



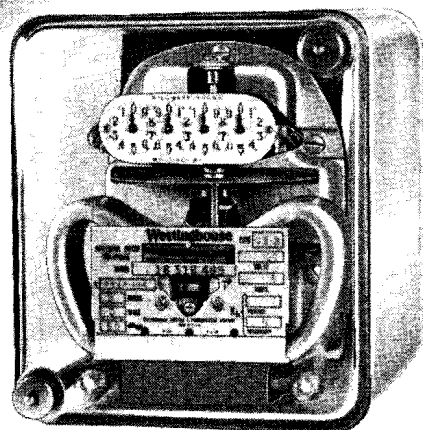
WATTHOUR METERS SWITCHBOARD • SINGLE AND POLYPHASE TYPE CB AND CB-F

CATALOG SECTION

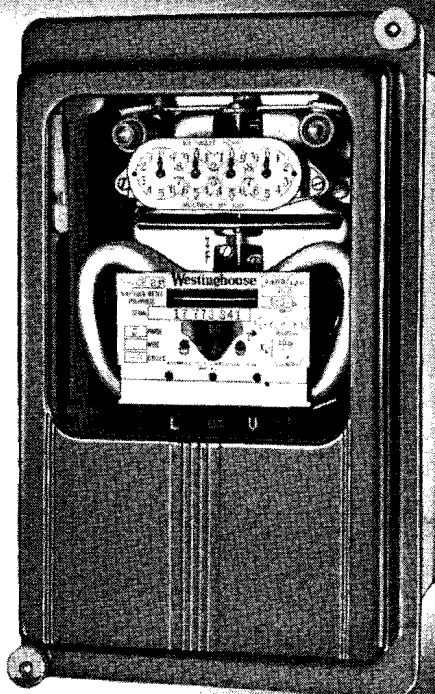
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SELF-CONTAINED OR TRANSFORMER TYPE • STANDARD RECTANGULAR OR FLEXITEST CASE



Standard Rectangular Case



Flexitest Case

WESTINGHOUSE SWITCHBOARD WATTHOUR METER—TYPE CB AND CB-F (Flexitest case)—comprise a complete line of single-phase and polyphase meters, for mounting on switchboards. The standard rectangular case and the Flexitest case are available for all types. These cases are styled to match standard rectangular relay cases and thereby blend into multi-panel switchboard installation.

These switchboard meters have the same fundamental electrical design and performance characteristics as the house type meters Type CS and CA. Component parts are the same as those used in these standard type watt-hour meters. Standard

demand registers, demand contacts, ratchets, and other accessories can be used in all Type CB and CB-F switchboard meters.

Self-contained and transformer type meters are available in both single and polyphase styles.

METER	AMPS	CASE
Self-Contained	5, 15, 50	Standard Rectangular for Projection Mounting
Transformer Type	2.5, 5	Flexitest-Projection or Semi-Flush

For Type CB meter number code and type of service application chart see page 6.

WESTINGHOUSE SPECIAL FEATURES

- **SEPARATE DISC** for each electrical element.
- **MICROMETER ADJUSTMENTS** accessible from front of meter, for light load, full load and torque balance.
- **LOOP POWER FACTOR ADJUSTMENT** is soldered to assure fixed power factor calibration.
- **BUILT-IN** temperature and overload compensation.
- **BAYONET MOUNTED REGISTER**—no adjustment of gear mesh required.
- **PRECISION-MILLED GEARS** (not stamped)—to insure minimum friction.
- **GOLD PLATED GEARS** to eliminate corrosion.
- **FLEXITEST CASE** provides maximum flexibility in maintenance and testing of the equipment; also permits meter to be projection or semi-flush mounted.

For Standard Terms and Conditions of Sale Refer to Selling Policy 42-000

Supersedes C.S. 42-104, dated February 19, 1945

SEPTEMBER 25, 1951

E43-1,2,3,5B; D65-1,2,3,5B; C29-1 to 5Z
Classified File

WATTHOUR METERS SWITCHBOARD • SINGLE AND POLYPHASE TYPE CB AND CB-F



CONSTRUCTION FEATURES

ELECTROMAGNET

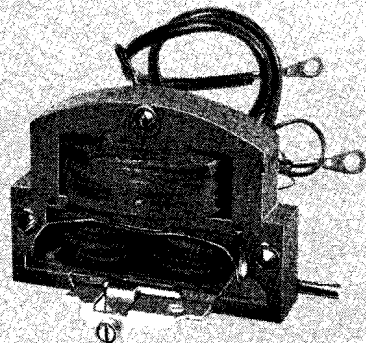
One-piece laminations—fixed air gaps and flux paths.

High-reactance, low-loss potential coils. On polyphase electromagnets torque balancing adjustment is directly opposite potential pole.

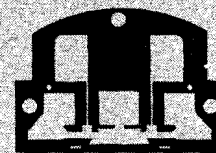
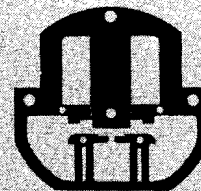
High overload capacity, low-loss current coils—excellent performance characteristics up to and beyond 300% full load.

Accurate compensation over a wide range of temperatures.

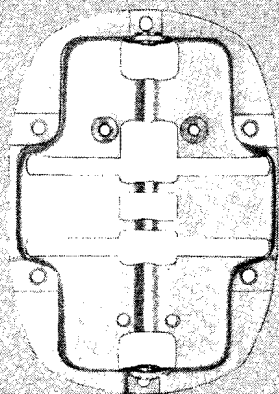
Light load and power factor adjustments built into electromagnet—calibration does not change when electromagnet is removed.



Single-Phase Lamination



Polyphase Lamination



FRAME

Strong, rigid, steel frame supports all parts of meter element.

Correct, fixed mounting locations—micrometer checked.

Designed for permanent alignment.

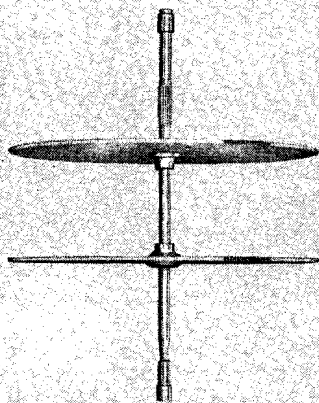
MOVING ELEMENT AND BEARINGS

Hardened, non-corrosive top bearing pin with sealed in lubrication.

Drive pinion is milled on shaft.

Strong and accurately constructed moving element. Discs are pressed on and permanently located without use of set screws.

Life-time ball and jewel bearing, with
Negligible wear,
Minimum friction,
No lubrication,
No periodic replacement,
Low maintenance.
Assures sustained accuracy.





WATTHOUR METERS SWITCHBOARD • SINGLE AND POLYPHASE TYPE CB AND CB-F

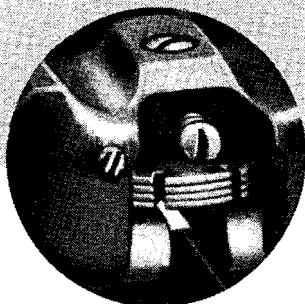
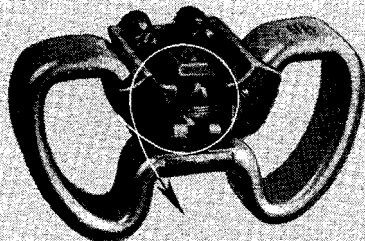
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CONSTRUCTION FEATURES

Single-Phase Magnet



PERMANENT MAGNET

High grade chrome steel with rigid unit mounting construction; insures permanent characteristics, long-time accuracy.

Fine, accurate non-adjustable mounting location.

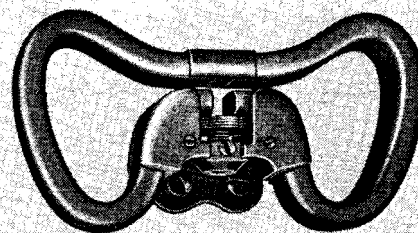
Built-in micrometer full load adjustment.

Temperature compensated.

Heavily copper plated to protect against lightning current surges.

Calibration not disturbed when magnet is removed or replaced.

Polyphase Magnet



REGISTER

Precision milled gear teeth.

Slow-speed worm.

Accurate fixed self-meshing between register gear and moving element driving pinion—no adjustment required.

Jewelled step bearing.

Gold finished gears and shafts—no corrosion.

Rigid frame maintains correct gear mesh and bearing locations.

Construction assures low friction and safeguards against friction changes in service.

Register mounting completely interchangeable in single phase and polyphase meters.

ACCESSORIES

POTENTIAL INDICATING LAMPS are standard on all polyphase meters.

RATCHETS—Ratchet attachments, to prevent reverse rotation, can be supplied with new meters or as an addition to old meters. Ratchet is **\$1.10** List Price extra.

DEMAND REGISTERS can be provided for all types of these meters. Covers furnished with demand attachments have metal sides with glass front for all types of meters.

