

AMMETER
ARMY TYPE D-2

NAMES: Ammeter with shunt
Direct current ammeter

External shunt ammeter (British)

DESCRIPTION: This ammeter is an instrument used to measure the amount of current, in amperes, flowing through a direct current electrical circuit. It must be used with an external shunt.

CHARACTERISTICS:

- Dial size.....1 7/8 inches
- Range.....—20-0-100 amperes, direct current
- Markings.....fluorescent
- Weight of indicator.....approximately 1/2 pound
- Overall dimensions of indicator.....approximately 2 9/16 by 2 9/16 by 2 inches

RELATIONSHIP OF PARTS: Used with:
100 ampere capacity shunt, in accordance with specification 32204.

ARMY

A. E. REFERENCE NUMBER: 61-350

SPECIFICATIONS:

- General.....94-27226
- Detail.....94-32191
- Superseded.....32191

TYPE DESIGNATION: D-2

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

TECHNICAL ORDER NUMBER: Refer to chart.

PRODUCTION STATUS: Not under procurement for initial installation.

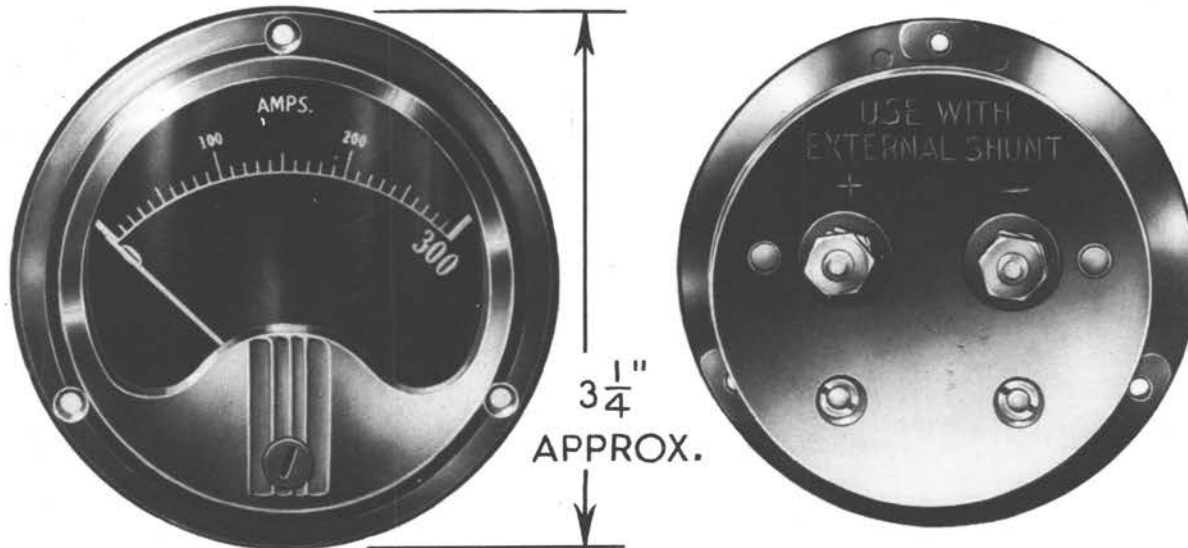
SHIPPING DATA: Shipped with or without shunt.

NAVY

There is no Navy equivalent for this item.

ALL MODELS BELOW ARE INTERCHANGEABLE
Models are used in services as noted in column 5
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
	Type	Part					
Hickok Electric Instrument Co.		5663	5663	A-B-C	6100020900	05-1-12 to 14	105U/74
Westinghouse Electric & Mfg. Co.	MX	1203126		A-B	6100023525	05-1-12 to 14	105U/61
Weston Electric Instrument Co.	506	92036	92036	A-B	6100021000	05-1-12 to 14	105U/74



AMMETER
ARMY TYPE E-1

NAME: External shunt ammeter (British)

DESCRIPTION: The ammeter is an instrument used to measure the amount of current, in amperes, flowing through a direct current electrical circuit. This type must be used with a 300 ampere capacity external shunt.

