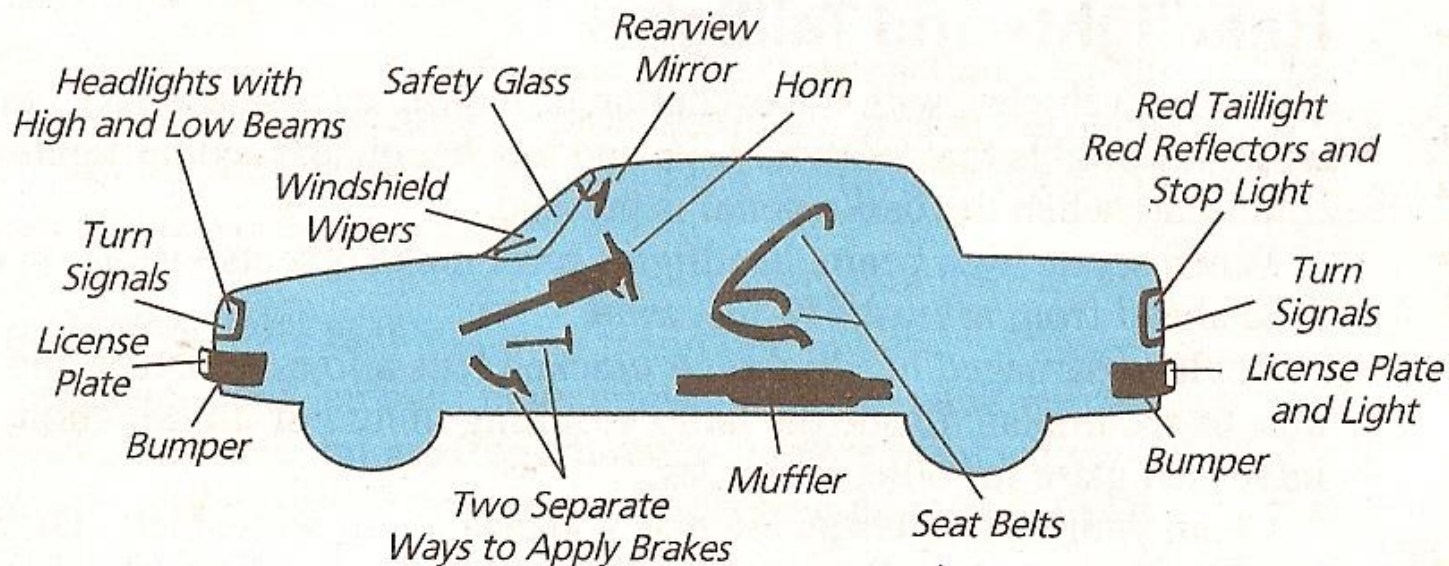



Chapter 2 Your Vehicle

26. Before driving your vehicle you should read the Owners Manual to ensure you know how to use all the equipment

Your Vehicle

Your Car Must Have This Equipment





Before driving make sure the vehicle is fully equipped and in good working order.

You are responsible for maintaining a safe vehicle.

*** Routinely check**

Lights, windshield wipers, horn, & tires.

Make sure you understand the **gauges and warning indicators.**



Have the accumulated water in the fuel filter. **Drain off as soon as possible.**



Stop the vehicle as soon as it is safe to do so.



Normal braking (without ABS) will be maintained.



Low brake fluid level.



Alternator failure



The engine light may be **yellow or red** and be **flashing or steady** or **come on and go off**. They all mean something different.



Stop immediately, switch off the engine and check the engine oil level.



Anti-Lock Brakes:

Indicates a fault in the anti-lock brake system



Engine Malfunction:

Stop when safe and have serviced immediately.



Battery System:

Battery charge is low. Do not drive long distance. Service immediately.



Low Tire Pressure:

Check tire pressure, fill to proper PSI. Have tire checked for leaks.



Brake Pad Wear:

Brake pads are worn and need to be replaced as soon as possible.



Low Oil Pressure:

Check oil level. Immediately add oil to the proper level and service soon



Cooling System:

Stop when safe. After engine is cool check and add coolant as needed.



Service Needed:

Schedule service at JMK BMW as soon as possible.



Traction Control Activated:

Tires have temporarily lost traction. Drive with extreme caution.



Traction Control OFF:

Warning that traction control has been turned off and is not active.

Color of the indicators and frequency of blinking will vary from car to car



The image displays a 6x6 grid of 36 car-related icons, organized into four rows of six icons each. The icons are color-coded: the first two rows feature green and yellow icons, while the last four rows feature red icons. A diagonal 'Shutterstock' watermark is visible across the center of the grid.

