

GRECH MOTORS

EG40

Freightliner S2 Luxury Bus

VEHICLE ID NUMBER: _____

OWNER'S MANUAL

WWW.GRECHMOTORS.COM

INTRODUCTION

Dear Grech Motors Bus Owner,

Thank you for purchasing a Grech motors product. Your decision to own a true luxury vehicle is what drives our efforts every day and we appreciate your vote of confidence. A substantial investment has been made and we want to insure that your experience is priceless.

We believe in one direction: Forward. We strive to deliver the most innovative, highest-quality commercial vehicles by having more than 30 years of experience in high-end bus and coach manufacturing.

An unwavering commitment to constant innovation through research and development, the use of high quality materials and hand-crafted construction makes our buses unrivaled in the ground transportation industry.

We are committed to excellence throughout our entire bus line and stand behind our expert craftsmanship with industry's best warranty and after-sale support experience.

The outcome of our uncompromising efforts is a product of beauty, reliability and longevity that will help you grow your business with confidence.

Since the inception of Ford's Qualified Vehicle Modifier or "QVM" certification more than 25 years ago, we have been honored with this merit consistently every year since.

It is important to carefully read and understand this manual to assure yourself and your loved ones one of the best possible experiences. To accomplish this, we recommend to take the time to become fully acquainted with the vehicle before ever taking it on the open road.

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OWNER'S MANUAL

It is important to carefully read and understand this manual to assure yourself and your loved ones one of the best possible experiences.

To accomplish this, we recommend to take the time to become fully acquainted with the vehicle before ever taking it on the open road.

In this Owner's Manual you will find several suggestions and information that will make your ownership a long and enjoyable one! This manual's main objective is to serve as a reference document for the operations and maintenance procedures that will be required throughout the life of your vehicle.

It contains vital information used to identify your specific vehicle and the safety features that must be understood and followed in order to operate this vehicle safely. This manual is not intended to serve as a maintenance manual. It provides the basic procedures, along with a comprehensive overview of your vehicle's operating systems.

There are many safety notices that appear throughout the manual that alert you to items that require your attention and/or understanding to assure the safety of you and your passengers as well as other drivers on the road. We urge you to take the time to completely understand your vehicle, so you can drive with confidence.

The information contained in this document is intended to reflect standard and optional equipment included in a typically equipped model at the time of delivery to the initial retail owner. In case that you are not the initial retail owner of the unit, this document will not reflect modifications that may have been performed by previous owners.

It is the policy of GRECH MOTORS, to incorporate product improvements whenever possible or practical to do so. We reserve the right to make changes and or improvements at any time without incurring any obligation to make such changes on previously sold products. The information and specifications contained in this manual are subject to change at any time, without notice.

If there are any questions or doubts regarding what is written and disclosed in this handbook for your vehicle, feel free to call Grech Motors at (855)-994-GRECH (7324).

In the event that you require any type of service concerning any difficulty with the vehicle, be sure to have your Vehicle Identification Number (VIN) and mileage available before you call.

NOTICES & DISCLAIMERS

The information and specifications contained in this manual were accurate at the time of printing. However, Grech Motors is continually improving its products, and as a result, the details in this manual are subject to change at any time without prior notice. This manual is specific to the **GRECH MOTORS EG40** built on the **Freightliner S2** chassis and provides detailed information regarding the vehicle's standard equipment and systems.

Please note that certain features or functions described may vary slightly depending on production updates or model year revisions. For the latest and most accurate information related to your vehicle, including service updates or technical support, we recommend contacting your authorized dealer or visiting the official Grech Motors website.

NOTICE

For your safety and the safety of others, we ask that you completely familiarize yourself with this manual, and all other operators manuals before you operate this vehicle for the first time.

PLEASE NOTE: Updates to all manuals are online at www.grechmotors.com

WARNING

- Breathing diesel engine exhaust exposes you to chemicals (engine exhaust, carbon monoxide, phthalates, and lead) known to the State of California to cause cancer and birth defects or other reproductive harm.
- Wear gloves or wash your hands frequently when servicing your vehicle.
- Always start and operate the engine in a well-ventilated area.
- If in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with the exhaust system.
- Do not idle the engine except as necessary.

For more information visit:
www.P65warnings.ca.gov/diesel
FAILURE TO COMPLY COULD RESULT IN DEATH OR INJURY

NOTICE

Product information and specifications are shown herein as of the time of printing. The bus manufacturer reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligation.

PLEASE NOTE: Updates to all manuals are online at www.grechmotors.com

WARNING



Face cab when climbing up and down.

Use handholds.

Keep three limbs in contact with truck.

Do not carry anything.

Follow instructions in driver's manual.

DANGER

NO STANDEES ARE ALLOWED AT ANY TIME, WHILE THE VEHICLE IS IN MOTION.
Discontinue operation of vehicle if any person stands in the bus while the vehicle is in motion.

WARNING

Discontinue operation of the vehicle if:

- Any critical item on the pre-tip inspection list fails to pass, or until all problems have been resolved.
- If the door warning buzzer/door ajar light is illuminated while vehicle is in motion.

If a door ajar warning light is lit, check all doors for proper closure. Never operate this vehicle until the problem has been resolved.

Discontinue operation of vehicle if a door or emergency exit should open while the vehicle is in motion.

WARNING

The bus is not designed to tow another vehicle or trailer. **DO NOT** attempt to tow or pull another vehicle with this bus.

CAUTION

The bus seating configuration in this vehicle has been installed in accordance with the design parameters determined by Grech Motors engineering department.

The adding, moving, or removing of the original seating, is strictly prohibited without the authorization of Grech Motors engineering department.

WARNING

Modifying the seating arrangement of your vehicle without proper engineering specifications can change the weight distribution / payload characteristics of the vehicle and potentially endanger the passengers by creating an unsafe operating condition.

CAUTION

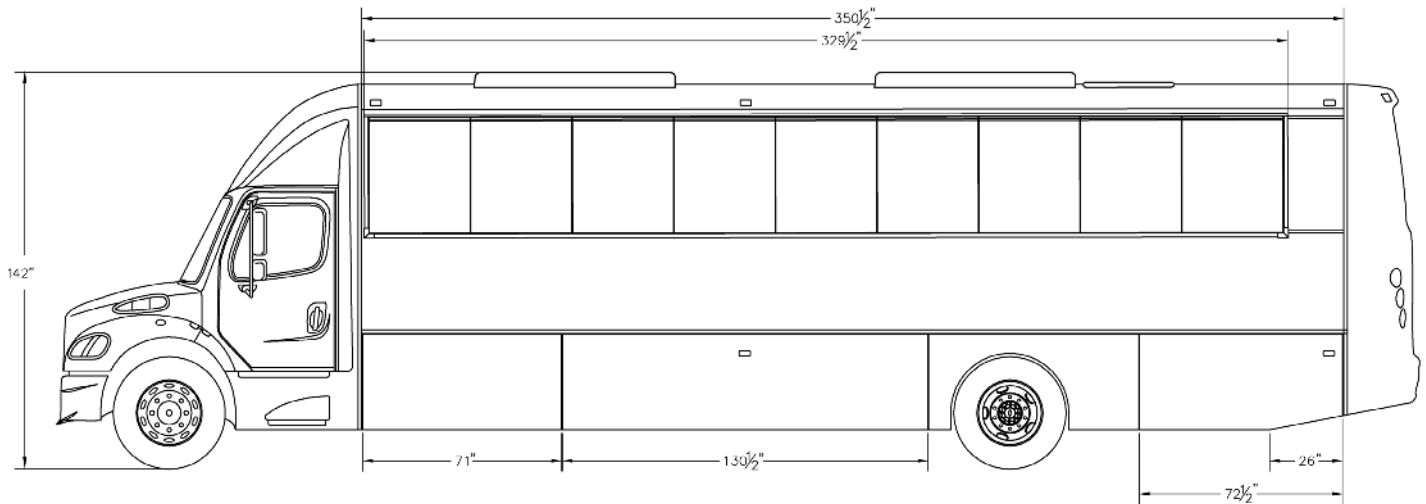
Do not alter, add or change any components installed in this vehicle. Adding or changing components may adversely affect vehicle stability creating an unsafe vehicle.

EG40 | FREIGHTLINER S2

This section provides detailed illustrations and measurements of your EG40 bus built on the Freightliner S2 chassis, shown from different angles—road side, curb side, front, and rear. These views help you see the size and shape of the bus and can assist with planning for parking, storage, and maneuvering in various spaces. Each view highlights important features and key measurements, giving you a clear understanding of the vehicle’s overall size and space needs.

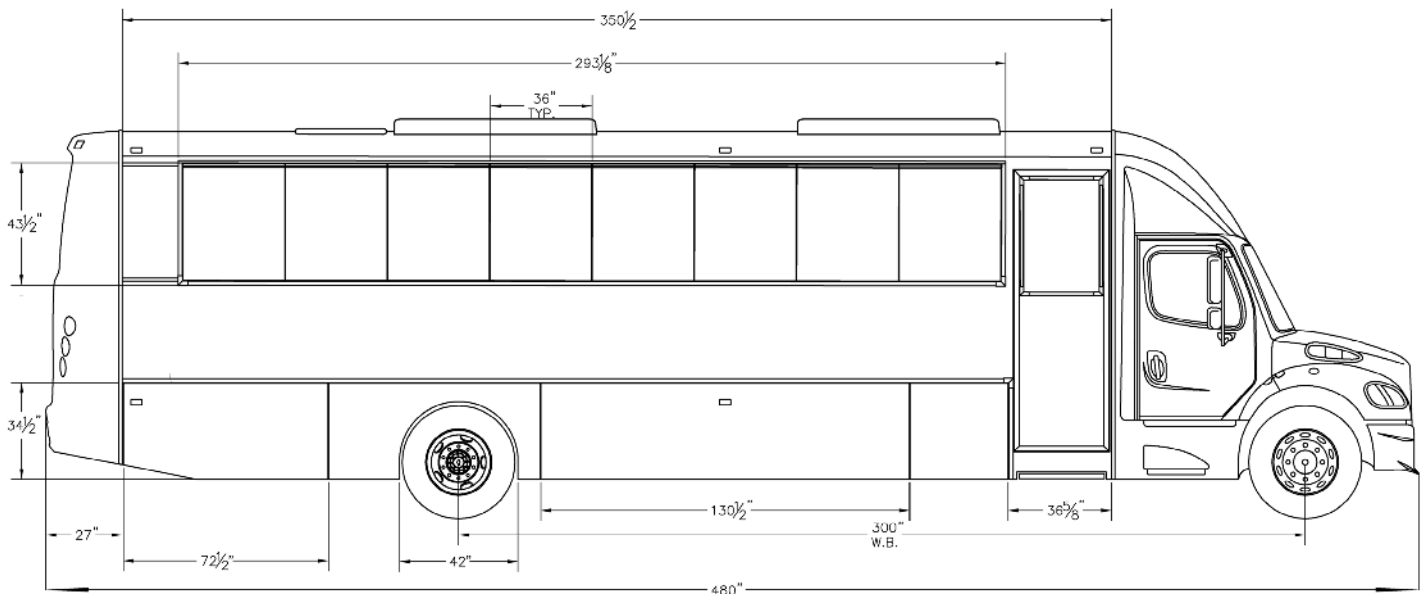
ROAD SIDE VIEW

The road side view shows the left-hand side of the vehicle (driver’s side). This perspective provides a clear outline of the bus’s overall length and showcases the locations of essential components such as the driver’s door, two side luggage compartments, fuel tank and three batteries. It is especially helpful for storage planning and aligning the bus when parking on the street.



CURB SIDE VIEW

The curb side view displays the right-hand side of the vehicle (passenger side). This view highlights the co pilots door, passenger entry door and two side luggage compartments. It is most relevant when considering passenger boarding, curbside clearance, and safe positioning next to sidewalks or loading zones.

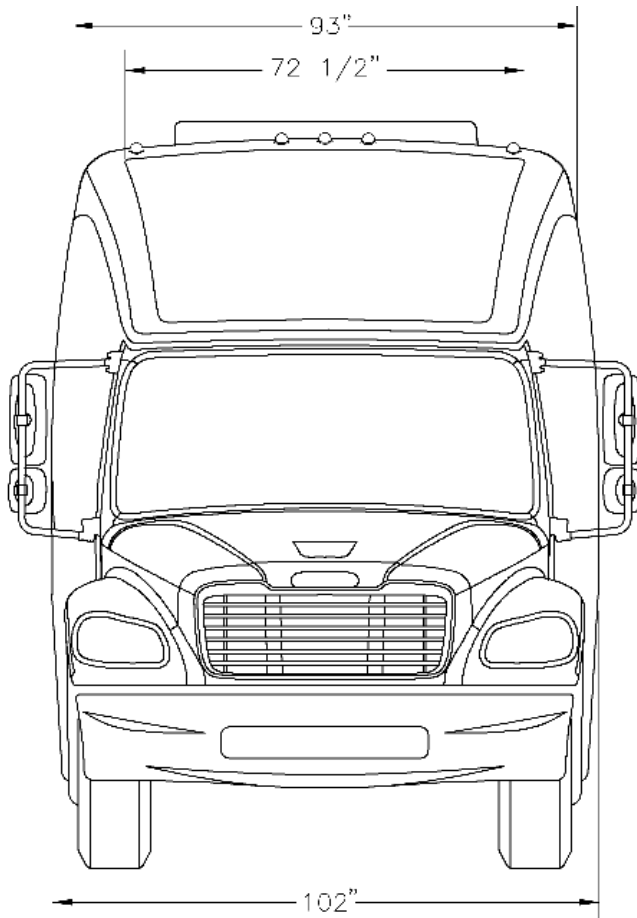


BUS DIMENSIONS

EG40 | FREIGHTLINER S2

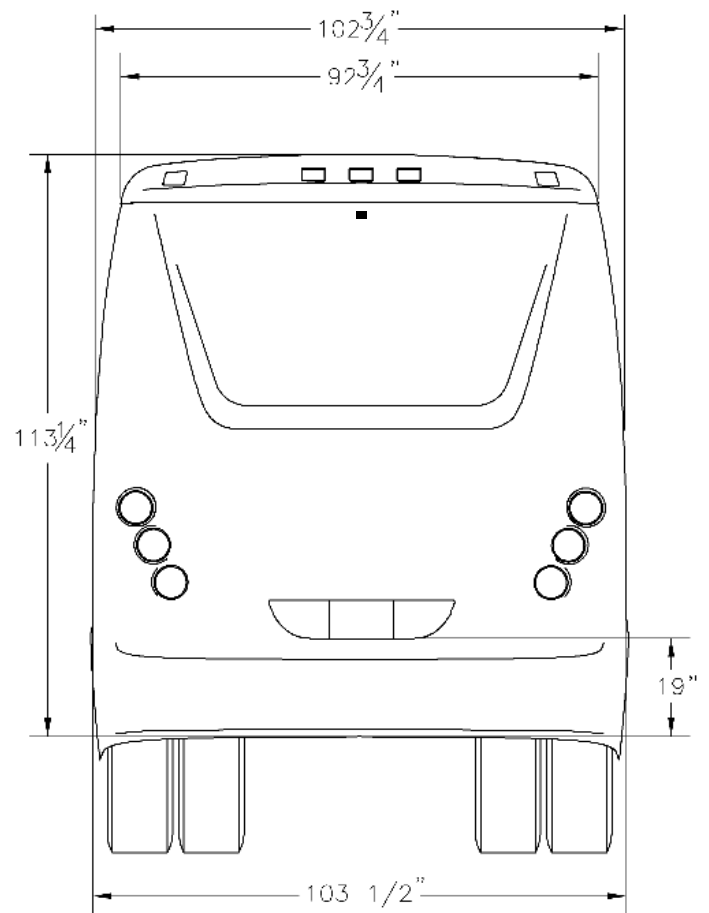
FRONT VIEW

The front view offers a head-on look at the bus, emphasizing the width of the vehicle, front lighting system, windshield area, and bumper design. This view is helpful for evaluating clearance in narrow entryways, low overhangs, or when parking in tight urban spaces.



