

**PUBLIC TRANSPORT AUTHORITY**  
SAFEWORKING RULES AND PROCEDURES

**4005**  
RAIL TRAFFIC  
LIGHTS  
AND MARKERS

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## 1. PURPOSE

The purpose of this rule is to provide the protocols for use of *Visibility Lights* and *Marker Lights* on *Rail Traffic* in the Public Transport Authority (PTA) *Network* to:

- indicate the normal direction of *Travel*;
  - indicate completeness of *Rail Traffic*; and
  - enhance the visibility of *Rail Traffic*.
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## 2. GENERAL

*Rail Traffic* must not enter the PTA *Network* unless the *Rail Traffic* lights and *Marker Lights* are working correctly.

*Headlights* must be set on full, at the front of all moving *Rail Traffic* unless required to be dimmed or turned off as prescribed within this rule.

An approved *End-Of-Train Marker* or at least one approved red light must be displayed at the rear of *Rail Traffic*.

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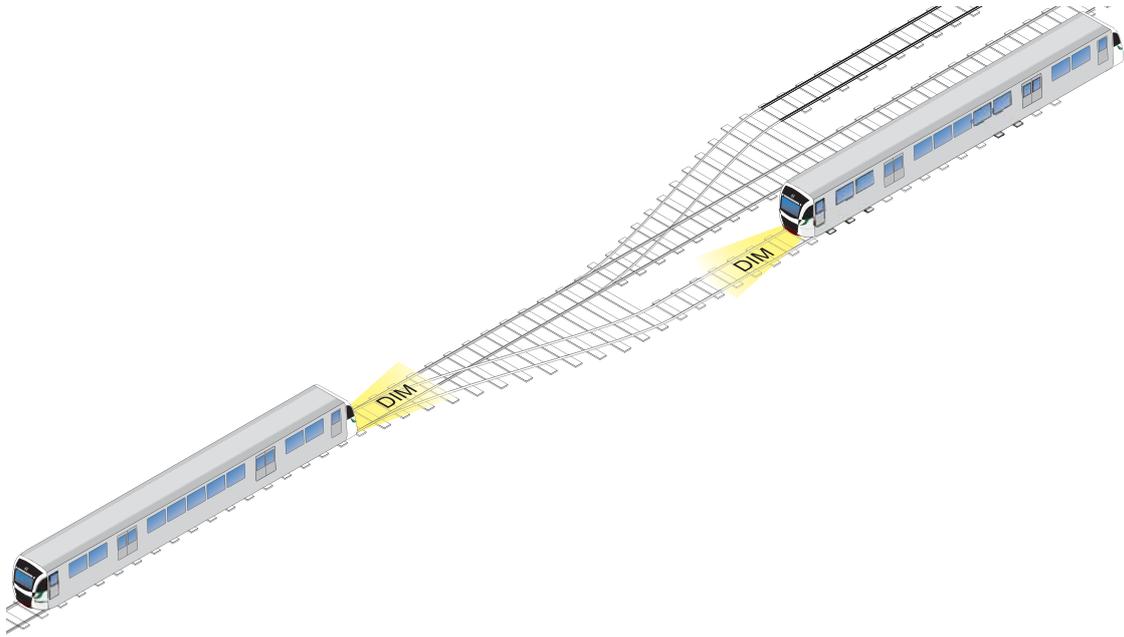
## 3. HEADLIGHT USE



