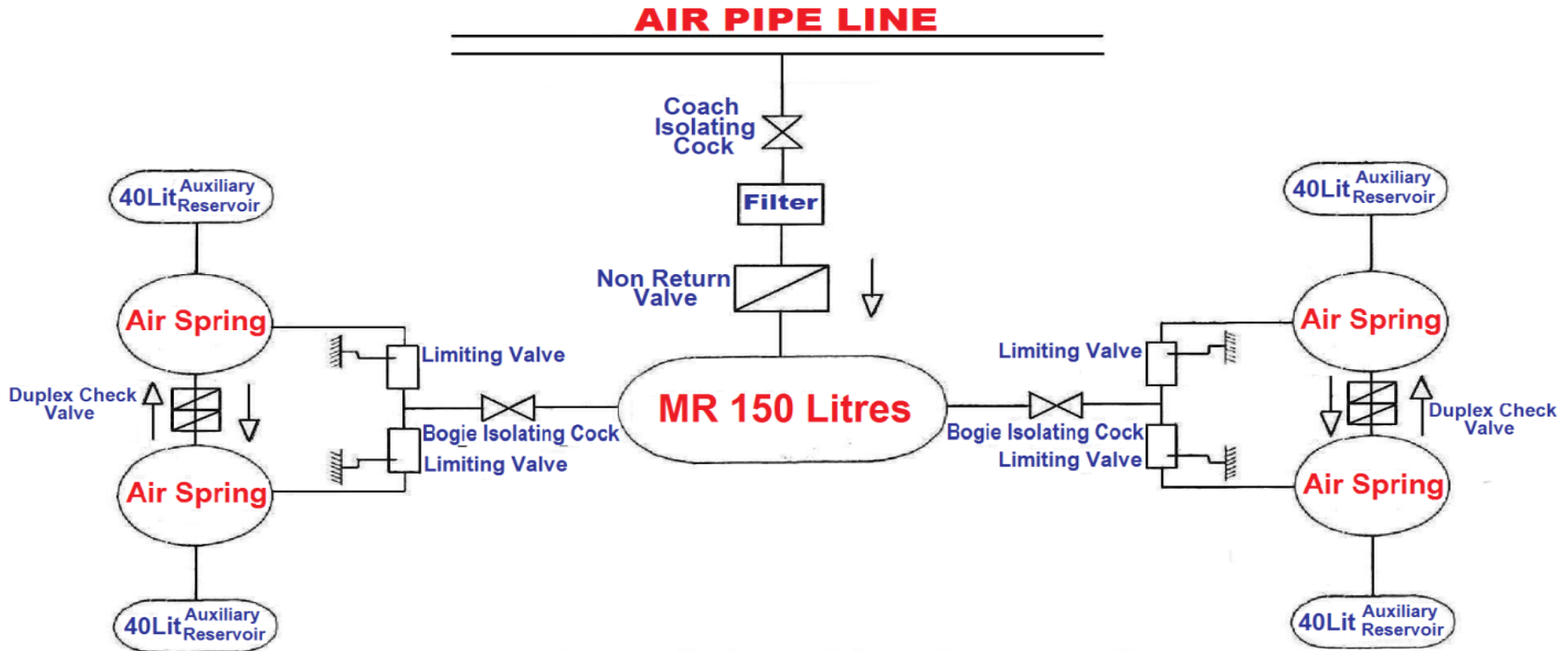


Air Suspension Coach

Air suspension in Coaches



LHB Coach with Air Suspension



2019.03.30 11:08



**Air
Suspension**

**Vertical
Shock
Absorber**

A close-up photograph of a mechanical levelling valve assembly. The assembly consists of a red valve body mounted on a metal plate. A horizontal lever is attached to the side of the valve, and a vertical red installation lever is attached to the bottom. The valve is connected to various pipes and hoses. A yellow wire is tied around one of the pipes. The background shows other mechanical components of the system.