- Row 1 (Green/Yellow):**
 - Green double-headed arrow (navigation).
 - Green right-pointing arrow (navigation).
 - Green left-pointing arrow (navigation).
 - Yellow lightbulb with three lines (engine warning).
 - Yellow coiled cable (engine warning).
 - Yellow key (engine warning).
- Row 2 (Yellow):**
 - Yellow key with a slash (engine warning).
 - Yellow car with a double-headed arrow (navigation).
 - Yellow car with a wavy line (engine warning).
 - Yellow battery with '+' and '-' signs (engine warning).
 - Yellow thermometer with wavy lines (engine warning).
 - Yellow engine block (engine warning).
- Row 3 (Yellow):**
 - Yellow car with a wavy line (engine warning).
 - Yellow car with a wavy line (engine warning).
 - Yellow car with a wavy line (engine warning).
 - Yellow battery with '+' and '-' signs (engine warning).
 - Yellow thermometer with wavy lines (engine warning).
 - Yellow engine block (engine warning).
- Row 4 (Red):**
 - Red exclamation mark in a circle (warning).
 - Red 'P' in a circle (warning).
 - Red 'ABS' in a circle (warning).
 - Red 'STOP' text (warning).
 - Red exclamation mark in a gear (warning).
 - Red key in a gear (warning).
- Row 5 (Red):**
 - Red car with a lock (warning).
 - Red exclamation mark in a circle (warning).
 - Red car with a wavy line (engine warning).
 - Red car with a wavy line (engine warning).
 - Red 'P' in a circle with a wavy line (warning).
 - Red car with a wavy line (engine warning).
- Row 6 (Red):**
 - Red exclamation mark (warning).
 - Red car with a wavy line (engine warning).
 - Red car with a wavy line (engine warning).
 - Red 'SERVICE' text (warning).
 - Red car with a wavy line (engine warning).
 - Red car with a wavy line (engine warning).

www.shutterstock.com · 97487909



27-28. The first thing you do upon entering a vehicle is to check your **seat** and **mirror** to see if they require adjustment.

After you enter the vehicle check your:

1. Seat position and mirrors adjustment.



2. Make sure the passengers do not obstruct your vision or control.

3. Buckle your Safety Belts

Vehicle Requirements

- **Brakes** – You must have two separate brake systems

1. All cars and trucks must have at least 2 separate brake systems.

- **Bumpers** - Cars front and rear bumper. Pick-ups and vans must have a front bumper and rear bumper or reflectors

- **Horn** - In good working order.
- No bells, sirens or whistles. **Use your horn to avoid a crash**
- ***2. Your motor vehicle must have a working horn or speaker system that can announce your arrival. F***
- ***Do not use your horn to call passengers or announce your arrival.***





10. The Tachometer indicates the speed your vehicle is going. **F**

The **speedometer** indicates the speed your vehicle is going.




Headlights & Taillights

- **Red taillights** – They must illuminate when the brake pedal is depressed.
- **3-5 Brake lights are red in color and Back-up lights are white**

3-5 Red White



- 
- **Headlights** - 2 white headlights. *High and low beam*, **High beam must illuminate 350 feet.**
 - ***6. Your vehicle must be equipped with two headlights and they must work on both high and low beam. T***



Replace damaged headlights.

Just because they turn on does not mean they are in good working order

Keep them clean.

18. Dirty headlights reduce output
up to 75%



Have headlights checked *once a year to make sure they are aimed properly.*

29. How often should you have your headlights inspected to make sure that they are aimed properly ?
once a year

7. You should clean your headlights:
D. As often as you clean your windshield



18. Dirty headlights reduce output up to _____%

Clean your headlights as often as you clean the





13. You headlights must be on when: D all the above

Your headlights must be turned from sun set and used until sunrise.

They must also be turned on during bad weather conditions including rain, snow, sleet, hail, fog

When you cannot see clearly for 500 feet.

Fill in the blank

- *30. Some vehicle have reduced-power headlights called Daytime running lamps. These lights make your vehicle easier for others to see*

Daytime Running Lights

- **Reduced power headlights** that come on automatically when you drive during the daytime.
- These lights make your vehicle **easier** for others to see you **during the day**.
- ***Tail lights & parking lights*** **do not come on**.
- ***At night and times of reduced visibility you must turn on your headlight system.***

- **License plate light** - white so the rear license plate is visible at night.
- ***8. A white license plate light is required on the front and back of the vehicle to light up the plate at night.***
F
- **License plate lights are required on the back of the vehicle only**
- **Taillights** - red and visible for 500 feet



Turn signals - If your vehicle has turn signals they must be in good working order.

11. T. You must use your turn signals if your **vehicle width prevents** other drivers from seeing your hand and arm signals.