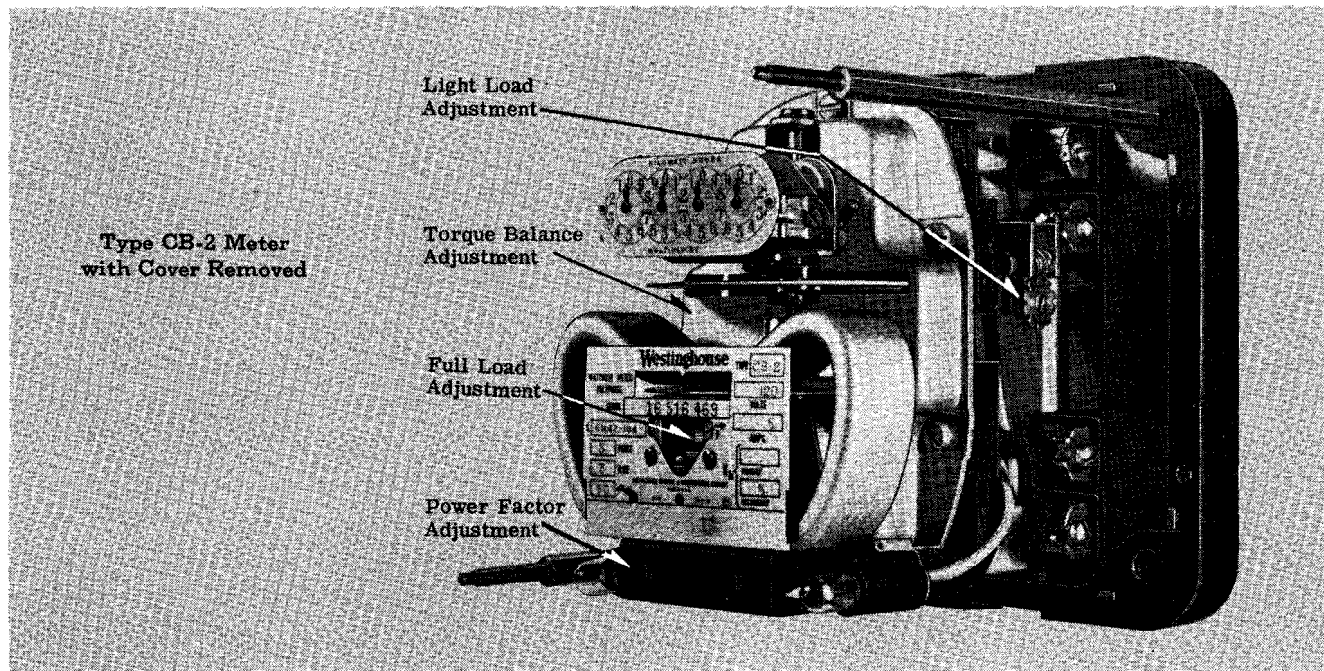
DEMAND CONTACTS—Standard register mounted demand contact devices can be applied to all types of these meters.

When meters are supplied complete with demand contacts, extra terminals are provided for the contact leads in all meters except the Type CB-8 equipped with a 3-wire contact device. With this combination the contact leads are brought out through an insulating bushing in one of the extra knockout openings. The location of the extra terminals in the base is designated on the connection diagrams by "K,Y,Z". "K" is the common connection for 3-wire contacts. For 2-wire contacts terminals "Y" and "Z" only are supplied. Demand contacts cannot be applied to these meters when a demand register attachment is used. All contact devices and impulse operated demand metering apparatus are listed in Catalog Section 42-520.

WATTHOUR METERS SWITCHBOARD • SINGLE AND POLYPHASE TYPE CB AND CB-F



STANDARD RECTANGULAR CASE



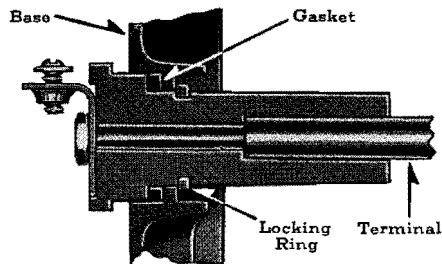
Type CB-2 Meter
with Cover Removed

COVER—Cover for the standard rectangular type meters are all glass. The cover is stud mounted with knurled thumb nuts for tightening. Hole in stud end provides for sealing wire.

BASE—The base is a flat rectangular alloy die-casting. Sturdy posts are provided on which elements are mounted. The standard rectangular case is for projection mounting only.

TERMINALS

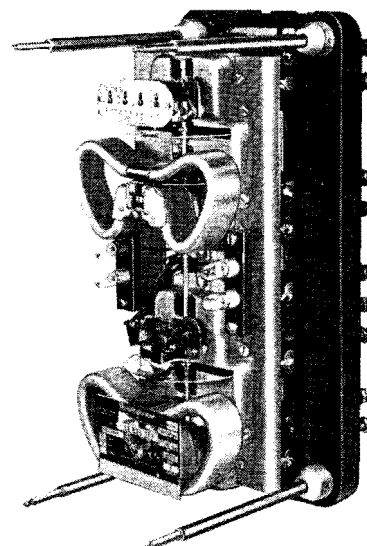
All terminals are alike. They have square heads and are highly insulated by moulded bushings which extend 1 1/4" beyond the meter base. The terminal seats into rectangular channels in the base. On metal panels, circuit connections are made by 1/4" diameter screws threaded into the ends of the terminals and secured by crimp washers. In addition, a complete set of extension studs, nuts and crimp washers suitable for panels up to 2 inches thick are furnished with all standard rectangular meters.



Section Through Terminal Assembly

DEMAND CONTACTS

Three extra knockouts are provided in the base of all meters, except the type CB-8, to accommodate additional terminals for demand contacts. The Type CB-8 meters have only 2 extra knockouts. When 3-wire demand contacts are to be applied to the Type CB-8 meters, the leads are brought out in a 3-conductor cable through a bushing in one of the knockout openings.



Type CB-32 Meter
with Frame Mounted
Demand Contacts.
All Other Types are
Standard with Reg-
ister Mounted De-
mand Contacts.



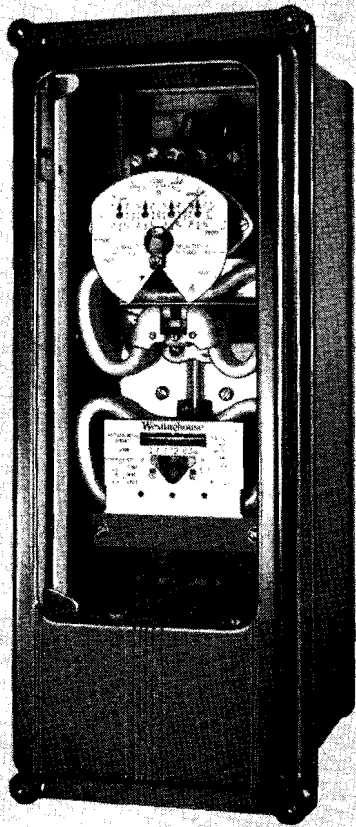
WATTHOUR METERS
SWITCHBOARD • SINGLE AND POLYPHASE
TYPE CB AND CB-F

CATALOG SECTION

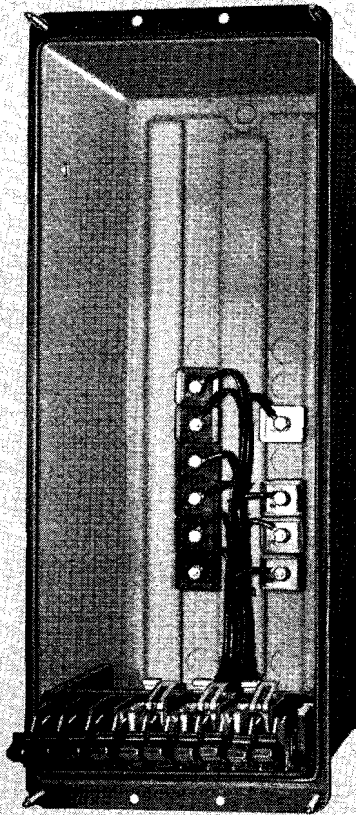
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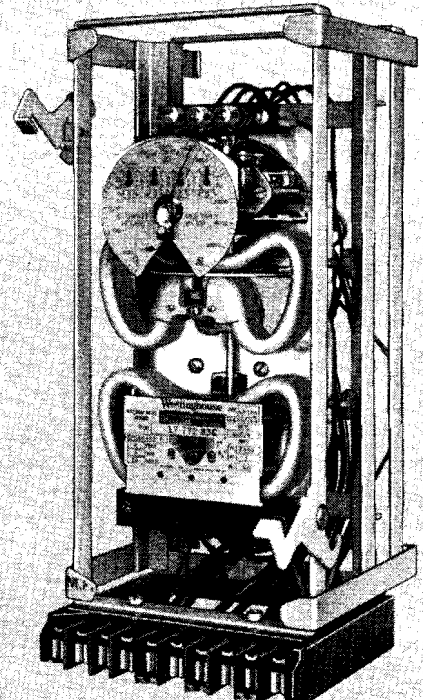
FLEXITEST CASE



Type CB-3FW Meter with Type RW Demand Register



Flexitest Case with Frame and Element Removed. Note Knife Switches.