**Levelling
Valve**

**Horizontal
Lever**

**Levelling
valve allows
air to or
exhausts air
from Air
bellows to
maintain
uniform level**

**Installation
Lever**

FIBA Device

FIBA

Failure

Indication and

Brake

Application Device

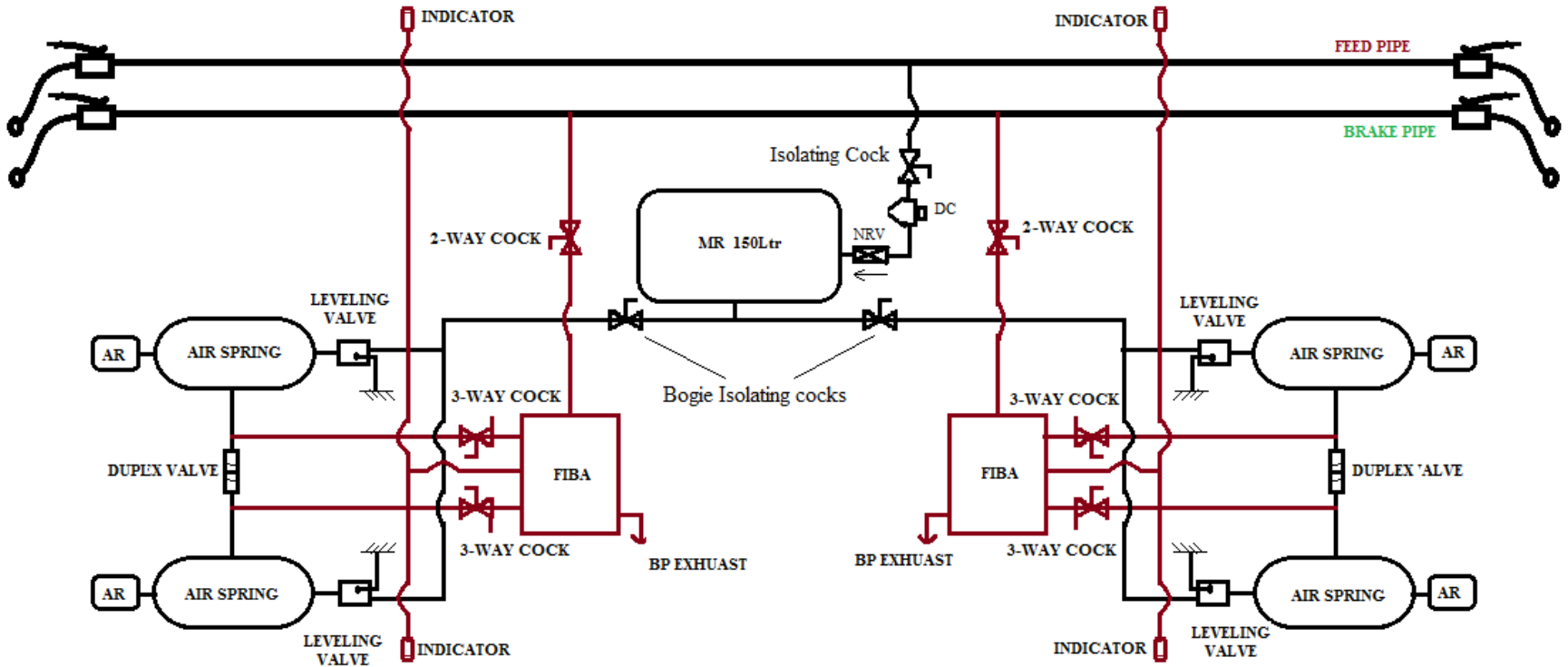
Necessity for FIBA

Supply for air spring is taken from FP

- loss of compressed air from the system not immediately noticed
- Unsafe train operation due to exhaust of compressed air
- Delay in identifying the cause

FIBA is provided in the coach to apply service brake automatically in the event of failure of air spring

