

ASSOCIATION OF AMERICAN RAILROADS
SIGNAL SECTION

CIRCUIT NOMENCLATURE, WRITTEN CIRCUITS
—AND—
GRAPHICAL SYMBOLS

(As contained in Manual, complete to October 1946)

A.A.R. STANDARD CODE EQUIVALENT
INDICATIONS FOR SEMAPHORE, COLOR
LIGHT, POSITION LIGHT AND COLOR
POSITION LIGHT SIGNAL ASPECTS

(Information report as contained in A.A.R. Signal
Section 1944 Proceedings, Vol. XLII, p. 268-A)

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CIRCUIT NOMENCLATURE AND WRITTEN CIRCUITS

1943

Official Approval

Sept. 1934, Mar. 1944.

The purpose of the following is to supply a standard scheme of abbreviated designations for electrically operated signal units and wires.

Letters suggestive of the words they represent have been assigned as far as practicable but there are some letters that stand for names that cannot be associated, such as "G" Signal; "W" Switch; etc. Some of the letters represent several different meanings or words, such as "N" Normal; "N" Negative; "N" North, depending upon the use and location with respect to numerals and other letters, but if the scheme is consistently used there should be no mistake in the meaning.

Nomenclature of Electrically Operated Units

The term "electrically operated unit" is used to signify a signaling device in which an electric light or magnetic coil is usually essential to its operation, as, for instance, color light signal, a relay, electric lock, etc. In order to provide a concise, suggestive graphic code for marking these units on plans, the following system has been evolved, which makes use of a designation made up of two parts: namely,

First—Numerical Prefix: The number of the principal lever, signal, track circuit, or other device entering into the control of or controlled by the unit.

Second—Alphabetic Term: Consisting of one or more letters. The last letter of this term designates the general kind of unit, while the first letter or letters, when used, describe specifically the operated unit.

The complete designation of a unit is written as follows:

(Numerical Prefix)	(First Letter)	(Last Letter)
10	H	R

Written 10HR

In this example, 10 is the number of a signal. 10R means relay having to do with signal 10, and 10HR means home relay for signal 10. In other words, the letter R means relay in general. The letter H indicates that the function of this relay is to control the approach indication of a three-position signal or the proceed indication of a two-position signal in one-arm signaling. The number 10 definitely indicates the signal which this relay controls.

Track Circuit Numbering

A track circuit is designated by the letter T preceded by a number. If within interlocking limits, it will take a number of a movable point frog, switch or derail lying within the track circuit, the preference being in the order named.

When there are no interlocked switches in a track circuit, it is numbered from a signal governing over the track circuit. Progressive alphabetical prefixes are used in the case of a plurality of track sections that govern one signal. Arbitrary numbers, as O1T, O2T, O3T, etc., are given track circuits in which there are no interlocked switches and which do not govern signals.

Wire Nomenclature

A wire carrying positive energy to one or more operated units is in general designated by nomenclature similar to that applied to the operated unit controlled by it, followed by a number indicating the number of circuit controlling contacts in the circuit between the wire and unit.

A wire carrying negative energy from one or more operated units is designated in the same manner except that the designation is preceded by the letter N.

Example: See Fig. 1.

In case of branch wiring the above method is applied to the principal circuit. The letter A is appended to distinguish the first branch, the letter B distinguishes the second, etc. The branch connection is shown terminated at point desired. This latter feature eliminates necessity of tagging wire to show destination or source.

Example: See Fig. 1.

Table of Meaning of Letters *Descriptive and Designative Terms*

- A—Approach
- B—Block—Button—Positive energy
- C—Common—Changer—Counter—Correspondence—Circuit—Controller
—Code—Checking contacts
- D—Proceed indication of a signal—Detector—Decoding
- E—East—Eastward—Electric light—Element
- F—Traffic
- G—Green—Signal (operating mechanism)—Ground
- H—Home—Approach indication of a signal
- J—Skate—Dual control
- K—Indicator
- L—Left—Lock preventing initial movement of a lever from normal or
reverse position—Locking—Lever—Light—Split battery—Lock
valve
- M—Lock preventing final or indicating movement of a lever—Magnetic
—Marker
- N—Normal—North—Northward—Negative
- O—Order—Operating—Off—Overload—Out
- P—Pole—Power—Purple—Push—Repeating—Primary
- Q—Local or secondary coil (as in double-element relay or mechanism)
- R—Right—Red—Reverse—Relay—Power-operated controller or con-
tactor—Route—Stop indication of a signal
- S—South—Stick—Storage—Southward

T—Track—Time—Train—Telephone—Transformer—Transmitter
U—Retarder—Unit
V—Train stop (track element)—Electro-pneumatic stop valve
W—Switch (operating mechanism)—West—Westward—White
X—Crossing—Interlocking—Bell—Buzzer—A.C.
Y—Slot—Yellow—Hold clear
Z—Use for any special term (to be noted on plan)

In order to distinguish between right and left position of three-position levers, use R (right) or L (left) after the lever number, as 10R, 10L.

When one lever controls two or more functions, use letters A, B, C, etc., after the lever numbers: for example, 10A, 10B, 10C, etc.

In case of three-position levers controlling two or more functions in each position, use combinations as follows: 10RA, 10LA, etc.

Example of Combinations Used to Designate Wires and Operated Units

Energy Wires

(Suffix figure should be used to indicate voltages: for example, CX110 meaning common AC 110 volts.)

C —Common D.C.
EC —Common east, meaning D.C. from system east, likewise north, south and west
FC —Common traffic locking
CX —Common A.C.
ENX —Negative energy A.C. from POR for an electric light, or east negative A.C. energy, likewise north, south and west
NX —Negative A.C. energy
BL —Positive side of split battery
NL —Negative side of split battery
CL —Common of split battery
N —Negative D.C. energy
B —Positive D.C. energy
EB —Positive energy east, likewise north, south and west
BB —Battery, second battery
BBB —Battery, third battery
BX —Positive A.C. energy
EBX —Positive energy A.C. from POR for an electric light or east positive A.C. energy, likewise north, south and west

Operated Units Relating to Track Circuits

T —Track section
TR —Track relay
TPR —Relay repeating track relay
TPPR —Relay repeating track repeating relay
TSR —Track stick relay
TSPR —Relay repeating track stick relay
TK —Indicator, indicating condition of a track circuit
TPSR —Stick relay repeating track relay

- BPR —Block repeater relay, relay repeating the track circuits in a block
BK —Block indicator

Wires Relating to Track Circuits

- TB —Track positive—Positive energy to rail
TN —Track negative—Negative energy from rail
RB —Relay positive—Wire from positive rail to relay
RN —Relay negative—Wire from negative rail to relay
TQ —Positive control of local coil, double-element A.C. track relay
TP —Positive control of TPR
TPP —Positive control of TPPR
TPS —Positive control of TPSR
TK —Positive control of TK
BP —Positive control of BPR
WB —Positive rail to switch circuit controller
WN —Negative rail to switch circuit controller

Operated Units Relating to Switches

- W —Switch operating mechanism or lock valve
WR —Relay, controller or contactor controlling both normal and reverse operations of a switch or an electric switch lock
WNR —Relay, controller or contactor controlling the normal operation of a switch or an electric switch lock
WRR —Relay, controller or contactor controlling the reverse operation of a switch or an electric switch lock
WRPR —Relay repeating WR
WNRPR —Relay repeating WNR or normal position of WR
WRRPR —Relay repeating WRR or reverse position of WR
WPR —Relay repeating position of switch
NWPR —Relay repeating normal position of switch or normal position of WPR
RWPR —Relay repeating reverse position of switch or reverse position of WPR
WK —Indicator indicating the positions of a switch
WL —Switch lock operating mechanism on a switch
NWLPR —Relay repeating normal position of switch lock
NJPR —Relay repeating normal position of dual-control lever
RJPR —Relay repeating reverse position of dual-control lever
NWK —Indicator indicating the normal position of a switch
RWK —Indicator indicating the reverse position of a switch
WAK —Indicator indicating the condition approaching a switch
RWLPR —Relay repeating reverse position of switch lock
WCR —Switch correspondence relay

Wires Relating to Switches

- NW —Normal control of switch operating mechanism
RW —Reverse control of switch operating mechanism
N10W —Individual return wire to 10 switch operating mechanism

