

<b>Work Instruction</b>		<b>WO No.</b>	
		<b>Date:</b>	
<b>Scope:</b>			
<b>Team Leader:</b>		<b>Indication Box Type:</b> Signal Branch EP	
<b>Activity:</b> Indication Box Like For Like Renewal (includes Escapement Slide)			
<b>Reference:</b> PR S 40010, PR S 40011			
Activity No.	Task No.	Work Description	Completed Name/Sign
<b>APPARATUS INSPECTION &amp; PREPARATION</b>			
1	1A	Ensure the new indication box is of correct type and configuration in accordance with the specific design and compare to the existing indication box.	
2	2A	Confirm the Normal position of points.	
	2B	On the existing indication box, wire/null count the incoming terminals, including bridges and links and identify tail cable core numbers on the terminals and compare to specific circuit diagram.	
	2C	Document the disconnections on attached circuit diagram.	
	2D	Conduct an apparatus inspection of the condition of the existing indication box fixing arrangements, rodding and associated mechanical equipment. Prepare to replace as required.	
<b>SAFeworking &amp; DISCONNECTION FROM INTERLOCKING</b>			
3	3A	Ensure affected signalling apparatus is booked out of use in accordance with PR S 40008. Obtain authorisation for any temporary bridging in accordance with PR S 40002 as necessary.	
	3B	Disconnect the affected signalling apparatus and clip & lock points in accordance with PR S 40009 – Disconnection of Signalling Apparatus.	
	3C*	If applicable, apply temporary bridging in accordance with PR S 40002. Test bridging and any contacts remaining in circuit as functional.	
<b>DISCONNECTION, REMOVAL AND INSTALLATION</b>			
4	4A	Open links in location for indication box tail cable.	
	4B	Disconnect cable in indication box, protect ends and withdraw clear.	
	4C	Remove indication box and renew any defective fixing material, rodding, etc.	
5	5A	Install new indication box. Lubricate as required.	
6	6A	Inspect the tail cable for signs of damage. Conduct an insulation test of the tail cable and record on circuit diagram.	
	6B	Connect the cable in accordance with previously correlated circuit diagram. Ensure wiring is clear of moving parts.	
	6C	Ensure the installation is physically correct. Ensure all bolts and nuts are appropriately fastened.	
<b>APPARATUS ADJUSTMENT</b>			
7	7A	Adjust indication box for correct operation and adjustment.	

\*Not required where the Escapement Slide contain "escapement contacts" only.

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<b>CERTIFICATION</b>			
8	8A	Wire count all terminals with incoming tail cable installation to circuit diagram ( <b>NB:</b> links to be counted as wire). Record on circuit diagram.	
9	9A	Close all associated terminal links in location and remove any temporary bridging (if applicable).	
10*	10A*	Conduct a Points Correspondence Test Normal - Operate points to the Normal position and open each contact in the Normal detection circuit in turn and ensure Normal detection is lost and restored. Remove and replace EOL/ESML and ensure Normal detection is lost and restored.  Each contact <sup>#</sup> tested during the correspondence test shall be observed to “open” when the points are operated to the Reverse position. ( <i>#denotes not required for encapsulated contacts which are back-proved in the opposite position.</i> )	
	10B*	Conduct a Points Correspondence Test Reverse - Operate the points to the Reverse position and open each contact in the Reverse detection circuit in turn and ensure Reverse detection is lost and restored. Remove and replace EOL/ESML and ensure Reverse detection is lost and restored.  Each contact <sup>#</sup> tested during the correspondence test shall be observed to “open” when the points are operated to the Normal position. ( <i>#denotes not required for encapsulated contacts which are back-proved in the opposite position.</i> )	
	10C*	Conduct an Out of Correspondence test of the following combinations and ensure no detection. <b>Note:</b> The following combinations only apply for an existing double-ended layout. A Signal Engineer shall be consulted if the layout consists of more than two ends.	
Out of correspondence test for existing double-ended layout	Operate points to Normal (both ends Normal)		
	A end hold Normal	Operate points lever Reverse	B end Reverse
	B end hold Reverse	Operate points lever Normal (ensure NWR is energised)	A end Normal
	Operate points to Reverse (both ends Reverse)		
	A end hold Reverse	Operate points lever Normal	B end Normal
	B end hold Normal	Operate points lever Reverse (ensure RWR is energised)	A end Reverse
11*	11A*	Certify the Facing Point Lock and Detection Normal & Reverse.	
12	12A	Arrange for the signaller to check the operation of the points, signals and indications associated with the apparatus. Ensure the indication box is secure.	
	12B*	Complete the return and applicable point history card.	
	12C	Book affected signalling apparatus back into use.	
<p>I certify _____ points at _____                  location have been inspected and tested and are fit for service.</p> <p>_____ Position                  Print Name</p> <p>_____ Date                  Signature</p>			

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