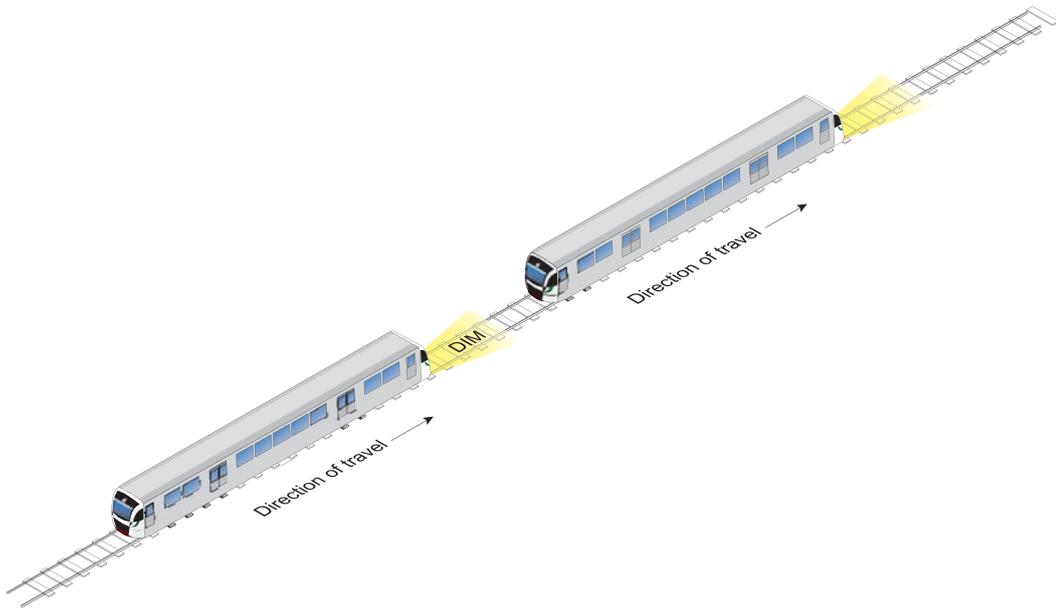
### WARNING

When approaching *Level Crossings*, *Headlights* must remain on full unless opposing *Rail Traffic* is simultaneously approaching. In this case, *Rail Traffic Crew* are permitted to dim the *Headlights*.

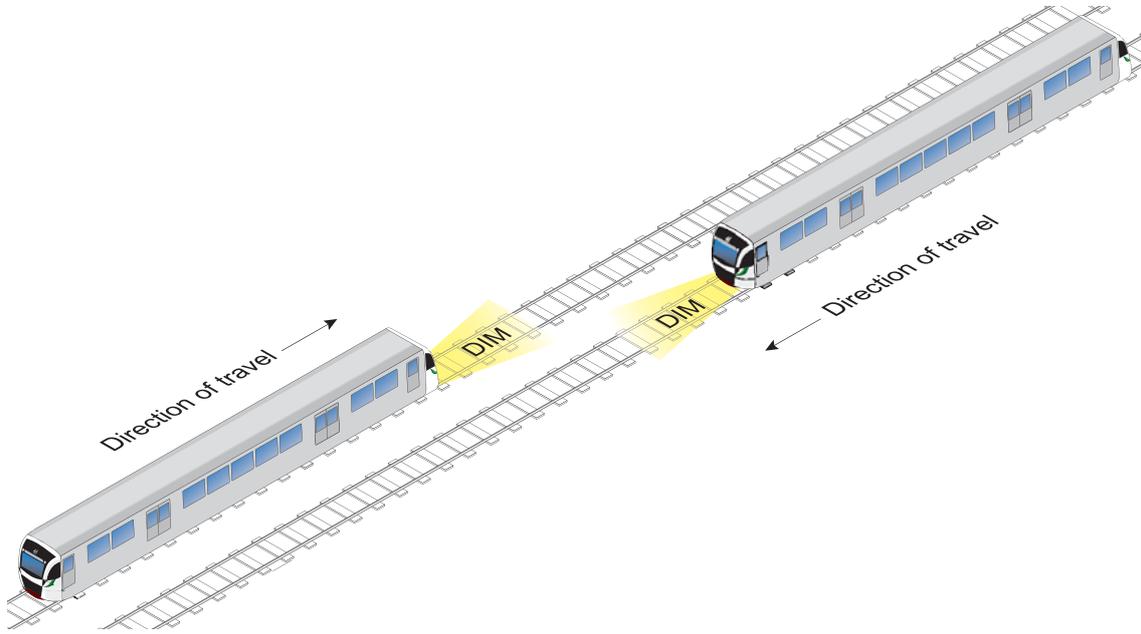
As indicated in the following diagrams *Rail Traffic Crew* are permitted to dim or turn off *Headlights* when *Visibility Lights* are operating under the following conditions:



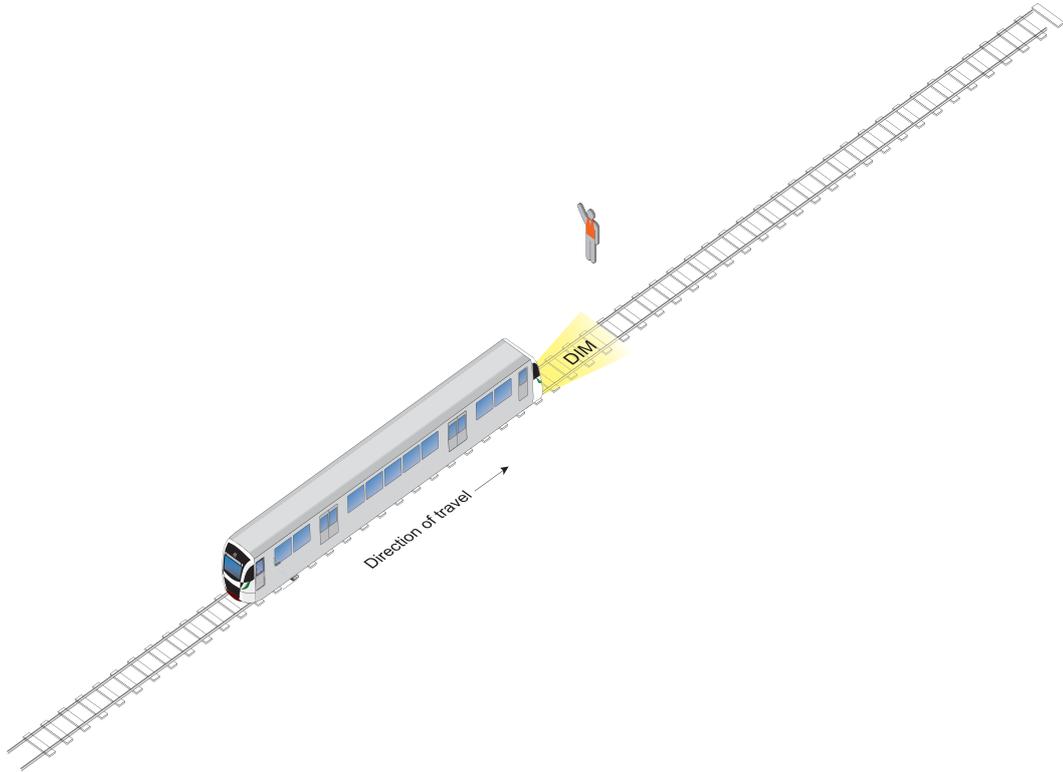
*Figure 3.1 When approaching, standing or working at Locations where Shunting is being performed.*



*FIGURE: 3.2: When approaching or stopped behind other Rail Traffic.*



*FIGURE: 3.3: When approaching and crossing the lead end of opposing Rail Traffic.*



*FIGURE: 3.4: When Handsignals are displayed or when approaching people or workers on or about the Track.*

## 4. DISPLAYING VISIBILITY LIGHTS

If provided, the *Visibility Lights* of *Rail Traffic* must be turned on when the *Rail Traffic* is moving on *Running Lines*.

If *Visibility Lights* fail, *Rail Traffic* may continue normally, provided *Headlights* are turned on.

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## 5. USING LIGHTS FOR WARNING

If necessary, *Rail Traffic Crew* may flash their *Headlights* or change the colour of *Marker Lights* displayed, from white to red to give a *Warning*.

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## 6. FAILED HEADLIGHTS

All cases of total *Headlight* failure must be reported to the *Train Controller*.

The *Train Controller* and the *Rail Traffic Crew* must make arrangements to effect repairs.

If this is not possible, the *Rail Traffic* may proceed to the next repair facility.



### WARNING

Where *Headlights* have failed, *Rail Traffic Crew* may need to make additional use of the *Whistle* to compensate for the lack of visual *Warning*.

### 6.1. TOTAL HEADLIGHT FAILURE AND VISIBILITY LIGHTS NOT AVAILABLE

If visibility is good, *Rail Traffic* must *Travel* at *Controlled Speed*.

During periods of *Low Visibility*, *Rail Traffic* must *Proceed* at *Controlled Speed* to the next repair facility.

When approaching *Level Crossings*, *Rail Traffic* must *Travel* at *Restricted Speed* prepared to *Stop* and not proceed over the *Level Crossing*, until:

- *Active Control Level Crossing* warning equipment is operating; or
- road or pedestrian traffic is not approaching or has stopped at the *Level Crossing*.

When approaching *Locations* where the *Rail Traffic Crew* is aware of or can see *Workers* or other personnel are present, *Rail Traffic* must *Travel* at *Restricted Speed*.

During hours of darkness, *Rail Traffic* must be declared a failure and recovered in accordance with **Rule 4009 Removing Disabled Rail Traffic**.

## **6.2. TOTAL HEADLIGHT FAILURE AND VISIBILITY LIGHTS AVAILABLE**

If the *Headlights* have failed and *Visibility Lights* are available, *Rail Traffic* may *Travel* at *Normal Speed*.

