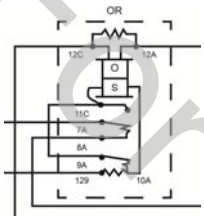
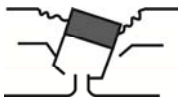
Switch and Derail Specific Print Reading



SIGNALS TRAINING CONSORTIUM

Riders Depend on Us



What are these? How are they different?

SIGNALS TRAINING CONSORTIUM 2

Outline

- List switch and derail specific nomenclature
- List switch and derail specific relays and describe their functions
- Using a print, describe the sequence of operation for an M3 single ended switch
- Demonstrate ability to outline the sequence of operation of a single-ended switch

SIGNALS TRAINING CONSORTIUM 3

Inspection and Maintenance of Switches and Derails

Key Terms

Activity: In your course book, circle any key terms you feel you need to learn better.

Example:

- Normal Configuration

SIGNALS TRAINING CONSORTIUM 4

Inspection and Maintenance of Switches and Derails

Recall

Thinking back to previous knowledge or course work, what do you already know about print reading for switches?

SIGNALS TRAINING CONSORTIUM 5

Inspection and Maintenance of Switches and Derails

Overview

Switch & Derail Prints Indicate:

- How they are controlled
- How they operate
- Electrical configuration
- Nomenclature
- Relays

SIGNALS TRAINING CONSORTIUM 6

Inspection and Maintenance of Switches and Derails

Nomenclature

Acronyms to Know

C = Correspondence

P = Position or Repeater

W = Switch related component

K = Indicator

O = Overload

Z = Call or Request

L = Lock

R = Relay or Reverse

N = Normal

S = Stick (relay)

SIGNALS TRAINING CONSORTIUM 7

Inspection and Maintenance of Switches and Derails

Classroom Activity

Table 3 Other Switch/Derail Specific Nomenclature

Item*	AREMA*	Your Location	Notes
Switch operating mechanism or lock valve	W		
Relay, controller or contactor controlling both normal and reverse operations of a switch or an electric switch lock	WR		
Relay, controller or contactor controlling the normal operation of a switch or an electric switch lock	NWR		
Relay, controller or contactor controlling the reverse operation of a switch or an electric switch lock	RWR		
Relay repeating WR	WRPR		
Relay repeating position of switch	WPR		
Relay repeating normal position of switch or normal position of WPR	NWPR		
Relay repeating reverse position of switch or normal position of WPR	RWPR		
Indicator of the positions of a switch	WK		
Switch and derail lock operating mechanism on a switch	WL		
Relay repeating normal position of a switch lock	NWLPR		
Relay repeating normal position of a dual-control lever	NJPR		
Relay repeating reverse position of dual-control lever	RJPR		
Indicator of the normal position of a switch	NWK		
Indicator of the reverse position of a switch	RWK		
Indicator of the block condition in approach to a switch	WAK		
Relay repeating reverse position of a switch lock	RWLPR		
Normal Switch Correspondence Relay	NWCR		
Reverse Switch Correspondence Relay	RWCR		
Spring Switch	SS		
Lock Relay	LR		
Reverse Switch Request Relay	RWZR		
Normal Switch Request Relay	NWZR		
Restore to Normal Request Relay	R-NWZR		

Inspection and Maintenance of Switches and Derails

Time For a Classroom Activity

Table 4 Nomenclature for **Wires** Related to Switches/Derails

Item*	Abbreviation		Notes
	AREMA*	Your Location	
Normal Control of Switch Operating Mechanism	NW		
Overload Relay	OL		
Reverse Control of Switch Operating Mechanism	RW		
Individual Return Wire to 10 Switch Operating Mechanism	N10W		
Positive Control of WR	WR		
Negative Control of 10WR	N10WR		
Positive Control of WNR	WNR		
Positive Control of WRR	WRR		
Positive Control of WK	WK		
Negative Control of 10WK	N10WK		
Positive Control of NWK	NWK		
Positive Control of RWK	RWK		
Positive Control of WAK	WA		
Positive Control of WL	WL		

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