WR	—Positive control of WR
N10WR	—Negative control of 10WR
WNR	—Positive control of WNR
WRR	—Positive control of WRR
WRP	—Positive control of WRPR
WNRP	—Positive control of WNRPR
WRRP	—Positive control of WRRPR
WP	—Positive control of WPR
N10WP	—Negative control of 10WPR
NWP	—Positive control of NWPR
RWP	—Positive control of RWPR
NWLP	—Positive control of NWLPR
WK	—Positive control of WK
N10WK	—Negative control of 10WK
NWK	—Positive control of NWK
RWK	—Positive control of RWK
WA	—Positive control of WAK
WL	—Positive control of WL
RWLP	—Positive control of RWLPR
WC	—Positive control of WCR
NJP	—Positive control of NJPR
RJP	—Positive control of RJPR

Operating Units Relating to Signals

HR	—Relay controlling approach indication of a three-position signal or the proceed indication of a two-position signal in one-arm signaling
DR	—Relay controlling proceed indication of a signal
HDR	—Relay controlling approach and proceed indication of a signal
HRP	—Relay repeating HR or approach indication position of HDR
HSR	—Home stick relay controlling the approach indication of a signal
DPR	—Relay repeating DR or proceed indication position of HDR
RGPR	—Relay repeating signal mechanism at stop
HGPR	—Relay repeating signal mechanism at approach
RHGPR	—Relay repeating signal mechanism at approach and stop
DGPR	—Relay repeating signal mechanism at proceed
RGK	—Indicator indicating signal mechanism at stop
HGK	—Indicator indicating signal mechanism at approach
DGK	—Indicator indicating signal mechanism at proceed
ETOHR	—East train order HR, likewise west, north and south
ETOHDR	—East train order HDR, likewise west, north and south
ETOPHR	—East train order repeater HR, likewise west, north and south
ETOPDR	—East train order repeater DR, likewise west, north and south
HDGPR	—Relay repeating signal mechanism in the approach and proceed position
HDGK	—Indicator indicating signal mechanism in the approach and proceed position
HY	—Hold clear or retaining mechanism of the approach indication of a signal

- DY** —Hold clear or retaining mechanism of the proceed indication of a signal
- HG** —Approach indication operating mechanism of a signal
- DG** —Proceed indication operating mechanism of a signal
- RG** —Stop indication operating mechanism of a signal

Wires Relating to Signals

- H** —Positive control of HR
- D** —Positive control of DR
- HD** —Positive control of HDR
- N10HD** —Negative control of 10HDR
- HP** —Positive control of HPR
- HS** —Positive control of HSR
- DP** —Positive control of DPR
- RGP** —Positive control of RGPR
- HGP** —Positive control of HGPR
- DGP** —Positive control of DGPR
- ETOH** —Positive control of ETOHR
- ETOH D** —Positive control of ETOHDR
- ETOP H** —Positive control of ETOPHR
- ETOP D** —Positive control of ETOPDR
- HDGP** —Positive control of HDGPR
- HDGK** —Positive control of HDGK
- RGK** —Positive control of RGK
- HGK** —Positive control of HGK
- DGK** —Positive control of DGK
- HG** —Positive control of HG
- DG** —Positive control of DG
- RG** —Positive control of RG
- N10HG** —Negative control of 10HG
- HY** —Positive control of HY
- DY** —Positive control of DY
- RHGP** —Positive control of RHGPR

Stick, Traffic and Directional Operated Units

- SR** —Stick relay
- ESR** —East stick relay, likewise north, south and west
- LSR** —Locking stick relay
- EASR** —East approach stick relay, likewise north, south and west
- ASR** —Approach stick relay
- FL** —Traffic lock preventing initial movement of a traffic lever from normal or reverse
- FLM** —Traffic lock preventing initial movement of a traffic lever from normal or reverse and also preventing final or indicating movement of same lever
- FR** —Traffic relay
- FLR** —Traffic lock relay controlling FL
- FLMR** —Traffic lock relay controlling FLM
- FLK** —Traffic lock indicator

- FSR —Traffic stick relay
EFSR —East traffic stick relay, likewise north, south and west

Wires Relating to Stick, Traffic and Directional Units

- S —Positive control of SR
ES —Positive control of ESR
LS —Positive control of LSR
EAS —Positive control of EASR
AS —Positive control of ASR
FL —Positive control of FL
FLM —Positive control of FLM
F —Positive control of FR
FLR —Positive control of FLR
FLMR —Positive control of FLMR
FLK —Positive control of FLK
FS —Positive control of FSR
EFS —Positive control of EFSR

*Operated Units Relating to Indicators, Locks, Indication
Magnets, and Relays Used for Locking Purposes*

- M —Lock preventing the final movement of a lever
L —Lock preventing the initial movement of a controlled function or lever
NK —Normal indicator indicating normal position of a unit
RK —Reverse indicator indicating reverse position of a unit
TER —Time element relay
NM —Lock preventing the final movement of a lever to the normal position
RM —Lock preventing the final movement of a lever to the reverse position
NL —Lock preventing the movement of a lever or a controlled function from its normal position
RL —Lock preventing the movement of a lever or a controlled function from its reverse position
LR —Relay controlling L lock
LPR —Repeater of L lock relay
MR —Relay controlling M lock
MPR —Repeater of M lock relay
TE —Time element
TESR —Time element stick relay
LK —Lock indicator repeating electric locking
TEPR —Relay repeating energized position of TE
TECPR —Relay repeating checking contact of TE

*Wires Relating to Locks, Indication Magnets
and Relays for Locking Purposes*

- M —Positive control of M
L —Positive control of L
NK —Positive control of NK

RK	—Positive control of RK
TE	—Positive control of TER
NM	—Positive control of NM
RM	—Positive control of RM
NL	—Positive control of NL
RL	—Positive control of RL
LR	—Positive control of LR
LP	—Positive control of LPR
MR	—Positive control of MR
MPR	—Positive control of MPR
TES	—Positive control of TESR
LK	—Positive control of LK
TEP	—Positive control of TEPR
TECP	—Positive control of TEPCR

Operated Units Relating to Highway Crossing Signals

XX	--Crossing bell
EXR	—Eastward interlocking or crossing relay, likewise north, south and west
XG	—Wig-wag mechanism—Crossing gate mechanism
XY	—Slot for wig-wag mechanism—Crossing gate mechanism
EOR	—Electric light operating relay (flasher relay)
XSR	—Directional relay to hold crossing signal clear as train recedes from crossing

Wires Relating to Highway Crossing Signals

XG	—Positive control of XG
RXG	—Reverse control of XG (drive down mechanism)
E1	—Positive wire to No. 1 unit of flashing light signal (to be designated by letter N, E, S and W)
E2	—Positive wire to No. 2 unit of flashing light signal (to be designated by letter N, E, S and W)
XS	—Positive control of XSR
EX	—Positive control of EXR
EO	—Positive control of EOR

Operated Units Relating to Approach and Annunciating of Trains

AX	—Annunciator indicating approach traffic
EAX	—Eastward annunciator indicating approach of eastward traffic, likewise north, south and west
AER	—Relay used for approach lighting