Frame and Elements. Note Two Cam-Action Latches on Frame.

THE NAME FLEXITEST was chosen to represent the most important feature of this case—maximum flexibility in the maintenance and testing of the equipment. Simple, reliable, trouble-free maintenance and testing are insured through the use of knife blade switch construction and removeable chassis.

THREE SIZES OF CASES ARE AVAILABLE—S-10, M-10 and M-20. The S-10 and M-10 cases have a maximum of ten switch positions. The M-20 case provides twenty switch positions.

Flexibility

- 1 Individual knife blade switches in each circuit.
- 2 Removable unit chassis.
- 3 Elements can be checked either in or out of case.
- 4 Independent checking of any circuit. Current and voltage circuits easily distinguished.
- 5 Test plug or clip leads make possible quick easy test connections.
All test connections made at the front.
- 6 Each circuit can be identified by the cards on switch handle.
- 7 Screw or stud type terminal connections possible.

Reliability

- 1 Standard meter elements used.
- 2 Rugged knife blade switch construction.
- 3 Self-aligning switches.
- 4 Positive current short circuiting switches.
- 5 Current transformers secondaries automatically short circuited when chassis is removed.
- 6 Ample creepage distance provided between terminals.
- 7 Chassis held securely in place by cam action latches.
- 8 Positive stops on all switch blades prevents accidentally opening current transformer secondaries.

WATTHOUR METERS
SWITCHBOARD • SINGLE AND POLYPHASE
TYPE CB AND CB-F



TYPE NUMBER CODE

The Type CB switchboard meter code numbers are explained here. Arrangement of the elements in each type meter determines the code classification:

The application chart below is a convenient guide to the type of meter and the connections generally recommended for the services listed.

TYPE CB —Standard, single-element, single-phase meters.
CB- 2—Standard, two-element, polyphase meters.
CB- 3—Standard, three-element, polyphase meters.
CB- 8—So-called "2½-element" meters for 3-phase 4-wire "Y" circuits. The meter has two elements with two potential coils. Each element has a 3-wire current winding on the electromagnet. One-half of the current winding on each element is inter-connected inside the meter to form the third current element.










CB-32—Four-element meters for totalizing two 3-phase 3-wire circuits. These meters have four separate

elements reacting upon four discs common to the same shaft. If the voltage and kilowatt capacity of both circuits are equal, all elements will be of equal rating. If not, the rating of the current elements will be such as to make the kilowatt rating the same for each element.

CB-38—Four-element meters for totalizing two 3-phase 4-wire "Y" circuits. These meters have four elements, the same as the type CB-32 meters, except that the current windings are 3-wire. The current windings are interconnected inside the meter so as to constitute the equivalent of two type CB-8 meters mounted one above the other and both reacting upon the same disc shaft. If the voltage and the kilowatt capacity of both circuits are equal, the ratings of all elements will be the same. If not, the rating of the current windings will be such as to make the kilowatt capacity the same for all elements.

APPLICATION CHART

APPLICATION CHART

SERVICE	SELF-CONTAINED			FOR USE WITH TRANSFORMER				CONN. DIAG. FIG. NO.
	TYPE	NO. OF ELEMENTS	CONN. DIAG. FIG. NO.	TYPE	NO. OF ELEMENTS	CURR. TRANSF. REQUIRED		
 2-Wire 1-Phase	CB	1	5	CB CB-F	1 1	2-WIRE	3-WIRE	5 7
						1 1	.. ..
 3-Wire 1-Phase	CB CB-2	1 2	6 10	CB CB CB-2 CB-F CB-2F	1 1 2 1 2	2	1	6 9 11 8 14
						2	..	
						2	..	
						2	..	
						2	..	
 3-Wire Network	CB-2	2	10	CB-2 CB-2F	2 2	2 2	.. ..	11 14
 3-Wire 2-Phase	CB-2	2	10	CB-2 CB-2F	2 2	2 2	.. ..	11 14
 3-Wire 3-Phase								
 4-Wire 2-Phase	CB-2	2	12	CB-2 CB-2F	2 2	2 2	.. ..	13 Not Shown
 4-Wire 3-Phase Wye	CB-8 CB-3	2½ 3	21 16	CB-2 CB-8 CB-8F CB-3 CB-3F	2 2½ 2½ 3 3	3 3 3 3 3	.. .. .. .. ..	15 22 23 17 18
 3-Wire 3-Phase Totalizing	CB-32	4	Not Shown	CB-32	4	4	..	24
 4-Wire 3-Phase Totalizing	CB-38	4	Not Shown	CB-38	4	6	..	25



WATTHOUR METERS **SWITCHBOARD • SINGLE AND POLYPHASE** TYPE CB AND CB-F

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SINGLE ELEMENT—SINGLE PHASE METERS										CB		
VOLTS†	AMPS.	KW RATING	STANDARD RECTANGULAR CASE§ PROJECTION MTG.		VOLTS†	AMPS	KW RATING	STANDARD RECTANGULAR CASE§ PROJECTION MTG.		FLEXITEST CASE		
			# STYLE NUMBER	LIST PRICE				# STYLE NUMBER	LIST PRICE	# STYLE NUMBER		LIST PRICE
										CB-F	CB-FP	
										SEMI-FLUSH	PROJECTION	
SELF-CONTAINED					FOR USE WITH TRANSFORMERS							
120	5	0.6	1308 986	\$26.85	120	5	0.6*	1209 019	\$26.85	1272 275	1274 275	\$45.00
2-Wire	15	1.8	1208 987	26.85	2-Wire	5	†	1209 020		1272 277	1274 277	
	50	6.0	1208 988	35.85								
240	5	1.2	1208 989	28.25	240	5	1.2*	1209 021	28.25	1272 279	1274 279	46.50
2-Wire	15	3.6	1208 990	28.25	2-Wire	5	†	1209 022		1272 281	1274 281	
	50	12.0	1208 991	36.75								
240	5	1.2	1208 992	28.25	240	5	1.2*	1209 023	28.25	1272 283	1274 283	46.50
3-Wire	15	3.6	1208 993	28.25	3-Wire or	5	†	1209 024		1272 285	1274 285	
	50	12.0	1208 994	36.75	Two 2-Wire							
§ Standard rectangular case. Style Number and List Price include meter complete with glass cover and facilities for either thin or thick panel mounting.												
† For 480 volt meter add \$5.00 List Price to price of 240 volt meter. Order "Similar to S#....., except 480 volts."												
* These style numbers are for 60 cycles; however, 50 cycle meters are available at same List Price. Order "Similar to S#....., except 50 cycle".												
* These meters are supplied with registers corresponding to their kw capacity without transformers. When used with transformers, the reading must be multiplied by the ratio of the transformers.												
† These meters are supplied with registers of kw capacity corresponding to the instrument transformer ratios specified on order.												

TWO ELEMENT—POLYPHASE METERS										CB-2		
VOLTS	AMPS.	KW RATING	STANDARD RECTANGULAR CASE§ PROJECTION MTG.		VOLTS	AMPS	KW RATING	STANDARD RECTANGULAR CASE§ PROJECTION MTG.		FLEXITEST CASE		
			# STYLE NUMBER	LIST PRICE				# STYLE NUMBER	LIST PRICE	STYLE # NUMBER		LIST PRICE
										CB-2F	CB-2FP	
SELF-CONTAINED					FOR USE WITH TRANSFORMERS							
120	5	1.2	1209 046	\$48.25	120	2.5	0.6*	1209 089		1272 287	1274 287	\$66.75
120	15	3.6	1209 047	48.25	120	2.5	†	1209 090	\$48.25	1272 289	1274 289	
120	50	12.0	1209 048	68.15	120	5.0	1.2*	1209 091		1272 291	1274 291	
					120	5.0	†	1209 092		1272 293	1274 293	
240	5	2.4	1209 049	52.50	240	2.5	1.2*	1209 093		52.50	1272 295	1274 295	71.45
240	15	7.2	1209 050	52.50	240	2.5	†	1209 094	1272 297		1274 297	
240	50	24.0	1209 051	71.00	240	5.0	2.4*	1209 095	1272 299		1274 299	
					240	5.0	†	1209 096	1272 301		1274 301	
480	5	4.8	1209 052	59.75	480	2.5	2.4*	1209 097	59.75	1272 303	1274 303	78.20
480	15	14.4	1209 053	59.75	480	2.5	†	1209 098		1272 305	1274 305	
480	50	48.0	1209 054	79.50	480	5.0	4.8*	1209 099		1272 307	1274 307	
					480	5.0	†	1209 100		1272 309	1274 309	
.....	600	2.5	3.0*	1209 101	59.75	1272 311	1274 311	78.20
.....	.....	.....	.....	.....	600	2.5	†	1209 102		1272 313	1274 313
.....	.....	.....	.....	.....	600	5.0	6.0*	1209 103		1272 315	1274 315
.....	.....	.....	.....	.....	600	5.0	†	1209 104		1272 317	1274 317
§ Standard rectangular case. Style Number and List Price include meter complete with glass cover and facilities for either thin or thick panel mounting.												* These meters are supplied with registers corresponding to their kw capacity without transformers. When used with transformers, the reading must be multiplied by the ratio of the transformers.
* These style numbers are for 60 cycles; however, 50 cycle meters are available at same List Price. Order "Similar to S#....., except 50 cycle".												† These meters are supplied with registers of kw capacity corresponding to the instrument transformer ratios specified on order.

