



Air Brake Manual

*Working with drivers
to make our roads safer.*



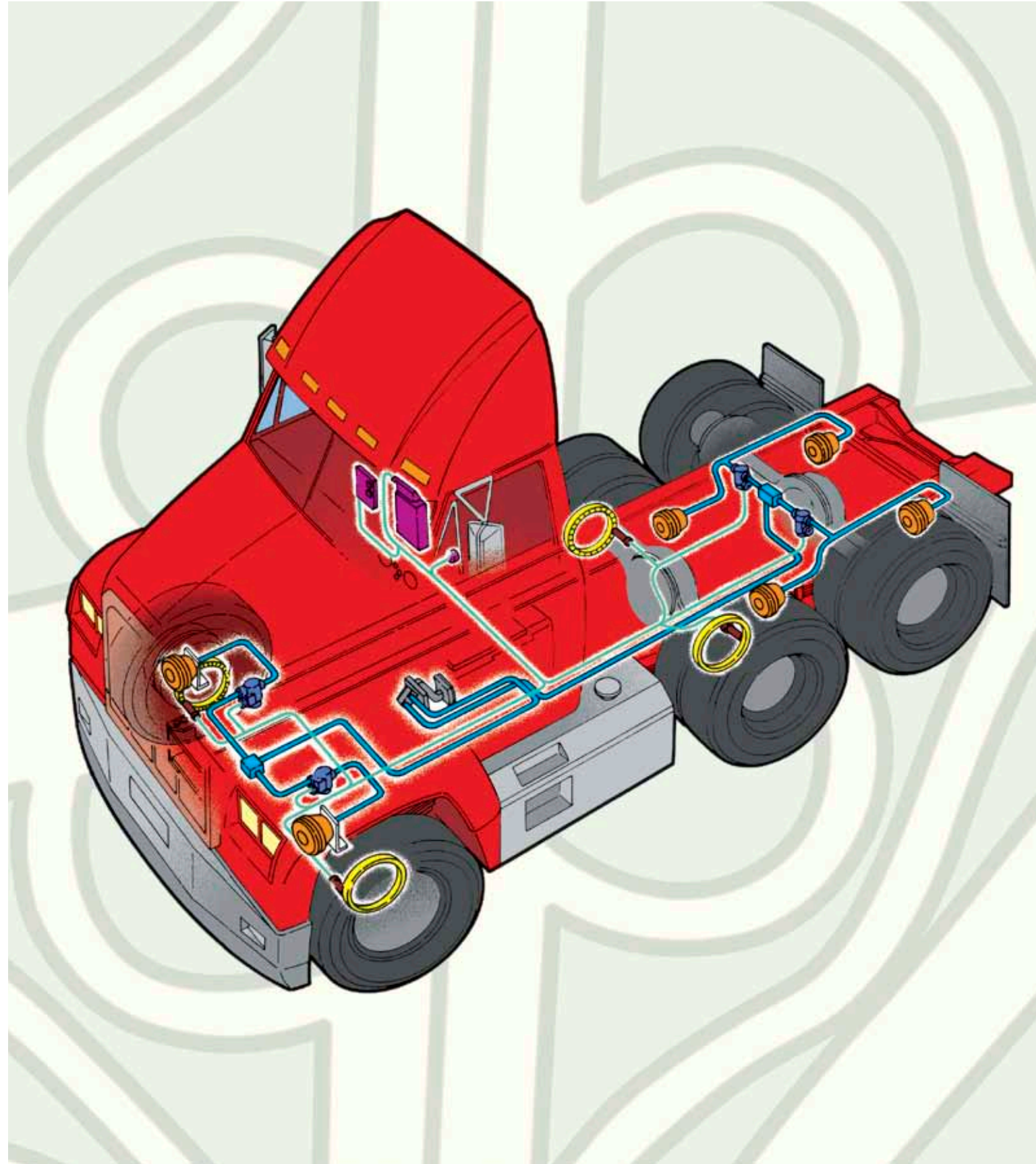
**Manitoba
Public Insurance**

Foreword

The Air Brake Manual has been prepared by Manitoba Public Insurance, to assist drivers in understanding the basic operation and function of an air brake system. The study of this manual, together with practical instruction, is recommended for a driver who is preparing for the air brake examination. A large illustration of a complete dual air brake system is located on the inside cover and can be folded out and referred to when studying this manual. Study questions are included at the end of each section so that readers may self-test their understanding of the subject matter. Drivers who have qualified and are authorized to operate air brake equipped vehicles are encouraged to review this manual on a periodic basis to ensure they are fully aware of the proper method of inspecting an air brake system and identifying problems that can occur when the system malfunctions.

The illustrations and explanations of various types of brake system designs are provided for instructional purposes only. Most air gauges measure in imperial units. Therefore the measurements used and relating to the air brake system will be in imperial units. This manual has no legislative sanction. For interpreting and applying the law, consult *The Drivers and Vehicles Act*, *The Highway Traffic Act* and its regulations. Sales of this manual are final and not refundable.

We gratefully acknowledge the contributions of all jurisdictions, particularly British Columbia.



Air Brake Endorsement

- Permits the holder to drive vehicles equipped with air brakes in class of vehicle for which the driver is licenced.
- To adjust manual or automatic slack adjusters, the operator must hold an "S" brake endorsement.

