COLOR LIGHT SIGNAL ASPECTS

Seaboard Signals
Former Conrail Territories
C & O Signals
1. The operation of many trains over the railroad at the same time makes it mandatory to have Operating Rules. One very important part of these rules is the section on Fixed Signals. They are a means of communicating instructions to engineers, trainmen, and on track equipment.

2. One signal system used is the COLOR LIGHT SIGNAL SYSTEM. The three colors used are **RED, GREEN, AND YELLOW**. The names ordinarily associated with the colors are STOP with **RED**, CLEAR with **GREEN** and APPROACH with **YELLOW**.

3. Single, Double, or Triple **COLOR LIGHTS** may be used to convey instructions to engineers and trainmen. In addition to STOP, CLEAR, and APPROACH instructions, the speed and applicable block are also conveyed by signal aspect. The most involved instruction for a particular block determines whether a one, two, or three light signal is used.
This guide is designed to help you learn to read the Seaboard Color Light signals, the color light signals on the former Conrail territories, and those found on the former C & O. The book is divided into three sections; one for the Seaboard signals, one for the former Conrail territories, and one for the former C & O territories. Learn the signals in the section specific to your territory.

This is intended to be a supplement for use in learning the color light signal systems found on your territory and should not replace careful study and understanding of the information contained in the Signal Aspects and Indications Rules that apply to your territory. Dwarf signals are not covered in this guide.
Seaboard Signals

SECTION 1
RULE 1292: STOP
The name of the signal displaying all red lights without a “P” marker, “G” marker, or number plate.
Rule 1291: Restricted Proceed

Proceed at Restricted Speed

Restricted Speed – A speed that will permit stopping within ½ the range of vision. It will also permit stopping short of a Train, a Car, an Obstruction, a Stop Signal, a Derail or an improperly lined switch. It must permit looking out for broken rail. It will not exceed 15 MPH.
RULE 1293: STOP AND CHECK

Stop and check position of drawbridge, spring switch, derails or gates protecting railroad crossings. If way is clear and drawbridge, spring switch, derails or gates are in proper position, proceed at Restricted Speed.

Stop and Check designated by the “C” marker.
RULE 1294: STOP AND OPEN SWITCH
Stop and open hand-operated switch.
RULE 1298: GRADE
Proceed at Restricted Speed.
RULE 1290: RESTRICTING
Proceed at Restricted Speed.

Lunar White light in any position.
The name of the signal read from the top position down. When RED is used with GREEN, YELLOW or LUNAR WHITE, RED is not considered because it contributes nothing to the name of signal. It remains lighted to let you know it is in working order and to show the relationship of the other lights—whether in top, second or third position.

If it’s not all RED, It’s not read at all.

Name the colors considered first in calling the name of the following signals.
RULE 1281: CLEAR
Proceed

Green displayed in the top position
RULE 1283: MEDIUM CLEAR

Medium Speed through turnouts, crossovers, sidings, and over power-operated switches; then proceed.

When green is displayed in the middle position, it indicates medium speed. When the green moves from the top position to the middle position the name is MEDIUM CLEAR – medium because the green is in the middle position and clear because the color is green.
RULE 1281-C: LIMITED CLEAR

Limited Speed through turnouts, crossovers, sidings, and over power-operated switches; then proceed.

When the green is flashing in the middle position the signal is upgraded from Medium to LIMITED. Limited because the green is in the middle unit and flashing therefore upgrading the signal to limited and clear because the color is green.
RULE 1287: SLOW CLEAR

Slow Speed through turnouts, crossovers, sidings, and over power-operated switches; then proceed.

When the green is displayed in the bottom position the signal becomes SLOW CLEAR. Slow because the green is in the bottom and clear because the color is green.
Signal Progression

Check your understanding on the following signals:
Signal Progression

The logic you have learned also applies to Approach, Limited Approach, Medium Approach and Slow Approach. Check your understanding on the following signals:

Rule 1285  Rule 1281-D  Rule 1286  Rule 1288
Let’s review a few basic rules we have learned:

- **ALWAYS READ FROM TOP UNIT DOWN**
- **A COLOR ON TOP GIVES BASIC INDICATION (Clear or Approach)**
- **A COLOR IN 2\textsuperscript{ND} UNIT (Green or Yellow) INDICATES MEDIUM SPEED**
- **A COLOR FLASHING UPGRADES SIGNAL**
- **GREEN OR YELLOW IN 3\textsuperscript{RD} UNIT INDICATES SLOW**
Yellow in the top unit, the signal name begins with Approach.
When the first color to be considered is in the middle unit or bottom unit, the speed in the name comes first.
Continued –
When the first color to be considered is in the middle unit or bottom unit, the speed in the name comes first.