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## **7. FAILED HEADLIGHTS AND WHISTLE**

### **7.1. HEADLIGHTS AND WHISTLE FAILURE, AND VISIBILITY LIGHTS NOT AVAILABLE**

If the *Headlights* and *Whistle* fail and *Visibility Lights* are not available and no other *Motive Power Unit* can be used as the lead unit, the *Rail Traffic Crew* must carry out instructions for operating with total *Headlight* failure when *Visibility Lights* are not available in accordance with Section 6.1.

### **7.2. HEADLIGHTS AND WHISTLE FAILURE, AND VISIBILITY LIGHTS AVAILABLE**

If the *Headlights* and *Whistle* fail and *Visibility Lights* are available, the *Rail Traffic Crew* must:

- continue the movement with the *Visibility Lights* turned on and *Travel* at:
    - *Controlled Speed* if visibility is good; or
    - *Restricted Speed* during periods of *Low Visibility*;
  - slow to *Restricted Speed* before each *Level Crossing* and be prepared to *Stop* if road or pedestrian traffic is approaching;
  - not *Proceed* over the *Level Crossing* unless, at an *Active Control Level Crossing*, equipment is operating.
  - slow to *Restricted Speed* approaching other *Rail Traffic* and where *Workers* may be present on the ground;
  - slow to *Restricted Speed* approaching people on or about the *Track*; and
  - slow or *Stop* as necessary, if the approach of *Rail Traffic* is not attracting the appropriate attention.
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## **8. RAIL TRAFFIC MARKERS**

### **8.1. FRONT OF RAIL TRAFFIC**

The front of *Rail Traffic* must be identified by either *Headlights*, *Visibility Lights* or *Marker Lights*.

If *Marker Lights* become defective they must be repaired or replaced as soon as practicable.

### **8.2. REAR OF RAIL TRAFFIC**

The rear of *Rail Traffic* must be identified by:

- an *End-Of-Train Marker*,
- one or more clearly visible, steady or flashing red lights;
- an *End-Of-Train Monitor*, or
- a combination of the above.

*End-Of-Train Markers* and monitors must have at least one red light that is illuminated during the hours of darkness or when visibility is low.

### **8.3. MOTIVE POWER UNIT IS REAR VEHICLE**

When a *Motive Power Unit* is operating without *Vehicles* or is at the rear of *the Rail Traffic Consist*, one of the following must be displayed:

- one or more red tail lights; or
- an *End-Of-Train Marker*.

### **8.4. INSPECTION OF END-OF-TRAIN MARKER**

The operation of an *End-Of-Train Marker* must be checked before departure and where possible enroute by:

- direct observation of the marker; or
- using telemetry in the cab of the *Rail Traffic*.

### **8.5. FAILED END-OF-TRAIN MARKER**

If the rear *End-Of-Train Marker* fails enroute:

- the *Train Controller* must be told;
- a red reflector, red flag or red light may be used as an alternative rear marker; and
- *Rail Traffic* may *Travel* only as far as the next *Location* where the *End-Of-Train Marker* can be repaired or replaced.

## 8.6. MISSING END-OF-TRAIN MARKERS

If *Rail Traffic* is detected with no *End-Of-Train Marker* the *Train Controller* must be informed.

*Rail Traffic* may *Travel* at the discretion of the *Train Controller* only as far as the next *Location* where the marker can be replaced.

*Rail Traffic* must be worked in accordance with **Rule 5023 Manual Block Working** until the *End-Of-Train Marker* has been replaced.

The *Train Controller* must confirm that:

- the *Rail Traffic* is *Complete*; or
- the *Sections* to the rear of the *Rail Traffic* are clear.

If the *Rail Traffic* is unable to be confirmed as *Complete*, affected *Sections* must be treated as *Obstructed* in accordance with **Rule 2009 Reporting and Responding to Conditions Affecting the Network**.

Until it can be established that the section is clear, the *Train Controller* must:

- apply *Blocking Facilities* to prevent other *Rail Traffic* from entering the affected *Section*;
- tell *Rail Traffic Crew* within the affected *Section* to Stop their *Rail Traffic*; and
- warn *Rail Traffic* on *Adjacent* lines.

## 8.7. IDENTIFYING NUMBER

Where provided, number lights must be illuminated on the leading *Motive Power Unit*.

## 8.8. OTHER LIGHTS

Step and other lights may be illuminated on all units to improve visibility of *Rail Traffic* at *Night*.

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## 9. REFERENCE

Rule 2009 Reporting and Responding to Conditions Affecting the Network (CAN)

Rule 4009 Removing Disabled Rail Traffic

Rule 5023 Manual Block Working

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## 10. EFFECTIVE DATE

1 November 2015