CHARACTERISTICS:

- Dial size..... 1 7/8 inches
- Range..... 0 to 300 amperes direct current
- Markings..... fluorescent
- Weight..... approximately 1 1/2 pounds
- Overall dimensions..... approximately 3 1/4 by 3 1/4 by 1 7/8 inches

RELATIONSHIP OF PARTS: The A-1 ammeter must be used with the E-1 shunt, A. E. Reference Number 61-501.

ARMY

A. E. REFERENCE NUMBER: 61-500

SPECIFICATIONS:

- General..... 94-27226
- Detail..... 94-32173-A
- Superseded..... 94-32173

TYPE DESIGNATION: E-1

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

TECHNICAL ORDER NUMBER: Refer to chart.

PRODUCTION STATUS: Under procurement.

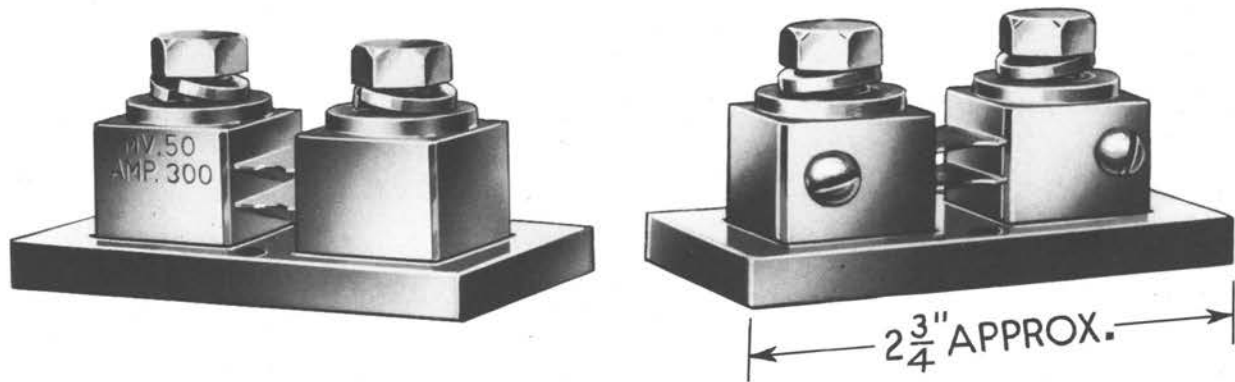
SHIPPING DATA: Shipped with or without shunt.

NAVY

There is no Navy equivalent for this item.

ALL MODELS BELOW ARE INTERCHANGEABLE
Models are used in services as noted in column 5
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
	Type	Part					
Hickok Electric Instrument Co.		6206	6206	A-B	6100023000	05-1-12 to 14	105U/342
Westinghouse Electric & Mfg. Co.	VX	1205851	14-A-1088	A-B	6100023250	05-1-12 to 14	105U/342
Weston Electric Instrument Co.	301	90595	90595	A-B	6100023540	05-1-12 to 14	105U/342



SHUNT — AMMETER

ARMY TYPE E-1

NAMES: Ammeter shunt
External shunt (British)

DESCRIPTION: The shunt is an electrical conductor, mounted on an insulated base, connected in parallel with an ammeter in order to by-pass a definite proportion of the current to be measured by the ammeter. The use of a shunt makes it possible to construct the ammeter coils of small diameter wire, without large electrical losses, since only a minute portion of the line current actually passes through the instrument.

CHARACTERISTICS:

Voltage drop	50 millivolts
Current capacity	300 amperes
Weight	approximately $\frac{3}{4}$ pound
Overall dimensions	approximately $\frac{3}{4}$ inches by $1\frac{3}{4}$ inches by $1\frac{1}{16}$ inches

RELATIONSHIP OF PARTS: Used with:

Type E-1 ammeter..... A. E. Reference Number 61-500

ARMY

A. E. REFERENCE NUMBER: 61-501

SPECIFICATIONS:

Detail	94-32204 (will be superseded by AN-S-36)
Superseded	32204-B

TYPE DESIGNATION: E-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.