REAR VIEW

The rear view reveals the back of the bus, including taillights, rear windows (if present), emergency exit door, and bumper configuration. This perspective is important for understanding rear clearance needs, especially when reversing or backing into a tight spot.



FLOOR PLANS

ABOUT THE EG40 FREIGHTLINER S2

The EG40 Freightliner S2 is a highly reliable and versatile mini coach designed to meet the needs of operators and passengers alike. Built on the Freightliner S2 chassis, this model features a 6.7L Cummins diesel engine paired with an Allison 2500 transmission, delivering dependable performance and efficiency. With a seating capacity of up to 44 passengers, including the copilot, the EG40 provides both comfort and functionality for a wide range of applications.

This manual is intended to guide you through the features, operations, and maintenance requirements of the EG40 Freightliner S2. Whether you are familiarizing yourself with its standard amenities or learning about its technical specifications, this resource will help you get the most out of your vehicle.

Key Features of the EG40 Freightliner S2:

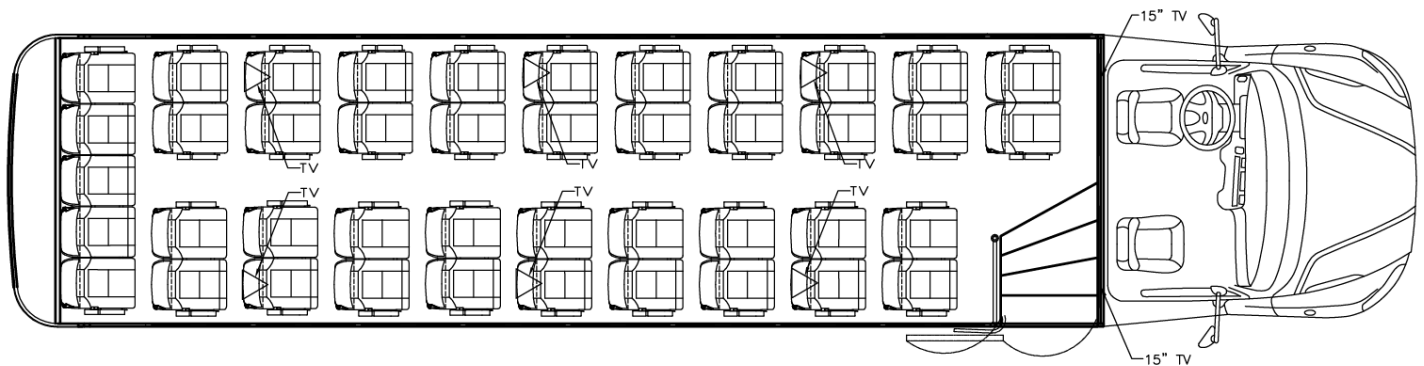
- **Durable Construction:** Fully welded steel tube cage, riveted aircraft-grade aluminum body, and reinforced fiberglass skirts ensure long-lasting durability.
- **Passenger Comfort:** Equipped with Grech leather seating, HD LCD monitors, LED interior and exterior lighting, and a roof-mounted 190,000 BTU HVAC system for consistent climate control.
- **Ample Storage:** Spacious underbelly storage for luggage and other belongings.
- **Safety Features:** Passenger retractable seat belts and robust structural design.
- **Enhanced Accessibility:** Electric plug entry door and a panoramic front-viewing window for convenience and improved visibility.

This manual also includes detailed instructions for regular maintenance, troubleshooting, and best practices to ensure the longevity of your EG40 Freightliner S2. By following the guidelines provided, you can maintain the vehicle's performance and maximize passenger satisfaction on every journey.

EG40 Freightliner S2

Seats up to

Up to 44 passengers with luggage + Pilot



SPECIFICATIONS CHART

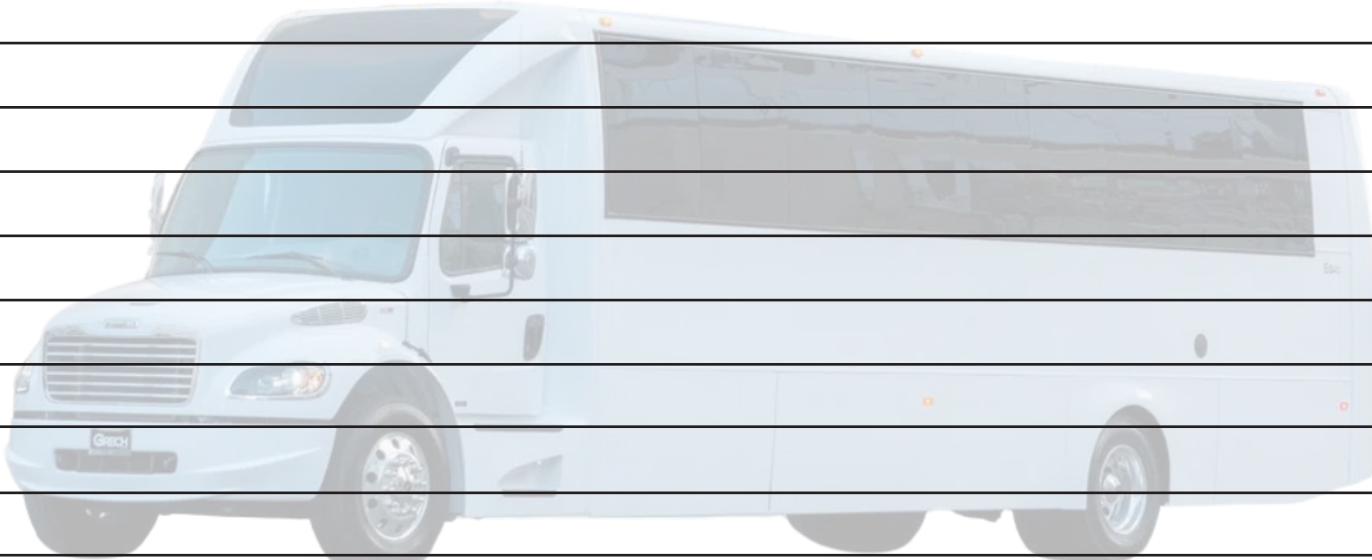


POWERTRAIN SPECIFICATIONS	
COMPONENT	CHARACTERISTICS
ENGINE	6.7L Cummins Diesel Engine
TRANSMISSION	Allison 2500 Automatic Transmission
ALTERNATOR	275 Amp Alternator 12V
BATTERIES	Three 12V Heavy Duty Batteries
FUEL TANK	100 Gallon Fuel Tank
DIMENSIONS AND CAPACITY	
COMPONENT	CHARACTERISTICS
CAPACITY	Up to 44 passengers with luggage + Pilot
WHEELBASE	25ft 300in
EXTERIOR LENGTH	40ft 480in
EXTERIOR WIDTH	9ft 8in 116in (Mirrors Extended) 8ft 7in 103 1/2 in (Body)
EXTERIOR HEIGHT	11ft 10in 142in (With A/C)
INTERIOR HEIGHT	6ft 5/8in 75 5/8in (To Ceiling) 5ft 11 5/8in 71 5/8in (To AC Cover)
INTERIOR WIDTH	7ft 11 1/4in 95 1/4in (Wall Seat Track To Seat Track)
GROSS VEHICLE WEIGHT RATING (GVWR)	14,968 kg 33,000 lbs
FRONT GROSS AXLE WEIGHT RATING (GAWR FRONT)	5443 kg 12,000 lbs
REAR GROSS AXLE WEIGHT RATING (GAWR REAR)	9525 kg 21,000 lbs
STRUCTURE, SAFETY AND ENTRY	
COMPONENT	CHARACTERISTICS
BODY	Riveted Aircraft-Grade Aluminum Body and Welded Steel Cage
CHASSIS	Freightliner S2
CAGE	Fully Welded Steel Tube Cage
ENTRY DOOR	Electric plug entry door
EMERGENCY EXIT	Roof Escape Hatch
SKIRTS AND FLOOR/REAR CAPS	Reinforced Fiberglass Skirts and Front & Rear Caps
SIDEWALLS	Aluminum Exterior Side Walls
CLEAR DOOR OPENING- ENTRY DOOR	36 5/8 in 36 5/8in
SUSPENSION AND TIRES	
COMPONENT	CHARACTERISTICS
SUSPENSION	OEM AirLiner Suspension System
TIRES	295/75R22.5G (Front and Rear)
RIMS	22.5 x 8.25 RIMS @ 110 PSI 758 Kpa/COLD
SEATING AND COMFORT	
COMPONENT	CHARACTERISTICS
SEATS	Auto Upholstery Vinyl Fabric
SEAT BELTS	Retractable with Under Seat Retracts Driver and Copilot 3 Point Lap Shoulder Belt
STORAGE	Overhead Luggage Racks Side Luggage Compartment Doors

SPECIFICATIONS CHART

A/C, MEDIA, AND ELECTRICAL	
COMPONENT	CHARACTERISTICS
A/C SYSTEM	Roof-mounted 190,000 BTU HVAC System
COMPRESSOR	HFC-134a Refrigerant
MEDIA PLAYERS	DVD player, Premium rear audio
SCREEN	(8) TV Monitors (2) Front Passenger Monitors
LIGHTING	LED Interior / Exterior lighting
FLOORING AND INTERIOR	
COMPONENT	CHARACTERISTICS
FLOORING	Altro wood-look flooring, 3/4" composite subfloor
WINDOWS	Panoramic front viewing window, Frameless coach windows

NOTES



UNDERSTANDING THE WARRANTY'S POLICY



CUSTOMER ASSISTANCE

Warranty repairs to your vehicle must be performed by an authorized dealer. While any authorized dealer handling your vehicle line will provide warranty service, we recommend to return to your selling authorized dealer who will want to ensure your continued satisfaction.

Some warranty repairs require special training and equipment, so not all authorized dealers are authorized to perform all warranty repairs. This means that, depending on the warranty repair needed, you may have to take your vehicle to another authorized dealer.

Time must be allowed to perform a repair after taking your vehicle to the authorized dealer. Repairs shall be made using new or remanufactured Grech Motors components or other elements or components that are previously authorized by Grech Motors.

AWAY FROM HOME

If you are away from home when your vehicle needs service, contact the Grech Motors Customer Relations or use the online resources listed below:

Grech Motors
Customer Relationship
6915 Arlington Avenue
Riverside, California 92504
Telephone: (1-855-994-7324)

ADDITIONAL ASSISTANCE

If any questions or concerns arise or you are unsatisfied with the service you are receiving follow these steps:

- 1.** Contact your Sales Representative or Service Advisor at your selling/servicing authorized dealer.
- 2.** If the defect or concern remains unresolved, contact the sales manager, service manager or customer relations manager.
- 3.** If you require assistance or clarification on Grech Motors policies, please contact the Grech Motors Customer Relationship Center.

For an easier and faster process please have the following information available when contacting Customer Relationship Center:

- VIN (Vehicle Identification Number)
- Your telephone number (home and business)
- The name of the authorized dealer and city where it is located.
- The vehicle's current odometer reading.

In some states, you must directly notify Grech Motors in writing before pursuing remedies under your state's warranty laws. Grech Motors is also allowed a final repair attempt in some states.

In the United States, a warranty dispute must be submitted to the BBB AUTO LINE before taking action under the Magnuson-Moss Warranty Act, or to the extent allowed by state law, before pursuing replacement or repurchase remedies provided by certain state laws.

To learn more about the specific automotive chassis not covered under the Grech Motors Warranty or any other component in your vehicle, please contact your authorized selling dealer, Grech Motors or review your vehicle's warranty package information.

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Grech Motors.

If NHTSA received similar complaints, it may open an investigation, and if it finds that a safety defect exists in group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer or Grech Motors.

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at:

1-888-327-4236

(TTY: 1-800- 424-9153)

Or visit, <http://www.safercar.gov> to obtain other information regarding vehicle safety or write to:

Administrator

1200 New Jersey Avenue, Southeast
Washington, D.C. 20590

UNDERSTANDING THE WARRANTY'S POLICY



OBTAINING PARTS

When parts are required for a **warranty repair**, all parts will be handled by the **Grech Motors Service Department**.