Wires Relating to Approach and Annunciating of Trains

AX	—Positive control of AX
EA	—Positive control of EA
E	—Positive control of ER

Miscellaneous Operated Units

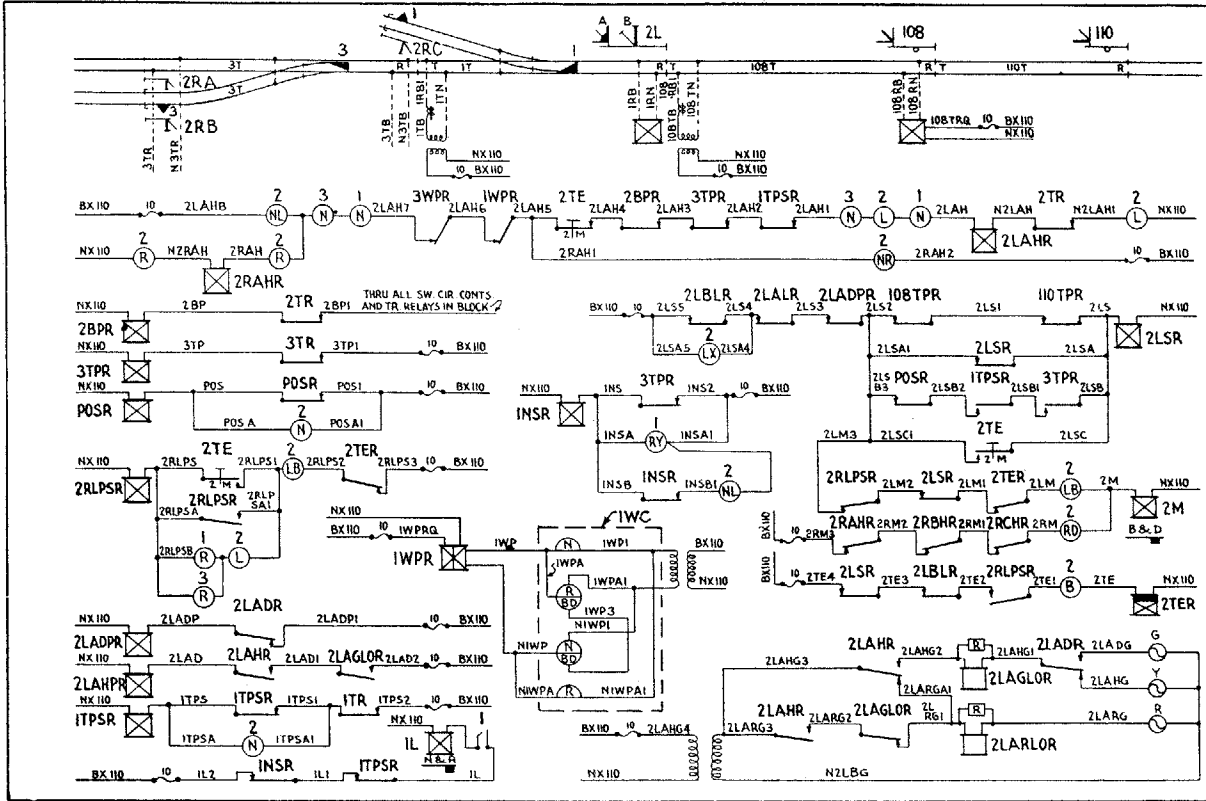
AK	—Approach indicator
AR	—Approach relay
PCR	—Pole changing relay
NLPR	—Relay repeating the normal position of a lever
RLPR	—Relay repeating the reverse position of a lever
E	—Electric light
TO	—Train order
WTO	—West train order signal governing westward traffic, likewise north, south and east
RR	—Route relay
VR	—Train stop relay
VSR	—Train stop stick relay
VPR	—Train stop repeater relay
VY	—Train stop retaining mechanism
XR	—Interlocking relay
TOR	—Train order relay
POR	—Power off relay
LOR	—Light out relay
ME	—Marker light
OR	—Overload relay
GDR	—Ground detector relay
CT	—Code transmitter
DU	—Decoding unit

Wires Relating to Miscellaneous Operated Units

AK	—Positive control of AK
A	—Positive control of AR
PC	—Positive control of PCR
NLP	—Positive control of NLPR
RLP	—Positive control of RLPR
R	—Positive control of RR
V	—Positive control of VR
VS	—Positive control of VSR
VP	—Positive control of VPR
VY	—Positive control of VY
X	—Positive control of XR
TO	—Positive control of TOR
PO	—Positive control of POR
LO	—Positive control of LOR
ME	—Positive control of ME
O	—Positive control of OR
GD	—Positive control of GDR
CT	—Positive control of CT
DU	—Positive control of DU

GRAPHICAL SYMBOLS

See Drawings 1660 to 1669, inclusive, and 1673 to 1681, inclusive.



NOTE : NUMBERING SHOWN REFERS TO MACHINES HAVING A STANDARD SPRING COMBINATION WHERE NO NUMBERING IS REQUIRED BETWEEN LEVERS.

Fig. 1.
Example of Application of Symbols and Wire Nomenclature.

POSITION OR EQUIVALENT	NON-AUTO-MATIC	SEMI-AUTOMATIC		AUTO-MATIC	SPECIAL REQUIRES REFERENCE TO NOTES
		STICK	NON-STICK		
0° U.Q. 45°					
0° L.Q. 45°					
0° U.Q. 90°					
U.Q. 45 L.Q. 45					
U.Q. 45° 90°					
L.Q. 45° U.Q. 90°					
0° U.Q. 45° L.Q. 45°					
0° U.Q. 45° 90°					
0° U.Q. 90° L.Q. 45°					
U.Q. 45° 90° L.Q. 45°					
0° U.Q. 45° 90° L.Q. 45°					

EXPLANATORY DATA

THREE-POSITION
SEMI-AUTOMATIC STICK 45° TO 90°
SEMI-AUTO. NON-STICK 0° TO U.Q. 45°

FOUR-POSITION
SEMI-AUTO. STICK 0° TO U.Q. 45° 109°
NON-AUTO. 0° TO L.Q. 45°

NON OPERATING

MARKERS

- NORMALLY LIGHTED : NON STICK
- NORMALLY NOT LIGHTED : NON-STICK
- NORMALLY LIGHTED : STICK
- NORMALLY NOT LIGHTED : STICK

GRADE SIGNAL

HEAVY LINE INDICATES NORMAL POSITION OR IT'S EQUIVALENT—THUS PREFIX THE LETTER "A" TO ABBREVIATION IF USED FOR APPROACH LIGHTING ABBREVIATIONS TO BE USED ONLY WHERE MORE THAN ONE TYPE OF SIGNAL IS SHOWN ON PLAN.

ABBREVIATIONS

E- ELECTRIC SEMAPHORE
P- POSITION LIGHT
CP- COLOR POSITION LIGHT
M- MECHANICAL
C- COLOR LIGHT
SL- SEARCHLIGHT

SMASHBOARD SIGNALS

POWER

MECHANICAL

GRAPHICAL SYMBOLS
WAYSIDE SIGNAL OPERATING CHARACTERISTICS

ARA
SIG. SEC.
1660A

M-1934 MAR 1934

**Association of American Railroads
Signal Section**

Official Approval

Sept. 1934, Mar. 1945.

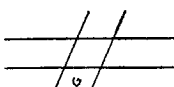
RAILWAY TRACKS

SIGNIFY STEAM OR ELECTRIC WHERE ELECTRIC TRACKS
CROSS OR JOIN STEAM TRACKS

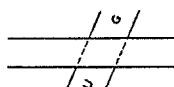
	RED	YELLOW	YELLOW	
RAILWAY TRACK TO REMAIN	TRACK TO BE TAKEN UP	PROPOSED TRACKS	PROPOSED (FUTURE) TRACKS	FOREIGN TRACKS (TO BE INDICATED BY NAME)

NOTE: WHERE OTHER COLORS ARE USED, EXPLANATION OF
COLOR IS TO BE SHOWN ON PLAN.

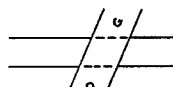
HIGHWAY CROSSINGS



GRADE CROSSING




UNDERGRADE
CROSSING




OVERGRADE
CROSSING

NOTE: NAME TO BE PROVIDED AS NECESSARY. STREET NAME OR NUMBER, HIGHWAY
NAME OR ROUTE NO., FARM OR PRIVATE CROSSING.
SINGLE LINE REPRESENTING TRACK MAY BE USED AS DESIRED.


HIGHWAY CROSSING SIGNALS




CROSSING SIGN




BELL




WIG-WAG




ONE WAY
FLASHING LIGHTS




BOTH WAYS
FLASHING LIGHTS




CROSSING GATE
WITH SIDEWALK ARM



CROSSING GATE
WITHOUT SIDEWALK ARM




ILLUMINATED
STOP SIGN



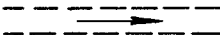
ROTATING
DISC

NOTE: COMBINATION OF ABOVE SYMBOLS MAY
BE USED AS REQUIRED.



N

MERIDIAN



TRAFFIC DIRECTION








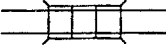
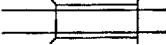

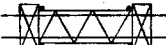

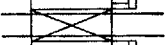

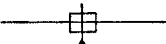
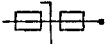


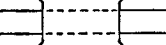
GRAPHICAL SYMBOLS TRACKS AND HIGHWAY CROSSINGS

M-1944	OCT.1944	M-1934	MAR.1934
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AAR
 SIG. SEC.
1662B