Prices are Effective January 24, 1951 and Are Subject to Change Without Notice

WATTHOUR METERS SWITCHBOARD • SINGLE AND POLYPHASE TYPE CB AND CB-F



THREE ELEMENT—POLYPHASE METERS

CB-3

VOLTS‡	AMPS.	KW RATING	STANDARD RECTANGULAR CASE§ PROJECTION MTG.		VOLTS‡	AMPS	KW RATING	STANDARD RECTANGULAR CASE§ PROJECTION MTG.		FLEXITEST CASE		
			STYLE NUMBER	LIST PRICE				STYLE NUMBER	LIST PRICE	STYLE NUMBER		LIST PRICE
										CB-3F	CB-3FP	
										SEMI-FLUSH	PROJECTION	
SELF-CONTAINED					FOR USE WITH TRANSFORMERS							
120/208 "Y"	5 15 50	1.8 5.4 18.0	1209 137 1209 138 1209 139	\$72.25 72.25 100.00	120/208 "Y"	2.5 2.5 5.0 5.0	0.9* † 1.8* †	1209 163 1209 164 1158 472 1209 165	\$72.25	1272 319 1272 321 1272 323 1272 325	1274 319 1274 321 1274 323 1274 325	\$91.00

§ Standard rectangular case. Style Number and List Price include meter complete with glass cover and facilities for either thin or thick panel mounting.

* These style numbers are for 60 cycles; however, 50 cycle meters are available at same List Price. Order "Similar to S#, except 50 cycle".

† For 270, 480 volt meter add \$5.00 List Price to price of 120/208 volt meter.

† For use with contact device, a 20 switch case is required—add \$7.45 to List Price for this feature. Price of contact device not included.

* These meters are supplied with registers corresponding to their kw capacity without transformers. When used with transformers, the reading must be multiplied by the ratio of the transformers.

† These meters are supplied with registers of kw capacity corresponding to the instrument transformer ratios specified on order.

"TWO AND A HALF" ELEMENT—POLYPHASE METERS

CB-8

VOLTS‡	AMPS.	KW RATING	STANDARD RECTANGULAR CASE§ PROJECTION MTG.		VOLTS‡	AMPS	KW RATING	STANDARD RECTANGULAR CASE§ PROJECTION MTG.		FLEXITEST CASE		
			STYLE NUMBER	LIST PRICE				STYLE NUMBER	LIST PRICE	STYLE NUMBER		LIST PRICE
										CB-8F	CB-8FP	
										SEMI-FLUSH	PROJECTION	
SELF-CONTAINED					FOR USE WITH TRANSFORMERS							
120/208 "Y"	5 15 50	1.8 5.4 18.0	1209 191 1209 192 1209 193	\$52.50 52.50 71.00	120/208 "Y"	2.5 2.5 5.0 5.0	0.9* † 1.8* †	1209 217 1209 218 1209 219 1209 220	\$52.50	1272 327 1272 329 1272 331 1272 333	1274 327 1274 329 1274 331 1274 333	\$71.45

§ Standard rectangular case. Style Number and List Price include meter complete with glass cover and facilities for either thin or thick panel mounting.

* These style numbers are for 60 cycles; however, 50 cycle meters are available at same List Price. Order "Similar to S#, except 50 cycle".

† For 277, 480 volt meter, add \$5.00 List Price to prices of 120/208 volt meter.

* These meters are supplied with registers corresponding to their kw capacity without transformers. When used with transformers, the reading must be multiplied by the ratio of the transformers.

† These meters are supplied with registers of kw capacity corresponding to the instrument transformer ratios specified on order.

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FOUR ELEMENT—POLYPHASE METER FOR TOTALIZING										CB-32
VOLTS	AMPS	KW RATING	STANDARD RECTANGULAR CASE§ PROJECTION MTG.		VOLTS	AMPS	KW RATING	STANDARD RECTANGULAR CASE§ PROJECTION MTG.		FLEXITEST CASE
			#STYLE NUMBER	LIST PRICE				#STYLE NUMBER	LIST PRICE	
SELF-CONTAINED					FOR USE WITH TRANSFORMERS					
120	5	2.4	1209 250	\$140.00	120	2.5	1.2*	1209 293	\$140.00	Flexitest Case is available. Add \$20.00 List Price to Standard Rectangular Case. Order "Similar to S#, except Flexitest Case".
120	15	7.2	1209 251	140.00	120	2.5	†	1209 294		
120	50	24.0	1209 252	179.80	120	5.0	2.4*	1209 295		
					120	5.0	†	1209 296		
240	5	4.8	1209 253	148.50	240	2.5	2.4*	1209 297	148.50	
240	15	14.4	1209 254	148.50	240	2.5	†	1209 298		
240	50	48.0	1209 255	187.50	240	5.0	4.8*	1209 299		
					240	5.0	†	1209 300		
480	5	9.6	1209 256	163.00	480	2.5	4.8*	1209 301	163.00	
480	15	28.8	1209 257	163.00	480	2.5	†	1209 302		
480	50	96.0	1209 258	204.50	480	5.0	9.6*	1209 303		
					480	5.0	†	1209 304		
...	600	2.5	6.0*	1209 305	163.00	
...	...	...	...	...	600	2.5	†	1209 306
...	...	...	...	...	600	5.0	12.0*	1209 307
...	...	...	...	...	600	5.0	†	1209 398

§ Standard rectangular case. Style Number and List Price include meter complete with glass cover and facilities for either thin or thick panel mounting.

* These style numbers are for 60 cycles; however, 50 cycle meters are available at same List Price. Order "Similar to S#, except 50 cycle".

* These meters are supplied with registers corresponding to their kw capacity without transformers. When used with transformers, the reading must be multiplied by the ratio of the transformers.

† These meters are supplied with registers of kw capacity corresponding to the instrument transformer ratios specified on order.

FOUR ELEMENT—POLYPHASE METER FOR TOTALIZING										CB-38
VOLTS	AMPS	KW RATING	STANDARD RECTANGULAR CASE§ PROJECTION MTG.		VOLTS	AMPS	KW RATING	STANDARD RECTANGULAR CASE§ PROJECTION MTG.		FLEXITEST CASE
			#STYLE NUMBER	LIST PRICE				#STYLE NUMBER	LIST PRICE	
SELF-CONTAINED					FOR USE WITH TRANSFORMERS					
120/208 "Y"	5 15 50	3.6 7.8 36.0	1209 347 1209 348 1209 379	\$148.50 148.50 187.50	120/208 "Y"	2.5 2.5 5.0 5.0	1.8* † 3.6* †	1209 373 1209 374 1209 375 1209 376	\$148.50	Flexitest Case is available. Add \$20.00 List Price to Standard Rectangular Case. Order "Similar to S#, except Flexitest Case".
§ Standard rectangular case. Style Number and Price List include meter complete with glass cover and facilities for either thin or thick panel mounting.					* These meters are supplied with registers corresponding to their kw capacity without transformers. When used with transformers, the reading must be multiplied by the ratio of the transformers.					
* These style numbers are for 60 cycles; however, 50 cycle meters are available at same List Price. Order "Similar to S#, except 50 cycle".					† These meters are supplied with registers of kw capacity corresponding to the instrument transformer ratios specified in order.					

