



WHEEL AND FLAP POSITION INDICATORS

POSITION indicators show the positions of the landing wheels and the wing flaps. They show that the wheels and wing flaps are in up or down positions and intermediate stages, and whether the wheels are locked in position.

The instrument consists of an indicator and four transmitters. The indicator is mounted on the instrument panel, and the transmitters are mounted near each wheel and the wing flaps. The transmitters are mechanically connected to the wheel struts and wing flaps by links clamped to the transmitter shaft.

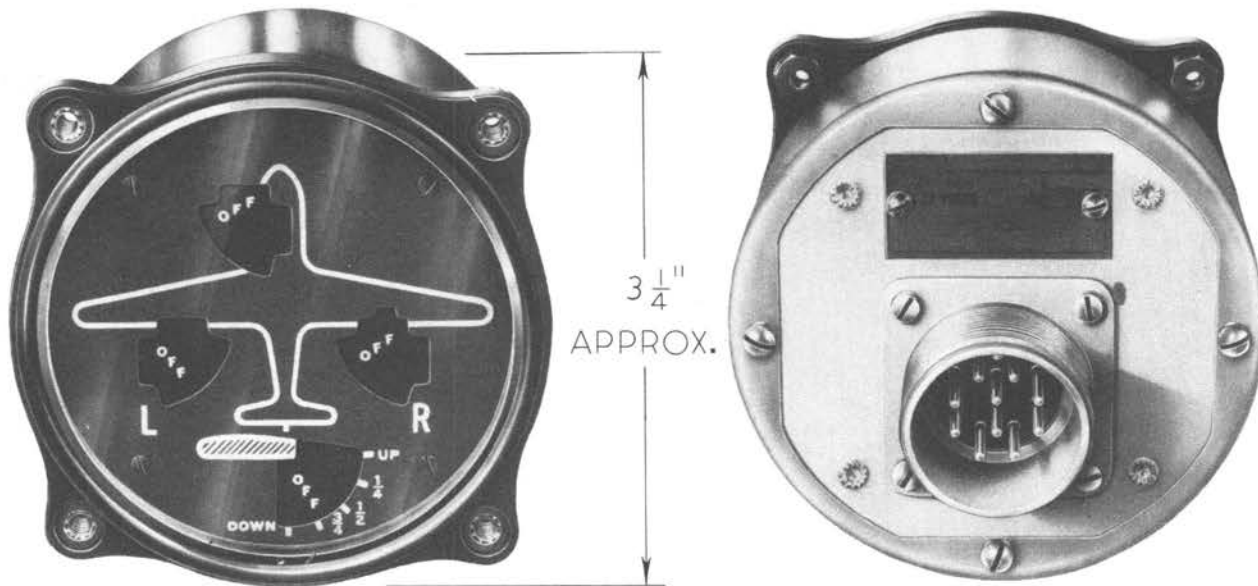
The indicator is composed of four elements, each operating a pointer and each electrically connected to a transmitter. In the transmitter, a rheostat arm is operated by the shaft. When the position of the wheel or wing flaps changes, the shaft rotates. This varies the resistance in the rheostat, which, in turn, causes the small rotor in the corresponding element of the indicator to change position. The pointer for this element moves as the rotor moves, and thus indicates on the dial any change in position of either the wheels or flaps.

A small plan diagram of an airplane is on the face of the dial. The right and left main wheel pointers are on the wings of the diagram and the auxiliary wheel pointer in the nose or tail of the diagram, as the case may be. When the indicator is for nose wheel installation, the pointer showing position of flaps is at the bottom of the dial; when the indicator is for a tail wheel installation, the pointer showing position of the flaps is at the top.

These position indicators are designed for operation from a 24-volt direct current power system, but will operate on voltages from 20 volts to 30 volts.



POSITION INDICATORS INSTRUMENTS—FLIGHT



INDICATOR—ELECTRICAL WHEEL AND FLAP POSITION ARMY TYPE A-2

NAMES: Electrical wheel and flap position Indicator—undercarriage and flap retraction (British)
Indicator, position wheel and flap Indicator, flap and wheel position (British)

DESCRIPTION: This indicator is for nose wheel type installation. It indicates to the pilot whether the flaps are up, 1/4, 1/2, 3/4 or fully on, and whether the wheels are up or down, and locked or unlocked. Indications are shown on a dial representing the airplane, and are produced by electrical impulses received from four transmitters, one mounted at each main landing wheel, one at the nose wheel and one at the flaps.

