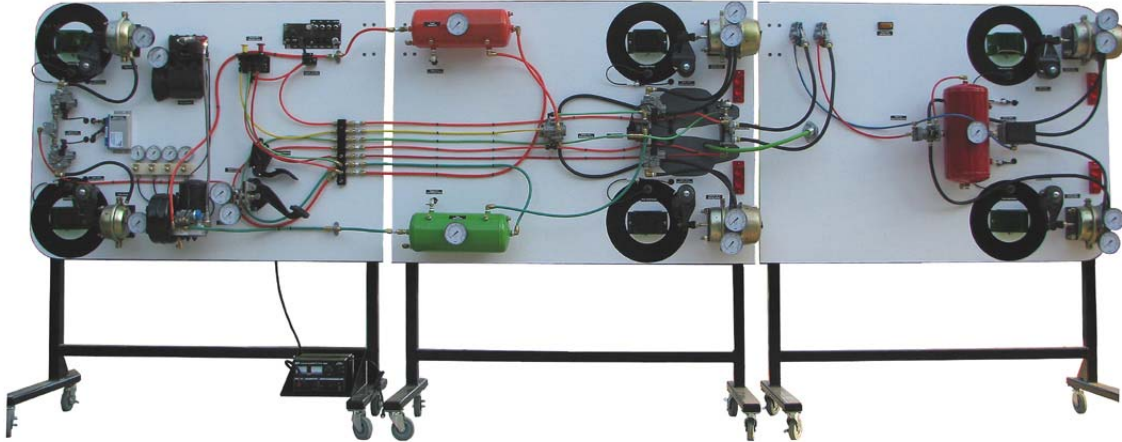


AIR BRAKE TRAINING DISPLAYS



Introduction

The air brake training display is a complete unit ready to use with minimal set-up. The system contains all the components found in a normal tractor/trailer air brake system and is designed to operate in the similar manner.

Your unit comes with its own 12 or 24 VDC power supply. A 120 VAC power source is needed. Additionally a remote air source is needed to supply air to the system. For proper operation of the air dryer, the minimum recommended supply pressure is 135 PSI.

Setting Up the Display

Setting up the display requires safe handling practices and the use of machinery designed to handle this type of equipment. A fork lift or overhead crane is recommended.

Each stand comes with a pair of spring clips to secure the stand when raised to position. Raise the stand and insert the pins. Ref. Fig. #1.



Fig. #1

After the stands are raised and secured, they should be leveled. To level the stands place a level on the top edge and turn the adjusting nut at the top of the stand. Ref. Fig #2.



Fig. #2

After leveling is complete attach the color coded air lines on the front of the display and the electrical connectors on the back side. Mount the power supply to the right front side of the first stand. Ref. Fig #3. Connect the 12 VDC wires on the front of the power supply. (Make sure the RED wire is

connected the + Power and BLACK to – power). The system is protected against reverse polarity; however damage could occur if wires are tampered with on the back of the display panels. **We do not recommend changing or altering wiring on the back of the display.** Plug the AC power supply power cord into a 120 VAC outlet. Connect the 135 PSI air source to the back side of the first panel.

You are now set up and ready to operate the display.



Fig. #3

Dash Panel

Ref. Fig #4. The dash panel contains the ignition switch, fuses, warning lights, J-1587 diagnostic connector, and ABS & ATC function switches.



Fig. #4

Display Operation

*Turn ignition key to the ON position. The air buzzer will sound and the low air warning light will come on. You will also hear the ABS (antilock lock system) sound and click through its chuff test. Note: The system can also be operated by turning the ignition key to the Accessory position. This eliminates the buzzer.

*Turn the air supply valve to the on position. As system pressure raises to approximately 60 PSI, the low air pressure warning will go off.

*Push in the yellow park release button and release the tractor park brakes.

*Push in the red trailer park release button and release the trailer park brakes.

*For ABS operation depress the throttle pedal to about a ¼” travel and the wheel speed will increase from 0 MPH to 60 MPH. (Depending on the display design, some models will have a digital wheel speed readout while others will have tooth wheels operated with electrical motors. Allow wheel speed to stabilize about 30 seconds and then depress and hold the brake pedal. Wheel speed will drop from 60 MPH to 20 MPH in 1 second, simulating a stop on ice. (If you want to hear and see the chambers cycle, hold the brake pedal down. Releasing the pedal, the sound of the solenoids cycling only will be heard.)

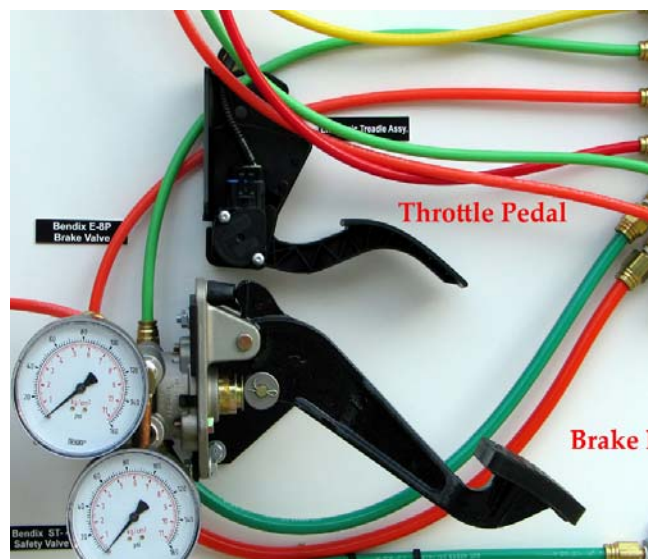


Fig #5

*For ATC operation Ref. Fig. #5. Depress the throttle pedal to full throttle position and hold for 3 seconds. A traction event will start with the cycling of the rear tractor drive axle chambers. Once the steer and trailer wheels start to rotate, the traction event will drop out and the speed on all axle accelerate to 60 MPH. Then press the brake pedal to start another ABS event and bring the wheel speed to a stop.

ABS/ATC Faults and Diagnostics

Ref. fig. #6. On the back of each display section is a switch panel containing failure modes for that panel. For normal operation all switches should be toggled down or OFF. Toggling a switch to the ON position creates a fault. When a fault is created, a warning light on front on the dash panel will light. (Not all faults will turn the light on.) If the light does not come on, it could be related to power and ground issues. To verify that the system is working correctly turn all switches to off and reconfigure the system. Creating excessive faults at the same time may confuse the system and require a reconfiguration. Check the service manual when things do not appear to be correct.



Fig. #6

www.bendix.com Reference source for free ABS software download, cataloging, service data, training materials and videos.

www.meritorwabco.com Reference source for cataloging, service data and training materials.

www.nexiq.com Reference source for J-1587 vehicle interface products. Recommend USB-Link # 125032 Reference Sources

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