All other **Non-Warranty parts** needs can be handled by contacting the **Grech Motors Parts Department**, directly at **1-855-994-7324**. In order to expedite your parts order, please have your Grech Motors **serial number**, which starts with **G-#####**, and is located on the drivers door jamb of all our vehicles.

UNDERSTANDING WARRANTY POLICY

Should your bus require service related to the converted areas of the vehicle, **read this section first**, before taking any action. By doing so, you will clearly understand the **Grech Motors Service Process**, and avoid possible **delays**.

NOTICE

Never initiate a warranty repair without prior approval from the **Grech Motors Service Department**. You **must** obtain a **R.A.N** (Repair Authorization Number) before any warranty repair is honored.

WARNING

Not following this procedure could VOID your warranty reimbursement for that particular repair.

If there is any doubt as to whether or not a repair is related to the **Grech Motors Warranty**, call the Grech Motors Service Department at **1-855-944-7324**, this may save you time wasted at a chassis dealer or another shop, for a problem appropriately solved by contacting **Grech Motors Service Department**.

If the problem is **conversion** related, then it can either be repaired at our Riverside California facility, or by a shop that we recommend in your area, or by a shop of your choice. This **procedure** is true of both **warranty** and **non-warranty** repairs. Depending on the nature of the problem, it may be necessary to have the warranty **repair** done at our Riverside, California facility.

CAUTION

If it becomes necessary to tow your bus, a **flat bed rig** is preferred. **UNDER NO CIRCUMSTANCES**, should the bus be towed by lifting the **rear** end, serious frame **damage** can occur.

WARRANTY VERSUS NON-WARRANTY

Whether a particular problem is covered under the Grech Motors depends, in some cases, on several factors. The Grech Motors Service Department determines coverages ahead of time on a case by case basis, either over the phone or at our Riverside, California facility.

HAVING NON-WARRANTY REPAIRS PERFORMED

If the service manager has determined that the repair is not covered, or you are sure that it is not covered, we would be happy to recommend a shop in your area, or schedule an appointment with the Grech Motors Service Department, whichever is more convenient.

HAVING WARRANTY REPAIRS PERFORMED

There are **three (3) methods**:

- 1.** Repair is done at the **Grech Motors Service Department**, in Riverside, California.
- 2.** Repair is done at a Grech Motors **authorized service facility** near you.
- 3.** Repair is done at a shop of your **choice**, with prior approval of the Grech Motors Service Department.

If either method 2 or 3 as described, are to be used, you must obtain **pre-authorization** and a Grech Motors Service Department **Repair Authorization Number** (R.A.N), in advance of performing any repairs. Both requirements may be accomplished from a single phone call to the Grech Motors Service Department, at **1-855-994-7324**.

Send all **invoices** to the service manager at:

Grech Motors
Attn: Service Department Manager
6915 Arlington Avenue
Riverside, California 92504

UNDERSTANDING THE WARRANTY'S POLICY



GRECH MOTORS LIMITED WARRANTY

Applies to 2017 and later models

Grech Motors Inc., (hereinafter referred to as Grech Motors) is the final stage manufacturer of an **incomplete vehicle**, which is manufactured and separately warranted by the incomplete vehicle manufacturer. This limited warranty thus **does not** extend to **any part** or **portion** of the incomplete vehicle except as specifically required by any applicable **federal law** or **regulation**.

Original Equipment Manufacturer (**OEM**) chassis may have been **modified** by Grech Motors Inc. from the **original** configuration.

BODY STRUCTURE

Grech Motors Warrants to the original purchaser of each new Grech Motors bus, the **body structure** which is defined as: the cage, skin, front and rear caps, and floor structure to be **free from defects**, in material and workmanship under normal use and service for: **five (5) years** or **100,000** miles, whichever comes first, from the date of purchase by the original retail customer.

NOTICE

In the event of a Warranty claim, Grech Motors reserves the right to replace or repair the defective part.

FREE FROM DEFECTS

Grech Motors further warrants to the original purchaser of each new Grech Motors bus, that **all parts** (except electronic parts and HVAC system which are warranted by their original manufacturer) installed by Grech Motors will be **free** from **defects** in **material** and **workmanship** under normal use and service for **five (5) years**, or **100,000** miles, whichever comes first, from the date of purchase by the original retail customer.

EXTERIOR PAINT

Grech Motors warrants to the original purchaser of each new Grech Motors bus, the **exterior paint** for **five** 5 years or **100,000** miles (2 years or 50,000 miles on custom color changes) whichever comes first from the date of purchase by the original retail customer.

WHAT WE'LL DO TO CORRECT PROBLEMS

Provided that **prior authorization** was obtained from the Warranty Department of Grech Motors, all **labor costs** associated with the **repair** or **replacement** of defective parts will be paid by Grech Motors. Grech Motors reserves the right to make a **physical inspection** of the bus by authorized factory personnel following any complaint prior to any **repair**.

Grech Motors shall have **no liability** for any **defect** or **damage** caused by the original owner's use of parts or services which are **not authorized** by Grech Motors or for any parts or paint which have been subject to **misuse**, **neglect** or **accidents**, or have been subject to external **mechanical** or **chemical** influences, especially stone chips, airborne rust or industrial fall-out.

NOTICE

This Limited Warranty DOES NOT cover loss to time, inconvenience, loss of use of any vehicle, cost of rented replacement vehicle, or lodging or mileage expense in connection with any warranty repairs.

The original retail customer **MUST** obtain, prior to performing any work: a **Repair Authorization Number** (R.A.N) on any Grech Motors Bus.

The original customer should contact the **Warranty Department of Grech Motors**.

NOTICE

No person is authorized to alter or change in any way the terms and conditions of the above stated limited warranty.

It is the policy of Grech Motors, to incorporate product **improvements** to our products whenever possible or practical to do so.

We reserve the right to make **changes** and/or **improvements** at any time without incurring any obligation to make such changes on previously sold products. Additionally, the **information** and **specifications** contained within this manual are current at time of printing. Subsequently all information contained in this manual is subject to change **at any time**, without notice.

PRE-TIP INSPECTION

Any item not passing inspection, must be reported immediately, before operating vehicle. Failure of highlighted item(s) to pass inspection will cause vehicle to be grounded.

INSPECTION PROCEDURE CHECKLIST

INSPECTION PROCEDURE		PASS	FAIL
Preventative Maintenance			
1	Review the preventative maintenance schedule for services due at the current mileage.		
2	Calculate load carrying/payload capacity.		
Doors, Windows, and Emergency Exits			
3	Inspect the side passenger entry door for emergency exit operation, obstruction sensing system, damage, and proper closing function.		
4	Ensure all luggage doors (front, middle, and rear) operate correctly.		
5	Inspect the air release valve for proper operation of luggage doors and any visible signs of damage or malfunction.		
6	Test the manual operation levers to ensure they are functioning as intended without obstruction or wear.		
7	Verify all doors, glass, and windows for operation, cleanliness, and damage.		
8	Confirm all emergency exits are operational, clearly marked, and free from obstructions.		
Seating and Restraints			
9	Test the operation of the driver and copilot seats as well as the seat belts.		
10	Ensure proper functioning of seatbelts for all passenger seats.		
Dashboard and Controls			
11	Verify steering wheel and shift levers are functioning smoothly.		
12	Test foot pedals and the parking brake for proper operation.		
13	Inspect the operation of all gauges for normal readings while the engine is running.		
14	Check dash indicator lights with the key on (engine not started) and again with the engine running.		
Climate and Ventilation Systems			
15	Confirm proper operation of the heating, defrosters, fans, and air conditioning systems.		
Visibility and Communication Systems			
16	Inspect the horn, wipers, washers, and mirrors for cleanliness, adjustment, functionality, and any damage.		
17	Test the operation of cameras.		
18	Verify the PA system, audio, and video systems (if applicable) are functioning.		
Lighting			
19	Ensure all interior and exterior lights are operational and free from damage.		
Safety Equipment			
20	Confirm the fire extinguisher, warning reflectors, and first aid kit are in place and in good condition.		
Exterior Condition			
21	Inspect the exterior of the vehicle for cleanliness, appropriate markings, and any visible damage.		
22	Verify the fuel cap is secure.		
Tires and Wheels			
23	Check all tires and wheels for tread depth, cracks, bulges, missing lug nuts, and proper air pressure.		
Fluids			
24	Verify the levels of oil, transmission fluid, engine coolant, power steering fluid, brake fluid, and DEF (Diesel Exhaust Fluid).		
Belts			
25	Inspect all belts for proper tension and signs of wear.		

SAFETY AND DRIVING

VEHICLE PREPARATION AND SAFETY GUIDELINES

Before beginning any trip, ensure you are thoroughly familiar with the operation and conditions of your vehicle. Make sure you know all about the components, feature and limitations.

It is the responsibility of the owner and operator to read, understand and follow all considerations and instructions in this manual, the chassis manual, all equipment system manuals located in the information kit provided to you .

Adequate preparation is essential for an enjoyable, successful and safe trip. The time you spend getting to know all about your vehicle will enhance the enjoyment of you and the passengers, will maximize the experience and contribute to a more prosperous, rewarding and fortunate trip.

Safety, comfort and easy of operation of your vehicle are key considerations during the design and manufacture of all vehicles.

In this manual you will find boxes with safety labels with key words such as: Danger, Warning, Caution and Notice which will emphasize areas of special concern in your sprinter. The meaning of these key words are:

⚠ DANGER
Indicates a hazardous situation which, if not avoided, WILL result in death or serious injury.
⚠ WARNING
Indicates a hazardous situation which, if not avoided, COULD result in death or serious personal injury and/or damage to the vehicle.
⚠ CAUTION
Indicates a hazardous situation which, if not avoided, COULD result in minor or moderate personal injury and/or damage to the vehicle.
ⓘ NOTICE
Identifies hazards not related to personal injury.

CHECKLISTS

SAFETY CHECKLIST

The following checklists highlights items that need to be checked on the vehicle before traveling. Prior to departing several items will need to be prepared.

Regular use of this checklist will provide a safe operation and long life span of your vehicle. It will also help to find a malfunction in an equipment or component before there is a bigger problem. By doing so, there is a better chance of not facing problems in the future.

EXTERIOR CHECK LIST

Before entering your vehicle, follow these essential steps:

1. Tire Inspection:

- Verify the condition of the tires.
- Maintain cold inflation pressure as recommended per tire specifications.

2. Exterior Component Check:

- Ensure all exterior components are unhooked and securely stored.

3. Luggage Compartment Doors:

- Confirm that luggage compartment doors work properly.

4. Fluid Levels:

- Adhere to all guidelines for checking and filling fluid levels.

5. Lights and General Condition:

- Inspect exterior lights and asses the overall condition of the vehicle.

6. Safety Clearances:

- Ensure there are no obstacles in the vehicle's path that could cause accidents or damage to the vehicle.

7. Belongings Verification:

- Confirm that all personal belongings are safely stored inside the luggage compartments.
- Verify that no items are left behind on the exterior.

SAFETY AND DRIVING

INTERIOR CHECK LIST

Before driving your bus, adhere to these guidelines:

1. Secure Loose Objects:

- Check for small and potentially dangerous objects on overhead shelves.
- Secure items to prevent injuries or loss in the event of crash or sudden braking.

2. Cabinet Weight Distribution:

- Avoid storing heavy items in overhead shelves.

3. Door Security:

- Confirm all entry door and luggage compartment doors are closed and securely locked while traveling.

4. Internal Stowage Security:

- Verify that internal stowage is securely held in place.

5. Driver's Seat Comfort and Control:

- Adjust the driver's seat to a comfortable position within reach of all controls.
- Modify the driver's seat only when the vehicle is parked and turned off to prevent accidents.

6. Passenger Seat Belts:

- Ensure all passengers are secured with seat belts.

7. Mirror Adjustment:

- Check and modify mirror adjustments if necessary for maximum visibility.

By adhering to this exterior and interior checklist, you contribute to the safety and optimal performance of the Bus.

PRE ROAD TRIP TIPS

1. Traveling:

- Refer to the chassis manual in the Bus Information Kit for the engine starting, operation and stopping instructions.

2. Inspection:

- Be aware of differences between passenger automobiles and a Bus when travelling. The key to safely operating an Bus is inspection. Any defect found could result in problems on the road, causing a loss of time and money. Check for any required inspections before registration, as laws may vary. A systematic inspection conducted prior to moving your vehicle will ensure nothing is overlooked and will assist in familiarizing the owner with the vehicle.

3. Get Acquainted

- The location and height of the driver's seat in the bus is higher and further to the left than in most vehicles. This creates a different perspective of the roadway. Rely on the outside mirrors to align with the center of the road and check conditions behind the vehicle. The dashboard may contain more gauges and controls than what is normally found in a passenger car. Become familiar with these gauges and their indications before starting your journey.

4. Controls

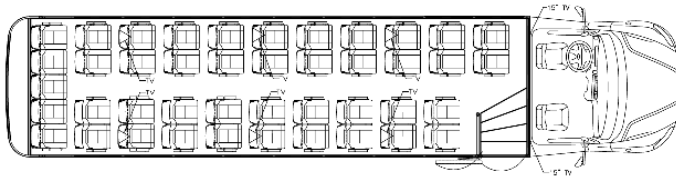
- Bus driver controls are similar to those of an automobile. Steering and braking controls are power-assisted to make driving as comfortable as possible. Since a bus is higher, wider, and heavier than any automobile, the operator must anticipate and account for these differences.

FLOOR PLAN OVERVIEW

The Freightliner S2 EG40 is a high-capacity passenger bus designed for comfort, safety, and efficiency. This model features a total of 45 seats, including 43 passenger seats and 2 front seats for the driver and co-pilot.

Each seat is equipped with an individual seatbelt, providing enhanced passenger safety and ensuring compliance with transportation regulations. The interior layout has been optimized to provide ample legroom, clear aisle space, and convenient access to entry and exit points, making it suitable for both short trips and long-distance travel.

The vehicle's floor plan is thoughtfully designed to maximize seating capacity while maintaining a spacious and comfortable cabin environment. A detailed diagram of the layout is provided on the following page for reference.