CHARACTERISTICS:

- Dial size.....2 3/4 inches diameter
- Dimensions.....approximately 3 1/4 by 3 1/4 by 2 1/2 inches
- Markings.....fluorescent material
- Weight.....approximately 1 pound

RELATIONSHIP OF PARTS: Used with:

Four electrical wheel and flap position transmitters.... A. E. Reference Number 60-3128

ARMY

A. E. REFERENCE NUMBER: 60-3126

SPECIFICATIONS:

- Detail.....94-27939A
- Superseded.....94-27939

TYPE DESIGNATION: A-2

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

TECHNICAL ORDER NUMBER: Refer to chart.

PRODUCTION STATUS: Not under procurement for initial installation. Superseded by AN5780-2.

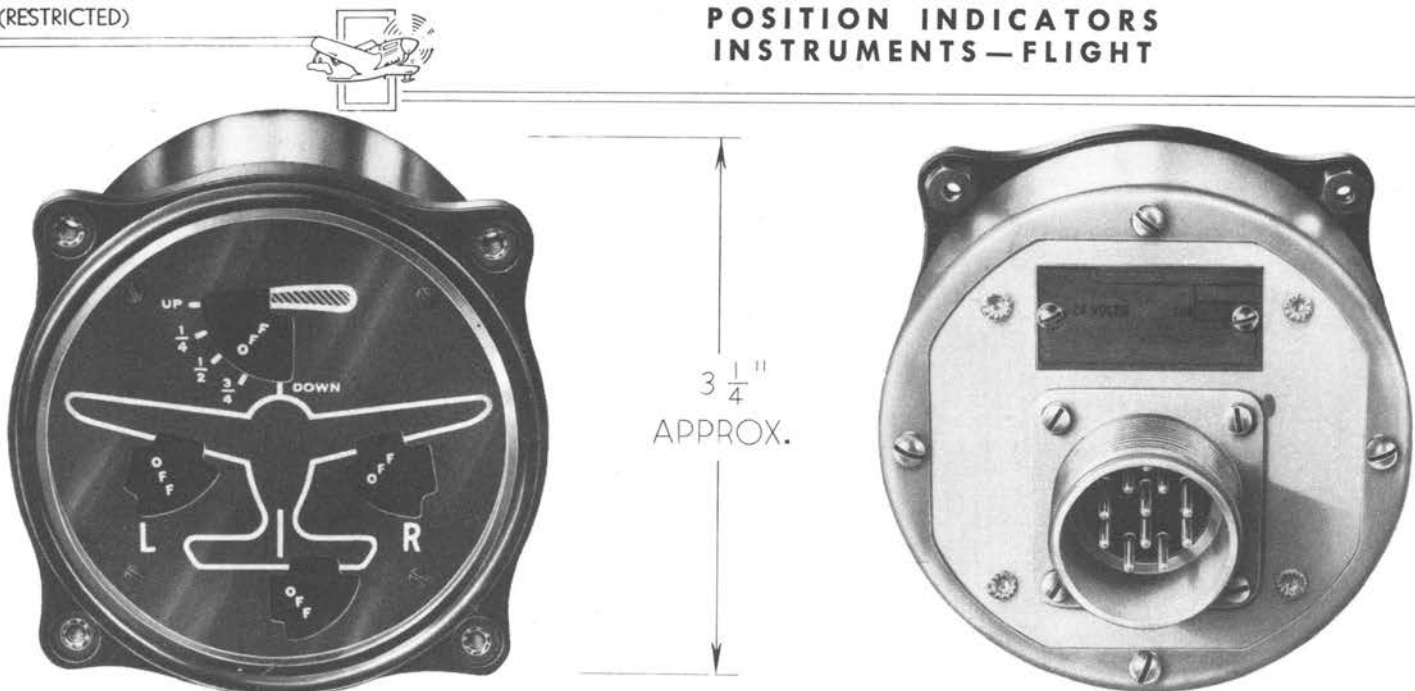
SHIPPING DATA: Shipped as a complete unit.

