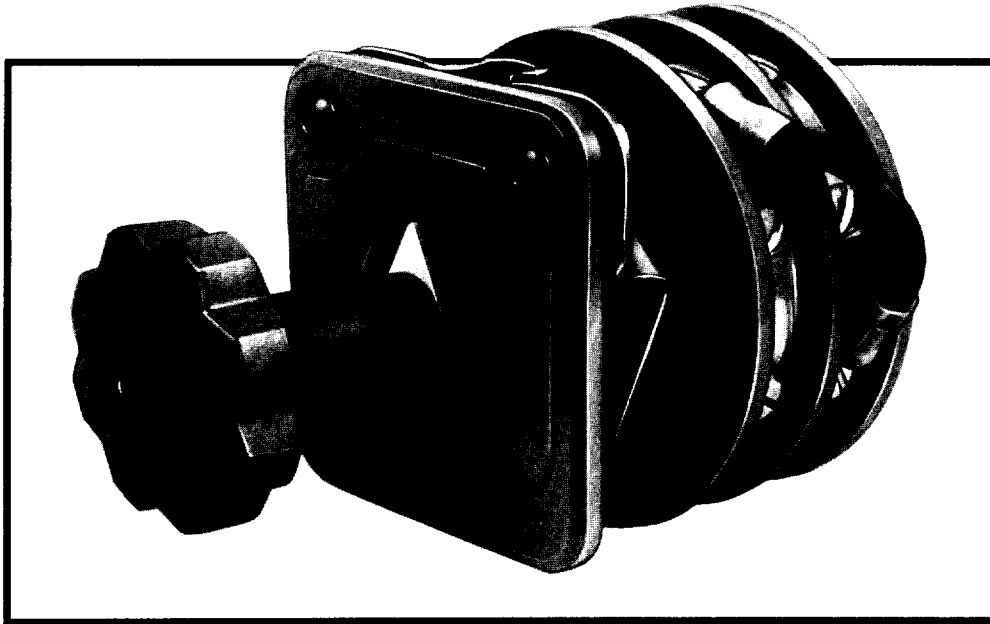


Technical Publication

MIL-24G-1

Effective March 1, 1993

SERIES 24G
INSTRUMENT AND CONTROL
SWITCHES
FOR MILITARY APPLICATIONS
IN ACCORDANCE WITH MIL-S-18396



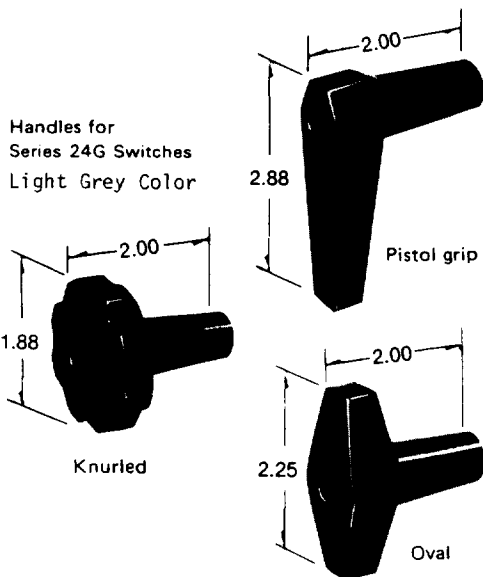
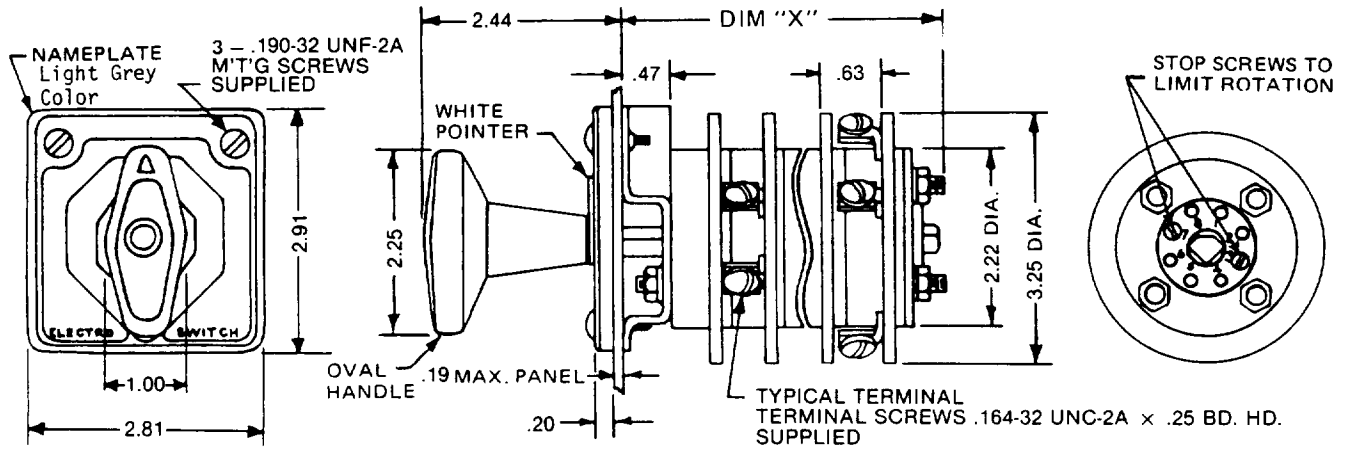
ELECTROSWITCH
UNIT OF ELECTRO SWITCH CORP.

SERIES 24G

INSTRUMENT AND CONTROL SWITCHES

IN ACCORDANCE WITH MIL-S-18396

This technical publication describes the series 24G Instrument and Control Switches that are used in a variety of military applications. Their versatility and features are described in this publication. Ordering and specification information are outlined on page 7.

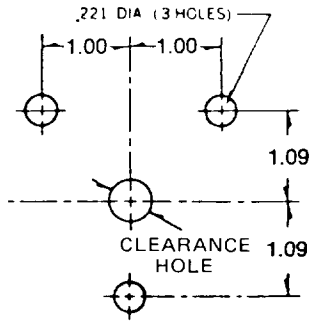


DECKS	DIM. X (inches)
1	2.4
2	2.9
3	3.6
4	4.3
5	4.8
6	5.4
7	6.2
8	6.8
9	7.4
10	8.0

Slip Contacts - add 1.5 max.
Pull-to-lock - add 2.6 max.
(These are approximate dimensions. Actual dimensions are on a separate sheet.)

Figure 1 - Series 24G Switch.

PANEL DRILLING (INCHES)



CLEARANCE HOLE DIMENSIONS

FEATURE	HOLE
Standards Removable Handle Waterproof-Mount	.44
	.81
	.64

INCHES	MM	INCHES	MM
.164	4.17	2.44	62.0
.19	4.83	2.6	66.0
.20	5.08	2.81	71.37
.22	5.59	2.88	73.15
.31	7.87	2.9	73.7
.44	11.18	2.91	73.91
.47	11.94	3.06	77.72
.63	16.00	3.25	82.55
.64	16.26	3.6	91.4
.81	50.57	4.25	107.95
1.00	25.40	4.3	109.2
1.09	27.69	4.8	121.2
1.5	38.1	5.4	137.2
1.88	47.75	5.63	143.0
2.00	50.80	6.2	157.5
2.22	56.39	6.8	172.7
2.25	57.15	7.4	188.0
2.4	61.0	8.0	203.2

NOTES:

1. Dimensions are in inches.
2. Metric equivalents (to the nearest 0.01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
3. Unless otherwise specified, tolerances are ± 0.016 (0.4 mm) for two-place decimals and ± 0.005 (0.13 mm) for three-place decimals.

Figure 1 - Series 24G Switch (continued)

REQUIREMENTS:

Dimensions and configuration:	See figures 1 to 11
Angle of throw:	45 degrees.
Switching action:	Detent or Spring-return (momentary)
Electrical loads:	Make and break 20 amperes, 125 volt alternating current (a.c.), 60 or 400 hertz (Hz). 10 amperes, 250 volt. a.c. (60 or 400Hz). 5 amperes, 500 volt. a.c. (60 or 400Hz). 0.4 amperes, 355 volt direct current (d.c.). Carry-20 amperes, all rated voltages.
Temperature rise:	65°C maximum
Contact material:	Rotor: Silver-overlay phosphor bronze. Stator: Silver-overlay copper.

CONTACT DECK ARRANGEMENTS AND CONTACT CHARTS

The blade and terminal configuration enable the use of multicontacts in the same deck, and simple stacking procedures enable the fabrication of up to ten decks in one switch.

Two standard blade configurations are available. Figure 2 illustrates the most common arrangement whereby two separate and independent contacts are provided in each deck. This arrangement is used in all control switches and any other applications of two or three positions. Deck 1 is shown. Terminal numbers repeat for multideck switches. The first number indicates the deck number; the second indicates the terminal location around the deck.

For the illustration shown a typical deck is used to show contact choice for popular position arrangements. Position 2 contact choices should not be used in the same deck as position 1 choices because of the overlap of terminals. One position 1 contact (upper) can be combined with one position 2 contact (lower), though -- and other combinations can also be made by a careful choice, avoiding using the same terminal number for two contacts.

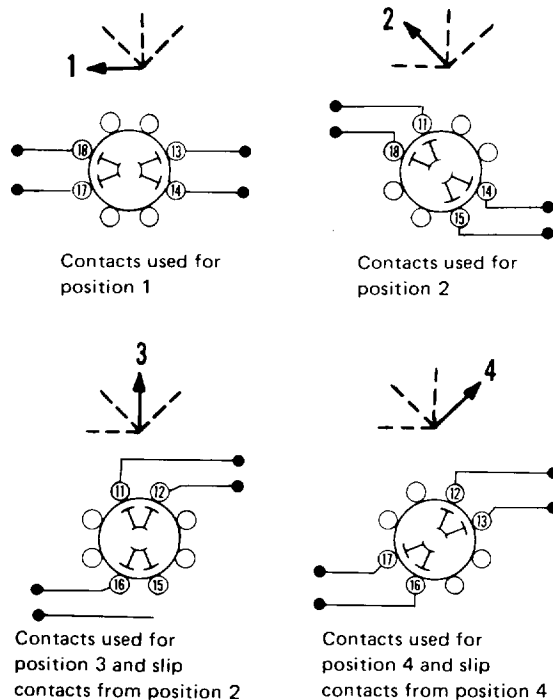


Figure 2 - Basic Two Contact Deck Layout

A typical application using two contact-per-deck design is illustrated in a contact chart arrangement in Figure 3.

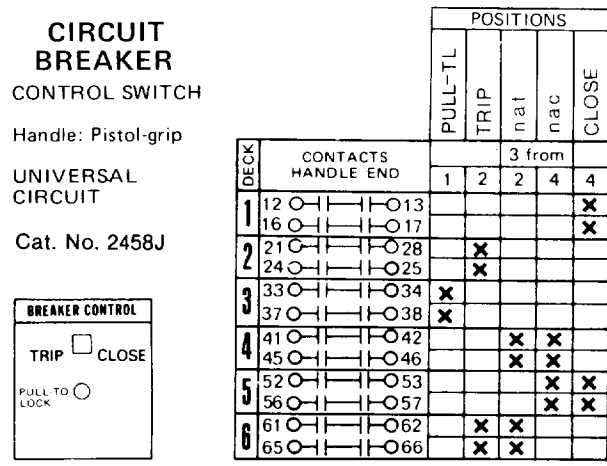


Figure 3 - Typical Contact Chart Using Two Independent Contacts Per-Deck Design

Another useful application for the two contact-per-deck design is the double-throw with OFF arrangement. An external jumper is assembled between terminals "11" and "12" and "15" and "16" to provide a common input to the adjacent positions. This is illustrated in Figure 4.

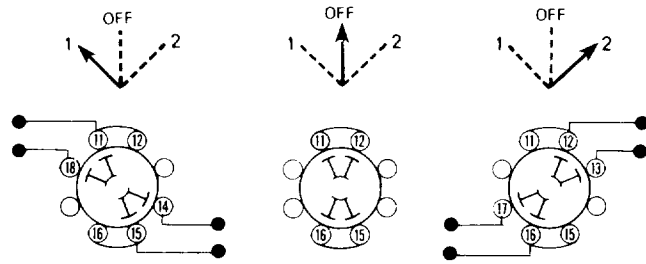


Figure 4 - Double-Throw (with OFF) Configuration Two Contact-Per-Deck Design

A typical contact chart of this double-throw with "OFF" arrangement is shown in Figure 5.