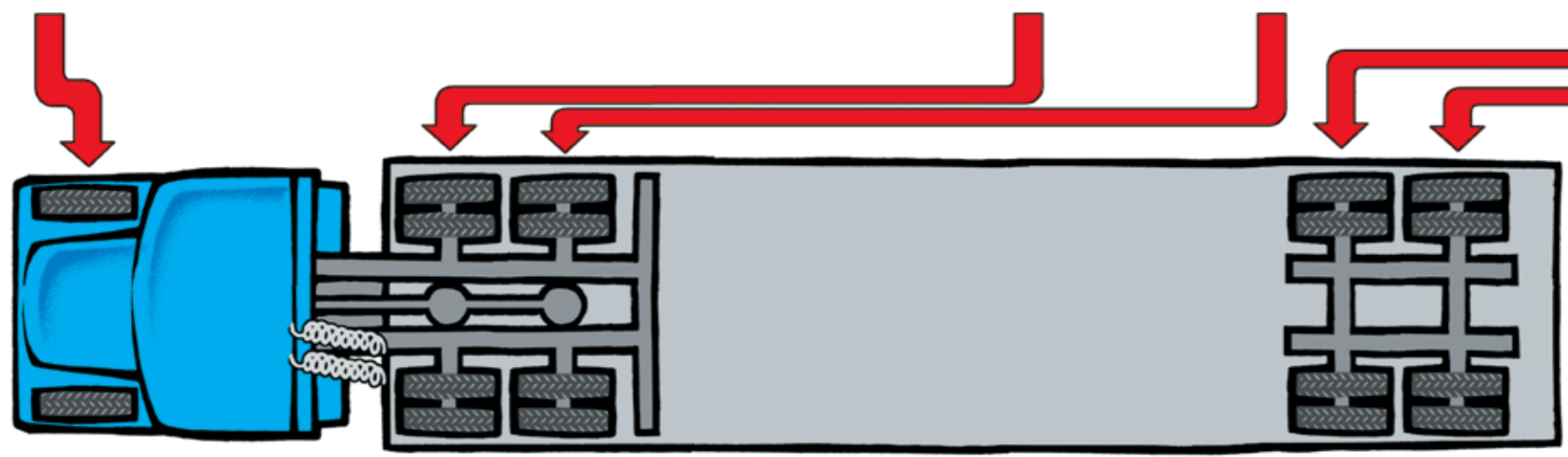
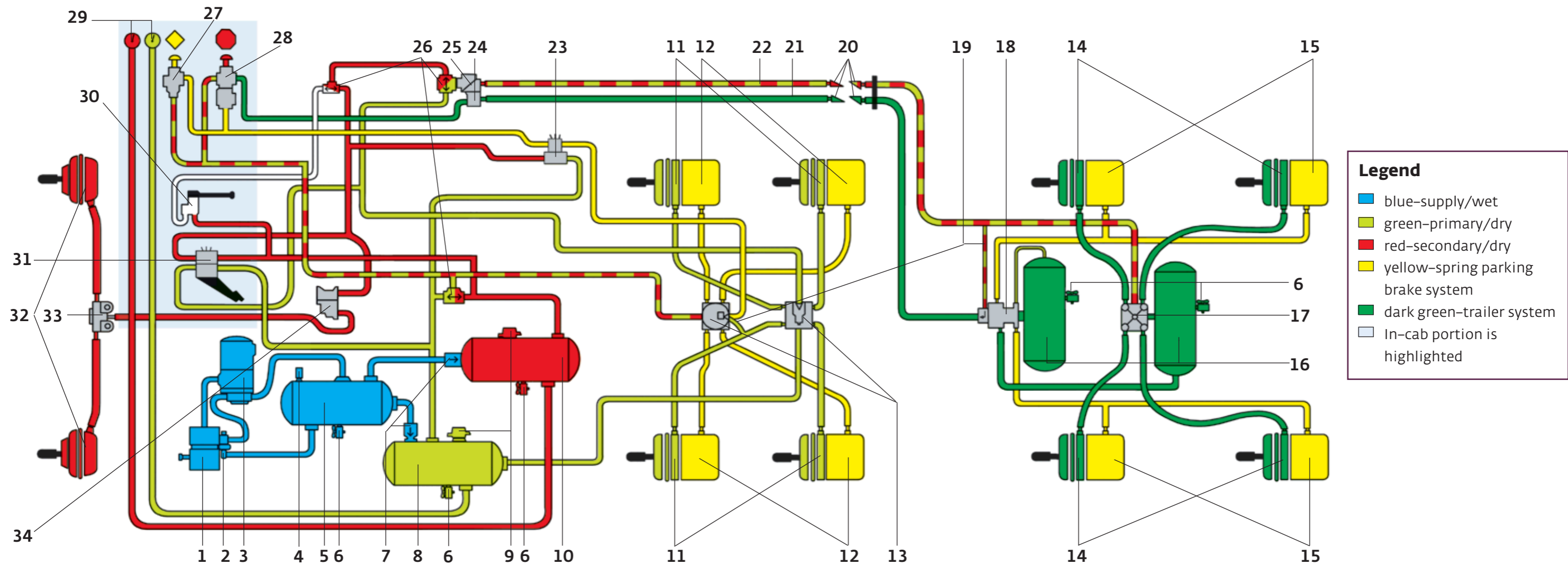
Requirements for Air Brake Endorsement

- Must complete an Air Brake Written Test.
- Must complete an Air Brake Practical Test.

An air brake endorsement is not required for a licensed holder to drive a Class 3 or 5 air brake equipped vehicle if it is registered as a farm vehicle. Class 3 or 5 air brake equipped vehicles, fitted with dealer plates, may be driven by farmers for demonstration purposes.

Use of Licence as a Learner Permit

A holder of any licence may be authorized to operate vehicles equipped with air brakes as a learner after meeting the required written standards. The learner must be supervised by someone who has held, for at least two years, an air brake endorsement.



- Compressor
 - Governor
 - Air dryer
 - Safety valve
 - Supply/wet reservoir
 - Drain valves
 - One-way check valves
 - Primary/dry reservoir
 - Low pressure indicator
 - Secondary/dry reservoir
 - Rear service brake chambers
 - Spring parking brake chambers
 - Tractor relay valves
 - Trailer service brake chamber
 - Trailer spring parking brake chamber
 - Trailer reservoirs
 - Trailer relay valve
 - Trailer spring brake valve
 - Anti-compound lines
 - Glad hands
 - Supply (emergency) line
 - Control (service) line
 - Spring brake modulator valve
 - Tractor protection valve
 - Stop lamp switch
 - Two-way check valves
 - Spring parking brake control valve
 - Trailer supply valve
 - Reservoir air pressure gauges
 - Trailer brake hand valve
 - Foot valve
 - Front service brake chambers
 - Quick release valve
 - Automatic front brake limiting valve
- This illustration has an automatic front brake limiting valve (34), and therefore the control valve (35), for a manual front brake limiting valve (36) are not shown here, but appear later in the manual.