NOTICE

Engineering Validation: Any proposed modification to the interior floor plan must be reviewed and validated by Grech Motors Engineering to ensure compliance with design specifications and safety standards.

CAUTION

Impact on Safety Features: Unauthorized changes to seating may interfere with integrated safety systems such as seatbelt anchors or passenger restraint mechanisms, reducing their effectiveness in an emergency.

WARNING

Compromised Emergency Access: Relocating or adding seats without proper authorization may block emergency exits or obstruct passenger pathways, delaying evacuation in critical situations.

DANGER

Unauthorized Modifications: Unapproved alterations to the seating configuration may compromise the structural integrity of the bus, increasing the risk of injury in the event of an accident or sudden stop.

SEATS

The seats are designed to provide comfort and ease of use for passengers. Most of the seats, excluding those located at the rear, are equipped with a recline button for adjusting the seatback. To adjust:

1. Press the recline button while leaning back to achieve the desired inclination.
2. To return the seatback to its original upright position, press the button again and sit at a 90° angle until the seat locks back into place.

Seats placed along the aisle feature an armrest that can be raised for additional comfort. These seats also have a control button located beneath, allowing for forward and backward adjustment of the seatback.



Seats located against the side wall are equipped with a lever to adjust the seatback, and also come with an armrest that can be raised for comfort.

The only seats without armrests are those positioned at the very rear, with the exception of those against the rear wall. Additionally, none of the rear seats feature a lever for seatback adjustment, as the wall behind them restricts movement.



SEATBELTS

Seatbelts are a critical safety feature designed to protect occupants by reducing the risk of injury in the event of sudden stops, sharp turns, or collisions. It is essential that the driver and all passengers wear their seatbelts properly whenever the bus is in motion. Ensuring that seatbelts are securely fastened not only enhances individual safety but also contributes to a safer overall travel experience for everyone on board.

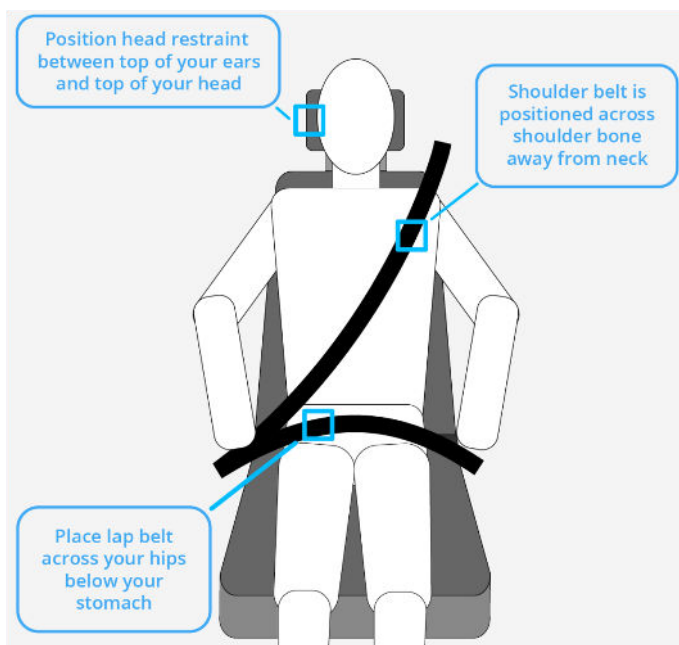


SEATBELT USAGE GUIDELINES

All seats intended for use while the bus is in motion, including the driver's seat, are equipped with seatbelts to ensure passenger safety. These restraints are essential for minimizing the risk of injury in case of unexpected movements.

To properly fasten a seatbelt:

- Pull the belt smoothly from the retractor.
- Insert it into the buckle until a distinct click is heard, ensuring it is securely locked.



NOTICE

Proper Fit: Seatbelts should always be worn snugly across the lap and shoulder to provide maximum protection.

NOTICE

Always Wear Your Seat Belt: Wear a seat belt all the time, not just on long trips or high-speed highways. More than half of the crashes that cause injury or death happen at speeds less than 40 mph and within 25 miles from home. It is important to wear the seat belt correctly.

NOTICE

Regular Inspections: Periodically check seat belts for signs of wear or damage. Look for cuts, fraying, or loose components that could compromise safety.

CAUTION

Incorrect Usage: Failing to wear a seatbelt properly may reduce its effectiveness and increase the risk of injury in the event of sudden stops or sharp turns.

CAUTION

For optimal safety:

Seat Belt Attachment:

- Always secure seat belts to permanently mounted seats only. Improper attachment may compromise safety.

Individual Use:

- Each seat belt is designed for a single occupant. Never share a seat belt, as this reduces its effectiveness and increases the risk of injury.

DANGER

Severe Injury or Death Risk: Not wearing a seatbelt significantly increases the risk of severe injury or fatality in the event of an accident. Always ensure that all occupants have their seatbelts securely fastened before the bus is in motion.

DANGER

NOT USING THE SAFETY RESTRAINTS PROVIDED COULD RESULT IN INJURY OR DEATH.

SEATING AND SEAT BELT MAINTENANCE

Proper maintenance of the seating area and seat belts is essential for safety, durability, and passenger comfort. Regular inspections and cleaning help prevent wear and ensure all components function as intended.

Daily Inspections

- Examine seats for any tears, rips, or stains.
- Ensure seats are securely attached and tighten any loose bolts to prevent rattling.
- Check seat belts for proper latching operation, cuts in the webbing, or damage to tabs and buckles.

Cleaning Guidelines

- **Vinyl Seats:** Wipe down once or twice a month with a mild soap and water solution or a vinyl-safe cleaner.
- **Seat Belts:** Use a soft cloth or sponge with mild soap and lukewarm water to gently clean the webbing. Avoid harsh scrubbing, bleach, lye, or abrasive cleaners, as they can weaken the material.
- For heavily soiled seat belts, lightly scrub with a soft-bristled brush, ensuring excessive water does not enter the retractor mechanism.
- After cleaning, remove any soap residue with a damp cloth and allow the seat belts to air dry completely before retracting. Avoid direct heat sources like hairdryers or heaters, as excessive heat can weaken the fibers.

Structural Maintenances

- Inspect and adjust seat fastener torque twice a month or whenever the vehicle is in for repairs.
- Regularly check seat belts for signs of wear or damage, and replace any compromised components to maintain safety.

NOTICE

Seat Belt Maintenance Matters: Proper seat belt maintenance is crucial for safety. Neglecting care or using harsh cleaners can weaken the material, reducing its effectiveness. Follow the recommended guidelines to ensure durability and protection.

NOTICE

Solvent Use: Use of stronger solvents on vinyl seats is not recommended as they reduce the strength of the vinyl and cause premature cracking.

NOTICE

Avoid Contamination: Keep seatbelt components free from contamination by oils, polishes, or chemicals to maintain their integrity and functionality.

NOTICE

Shoulder Belt Security: Proper shoulder belt anchorages are crucial for safety. Ensure they are securely fastened during each inspection.

CAUTION

Clean Floor Anchorages: Floor anchorages must be clean and secure. Ensure no debris or contaminants interfere with their securement.

CAUTION

Pin Connector Bushing Integrity: Broken or missing pin connector bushings can lead to seatbelt system failure. Ensure they are intact during inspections.

WARNING

Loose Hardware: Loose or unsecured mounting hardware may cause seatbelt malfunction, especially in high-impact situations. Tighten all hardware as needed.

DANGER

Damaged Seatbelt Straps: Worn, frayed, or damaged seatbelt straps can fail to provide adequate protection. Regular inspections are critical to prevent accidents.

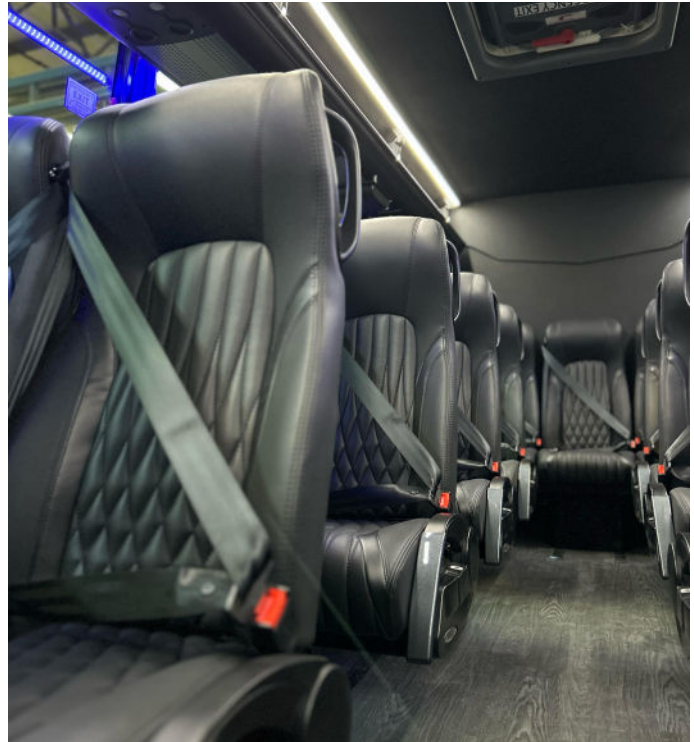
DANGER

Buckle or Connector Failure: Compromised buckles or damaged male buckle pin connectors can prevent proper seatbelt engagement. Check for proper function regularly.

SEATBELT SAFETY INSPECTION GUIDE

To ensure the safety and proper functioning of the seatbelt system, it is essential to perform daily inspections. The following checklist outlines the key components to examine for wear, damage, and proper operation. Regular evaluations help maintain a safe environment and extend the life of the seatbelt system.

1. Inspect the retractors by pulling out the strap to ensure they are locking properly.
2. Ensure the strap is not cut, frayed, damaged, or contaminated by polishes, oils, or chemicals.
3. Verify that metal parts are not worn, broken, or cracked.
4. Examine the pin connector bushing to ensure they are not cracked, broken, or missing.
5. Confirm that all mounting hardware, such as nuts and bolts, is secure.
6. Inspect the floor anchorages to ensure cleanliness and securement.
7. Ensure shoulder belt anchorages are properly secured and functioning.
8. Examine the lap and shoulder belt strap to ensure it is not cut, frayed, damaged, or contaminated with oils or chemicals.
9. Check buckles for damage and ensure proper operation.
10. Inspect the male buckle pin connector bushing to ensure it is not cracked, broken, or missing.
11. Review any other parts of the securement system and accessories that may not be specifically indicated in this checklist but are pertinent to a safe operational system.



⚠ CAUTION

Retractor Locking: Always verify that seatbelt retractors are locking properly to ensure the system works effectively in the event of an emergency.

⚠ WARNING

Daily Inspections: Failure to perform daily seatbelt inspections can compromise safety and increase the risk of injury in the event of a crash.

OVERHEAD PARCEL RACK

The overhead parcel racks in the Freightliner S2 are located in the passenger area, providing convenient storage space for passengers. This self-service feature allows passengers to store their items independently, similar to the overhead compartments found on commercial aircraft, offering time-saving and convenient access.

Each rack is equipped with interior lighting located between the wall and the window, ensuring that passengers can clearly see and organize their belongings.

Additionally, auxiliary lights, including a white LED strip, are installed above the racks and along the support beams, further enhancing visibility. These auxiliary lights help passengers correctly position their luggage and other items within the racks, contributing to a more organized and user-friendly storage space.

This lighting system plays a key role in creating an efficient and well-organized storage area, improving the overall passenger experience by ensuring easy access and proper item placement.

NOTICE

Proper Storage: Store items securely in the overhead racks without exceeding weight limits. Do not exceed weight limits or store bulky items that could damage the racks.

NOTICE

Inspection: It is important to check fasteners, screws, etc. on the interior luggage fixtures on a regular basis to make sure they are tight, and the fixture is in sound operating condition.

CAUTION

Even Distribution: Distribute weight evenly to prevent shifting or instability. Unsecured items may fall during transit and cause injury. Always check for stability.

CAUTION

Fragile Items: Use padding for fragile items and avoid storing sharp or breakable objects.

CAUTION

Overhead Storage Safety: To minimize the risk of injury, drivers should warn passengers not to place heavy items in the overhead storage compartments. This precaution helps prevent objects from falling during transit.



WARNING

Item Storage Safety: Drivers should make sure that the items stowed will not fall into the aisle during transit or otherwise obstruct egress and entry.

WARNING

Rack Stability: Check that the racks are secure and in good condition before use.

WARNING

Clearance: Ensure racks are clear of obstacles and do not block emergency exits.

SAFETY AND DRIVING

DRIVING TIPS

MOUNTAIN DRIVING

When navigating hilly or mountainous terrain, use safe driving techniques suited to the Freightliner EG40's design and capabilities. Always familiarize yourself with the route and anticipate potential challenges to ensure safety and efficiency.

CLIMBING A HILL

Utilize Lower Gears:

- Engage lower gears when ascending steep inclines to maximize torque and maintain smooth uphill progress.

Transmission Strategy:

- The EG40's transmission is designed to automatically downshift during prolonged climbs. If frequent shifting occurs, manually select a lower gear to reduce strain on the transmission and improve efficiency.

Implementing these practices enhances safety, efficiency, and minimizes stress during mountainous journeys.

DESCENDING A HILL

Selecting Lower Gear:

- Use a lower gear before starting your descent. This helps reduce reliance on service brakes, minimizing the risk of overheating and brake fade.

Engine Braking Braking:

- Leverage the engine's braking force to maintain a safe, controlled speed during long descents. Avoid prolonged or excessive use of the service brakes.

Caution Against Brake "Pumping":

- Instead of lightly pumping the brakes, apply steady, moderate pressure when needed to slow down, then release to allow cooling.

Transmission Downshifting:

- Downshift before starting the descent to allow the engine to assist in maintaining a safe speed. Continuously monitor your speed to avoid over-revving the engine.

Auxiliary Braking Device: Use the EG40's auxiliary braking system (e.g., engine brake or retarder) as necessary to assist in controlling speed during descents.

NOTICE

A safe driving practice is to use the same lower gear position when descending a hill that you used while climbing the hill.