Prices are Effective January 24, 1951 and are Subject to Change Without Notice

WATTHOUR METERS SWITCHBOARD • SINGLE AND POLYPHASE TYPE CB AND CB-F



PERFORMANCE CHARACTERISTICS

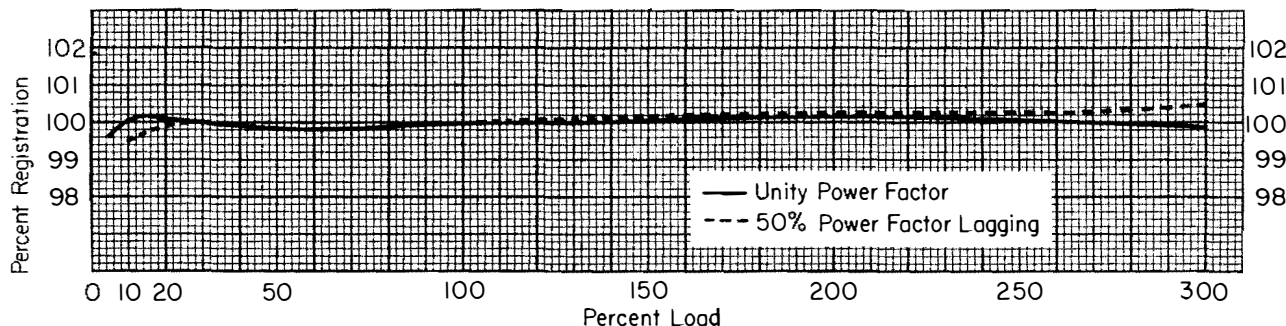


Fig. 1—Load Curves

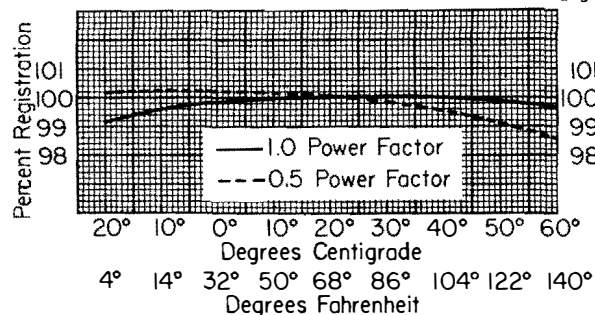


Fig. 2—Ambient Temperature Curves

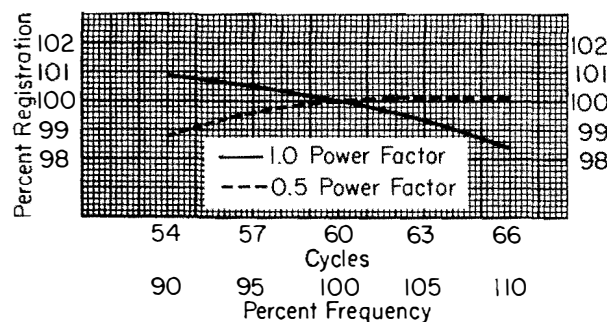


Fig. 3—Frequency Curves

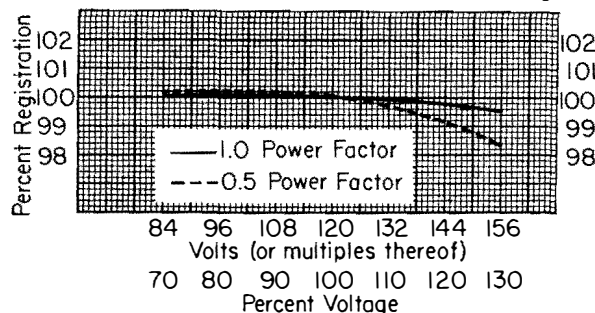


Fig. 4—Voltage Curves

CHARACTERISTICS

TYPE CB-2 METER—5 AMPS, 120 VOLTS, 60 CYCLE, 2-ELEMENT

Starting watts.....	3	Loss in voltage coil circuit per element (Watts at 120 volts).....	1.5
Rpm at 1200 watts.....	30	Without potential indicating lamps.....	1.7
Watthour Constant.....	$\frac{2}{3}$	Loss in current coil circuit per element (Watts at 5 amperes).....	16
Full Load Torque (mmgs.).....	75	Power factor of voltage-coil circuit Without potential indicating lamps.....	.18
Weight of Moving Element (grams).....	27	With potential indicating lamps.....	.21
Ratio of torque to weight of moving element.....	2.8		
Resistance of voltage coil circuit (ohms).....	148		
Resistance of current-coil circuit (ohms).....	.006		

WEIGHTS AND DIMENSIONS

METER TYPE	QUANTITY	APPROXIMATE WT.—LBS.					APPROXIMATE DIMENSIONS—INCHES			
		DOMESTIC		FOREIGN			QUANTITY	FOREIGN		
		NET	GROSS	NET	LEGAL	GROSS		LENGTH	WIDTH	HEIGHT
CB	1	10	14	10	14	28	1 8	13 28	13 27	13 28
CB-2, CB-8	1	11	15	11	15	30	1 8	13 28	13 27	13 28
CB-3	1	15	25	15	25	54	1	24	14	15
CB-32, CB-38	1	25	35	25	35	55	1	24	14	15



WATTHOUR METERS SWITCHBOARD • SINGLE AND POLYPHASE TYPE CB AND CB-F

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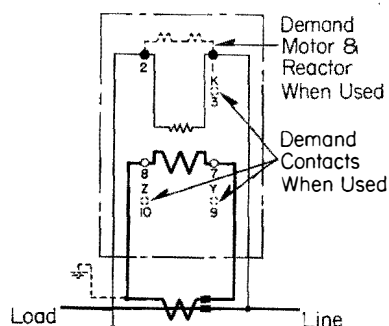
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WIRING DIAGRAMS

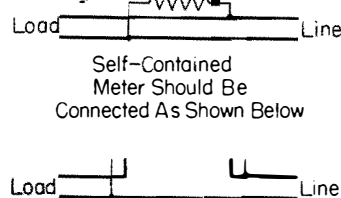
TYPE CB

For Reference Only

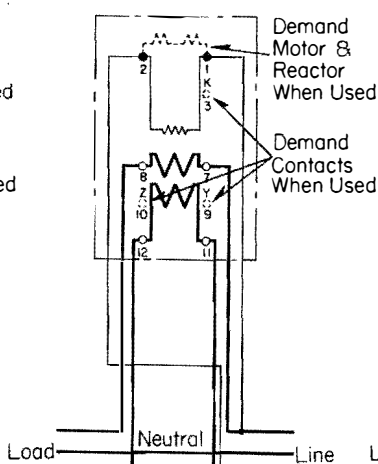
REAR VIEWS



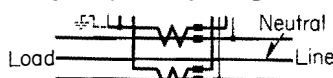
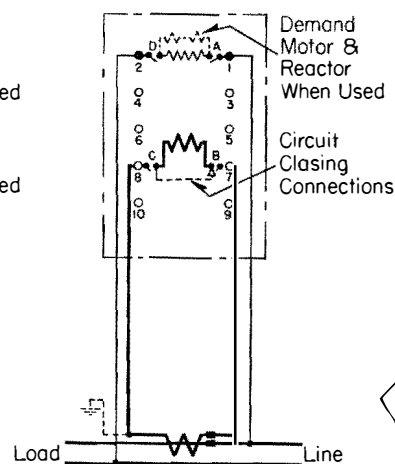
Potential Transformers
When Used Should Be
Connected As Shown Below



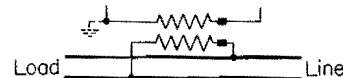
Self-Contained
Meter Should Be
Connected As Shown Below

FIG. 5—Type CB Single-Phase,
Two-Wire

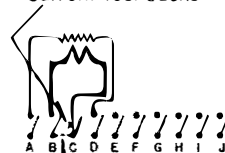
Current Transformers
When Used Should Be
Connected As Shown Below

Fig. 6—Type CB Single-Phase,
Three-Wire

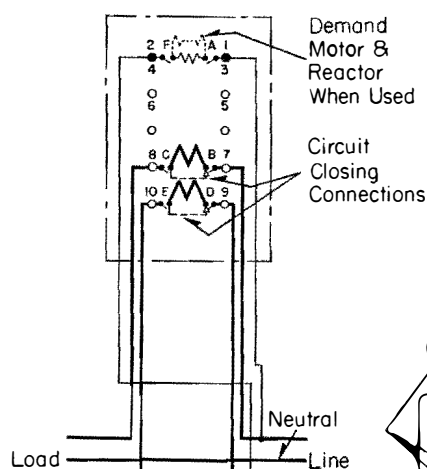
Potential Transformers
When Used Should Be
Connected As Shown Below

Fig. 7—Type CB-F Single-Phase, Two-
Wire, with Current Transformer

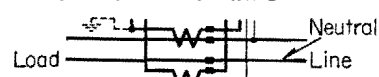
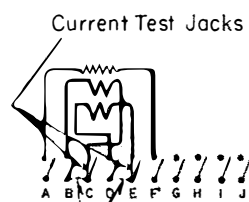
Current Test Jacks



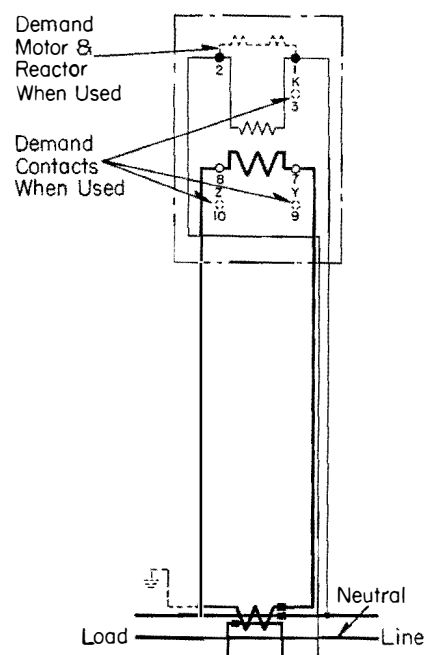
Circuit Closing
Switches Operated
By Test Switch Handle
And Also By
Removal Of Chassis

Test Switches
Front View

Current Transformers
When Used Should Be
Connected As Shown Below

Fig. 8—Type CB-F Single-Phase, Three-Wire,
with Current Transformer

Circuit Closing
Switches Operated
By Test Switch Handle
And Also By
Removal Of Chassis

Test Switches
Front ViewFig. 9—Type CB Single-Phase, Three Wire Using Three-Wire
Current Transformer

WATTHOUR METERS SWITCHBOARD • SINGLE AND POLYPHASE TYPE CB AND CB-F



WIRING DIAGRAMS

TYPE CB-2

For Reference Only.