Association of American Railroads
Signal Section

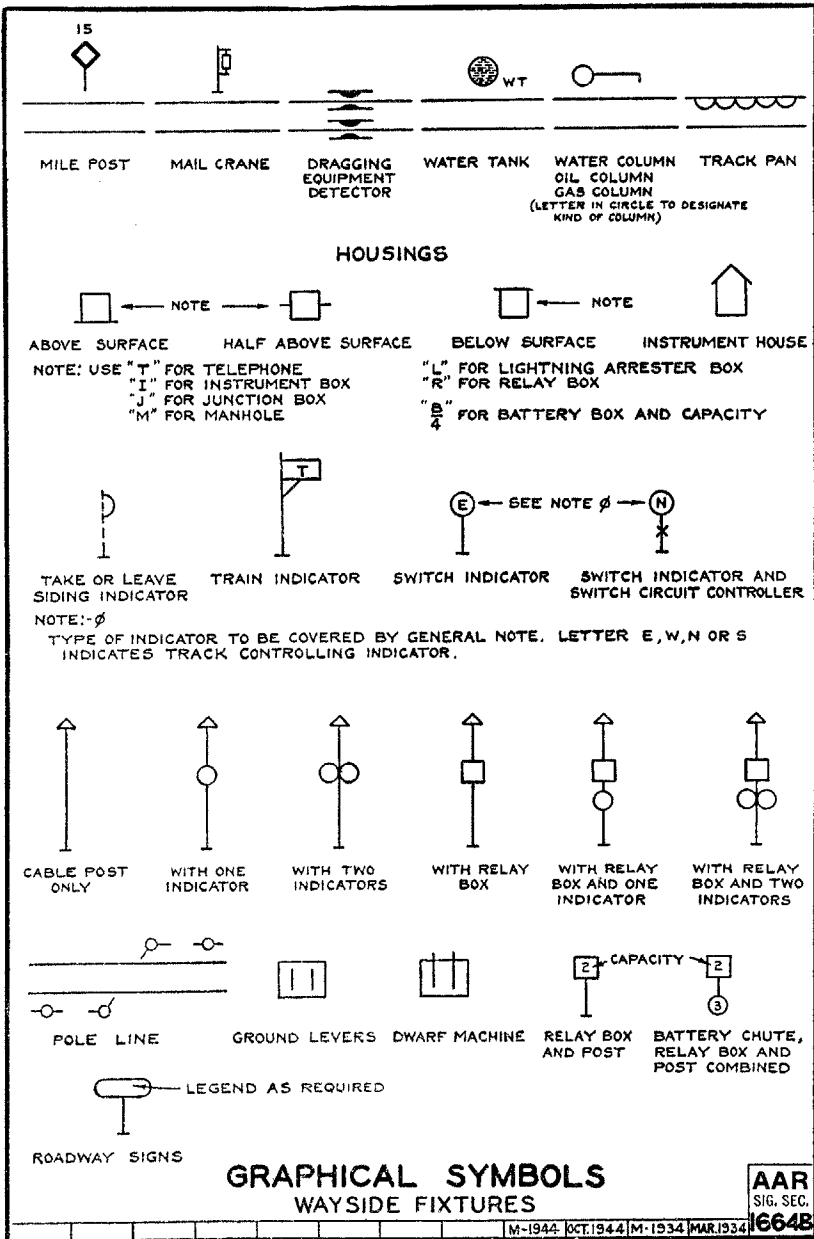
Official Approval
Sept. 1934, Mar. 1945.

BUILDINGS			
			
PASSENGER STATION	FREIGHT STATION	GENERATING STATION	SUB-STATION
INTERLOCKING OR BLOCK STATION			
			
OPERATOR FACING TRACK	OPERATOR WITH BACK TO TRACK	COAL STATION	
BRIDGES			
			
TRESTLE	GIRDER	TRUSS	
NOTE: - STATE WHETHER DECK, HALF THRU OR THRU BRIDGE			
			
LIFT SPAN	BASCULE, DOUBLE LEAF	BASCULE, SINGLE LEAF	DRAW SPAN
			
DRAWBRIDGE RAIL LOCK	DRAWBRIDGE LOCK	DRAWBRIDGE PIPE COUPLER	DRAWBRIDGE CIRCUIT CONTROLLER
			
TUNNEL			
GRAPHICAL SYMBOLS			
BUILDINGS, BRIDGES AND TUNNELS			
M-1944 OCT.1944 M-1934 MAR.1934			AAR SIG. SEC. 1663B

Association of American Railroads
Signal Section

Official Approval

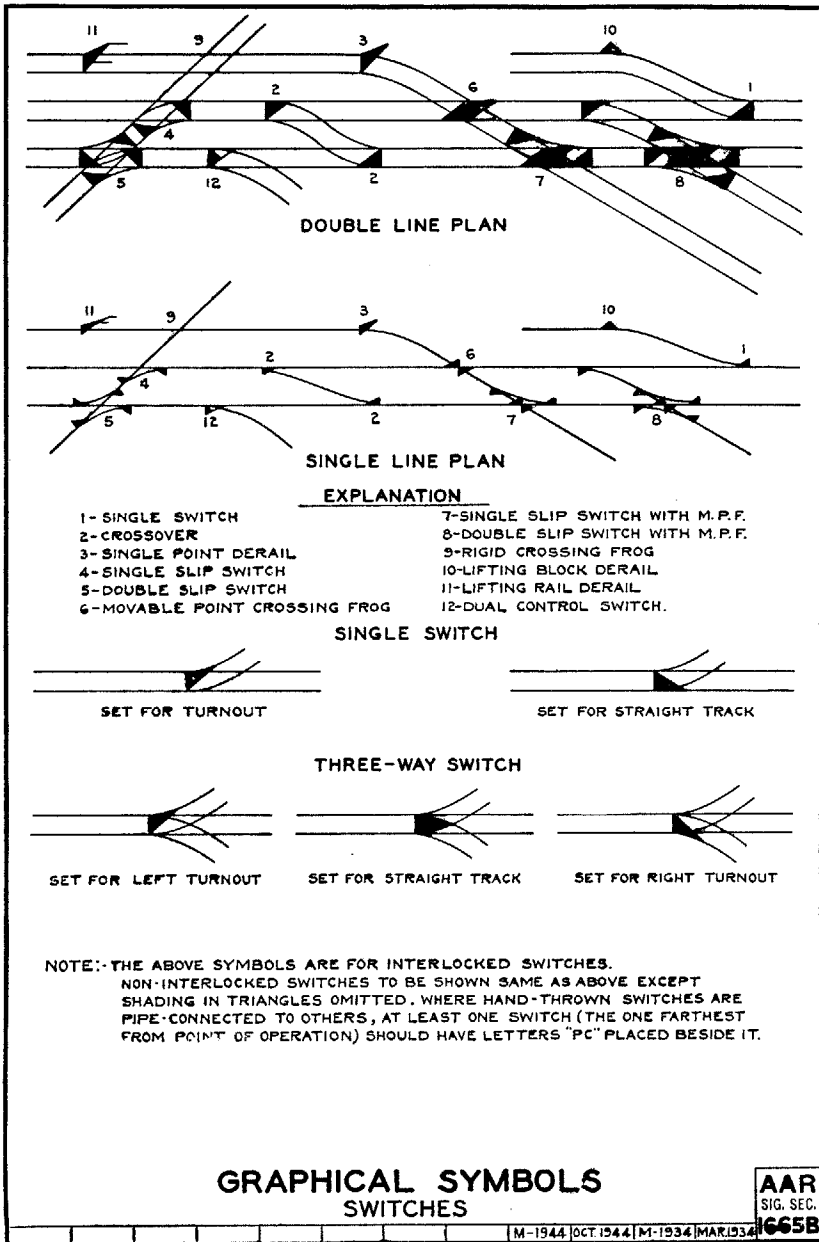
Sept. 1934, Mar. 1945.



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Signal Section

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Association of American Railroads
Signal Section

