



# Model 7J and 7K Circuit Controllers

## Model 7J and 7K Switch Circuit Controllers

The Model 7 line of switch circuit controllers meets the rail industry's rigorous demands for high sensitivity, reliability, and rugged strength – built to withstand significant mechanical stress across a wide range of environmental conditions.



**KB SIGNALING™**

# Model 7J and 7K Circuit Controllers

## Key Benefits

- Rugged. Heavily reinforced case, corrosion & wear resistant cams, spring steel cam surfaces
- Sensitive. A 5-degree movement of the crank transfers the contacts (vibration doesn't affect contacts)
- Reliable. Positive action contact mechanism, spring contact pressure, withstands vibration
- Large camshaft. Camshaft 1.5" (3.81 cm) in diameter
- Field adjustable. Cams may be adjusted to operate the contacts at any desired position of the actuating device
- Versatile. Cams adjustable operate contacts simultaneously or progressively, left or right-hand operation
- Terminal compartment sealed from grease & oil contamination
- Easy internal access
- Ventilators minimize condensation

## Applications

- Switch Point Detection (normal or reverse)
- Bridge Position Logic
- Rail-Joint Sealing
- Tunnel Door Position
- Slide Detector Actuation

## General Description

The Model 7 line of switch circuit controllers meets the rigorous demands of the rail industry – high sensitivity, reliability, and rugged strength to withstand great mechanical stress under a wide range of environmental conditions. The controller may be used to integrate the positions of various devices with suitable control circuits. Commonly use at switch points to detect switch positions, Model 7 controllers can also detect the positions of derails, bridge locks, slide detectors, etc. They can shunt track circuits as well as control relay circuits. The arched castiron case provides great mechanical strength, eliminates projecting corners, and offers full access to all internal parts.

The operating mechanisms are super sensitive to detectable motion, yet isolate the contacts from vibration. The cam faces and the camshaft are concentric and rotate in parallel. As a result, crank-induced vibrations do not affect the contact fingers. The contacts remain stable—no chatter occurs—and vibration-related wear is eliminated. Furthermore, the controller contacts are held tightly closed. In the Model 7J, the combined effect of cam and spring pressure on the contact fingers provides high front-contact pressure. Contact springs hold the fingers firmly against the back contacts. The rocker assemblies in the Model 7K use cam and spring pressure to hold both front and back contacts closed. Contact fingers move only when crank position changes - not with crank or case vibrations.



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## Ordering Information

Part number	Description
53530-030-01	7J controller complete (cam & roller)
53530-031-01	7K controller complete (push-pull)
35491-004-00	Cap, for wire outlet, with 1.50" (3.81 cm) std. pipe tapped hole
35491-024-00	Cap, for wire outlet, with 1.25" (3.18 cm) std. pipe tapped hole
45688-092-02	Coupling, 45 degree, for 1.50" (3.81 cm) flexible conduit
38660-015-01	Crank with insulated ball pin, 1.0" (2.54 cm) offset, 5.375" (13.65 cm) centers
38660-020-02	Crank, with insulated ball pin, 1.0" (2.54 cm) offset, 4.50" (11.43 cm) centers
56607-001-03	Cap, two required, for terminating shunt wires, for two 0.243" (6.172) mm dia. Cables
53231-002-01	Centering attachment, for broken switch rod protection, includes gasket

The model 7J has a cam and roller mechanism as shown in Figure 1-1, while the model 7K uses a push-pull mechanism shown in Figure 1-2.

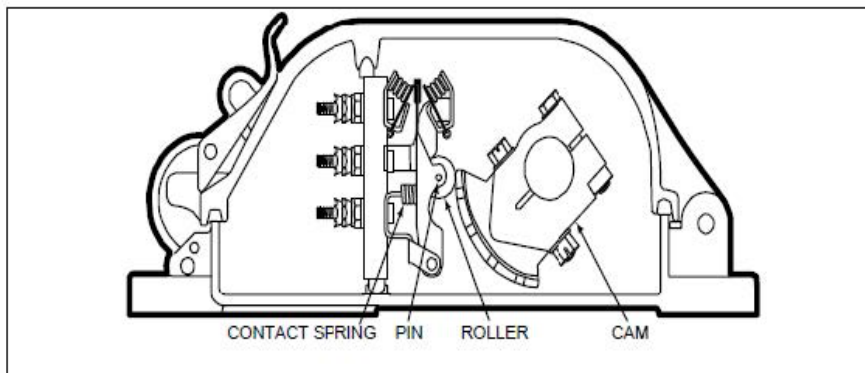


Figure 1-1. Model 7J Cam and Roller Mechanism

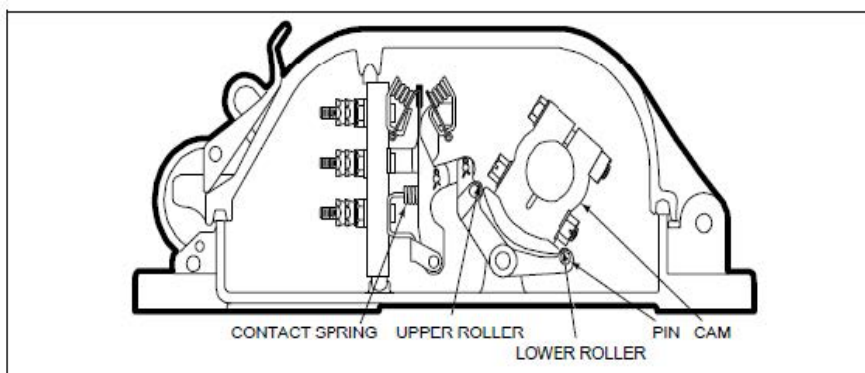


Figure 1-2. Model 7K Push Pull Mechanism



Contact your KB Signaling Business Development Manager  
Call 1-800-825-7090, or Email us at [aso.techsupport-kb@alstomgroup.com](mailto:aso.techsupport-kb@alstomgroup.com) for more information today.

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