REAR VIEWS.

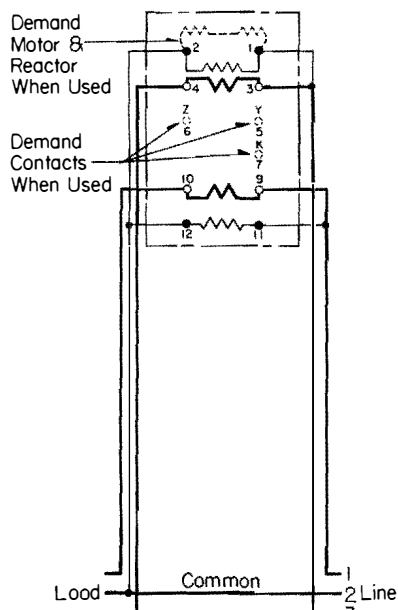


Fig. 10—Type CB-2 Self-Contained, Single Phase, Two-Phase, Three-Phase, Three-Wire and Three-Wire Network

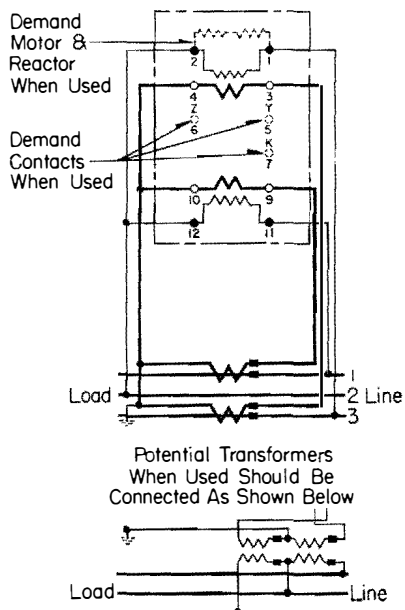


Fig. 11—Type CB-2 Transformer Type, Single-Phase, Two-Phase, Three-Phase, Three-Wire and Three-Wire Network

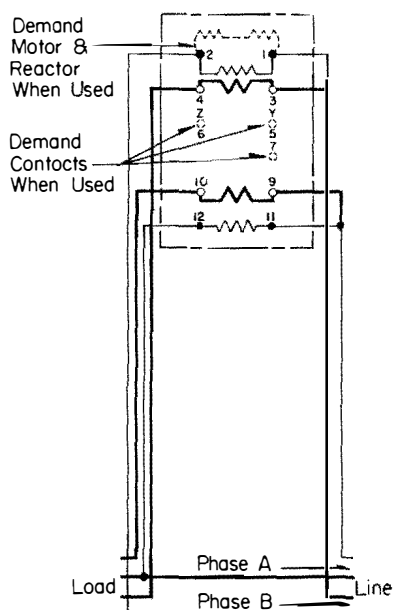


Fig. 12—Type CB-2 Self-Contained, Two-Phase, Four-Wire

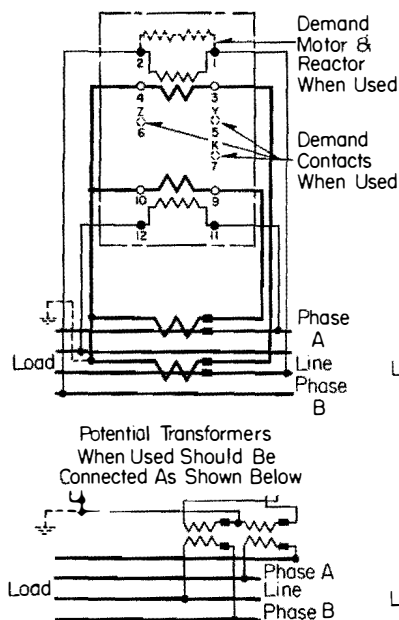


Fig. 13—Type CB-2 Transformer Type Two-Phase, Four-Wire

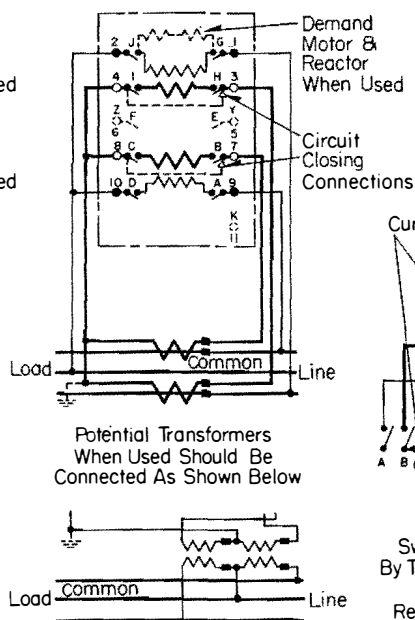
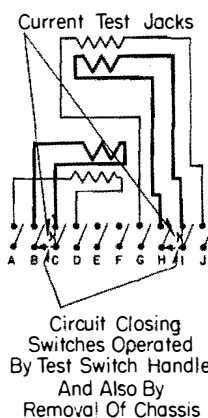


Fig. 14—Type CB-2F One, Two or Three-Phase, Three-Wire, Transformer Type



Test Switches Front View

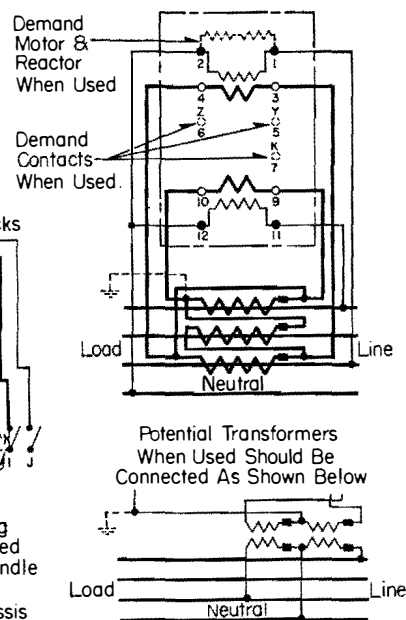


Fig. 15—Type CB-2, Three-Phase, Four-Wire with Delta Connected Current Transformer.



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WIRING DIAGRAMS

TYPE CB-3

For Reference Only.

REAR VIEWS

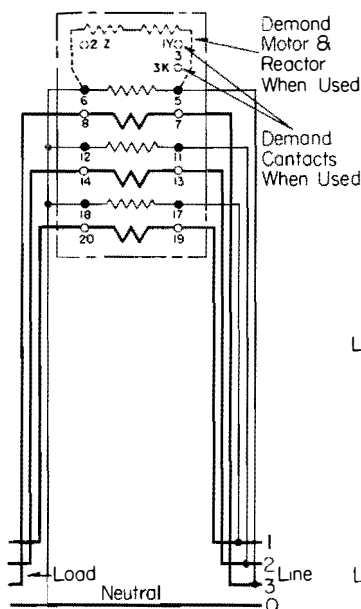


Fig. 16—Type CB-3, Self-Contained Three-Phase, Four-Wire "Y"

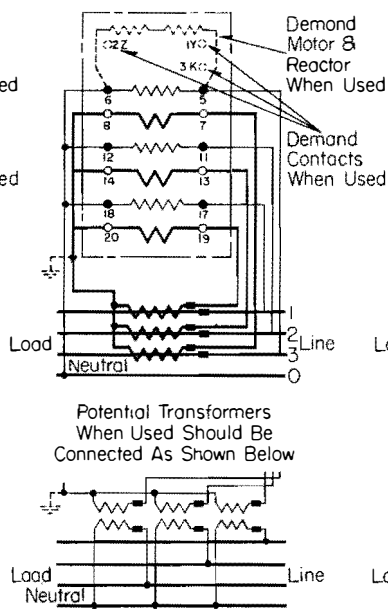


Fig. 17—Type CB-3 Transformer Type, Three-Phase, Four-Wire "Y"

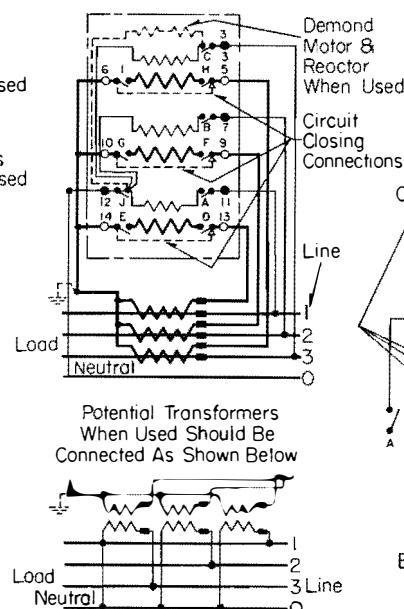


Fig. 18—Type CB-3F Three-Phase, Four-Wire, Wye Transformer Type (10 Switch Case)