Line diagram for FIBA in coach



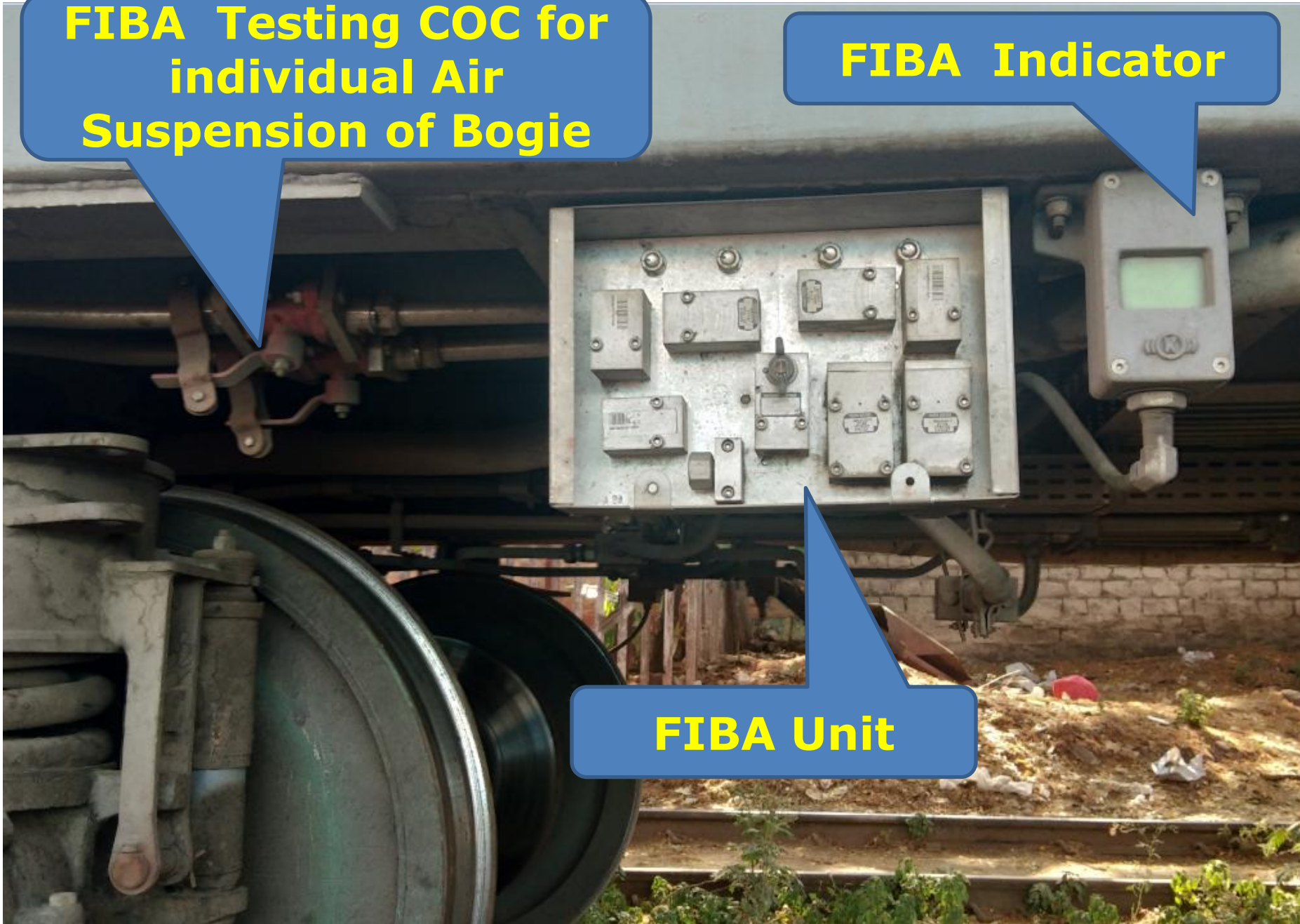
Indication of failure by FIBA

- Automatic BP dropping through FIBA unit 8 mm choke exhaust & brake application on the train
- FIBA brake indicator on either side of coach for each bogie
- Audio sound from the FIBA device