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 and Drawing Number	Used By	Air Service Command Stock Number	Army Technical Order Number	British Reference Number	Remarks
Weston Electrical Instrument Corp.	Model 882, Type 5	106802	A	6000228504-7	05-55C-1		Only Weston's A-2 transmitters may be used with this A-2 indicator.
		103357	A	6000228505	05-55C-1		Only Weston's A-2 transmitters may be used with this A-2 indicator.
	Model 882, Type 2	103354	A-B			106A/1064	
General Electric Co.	8DJ17AAA	4149507	A-B	6000228503	05-55A-2	106A/1125	These A-2 indicators may be used with any A-3 or AN transmitter, and may be interchanged with any A-3 or AN indicator.
		8DJ17AAM	A	6000228504-54	05-55A-2		



**INDICATOR—ELECTRICAL WHEEL AND FLAP POSITION
ARMY TYPE A-2**

NAMES: Electrical wheel and flap position Indicator, position, wheel and flap Indicator, flap and wheel position (British) Indicator—undercarriage and flap retraction (British)

DESCRIPTION: This indicator is for tail wheel type installation. It indicates to the pilot whether the flaps are up, 1/4, 1/2, 3/4 or fully on, and whether the wheels are up or down and locked or unlocked. Indications are shown on a dial representing the airplane and are produced by electrical impulses received from four transmitters, one mounted at each main landing wheel, one at the tail wheel, and one at the flaps.

CHARACTERISTICS:
Dial size..... 2 3/4 inches diameter
Dimensions..... approximately 3 1/4 by 3 1/4 by 2 1/2 inches
Markings..... fluorescent material
Weight..... approximately 1 pound

RELATIONSHIP OF PARTS: Used with:
Four electrical wheel and flap position transmitters... A. E. Reference Number 60-3128.

ARMY

A. E. REFERENCE NUMBER: 60-3127

SPECIFICATIONS:

Detail..... 94-27939A
Superseded..... 94-27939

TYPE DESIGNATION: A-2

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

TECHNICAL ORDER NUMBER: Refer to chart.

PRODUCTION STATUS: Not under procurement for initial installation. Superseded by AN5780-2 indicator, A. E. Reference Number 60-3151, F. S. S. C. Number 88-I-1890.

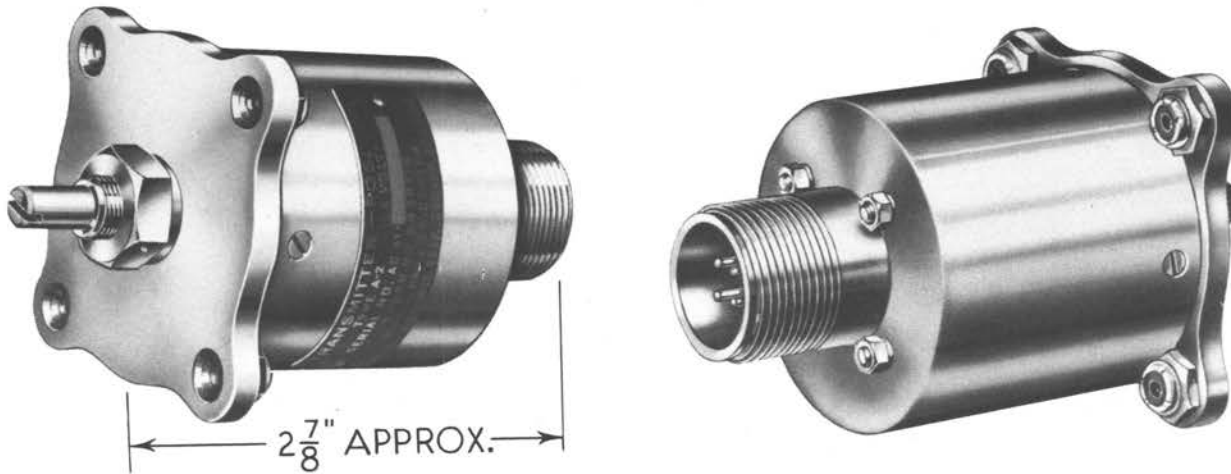
SHIPPING DATA: Shipped as a complete unit.