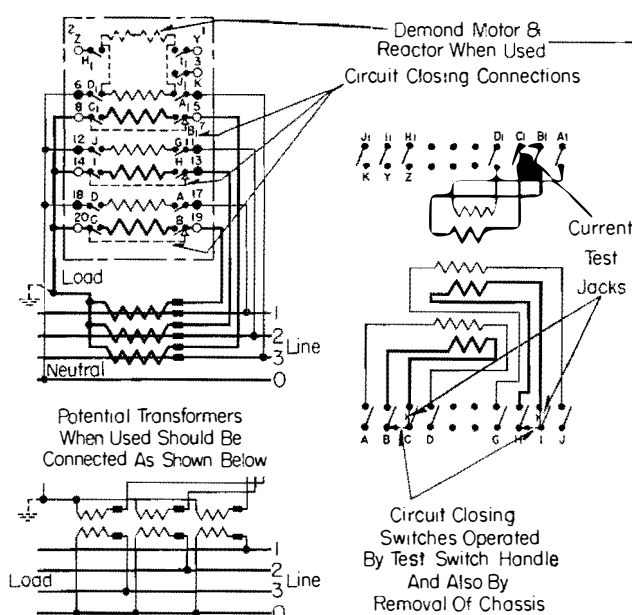
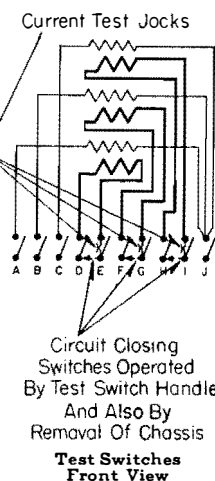


Fig. 19—Type CB-3F Three-Phase, Four-Wire with Transformer and with Demand Contacts (20 Switch Case)

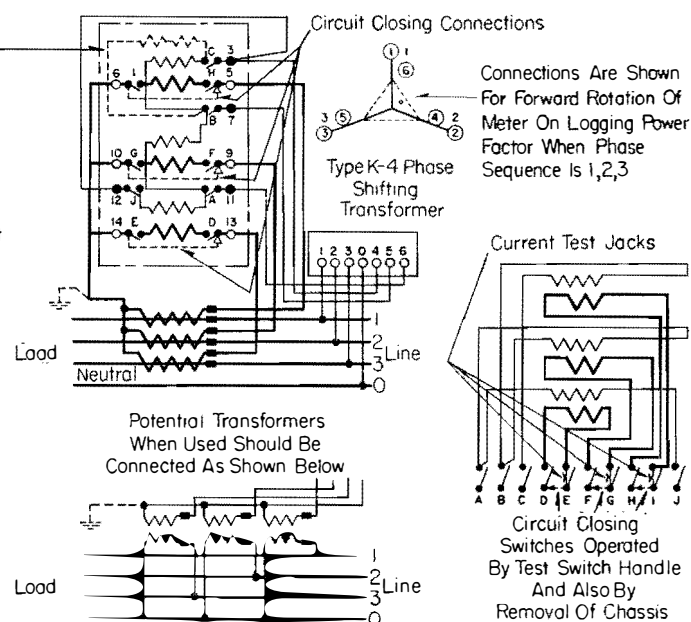


Fig. 20—Type CB-3F Three-Phase, Four-Wire Transformer Type with K-4 Phase Shifting Transformer for Reactive Metering (20 Switch Case)

WATTHOUR METERS SWITCHBOARD • SINGLE AND POLYPHASE TYPE CB AND CB-F



WIRING DIAGRAMS

TYPE CB-8

For Reference Only.

REAR VIEWS

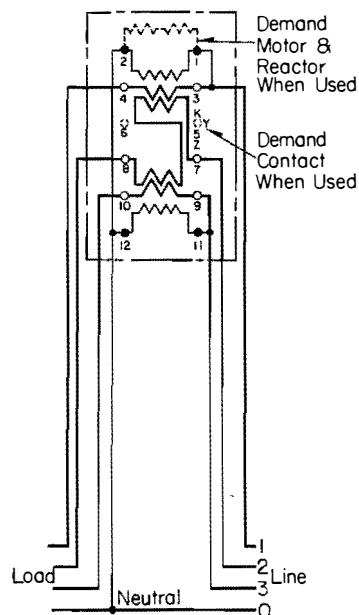


Fig. 21—Type CB-8 Self-Contained Three-Phase, Four-Wire "Y"

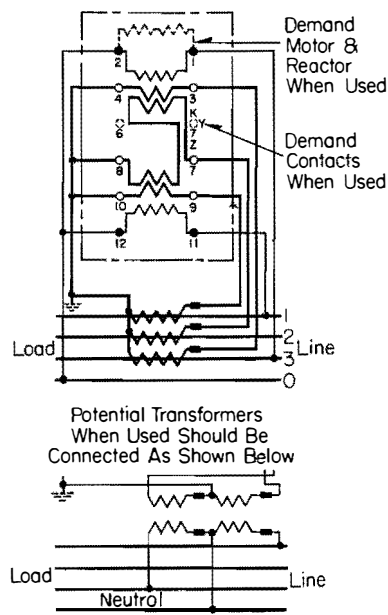


Fig. 22—Type CB-8 Transformer Type, Three-Phase, Four-Wire "Y"

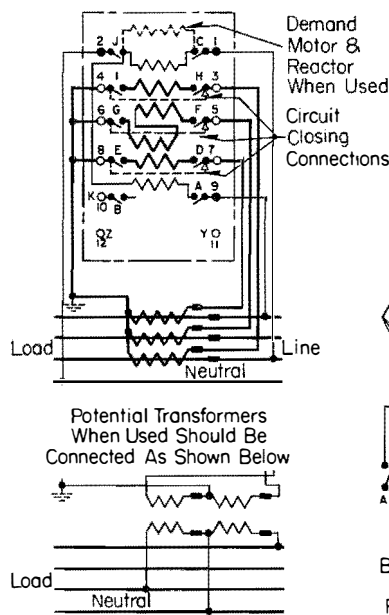
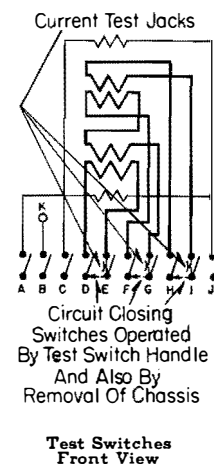