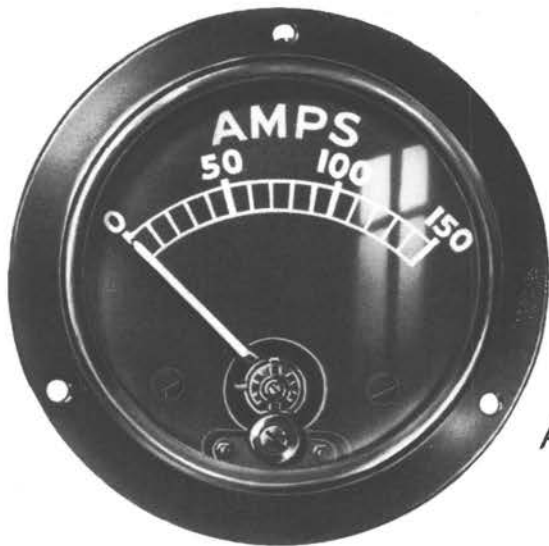
NAVY

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	British Reference Number
Hickok Electric Instrument Co.	6206-1	6206-1	A-B	6100346250	05-1-12 to 14	105U/514
Westinghouse Electric & Mfg. Co.	1210196	6-B-2401	A-B	6100346780	05-1-12 to 14	105U/514
Weston Electric Instrument Co.	92039	92039	A-B		05-1-12 to 14	105U/514

AMMETERS INSTRUMENTS—ENGINE



2 ³/₈"
APPROX.
AMMETER
ARMY TYPE F-1

NAMES: Ammeter with shunt
External shunt ammeter (British)

DESCRIPTION: The ammeter is an instrument used to measure the amount of current, in amperes, flowing through a direct current electrical circuit. This type must be used with a 150 ampere capacity external shunt.

CHARACTERISTICS:

- Dial size..... 1 ⁷/₈ inches
- Range..... 0 to 150 amperes
- Markings..... fluorescent
- Weight..... approximately 1 ¹/₅ pounds
- Overall dimensions..... approximately 2 ⁹/₁₆ by 2 ⁹/₁₆ by 1 ⁷/₈ inches

RELATIONSHIP OF PARTS:

The F-1 ammeter must be used with the shunt..... A. E. Reference Number 61-651

ARMY

A. E. REFERENCE NUMBER: 61-650

SPECIFICATIONS:

- General..... 94-27226
- Detail..... 94-32284
- Superseded..... 32284

TYPE DESIGNATION: F-1

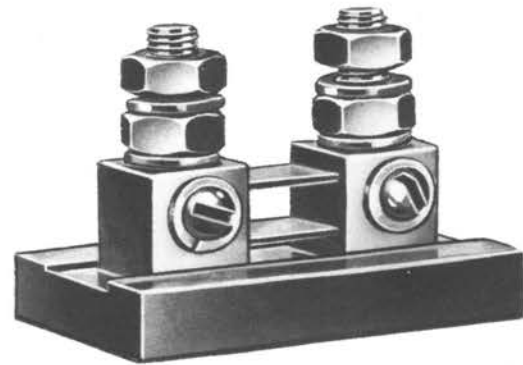
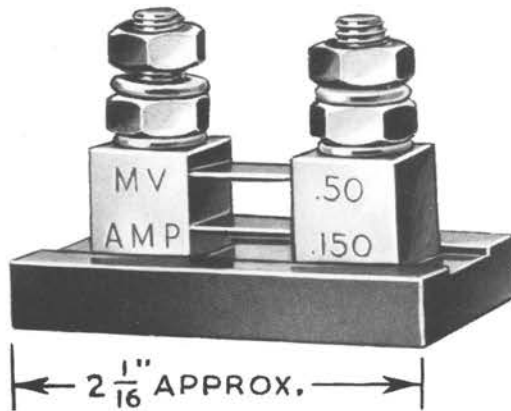
A. S. C. STOCK NUMBER: Refer to chart.
TECHNICAL ORDER NUMBER: Refer to chart.
PRODUCTION STATUS: Under procurement.
SHIPPING DATA: Shipped with or without shunt.