CAUTION

Extended brake applications can cause excessive wear, overheating and under extreme conditions, brake failure that could cause you to lose control of the vehicle.

BACKING UP GUIDANCE

Backing up poses a perpetual challenge, whether you're an experienced owner or a novice. To navigate this task successfully, rely on a combination of mirrors, a back-up camera, and the assistance of a co-pilot. It is advisable to practice in a parking lot before hitting the road, emphasizing the collaborative nature of backing up.

Initiate the Process:

- Begin the backing-up process while the vehicle is in forward motion.

Alignment Maneuver:

- Maneuver the vehicle to align with a chosen reference point or sign. This initial alignment sets the stage for a straight approach to the desired site.

Visibility Check:

- Ensure the vehicle is properly aligned with the site, making the parking area visible in both mirrors.

Utilize Reference Points:

- Use straight lines, such as road markings, as reference points to guide the backing-up process.

Remember, backing up is a team effort. Utilize the resources available, practice in controlled environments, and leverage reference points for a smoother and more precise backing-up experience.

NOTICE

If the destination does not have a "pull through" site, try to pick a solid, level site. If possible pick a site located on the left/drivers side of the vehicle.

SAFETY AND DRIVING

BACKING UP PROCEDURE

In situations where there is no available spot on the left side, the driver will rely on right-side mirrors, which offer reduced road vision and increased blind spots

Pre-Backing Checks:

- Before initiating the backing-up process, it is crucial to bring the vehicle to a complete stop. Exit the vehicle and survey the area for potential obstacles such as rocks, low-hanging limbs, and signposts.

Co-Pilot's Role:

- The co-pilot plays an equally vital role. When backing up, position the co-pilot at the roadside corner for continuous visibility in the roadside mirror. This ensures the co-pilot can monitor for obstacles and provide hand signals during the process.

Safety Measures:

- If the driver loses sight of the co-pilot, the backing-up process halts until visibility is restored.
- If uncertainties arise, or if the driver is unsure of the surroundings, it's essential to pause the process and inspect all angles and potential concerns.

Communication:

- Utilizing walkie-talkies can greatly enhance communication efficiency between the co-pilot and driver, ensuring a smooth and well-coordinated backing-up process.

NOTICE

When using walkie-talkies for communication, ensure they are fully charged and set to a clear channel to avoid interference from other radio frequencies.

NOTICE

Always check for pedestrians, cyclists, or small objects that may not be visible in mirrors but could be detected by physically inspecting the area.

CAUTION

Sudden braking while backing up may cause unrestrained passengers or unsecured cargo to shift, potentially leading to injuries or damage.

CAUTION

Avoid over-reliance on mirrors alone. They may not provide an accurate perception of distance, especially at night or in low-visibility conditions.

WARNING

Backing up too quickly increases the risk of collisions. Always move at a controlled speed to allow time to react to unexpected obstacles.

WARNING

In low-light conditions or during adverse weather (fog, rain, snow), visibility can be significantly reduced. Use additional lighting if necessary and proceed with extra caution.

DANGER

Never allow anyone to stand directly behind the vehicle while backing up. A miscommunication or sudden movement could lead to serious injury or death.

DANGER

If backing up near a busy roadway or pedestrian area, use extreme caution. Unexpected foot traffic or approaching vehicles can create hazardous situations.

SAFETY AND DRIVING

ON THE ROAD GUIDELINES

Operating the Freightliner S2 EG40 requires attentiveness and safety awareness. These guidelines ensure a smooth ride, passenger safety, and optimal vehicle performance.

General Driving Considerations

- **Acceleration and Passing:** Due to the vehicle's size and weight, reaching highway speeds takes longer. Plan ahead when passing, especially on inclines.
- **Braking & Stopping Distance:** The vehicle requires increased stopping distance. Practice braking in a safe area to familiarize yourself with its response.
- **Traffic Awareness:** Always maintain ample space between vehicles and adjust for slower acceleration and longer braking times.

Backing and Maneuvering

- **Backing Up:** Have a co-pilot assist by standing on the rear driver's side to provide guidance. Use mirrors frequently and move slowly.
- **Turning Maneuvers:** Make wider turns, particularly right turns, to avoid collisions with curbs or obstacles. Stay near the center of the lane when preparing to turn.
- **Road Positioning:** Keep the vehicle centered in the lane, as it is wider than a standard passenger vehicle.

Driving on Hills & Slopes

- **Ascending Hills:** The vehicle may struggle on steep inclines. Maintain momentum and shift gears as needed.
- **Descending Hills:** Use lower gears to control speed and reduce strain on the braking system. Avoid excessive braking to prevent brake overheating.

Safety & Emergency Preparedness

- **Seatbelt Usage:** Ensure all occupants correctly use seatbelts at all times.
- **Fire Safety:** Keep a properly charged fire extinguisher on board and educate passengers on fire safety protocols.
- **Emergency Preparedness:** Carry a cell phone for emergencies, but avoid distractions—do not text, call, or use handheld devices while driving.

Vehicle Maintenance & Security

- **Tire Maintenance:** Check tire pressure before each trip and monitor it during refueling stops. Proper inflation improves handling and safety.
- **Securing Items:** Confirm all luggage compartment doors are closed, and ensure passengers' luggage is properly secured in overhead racks.

Parking & Stopping

- **Parking Assistance:** If unsure, have someone guide you into tight parking spaces. Be especially cautious when reversing.
- **Route Planning:** Check for height restrictions along your route to avoid low bridges, tunnels, or other clearance issues.

NOTICE

Regular maintenance of tires extends their lifespan and enhances fuel efficiency.

NOTICE

Properly secured luggage prevents movement that could cause damage or injury.

NOTICE

When reversing, using mirrors and cameras can aid visibility.

CAUTION

Driving with underinflated or overinflated tires can lead to uneven wear and reduce stability.

CAUTION

Failure to secure luggage may result in shifting during transit, posing a risk to passengers.

CAUTION

Be aware of parking surface conditions—soft or uneven ground may cause the vehicle to sink or become unstable.

WARNING

Do not exceed the vehicle's recommended tire pressure, as overinflation can cause blowouts.

WARNING

Sudden stops or sharp turns may cause unsecured luggage to fall, potentially injuring passengers.

WARNING

Always check for nearby obstacles and pedestrians before reversing to prevent collisions.

DANGER

Driving with severely underinflated or damaged tires can result in a blowout, leading to a loss of vehicle control.

DANGER

Ignoring clearance restrictions can result in severe vehicle damage or personal injury.

DANGER

Never leave the vehicle unattended without ensuring the parking brake is engaged and the vehicle is on stable ground.

EMERGENCIES

SAFETY PRECAUTIONS

Your vehicle is equipped with features that allow both the driver and passengers to effectively manage certain emergencies or malfunctions while on the road. Familiarize yourself with the recommended procedures outlined in this section to better handle any unforeseen situations.

While traveling, emergencies or malfunctions can occur unexpectedly. It's important for both the driver and passengers to know how to respond. Review this section to understand the proper procedures for managing various emergencies or issues you may face.

EMERGENCY PREPARATION

Emergencies can arise at any time and often without warning, leaving little time to react. While planning ahead can't prevent emergencies, it can help save lives. By knowing the location of safety equipment and understanding how to operate it, you contribute to ensuring a safer journey.

NOTICE

If the decals and/or signs have been removed or erased please contact Grech Motors Customer Service to obtain new decals.

NOTICE

In case of vehicle malfunction or breakdown, pull over to a safe location away from traffic and turn on the hazard lights to alert other drivers. Only attempt repairs if it is safe to do so, and consider contacting roadside assistance if necessary.

NOTICE

Regularly inspect safety equipment and ensure it is up to date, fully functional, and easy to access. This includes checking expiration dates on fire extinguishers and replacing any expired items.

CAUTION

In the event of an emergency, remain calm and assess the situation. Panic can hinder your ability to respond effectively. Make sure to communicate with passengers and follow the emergency procedures carefully.

CAUTION

When using safety equipment like fire extinguishers, always follow the manufacturer's instructions and ensure you are familiar with the correct method of use before an emergency occurs.

WARNING

Do not attempt to handle hazardous situations (such as electrical fires or fuel leaks) without proper training or equipment. Always prioritize evacuating the vehicle if it is unsafe to remain inside.

DANGER

If the vehicle is involved in a collision or fire, never attempt to re-enter the vehicle to retrieve personal belongings. Your safety is the top priority.

HAZARD WARNING LIGHTS

Your vehicle is equipped with a hazard warning light system that activates both the front and rear turn signals to flash in unison. The hazard light switch is located on the dashboard.

To activate/desactivate:

- Press the Hazard Warning Lamp Switch. If the hazard warning lights are on and you signal a turn, only the turn signal on the selected side of the vehicle will activate.

The hazard warning lights will automatically turn on if:

- An airbag is deployed.
- You brake sharply and bring the vehicle to a halt from a speed of more than 45 mph (70 km/h).

If the hazard warning lights activate automatically, press the Hazard Warning Lamp Switch to turn them off.

Activate the **hazard warning lights** whenever the vehicle is stopped on the **side** of the road or near moving **traffic**. The hazard warning lights **alerts** other drivers of a potential **hazard** and to take extra **precautions**. The Hazard Warning Lights will continue **flashing** when the switch is **on**, even when the key is in the **off** position or **removed** from the ignition.

NOTICE

Always activate the hazard warning lights when your vehicle is stopped on the side of the road or near moving traffic. This alerts other drivers to potential hazards, prompting them to take extra caution. The hazard warning lights will continue to flash even if the ignition key is in the off position or has been removed.

NOTICE

Hazard warning lamps work even when the ignition is switched off.



EMERGENCIES AND SAFETY

ESCAPE ROUTES

It is the driver's responsibility to ensure that all passengers are familiar with the bus's escape routes and understand how to use them. The driver must also verify that all exits are clearly marked, all components are functional, and that passageways are unobstructed at all times.

The Freightliner S2 EG40 is equipped with 8 egress windows (4 on each side) and a roof hatch. Please take the time to inspect the bus and familiarize yourself with all available emergency exits for both you and your passengers.

BEFORE EACH TRIP INSPECT EMERGENCY EXITS

Ensure that all emergency exits, including windows, the rear door, and the roof hatch, are in good condition.

- Verify that each emergency exit is clearly marked with an "Emergency Exit" sign or label and that instructions are intact.
- Confirm that all emergency exits are operational.
- Check that the passageways are not obstructed.
- Inspect hardware, including latches, handles, and brackets, to ensure they are secure and undamaged.
- Ensure that windows and doors are free from loose, cracked, or damaged glass.



NOTICE

Ensure all passengers are aware of the bus's emergency exits and understand how to use them in the event of an emergency.

NOTICE

Regularly inspect all escape routes, including egress windows, the rear emergency door, and the roof hatch, to ensure they are fully functional and accessible.

CAUTION

Verify that all escape routes are clearly marked and unobstructed to allow for quick evacuation if needed.

CAUTION

Ensure that all components related to the escape routes, such as windows, doors, and hatches, are in good working condition and easy to operate.

WARNING

Inadequate or blocked escape routes can lead to severe injuries or even fatalities during an evacuation. Damaged or faulty emergency exit components can delay evacuation during an emergency.

DANGER

In the event of an emergency, failure to properly use the escape routes may lead to serious injury or loss of life. Always prioritize the safety and evacuation of passengers.

DANGER

If any escape route components, such as windows, doors, or the roof hatch, are damaged or malfunctioning, immediate repairs should be made to restore functionality.

DANGER

Failure to properly inspect and maintain emergency exits can lead to severe consequences in the event of an emergency, potentially resulting in injury or loss of life.

EMERGENCIES AND SAFETY

EMERGENCY EGRESS WINDOW

This vehicle is equipped with 8 Emergency Egress Windows, which provide additional exit points in the event of an emergency. There are multiple Emergency Egress Windows located on both the passenger and driver sides of the vehicle.

The Emergency Egress Windows are a crucial part of the vehicle's emergency exit system. It is the driver's responsibility to test all windows daily before putting the vehicle into service to ensure they are fully operational.

All emergency windows are equipped with one bright red handle along with the instructions on how to open them in an emergency.



NOTICE

Windows with Emergency Exit stickers are designated Emergency exits. Follow the directions on the sticker. Rotate handle and push window out.

NOTICE

Ensure all Emergency Egress Windows are functional and accessible before starting the vehicle.

CAUTION

Verify that all escape routes are clearly marked and unobstructed to allow for quick evacuation if needed.

WARNING

Do not attempt to force open Emergency Egress Windows if they are stuck or damaged.

DANGER

Malfunctioning or blocked Emergency Egress Windows can delay evacuation, leading to severe injury or death.

EMERGENCY EGRESS WINDOW OPERATION

To test the system, the vehicle driver should verify the following:

1. Emergency Exit Sticker:

- Each Emergency Egress Window is marked with an Emergency Exit sticker located on the right side of the window, halfway up, next to the Emergency Handle. Ensure that all Emergency Egress Windows have the designated sticker. If any window is missing the sticker, contact the Grech Motors Service Department at 1-855-994-7324 and do not operate the vehicle.

2. Window Latch:

- Each Emergency Egress Window is secured with a latch on the right side, halfway up. To release the window, rotate the handle. The latch is disengaged when the handle moves from the vertical to the horizontal position, allowing the window to open.

3. Opening the Window:

- Once the latch is released, push on the bottom of the window frame to open the Emergency Egress Window. It should swing outward and away from the vehicle.

4. Non-Functioning Window:

- If the window does not open when the latch is released and the frame is pushed, contact the Grech Motors Service Department at 1-855-994-7324 and do not operate the vehicle.

5. Closing the Window:

- To properly close the Emergency Egress Window, return the handle to the vertical position, securing the latch. Ensure the window is securely closed by gently pushing on the window frame while the latch is locked in the vertical position.