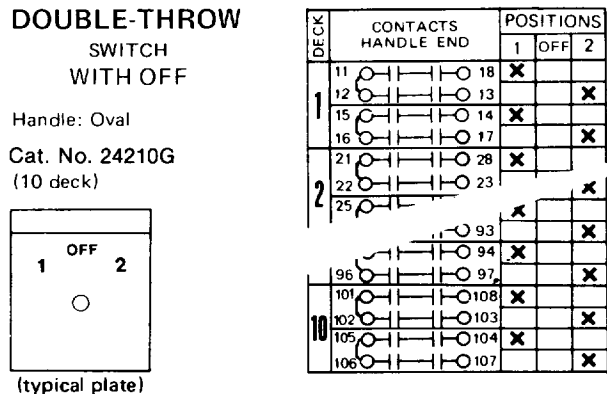


Figure 5 - Typical Contact Chart for Double-throw Application Using Two-Contact-Per-Deck Design

The standard tap-switch contact arrangement is illustrated in Figure 6. This is very useful in meter applications and any other application having three or more "ON" positions. The common input is to terminal "11" which feeds through an integral slip-ring and sequentially connects the circuit to the other seven terminals.

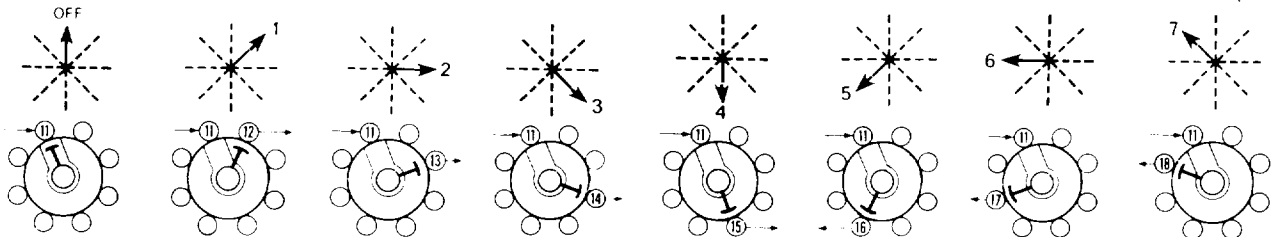


Figure 6 - Typical Tap-Switch Contact Deck Layout

A contact chart layout of the tap-switch arrangement is shown on Figure 7. Up to ten decks of this arrangement is available.

DECK	CONTACTS HANDLE END	POSITIONS								
		Off	1	2	3	4	5	6	7	
1	11									
	12		X							
	13			X						
	14				X					
	15					X				
	16						X			
	17							X		
	18								X	

Figure 7 - Contact Chart Using Tap-Switch Control Design

The most common use of the tap-switch contact arrangement is the metering application. Figure 8 illustrates a simple wiring diagram of a two deck switch to transfer two three-phase systems sequentially to one voltmeter. The contact chart is similar to Figure 7 except there are two decks. The terminal numbers on deck two are the same as the first deck except they start with "2".

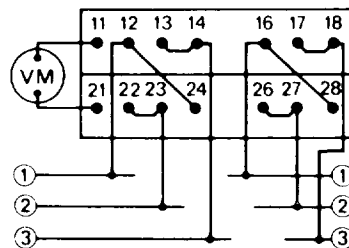
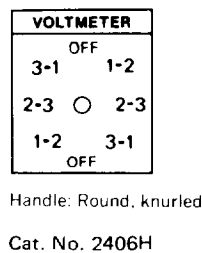


Figure 8 - Wiring diagram of a typical voltmeter transfer switch

A modified tap-switch arrangement is also very useful in ammeter transfer applications. Shorting or make-before-break overlapping contacts are used to insure that the CT's are never "open." The sequence is:

1. short the CT's to "ground"
2. connect the CT to the ammeter
3. open the CT "ground" (read "amp")
4. reconnect the CT to "ground"
5. remove the CT from the ammeter

A typical ammeter transfer switch uses two decks. The first deck is like Figure 7 except with shorting contacts and the second deck has seven shorting contacts and has an open only where the first deck is closed. The first deck selects the ammeter and the second deck controls the grounding of the CT. The deck arrangement is shown on Figure 9.

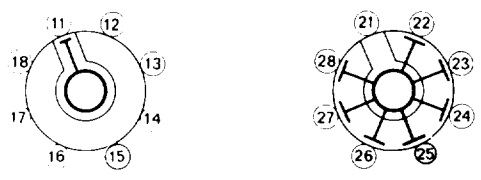
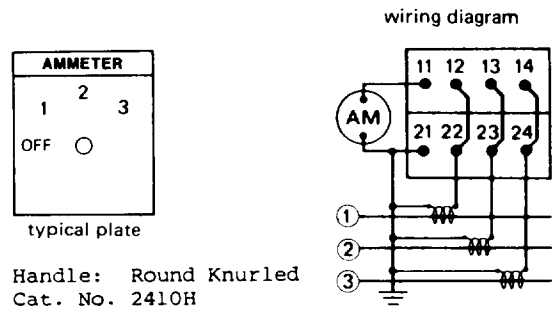


Figure 9 - Typical deck layout of an Ammeter Transfer Switch using shorting contacts

A contact chart and wiring diagram of an ammeter transfer switch used in a three-phase, three CT application is illustrated in Figure 10.



Handle: Round Knurled
Cat. No. 2410H

*Indicates shorting contacts

DECK	CONTACTS HANDLE END	POSITIONS				
		OFF	* 1	* 2	* 3	
1	11 ○					
	-○12	X	X	X		
	-○13			X	X	X
	-○14					X
2	21 ○					
	-○22	X	X	X	X	X
	-○23	X	X	X	X	X
	-○24	X	X	X	X	X

Figure 10 - Ammeter transfer switch, Catalog No. 2410H, 3Ø, 3CT

Shorting contacts are often shown in another manner whereby unneeded "X's" are left out. For illustration purposes, the contact chart of Figure 10 is repeated using this method. A note is included in this method to alert the user that shorting contacts are used.

DECK	CONTACTS HANDLE END	POS. OF	POS.		
			1	2	3
1	11 ○				
	— —○12		X		
	— —○13			X	
	— —○14				X
2	21 ○				
	— —○22	X		X	X
	— —○23	X	X		X
	— —○24	X	X	X	

DECKS 1 & 2 SHORTING CONTACTS

Figure 11 - Alternate method of illustrating shorting contacts

ORDERING DATA

Standard Instrument and Control Switches

The standard series 24G Instrument and Control switches are ordered by catalog number. Each catalog number identifies a specific switch that is furnished complete with the contact arrangement, terminal-to-terminal prewiring, handle and engraved escutcheon plate shown in the description that accompanies the switch listing. The listings are on pages 15 to 20. Each switch is supplied with complete mounting hardware for panels up to 3/16 inch thick. The most common circuits are stocked for immediate delivery.

Standard General Purpose Switches

The standard tap, transfer, and selector switches are ordered by catalog numbers. Each catalog number identifies a specific switch that is furnished with an oval handle and a blank nameplate. The catalog numbers are listed on pages 14 and 15. Each switch is supplied with complete mounting hardware for panels up to 3/16 inch thick. The most common arrangements are stocked for immediate delivery.

The round-knurled or pistol-grip handles may be substituted for the oval handle without affecting the availability of the switch since the handles are interchangeable.

Nameplates are available in four standard styles. Generally, the factory will automatically supply the appropriate one. When ordering engraved plates, however, it is important to use the correct prefix number and specifying engraving.

<u>PREFIX</u>	<u>NAMEPLATE</u>
15	Standard
16	Waterproof-mount
22	Standard target
23	Target with pull-to-lock

Prefix numbers have already been assigned to the standard nameplates listed in this bulletin.

Engraving for nameplates is available upon request. Standard engravings are ordered by engraving code, e.g. Catalog No. 24205G with engraving 15C-3B12 or the engraving code can be shown on the DESIGN GUIDE. Standard engravings are listed on pages 9 to 13. Engravings different from those listed are also available on request. The title is limited to fourteen characters and the positions are limited to five characters each.

The standard engraving codes are broken down in two ways to aid in selecting the most appropriate one, as follows:

1. There are many common position arrangements but with different titles. These are detailed on pages 9 to 11. The position arrangements shown are:

OFF-ON	ON-OFF
MAN-AUTO	AUTO-MAN
OFF-TEST	
RAISE-LOWER	LOWER-RAISE
LOCAL-REMOTE	REMOTE-LOCAL
STOP-START	START-STOP
SUPV-LOCAL	
TRIP-CLOSE	
OPEN-CLOSE	CLOSE-OPEN
1-2-3	1-OFF-2
LOWER-OFF-RAISE	RAISE-OFF-LOWER
AUTO-OFF-MAN	MAN-OFF-AUTO

2. The rest of the standard engravings are listed alphabetically by title, e.g. AMMETER, SYNCHROSCOPE, etc. These engravings are listed on pages 11 to 13.

Nonstandard Switches

The modular flexible design feature of the series 24G Instrument and Control Switch enables literally millions of combinations while utilizing only a few standard stocked parts and subassemblies. These may be specified by filling out the DESIGN GUIDE included on page 22 or by any other means that conveniently conveys the requirements to us. Some nonstandards may be:

- . panels greater than 3/16 inch thick
- . removable handles
- . pull-to-lock
- . special drawing or document control
- . waterproof-mount

A DESIGN GUIDE will be prepared by an Electro Switch product engineer and a specific drawing number will be assigned for customer use and control. The number may be of one of two types depending on whether the basic switch is modified, e.g.

24205G-001 The basic switch is standard, the -001 is a specific three digit number assigned to show what is added or changed without affecting the basic switch, e.g., we can take a standard or stock switch and add or subtract accessories to make this switch.

24205LB There is a modification to the basic switch, the uncoded series LB, LC, LD, etc. is a specific assignment to show the modification. The switch is fabricated special to order.

Jumpers

Strap jumpers are available for adjacent contacts and wire and lug assemblies are available to jumper other terminals on the same deck, or deck-to-deck. The strap jumpers are available in packages of ten or twenty-five and the wire and lug assemblies are ordered individually. Data is as follows:

Strap jumpers are silver-plated brass

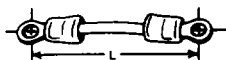
Catalog No.

02011-10-C3	Jumper, adjacent terminals on the same deck
02011-12-C3	Jumper, same terminal location on adjacent deck

Wire and lug assemblies have #10AWG wire and insulated ring lugs.

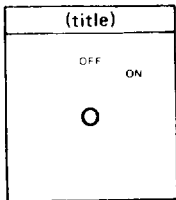
CATALOG NO. LENGTH (L inches)

002012-1	3.06
002012-2	4.25
002012-3	5.63



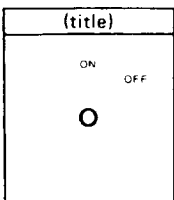
Engravings by Standard Position Arrangements

OFF-ON position arrangement



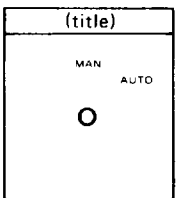
Title	Engr. Code
NONE (BLANK).....	15D-2X5
AMMETERS.....	15D-2A13A
CUTOFF.....	15D-2C11B
CUTOUT SWITCH.....	15D-2C17E
CURRENT BALANCE.....	15D-2C19B
DC VOLTS.....	15D-2D12A
ENGINE CONTROL.....	15D-2E18
FREQUENCY METER.....	15D-2F19A
FREQUENCY CONTROL....	15D-2F21
GROUND RELAY.....	15D-2G16C
GROUND DETECTOR.....	15D-2G19E
GENERATOR HEATER.....	15D-2G20C
HEATER CONTROL.....	15D-2H18
KVAR METER.....	15D-2K14A
LAMPS.....	15D-2L10
LOAD SHED.....	15D-2L13
MAINTENANCE SAFETY...	15D-2M22G
P.F. METER.....	15D-2P14
POWER DISCONNECT.....	15D-2P20D
RECLOSER.....	15D-2R13
REGULATOR.....	15D-2R14
REMOTE ALARM.....	15D-2R16A
REGULATOR SW.....	15D-2R16B
REGULATOR SWITCH.....	15D-2R20E
RECLOSER CUTOFF.....	15D-2R19B
RECLOSER CUTOUT.....	15D-2R19
RECLOSER SWITCH.....	15D-2R19F
REVERSE POWER RELAY..	15D-2R22B
SPACE HEATER.....	15D-2S16
SYNCHROSCOPE.....	15D-2S17
SUPV'Y CONTROL.....	15D-2S18H
SUPERVISORY CTL.....	15D-2S19A
TRIP CUT-OFF.....	15D-2T16A
TRANSFER TRIP.....	15D-2T17C
TURBINE CONTROL.....	15D-2T19
VOLTAGE REG.....	15D-2V15C
VOLTAGE CONTROL.....	15D-2V19
VOLTAGE REGULATOR....	15D-2V21
VOLTMETER.....	15D-2V14
WATTMETER.....	15D-2W14
UNIT PARALLEL.....	15D-2U17
VARMETER.....	15D-2V13

