



Chapter- 04

FIXED SIGNALS, ASPECTS & INDICATIONS

TOPICS TO BE COVERED

Chapter - 04

Fixed signals, aspects & indications

- A. Introduction
- B. Signals for reception
- C. Signals for departure of trains
- D. Aspect sequence chart of stop signals used for departure of trains

A

Introduction

Introduction



Railway signal

- Four types of signals are used for train operation:
 - Fixed signals
 - Hand signals
 - Detonating signals
 - Flare signals
- Fixed signals are defined as "a signal of fixed location indicating a condition affecting the movement of a train and includes fixed light for use by day and a fixed light for use by night".
- Fixed signals are the most common type of signal used in train operation. They are located at fixed points along the railway track and provide information to train drivers about the condition of the track ahead.
- **Fixed signals play an important role in the safe and efficient operation of railways. They provide train drivers with vital information about the condition of the track ahead, and help to prevent accidents and delays.**

B

General and Subsidiary Rules(G&SR)



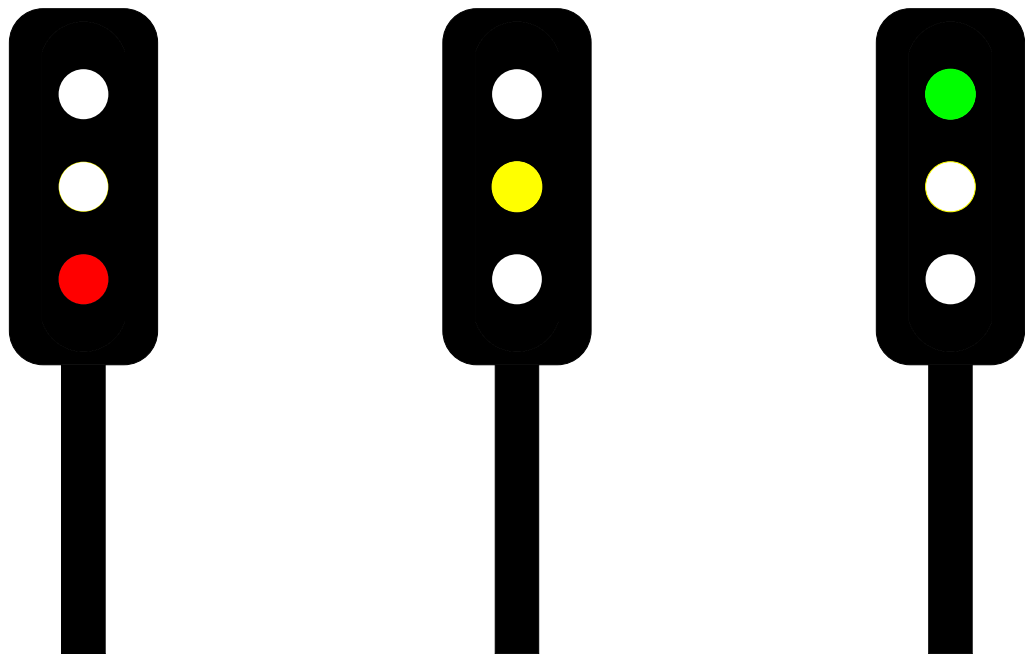
General and Subsidiary Rules(G&SR)

- Colour light signals are signals that indicate one of three colors irrespective of day or night.
- Some of the advantages of colour light signals over semaphore signals are:
 - The day and night aspects are the same, therefore no confusion to the loco pilot.
 - The visibility can be obtained for longer range and the natural background adds to improve the visibility, especially they are excellent in the night.
 - The signals are placed at loco pilot's eye level.
 - The drooping of signal arm due to snow or external force is completely eliminated.
 - A combination of 4 aspects can be obtained.
 - No mechanical transmission, no moving parts, so no wear and tear, and long range of operation is feasible.
 - No kerosene is required and no necessity to depend on Operating Staff for lighting lamps.



Colour light signals are a more reliable and efficient type of signal than semaphore signals. They are now the most common type of signal used on railways around the world.

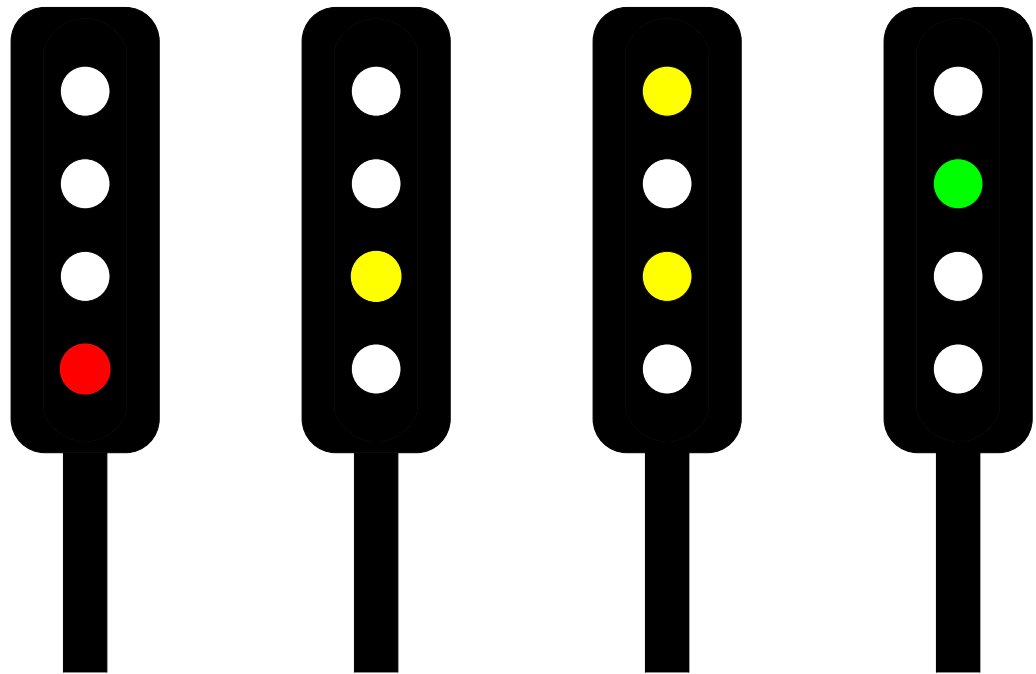
ASPECT AND INDICATION OF MACL STOP SIGNAL (3 ASPECT)



