for carburetor air temperatures: Weston—part number 100732, 101731, 102172, 103710, 106347 (AN5525-2) Edison-Splitdorf—part number B-2202 (AN5525-2) Sutton-Horsley—part number R-322-3 (AN5525-2)

(Continued on Page 116)



INDICATOR — DUAL ELECTRIC THERMOMETER

(Continued from Page 115)

ARMY

A. E. REFERENCE NUMBER: 61-9226

SPECIFICATIONS:

General..... 94-27325-A
 Detail..... 94-27997
 Superseded..... 27997

TYPE DESIGNATION: F-10

A. S. C. STOCK NUMBER: Refer to chart.

TECHNICAL ORDER NUMBER: Refer to chart.

PRODUCTION STATUS: Under procurement. Superseded by universal thermometer AN5795-6,
A. E. Reference Number 61-8911.

SHIPPING DATA: Shipped as a complete unit.

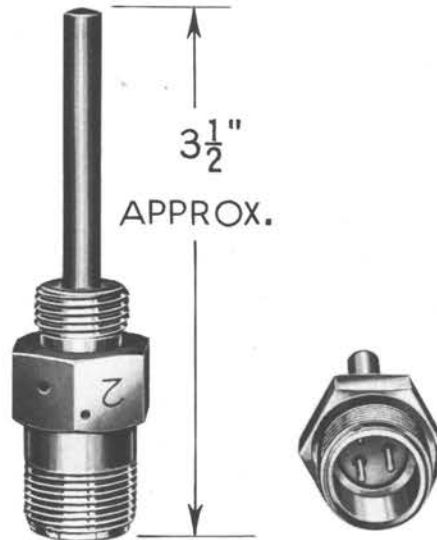
NAVY

There is no Navy equivalent for this item.

ALL MODELS BELOW ARE INTERCHANGEABLE
Models are used in services as noted in column 4
A-Army, N-Navy, B-British, C-Commercial

Manufacturer	Manufacturer's Model Identification	Manufacturer's Part Number	Used By	Air Service Command Stock Number	Army Technical Order Number	British Reference Number	Army Type	Electrical Connector
Thomas A. Edison, Incorporated		33208	A-B	6100262683		106A/1108	F-10	AN3106-14S-2S
The Hickok Electrical Instrument Co.	58-600	60011	A-B	6100262685	05-40B-3	106A/1108	F-10	AN3106-14S-2S
Weston Electrical Instrument Corp.	Model 828, Type 1	103106	A-B	6100262690	05-40B-1	106A/1108	F-10	AN3106-14S-2S

Note: Indicator AN5795-6, on page 89, is interchangeable with thermometer indicators listed above, but requires an auxiliary plate to indicate function.



BULB—RESISTANCE THERMOMETER (SHORT)

AN5525-1 F. S. S. C. NUMBER 88-B-890

NAMES: Resistance thermometer (short) bulb	Thermometer, resistance bulb
Electrical resistance bulb	Thermometer bulb
Resistance thermometer	

DESCRIPTION: Electrical resistance type thermometer bulb, used with electrical bridge or ratio meter type indicators. It is used principally for detecting free air or low pressure carburetor temperatures.

CHARACTERISTICS:

Length	approximately 1 7/8 inches
Weight	approximately 1/4 pound
Range	—50 to 150 degrees Centigrade

RELATIONSHIP OF PARTS: Used with:

Single universal thermometer AN5790-6,	A. E. Reference Number 61-8902
Dual universal thermometer AN5795-6,	A. E. Reference Number 61-8911
Also C-8, C-10, C-11, C-12; F-8, F-9, F-10 if carburetor mixture is to be measured.	

ARMY

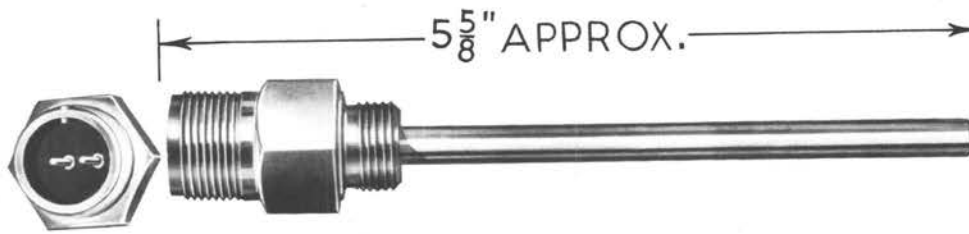
A. E. REFERENCE NUMBER: 61-8906
 SPECIFICATIONS:
 Detail AN-GG-B-796
 Superseded 27321
 AN DRAWING NUMBER: AN5525
 AN PART NUMBER: AN5525-1
 A. S. C. STOCK NUMBER: Refer to chart.
 TECHNICAL ORDER NUMBER: Refer to chart.
 PRODUCTION STATUS: Under procurement.
 SHIPPING DATA: Shipped as a complete unit.