Fig. 23—Type CB-8F Three-Phase, Four-Wire, Wye with Current Transformer



Test Switches Front View

TYPE CB-32

TYPE CB-38

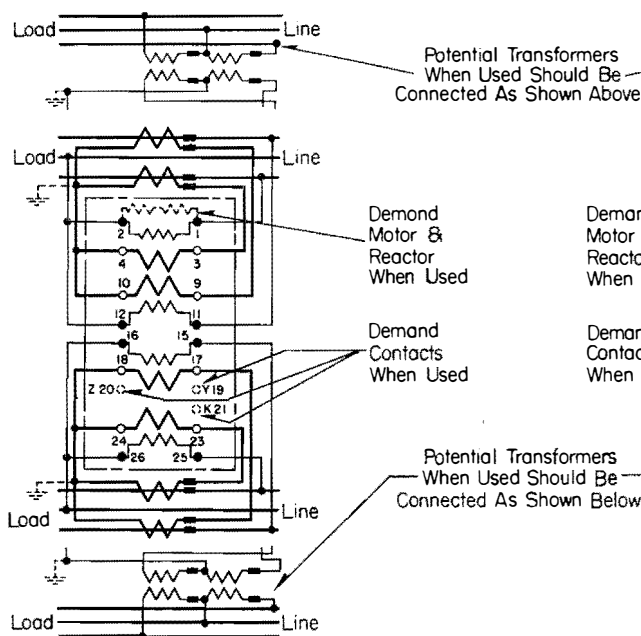


Fig. 24—Type CB-32 Transformer Type, Totalizing Two, Three-Phase, Three-Wire

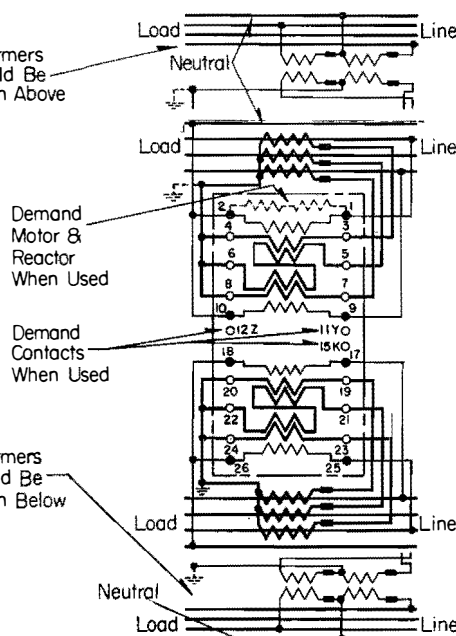


Fig. 25—Type CB-38 Transformer Type, Totalizing Two, Three-Phase, Four-Wire



WATTHOUR METERS
SWITCHBOARD • SINGLE AND POLYPHASE
TYPE CB AND CB-F

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DIMENSIONS IN INCHES

TYPE CB, CB-2, CB-8

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ONE AND TWO ELEMENT METERS

STANDARD RECTANGULAR CASE

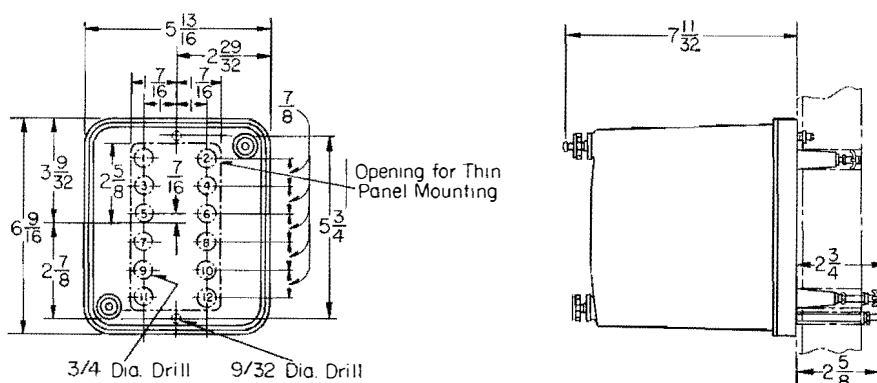


Fig. 26

FLEXITEST MOUNTING CASE

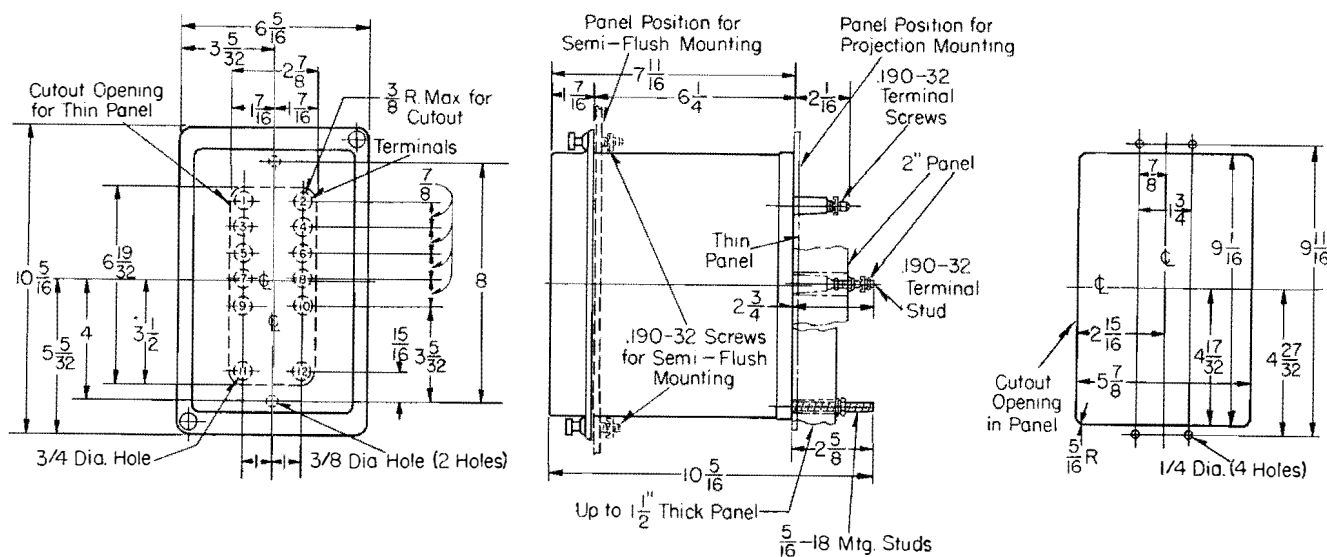


Fig. 27—Ten Test Switch Case, Size S-10



DIMENSIONS IN INCHES

For Reference Only.

TYPE CB-3

THREE ELEMENT METERS

STANDARD RECTANGULAR CASE

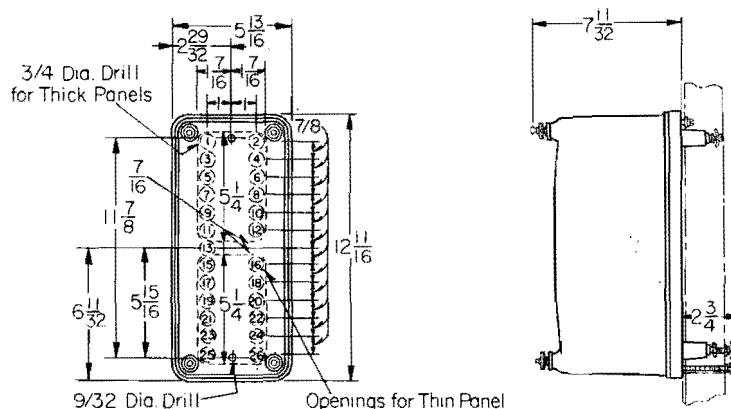


Fig. 28

FLEXITEST MOUNTING CASE

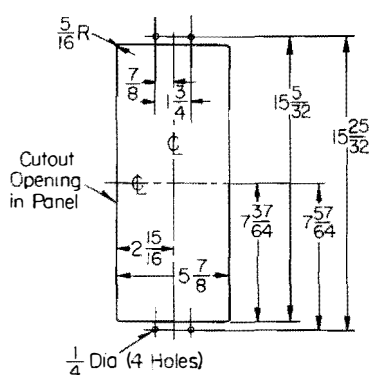
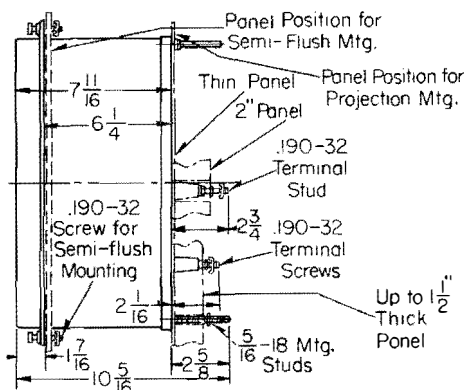
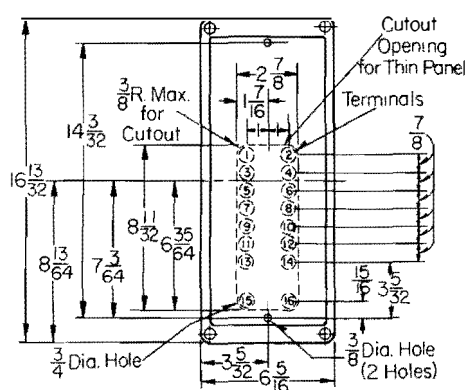


Fig. 29—Ten Test Switch Case, Size M-10

FLEXITEST MOUNTING CASE

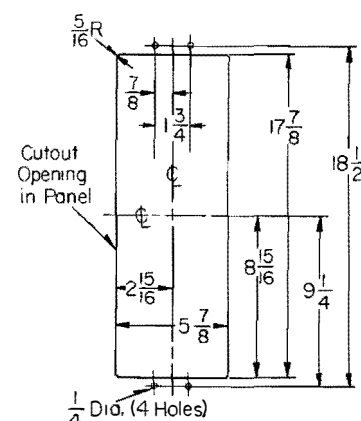
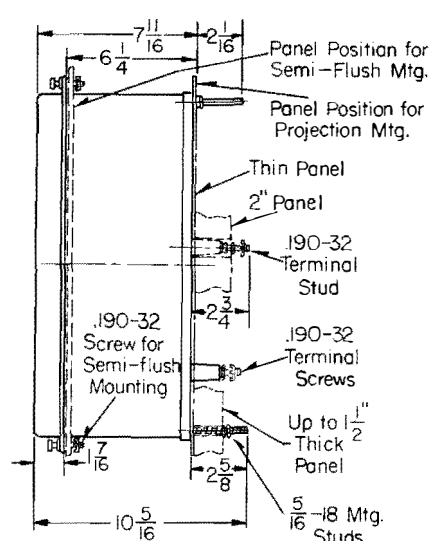
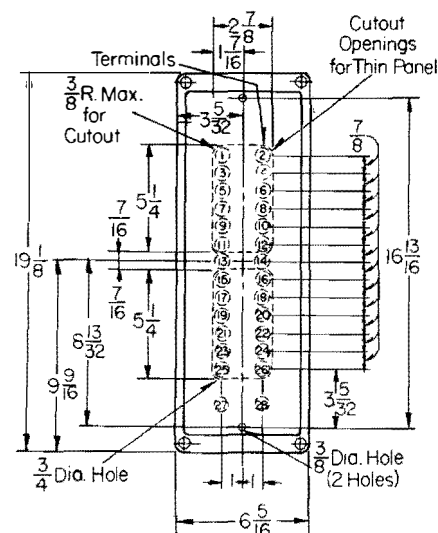


Fig. 30—Twenty Test Switch Case for Contact Brackets, Size M-20

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NEWARK PLANT • METER DIVISION • NEWARK, N. J.

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