

## Frequently Asked Questions about the DB-60 II™ and its BCM™ feature

### **Q: How much leakage will the BCM feature maintain?**

1 psi/min within 8 psi of target pressure  
2 psi/min within 10 psi of target pressure

The feature has a specific capacity that is based on limiting valve choke that feeds the brake cylinder. This choke is the same as the one in current valves. Feeding capacity has not changed as compared to the current valves.

---

### **Q: Does the BCM feature maintain target pressure?**

BCM maintains BC pressure within 8 psi of the target pressure at 1 psi/min. New York Air Brake has used a simple concept to achieve the BCM function that can be used to easily upgrade existing valves. The 8 psi offset is an inherent design characteristic. Other designs that would maintain the target pressure could have been used but they would be impractical for upgrading current valves.

---

### **Q: What is the performance of the BCM feature in extremely cold temperatures?**

The valve maintains the same performance level at -40° F as it would at temperatures above zero.

---

### **Q: What has changed in the valve? What portion is the feature added in?**

Two new parts were added in the DB-10 service portion (BCM exhaust assembly and stem portion) and the side cover was modified.

---

### **Q: Can the existing valves be upgraded?**

Yes. At COT&S new parts can be included to add BCM.

---

### **Q: How is the product identified in the field?**

By a blue tag that says "DB-10C" or "BCM".



## **Q: How will NYAB test the BCM feature?**

The production test code will include a new test. An artificial leak will be created in the BC line and the BCM feature will be tested to ensure it makes up that leakage within allowable limits.

---

## **Q: How do RR's test the BCM feature?**

The BCM feature will be production tested at NYAB. Not every control valve feature is tested by railroads or car builders. If AAR mandates that this feature be tested in the field, a supplement to the current test code S-486 outlining a special test can be provided. SCTDs can easily accommodate this new test step.

---

## **Q: What is the impact on SCT S-486? Does the feature mask the leakage and make a bad car pass?**

The BCM feature doesn't mask the problem and we will still be able to identify a car with a 1 psi/min. or greater leak in the BC circuit. Per the latest S-486 test code with a 10 psi BP reduction, BC leakage is tested. (Test 3.14.3 looks for BP flow). The top of the flowrator must stay below the condemning line. If the leakage is greater than 1 psi/min. the flow test will fail.

---

## **Q: How does the BCM feature maintain BC leakage?**

The feature draws air from the brake pipe with a predetermined maximum capacity to compensate for brake cylinder leakage. In other words, only a certain amount of BP can be drawn to make up for the leakage.

---

## **Q: Have we added any new failure modes to the valve due to addition of this feature, such as creeping up of BC causing wheel damage, etc.?**

The DB-60 II with its BCM feature has the same failure modes as the current DB-60. The current limiting valve could result in BP leaking into the brake cylinder. This has not changed. The BCM feature design is being validated through rigorous testing to ensure it has the same reliability as the current valve.

---

## **Q: What is the flow test impact?**

With the BCM feature this does not come into play. During a flow test the brake system is in released state. The BP flow and taper is monitored. BP flow cannot exceed 60 SCFM and the taper has to be within 15 psi.

---

## **Q: What about the brake pipe leakage test?**

With the BCM feature this does not come into play. The brake valve is lapped and the pressure-maintaining feature is cut out. A 20 psi BP reduction is made. Then you wait for 45 to 60 seconds. BP leakage is recorded as indicated by BP gauge. The leakage cannot exceed 5 psi per minute.



**Q: Does the feature mask a problem and limit RR's ability to detect a bad car using hot/cold wheel-detection systems?**

No, the feature does not mask a problem. On the other hand, it complements the detection system by improving the accuracy of the methodology used for hot/cold wheel-detection systems.

- BCM feature will tighten the temperature distribution of the wheels passing through hot/cold wheel-detection systems
  - It reduces the number of outliers past a predetermined threshold.
  - The BCM cars flagged for ineffective brakes will likely have gross defects and it's much more likely that the brake defect will be found when the car is tested in the repair shop.
  - It increases in-service time for cars reducing life cycle costs.
- 

**Q: Could the source of the BC leak be a stuck release valve rod and will the BC be maintained?**

The stuck release valve rod will bring the valve to a release state and the BCM feature is inactivated.