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 Drawing Number	Used By	Air Service Command Stock Number	Army Technical Order Number	Manufacturer's Part Number	British Reference Number	Remarks
Weston Electrical Instrument Corp.	Model 882, Type 1	102182	A-B	6000228400	05-55C-1	102182	106A/1339	Only Weston's A-2 transmitters may be used with this A-2 indicator.
	Model 882, Type 4	106801	A-B	6000228504-6	05-55C-1	102801	106A/1339	Only Weston's A-2 transmitters may be used with this A-2 indicator.
General Electric Co.	8DJ17AAB	4149507	A-B	6000228504	05-55A-2		106A/1339	These A-2 indicators may be used with any A-3 or AN transmitter, and may be interchanged with any A-3 or AN indicator.
	8DJ17AAN	4149507	A-B	6000228504-55	05-55A-2		106A/1339	These A-2 indicators may be used with any A-3 or AN transmitter, and may be interchanged with any A-3 or AN indicator.



TRANSMITTER—ELECTRICAL WHEEL AND FLAP POSITION
ARMY TYPE A-2

NAMES: Electrical wheel and flap position transmitter Transmitter, position, wheel and flap

DESCRIPTION: The Army type A-2 electrical wheel and flap position transmitter originates the impulses which actuate the indicator in the cockpit. Four are required for each installation; one at each of the main landing wheels, one at the tail or nose wheel and one at the flaps.

CHARACTERISTICS:
 Dimensions..... approximately 1 3/4 inches diameter by 2 7/8 inches long
 Weight..... approximately 1/3 pound

RELATIONSHIP OF PARTS: Used with:
 Electrical wheel and flap position indicator..... A. E. Reference Numbers 60-3126 or 60-3127

ARMY

A. E. REFERENCE NUMBER: 60-3128

SPECIFICATIONS:

Detail..... 94-27939A
 Superseded..... 94-27939

TYPE DESIGNATION: A-2

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

TECHNICAL ORDER NUMBER: Refer to chart.

PRODUCTION STATUS: Not under procurement for initial installation. Superseded by AN5780-2 transmitter, A. E. Reference Number 60-3151, F. S. S. C. Number 88-I-1890.

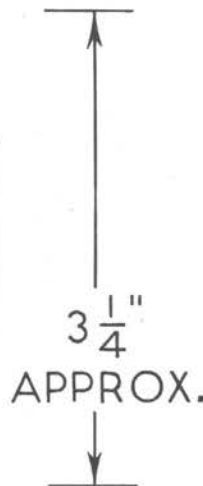
SHIPPING DATA: Shipped as a complete unit.

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 Drawing Number	Used By	Air Service Command Stock Number	Army Technical Order Number	Manufacturer's Part Number	British Reference Number	Remarks
Weston Electrical Instrument Corp.	9961-1	D-102183	A-B	6000435860	05-55C-1	102183	106A/1063	These transmitters can only be used with Weston's A-2 indicator.
		D-106803	A-C	6000437475	05-55C-1	106803		These transmitters can only be used with Weston's A-2 indicator.
General Electric Co.	8TJ19AAA	4149608	A-B	6000435480	05-55A-2		106A/1145	This transmitter may be used with any A-3 or AN indicator, and may be interchanged with any A-3 or AN transmitter.



INDICATOR—ELECTRICAL WHEEL AND FLAP POSITION
AN 5780-2 FORMER ARMY TYPE A-3 F. S. S. C. NUMBER 88-I-1890

NAMES: Electrical wheel and flap position indicator
Indicator, position, wheel and flap
Indicator—flap and wheel position (British)

Indicator—undercarriage and flap retraction (British)

DESCRIPTION: This indicator is for a nose wheel installation. It indicates to the pilot whether the flaps are up, 1/4, 1/2, 3/4 or fully on, and whether the wheels are up or down, and locked or unlocked. Indications are shown on a dial representing the airplane, and are produced by electrical impulses received from four transmitters, one mounted at each main landing wheel, one at the nose wheel and one at the flaps.

CHARACTERISTICS:

- Dial size.....2 3/4 inches diameter
- Dimensions.....approximately 3 1/4 by 3 1/4 by 2 3/4 inches
- Markings.....fluorescent material
- Weight.....approximately 1 pound

RELATIONSHIP OF PARTS: Used with:

Four electrical wheel and flap position transmitters... A. E. Reference Number 60-3153.