**HANDLE IN
CLOSED POSITION**



**HANDLE IN
OPEN POSITION**

EMERGENCIES AND SAFETY

EMERGENCY EGRESS WINDOW MAINTENANCE

Daily inspections of all emergency egress windows are essential for safety. Follow these guidelines during each inspection:

- **Functionality Check:** Open each egress window by rotating the handle and pushing it outward. Ensure smooth operation but do not extend beyond 40 degrees, as this may cause the window to detach, as it would in an emergency.
- **Latch & Mechanism Inspection:** Check latches and moving parts for damage, wear, or looseness. Replace components as needed.
- **Lubrication:** Apply white lithium grease to any hard-to-move latches.
- **Glass Inspection:** Look for cracks or chips. Replace damaged glass immediately.
- **Window Cleaning:** Clean bus door windows regularly for visibility and passenger safety.
- **Glass Maintenance:** Clean interior and exterior surfaces daily using a household ammonia solution or other glass cleaner with a soft, non-abrasive cloth, sponge, or chamois to remove dirt and film.
- **Label & Instruction Check:** Ensure all emergency exit windows are properly labeled and that instructions are intact near each handle.
- **Seal Inspection:** Check window seals for damage, wear, or looseness. Replace as needed.
- **Sliding Window Maintenance:** Every two months (or as needed), clean the window grooves and apply a silicone lubricant to maintain smooth operation.

⚠ CAUTION

Do not force stiff latches- apply lubricant instead to prevent damage.

⚠ CAUTION

Avoid using abrasive materials when cleaning window glass.

⚠ WARNING

Never operate the vehicle if an emergency egress window is damaged, non-functional, or missing its label.

⚠ WARNING

Check for proper operations and ensure that the instruction labels are intact. Serious injury and or death could occur if the window operations fail and people are not able to escape during an emergency.

⚠ WARNING

Do not drive with the egress windows unlocked/unlatched or allow someone to open them while the unit is in motion. Driving a bus with the egress windows unlocked could result in the window blowing open and falling out. The window also could become airborne. Either condition could lead to serious injury or death.

⚠ WARNING

Loose, cracked, or improperly sealed windows may compromise safety during an emergency.

⚠ DANGER

Extending an egress window beyond 40 degrees can cause it to detach, leading to potential injury.

EMERGENCY ROOF HATCH

The Emergency Roof Hatch is a crucial component of the vehicle's emergency exit system. It serves as an alternative escape route if the primary exits are blocked, unusable, or inaccessible.

The hatch is located in the vehicle's roof, above the passenger walkway, and must be inspected and tested daily before placing the vehicle into service to ensure proper operation.

OPERATING THE EMERGENCY ROOF HATCH

- **Opening the Hatch:** Turn the red knob 90° clockwise.
- **Exiting Through the Hatch:** Firmly press the red knob.
- **Releasing the Latch:** Push the knob inward, like a button, until the latch releases and the hatch opens freely.

NOTICE

Regularly clean the emergency hatch seals and latch mechanism to prevent dirt buildup that may affect operation.

NOTICE

The roof escape hatch can also be used for ventilation, simply push up at the sides of the escape hatch and it will pop up for ventilation. Pull down and it will snap shut to close.

NOTICE

If the hatch shows signs of wear, corrosion, or mechanical resistance, schedule maintenance immediately.

CAUTION

If the Emergency Exit sticker is faded or damaged, replace it immediately to maintain visibility for passengers and emergency responders.

CAUTION

During hatch testing, open it slowly and with control to avoid sudden movements that could cause injury or damage.

CAUTION

Ensure the hatch is fully secured after testing to prevent unintended openings while the vehicle is in motion.



EMERGENCY ROOF HATCH EXIT MAINTENANCE

- Regularly inspect all attaching fasteners to ensure they remain secure and tightened as needed.
- For cleaning, use a mild soap and water solution. Avoid harsh chemicals, including acetone, ether, lacquer thinner, or any solvents that may degrade composite and plastic materials.

WARNING

Do not obstruct or modify the Emergency Roof Hatch in any way. Altering its function may prevent proper operation during an emergency, leading to potential injury or entrapment.

WARNING

In case of an emergency, ensure all passengers are clear of the hatch opening before operating to prevent accidental injury.

DANGER

Failure to inspect and test the Emergency Roof Hatch daily may result in serious injury or loss of life in the event of an emergency. Always verify proper operation before placing the vehicle into service.



EMERGENCIES AND SAFETY

DAILY INSPECTION AND TESTING PROCEDURE

1. Emergency Exit Sticker:

- Verify that the Emergency Roof Hatch is clearly marked with an Emergency Exit sticker. If the sticker is missing, do not operate the vehicle. Contact the Grech Motors Service Department at 1-855-994-7324 for assistance.

2. Latch Operation:

- The Emergency Roof Hatch is secured by a single latch. To test its functionality, turn the handle from the "LATCHED" position to the "TO EXIT" position.

3. Hatch Opening:

- Once the latch is released, push the hatch outward. It should swing open and away from the vehicle without resistance.

4. Obstruction Check:

- If the hatch does not open properly after releasing the latch and pushing outward, do not operate the vehicle. Contact the Grech Motors Service Department at 1-855-994-7324 for further instructions.

5. Securing the Hatch:

- After testing, close the Emergency Roof Hatch by returning the handle to the "LATCHED" position. Ensure it is securely fastened by pressing against the hatch while the handle remains in the locked position.



NOTICE

Familiarize all vehicle operators and passengers with the location and operation of the Emergency Roof Hatch to ensure a quick and efficient exit if needed.

NOTICE

Keep the area around the hatch clear of debris or obstructions to allow for unrestricted access during inspections and emergencies.

CAUTION

Regularly inspect the hatch's hinges and seals for signs of wear or deterioration. A damaged seal may allow water intrusion or compromise the hatch's effectiveness in an emergency.

CAUTION

If the latch mechanism feels stiff or difficult to operate, apply a light lubricant approved for vehicle safety components to ensure smooth operation.

WARNING

Do not obstruct or modify the Emergency Roof Hatch in any way. Altering its function may prevent proper operation during an emergency, leading to potential injury or entrapment.

WARNING

Never allow passengers to tamper with or misuse the Emergency Roof Hatch. Unauthorized use could cause damage to the mechanism or create a safety hazard.

DANGER

Failure to properly secure the Emergency Roof Hatch after testing could result in the hatch opening unexpectedly while the vehicle is in motion, leading to severe injury or vehicle damage.

TOWING

Towing a Freightliner S2 bus requires careful adherence to specific guidelines to ensure safety and prevent damage to the vehicle. Follow these steps to properly tow the bus:

1. Disconnect the Battery:

- Begin by disconnecting the ground cable from the vehicle's battery to avoid electrical issues during the towing process.

2. Remove the Drive Axle Shaft:

- If the vehicle is to be lifted and towed, remove the drive axle shaft to prevent damage to the transmission and U-joints. This step is crucial to avoid drivetrain complications during towing.

3. Release the Parking Brake:

- Ensure that the parking brake is fully released. As the parking brakes are spring-applied when there is no air pressure, you will need to supply air pressure to release them. This can be done by connecting an air supply from the tow truck to the vehicle's air system, typically through the air dryer.

4. Lift the Vehicle:

- Attach the towing device securely to the front of the vehicle. When lifting, ensure that the vehicle is raised by the tires. This method helps prevent damage to the suspension and steering components. If additional clearance is required, remove the front wheels.

5. Secure Safety Towing Chains:

- Once the vehicle is lifted, secure the safety towing chains to ensure the bus remains safely attached to the tow vehicle throughout the process.

6. Connect Towing Lights:

- Connect the clearance, tail, and signal lights to the towing vehicle's wire harness. Ensure all lighting is functioning properly, and connect any special towing lights required by local regulations for safety and compliance.

7. Use Proper Towing Equipment:

- Always use equipment rated for the weight and size of the vehicle. Tow truck operators should position the lifting equipment with attention to the distance from the front cap to the center of the axle.

NOTICE

Ensure that the towing company is experienced with heavy-duty vehicles and follows manufacturer-recommended procedures.

NOTICE

Your chassis manufacturer produces a towing manual for all authorized tow truck operators and for proper hook-up and towing procedures for your vehicle. Please refer to your chassis manual for towing information.

CAUTION

Improper towing techniques can result in damage to drivetrain components, steering mechanisms, and suspension systems.

CAUTION

Do not tow the vehicle with the drive wheels on the ground unless proper precautions have been taken, as this can cause severe transmission damage.

CAUTION

If it becomes necessary to tow your bus, a flat bed rig is preferred. **UNDER NO CIRCUMSTANCES**, should the bus be towed by lifting the rear end, serious frame damage can occur.

CAUTION

Due to the many variables that exist in towing, positioning the lifting and towing devices is the sole responsibility of the towing-vehicle operator, who must be familiar with industry towing procedures and safety standards.

WARNING

Failure to release the parking brake or supply air pressure to the system before towing may cause brake drag, leading to excessive heat buildup and potential fire hazards.

WARNING

Never stand between the vehicle and the tow truck while preparing for towing; unexpected movement could cause serious injury.

WARNING

This bus is not designed to tow another vehicle or trailer. Do not attempt to tow or pull another vehicle with this bus.



EMERGENCIES AND SAFETY

MAINTENANCE FOR TOWING

1. Inspect Tow Equipment:

- Regularly check the towing vehicle's equipment for signs of wear or damage. Ensure that tow bars, chains, and other tools are in good condition to avoid any towing failures.

2. Check Tires:

- Inspect the tires before and after towing, as the weight of the vehicle and the towing process may cause abnormal wear. Replace any tires showing signs of damage or excessive wear.

3. Lubrication:

- Ensure that the vehicle's driveline components, such as the driveshaft, U-joints, and suspension points, are adequately lubricated. This will help prevent wear and tear during towing and reduce the risk of damage.

POST- TOWING MAINTENANCE

1. Transmission Inspection:

- After towing, inspect the transmission fluid levels and check for any signs of leakage or overheating. Overheating can occur when the vehicle is towed for extended periods, especially if the driveshaft was not removed.

2. Brake System Check:

- After towing, ensure that the air brake system is fully functional and that air pressure levels are correct. Perform a brake inspection to check for leaks, proper function, and any signs of damage to the system.

3. Suspension System Check:

- Check the suspension for any signs of damage, particularly if the vehicle was lifted improperly or if the suspension was not air-supplied. Any misalignment should be corrected immediately.

NOTICE

Tow Vehicle Weight: Ensure the tow vehicle is properly rated for the weight of the Freightliner S2 bus. Underpowered tow vehicles may struggle to tow the bus safely, leading to potential issues or accidents.

NOTICE

Environmental Conditions: Always be mindful of weather and road conditions when towing. Rain, snow, or icy roads can increase the risk of accidents or damage to both the towing vehicle and your bus.

CAUTION

Avoid Towing with Full Fuel Tank: Towing the vehicle with a full fuel tank can increase its weight, making the towing process more difficult. If possible, reduce the fuel level to a safe amount before towing to help ease the strain on the tow vehicle.

IMPORTANT MAINTENANCE ACTIONS BEFORE TOWING

1. Clear the Vehicle of All Excess Weight:

- Remove unnecessary cargo, fluids, or objects from the vehicle before towing. This ensures that only essential weight is carried, preventing strain on the towing system.

2. Battery Disconnect:

- If possible, disconnect the vehicle's battery to avoid electrical malfunctions or inadvertent activation of electrical components during the towing process.

CAUTION

Transmission Fluid Check: If the drive shaft is removed for towing, check the transmission fluid after the operation to ensure it hasn't been compromised by air or improper fluid levels during towing.

CAUTION

Steering Damage: If the vehicle is towed without disconnecting the steering column, there may be a risk of damaging the steering components or causing misalignment. Always ensure proper preparation before towing.

WARNING

Inadequate Air Pressure: When the vehicle is towed without sufficient air pressure, the brake system may malfunction, causing the vehicle to roll unexpectedly. Always verify that there is adequate air supply to the brake system before towing.

WARNING

Watch for Vehicle Shifting: Ensure the vehicle is securely attached to the tow vehicle. Inadequately secured vehicles can shift during towing, leading to unpredictable movements that may cause accidents or damage to both the tow vehicle and the Freightliner S2.

WARNING

Failure to remove the drive axle shaft when towing the vehicle with the rear wheels on the ground could result in damage to the transmission and other components.

WARNING

Before releasing the parking brake, make sure the connection to the towing vehicle is secured, or chock the disable vehicle's tires. Failure to do so could result in hazardous conditions.

DANGER

Improper Lifting Equipment: Using the wrong lifting equipment or methods to support the vehicle during towing can cause damage to the vehicle or pose serious safety hazards. Always use the recommended lifting points and equipment.

DANGER

Attaching tow chains or lifting the vehicle at incorrect points can lead to structural failure, resulting in severe injury or death.

DANGER

Avoid working under the vehicle while it is supported only by lifting equipment; always use proper jack stands or blocking procedures.

SIDE LUGGAGE COMPARTMENT DOORS MANUAL OPERATION RELEASE LEVERS

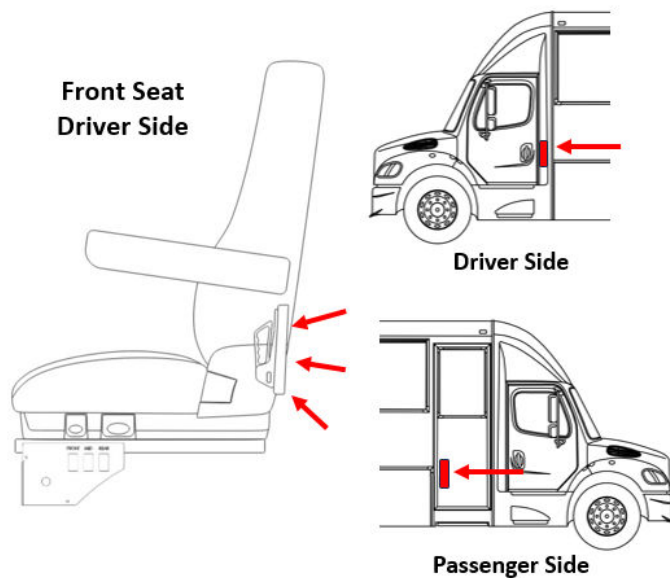
The vehicle is equipped with two independent levers, designed to ensure manual operation of the luggage doors in case of blockages or jams.