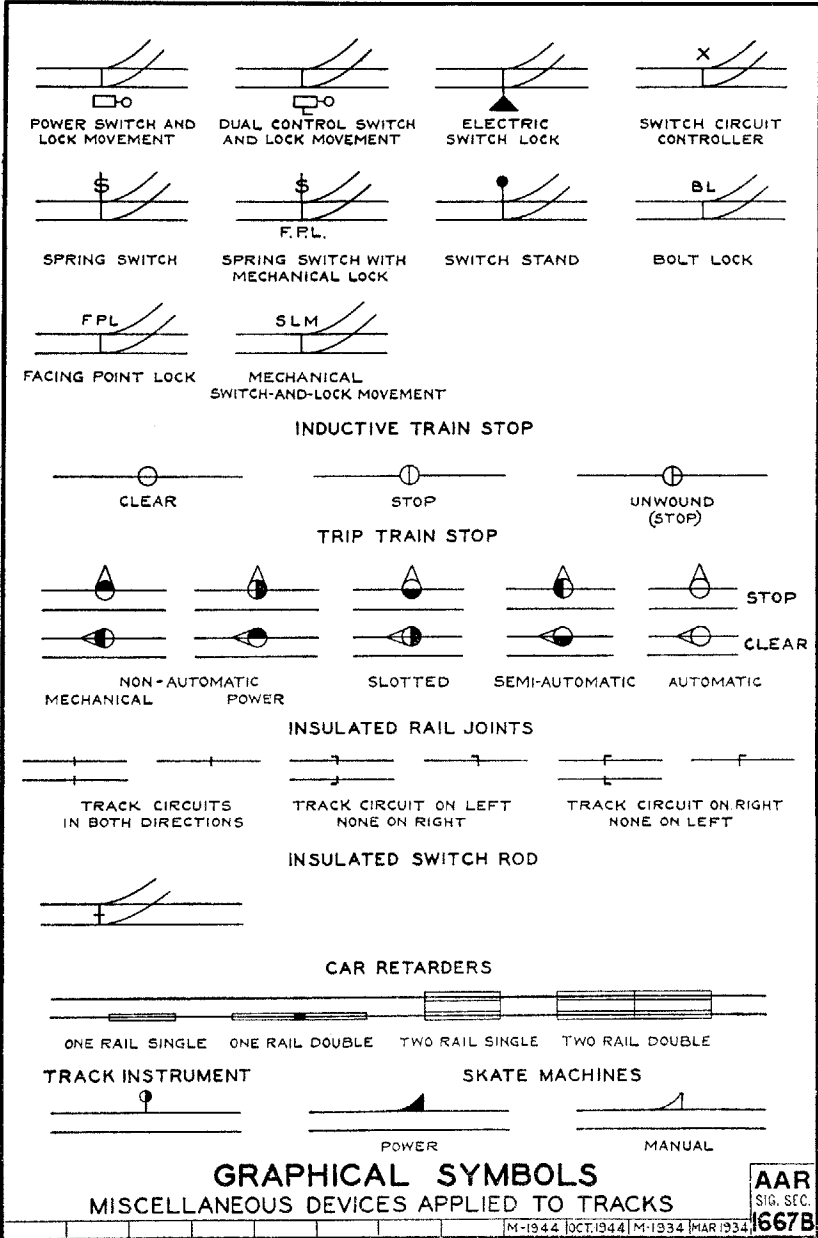
Official Approval
Sept. 1934, Mar. 1945.

DOUBLE LINE PLAN		SINGLE LINE PLAN	
DERAILING	NON-DERAILING	DERAILING	NON-DERAILING
SINGLE POINT			
DOUBLE POINT			
LIFTING RAIL TYPE			
COMBINED LIFTING BLOCK AND POINT			
LIFTING BLOCK			
<p>NOTE :- THE ABOVE SYMBOLS ARE FOR INTERLOCKED DERAILS. NON-INTERLOCKED DERAILS TO BE SHOWN AS ABOVE EXCEPT SHADING TO BE OMITTED. WHERE HAND THROW DERAILS ARE PIPE CONNECTED TO OTHERS, AT LEAST ONE DERAIL (THE ONE FARTHEST FROM POINT OF OPERATION) SHOULD HAVE LETTERS "PC" PLACED BESIDE IT.</p>			
<p>GRAPHICAL SYMBOLS DERAILS</p>			
<div style="border: 1px solid black; padding: 2px; display: inline-block;"> AAR SIG. SEC. 6668 </div>			
M-1944 OCT 1944 M-1934 MAR 1934			

Association of American Railroads
Signal Section

Official Approval

Sept. 1934, Mar. 1945.