NAVY

There is no Navy equivalent for this item.

ALL MODELS BELOW ARE INTERCHANGEABLE
Models are used in services as noted in column 5
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
	Type	Part					
Hickok Electric Instrument Co.		5669	5669	A-B			105U/211
Westinghouse Electric & Mfg. Co.	MX	1205852	14-A-1087	A-B	6100023590	05-1-12 to 14	105U/211
Weston Electric Instrument Co.	506	102491	102491	A-B	6100023580	05-1-12 to 14	105U/211



SHUNT — AMMETER

ARMY TYPE F-1

NAMES: Ammeter shunt
External shunt (British)

DESCRIPTION: The shunt is an electrical conductor, mounted on an insulated base. It is connected in parallel with an ammeter, in order to by-pass a definite proportion of the current to be measured by the ammeter. The use of a shunt makes it possible to construct the ammeter coils of small diameter wire without large electrical losses, since only a minute portion of the line current actually passes through the instrument.

CHARACTERISTICS:

Overall dimensions.....	approximately 2 1/16 by 1 1/4 by 1 7/16 inches
Weight.....	approximately 1/2 pound
Voltage drop.....	50 millivolts
Current capacity.....	150 amperes

RELATIONSHIP OF PARTS: Used with:

Army type F-1 ammeter..... A. E. Reference Number 61-650

ARMY

A. E. REFERENCE NUMBER: 61-651

SPECIFICATIONS:

Detail.....	94-32204 (will be superseded by AN-S-36)
Superseded.....	32204B

TYPE DESIGNATION: F-1

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

TECHNICAL ORDER NUMBER: Refer to chart.

PRODUCTION STATUS: Under procurement.

SHIPPING DATA: Shipped with or without ammeter.

Handwritten notes:
A 11 3200 -
MS 4158 2

NAVY

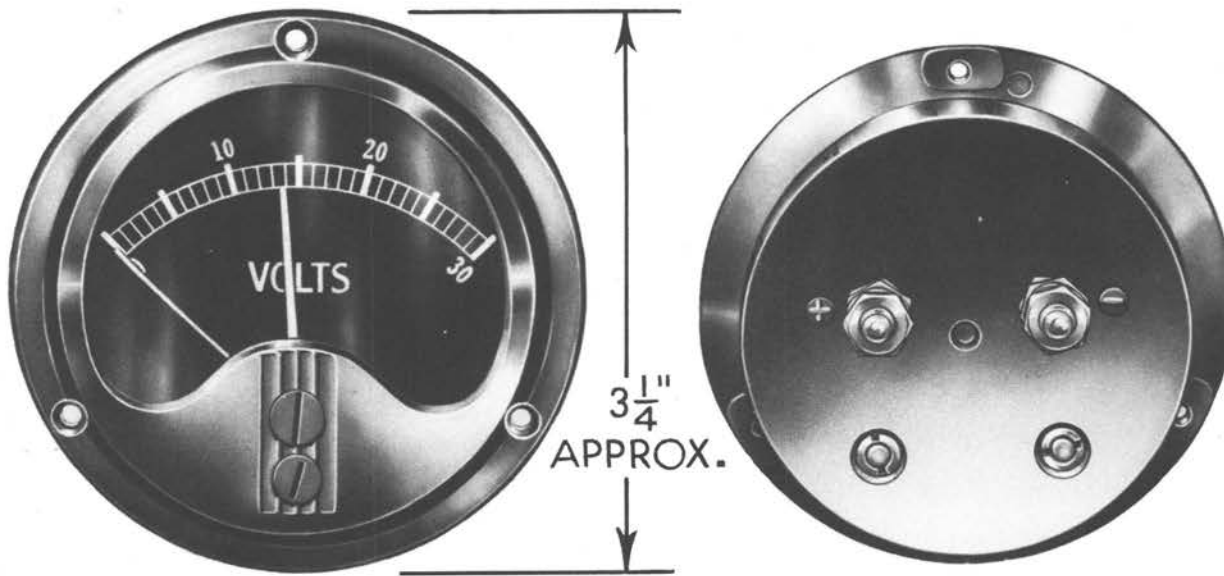
There is no Navy equivalent for this item.