Function:

- Allows unlocking the luggage doors when the automated system does not respond.

Location:

- The first lever is located on the unit's wall next to the driver's seat, and it is used to open the driver's side luggage compartment door.
- The second lever is located inside the unit, on the left side of the main passenger entry door, and it is used to open the passenger side luggage compartment door.



PASSENGER SIDE



DRIVER SIDE

NOTICE

The levers are designed exclusively for exceptional situations, such as blockages or failures in the automated system.

NOTICE

Before operating the levers ensure that the surrounding areas are clear to avoid risks.

CAUTION

If the doors do not respond after using the lever, this could indicate a serious issue with the automated system.

CAUTION

Using the levers repeatedly without need can wear out the door mechanism.

CAUTION

Regularly check the condition of the levers during vehicle maintenance to ensure their functionality in case the automated system fails.

WARNING

Do not operate the levers while the vehicle is in motion. This could compromise the safety of the system and passengers.

MANUAL OPERATION OF SIDE LUGGAGE COMPARTMENT DOORS RELEASE LEVER

In the event that the Side Luggage Compartment Doors fails to operate using either the primary electrical switches the Emergency Release Lever allows for manual operation.

Operation Instructions

1. Lift the Lever:

- Lift the lever until it clicks twice and is at a 60° angle on door release lever on the passenger side. (Pull the lever on Driver Side)

2. Open the Door:

- Apply manual pressure to lift the door upward until it reaches its fully open position.

3. Re-secure the Door:

- Gently push the door back to its closed position.
- Press the button and return the lever to its default position.

PASSENGER SIDE



DRIVER SIDE



NOTICE

Smooth Operation: If the door does not open easily, check for obstructions or debris around the latch mechanism.

NOTICE

Weather Consideration: In extreme weather conditions, door operation may be affected. Clear any ice, snow, or debris before attempting to open manually.

CAUTION

Door Movement Caution: Open the door slowly and with controlled force to prevent sudden movement that could cause damage to the vehicle or injury.

CAUTION

Secure Properly: Ensure the door is fully latched after closing to prevent it from unexpectedly opening while driving.

WARNING

Heavy Door Hazard: The luggage compartment door may be heavy and require significant effort to lift. Use proper lifting techniques to avoid strain or injury.

WARNING

Pinch Point Hazard: Keep hands and fingers clear of hinges and closing edges when securing the door to prevent serious injury.

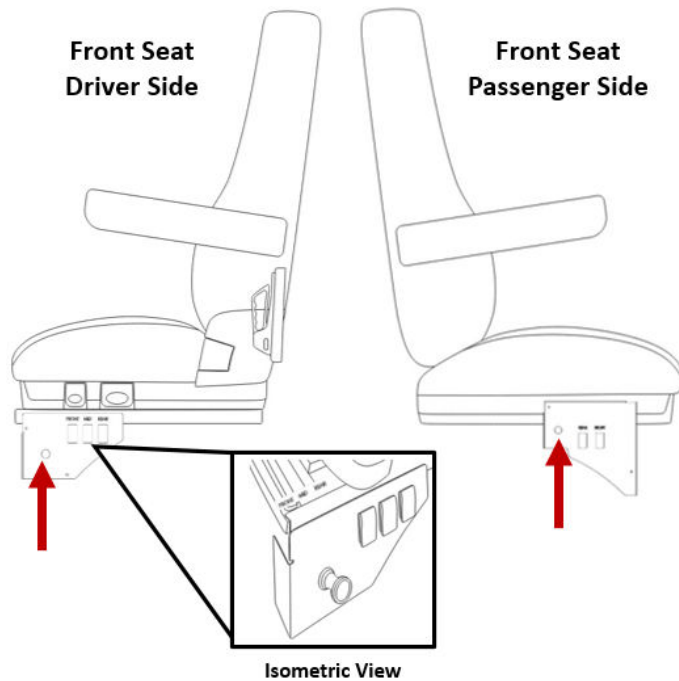
DANGER

Risk of Severe Injury: Ensure no one is standing beneath the luggage compartment door when manually opening it. The door may swing or fall unexpectedly, causing serious injury.

AIR RELEASE VALVE

Both seats (driver and passenger) are equipped with a valve designed to release air from the automated door system in case of system blockages.

- **Function:** Allows manual operation of the doors when the automated system does not respond, ensuring the vehicle's safety and functionality.
- **Location:** It is located beside each seat, next to the control buttons for the side doors.
- **How to use:** Pull the valve firmly and release; the doors will automatically open once the system releases the air.



NOTICE

The valve is designed exclusively for exceptional situations, such as blockages or failures in the automated system.

NOTICE

Before operating the valve, ensure that the surrounding areas are clear to avoid risks.

CAUTION

If the doors do not respond after using the valve, this could indicate a serious issue with the air mechanism

CAUTION

Using the valve repeatedly without need can wear out the door mechanism.

CAUTION

Regularly check the condition of the valve during vehicle maintenance to ensure their functionality in case the system fails.

WARNING

Do not operate the valve while the vehicle is in motion. This could compromise the safety of the system and passengers.

PASSENGER SIDE



DRIVER SIDE



MANUAL OPERATION OF ENTRY DOOR EMERGENCY RELEASE LEVER

In the event that the electric entry door fails to operate using either the primary or auxiliary switches, the Emergency Release Lever allows for manual operation. This red handle is located to your right when viewing the entry door from inside the bus, positioned at an accessible height.

Operation Instructions

1. Pull the Lever:

- Pull the lever until it clicks twice and is at a 60° angle.

2. Open the Door:

- Apply manual pressure to push the door outward until it reaches its fully open position.

3. Re-secure the Door:

- Gently push the door back to its closed position.
- Press the button and return the lever to its default position.

NOTICE

The door may not close completely in the absence of electrical power. If power is available, pressing the button will allow the door to close automatically.

CAUTION

Before operating the vehicle each day, inspect the Emergency Release Lever to ensure it moves smoothly and is free from obstructions.

WARNING

Do not operate the vehicle if the Emergency Release Lever does not function correctly or if the door does not remain securely closed when the lever is in its default position. In such cases, contact the Grech Motors Service Department at 1-855-994-7324 for assistance.

WARNING

Operating the vehicle with the Emergency Release Lever in the unlocked position may lead to unintended door opening, posing a risk to passengers and other road users.

DANGER

Driving with an improperly secured entry door increases the risk of passenger ejection during sudden stops or collisions, which can result in severe injury or death. Ensure the Emergency Release Lever is properly secured before vehicle operation.



EMERGENCIES AND SAFETY

EMERGENCY KIT

Your bus is equipped with an emergency kit, located in the rear compartment. This kit includes a First Aid Kit and a Fire Extinguisher to help ensure passenger safety in case of an emergency.

FIRST AID KIT

The included First Aid Kit contains 250 essential first aid supplies, designed to provide comprehensive treatment for minor injuries and medical emergencies.

- Manufactured by a leading U.S. first aid supplier.
- Meets or exceeds OSHA and ANSI 2009 guidelines for up to 50 people.
- Features a fully organized interior for quick and easy access to supplies.
- Housed in a rugged, impact-resistant plastic case for durability and protection.

This kit is an essential safety component, ensuring you are prepared for a variety of emergency situations.



NOTICE

The emergency kit should be regularly inspected to ensure all items are present, in good condition, and not expired.

NOTICE

First aid supplies should be replenished after use to maintain a fully stocked kit.

NOTICE

Store the emergency kit in a designated location to ensure quick and easy access. Ensure all vehicle operators and staff are familiar with the location and contents of the emergency kit.

CAUTION

Always read and follow the instructions on first aid supplies before use. Incorrect application may cause further injury or irritation.

CAUTION

Do not store the emergency kit in a location where it could become blocked or inaccessible by luggage or equipment.

WARNING

Using expired or contaminated first aid supplies may compromise treatment effectiveness. Regularly check expiration dates and replace items as needed.

WARNING

Do not attempt to use the emergency kit as a substitute for professional medical care. In case of a serious injury, seek emergency medical assistance immediately.

DANGER

Chemical Exposure: Some first aid supplies, such as antiseptics or burn creams, may contain chemicals that can cause severe allergic reactions in certain individuals. Use with caution and discontinue use if irritation occurs.

These safety notes help ensure the proper use, maintenance, and effectiveness of the emergency and first aid kits while highlighting critical precautions.

FIRE EXTINGUISHER

The emergency kit includes a fire extinguisher, an essential safety device designed to help control small fires before they escalate. Portable fire extinguishers save lives, and fires in vehicles are not uncommon, making preparation and prevention crucial.

The operation of a fire extinguisher is simple, but in an emergency, proper handling is critical. Before starting your trip, ensure you:

- Know where the fire extinguisher is located for quick access.
- Understand how to operate it by reviewing instructions in advance.
- Read the manufacturer’s label, safety sheets, and manuals for proper use and maintenance.

FIRE EXTINGUISHER FEATURES

- **Secure Storage:** The extinguisher is housed in a protective security box, ensuring easy access while safeguarding it from dust, debris, and potential damage.
- **User-Friendly Design:** Engineered for quick deployment, allowing the operator to react swiftly in the event of a fire.
- **Durability:** Constructed with impact-resistant materials to withstand the vibrations and movement of the vehicle.



FIRE EXTINGUISHER OPERATION- PASS METHOD

To use the fire extinguisher effectively, follow the PASS method:

1. Pull the pin that is located at the top of the extinguisher and hold the extinguisher upright.
2. Aim the nozzle at the base of the fire and stand 8 to 10 ft away.
3. Squeeze the handle/lever to release the extinguishing agent.
4. Sweep the nozzle from side to side until the fire is completely out.



NOTICE
Make sure to stand about 8 to 10 feet away from the fire, this gives you enough space for you to be safe from burning and to put out the fire. If the fire is not able to be controlled quickly, it'll be time to evacuate the vehicle and call 911. Do not try to extinguish fires that are large or out of control.

NOTICE
Once the fire is out is completely extinguished, discharge the fire extinguisher entirely and get it recharged or replaced immediately.

CAUTION
After the fire is out, beware of flashback. Flashback occurs when flammable vapors from combustible liquids spread back to the ignition source and reignite the fire.

CAUTION
Remember to save lives first and property second. Get yourself and the passengers to safety before attempting to extinguish any fire. Only if you can, without endangering yourself or others, should you use firefighting aids on hand. Re-emphasize to everyone aboard that objects can be replaced, people can't. NEVER re-enter a burning vehicle to retrieve anything. **Get out and stay out.**

FIRE EXTINGUISHER'S MAINTENENCE

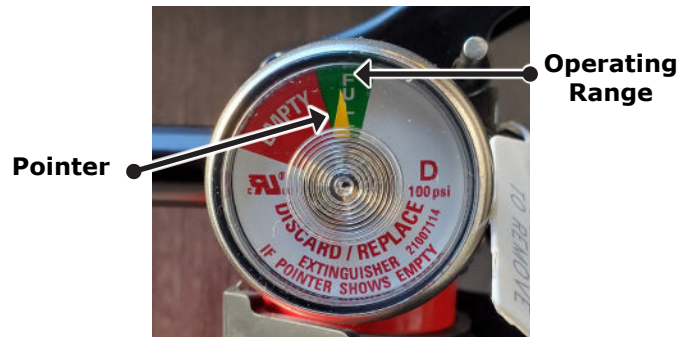
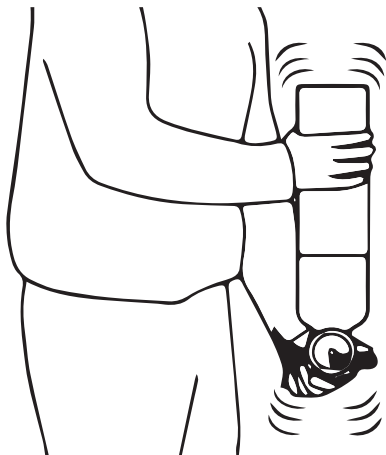
While professional inspections are not required for portable fire extinguishers in the vehicle, regular visual inspections are essential to ensure they remain in proper working condition.

ROUTINE INSPECTION CHECKLIST

- **Check for signs of damage** such as dents, corrosion, or leaks.
- **Ensure the pressure gauge is in the green zone.** If it falls outside this range, the extinguisher may not function properly.
- **Replace the extinguisher if it has been used**, even if only partially discharged.
- **Inspect at least once a month**, increasing frequency if the extinguisher is exposed to high temperatures or possible tampering.
- **Periodically check the pressure gauge.** If the extinguisher loses pressure, the dry chemical will not discharge effectively.

IMPORTANT MAINTENANCE TIPS

- **Do not test the extinguisher by partially discharging it.** This will release internal pressure, making it ineffective and requiring replacement.
- **Prevent powder compaction.** In dry chemical extinguishers, the extinguishing agent can settle and harden over time, rendering the unit unusable. To prevent this:
 - Invert and shake the extinguisher periodically to loosen the powder.
 - If the powder does not move freely, gently tap the extinguisher to break up any compacted material. You will know the powder is loose when you hear or feel it shifting inside.



NOTICE
If the pointer on the pressure gauge is not in the operating range (pointer in the green portion of the gauge), immediately replace the extinguisher. Record the inspection date on the tag provided.

WARNING

TIPS TO AVOID FIRE ACCIDENTS

- Before hitting the road, it is crucial that all passengers know about **safety tips** when travelling.
- Show everyone where the fire extinguisher is **located** and **how** and **when** to use it.
 - When there is a fire emergency you have to **act fast** and be **prepared** because time is **limited** depending on what started the fire and what components are near.
 - Ensure that your fire extinguisher is **working properly**.
 - Immediately clean up any **fuel spills**. Gasoline and propane can **combust quickly**. While diesel, although less flammable, it will evaporate more **slow** and pose a **risk** for longer.
 - Make sure all small batteries are **kept secure** in a plastic container so that they cannot roll or bounce around the RV. Loose batteries that can move or fall can **split** or **combine** in a way that induces **fire**.
 - Your stove will continue to **emit propane** even with the flame extinguished. To **avoid** the risk of an explosion, double check that it is turned off properly when you're finished and **never** heat your rv with the stove.
 - Have your fuel-burning appliances **checked** at the beginning of each camping season to ensure they are properly **vented**, **working well** and **free** of any obstructions such as cobwebs, bitds, nests, etc.
 - Maintain the RV's **mechanical systems**, such as radiators hoses, fuel lines, brake systems, transmissions, etc., in **good working order** to eliminate the risk of any **leaks** or **malfunctions** that may result in fire.
 - Never leave cooking **unattended**.
 - Store all **linens** and other **combustibles** well away from the **kitchen area**. In RVs compact kitchens components such as paper towels and curtains are likely to be closer to the stove, exercise even greater **caution** than you do at home when cooking in your RV.
 - Keep all lighters and matches safely out of reach of children.