- Rule 1283-A
  - Medium Approach
    - Medium
      - Red
      - Yellow
      - Green
  - Rule 1283-A

- Rule 1283-B
  - Medium Approach
    - Slow
The signals below do not conform to the pattern we have learned.

RULE 1282-A

RULE 1283-C

RULE 1287-A
How To Read Signals:

Limited, Medium or Slow speed through turnouts, crossovers, sidings, and over power-operated switches; then Proceed, prepared to stop at the next signal.

Limited, Medium or Slow speed through turnouts, crossovers, sidings, and over power-operated switches; then Proceed.

Proceed, approaching next signal not exceeding limited, medium or slow speed
FORMER CONRAIL TERRITORY

Color Light Signals

SECTION 2
RULE CR-1292: STOP
The name of the signal displaying all red lights without a “G” marker or number plate is STOP.
RULE CR-1291: RESTRICTED PROCEED

The addition of a number plate in combination with red lights makes the signal RESTRICTED PROCEED.
The name of the signal is read from the TOP POSITION DOWN. When RED is used with GREEN or YELLOW, RED is not considered because it contributes nothing to the name of the signal. It remains lighted to let you know it is in working order and to show the relationship of the other lights whether in the top, middle or bottom positions.

In other words, **If it’s not ALL RED, then it’s not Read at all.**
RULE CR-1281: CLEAR

Proceed

Green displayed over red lights indicates CLEAR.
RULE CR-1283: MEDIUM CLEAR

Proceed at Medium Speed until entire train clears all switches, then proceed.

When a color, green or yellow, is displayed in the middle position, it indicates medium speed. When the green moves from the top position to the middle position the name is MEDIUM CLEAR – medium because the green is in the middle position and clear because the color is green.
RULE CR-1281-C: LIMITED CLEAR

Proceed at Limited Speed until entire train clears all switches, then proceed.

When the green is flashing in the middle position the signal is upgraded from Medium to LIMITED. Limited because the green is in the middle unit and flashing therefore upgrading the signal to limited and clear because the color is green.
RULE CR-1287: SLOW CLEAR

Proceed at Slow Speed until entire train clears all switches, then proceed.

When the green is displayed in the bottom position the signal becomes SLOW CLEAR. Slow because the green is in the bottom and clear because the color is green.
Signal Progression
Check your understanding on the following signals:

Rule CR-1281
Rule CR-1281-C
Rule CR-1283
Rule CR-1287
Signal Progression

The same logic you have learned also applies to Approach and Medium Approach. Check your understanding on the following signals:

Rule CR-1285

Rule Cr-1286
RULE CR-1290: RESTRICTING

Proceed at Restricted Speed until the train has cleared all switches and the leading wheels have:
1. Passed a more favorable fixed signal, or
2. Entered non-signaled DCS territory

When the YELLOW moves to the bottom position, it loses its identity as APPROACH and becomes RESTRICTING. This signal does not conform to the logic we have learned.
**RULE CR-1288: SLOW APPROACH**

Proceed prepared to stop at next signal. Slow Speed applies until entire train clears switches, then Medium Speed applies.

When Yellow is flashing in the bottom position this indicates SLOW APPROACH. This signal does not conform to the logic we have learned.
Before we look at the next group of signals, let’s review a few of the basic rules we have learned.

1. The name of the signal indication is read from the top position down.
2. A Green or Yellow color in the top position gives the basic indication (Clear or Approach).
3. A Green or Yellow color in the middle position indicates Medium Speed.
4. A Flashing Green or Yellow color in the middle position indicates Limited Speed.
5. A Green in the bottom position indicates Slow Speed.
6. Red contributes nothing to the name unless ALL aspects are red. Remember, "If it’s not all Red then it’s not Read at all.”
CONTRIBUTING COLORS

When Yellow and Green color lights are used in combination, they both contribute information to the signal such as in the following example:

RULE CR-1284

- Approach because the color is Yellow in the top position.
- Red contributes nothing to the name.
- Slow because the Green is in the bottom position.
RULE CR-1284: APPROACH SLOW

Proceed approaching the next signal at Slow Speed. Trains exceeding Medium Speed must begin reduction to Medium Speed as soon as the engine passes the Approach signal.