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	British Reference Number
Westinghouse Electric & Mfg. Co.	92431	92431	A-B	6100346070	05-1-12 to 14	105U/510
Weston Electric Instrument Co.	1210197	6-B-2396	A-B	6100346800	05-1-12 to 14	105U/510



VOLTMETERS INSTRUMENTS — ENGINE



VOLTMETER — AIRCRAFT ARMY TYPE B-1

NAMES: Aircraft Voltmeter
Voltmeter

DESCRIPTION: The B-1 voltmeter is a self-contained electrical instrument, designed to indicate direct current voltages. The indicator dial is graduated in volts.

CHARACTERISTICS:

- Dial size..... 1 7/8 inches
- Range..... 0 to 30 volts
- Lighting..... fluorescent
- Weight..... approximately 1 pound
- Overall dimensions..... approximately 3 1/4 by 3 1/4 by 2 1/2 inches

ARMY

A. E. REFERENCE NUMBER: 61-9650

SPECIFICATIONS:

- General..... 94-27226
- Detail..... 94-32172-B
- Superseded..... 94-32172-A

TYPE DESIGNATION: B-1

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

TECHNICAL ORDER NUMBER: Refer to chart.

PRODUCTION STATUS: Under procurement.

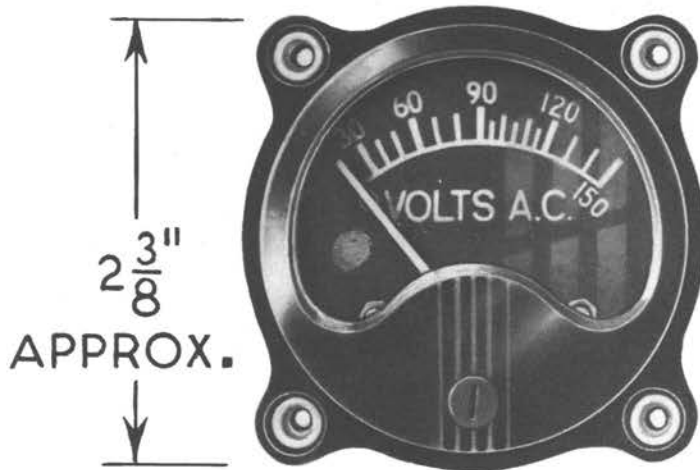
SHIPPING DATA: Shipped as a complete unit. There are approximately 30 units to a shipping carton weighing 27 pounds.

NAVY

There is no Navy equivalent for this item.

ALL MODELS BELOW ARE INTERCHANGEABLE
Models are used in services as noted in column 5
ALL MODELS BELOW ARE INTERCHANGEABLE

Manufacturer	Manufacturer's Model Identification Type	Manufacturer's Part	Manufacturer's Drawing Number	Used By	Air Service Command Stock Number	Army Technical Order Number	British Reference Number	Remarks
Hickok Electrical Instrument Co.		6207	6207	A-B-C	6100472200		105U/79	
Westinghouse Electric & Manufacturing Co.	VX	1205853	14-A-1086	A-B	6100472650	05-1-12 to 14	105U/79	
Weston Electric Instrument Co.	301	92464	92464	A-B	6100472250	05-1-12 to 14	105U/79	
	301	90254	90254	A-B	6100472500		105U/79	Superseded by Weston part number 92464



VOLTMETER — AIRCRAFT

ARMY TYPE C-1 N. A. F. NUMBER 1091E-150 A. S. O. STOCK NUMBER R17-V-890

NAMES: Aircraft voltmeter
Voltmeter

Voltmeter—alternating current

DESCRIPTION: The C-1 voltmeter is a self contained instrument, designed to measure 400 cycle alternating current voltages.