ON-OFF position arrangement



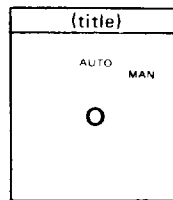
Title	Engr. Code
NONE (BLANK).....	15D-2X5A
MOTOR CONTROL.....	15D-2M17H
RECLOSER.....	15D-2R13C
REGULATOR.....	15D-2R14E

MAN-AUTO position arrangement



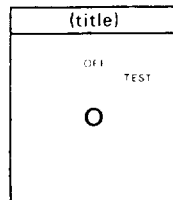
Title	Engr. Code
NONE (BLANK).....	15D-2X7B
AUTO MAN.....	15D-2A14
CONTROL TRANSFER.....	15D-2C22H
EXITER CONTROL.....	15D-2E20B
MASTER CONTROL.....	15D-2M20E
REGULATOR.....	15D-2R16
SELECTOR.....	15D-2S15
SYNCHRONIZING.....	15D-2S20E
TRANSFER SWITCH.....	15D-2T21E
VOLTAGE REGULATOR....	15D-2V23C

AUTO MAN position arrangement



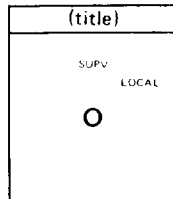
Title	Engr. Code
NONE (BLANK).....	15D-2X7A
AUTO-MAN SWITCH.....	15D-2A21E
CONTROL SWITCH.....	15D-2C20C
EXCITATION.....	15D-2E17A
MODE SELECTOR.....	15D-2M19D
PITCH SELECTOR.....	15D-2P20
SELECTOR.....	15D-2S15H
SYNCHRONIZE.....	15D-2S18F
SYNCHRONIZING.....	15D-2S20C
THROTTLE SELECT.....	15D-2T21B
TRANSFER MODE.....	15D-2T19L
TRANSFER SWITCH.....	15D-2T21F
VOLTAGE CONTROL.....	15D-2V21A
VOLTAGE REGULATOR....	15D-2V23
VOLT. REGULATOR.....	15D-2V21C

OFF-TEST position arrangement



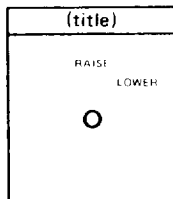
Title	Engr. Code
NONE (BLANK).....	15D-2X7K
GND TEST SW.....	15D-2G16D
GROUND FAULT.....	15D-2G18J
LAMP TEST.....	15D-2L15B
LOAD TEST TRANSFER...	15D-2L23
TEST SWITCH.....	15D-2T17F

SUPV-LOCAL position arrangement



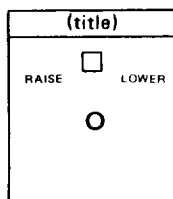
Title	Engr. Code
NONE (BLANK).....	15D-2X9BL
MASTER CONTROL.....	15D-2M22B
SUPERVISORY.....	15D-2S20D
SYNCHRONIZING.....	15D-2S22E
TRANSFER.....	15D-2T17

RAISE-LOWER position arrangement



Title	Engr. Code
NONE (BLANK).....	15D-2X10R
ENGINE CONTROL.....	15D-2E23
ENGINE SPEED.....	15D-2E21
FIELD RHEOSTAT.....	15D-2F23A
FREQUENCY CONTROL....	15D-2F26
GEN. VOLTS.....	15D-2G19B
GOVERNOR.....	15D-2G18
GOVERNOR CONTROL....	15D-2G25A
GOVERNOR SWITCH.....	15D-2G24
LOAD CONTROL.....	15D-2L21
MOTOR CONTROL.....	15D-2M22
PUMP.....	15D-2P19B
POWER SUPPLY.....	15D-2P21C
RHEOSTAT CONTROL.....	15D-2R25
SPEED CONTROL.....	15D-2S22
SPEED ADJUST.....	15D-2S21B
VOLTAGE.....	15D-2V17
VOLTAGE CONTROL.....	15D-2V24

RAISE-LOWER position arrangement with target



Title	Engr. Code
NONE (BLANK).....	22B-2X10R
ENGINE CONTROL.....	22B-2E23
ENGINE SPEED.....	22B-2E21
FREQUENCY CONTROL....	22B-2F26
GOVERNOR.....	22B-2G18
GOVERNOR CONTROL....	22B-2G25A

RAISE-LOWER position arrangement with target
(continued)

(title)	Title	Engr. Code
<div style="border: 1px solid black; padding: 5px;"> <input type="checkbox"/> RAISE <input type="checkbox"/> LOWER <input type="radio"/> </div>	MOTOR CONTROL.....	22B-2M22
	PUMP.....	22B-2P19B
	POWER SUPPLY.....	22B-2P21C
	SPEED CONTROL.....	22B-2S22
	VOLTAGE.....	22B-2V17
	VOLTAGE CONTROL.....	22B-2V24
	FREQUENCY CONTROL...	22B-2F26B
	TURBINE SPEED.....	22B-2T22L
	TURBINE VOLTAGE.....	22B-2T24K
	VOLTAGE ADJUST.....	22B-2V23D

LOWER-RAISE position arrangement

(title)	Title	Engr. Code
<div style="border: 1px solid black; padding: 5px;"> <input type="checkbox"/> LOWER <input type="checkbox"/> RAISE <input type="radio"/> </div>	NONE (BLANK).....	15D-2X10G
	GOVERNOR.....	15D-2G18H
	GOVERNOR CONTROL....	15D-2G25
	MOTOR CONTROL.....	15D-2M22A
	VOLTAGE CONTROL.....	15D-2V24A
	TAP CHANGER CONTROL.	15D-2T27A

LOWER-RAISE position arrangement with target

(title)	Title	Engr. Code
<div style="border: 1px solid black; padding: 5px;"> <input type="checkbox"/> LOWER <input type="checkbox"/> RAISE <input type="radio"/> </div>	NONE (BLANK).....	22B-2X10G
	GOVERNOR.....	22B-2G18H
	GOVERNOR CONTROL....	22B-2G25
	MOTOR CONTROL.....	22B-2M22A
	VOLTAGE CONTROL.....	22B-2V24A
	TAP CHANGER CONTROL.	22B-2T27A
	ENGINE SPEED.....	22B-2E21D
	REGULATOR.....	22B-2R19L
	SPEED CONTROL.....	22B-2S22AC
	VOLTAGE REGULATOR...	22B-2V26C

LOCAL-REMOTE position arrangement

(title)	Title	Engr. Code
<div style="border: 1px solid black; padding: 5px;"> <input type="checkbox"/> LOCAL <input type="checkbox"/> REMOTE <input type="radio"/> </div>	NONE (BLANK).....	15D-2X11B
	BREAKER CONTROL.....	15D-2B25B
	COMPUTER MASTER.....	15D-2C25A
	ENGINE CONTROL.....	15D-2E24
	EXCITER CONTROL.....	15D-2E27
	LOCAL REMOTE SW.....	15D-2L24A
	UNIT OPERATION.....	15D-2U24

REMOTE-LOCAL position arrangement

(title)	Title	Engr. Code
<div style="border: 1px solid black; padding: 5px;"> <input type="checkbox"/> REMOTE <input type="checkbox"/> LOCAL <input type="radio"/> </div>	NONE (BLANK).....	15D-2X11
	CONTROL SELECTOR SW.	15D-2C28
	MASTER TRANSFER.....	15D-2M25A
	MODE.....	15D-2M15C
	TRIP SW.....	15D-2T18D
	TRANSFER SWITCH.....	15D-2T25A
	VALVE.....	15D-2V16

STOP-START position arrangement with target

(title)	Title	Engr. Code
<div style="border: 1px solid black; padding: 5px;"> <input type="checkbox"/> STOP <input type="checkbox"/> START <input type="radio"/> </div>	NONE (BLANK).....	22B-2X9H
	ENGINE.....	22B-2E15
	MOTOR CONTROL.....	22B-2M21E
	BREAKER CONTROL.....	22B-2B23H
	MODE CONTROL.....	22B-3M21C
	OIL PUMP CONTROL....	22B-2O23

START-STOP position arrangement with target

(title)	Title	Engr. Code
<div style="border: 1px solid black; padding: 5px;"> <input type="checkbox"/> START <input type="checkbox"/> STOP <input type="radio"/> </div>	NONE (BLANK).....	22B-2X9S
	MOTOR CONTROL.....	22B-2M21C
	TIME RECORD.....	22B-2T19D
	TURB. MAN. CONT.....	22B-2T23D
	FEEDER.....	22B-2F15E
	GENERATOR.....	22B-2G18L
	MASTER CONTROL SW....	22B-2M24G

STOP-START & PULL-TO-LOCK position arrangement with target

(title)	Title	Engr. Code
<div style="border: 1px solid black; padding: 5px;"> <input type="checkbox"/> STOP <input type="checkbox"/> START <input type="radio"/> PULL TO LOCK </div>	NONE (BLANK).....	23C-3X19B
	CONTROL SWITCH.....	23C-3C29K
	BREAKER CONTROL.....	23C-3B33C
	FIRE PUMP.....	23C-3F27H
	MOTOR CONTROL.....	23C-3M31D

OPEN-CLOSE position arrangement with target

(title)	Title	Engr. Code
<div style="border: 1px solid black; padding: 5px;"> <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSE <input type="radio"/> </div>	NONE (BLANK).....	22B-2X9
	DISCONNECT SWITCH....	22B-2D25
	GROUNDING SWITCH....	22B-2G24A
	LOAD SHED.....	22B-2L17A
	MAN BREAKER CONTROL..	22B-2M26
	MODE CONTROL SWITCH..	22B-2M26B
	OCB CONTROL.....	22B-2O19
	SHUT OFF VALVE.....	22B-2S21G
	SWITCH CONTROL.....	22B-2S22A
	VALVE CONTROL.....	22B-2V21G

TRIP-CLOSE position arrangement with target

(title)	Title	Engr. Code
<div style="border: 1px solid black; padding: 5px;"> <input type="checkbox"/> TRIP <input type="checkbox"/> CLOSE <input type="radio"/> </div>	NONE (BLANK).....	22B-2X9P
	BREAKER CONTROL.....	22B-2B23
	CKT BKR CONT.....	22B-2C19D
	CONTROL SWITCH.....	22B-2C22
	CIRCUIT BREAKER.....	22B-2C23E
	RECLOSER CONTROL.....	22B-2R24A

TRIP-CLOSE & PULL-TO-LOCK position arrangement with target

(title)	Title	Engr. Code
<div style="border: 1px solid black; padding: 5px;"> <input type="checkbox"/> TRIP <input type="checkbox"/> CLOSE <input type="radio"/> PULL TO LOCK </div>	NONE (BLANK).....	23C-3X19A
	BREAKER CONTROL.....	23C-3B33
	BUS TIE BKR.....	23C-3B28B
	I. D. FAN.....	23C-3D26A
	MAIN OIL PUMP.....	23C-3M30J
	STANDBY OIL PUMP.....	23C-3S33A

1-2-3 position arrangement

(title)	Title	Engr. Code
<div style="border: 1px solid black; padding: 5px;"> <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="radio"/> </div>	NONE (BLANK).....	15C-3X3A
	AMMETER.....	15C-3A10A
	AMMETER-VOLTMETER....	15C-3A19
	VOLTMETER.....	15C-3V12

1-OFF-2 position arrangement

(title)	Title	Engr. Code
	NONE (BLANK).....	15C-3X5
	AMMETER.....	15C-3A12A
	BATTERY.....	15C-3B12
	FREQUENCY.....	15C-3F14
	FREQUENCY METER.....	15C-3F19
	STANDBY UNIT.....	15C-3S16E
	SYNCHRONIZING.....	15C-3S18
	UNIT CONTROL.....	15C-3U16B
	VOLTMETER.....	15C-3V14

LOWER-OFF-RAISE position arrangement

(title)	Title	Engr. Code
	NONE (BLANK).....	15C-3X13AL
	FREQUENCY ADJUSTER.....	15C-3F26B
	GOVERNOR CONTROL.....	15C-3G28D
	SPEED CONTROL.....	15C-3S25L
	TAP CHANGER.....	15C-3T23B
	VOLTAGE CONTROL.....	15C-3V27C

RAISE-OFF-LOWER position arrangement

(title)	Title	Engr. Code
	NONE (BLANK).....	15C-3X13G
	GOVERNOR.....	15C-3G21
	GOVERNOR CONTROL.....	15C-3G28A
	GOVERNOR SPEED.....	15C-3G27
	GOVERNOR SPEED CONTROL.....	15C-3G33
	MOTOR CONTROL.....	15C-3M25
	UNIT SPEED.....	15C-3U22
	VOLTAGE.....	15C-3V20C