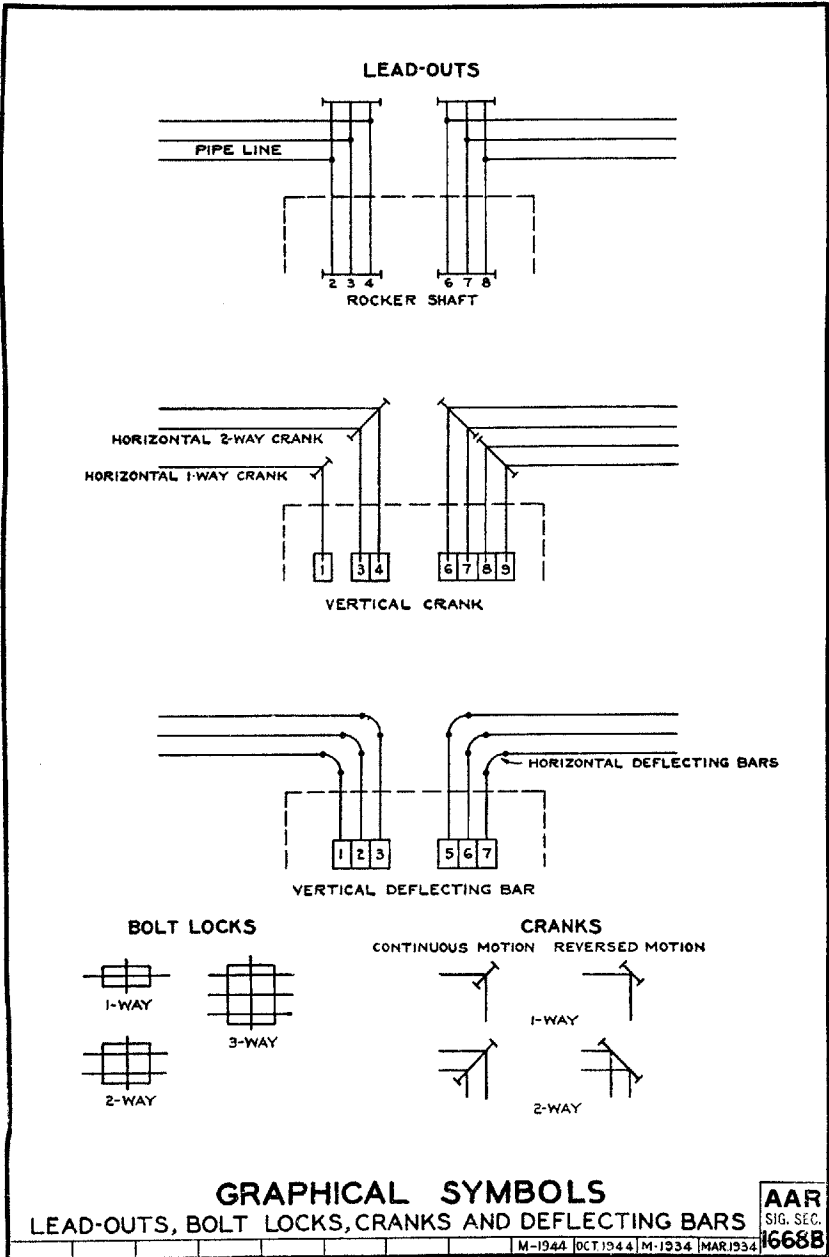


M-1944 | OCT. 1944 | M-1934 | MAR. 1934

Association of American Railroads
Signal Section

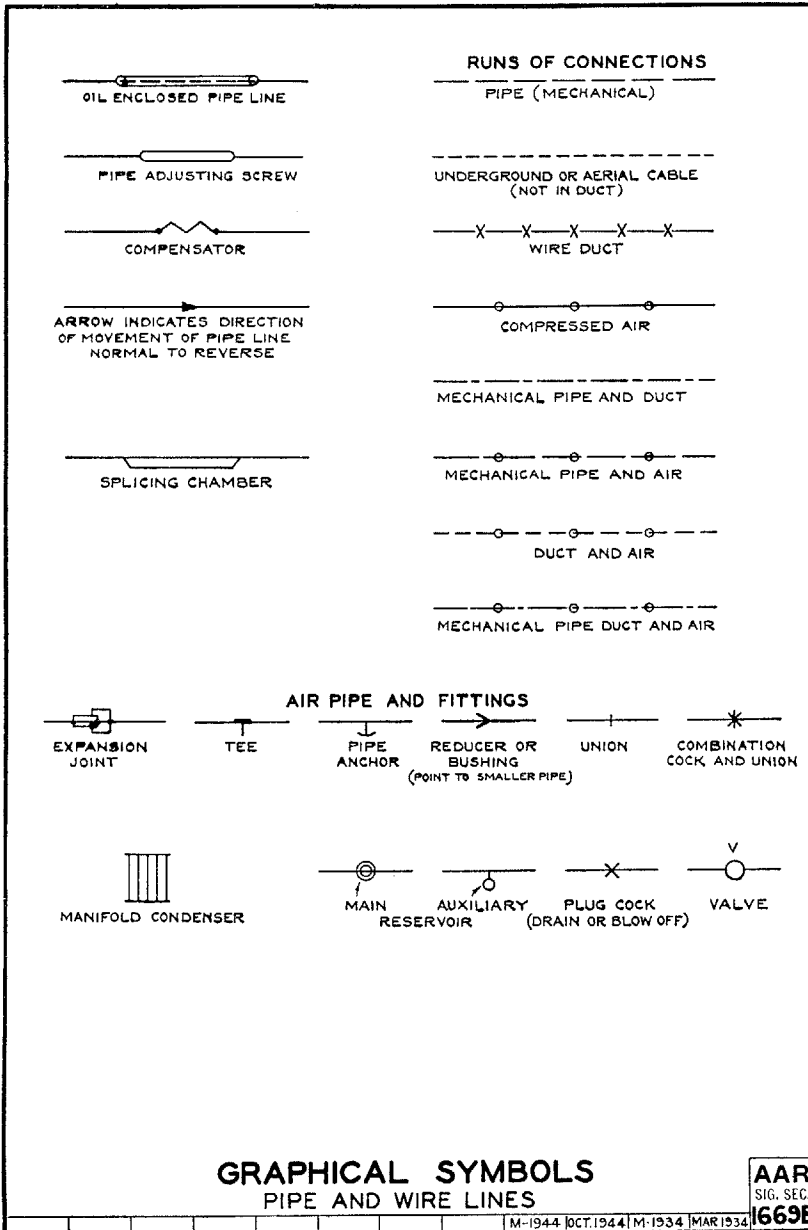
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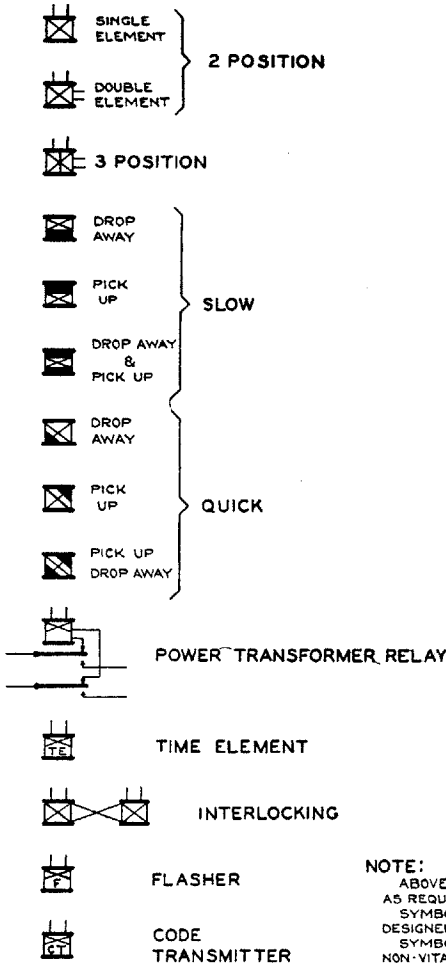


AAR
SIG. SEC.
1669B

M-1944 | OCT. 1944 | M-1934 | MAR 1934

Official Approval
Sept. 1934, Mar. 1944.

ALTERNATING CURRENT RELAYS



NOTE:
 ABOVE SYMBOLS MAY BE COMBINED AS REQUIRED.
 SYMBOLS AS SHOWN ARE FOR RELAYS DESIGNED FOR VITAL CIRCUITS.
 SYMBOLS FOR RELAYS DESIGNED FOR NON-VITAL CIRCUITS TO BE SHOWN THUS WITH CHARACTERISTICS INDICATED ABOVE.
 ALL SPECIAL FEATURES NOT COVERED BY SYMBOLS TO BE NOTED ON CIRCUIT PLANS.

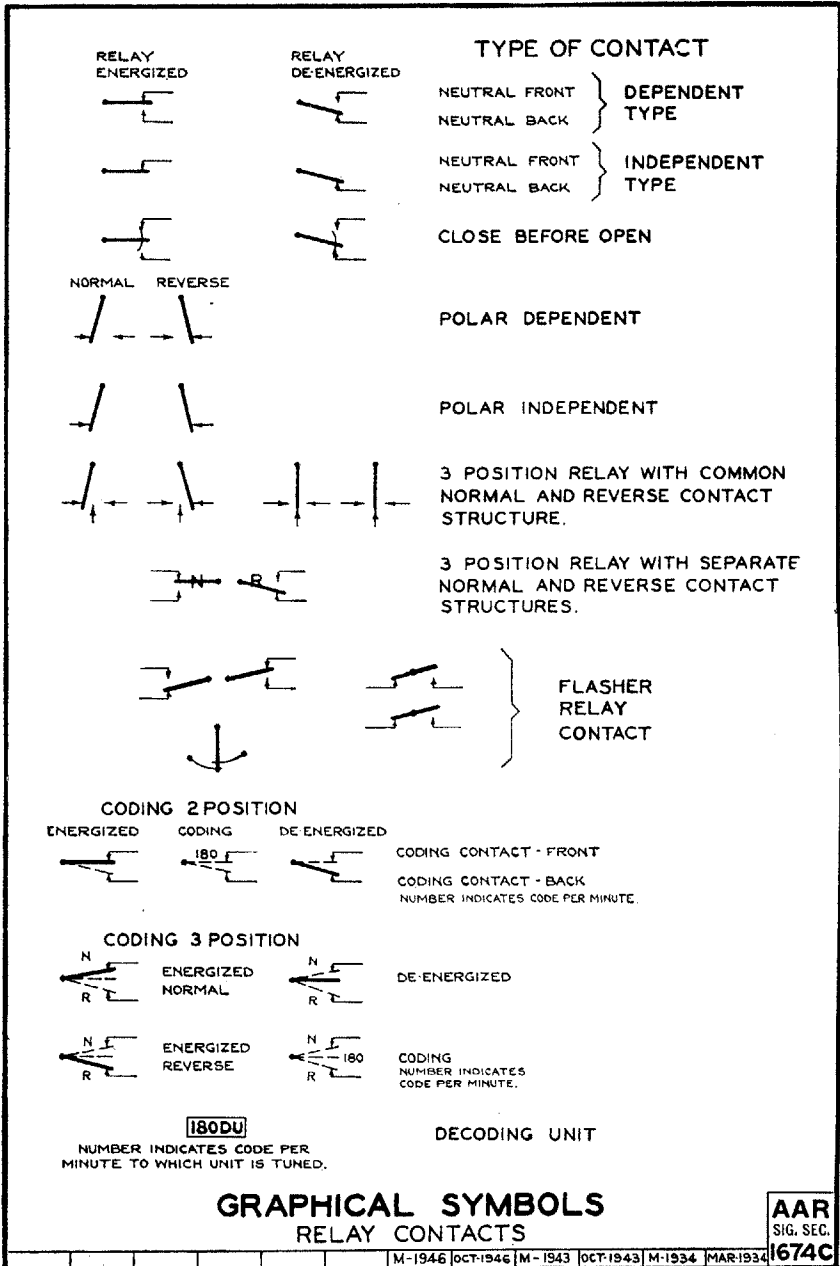
GRAPHICAL SYMBOLS
RELAYS

AAR
SIG. SEC.
673B

M-1943 OCT-1943 M-1934 MAR-1934

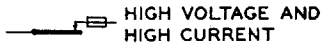
(Sheet 2 of 2 sheets)

Official Approval
Sept. 1934, Mar. 1944, May 1947



Official Approval
Sept. 1934, Mar. 1944, May 1947.

