PR S 40011 FM15
Pedestrian Boom Gate Mechanism – Like for Like Renewal

Work Instruction	**WO No.:**
	Date:
Scope:	
Team Leader:	**Type:**
Activity:	Pedestrian Boom Gate Mechanism Like for Like Renewal
Reference:	PR S 40002, PR S 40008, PR S 40009, PR S 40010, PR S 40011

Activity No.	Task No.	Work Description	Completed Name/Sign
		APPARATUS INSPECTION & PREPARATION	
1	1A	Ensure the new Pedestrian Boom Gate mechanism is of correct configuration. Inspect equipment type and configurations are in accordance with the specific design and compare to the existing Pedestrian Boom Gate mechanism	
	1B	Bell test and wire/null count the internal wiring of the new Pedestrian Boom Gate mechanism and compare to the specific circuit design and existing Pedestrian Boom Gate mechanism. Include a correlation of connected links and bridges to the circuit book. Visually inspect and insulation test the internal wiring of the new Pedestrian Boom gate mechanism. Ensure that circuit controller contacts are in the correct position as per the specific circuit design	
2	2A	On the existing Pedestrian Boom Gate mechanism, wire/null count the incoming terminals, including bridges, links and identify cable numbers on the terminals and compare to specific circuit diagram	
	2B	Document the disconnections on attached circuit diagram	
	2C	Conduct an apparatus inspection of the condition of the existing drive point fixings	
		SAFEWORKING & DISCONNECTION FROM INTERLOCKING	
3	3A	Switch the Cerberus monitor to "maintenance mode" to prevent any unnecessary alarms. Advise ICON Infrastructure of the intended work	
	3B	Ensure the level crossing and affected signalling equipment is booked out of use in accordance with PR S 40008. If temporary bridging is required, obtain authorisation for temporary bridging in accordance with PR S 40002	
	3C	Disconnect the level crossing and affected signalling equipment in accordance with PR S 40009 **Note:** The Pedestrian Boom Gate shall not to be tied open	
	3D	If applicable, apply temporary bridging in accordance with the authorisation. Test bridging in accordance with PR S 40002 to ensure the bridges are effective and that any contacts remaining in the circuit are functional	
		DISCONNECTION, REMOVAL AND INSTALLATION	
4	4A	Open links in location for the Pedestrian Boom Gate mechanism tail cable/s	
	4B	Disconnect cable/s in the Pedestrian Boom Gate mechanism, protect ends and withdraw clear	
	4C	Disconnect the Pedestrian Boom Gate arm and mounting bolts and remove the mechanism	
5	5A	Install the new Pedestrian Boom Gate mechanism, boom arm and connect all securing nuts, bolts and split pins	
	5B	Ensure the locking dog is removed from the Pedestrian Boom Gate mechanism	
6	6A	Connect all cables in accordance with previously correlated circuit diagram	
	6B	Inspect the cable/s for any signs of damage. Conduct an insulation test of the tail cable/s and record on circuit diagrams	
7	7A	Lubricate the Pedestrian Boom Gate spectacle arm oil-wells to ensure reliable operation	

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		ADJUSTMENT	
8	8A	Conduct a safety, security and reliability inspection of the fixings, locking tabs, boom gate arm, nuts, bolts and split pins	
	8B	Make any adjustments necessary to the Pedestrian Boom Gate mechanism drive and particularly check the boom gate arm rate of descent	
		CERTIFICATION	
9	9A	Close all associated terminal links in the location and if applicable, remove any temporary bridging **Note:** The testing that ensures temporary bridges are removed are done in steps 10 and 12, as part of the overall wire/null count and correspondence testing	
10	10A	Conduct wire/null count all terminals with incoming tail cable/s installation to circuit diagram (NB: links to be counted as wire). Record on circuit diagram	
11	11A	Conduct a power test of the Pedestrian Boom Gate mechanism operation; check the boom raised and lowered positions are correct. Adjust if required	
	11B	Check for correct operation of the operating-clutch, holding-clutch and ratchet & pawl gap, adjust as necessary	
	11C	Ensure the Pedestrian Boom Gate operates correctly with smooth motion from the motor/gearbox. Ensure the hold-clear armature falls away from ratchet gear without hesitation	
	11D	Ensure the Pedestrian Boom Gate when fully lowered, can be lifted easily	
12	12A	Conduct a correspondence test of the Pedestrian Boom Gate Normal detection (XNR) where applicable. Operate all Pedestrian Boom Gates to the lowered position (0°) and raise each boom gate in turn to ensure the XNR relay de-energises and restores. Observe the relevant contact to ensure it is of the correct type (N/O or N/C) and opens and closes correctly **Note:** The above test incorporates the out of correspondence test for each corresponding pedestrian boom gate (Sydney-side and Country-side)	
	12B	Conduct a correspondence test of the Pedestrian Boom Gate Reverse detection (XRR) where applicable. Operate all Pedestrian Boom Gates to the raised position (90°) and lower each boom in turn to ensure the XRR relay de-energises and restores. Observe the relevant contact to ensure it is of the correct type (N/O or N/C) and opens and closes correctly **Note:** The above test incorporates the out of correspondence test for each corresponding pedestrian boom gate (Sydney-side and Country-side)	
13	13A	Ensure the tone generator (where fitted) DIP switch settings are correctly set. Ensure correct operation of the tone generator. Observe the relevant contact to ensure it is of the correct type (N/O or N/C) and opens and closes correctly	
	13B	Ensure correct operation of red-man light indication. Observe the relevant contact to ensure it is of the correct type (N/O or N/C) and opens and closes correctly	
14	14A	Ensure that any alarms raised with Cerberus monitor are cleared. Switch Cerberus monitor out of "maintenance mode"	
15	15A	Arrange with the signaller to conduct an operational test of the affected signalling equipment in association with the level crossing protection equipment. Ensure the Pedestrian Boom Gate mechanism is secure	
	15B	Book the level crossing and affected signalling equipment back into use	

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I certify that the _____ Side Pedestrian Boom Gate mechanism at _____

Level Crossing location has been correctly reinstated, inspected, tested and is fit for service.

Print Name	Position
Signature	Date