34. T. Arm signals can only be used during the daylight hours.

Prohibited lights (unlawful to have on your vehicle)

9. Blue 9. **Blue lights**, Flashing lights, and Strobe lights are forbidden on vehicles other than those authorized by the state

31. You may equip your vehicle with strobe lights if you have a ½ ton truck or larger and intend to drive in fog and snow. F



- 
- Only snowplows, other road maintenance equipment and authorized emergency vehicles may be equipped with **blue lights**.
 - Only authorized emergency vehicles, school buses, road maintenance equipment, tow trucks, service vehicles, and farm equipment may be equipped with **flashing lights**.
 - Only school buses, snow removal equipment, and rural mail carrier vehicles may be equipped with **strobe lights**.



- **Mufflers** - Prevents loud sharp popping or crackling noise. Check for carbon monoxide leaks.



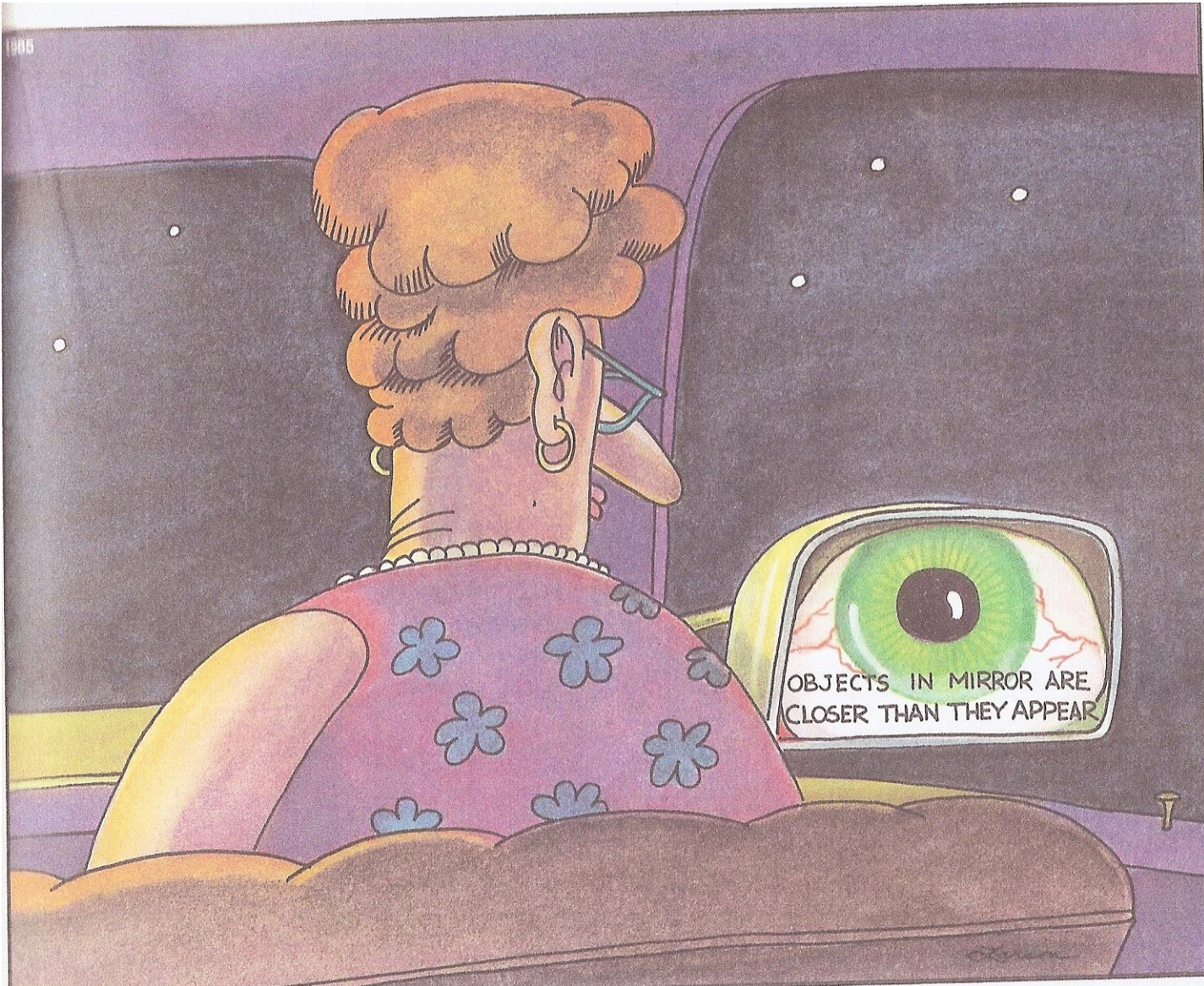
- **12. A vehicle must have a muffler to:**
- **A. prevent loud noises and backfires**
- It will also prevent carbon monoxide from being released into the interior of the vehicle.