RELAY CONTACTS WITH SPECIAL CHARACTERISTICS



GRAPHICAL SYMBOLS
RELAY CONTACTS

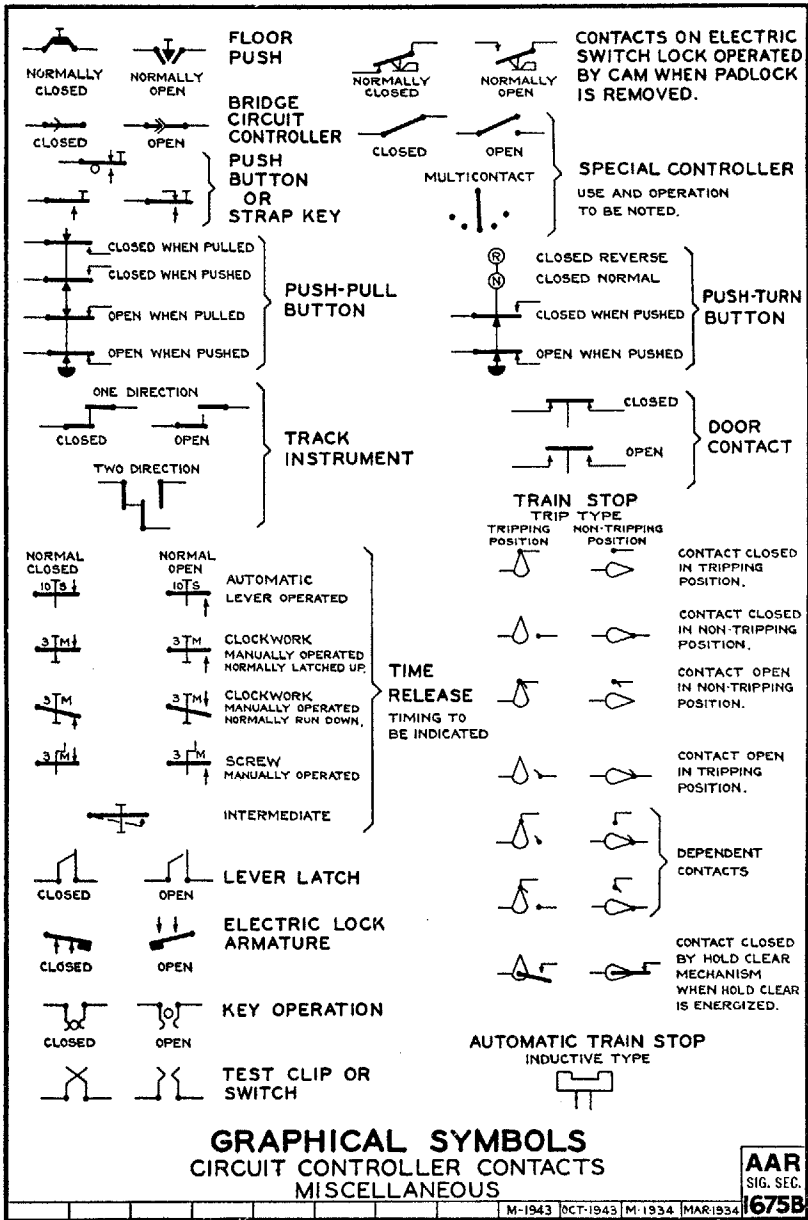
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M-1946 | OCT. 1946 | M-1943 | OCT. 1943 | M-1934 | MAR. 1934

(Sheet 2 of 2 sheets)

Association of American Railroads
Signal Section

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Sept. 1934, Mar. 1944.

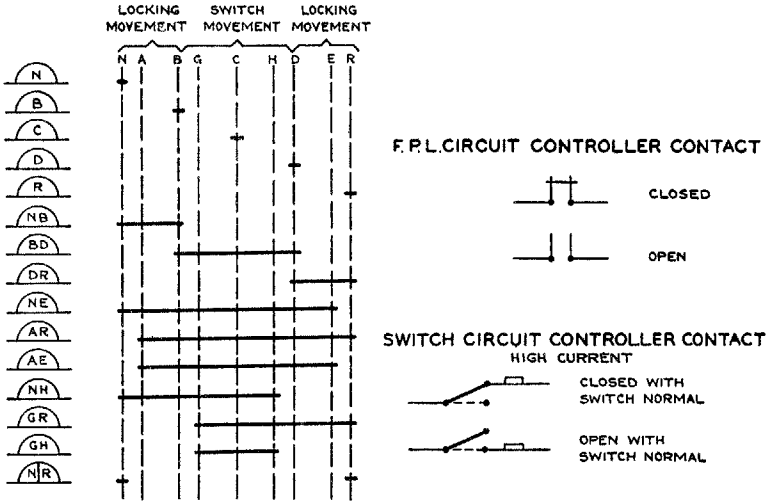
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Sept. 1934, Mar. 1944.

SWITCH MACHINE

- N - SWITCH IN NORMAL POSITION AND LOCKED.
- A - LOCKING SLIGHTLY MOVED FROM NORMAL.
- B - SWITCH IN NORMAL POSITION AND UNLOCKED.
- G - SWITCH SLIGHTLY MOVED FROM NORMAL.
- C - SWITCH IN CENTRAL POSITION.
- H - SWITCH SLIGHTLY MOVED FROM REVERSE.
- D - SWITCH IN REVERSE POSITION AND UNLOCKED.
- E - LOCKING SLIGHTLY MOVED FROM REVERSE.
- R - SWITCH IN REVERSE POSITION AND LOCKED.



HORIZONTAL LINES INDICATE THAT PORTION OF THE MOVEMENT DURING WHICH THE CIRCUIT IS CLOSED.

VERTICAL LINE BETWEEN LETTERS IN SYMBOL INDICATES THAT THE CIRCUIT IS CLOSED AT AND OPEN BETWEEN POINTS INDICATED.

GRAPHICAL SYMBOLS

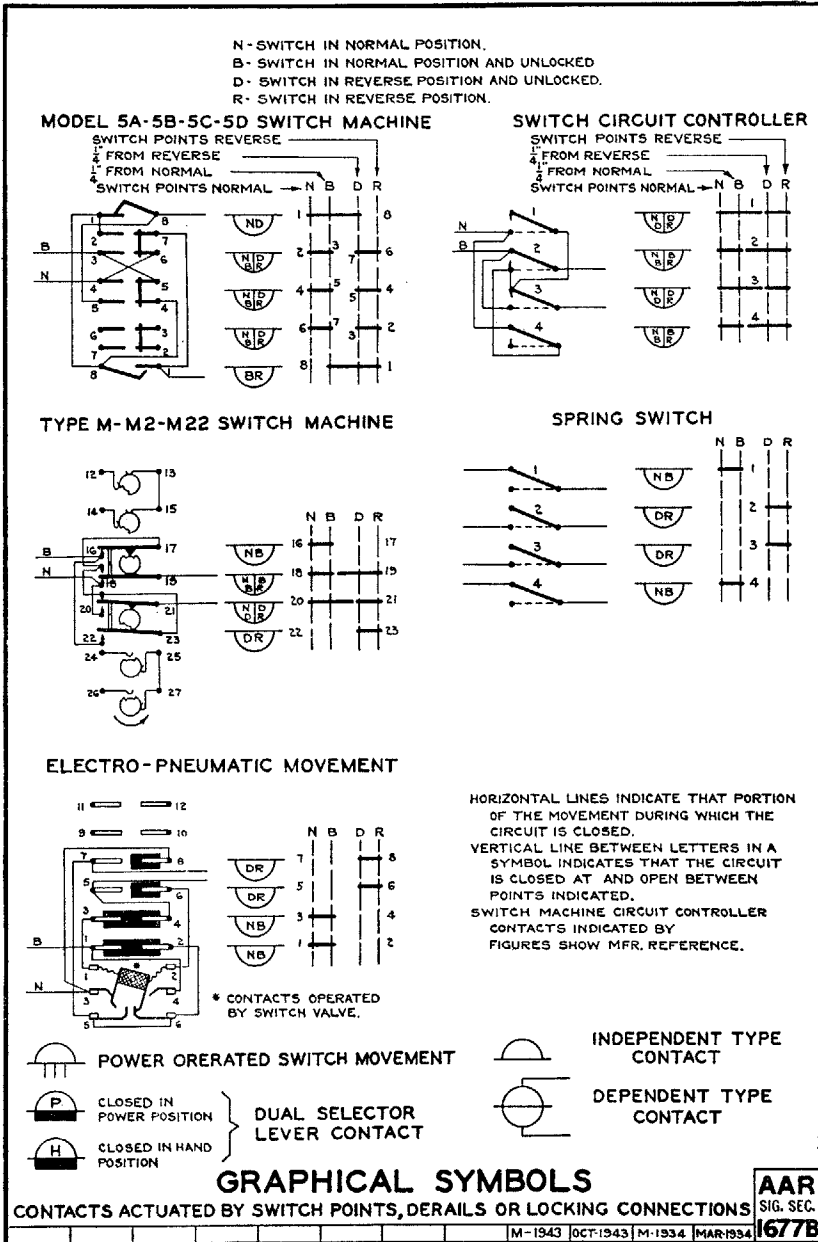
CONTACTS ACTUATED BY SWITCH POINTS, DERAILS OR LOCKING CONNECTIONS

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SIG. SEC.
1677B

M-1943 OCT-1943 M-1934 MAR-1934

(Sheet 1 of 2 sheets)