ASPECT	Stop	Caution	Proceed
INDICATION	Stop dead	Proceed & be prepared to stop at next Stop Signal	Proceed

MACLS – 3 Aspect Stop Signal

ASPECT AND INDICATION OF MACL STOP SIGNAL (4 ASPECT)



ASPECT	Stop	Caution	Attention	Proceed
INDICATION	Stop dead	Proceed & be prepared to stop at next Stop Signal	Proceed & be prepared to pass next Stop Signal	Proceed

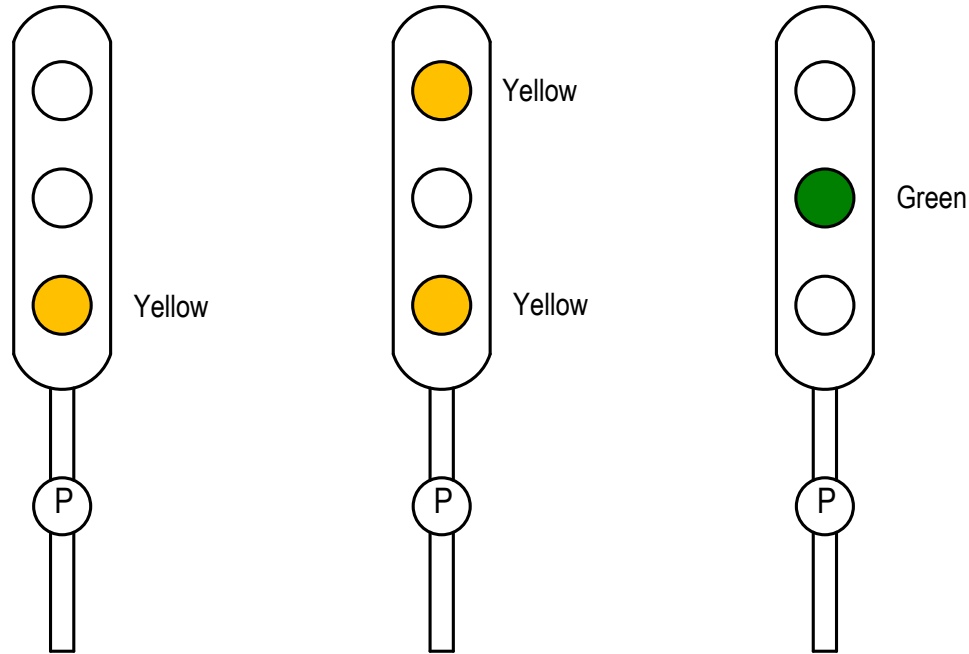
MACLS – 4 Aspect Stop Signal

F

Permanent Way Manual



Distant Signal



ASPECT	Caution	Attention	Proceed
INDICATION	Proceed & be prepared to stop at next Stop Signal	Proceed & be prepared to pass next Stop Signal at such speed as prescribed by special instruction	Proceed

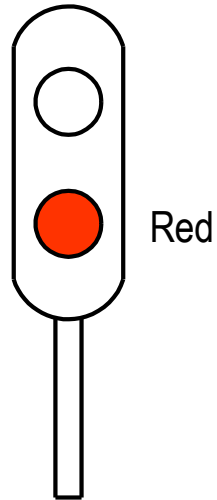
MACLS – Distant Signal *

G

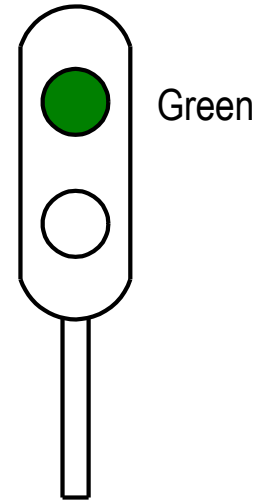
Schedule of Dimensions (SOD)

Schedule of Dimensions (SOD)

'ON' Position



'OFF' Position



ASPECT	Stop	Proceed
INDICATION	Stop dead	Proceed



THANK
YOU

End of Session



Qs..????.

End of Session