AUTO-OFF-MAN position arrangement

(title)	Title	Engr. Code
	NONE (BLANK).....	15C-3X10E
	BRAKE CONTROL.....	15C-3B22E
	CONTROL SWITCH.....	15C-3C23
	ENGINE CONTROL.....	15C-3E23
	EXCITATION.....	15C-3E20A
	EXCITATION SWITCH.....	15C-3E26C
	MODE SELECTOR.....	15C-3M22B
	REGULATOR.....	15C-3R19
	SYNCHRONIZING.....	15C-3S23D
	SYNCHROSCOPE.....	15C-3S22B
	SYNCH. SELECTOR.....	15C-3S24D
	START-UP MODE.....	15C-3S22F
	VOLTAGE CONTROL.....	15C-3V24
	VOLTAGE REGULATOR.....	15C-3V26A

MAN-OFF-AUTO position arrangement

(title)	Title	Engr. Code
	NOTE (BLANK).....	15C-3X10A
	ACTUATOR FIRING.....	15C-3A24
	BREAKER CONTROL.....	15C-3B24
	ENGINE.....	15C-3E16
	ENGINE CONTROL.....	15C-3E23A
	EXCITATION.....	15C-3E20
	FUEL TRANSFER.....	15C-3F22
	MODE SELECTOR.....	15C-3M22
	REGULATOR.....	15C-3R19A
	SYNCH. MODE.....	15C-3S19
	SYNCHRONIZE.....	15C-3S21
	SYNCHROSCOPE.....	15C-3S22A
	VOLTAGE REGULATOR.....	15C-3V26

Standard Nameplate Engravings Listed by Title

<p>Code 15C-3A22A</p>	<p>Code 15D-2A21</p>	<p>Code 15D-2A19F</p>
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<p>Code 15C-3A10D</p>	<p>Code 15C-3A12C</p>	<p>Code 15C-4A13</p>
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<p>Code 15D-4A13</p>	<p>Code 15C-4A11</p>	<p>Code 15C-4A13D</p>
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<p>Code 15D-4A13D</p>	<p>Code 15E-5A12</p>	<p>Code 15C-5A16</p>
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<p>Code 15E-6A19</p>	<p>Code 15E-7A20</p>	<p>Code 15E-7A16A</p>
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<p>Code 15E-7A16</p>	<p>Code 15E-8A17</p>	<p>Code 15C-4A23C</p>
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<p>Code 15C-5A26</p>	<p>Code 15C-5A24</p>	<p>Code 15D-2A19</p>
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<p>Code 15D-4B16</p>	<p>Code 15D-1B18</p>	<p>Code 15C-3B27C</p>
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Standard Nameplate Engravings Listed by Title

Standard Nameplate Engravings Listed by Title

DOOR
AUTO
OPEN CLOSE
○
Code 15C-3D17A

EMERG. SHUT DOWN
EMERG STOP
○
Code 15D-1E24

ENGINE
STOP RUN
○
Code 15D-2E13A

MASTER SWITCH
OFF
HAND AUTO
○
Code 15C-3M23C

MODE SELECTOR
OFF
RUN EMERG
○
Code 15C-3M22F

MODE SELECTOR
LOCAL
REMOTE TEST
○
Code 15C-3M27

ENGINE CONTROL
START
OFF RUN
○
Code 15C-3E24A

ENGINE CONTROL
OFF START
○ RUN
Code 15D-3E24C

ENGINE CONTROL
NORM
STOP START
○
Code 15C-3E26B

MODE SELECTOR
AUTO
OFF NORM EMERG
○
Code 15C-4M28

MODE SELECTOR
LOCAL
LOCKOUT REMOTE
○
Code 15C-3M30G

MODE SELECTOR
RESET
LOAD OIL GAS
○
Code 15C-4M27C

ENGINE CONTROL
OFF TEST
○ MAN
AUTO
Code 15D-4E27

ENGINE SELECTOR
AUTO
STOP RUN
○
Code 15C-3E25A

FAULT SELECTOR
B
A C G
○
Code 15C-4F17

MODE SWITCH
AUTO
MAN RESET
STOP
○
Code 15C-4M26C

MOTOR CONTROL
STOP REV
FOR
○
Code 15C-3M22A

MOTOR CONTROL
NEUT START
STOP
○
Code 15C-3M25A

FREQUENCY
OFF
GEN BUS
○
Code 15C-3F18

FREQUENCY METER
OFF BUS
GEN
○
Code 15C-3F23

FREQUENCY METER
OFF 1 2 3
○
Code 15D-4F20

MOTOR CONTROL
AUTO
STOP START
○
Code 15C-3M25C

MOTOR CONTROL
NORMAL
RAISE LOWER
○
Code 15C-3M28

MOTOR CONTROL
AUTO
STOP START
○ PULL TO LOCK
Code 15C-4M35

FREQUENCY METER
GEN 1 GEN 2
BUS GEN 1 GEN 2
OFF
○
Code 15C-4F28

FREQUENCY METER
GEN 2
GEN 1 GEN 2 GEN 3
OFF
○
Code 15C-4F29

FREQUENCY METER
GEN 2
GEN 1 GEN 2 GEN 3
OFF BUS
○
Code 15C-5F32

OPERATION SELECTOR
AUTO
MAN TEST
OFF
○
Code 15C-4031

PARALLELING SW
NORM
RRL
○
Code 15D-2P20E

P. F. METER
OFF
G1 G2
○
Code 15C-3P16C

FREQUENCY METER
GEN 2
GEN 1 GEN 2 GEN 3
OFF GEN 4
○
Code 15C-5F33

FUEL SELECTOR
GAS LIQUID
○
Code 15D-2F21J

GOVERNOR
NORM
LOWER RAISE
○
Code 15C-3G22A

PHASE FAULT SELECTOR
OFF AB BC CA
○
Code 15D-4P27A

PHASE SELECTOR
2 3 4
1
○
Code 15C-4P17A

PILOT WIRE
STBY NORM
○
Code 15D-2P17D

GOVERNOR CONTROL
NORM
RAISE LOWER
○
Code 15C-3G29A

GOVERNOR TRANSFER
OFF MAN
TEST AUTO
○
Code 15C-4G31

GROUND FAULT SELECTOR
OFF AG BG CG
○
Code 15D-4G28

PUMP CONTROL
MAN AUTO
OFF
○
Code 15C-3P21

PUMP SELECTOR
1-2 2-1
○
Code 15D-2P18A

PUMP SEQUENCE
2-3-1
1-3-2 2-1-3
1-2-3 3-1-2
3-2-1
○
Code 15E-6P42A

KW/KVAR SWITCH
KW KVAR
○
Code 15D-2K19

LEAD BOILER
OFF 1 2 3
○
Code 15D-4L16

LEAD PUMP SELECTOR
1 2
○
Code 15D-2L18C

PUMP SEQUENCE SELECTOR
1 2 3 4 5 6
○
Code 15E-6P26

RAM
AUTO
UP DOWN
○
Code 15C-3R13

RAM
OFF FLOAT DOWN
UP
○
Code 15C-4R17

LUBE PUMP
OFF AUTO
HAND
○
Code 15C-3L19

MANUAL OIL PUMP
OFF AUTO
PUMP
○
Code 15C-3M24C

MASTER CONTROL
AUTO OFF TEST
○
Code 15C-3M24

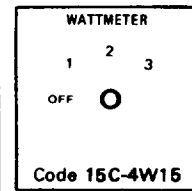
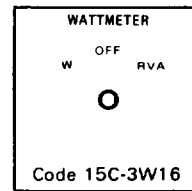
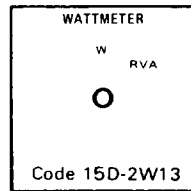
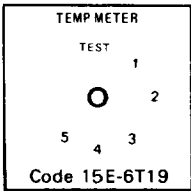
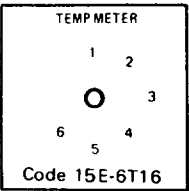
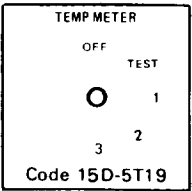
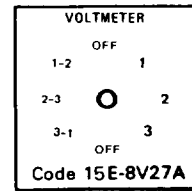
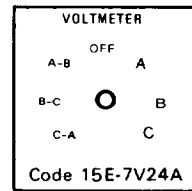
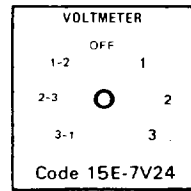
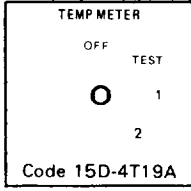
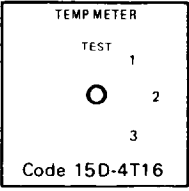
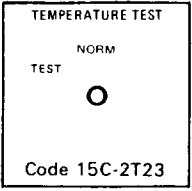
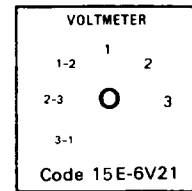
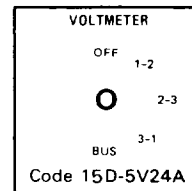
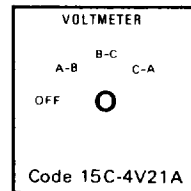
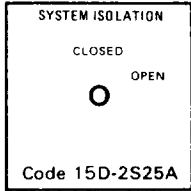
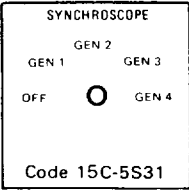
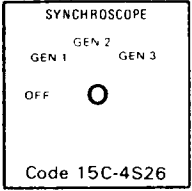
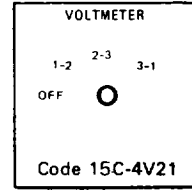
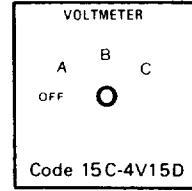
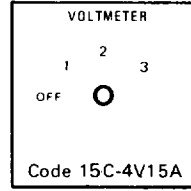
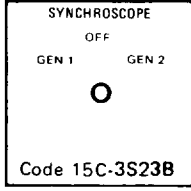
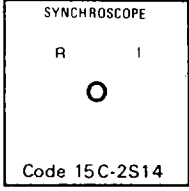
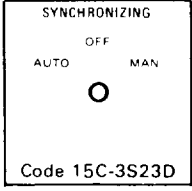
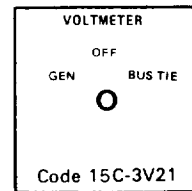
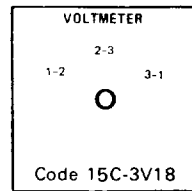
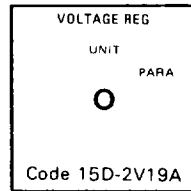
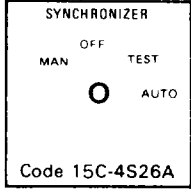
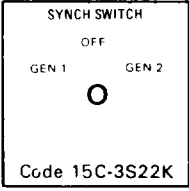
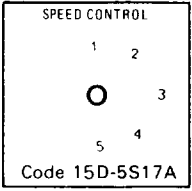
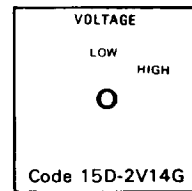
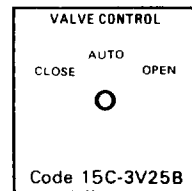
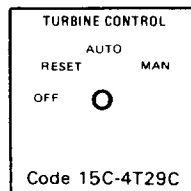
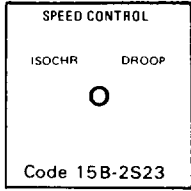
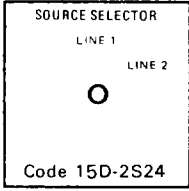
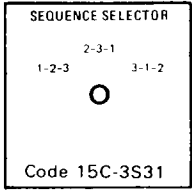
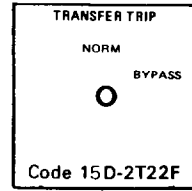
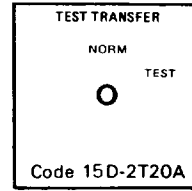
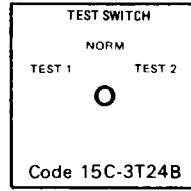
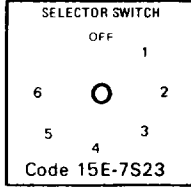
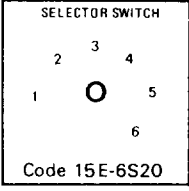
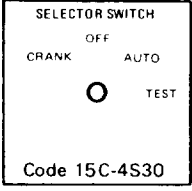
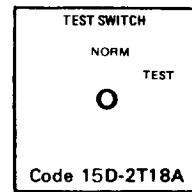
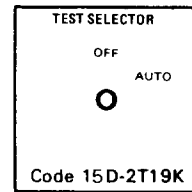
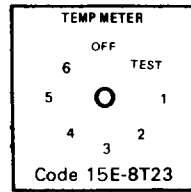
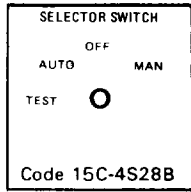
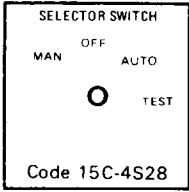
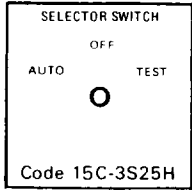
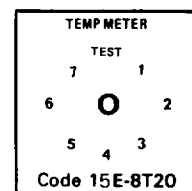
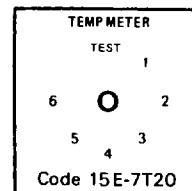
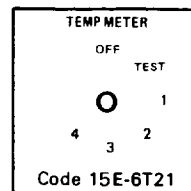
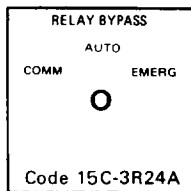
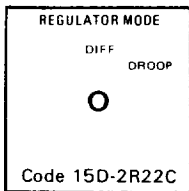
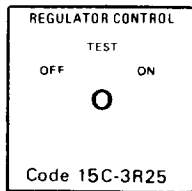
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○
Code 15D-2R17C

