

Railroad Signals

Whistle and Horn

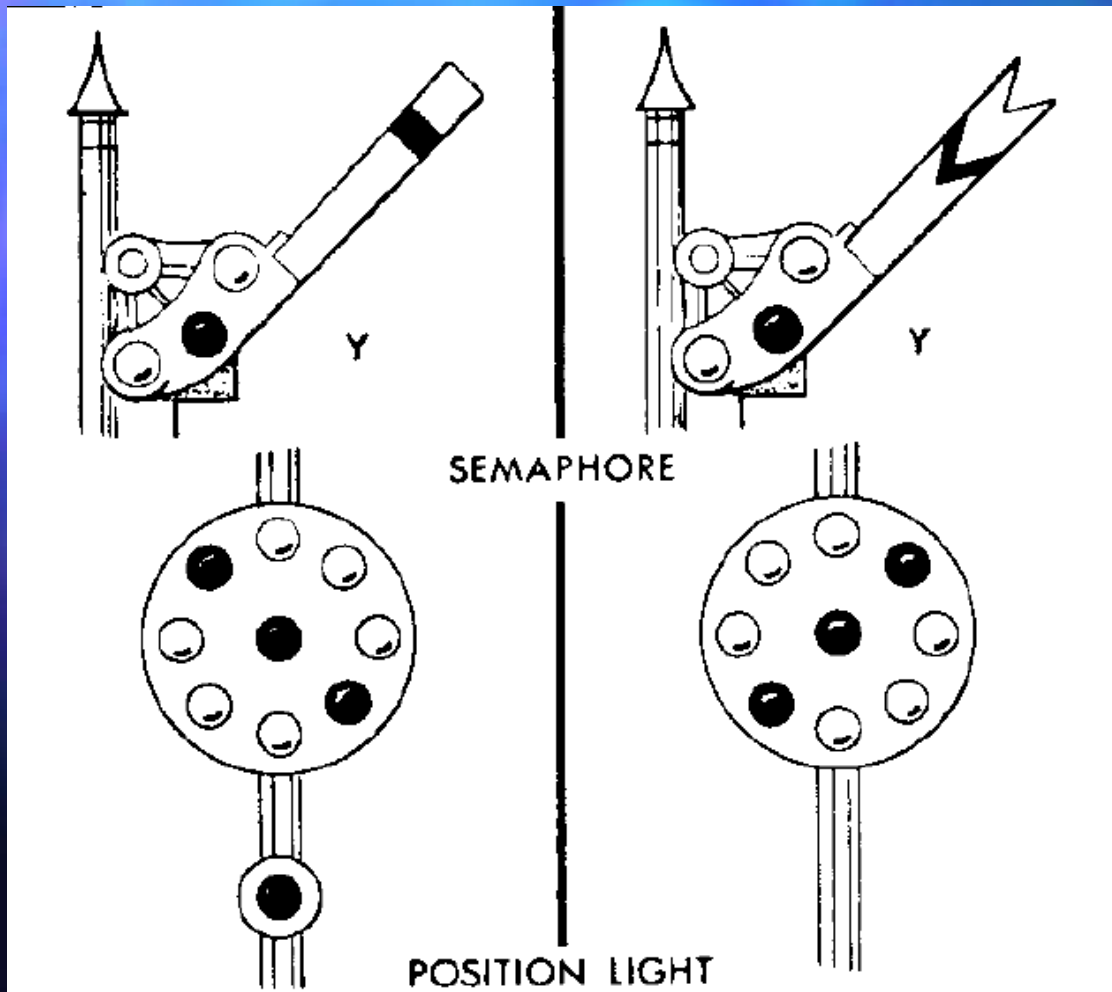
Semaphore and Signal Lights

Whistle Signals

- Used to relay information to people on and around the train

Symbol	Text	Description
O	Short	Apply breaks. Stop.
OO	Short Short	Engineer's answer to any signal
OOO	Short Short Short	When stopped, back up When running, stop next station
~ ~	Long Long	Release breaks, proceed
~ ~ O ~	Long Long Short Long	Approaching public grade crossing