ARMY

A. E. REFERENCE NUMBER: 60-3151

SPECIFICATIONS:

- Detail.....AN-P-5
- Superseded.....94-27375

AN DRAWING NUMBER: AN5780

AN PART NUMBER: AN5780-2

TYPE DESIGNATION: Former Type A-3

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

PRODUCTION STATUS: Under procurement

SHIPPING DATA: Shipped as a complete unit.

NAVY

TYPE DESIGNATION: AN5780-2

SPECIFICATIONS: Detail.....AN-P-5

AN DRAWING NUMBER: AN5780

AN PART NUMBER: AN5780-2

F. S. S. C. NUMBER: 88-I-1890

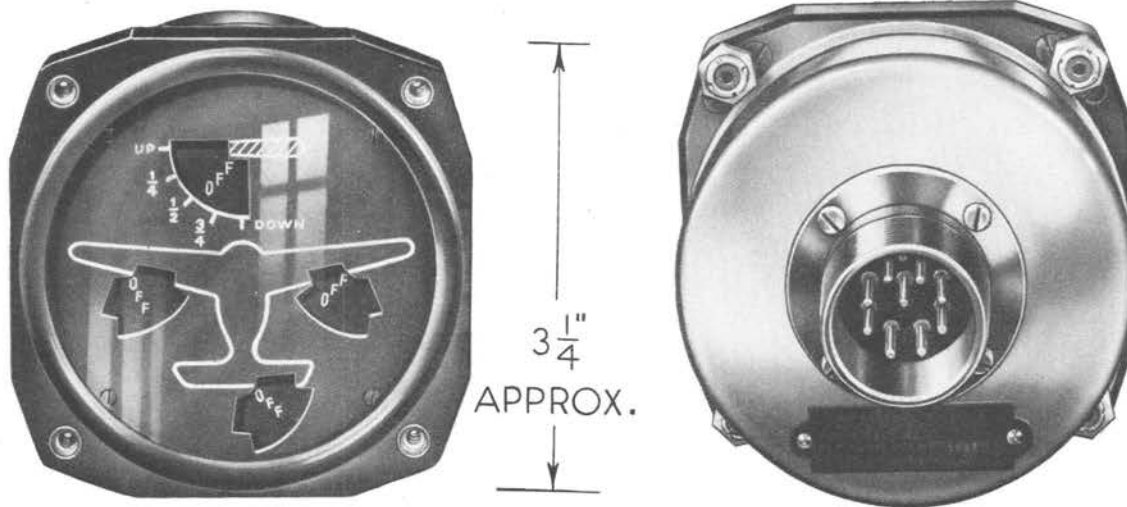
PROCUREMENT STATUS: Standard—
G. F. E. Order through A. S. O. by
F. S. S. C. number.

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 and Drawing Number	Used By	Air Service Command Stock Number	British Reference Number	Remarks
Weston Electrical Instrument Corp.	Model 882, Type 8	108370	A-N	6000228514-5		
	Model 882, Type 10	111602	A-N			
General Electric Co.	8DJ17AAK		A-B	6000228512	106A/1126	A. A. F. Type A-3.
	8DJ17AAW		A	6000228514		
	8DJ17AAT		N			



POSITION INDICATORS INSTRUMENTS — FLIGHT



INDICATOR—ELECTRICAL WHEEL AND FLAP POSITION

AN 5780-1 FORMER ARMY TYPE A-3 F. S. S. C. NUMBER 88-I-1895

NAMES: Electrical wheel and flap position indicator Indicator—undercarriage and flap retraction
Indicator, position, wheel and flap (British)
Indicator, flap and wheel position (British)

DESCRIPTION: This indicator is for tail wheel installation. It indicates to the pilot whether the flaps are up, 1/4, 1/2, 3/4, or fully on, and whether the wheels are up or down and locked or unlocked. Indications are shown on a dial representing the airplane, and are produced through electrical impulses received from four transmitters, one mounted at each main landing wheel, one at the tail wheel, and one at the flaps.

CHARACTERISTICS:
Dial size..... 2 3/4 inches diameter
Dimensions..... approximately 3 1/4 by 3 1/4 by 2 3/4 inches
Markings..... fluorescent material
Weight..... approximately 1 pound

RELATIONSHIP OF PARTS: Used with:
Four electrical wheel and flap position transmitters..... A. E. Reference Number 60-3153.