Dual Air Brake System

CHECK THE SLACK!

**It is up to YOU,
the DRIVER,
to ensure that
your vehicle has
safe, properly
adjusted brakes.**

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Test Appointments

How to Book Your Knowledge or Road Test

- Visit any Autopac agent* to pay for your test and to schedule your test appointment.
- The agent can provide you details of available appointments at any testing location.
- You can schedule your test appointment up to eight weeks in advance.

Both knowledge and road tests are conducted during weekdays only (with the exception of holidays) at most locations. **Saturday appointments are available in Winnipeg at Barnes Street, Lexington Park and Main Street locations.**

Test Locations — Winnipeg

- 15 Barnes Street (at Bison Drive)
- 40 Lexington Park (at Gateway Road)
- 1284 Main Street
- 930 St. Mary's Road (French Language Services available)
- 125 King Edward Street East
- 1103 Pacific Avenue
- 420 Pembina Highway

Test Hours

- Barnes Street, Lexington Park and Main Street:
 - Monday–Friday 7:30 a.m.–5:30 p.m.
 - Saturday 8:30 a.m.–4 p.m.
- All other locations:
 - Monday–Thursday 7:30 a.m.–5:30 p.m.
 - Friday 7:30 a.m.–4:30 p.m.(Close at 4:30 p.m. Monday–Friday during June, July and August.)

Test Locations — Outside Winnipeg

- Arborg | 323 Sunset Boulevard
- Beausejour | 848 Park Avenue
- Brandon | 731–1st Street
- Dauphin | 217 Industrial Road
- Portage la Prairie | 25 Tupper Street
- Selkirk | 1008 Manitoba Avenue
- Steinbach | 165 Park Road West, Unit 2, Clearspring Village Mall
- The Pas | 424 Fischer Avenue
- Thompson | 53 Commercial Place
- Winkler | 355 Boundary Trail

Test Hours

- All locations:
 - Monday–Friday 8:30 a.m.–4:30 p.m.

Mobile Test Units

Mobile Test Units serve rural customers living outside the above locations. Mobile Test Unit locations and schedules are available from any Autopac agent.

*For a list of Autopac agents, see mpi.mb.ca.

Key Points About Your Tests

Cost*

- A knowledge test costs \$10.
- Costs for road tests:
 - Class 1 licence: \$50
 - Class 2 or 3 licence: \$45
 - Class 4 licence: \$35
 - Class 5 licence: \$30
 - Class 6 licence: \$30
 - Air Brake: \$30**

*Cost may change

**There is no additional charge for the air brake test if you are taking a road test for a class 1, 2, 3, 4 or 5 licence and the vehicle you are using for the test is equipped with air brakes

General Testing Information

- There is a 30-minute time limit to complete a knowledge test.
- Only one knowledge or road test of the same class may be completed per day.
- There is a waiting period between the knowledge and road test for some classes of licences.
- If you are in the Graduated Driver Licensing (GDL) program and are not successful on your knowledge test, there is a seven-day waiting period before you may take the test again.
- If you are in GDL program and are not successful on your road test, there is a 14-day waiting period before you may take the test again.
- The knowledge test is not an open book test. Cellular phones and electronic devices are not allowed in the test area.
- Please check-in 15 minutes prior to your scheduled appointment time.

Once you've made your test appointment at an Autopac agent, you can call your agent or the following numbers for additional information or assistance:

- In Winnipeg call 204-985-7000
- Outside Winnipeg call 1-800-665-2410