Other Approach Slow signals, such as this one, have Yellow over Yellow aspects that do not follow the logic we have learned.
Use the logic you learned previously on the following signals.

- **Yellow** indicates the signal name begins with *Approach*.
- **Medium Speed** is indicated because *Green* is in the middle position.
- **Limited Speed** because the *Green* in the middle position is flashing.
- **Red** contributes nothing to the signal.
- **Slow Speed** because the *Green* is in the bottom position.

**CR-1282**
- Approach Medium

**CR-1281b**
- Approach Limited

**CR-1284**
- Approach Slow
When RED is in the top position the signal name begins with a speed.

- Rule CR-1281c
  - LIMITED CLEAR

- Rule CR-1283
  - MEDIUM CLEAR

- Rule CR-1287
  - SLOW CLEAR

- Rule CR-1286
  - MEDIUM APPROACH

- CR-1290
  - RESTRICTING
NONCONFORMING SIGNALS

The following signals do not follow the basic logic demonstrated in the preceding examples:

Rule CR-1283a
MEDIUM APPROACH MEDIUM

Since Red is in the top position the signal begins with a speed.
Yellow in the middle position gives us Medium Approach.
BUT, Green in the bottom position is medium rather than slow.

Rule CR-1288
SLOW APPROACH

Since Red is in the top position the signal name begins with a speed.
Yellow flashing in the bottom position indicates slow.
Former C & O Territory

Color Light Signals

SECTION 3
HOW TO READ SIGNAL

Always read from TOP DOWN

TOP UNIT → MAXIMUM - LIMITED

MIDDLE UNIT → MEDIUM — FLASHING ASPECT IN 2ND UNIT LIMITED IN NAME. ALSO, FLASHING ASPECT IN 2ND OR 3RD UNIT, YOU UPGRADE THE SIGNAL

BOTTOM UNIT → SLOW
RULE C-1292: STOP

The name of the signal displaying all red lights without a “P” marker, “G” marker, or number plate is STOP.
RULE C-1291: RESTRICTED PROCEED

Proceed at Restricted Speed

Restricted Speed – A speed that will permit stopping within ½ the range of vision. It will also permit stopping short of a Train, a Car, an Obstruction, a Stop Signal, a Derail or an improperly lined switch. It must permit looking out for broken rail. It will not exceed 15 MPH.

The addition of a number plate or a “P” Marker with red lights indicates Restricted Proceed.
RULE C-1298: GRADE
Proceed at Restricted Speed.

Red lights in combination with a “G” marker.
RULE C-1281: CLEAR
Proceed

When Green is displayed in the top position the signal is Clear.
RULE C-1283: MEDIUM CLEAR

Medium Speed through turnouts, crossovers, sidings, and over power-operated switches; then proceed.

When Green is displayed in the middle position, it indicates medium speed. When the green moves from the top position to the middle position the name is MEDIUM CLEAR – medium because the green is in the middle position and clear because the color is green.
RULE C-1281-C: LIMITED CLEAR

Limited Speed through turnouts, crossovers, sidings, and over power-operated switches; then proceed.

When the green is flashing in the middle position the signal is upgraded from Medium to LIMITED. Limited because the green is in the middle unit and flashing therefore upgrading the signal to limited and clear because the color is green.
RULE C-1287: SLOW CLEAR

Slow Speed through turnouts, crossovers, sidings, and over power-operated switches; then proceed.

When the green is displayed in the bottom position the signal becomes SLOW CLEAR. Slow because the green is in the bottom and clear because the color is green.
Signal Progression

C-1281

C-1281-C

C-1283

C-1287
When Yellow is displayed in the top unit of the signal the signal name begins with Approach.
When Red is displayed in the top unit of the signal the speed in the signal name comes first.
RESTRICTING - Proceed at restricted speed.

The addition of the red in the bottom unit upgrades the signal to SLOW APPROACH.