Rear View Mirrors are required on all vehicles

14. If the view to the rear is completely blocked, additional side view mirrors are required **T.**

32. All Pickup trucks must be equipped with side and rear view mirrors **T**

1985



Seat Belts & Air Bags - keep clean and in good repair.


In Minnesota motor vehicles must be equipped with seatbelts, and **the use of seatbelts is mandatory.**

15. If your seatbelts are not working properly you do not have to wear them or fix them. **F**

23. Your vehicle must be equipped with airbags. **F**

Airbags are intended to be used **with** seatbelts to prevent injury.

33. Air bags are designed to keep occupants from being ejected from the vehicle. **F**

- 
- Keep dashboards free of debris or clutter.
 - When the airbags suddenly inflate, objects on the dashboard can become **dangerous projectiles.**
 - **No seatbelt no excuse – public service announcement**

Tires - Less than **1/16 inch** tread depth is illegal

Carry a good spare and check all tires for inflation. Never drive on under-inflated tires

16. A tire is illegal if the tread is less than 1/16 of an inch deep





17. When you fuel the vehicle you should also check the tires for:

C. Proper tire pressure, cuts or punctures and uneven wear

Inspect your tires regularly for cuts, cracks, uneven wear, bald spots, bulges, and punctures. This can be done when you fuel your vehicle.

Under Inflated Tires

- **Without warning** those tires may shred or blow out.
- **Accidents caused by low tire pressure kills** 79 people a year are killed
10,635 people a year injured.
- **Under inflated tires** also can wear out more quickly and reduce fuel efficiency.
- **You can find the proper tire inflation in the owners manual or on the vehicles door jam. (not on the tire)**





Ford vs Firestone

- On going legal battle about the safety of the tires and what is appropriate tire pressure.



Ford has continuously maintained that the problem is exclusively related to the Firestone tires.

Firestone, on the other hand, blames Ford for recommending an excessively low tire pressure.



Windows and Windshield

Must not have - cracks, discoloration, steam, frost, ice, or snow that **obstructs the drivers view.**

Safety glass is required

Objects hanging from the rear view mirror are not allowed.

No signs. Poster etc. can be on any window.



***34. During daylight hours arm signals may be used instead of turn signals
T***

35. Dice and rabbit feet are illegal if hung from the rear view mirror. T



Exceptions include

- 1. Parking lot stickers
- 2. State & National Park
- 3. Official safety inspection stickers
- 4. MN pass -electronic toll-collection device

- **22. The only stickers allowed on the windshield are:**
- **D. all of the above**






■ Windshields

- **may not be made of, covered by, or be treated with any material** that makes the glass more reflective or reduces the amount of light that travels through it.

You may **not** have tinted glass/reflective glass that covers the entire windshield

- 
- Any window tint material applied to the side or rear windows;
Must be marked to show the % of light transmitted or reflected
 - This law went into effect on August 1 1985

- **20-21.** Window tint may only be used on the rear windows if it ***transmits less than 50 % or reflects more than 20%*** of light.





Tinted windows may only be used on:

1. Rear window of a **pickup truck**

2. The rear and side windows behind the drivers seat of a **van, limousine, or funeral home vehicle.**






Global Positioning System

- New Laws for 2009

Global positioning and other navigation systems may now be mounted or located near the bottom most portion of the windshield.



- 
- **Windshield Wipers** and **Window Defrosters** - both must be in good working order.
The **defrosters** are necessary to keep the windows and windshield clear of steam and frost
 - **Wheel Guards & Fenders** –to prevent water, dirt and other road debris from being kicked up by the wheels.
 - ***25. Fenders are required on all vehicles to prevent:***
 - ***d.*** road debris from being kicked up by the wheels.



- ***19. Your vehicle must be equipped with wipers in good working order. T***
- ***24. A working defroster fan is required on all vehicles. T***



Fuel Efficient Techniques

36. Which of the following can improve fuel efficiency

- Keep your engine properly tuned.
- Keep tires properly inflated
- Use the recommended grade of motor oil.

D. All of the above



Fuel Efficient Techniques

2. Drive Efficiently

- Plan and combine errands into one trip.
- Drive sensibly: avoid aggressive driving such as speeding, rapid acceleration and braking.
- Observe the speed limit.
- Remove excess weight: avoid keeping unnecessary heavy items in your vehicle.
- Use cruise control on the highway.
- Use overdrive gears.
- Take public transportation, use car pool, ride share, bike or walk whenever possible.

- A properly tuned engine can improve gas mileage. True or False



The End