ARMY

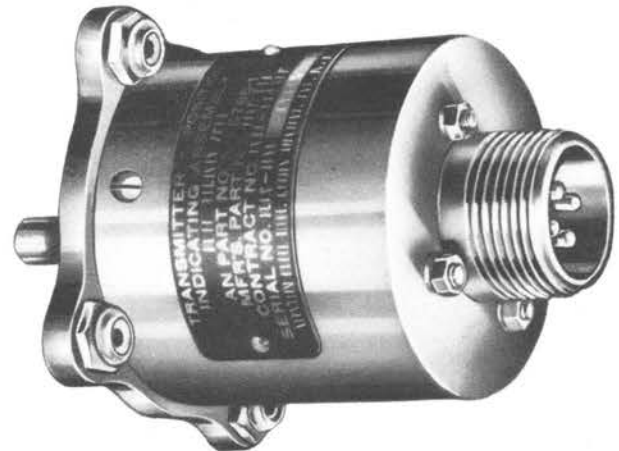
A. E. REFERENCE NUMBER: 60-3152
SPECIFICATIONS:
Detail..... AN-P-5
Superseded..... 94-27375
AN DRAWING NUMBER: AN5780
AN PART NUMBER: AN5780-1
TYPE DESIGNATION: Former type A-3
A. S. C. STOCK NUMBER: Refer to chart.
TECHNICAL ORDER NUMBER: Refer to chart.
PRODUCTION STATUS: Under procurement.
SHIPPING DATA: Shipped as a complete unit.

NAVY

SPECIFICATIONS: Detail..... AN-P-5
AN DRAWING NUMBER: AN5780
AN PART NUMBER: AN5780-1
F. S. S. C. NUMBER: 88-I-1895
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 Drawing Number	Used By	Air Service Command Stock Number	Army Technical Order Number	British Reference Number	Remarks
Weston Electrical Instrument Corp.	Model 882, Type 7	108369	A-N-B	6000228514-4		106A/1340	
	Model 882, Type 9	111601	A-B			106A/1340	
General Electric Co.	8DJ17AAL	4149660	A-B	6000228513	05-55A-2	106A/1340	A. A. F. Type A-3.
	8DJ17AAD	4149660	A-N-B		05-55A-2	106A/1340	



TRANSMITTER—ELECTRICAL WHEEL AND FLAP POSITION

AN 5785-1 FORMER ARMY TYPE A-3 F. S. S. C. NUMBER 88-T-2650

NAMES: Electrical wheel and flap position transmitter Transmitter, position, wheel and flap

DESCRIPTION: The AN5785-1 transmitter originates the impulses which actuate the indicator in the cockpit. Four are required for each installation; one at each of the main landing wheels, one at the tail (or nose) wheel and one at the flaps.

CHARACTERISTICS:
 Dimensions approximately 1 7/8 inches diameter by 2 5/8 inches long
 Weight approximately 1 pound

RELATIONSHIP OF PARTS: Used with:
 Electrical wheel and flap position indicator A. E. Reference Numbers 60-3151 or 60-3152

ARMY

A. E. REFERENCE NUMBER: 60-3153

SPECIFICATIONS:
 General AN-P-5
 Superseded 94-27375

AN OR A. A. F. DRAWING NUMBER: AN5785
 AN PART NUMBER: AN5785-1
 TYPE DESIGNATION: Former type A-3
 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:
 General AN-P-5

AN DRAWING NUMBER: AN5785
 AN PART NUMBER: AN5785-1
 F. S. S. C. NUMBER: 88-T-2650
 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 Drawing Number	Used By	Air Service Command Stock Number	Army Technical Order Number	British Reference Number	Remarks
Weston Electrical Instrument Corp.		108525	A-N-B	6000437675		106A/1146	
General Electric Co.	8TJ19AAF	4149608	A-B	6000435483	05-55A-2	106A/1146	A. A. F. Type A-3.
	8TJ19AAK	4149608	A-B	6000435484		106A/1146	
	8TJ19AAB	4149608	A-N-B		05-55A-2	106A/1146	A. A. F. Type A-3.