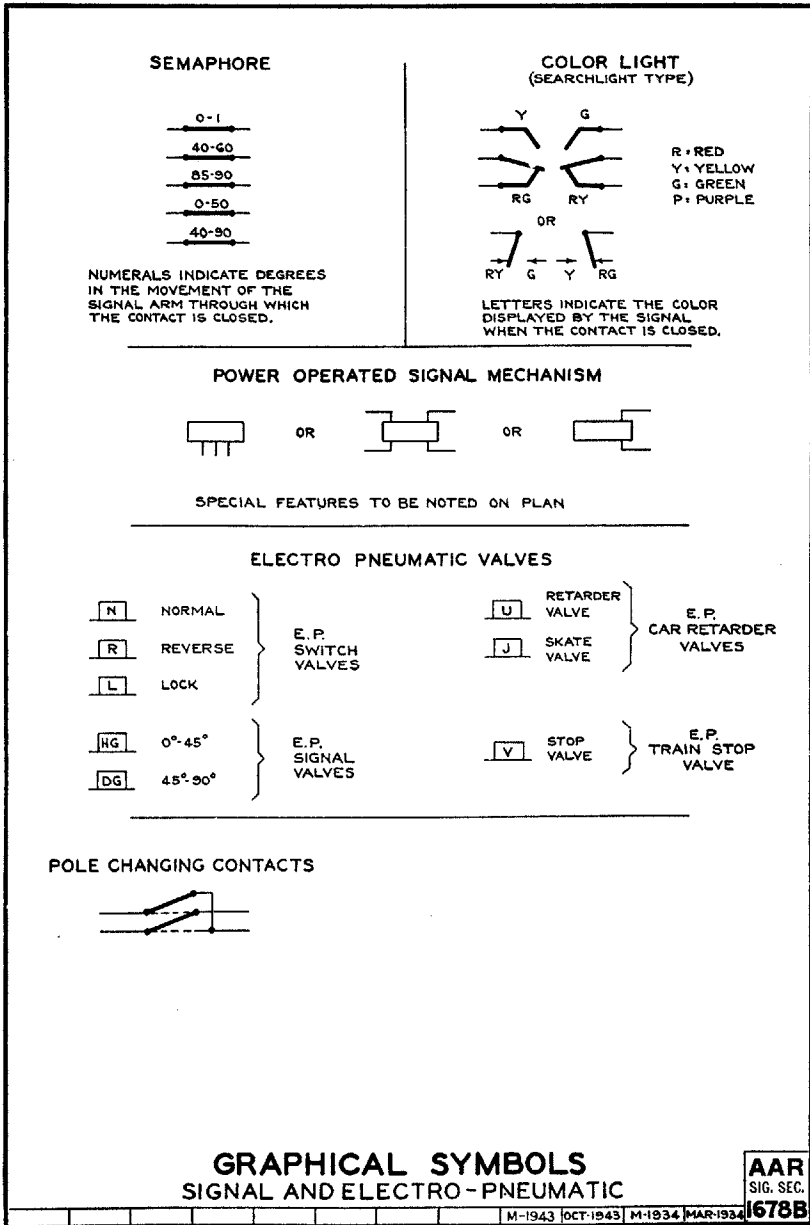
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(Sheet 2 of 2 sheets)

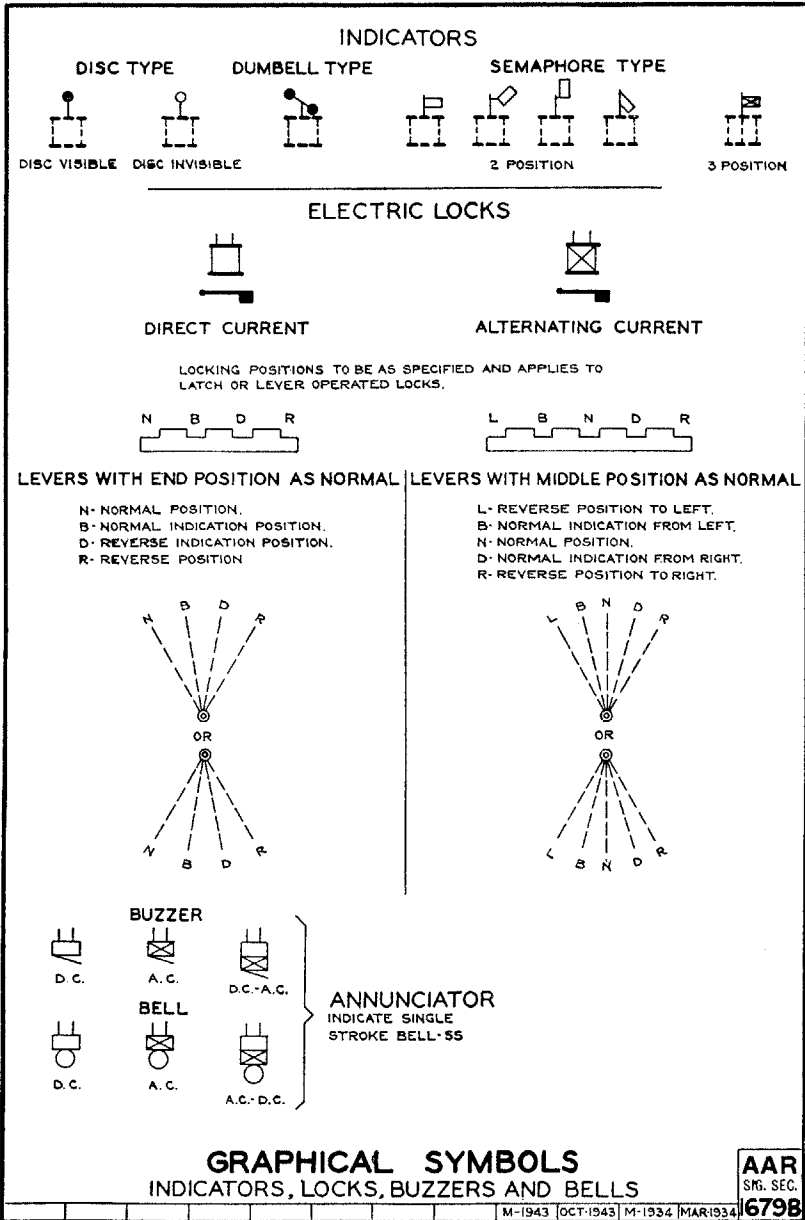
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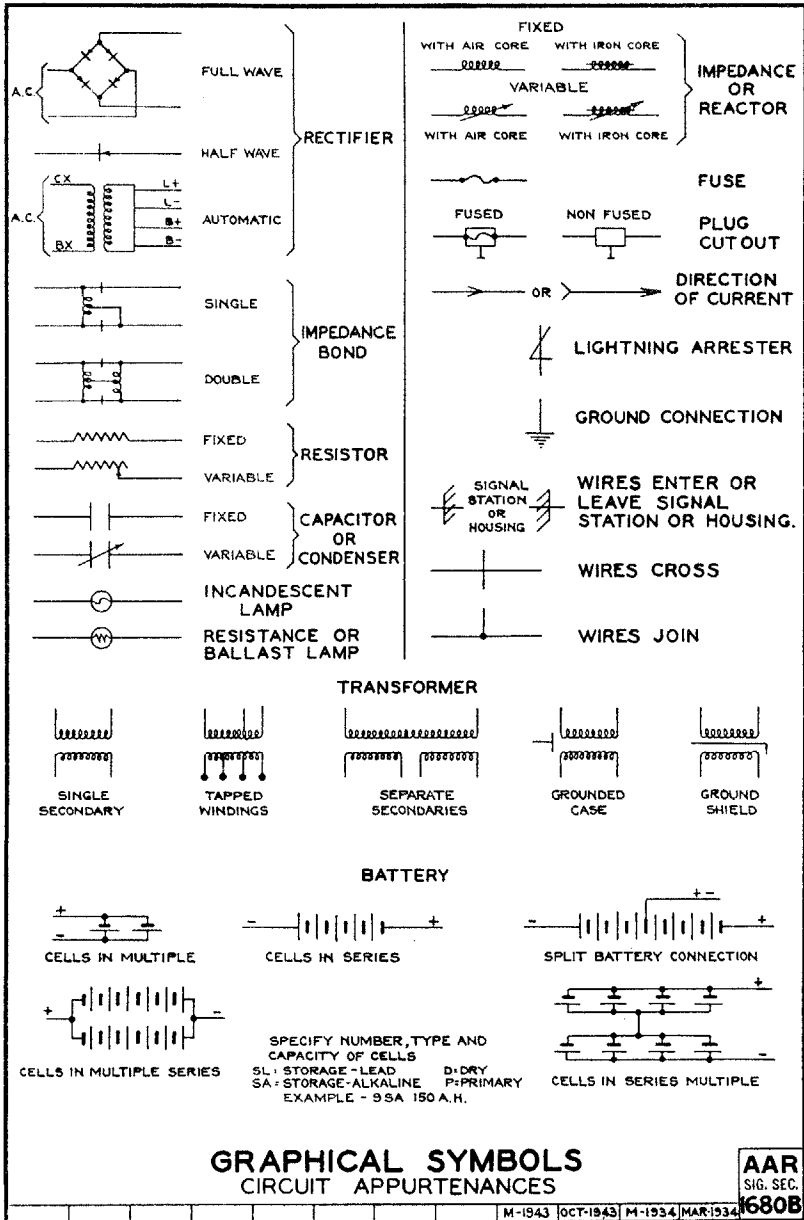
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