RECORDER
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○
Code 15D-2R21E


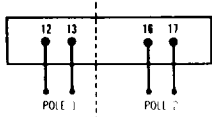

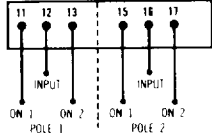

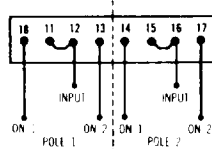
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Standard Nameplate Engravings Listed by Title


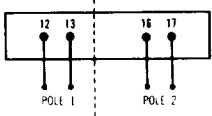

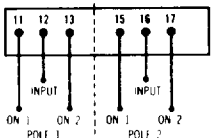

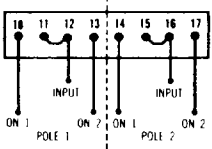
Standard Nameplate Engravings Listed by Title



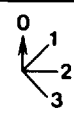
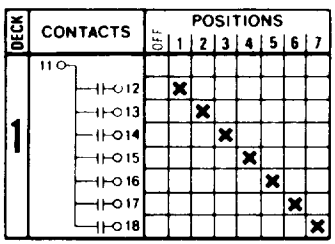
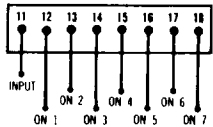
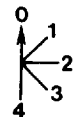
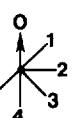
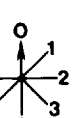
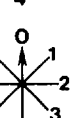
DETENT ACTION ROTARY SWITCHES

DESCRIPTION	STOPS	CONTACTING AND WIRING DIAGRAMS	CATALOG NUMBERS																																									
<p>OFF - ON SWITCH SINGLE-THROW</p> 	1 & 7	<p>This first deck is shown. Contacting is identical for all decks. The contact number changes. The first digit is the deck number; e.g. <u>11</u> is deck <u>1</u>, <u>21</u> is deck <u>2</u>, etc.</p> <table border="1" style="font-size: small;"> <tr><th>DECK</th><th>CONTACTS</th><th>POS.</th></tr> <tr><td rowspan="2">1</td><td>12-O-1-1-13</td><td>OUT ON</td></tr> <tr><td>16-O-1-1-17</td><td>OUT ON</td></tr> </table> 	DECK	CONTACTS	POS.	1	12-O-1-1-13	OUT ON	16-O-1-1-17	OUT ON	<p>The catalog numbers are for universal switches that provide all contacting shown. Oval handle supplied.</p> <p>To limit switches to positions shown put limit screws in holes in rear stop plate shown as "STOPS".</p> <table border="1" style="font-size: x-small; width: 100%;"> <thead> <tr> <th>Decks</th> <th>Catalog Numbers</th> <th>inches*</th> </tr> </thead> <tbody> <tr><td>1</td><td>24201G</td><td>2.4</td></tr> <tr><td>2</td><td>24202G</td><td>2.9</td></tr> <tr><td>3</td><td>24203G</td><td>3.6</td></tr> <tr><td>4</td><td>24204G</td><td>4.3</td></tr> <tr><td>5</td><td>24205G</td><td>4.8</td></tr> <tr><td>6</td><td>24206G</td><td>5.4</td></tr> <tr><td>7</td><td>24207G</td><td>6.2</td></tr> <tr><td>8</td><td>24208G</td><td>6.8</td></tr> <tr><td>9</td><td>24209G</td><td>7.4</td></tr> <tr><td>10</td><td>24210G</td><td>8.0</td></tr> </tbody> </table> <p style="font-size: x-small;">*depth behind panel</p>	Decks	Catalog Numbers	inches*	1	24201G	2.4	2	24202G	2.9	3	24203G	3.6	4	24204G	4.3	5	24205G	4.8	6	24206G	5.4	7	24207G	6.2	8	24208G	6.8	9	24209G	7.4	10	24210G	8.0
DECK	CONTACTS	POS.																																										
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10	24210G	8.0																																										
<p>DOUBLE THROW SWITCH (NO OFF)</p> 	1 & 7	<table border="1" style="font-size: small;"> <tr><th>DECK</th><th>CONTACTS</th><th>POS.</th></tr> <tr><td rowspan="2">1</td><td>12-O-1-1-11</td><td>1 2</td></tr> <tr><td>12-O-1-1-13</td><td>1 2</td></tr> <tr><td rowspan="2">16</td><td>16-O-1-1-15</td><td>1 2</td></tr> <tr><td>16-O-1-1-17</td><td>1 2</td></tr> </table> 	DECK	CONTACTS	POS.	1	12-O-1-1-11	1 2	12-O-1-1-13	1 2	16	16-O-1-1-15	1 2	16-O-1-1-17	1 2																													
DECK	CONTACTS	POS.																																										
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<p>DOUBLE THROW SWITCH (WITH OFF)</p> 	2 & 7	<table border="1" style="font-size: small;"> <tr><th>DECK</th><th>CONTACTS</th><th>POS.</th></tr> <tr><td rowspan="2">1</td><td>11-O-1-1-18</td><td>1 2</td></tr> <tr><td>12-O-1-1-13</td><td>1 2</td></tr> <tr><td rowspan="2">15</td><td>15-O-1-1-14</td><td>1 2</td></tr> <tr><td>16-O-1-1-17</td><td>1 2</td></tr> </table>  <p>Order the jumpers for this arrangement separately (2 per deck P/N 02011-10-C3).</p>	DECK	CONTACTS	POS.	1	11-O-1-1-18	1 2	12-O-1-1-13	1 2	15	15-O-1-1-14	1 2	16-O-1-1-17	1 2																													
DECK	CONTACTS	POS.																																										
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15	15-O-1-1-14	1 2																																										
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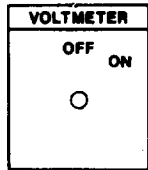
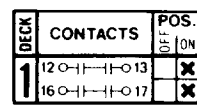
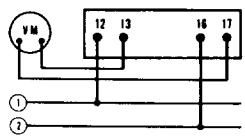
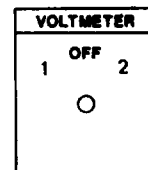
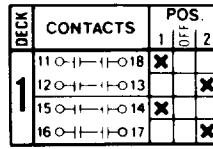
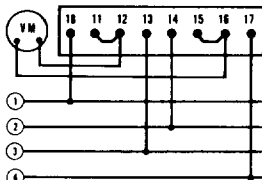
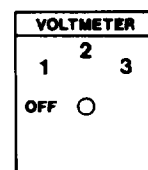
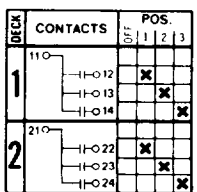
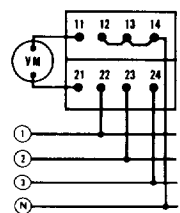
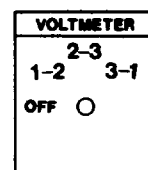
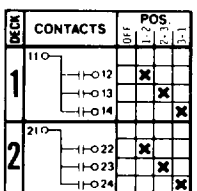
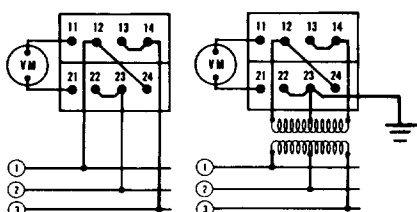
MOMENTARY (spring-return) ACTION ROTARY SWITCHES

DESCRIPTION	STOPS	CONTACTING AND WIRING DIAGRAMS	CATALOG NUMBERS																										
<p>OFF - ON SWITCH SINGLE-THROW</p> 	1 & 7	<p>This first deck is shown. Contacting is identical* for all decks. The contact number changes. The first digit is the deck number; e.g. <u>11</u> is deck <u>1</u>, <u>21</u> is deck <u>2</u>, etc.</p> <table border="1" style="font-size: small;"> <tr><th>DECK</th><th>CONTACTS</th><th>POS.</th></tr> <tr><td rowspan="2">1</td><td>12-O-1-1-13</td><td>OUT ON</td></tr> <tr><td>16-O-1-1-17</td><td>OUT ON</td></tr> </table> 	DECK	CONTACTS	POS.	1	12-O-1-1-13	OUT ON	16-O-1-1-17	OUT ON	<p>The catalog numbers are for universal switches that provide all contacting shown. Oval handle supplied.</p> <p>To limit switches to positions shown put limit screws in holes in rear stop plate shown as "STOPS".</p> <table border="1" style="font-size: x-small; width: 100%;"> <thead> <tr> <th>Decks</th> <th>Catalog Numbers</th> <th>inches*</th> </tr> </thead> <tbody> <tr><td>1</td><td>74201G</td><td>2.4</td></tr> <tr><td>2</td><td>74202G</td><td>2.9</td></tr> <tr><td>3</td><td>74203G</td><td>3.6</td></tr> <tr><td>4</td><td>74204G</td><td>4.3</td></tr> <tr><td>5</td><td>74205G</td><td>4.8</td></tr> </tbody> </table> <p style="font-size: x-small;">*depth behind panel</p>	Decks	Catalog Numbers	inches*	1	74201G	2.4	2	74202G	2.9	3	74203G	3.6	4	74204G	4.3	5	74205G	4.8
DECK	CONTACTS	POS.																											
1	12-O-1-1-13	OUT ON																											
	16-O-1-1-17	OUT ON																											
Decks	Catalog Numbers	inches*																											
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3	74203G	3.6																											
4	74204G	4.3																											
5	74205G	4.8																											
<p>DOUBLE THROW SWITCH (NO OFF)</p> 	1 & 7	<table border="1" style="font-size: small;"> <tr><th>DECK</th><th>CONTACTS</th><th>POS.</th></tr> <tr><td rowspan="2">1</td><td>12-O-1-1-11</td><td>1 2</td></tr> <tr><td>12-O-1-1-13</td><td>1 2</td></tr> <tr><td rowspan="2">16</td><td>16-O-1-1-15</td><td>1 2</td></tr> <tr><td>16-O-1-1-17</td><td>1 2</td></tr> </table> 	DECK	CONTACTS	POS.	1	12-O-1-1-11	1 2	12-O-1-1-13	1 2	16	16-O-1-1-15	1 2	16-O-1-1-17	1 2														
DECK	CONTACTS	POS.																											
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	16-O-1-1-17	1 2																											
<p>DOUBLE THROW SWITCH (WITH OFF)</p> 	2 & 7	<table border="1" style="font-size: small;"> <tr><th>DECK</th><th>CONTACTS</th><th>POS.</th></tr> <tr><td rowspan="2">1</td><td>11-O-1-1-18</td><td>1 2</td></tr> <tr><td>12-O-1-1-13</td><td>1 2</td></tr> <tr><td rowspan="2">15</td><td>15-O-1-1-14</td><td>1 2</td></tr> <tr><td>16-O-1-1-17</td><td>1 2</td></tr> </table>  <p>Order the jumpers for this arrangement separately (2 per deck P/N 02011-10-C3).</p>	DECK	CONTACTS	POS.	1	11-O-1-1-18	1 2	12-O-1-1-13	1 2	15	15-O-1-1-14	1 2	16-O-1-1-17	1 2														
DECK	CONTACTS	POS.																											
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	12-O-1-1-13	1 2																											
15	15-O-1-1-14	1 2																											
	16-O-1-1-17	1 2																											