Semaphore and Lights

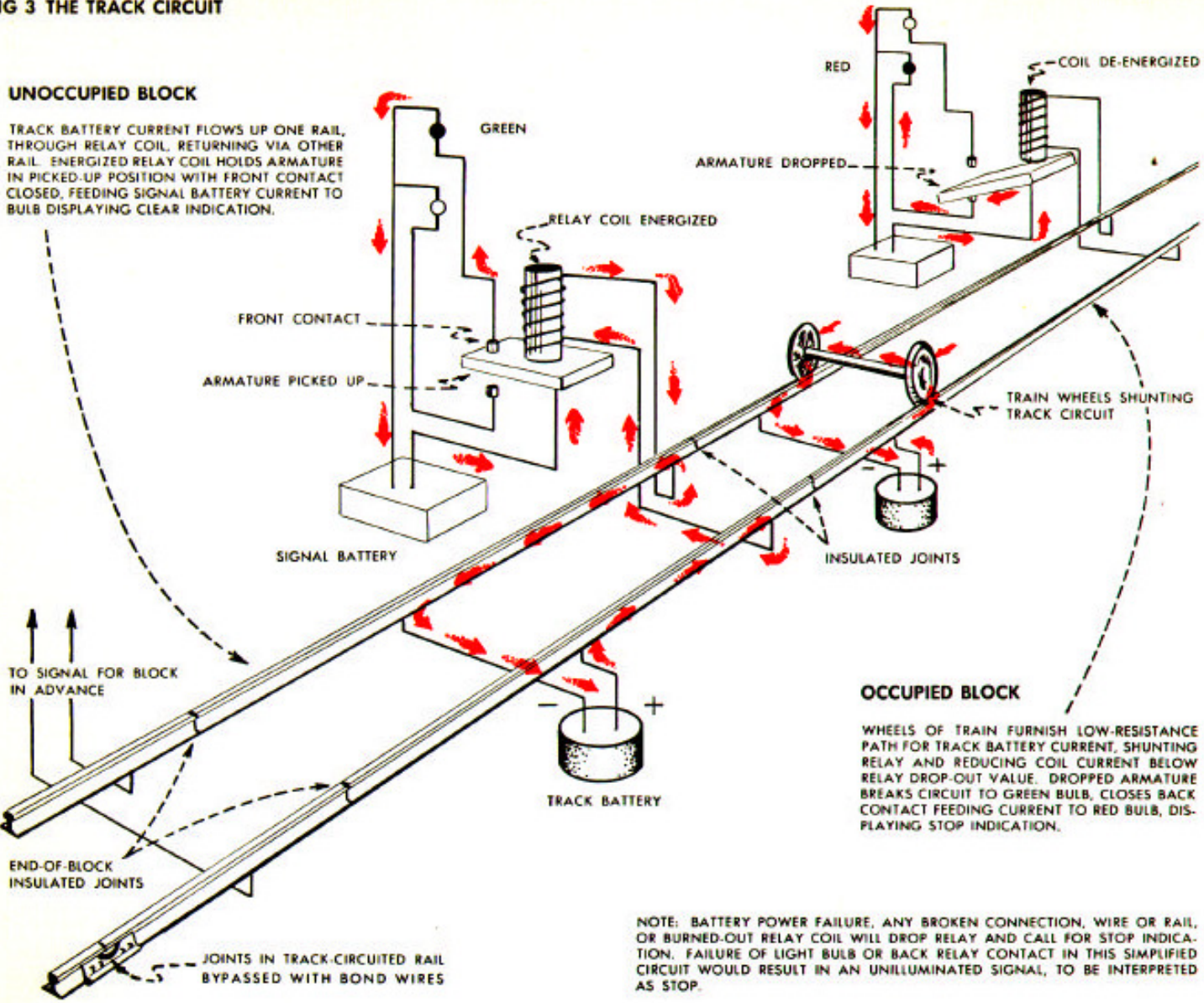


The Track Circuit

FIG 3 THE TRACK CIRCUIT

UNOCCUPIED BLOCK

TRACK BATTERY CURRENT FLOWS UP ONE RAIL, THROUGH RELAY COIL, RETURNING VIA OTHER RAIL. ENERGIZED RELAY COIL HOLDS ARMATURE IN PICKED-UP POSITION WITH FRONT CONTACT CLOSED, FEEDING SIGNAL BATTERY CURRENT TO BULB DISPLAYING CLEAR INDICATION.



OCCUPIED BLOCK

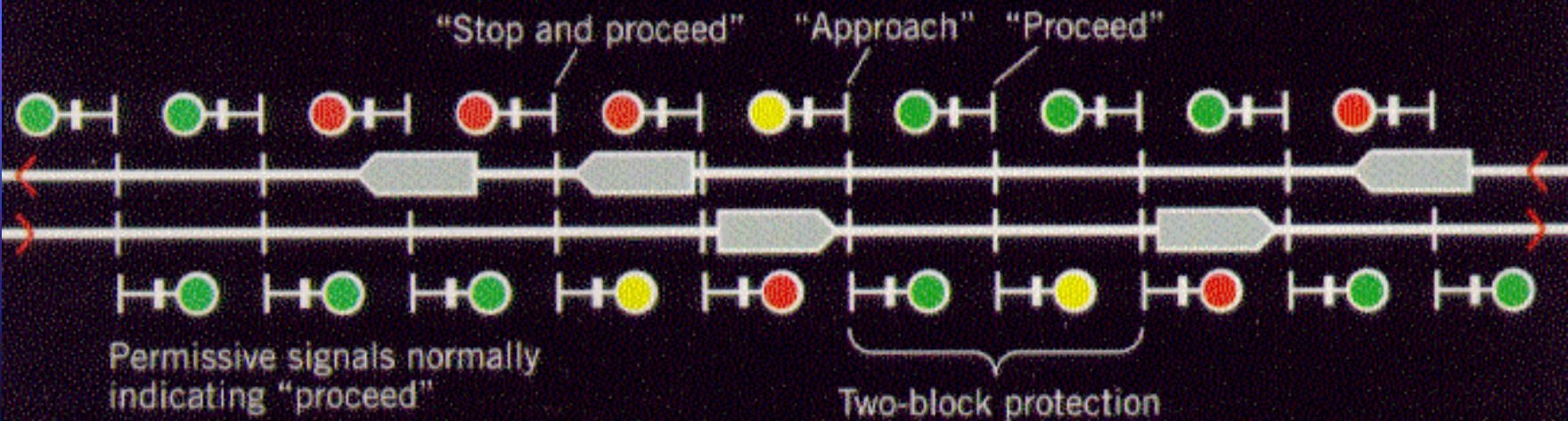
WHEELS OF TRAIN FURNISH LOW-RESISTANCE PATH FOR TRACK BATTERY CURRENT, SHUNTING RELAY AND REDUCING COIL CURRENT BELOW RELAY DROP-OUT VALUE. DROPPED ARMATURE BREAKS CIRCUIT TO GREEN BULB, CLOSES BACK CONTACT FEEDING CURRENT TO RED BULB, DISPLAYING STOP INDICATION.

NOTE: BATTERY POWER FAILURE, ANY BROKEN CONNECTION, WIRE OR RAIL, OR BURNED-OUT RELAY COIL WILL DROP RELAY AND CALL FOR STOP INDICATION. FAILURE OF LIGHT BULB OR BACK RELAY CONTACT IN THIS SIMPLIFIED CIRCUIT WOULD RESULT IN AN UNILLUMINATED SIGNAL, TO BE INTERPRETED AS STOP.

Absolute Block System

ABSOLUTE BLOCK SYSTEM (ABS)

Double track, trains move with the current of traffic



Single Track