FIBA Testing COC for individual Air Suspension of Bogie

FIBA Indicator

FIBA Unit



FIBA in Double Decker Coaches



**FIBA
Indicator**

FIBA Unit

Procedure for attending

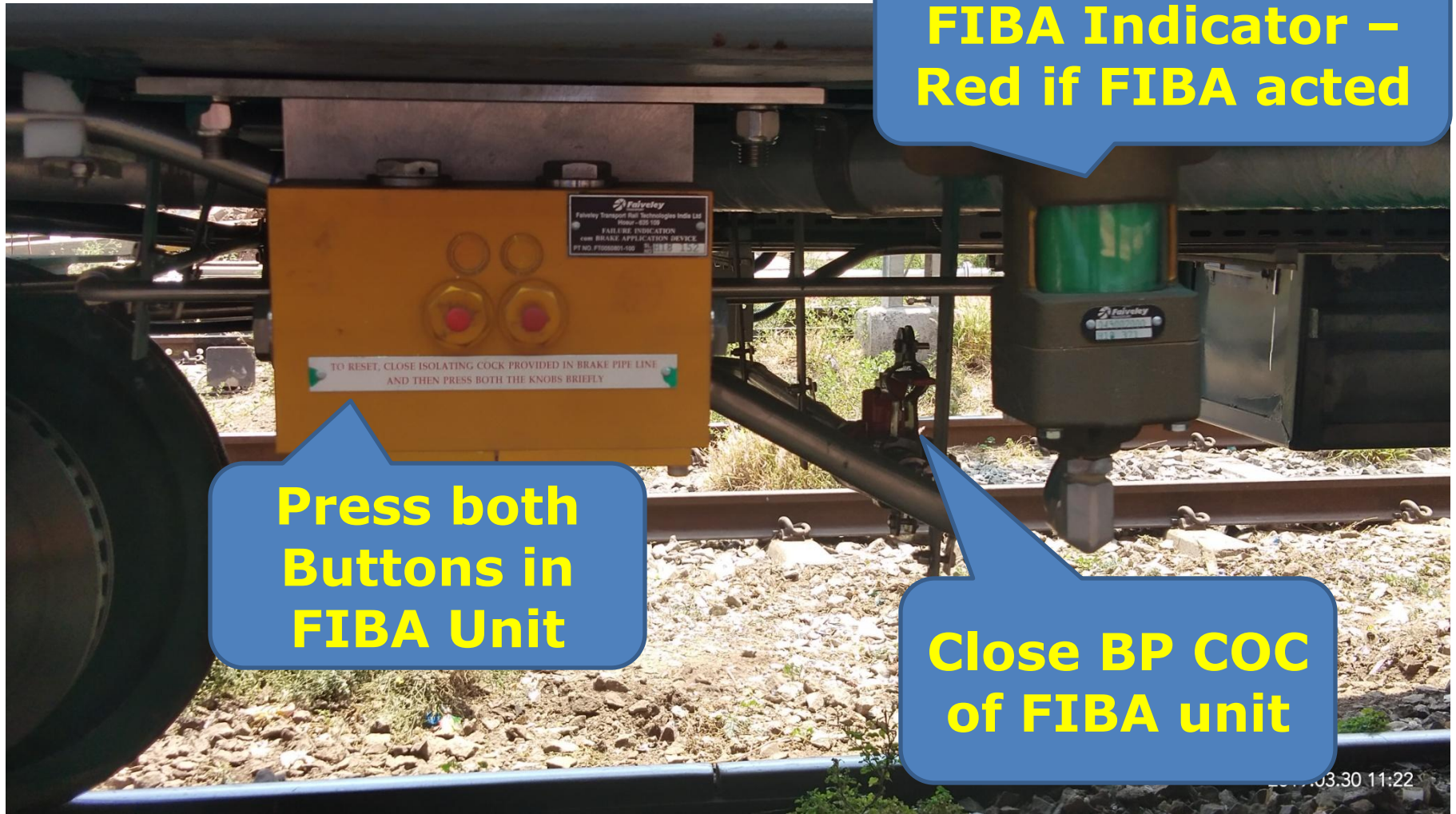
- When the train brake application is identified, Loco pilot should make service application.
- Locate the coach with ruptured bellow through FIBA Indicator and hissing sound.
- Close BP COC on branch pipeline connected to FIBA unit