ROTARY TAP SWITCHES

DESCRIPTION	STOPS	CONTACTING AND WIRING DIAGRAMS	CATALOG NUMBERS																																	
TRIPLE-THROW SWITCH (with off) 	1 & 5	This first deck is shown. Contacting is identical for all decks. The contact number changes. The first digit is the deck number; e.g. <u>1</u> 1 is deck <u>1</u> , <u>2</u> 1 is deck <u>2</u> , etc.  	The catalog numbers are for universal switches that provide all contacting shown. Oval handle supplied. To limit switches to positions shown put limit screws in holes in rear stop plate shown as "STOPS". <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Decks</th> <th>Catalog Numbers</th> <th>inches*</th> </tr> </thead> <tbody> <tr><td>1</td><td>24301G</td><td>2.4</td></tr> <tr><td>2</td><td>24302G</td><td>2.9</td></tr> <tr><td>3</td><td>24303G</td><td>3.6</td></tr> <tr><td>4</td><td>24304G</td><td>4.3</td></tr> <tr><td>5</td><td>24305G</td><td>4.8</td></tr> <tr><td>6</td><td>24306G</td><td>5.4</td></tr> <tr><td>7</td><td>24307G</td><td>6.2</td></tr> <tr><td>8</td><td>24308G</td><td>6.8</td></tr> <tr><td>9</td><td>24309G</td><td>7.4</td></tr> <tr><td>10</td><td>24310G</td><td>8.0</td></tr> </tbody> </table> *depth behind panel	Decks	Catalog Numbers	inches*	1	24301G	2.4	2	24302G	2.9	3	24303G	3.6	4	24304G	4.3	5	24305G	4.8	6	24306G	5.4	7	24307G	6.2	8	24308G	6.8	9	24309G	7.4	10	24310G	8.0
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10	24310G	8.0																																		
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5-THROW SWITCH (with off) 	1 & 3																																			
6-THROW SWITCH (with off) 	1 & 2																																			
7-THROW SWITCH (with off) 	none																																			

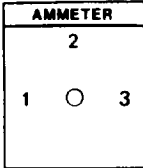
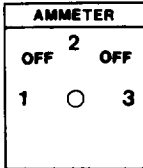
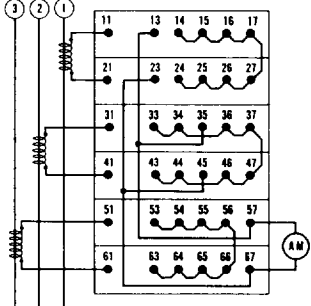
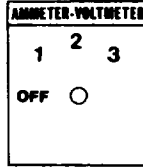
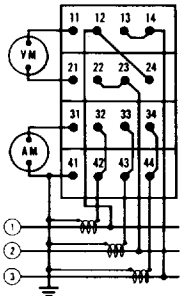
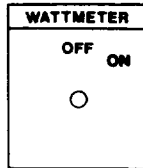
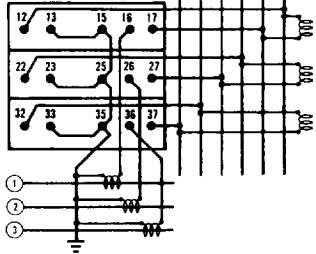
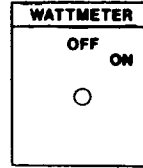
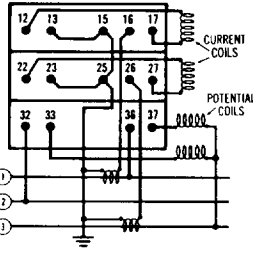
ROTARY SWITCHES for INSTRUMENT and CONTROL

APPLICATION	ESCUTCHEON	CONTACTING AND WIRING DIAGRAMS
VOLTMETER TRANSFER SWITCH 2-wire. Single-phase or d-c Double-pole single-throw Handle: Round, knurled Cat. No. 2401H Depth behind panel - 2.4	 Code 15D-2V14	 
VOLTMETER TRANSFER SWITCH 4-wire. Two-phase or two separate d-c circuits Double-pole double-throw Handle: Round, knurled Cat. No. 2402H Depth behind panel - 2.4	 Code 15C-3V14	 
VOLTMETER TRANSFER SWITCH 3-phase, phase-to-neutral Double-pole triple-throw Handle: Round, knurled Cat. No. 2403H Depth behind panel - 2.9	 Code 15C-4V15A	 
VOLTMETER TRANSFER SWITCH 3-phase, phase-to-phase Double-pole triple-throw Handle: Round, knurled Cat. No. 2404H Depth behind panel - 2.9	 Code 15C-4V21	 

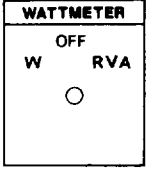
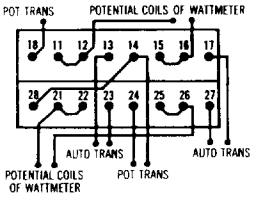
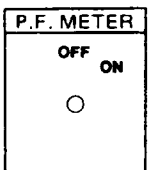
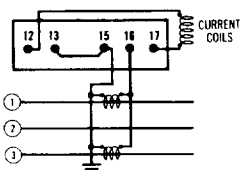
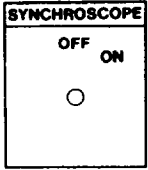
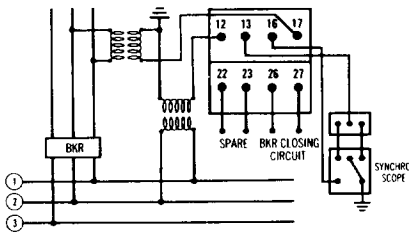
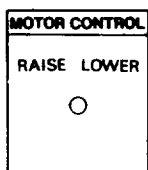
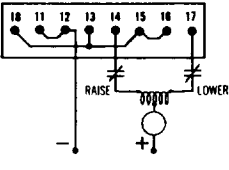
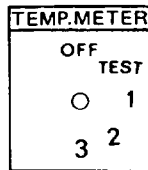
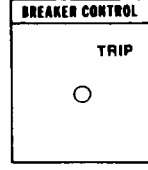
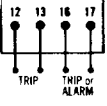
ROTARY SWITCHES for INSTRUMENT and CONTROL

APPLICATION	ESCUTCHEON	CONTACTING AND WIRING DIAGRAMS																										
<p>VOLTMETER TRANSFER SWITCH</p> <p>3-phase, phase-to-phase and phase-to-neutral Double-pole six-throw Handle: Round, knurled</p> <p>Cat. No. 2405H Depth behind panel – 2.9</p>	<p>VOLTMETER</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td colspan="3">OFF</td></tr> <tr><td>1-2</td><td>1</td><td></td></tr> <tr><td>2-3</td><td>○</td><td>2</td></tr> <tr><td>3-1</td><td></td><td>3</td></tr> </table> <p>Code 15E-7V24</p>	OFF			1-2	1		2-3	○	2	3-1		3															
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<p>VOLTMETER TRANSFER SWITCH</p> <p>6-wire. Two 3-phase circuits; phase-to-phase Double-pole six-throw Handle: Round, knurled</p> <p>Cat. No. 2406H Depth behind panel – 2.9</p>	<p>VOLTMETER</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td colspan="3">OFF</td></tr> <tr><td>3-1</td><td></td><td>1-2</td></tr> <tr><td>2-3</td><td>○</td><td>2-3</td></tr> <tr><td>1-2</td><td></td><td>3-1</td></tr> <tr><td colspan="3">OFF</td></tr> </table> <p>Code 15E-8V33</p>	OFF			3-1		1-2	2-3	○	2-3	1-2		3-1	OFF														
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<p>AMMETER TRANSFER SWITCH</p> <p>3-phase, two current-transformers Handle: Round, knurled</p> <p>Cat. No. 2407H Depth behind panel – 2.9</p>	<p>AMMETER</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>1</td><td>2</td><td>3</td></tr> <tr><td colspan="3">○</td></tr> </table> <p>Code 15C-3A10A</p>	1	2	3	○			<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>DECK</th> <th>CONTACTS</th> <th>POSITIONS</th> </tr> <tr> <th></th> <th></th> <th>1 * 2 * 3</th> </tr> </thead> <tbody> <tr> <td rowspan="3">1</td> <td>11 ○</td> <td></td> </tr> <tr> <td>11-13</td> <td>× × × × ×</td> </tr> <tr> <td>11-14</td> <td>× × × × ×</td> </tr> <tr> <td rowspan="3">2</td> <td>21 ○</td> <td></td> </tr> <tr> <td>21-23</td> <td>× × × × ×</td> </tr> <tr> <td>21-24</td> <td>× × × × ×</td> </tr> </tbody> </table> <p>* denotes make-before-break</p>	DECK	CONTACTS	POSITIONS			1 * 2 * 3	1	11 ○		11-13	× × × × ×	11-14	× × × × ×	2	21 ○		21-23	× × × × ×	21-24	× × × × ×
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<p>AMMETER TRANSFER SWITCH</p> <p>3-phase, two current-transformers Handle: Round, knurled</p> <p>Cat. No. 2408H Depth behind panel – 2.9</p>	<p>AMMETER</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>1</td><td>2</td><td>3</td></tr> <tr><td colspan="3">OFF ○</td></tr> </table> <p>Code 15C-4A13</p>	1	2	3	OFF ○			<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>DECK</th> <th>CONTACTS</th> <th>POSITIONS</th> </tr> <tr> <th></th> <th></th> <th>OFF * 1 * 2 * 3</th> </tr> </thead> <tbody> <tr> <td rowspan="3">1</td> <td>11 ○</td> <td></td> </tr> <tr> <td>11-13</td> <td>× × × × ×</td> </tr> <tr> <td>11-14</td> <td>× × × × ×</td> </tr> <tr> <td rowspan="3">2</td> <td>21 ○</td> <td></td> </tr> <tr> <td>21-23</td> <td>× × × × ×</td> </tr> <tr> <td>21-24</td> <td>× × × × ×</td> </tr> </tbody> </table> <p>* denotes make-before-break</p>	DECK	CONTACTS	POSITIONS			OFF * 1 * 2 * 3	1	11 ○		11-13	× × × × ×	11-14	× × × × ×	2	21 ○		21-23	× × × × ×	21-24	× × × × ×
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<p>AMMETER TRANSFER SWITCH</p> <p>3-phase, three current-transformers Handle: Round, knurled</p> <p>Cat. No. 2409H Depth behind panel – 2.9</p>	<p>AMMETER</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>1</td><td>2</td><td>3</td></tr> <tr><td colspan="3">○</td></tr> </table> <p>Code 15C-3A10A</p>	1	2	3	○			<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>DECK</th> <th>CONTACTS</th> <th>POSITIONS</th> </tr> <tr> <th></th> <th></th> <th>1 * 2 * 3</th> </tr> </thead> <tbody> <tr> <td rowspan="3">1</td> <td>11 ○</td> <td></td> </tr> <tr> <td>11-12</td> <td>× × × × ×</td> </tr> <tr> <td>11-14</td> <td>× × × × ×</td> </tr> <tr> <td rowspan="3">2</td> <td>21 ○</td> <td></td> </tr> <tr> <td>21-22</td> <td>× × × × ×</td> </tr> <tr> <td>21-24</td> <td>× × × × ×</td> </tr> </tbody> </table> <p>* denotes make-before-break</p>	DECK	CONTACTS	POSITIONS			1 * 2 * 3	1	11 ○		11-12	× × × × ×	11-14	× × × × ×	2	21 ○		21-22	× × × × ×	21-24	× × × × ×
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<p>AMMETER TRANSFER SWITCH</p> <p>3-phase, three current-transformers Handle: Round, knurled</p> <p>Cat. No. 2410H Depth behind panel – 2.9</p>	<p>AMMETER</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>1</td><td>2</td><td>3</td></tr> <tr><td colspan="3">OFF ○</td></tr> </table> <p>Code 15C-4A13</p>	1	2	3	OFF ○			<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>DECK</th> <th>CONTACTS</th> <th>POSITIONS</th> </tr> <tr> <th></th> <th></th> <th>OFF * 1 * 2 * 3</th> </tr> </thead> <tbody> <tr> <td rowspan="3">1</td> <td>11 ○</td> <td></td> </tr> <tr> <td>11-12</td> <td>× × × × ×</td> </tr> <tr> <td>11-14</td> <td>× × × × ×</td> </tr> <tr> <td rowspan="3">2</td> <td>21 ○</td> <td></td> </tr> <tr> <td>21-22</td> <td>× × × × ×</td> </tr> <tr> <td>21-24</td> <td>× × × × ×</td> </tr> </tbody> </table> <p>* denotes make-before-break</p>	DECK	CONTACTS	POSITIONS			OFF * 1 * 2 * 3	1	11 ○		11-12	× × × × ×	11-14	× × × × ×	2	21 ○		21-22	× × × × ×	21-24	× × × × ×
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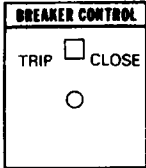
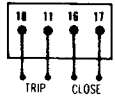
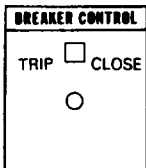
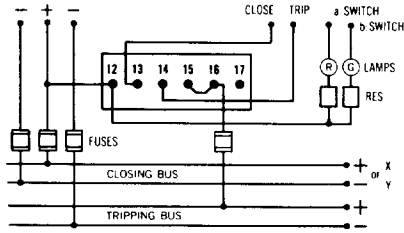
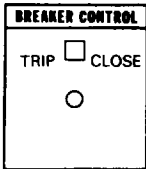
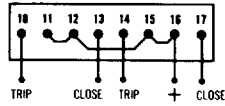
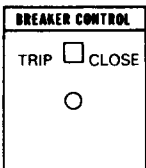
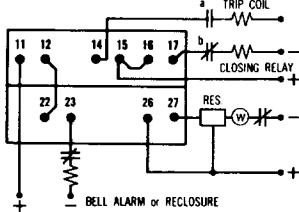
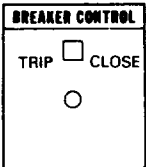
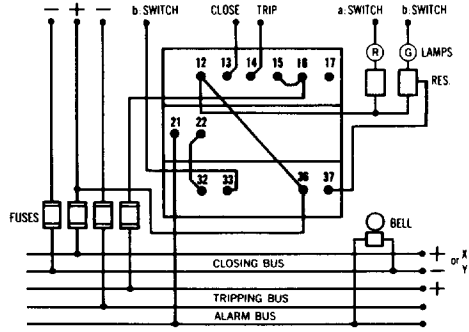
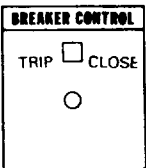
ROTARY SWITCHES for INSTRUMENT and CONTROL