CHARACTERISTICS:

- Dial size..... 1 7/8 inches
- Range..... 0 to 150 volts
- Lighting..... fluorescent
- Weight..... approximately 1 pound
- Overall dimensions..... approximately 3 1/4 by 3 1/4 by 2 1/2 inches

ARMY

A. E. REFERENCE NUMBER: 61-9700

SPECIFICATIONS:

- Detail..... 94-32382
- Superseded..... 32382

MANUFACTURER'S DESIGNATION:

Westinghouse Electric and Manufacturing Company, Type AA, model 1209236, drawing 12-A-2548

TYPE DESIGNATION: C-1

A. S. C. STOCK NUMBER: 6100472800

PRODUCTION STATUS: Under procurement.

SHIPPING DATA: Shipped as a complete unit.

NAVY

SPECIFICATIONS: General..... M-474

N. A. F. DRAWING NUMBER: 1091

N. A. F. PART NUMBER: 1091E-150

A. S. O. STOCK NUMBER: R17-V-890

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

BRITISH

BRITISH REFERENCE NUMBER: 105U/1153

ACCELEROMETERS INSTRUMENTS — FLIGHT



3 1/4"
APPROX.

ACCELEROMETER — AIRCRAFT

AN5745-2 FORMER ARMY TYPE B-3 F. S. S. C. NUMBER 88-A-140

NAMES: Aircraft accelerometer

Maximum indicating accelerometer

DESCRIPTION: An accelerometer is an instrument used to measure the vertical acceleration of an airplane. Its mechanism consists of weights mounted at the ends of lever arms, the movement of which is confined to a vertical plane. Acceleration along the vertical axis of the airplane causes movement of the weights, which is transmitted to the three pointers of the dial.

The main pointer indicates instantaneous acceleration. The two auxiliary pointers, until reset, remain at the maximum positive or negative readings attained by the main pointer.

The dial is calibrated in g-units, one "g" being the acceleration due to gravity.

The dial markings for the Army type B-3 and AN5745-2 instruments are in fluorescent luminescent material; those for AN5745-1 were in radioactive fluorescent material. AN5745-1 is now obsolete.

CHARACTERISTICS:

- Dimensions..... approximately 3 1/4 by 3 1/4 by 3 1/2 inches
- Dial diameter..... 2 3/4 inches
- Lighting..... fluorescent markings
- Weight..... approximately 1 1/4 pounds
- Range..... -5 g to +12 g units

ARMY

A. E. REFERENCE NUMBER: 60-200

SPECIFICATIONS:

- Detail..... AN-GG-A-96
- Superseded..... 94-27960-B

AN DRAWING NUMBER: AN5745

AN PART NUMBER: AN5745-2

TYPE DESIGNATION: Former type B-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-GG-A-96
- Superseded..... BuAer Spec. SQ-46

AN DRAWING NUMBER: AN5745

AN PART NUMBER: AN5745-2

F. S. S. C. STOCK NUMBER: 88-A-140

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 3
A-Army, N-Navy, B-British, C-Commercial

Manufacturer	Manufacturer's Part and Drawing Number	Used By	Air Service Command Stock Number	Army Technical Order Number	British Reference Number
Kollsman Instrument Division	691BK-01	A-B-C	6000001290		106A/1109
	691BK-03	A-B		05-20-23	106A/1109
	691CK-01	A-B			106A/1109
	691K-02	A-N-B	6000001300		106A/1109
	691K-01	A-N			
	691CK-04	A-B			05-20-23
Pioneer Instrument Division	3413-2D-A1	A-N			
	3413-2E-A1	C			
Jaeger Watch Co.	4990	A-B	6000001315		106A/1109