FIBA Unit

**Close BP COC
for FIBA**

Resetting in this type FIBA



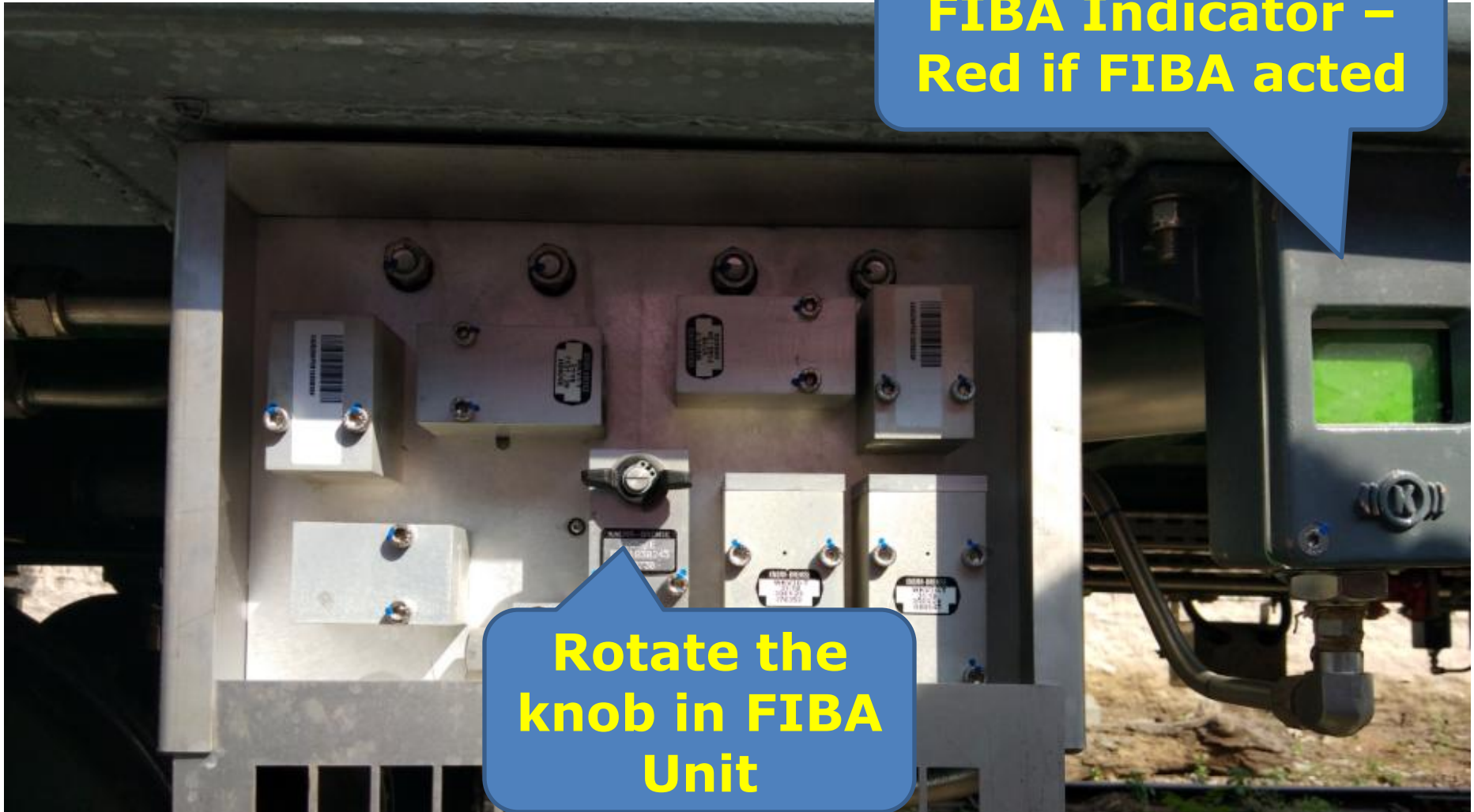
Ensure FIBA indicator turns to green.

Resetting in this type FIBA

**FIBA Indicator –
Red if FIBA acted**

**Rotate the
knob in FIBA
Unit**

Ensure FIBA indicator turns to green.



Procedure for attending

- Isolate the Bogie isolating cock of the Air spring which is provided between the MR and the Bogie.
- Ensure both springs air is vented and coach is sitting on the emergency springs without any tilt.
- Continue the journey with speed limit of 60 Kmph.
- Inform PRC / Section Control

**Close Air Suspension
Isolating COC of
concerned Bogie**





**FP COC for MR
(FIBA) Reservoir**

**MR (FIBA)
Reservoir**