APPLICATION	ESCUTCHEON	CONTACTING AND WIRING DIAGRAMS																																																																																																																																																														
<p>AMMETER TRANSFER SWITCH</p> <p>3-phase three current-transformers three independent circuits</p> <p>Handle: Round, knurled</p> <p>NO OFF Cat. No. 2411H</p> <p>WITH OFF Cat. No. 2412H</p> <p>Depth behind panel – 5.4</p>	 <p>Code 15A-3A10</p>  <p>Code 15C-5A16</p>	<table border="1" style="font-size: small; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">DECK</th> <th rowspan="2">CONTACTS</th> <th colspan="3">POSITIONS</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> </tr> </thead> <tbody> <tr> <td rowspan="6">1</td> <td>11-13</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>11-14</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>11-15</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>11-16</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>11-17</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>11-18</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td rowspan="6">2</td> <td>21-23</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>21-24</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>21-25</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>21-26</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>21-27</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>21-28</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td rowspan="6">3</td> <td>31-33</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>31-34</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>31-35</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>31-36</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>31-37</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>31-38</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td rowspan="6">4</td> <td>41-43</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>41-44</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>41-45</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>41-46</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>41-47</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>41-48</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td rowspan="6">5</td> <td>51-53</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>51-54</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>51-55</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>51-56</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>51-57</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>51-58</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td rowspan="6">6</td> <td>61-63</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>61-64</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>61-65</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>61-66</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>61-67</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>61-68</td> <td>X</td> <td></td> <td></td> </tr> </tbody> </table>  <p style="text-align: center;">* denotes shorting contacts</p>	DECK	CONTACTS	POSITIONS			1	2	3	1	11-13	X			11-14	X			11-15	X			11-16	X			11-17	X			11-18	X			2	21-23	X			21-24	X			21-25	X			21-26	X			21-27	X			21-28	X			3	31-33	X			31-34	X			31-35	X			31-36	X			31-37	X			31-38	X			4	41-43	X			41-44	X			41-45	X			41-46	X			41-47	X			41-48	X			5	51-53	X			51-54	X			51-55	X			51-56	X			51-57	X			51-58	X			6	61-63	X			61-64	X			61-65	X			61-66	X			61-67	X			61-68	X		
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<p>AMMETER-VOLTMETER TRANSFER SWITCH</p> <p>3-phase, phase-to-phase three current-transformers</p> <p>Handle: Round, knurled</p> <p>Cat. No. 2415H</p> <p>Depth behind panel – 4.3</p>	 <p>Code 15C-4A23C</p>	<table border="1" style="font-size: small; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">DECK</th> <th rowspan="2">CONTACTS</th> <th colspan="3">POSITIONS</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> </tr> </thead> <tbody> <tr> <td rowspan="4">1</td> <td>11-12</td> <td></td> <td>X</td> <td></td> </tr> <tr> <td>11-13</td> <td></td> <td>X</td> <td></td> </tr> <tr> <td>11-14</td> <td></td> <td>X</td> <td></td> </tr> <tr> <td>11-15</td> <td></td> <td>X</td> <td></td> </tr> <tr> <td rowspan="4">2</td> <td>21-22</td> <td></td> <td>X</td> <td></td> </tr> <tr> <td>21-23</td> <td></td> <td>X</td> <td></td> </tr> <tr> <td>21-24</td> <td></td> <td>X</td> <td></td> </tr> <tr> <td>21-25</td> <td></td> <td>X</td> <td></td> </tr> <tr> <td rowspan="4">3</td> <td>31-32</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>31-33</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>31-34</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>31-35</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td rowspan="4">4</td> <td>41-42</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>41-43</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>41-44</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>41-45</td> <td>X</td> <td></td> <td></td> </tr> </tbody> </table>  <p style="text-align: center;">* denotes shorting contacts</p>	DECK	CONTACTS	POSITIONS			1	2	3	1	11-12		X		11-13		X		11-14		X		11-15		X		2	21-22		X		21-23		X		21-24		X		21-25		X		3	31-32	X			31-33	X			31-34	X			31-35	X			4	41-42	X			41-43	X			41-44	X			41-45	X																																																																																				
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<p>WATTMETER TRANSFER SWITCH</p> <p>3-phase two current-transformers two current-coils two potential coils</p> <p>Handle: Round, knurled</p> <p>Cat. No. 2420H</p> <p>Depth behind panel – 3.6</p>	 <p>Code 15D-2W14</p>	<table border="1" style="font-size: small; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">DECK</th> <th rowspan="2">CONTACTS</th> <th colspan="2">POS.</th> </tr> <tr> <th>1</th> <th>2</th> </tr> </thead> <tbody> <tr> <td rowspan="3">1</td> <td>12-13</td> <td>X</td> <td>X</td> </tr> <tr> <td>16-15</td> <td>X</td> <td>X</td> </tr> <tr> <td>16-17</td> <td>X</td> <td>X</td> </tr> <tr> <td rowspan="3">2</td> <td>22-23</td> <td>X</td> <td>X</td> </tr> <tr> <td>26-25</td> <td>X</td> <td>X</td> </tr> <tr> <td>26-27</td> <td>X</td> <td>X</td> </tr> <tr> <td rowspan="3">3</td> <td>32-33</td> <td>X</td> <td>X</td> </tr> <tr> <td>36-35</td> <td>X</td> <td>X</td> </tr> <tr> <td>36-37</td> <td>X</td> <td>X</td> </tr> </tbody> </table>  <p style="text-align: center;">* denotes shorting contacts</p>	DECK	CONTACTS	POS.		1	2	1	12-13	X	X	16-15	X	X	16-17	X	X	2	22-23	X	X	26-25	X	X	26-27	X	X	3	32-33	X	X	36-35	X	X	36-37	X	X																																																																																																																										
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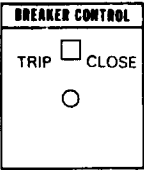
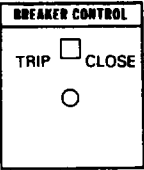
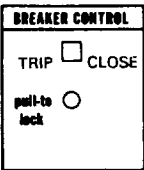
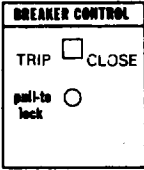
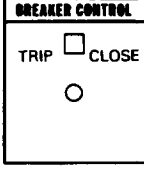
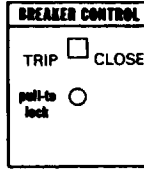
ROTARY SWITCHES for INSTRUMENT and CONTROL

APPLICATION	ESCUTCHEON	CONTACTING AND WIRING DIAGRAMS																																										
<p>WATTMETER REVERSING SWITCH</p> <p>Handle: Round, knurled</p> <p>Cat. No. 2421H</p> <p>Depth behind panel — 2.9</p>		<table border="1" style="margin-bottom: 10px;"> <thead> <tr> <th rowspan="2">DECK</th> <th rowspan="2">CONTACTS</th> <th colspan="2">POS.</th> </tr> <tr> <th>W</th> <th>RVA</th> </tr> </thead> <tbody> <tr> <td rowspan="5">1</td> <td>11-18</td> <td>X</td> <td></td> </tr> <tr> <td>12-13</td> <td></td> <td>X</td> </tr> <tr> <td>15-14</td> <td></td> <td>X</td> </tr> <tr> <td>16-17</td> <td></td> <td>X</td> </tr> <tr> <td>21-28</td> <td>X</td> <td></td> </tr> <tr> <td rowspan="4">2</td> <td>22-23</td> <td>X</td> <td></td> </tr> <tr> <td>25-24</td> <td>X</td> <td></td> </tr> <tr> <td>26-27</td> <td>X</td> <td></td> </tr> <tr> <td>26-27</td> <td>X</td> <td></td> </tr> </tbody> </table> 	DECK	CONTACTS	POS.		W	RVA	1	11-18	X		12-13		X	15-14		X	16-17		X	21-28	X		2	22-23	X		25-24	X		26-27	X		26-27	X								
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<p>POWER-FACTOR SWITCH</p> <p>3-phase two current-transformers one or two current-coils</p> <p>Handle: Round, knurled</p> <p>Cat. No. 2422H</p> <p>Depth behind panel — 2.4</p>		<table border="1" style="margin-bottom: 10px;"> <thead> <tr> <th rowspan="2">DECK</th> <th rowspan="2">CONTACTS</th> <th colspan="2">POS.</th> </tr> <tr> <th>OFF</th> <th>ON</th> </tr> </thead> <tbody> <tr> <td rowspan="2">1</td> <td>12-13</td> <td></td> <td>X</td> </tr> <tr> <td>16-17</td> <td>X</td> <td></td> </tr> </tbody> </table> <p style="text-align: center;">Deck 1 shorting contacts</p> 	DECK	CONTACTS	POS.		OFF	ON	1	12-13		X	16-17	X																														
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<p>SYNCHRONIZING SWITCH</p> <p>Machine-to-bus with interlocks</p> <p>Handle: Oval, removable</p> <p>Cat. No. 2424G</p> <p>Depth behind panel — 2.9</p>		<table border="1" style="margin-bottom: 10px;"> <thead> <tr> <th rowspan="2">DECK</th> <th rowspan="2">CONTACTS</th> <th colspan="2">POS.</th> </tr> <tr> <th>OFF</th> <th>ON</th> </tr> </thead> <tbody> <tr> <td rowspan="2">1</td> <td>12-13</td> <td>X</td> <td></td> </tr> <tr> <td>16-17</td> <td>X</td> <td></td> </tr> <tr> <td rowspan="2">2</td> <td>22-23</td> <td>X</td> <td></td> </tr> <tr> <td>26-27</td> <td>X</td> <td></td> </tr> </tbody> </table> 	DECK	CONTACTS	POS.		OFF	ON	1	12-13	X		16-17	X		2	22-23	X		26-27	X																							
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<p>MOTOR CONTROL SWITCH GOVERNOR OR RHEOSTAT</p> <p>Split-field motor</p> <p>Handle: Pistol-grip Spring-return</p> <p>Cat. No. 2427J</p> <p>Depth behind panel — 2.4</p>		<table border="1" style="margin-bottom: 10px;"> <thead> <tr> <th rowspan="2">DECK</th> <th rowspan="2">CONTACTS</th> <th colspan="2">POS.</th> </tr> <tr> <th>RAISE</th> <th>LOWER</th> </tr> </thead> <tbody> <tr> <td rowspan="4">1</td> <td>11-18</td> <td>X</td> <td></td> </tr> <tr> <td>12-13</td> <td></td> <td>X</td> </tr> <tr> <td>15-14</td> <td>X</td> <td></td> </tr> <tr> <td>16-17</td> <td></td> <td>X</td> </tr> </tbody> </table> 	DECK	CONTACTS	POS.		RAISE	LOWER	1	11-18	X		12-13		X	15-14	X		16-17		X																							
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<p>TEMPERATURE METER TRANSFER SWITCH</p> <p>Transfers two wires to three coils with TEST and OFF</p> <p>Handle: Round, knurled</p> <p>Cat. No. 2432H</p> <p>Depth behind panel — 2.9</p>		<table border="1" style="margin-bottom: 10px;"> <thead> <tr> <th rowspan="2">DECK</th> <th rowspan="2">CONTACTS</th> <th colspan="3">POSITIONS</th> </tr> <tr> <th>OFF</th> <th>TEST</th> <th>1 2 3</th> </tr> </thead> <tbody> <tr> <td rowspan="4">1</td> <td>11-12</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>11-13</td> <td></td> <td>X</td> <td></td> </tr> <tr> <td>11-14</td> <td></td> <td></td> <td>X</td> </tr> <tr> <td>11-15</td> <td></td> <td></td> <td>X</td> </tr> <tr> <td rowspan="4">2</td> <td>21-22</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>21-23</td> <td></td> <td>X</td> <td></td> </tr> <tr> <td>21-24</td> <td></td> <td></td> <td>X</td> </tr> <tr> <td>21-25</td> <td></td> <td></td> <td>X</td> </tr> </tbody> </table> <p style="text-align: center;">* Deck #2 shorting contacts</p>	DECK	CONTACTS	POSITIONS			OFF	TEST	1 2 3	1	11-12	X			11-13		X		11-14			X	11-15			X	2	21-22	X			21-23		X		21-24			X	21-25			X
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<p>CIRCUIT BREAKER TRIP SWITCH</p> <p>Double-pole single-throw contacts normally open</p> <p>Handle: Pistol grip Spring-return</p> <p>Cat. No. 2436J</p> <p>Depth behind panel — 2.4</p>		<table border="1" style="margin-bottom: 10px;"> <thead> <tr> <th rowspan="2">DECK</th> <th rowspan="2">CONTACTS</th> <th colspan="2">POS.</th> </tr> <tr> <th>normal</th> <th>TRIP</th> </tr> </thead> <tbody> <tr> <td rowspan="2">1</td> <td>12-13</td> <td></td> <td>X</td> </tr> <tr> <td>16-17</td> <td>X</td> <td></td> </tr> </tbody> </table> 	DECK	CONTACTS	POS.		normal	TRIP	1	12-13		X	16-17	X																														
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ROTARY SWITCHES for INSTRUMENT and CONTROL