NAVY

SPECIFICATIONS: Detail . . . AN-GG-B-796
 AN DRAWING NUMBER: AN5525
 AN PART NUMBER: AN5525-1
 F. S. S. C. NUMBER: 88-B-890
 PROCUREMENT STATUS: Standard—
 G. F. E.—Order through A. S. O. by
 F. S. S. C. number.

ALL MODELS BELOW ARE INTERCHANGEABLE
Models are used in services as noted in column 4
A-Army, N-Navy, B-British, C-Commercial

Manufacturer	Manufacturer's Model Identification	Manufacturer's Part Number	Used By	Air Service Command Order Number	Army Technical Order Number	British Reference Number	Remarks
Edison-Splitdorf Corp.		B-2201	A-N-B	6100033263		106A/1236	Bulb AN5525-1
Weston Electrical Instruments Corp.	Model 11, Type 1	94176	A-B	6100040765	05-40B-1	106A/844	
	Model 11, Type 2	94177	A-B-C	6100033675		106A/404	
		93195	A	6000036150	05-40B-1		
	Model 17, Type 1	106346	A-N-B	6100040773		106A/1236	Bulb AN5525-1



BULB — RESISTANCE THERMOMETER (LONG)

AN5525-2 F. S. S. C. NUMBER 88-B-895

NAMES: Resistance thermometer (long) bulb Thermometer, resistance bulb
 Electrical resistance bulb Thermometer bulb
 Resistance thermometer

DESCRIPTION: Electrical resistance type thermometer bulb, used with electrical bridge or ratio meter type indicators. It is used principally for detecting temperatures in oil systems, engine coolant, or high pressure carburetors.

CHARACTERISTICS:

Length..... approximately 4 inches
 Weight..... approximately 1/4 pound
 Range..... —50 degrees to 150 degrees Centigrade

RELATIONSHIP OF PARTS: Used with:

Single universal thermometer AN5790-6, A. E. Reference Number 61-8902
 Dual universal thermometer AN5795-6, A. E. Reference Number 61-8911
 Also A-21, A-23, A-24, A-25; F-8, F-9, F-10 if carburetor air temperature is to be measured.

ARMY

A. E. REFERENCE NUMBER: 61-8901

SPECIFICATIONS:

Detail..... AN-GG-B-796
 Superseded..... 27321

AN DRAWING NUMBER: AN5525

AN PART NUMBER: AN5525-2

A. S. C. STOCK NUMBER: Refer to chart.

TECHNICAL ORDER NUMBER: Refer to chart.

PRODUCTION STATUS: Under procurement.

SHIPPING DATA: Shipped as a complete unit.

NAVY

SPECIFICATIONS: Detail..... AN-GG-B-796

AN DRAWING NUMBER: AN5525

AN PART NUMBER: AN5525-2

F. S. S. C. NUMBER: 88-B-895

PROCUREMENT STATUS: Standard—G. F. E.—Order through A. S. O. by F. S. S. C. number.

ALL MODELS BELOW ARE INTERCHANGEABLE
Models are used in services as noted in column 4
A-Army, N-Navy, B-British, C-Commercial

Manufacturer	Manufacturer's Model Identification	Manufacturer's Part Number	Used By	Air Service Command Order Number	Army Technical Order Number	British Reference Number	Remarks
Edison-Splitdorf Corp.		B-2202	A-N-B	6100033270		106A/1244	Bulb AN5525-2
Weston Electrical Instrument Co.	Model 12, Type 1	102172	A-B	6100036023	05-40B-1	106A/861	
	Model 11, Type 3	100732	A	6100033273			
	Model 11, Type 4	101731	B-C			106A/838	
	Model 12, Type 2	103710	B-C			106A/861	
		106347	A-N-B	6100033000		106A/1244	Bulb AN5525-2
Sutton-Horsley Co., Ltd.		R-322-3	A-N-B			106A/1244	Bulb AN5525-2