
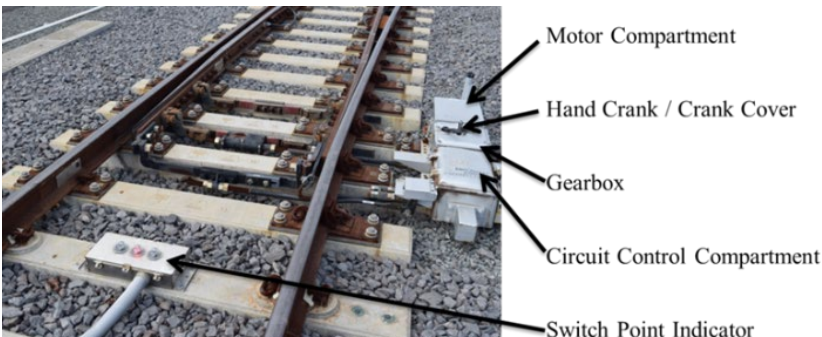


Work Instruction - Operations	HITACHI
MANUAL SWITCH OPERATION WORK INSTRUCTION	Hitachi Rail Honolulu JV

Work description: This work instruction describes the steps to safely operate a switch manually.		
Scope: This work instruction is written specifically for OCC operating staff and maintenance staff of Honolulu Rail Transit.		
References: HNL-09100 Roadway Worker Protection Work Instruction		
PPE and precautions	Competencies or qualifications	Licenses or permits required
PPE required by the maintenance team	Train Controller / Yard Controller, Engineering & Fault Controller, Maintenance Team	Nil
Tools and equipment required		
Nil		

In the event a switch needs to be operated manually	
<i>Train Controller / Yard Controller</i>	<p>You must:</p> <ul style="list-style-type: none"> Stop any train / OTE movement toward / over the affected area Tell the Engineering & Fault Controller to arrange a maintenance team to the site to operate the switch manually to the required position Protect the maintenance team fouling the track and/or establishing a work block limit following the HNL-09100 Roadway Worker Protection Manual Maintain communication with the maintenance team upon their completion of operating the switch manually and have returned safely to the station or yard platform Check that the switch is secured and locked in the required position Log the event in the Train /Yard Controller Log
<i>Engineering & Fault Controller</i>	<p>You must:</p> <ul style="list-style-type: none"> On request from the Train Controller, arrange a maintenance team to the site to operate, secure and block/clamp the switch(es) to the required position
<i>Maintenance Team</i>	<p>You must:</p> <ul style="list-style-type: none"> Coordinate with the Train Controller to establish the required protection measures for on-track protection following the HNL-09100 Roadway Worker Protection Manual – before and during the fouling of the track and/ or the need to establish a work block limit
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;">  </div> <div> <p>Warning</p> <p>Switches can move at any time without warning. Ensure that all body parts and tools are clear of moving switch parts</p>  </div> </div>	

Approved By:	<input type="checkbox"/> Director, Operations and Maintenance	<input type="checkbox"/> Department Manager	<input type="checkbox"/> Manager, HSE (Operations and Maintenance)
Signature:			
Date:			

Document Code	HNL-09401. Manual Switch Operation Work Instruction 01	Effective Date:	
File Name	HNL-09401-01.00-0-Manual Switch Operation Work Instruction	Rev No. 01	Page 1 of 3

MANUAL SWITCH OPERATION WORK INSTRUCTION

- Follow the following steps to operate the switch to the required position:
 - Unlock, unlatch, and open crank cover located on top of switch gear box

**Note**

Once the crank cover is unlatched, the motor cutout contact will be tripped (i.e. the switch can be operated only manually and is out of OCC control)

Because of step 1, the switch position indicator shows the out of correspondence aspect (i.e. the lamp in the middle of the switch point indicator is red).



- Insert and turn the crank lever to manually line the switch machine. The handle must be turned until it fully completes its stroke. When the stroke is complete, it is not possible to turn the handle further
- Check switch points are not gapped and ensure that switch is lined for intended route
- After ensuring that switch is lined properly for the desired route, remove hand crank from gear box and close, latch and lock the cover.



- Open the circuit control compartment and reset by pressing the mechanical latch located in the circuit controller compartment



MANUAL SWITCH OPERATION WORK INSTRUCTION

6. Verify that switch point indicator displays either a green or yellow aspect (depending on lined route).

**Note**

If a red aspect is displayed, the switch is still out of correspondence (check that switch is fully lined for intended route and that motor cutout contact has been reset by repeating step 2)

7. Close circuit control compartment, latch, and lock

**Warning**

All covers are to be secured and locked to prevent inadvertent switch component damage, vandalism, or unauthorized tampering.