APPLICATION	ESCUTCHEON	CONTACTING AND WIRING DIAGRAMS																																																																												
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<p>CIRCUIT BREAKER CONTROL SWITCH</p> <p>Handle: Pistol-grip Spring-return Pull-to-lock</p> <p>UNIVERSAL CIRCUIT</p> <p>Cat. No. 2458J</p> <p>Depth behind panel – 7.4</p>	 <p>Code 23B-3B33</p>	<table border="1"> <thead> <tr> <th rowspan="2">DECK</th> <th rowspan="2">CONTACTS</th> <th colspan="4">POSITIONS</th> </tr> <tr> <th>PULL-TO-LOCK</th> <th>TRIP</th> <th>n.a.t.</th> <th>CLOSE</th> </tr> </thead> <tbody> <tr> <td rowspan="2">1</td> <td>12 O-H-I-O-13</td> <td></td> <td></td> <td></td> <td>X</td> </tr> <tr> <td>16 O-H-I-O-17</td> <td></td> <td></td> <td></td> <td>X</td> </tr> <tr> <td rowspan="2">2</td> <td>21 O-H-I-O-28</td> <td>X</td> <td></td> <td></td> <td></td> </tr> <tr> <td>24 O-H-I-O-25</td> <td>X</td> <td></td> <td></td> <td></td> </tr> <tr> <td rowspan="2">3</td> <td>33 O-H-I-O-34</td> <td>X</td> <td></td> <td></td> <td></td> </tr> <tr> <td>37 O-H-I-O-38</td> <td>X</td> <td></td> <td></td> <td></td> </tr> <tr> <td rowspan="2">4</td> <td>41 O-H-I-O-42</td> <td></td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>49 O-H-I-O-46</td> <td></td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td rowspan="2">5</td> <td>52 O-H-I-O-53</td> <td></td> <td></td> <td></td> <td>X</td> </tr> <tr> <td>56 O-H-I-O-57</td> <td></td> <td></td> <td></td> <td>X</td> </tr> <tr> <td rowspan="2">6</td> <td>61 O-H-I-O-62</td> <td>X</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>69 O-H-I-O-66</td> <td>X</td> <td>X</td> <td></td> <td></td> </tr> </tbody> </table>	DECK	CONTACTS	POSITIONS				PULL-TO-LOCK	TRIP	n.a.t.	CLOSE	1	12 O-H-I-O-13				X	16 O-H-I-O-17				X	2	21 O-H-I-O-28	X				24 O-H-I-O-25	X				3	33 O-H-I-O-34	X				37 O-H-I-O-38	X				4	41 O-H-I-O-42		X	X		49 O-H-I-O-46		X	X		5	52 O-H-I-O-53				X	56 O-H-I-O-57				X	6	61 O-H-I-O-62	X	X			69 O-H-I-O-66	X	X		
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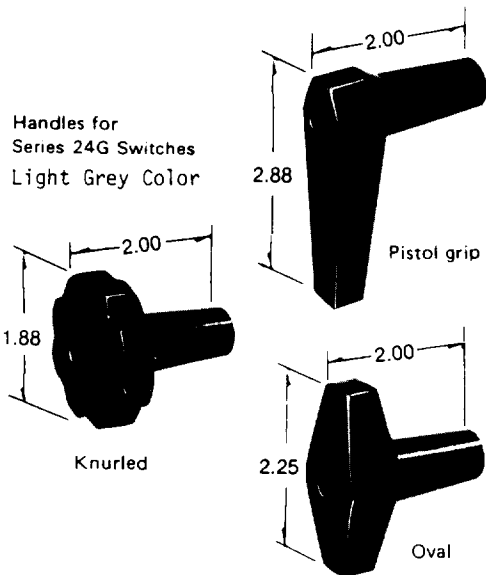
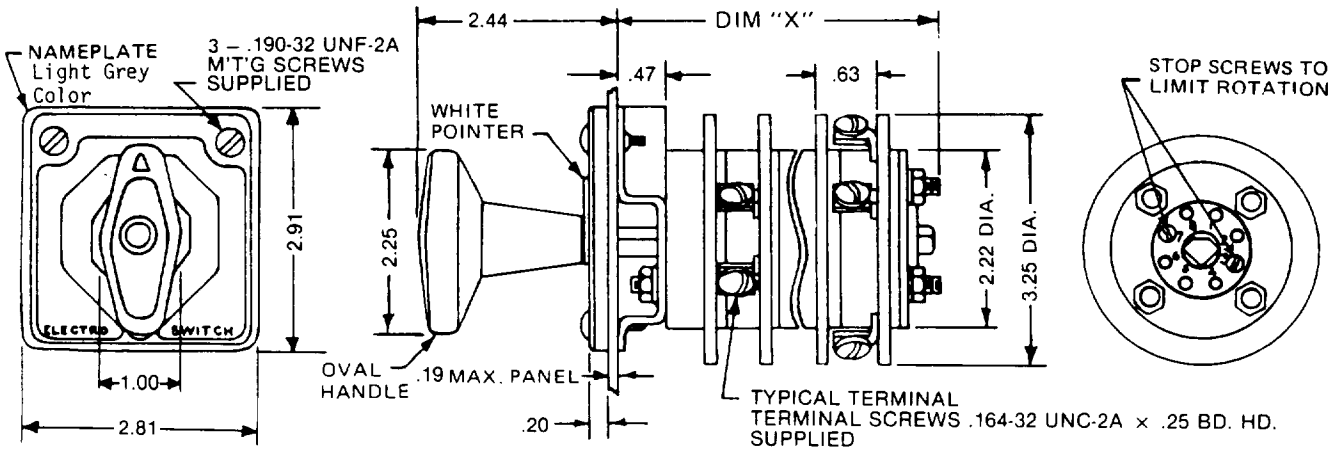


ELECTROSWITCH

UNIT OF ELECTRO SWITCH CORP
WEYMOUTH, MASSACHUSETTS 02188
TELEPHONE: (617) 335-5200 FAX: (617) 335-4253

**SERIES 24G
MIL-S-18396
TYPE MC**

CATALOG NUMBERS
**24G SERIES (DETENT ACTION)
74G SERIES (SPRING RETURN)**



DECKS	DIM. X (inches)
1	2.4
2	2.9
3	3.6
4	4.3
5	4.8
6	5.4
7	6.2
8	6.8
9	7.4
10	8.0

ELECTRICAL RATINGS

20A-500V continuous
20A-125VAC resistive (inductive)
10A-250VAC resistive (inductive)
5A-500VAC resistive (inductive)
.4A-350VDC resistive (inductive)

Dimensions are approximate.

Add 1.5 max. for slip contacts.

Add 2.6 max. for slip contacts with pull-to-lock.

OVERLOAD (50 operations)
7.5A-500VAC

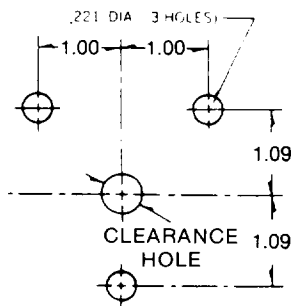
DIELECTRIC STRENGTH
2000VRMS

INSULATION RESISTANCE
100 megohms

CONTACT RESISTANCE
100 milliohms

LIFE (electrical operations)
100,000

PANEL DRILLING (INCHES)



CLEARANCE HOLE DIMENSIONS

FEATURE	HOLE
Standards	.44
Removable Handle	.81
Waterproof-Mount	.64

MADE BY: SWC
DATE: 6-15-82
APPR. BY: mml
DATE: 6/15/82

DRAWING MASTER

DWG. NO: 24G & 74G SERIES
SHEET 1 OF 1

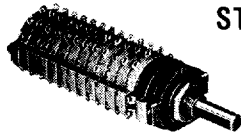
REV A

ECN: 13414 SWC
37-83 BW
REVISIONS: A

OTHER MILITARY SWITCHES

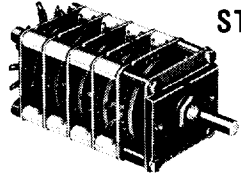
LOW CURRENT SWITCHES

STYLE SR28



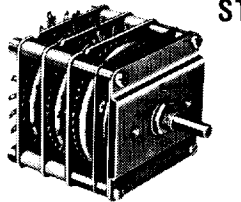
MIL-S-3786
MIL-S-3786/28
QPL-3786

STYLE SR40



MIL-S-3786
MIL-S-3786/14
MIL-S-3786/40
QPL-3786

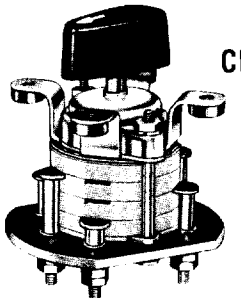
STYLE SR15



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MIL-S-3786/15
QPL-3786

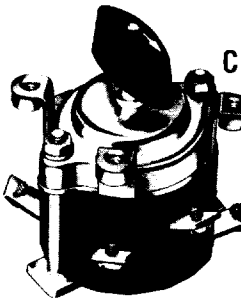
SNAP-ACTION SWITCHES

CLASS 1SR



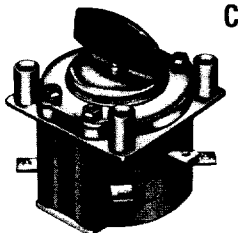
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MIL-S-15291/1
MIL-S-15291/2
MIL-S-15291/3
QPL-15291

CLASS 3SR



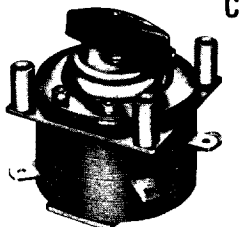
MIL-S-15291
MIL-S-15291/5
MIL-S-15291/6
MIL-S-15291/7
QPL-15291

CLASS 6SR



MIL-S-15291
MIL-S-15291/8
MIL-S-15291/9
MIL-S-15291/10
QPL-15291

CLASS 20SR



MIL-S-15291
MIL-S-15291/11
MIL-S-15291/12
MIL-S-15291/13
QPL-15291

MULTIPOLE SELECTOR SWITCHES

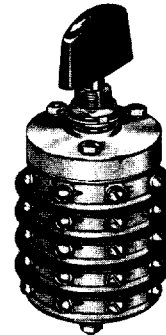
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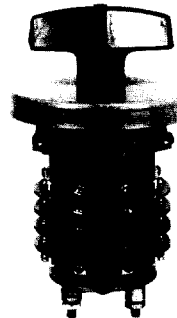
MIL-S-6807
MS-25002
MS-21994
MS-21995
QPL-6807

STYLE JL

MIL-S-21604
MIL-S-21604/3
QPL-21604



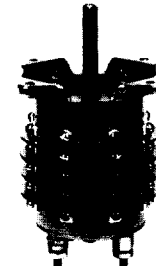
STYLE JR



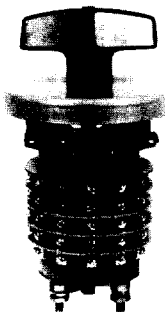
MIL-S-21604
MIL-S-21604/5
MIL-S-21604/6
MIL-S-21604-7
QPL-21604

STYLE JR

MIL-S-6807
MS-90547



STYLE JM



MIL-S-21604
MIL-S-21604/4
QPL-21604

STYLE JK

MIL-S-21604
MIL-S-21604/2
QPL-21604

