



**MONTGOMERY COUNTY FIRE AND RESCUE SERVICE
DRIVER/OPERATOR TRAINING PROGRAM**

Practical Application Guide Sheet

Emergency Vehicle: Pre-Trip Air Brake Check

Candidate Name: _____

Candidate Performance Competency: Candidate will conduct a pre-trip check of the vehicle air brake system per MVA guidelines in the order shown (COMAR 11.22.02.06).

Task	Value	Score
1. Place wheel chocks on both sides of a rear tire.	8	
2. Turn on the vehicle battery and ignition switch. Verify gauges and air system warning signals are functioning.	6	
3. Verify the parking brake is applied. <ul style="list-style-type: none"> ✓ air protection valve (APV) is out ✓ applied parking brake implies that no air is charging the brake chamber 	6	
4. Release the parking brake and allow the air tanks to settle. <ul style="list-style-type: none"> ✓ APV is in 	6	
5. Observe the air gauges for 1 minute for air loss exceeding guidelines. <ul style="list-style-type: none"> ✓ Straight Truck: <3psi loss in 60 seconds ✓ Tractor Trailer: <4psi loss in 60 seconds 	8	
6. Apply steady pressure to the brake pedal and let the air tanks settle. Continue to hold pressure for 60 seconds.	6	
7. Continue to hold steady pressure for 60 seconds and observe the air gauges for air loss exceeding guidelines. <ul style="list-style-type: none"> ✓ Straight Truck: <3psi loss in 60 seconds ✓ Tractor Trailer: <4psi loss in 60 seconds 	6	
8. Fan the brake pedal to bleed air from the system and observe the audible and visible low-air alarms for accurate activation. <ul style="list-style-type: none"> ✓ Air level range of 60-90psi 	8	
9. Fan the brake pedal to continue bleeding air from the system and observe the APV automatically engages the parking brake. <ul style="list-style-type: none"> ✓ Air level range of 20-40psi ✓ APV is out 	8	
10. Candidate will note that a failure of the APV to automatically activate will result in the vehicle failing the brake test	6	
11. Candidate must stop fanning the brake pedal once the APV activates. <ul style="list-style-type: none"> ✓ Damage to the brakes may occur if the pedal is fanned while the parking brakes are engaged 	6	

Task	Value	Score
12. Start the motor and increase idle to 1200rpm. Observe the air pressure gauges to ensure pressure is building effectively. <ul style="list-style-type: none"> ✓ Pressure must rise from 50 psi pressure to 90 psi <3 minutes at 1200rpm. ✓ air pressure must not build past 135psi 	8	
13. Ready the apparatus for service. <ul style="list-style-type: none"> ✓ Verify all gauges have reached working pressures ✓ shut down motor ✓ remove wheel chocks as appropriate 	4	
COLA Acronym		
<i>Candidate will describe the acronym COLA as it applies to air brake systems.</i>		
14. C: cut-in pressure <ul style="list-style-type: none"> ✓ Compressors should engage to replenish air systems at approximately 100psi ✓ Compressors that do not engage prior to 95psi merit a defect report ✓ Compressors that do not engage prior to 80psi meet OOS criteria 	2	
15. O: cut-out pressure <ul style="list-style-type: none"> ✓ Compressors should disengage once air systems reach 120 to 135psi ✓ Compressors that do not disengage prior to 135psi meet OOS criteria 	2	
16. L: low pressure warning <ul style="list-style-type: none"> ✓ Audible and visible warnings must activate at 60 to 90psi ✓ Warnings that activate below 60psi merit a defect report 	2	
17. A: air leakage <ul style="list-style-type: none"> ✓ Must be less than 3psi/minute for straight trucks ✓ Must be less than 4psi/minute for tractor trailer trucks 	2	
NFPA 1911 Chapter 12 – Air Brake System “Quick Build-up”		
<i>Candidate will describe the requirements of NFPA 1911 Chapter 12.</i>		
18. Apparatus air brake system drained to 0 psi.	2	
19. Start the motor and increase idle to enhance air compressor output.	2	
20. Brake system will become serviceable within 60 seconds. <ul style="list-style-type: none"> ✓ Sufficient pressure exists to move the apparatus without brake drag; and ✓ is able to come to a full stop using service brakes. 	2	
Total Points	100	

Critical Fail Points

Failure to successfully perform any of the following components will result in an automatic failure of this evolution regardless of total score.

- a) Failure to complete any of Steps 1 through 13

b) Failure to complete steps 1 through 13 in order

Evaluator: Initial beside the final outcome of the exam below.

____ **PASS** ____ **FAIL – Overall Points** ____ **FAIL – Critical Failure Point**

Evaluator Name

Date

Evaluator Signature