NOTICE

Extinguishers need an annual check-up to make sure fire extinguishers still work properly when there is a need to be used. You want to check that the pin and tamper seal are intact and that the pressure is still in the green. In reference to Home Renovation site "Make it Right", they suggest: "Tip is upside down. The agent inside the extinguisher can settle at the bottom—it has the consistency of flour and can easily get packed over time. Turn the fire extinguisher upside down a few times to break up the agent inside."

CAUTION

- **DO NOT** overload electrical wiring.
- **DO NOT** replace a fuse with one of a higher amp rating.
- **DO NOT** store flammable liquids inside the vehicle.
- **DO NOT** park over papers, leaves, dry grass or other things that can be ignited if touched by hot exhaust parts under your vehicle.

WARNING

If you chose to fight a fire it is recommended that you stand at least 8 ft back from the fire, make sure your back is to an unobstructed escape route. Always follow the fire extinguisher manufacturer's instructions.

WARNING

Fire Extinguishers are recommended for **small fires only**. If any portion of a pbus is on fire, safely stop the bus and evacuate immediately.

WARNING

Failure to properly evacuate the bus or follow the manufacturers instructions and/or information for the fire extinguisher could result in serious injury or death.

WARNING

Location of the fire extinguisher may vary when driving the bus if the driver or owner of the bus changes locations. Make sure all passengers are informed of the locations of the emergency kit and/or the fire extinguisher, in case of an emergency

WARNING

Remember to not fight a fire, unless you call the fire department first. A fire extinguisher is no substitute for the fire department.

DANGER

DO NOT attempt to use a damaged or discharged fire extinguisher. A non-functional extinguisher can fail in an emergency, leading to severe injury or loss of life.

DANGER

DO NOT store the fire extinguisher near extreme heat sources. Exposure to high temperatures can cause the extinguisher to rupture, leading to serious injury or damage.

DANGER

DO NOT inhale fire extinguisher discharge. The chemicals inside can be harmful if inhaled and may cause respiratory issues. Use the extinguisher in a well-ventilated area when possible.

DANGER

DO NOT operate or occupy the vehicle without a fully charged fire extinguisher. In case of fire, an empty or malfunctioning extinguisher can result in catastrophic damage and risk to life.

DANGER

Only use the extinguisher on the type of fire it is rated for. Using the wrong extinguisher type on certain fires (such as electrical or grease fires) can make the situation worse and increase the risk of injury or vehicle damage.

LABELS | LOAD CARRYING

PAYLOAD INFORMATION LABEL

This section provides guidance on properly loading your vehicle to ensure the total weight stays within the vehicle's design limits. Proper loading is crucial for maintaining optimal performance and safety.

Before loading your vehicle, it's important to familiarize yourself with key weight-related terms found on the Payload Information Label typically located on the B-Pillar or the edge of the driver's door:

- **Base Curb Weight:** The weight of the vehicle with a full tank of fuel and all standard equipment, excluding passengers, cargo, and optional features.
- **Vehicle Curb Weight:** The weight of the vehicle as received from the dealer, including any aftermarket equipment.
- **Payload:** The total weight of passengers and cargo the vehicle is carrying. The maximum payload capacity is indicated on the label.

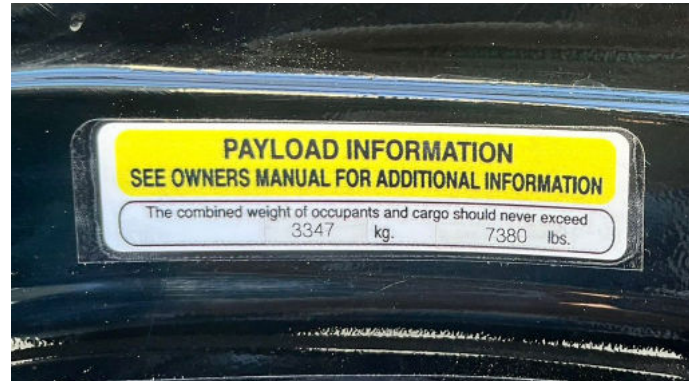
IMPORTANCE OF THE PAYLOAD INFORMATION LABEL

The Payload Information Label ensures you do not exceed the vehicle's weight limits, maintaining safety and performance.

- **Prevents Overloading:** It shows the maximum safe weight, including passengers and cargo. Overloading can damage key components.
- **Ensures Safe Driving:** Staying within limits helps maintain balance, stability, and braking, reducing accident risks.
- **Protects Suspension and Tires:** Exceeding the payload strains suspension and tires, leading to wear and potential failure.
- **Maintains Warranty:** Overloading may void the warranty, as it can be seen as misuse of the vehicle.
- **Promotes Legal Compliance:** It helps you stay within legal weight limits, avoiding fines or penalties.
- **Supports Longevity:** Proper loading improves vehicle efficiency, fuel economy, and avoids damage, extending its lifespan.

PAYLOAD INFORMATION
SEE OWNERS MANUAL FOR ADDITIONAL INFORMATION

The combined weight of occupants and cargo should never exceed
kg. lbs.



NOTICE

The payload listed on the Payload Information Label is the maximum payload for the vehicle as built by the assembly plant.

CAUTION

Overloading your vehicle can lead to excessive wear and tear, reduced fuel efficiency, and compromised handling and braking performance. Always ensure that the combined weight of passengers and cargo does not exceed the maximum payload capacity listed on the Payload Information Label.

DANGER

Ignoring payload limits can also affect crash performance. In the event of an accident, an overloaded vehicle may not provide the intended level of protection to occupants, increasing the risk of severe injury.

LABEL LOCATION

This label is located under the pilot's side seat and becomes visible when the pilot's door is opened, making it easily accessible during routine checks or service procedures.

VEHICLE'S MANUFACTURERS ID LABEL

The Vehicle Manufacturer's ID Label on your Freightliner S2 bus provides essential information to ensure safe operation, including tire loading limits. This label specifies the maximum load each tire can safely carry at the manufacturer's recommended cold inflation pressure. It's crucial to adhere to these limits to maintain vehicle safety and performance.

KEY SPECIFICATIONS

- **Date of Manufacture:** Indicates the month and year when the vehicle was manufactured.
- **Gross Vehicle Weight Rating (GVWR):** The maximum allowable weight of the vehicle, including its own weight and the weight of any cargo.
- **Gross Axle Weight Rating (GAWR):** The maximum allowable weight that can be safely carried by a single axle. This is specified separately for the front and rear axles.
- **Rim Specifications:** Details the size and type of rims compatible with the vehicle, including tire pressure ratings in both PSI and KPa.
- **Paint Code:** Identifies the specific color code used for the vehicle's exterior paint.
- **Vehicle Type:** Specifies the classification of the vehicle, such as bus, chassis, or other types.

LABEL LOCATION

This label is located under the pilot's side seat and becomes visible when the pilot's door is opened, making it easily accessible during routine checks or service procedures.

⚠ CAUTION

Improperly distributed weight can affect vehicle stability and increase the risk of rollover, especially when making turns or braking suddenly. Distribute the load evenly and keep heavier items as low as possible.

⚠ WARNING

Exceeding the maximum payload capacity may cause structural damage to the vehicle, leading to potential suspension failure, tire blowouts, and loss of control.

⚠ DANGER

Overloading your vehicle can lead to catastrophic failure, including brake failure and tire blowouts, which can result in serious injury or death. Never exceed the weight limits specified on the Payload Information Label.

MANUFACTURED BY GRECH MOTORS, INC.		INCOMPLETE VEHICLE MANUFACTURE BY	
DATE OF MANUFACTURE		DATE INC. VEH. MANUFACTURED	
MO	YR	MO	YR
GWR		lbs	Kg /
GAWR FRONT		lbs	Kg / WITH
TIRES		THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE	
RIMS @	PSI	Kpa /COLD	
GAWR REAR		lbs	Kg / WITH
TIRES		PAINT CODE	
RIMS @	PSI	Kpa /COLD	
		VEHICLE TYPE:	

⚠ NOTICE

GAWR Front and Rear: These ratings indicate the maximum weight each axle can safely carry. Exceeding these limits can lead to suspension damage, tire wear, and compromised vehicle handling.

⚠ NOTICE

Rim Specifications: Proper rim selection is vital for maintaining tire integrity and vehicle safety. Ensure that the rims used match the specifications provided on the ID label.

⚠ NOTICE

Paint Code: The paint code is essential for touch-ups, repairs, or respraying to maintain the vehicle's appearance and protect against corrosion.

LABELS | LOAD CARRYING

UNDERSTANDING TIRE LOAD LIMITS

Each tire on your bus has a load rating, which is the maximum weight it can safely carry. The Vehicle Manufacturer's ID Label specifies the total load capacity for each axle, which should not exceed the combined load ratings of the tires on that axle. This ensures that the vehicle's weight is distributed evenly, preventing overloading and potential damage.

IMPORTANCE OF ADHERING TO LOAD LIMITS

Following the specified load limits is vital for:

- **Safety:** Prevents tire blowouts and loss of control.
- **Vehicle Longevity:** Reduces wear and tear on tires and suspension components.
- **Legal Compliance:** Ensures adherence to regulations set by transportation authorities.

NOTICE

Proper Tire Load Limits: Always refer to the Vehicle Manufacturer's ID Label to confirm the correct tire load limits for your vehicle. This label specifies the safe maximum weight that each tire can support at the recommended inflation pressure.

NOTICE

Tire Inflation: Ensure that tires are inflated to the manufacturer's recommended pressure for both safety and optimal performance.

WARNING

The appropriate loading capacity of your vehicle can be limited either by volume capacity (how much space is available) or by payload capacity (how much weight the vehicle should carry). Once you have reached the maximum payload of your vehicle, do not add more cargo, even if there is space available. Overloading or improperly loading your vehicle can contribute to loss of vehicle control and vehicle rollover.

WARNING

The total load on each axle must never exceed its Gross Axle Weight Rating.

WARNING

Exceeding the Safety Compliance Certification Label vehicle weight rating limits could result in substandard vehicle handling or performance, engine, transmission and/or structural damage, serious damage to the vehicle, loss of control and personal injury.

CAUTION

Check Load Distribution: Ensure that the load is properly distributed across the tires to avoid uneven wear and potential damage to the vehicle's suspension system.

CAUTION

Tire Replacement: When replacing tires, ensure that they match the specifications outlined on the label to maintain safe operating conditions.

WARNING

Exceeding Load Limits: Exceeding the tire load limits specified on the ID label can result in tire failure, loss of control, or catastrophic accidents. Always adhere to the specified load limits.

DANGER

Tire Blowouts: Operating the bus with tires that exceed their load limits or with improper inflation can lead to sudden tire blowouts, which can cause serious accidents. Always check the label to ensure that tire load limits and inflation pressures are followed precisely.

DANGER

Overloading the Vehicle: Overloading your vehicle beyond the limits indicated on the ID label can result in catastrophic mechanical failure, including suspension damage, brake system failure, and tire blowouts. Always ensure the vehicle is loaded within the specified limits to prevent accidents or costly repairs.

CAB ACCESS SAFETY WARNING

This warning provides essential safety guidance to help reduce the risk of slips, falls, or injuries when entering or exiting the cab. All operators and maintenance personnel should familiarize themselves with the label and adhere to the instructions at all times.



CAUTION

Tire Replacement: When replacing tires, ensure that they match the specifications outlined on the label to maintain safe operating conditions.

ULTRA LOW SULFUR DIESEL FUEL PORT

The Freightliner S2 bus is equipped with a dedicated fuel port specifically designed for Ultra-Low Sulfur Diesel fuel. This port is strategically positioned behind the vehicle's rear license plate, ensuring both accessibility and protection. A handle is integrated into the design, allowing operators to easily lift and open the compartment, thereby exposing the fuel port for refueling.

IMPORTANCE OF ULTRA LOW SULFUR DIESEL FUEL

Utilizing Ultra Low Sulfur Diesel Fuel is crucial for the optimal performance and longevity of the Freightliner S2 bus.

Ultra Low Sulfur Diesel Fuel contains a maximum sulfur content of 15 parts per million, significantly lower than previous diesel formulations. This reduction in sulfur content is essential for minimizing emissions and ensuring compliance with environmental regulations.

Moreover, the use of ULSD fuel helps protect the engine's advanced emission control systems, such as diesel particulate filters and catalytic converters, from potential damage caused by higher sulfur fuels. Failure to use ULSD fuel may void the warranty on emission components.

REFUELING PROCEDURE

1. Accessing the Fuel Port:

Locate the rear license plate at the back of the bus. Lift the integrated handle to open the compartment and reveal the ULSD fuel port. Clean the exterior of the fuel cap and filler sprout before removing cap.

2. Refueling:

Remove the fuel cap, insert the diesel fuel nozzle into the port and begin fueling. It is recommended to fill the fuel tank at the end of each day to minimize condensation buildup inside the tank. However, ensure that the tank is not filled beyond 95% of its capacity to allow for fuel expansion and prevent overflow.

3. Post-Refueling:

After refueling, securely close the fuel port compartment by lowering the handle back into place. Wipe away any spilled fuel to maintain cleanliness and safety.



⚠ WARNING

Do not mix gasoline, alcohol, or any other substances with diesel fuel. Such mixtures can lead to engine malfunctions and pose safety risks, including the potential for explosion.

⚠ WARNING

Incorrectly fueling an engine with High Sulfur Diesel Fuel will damage the emission controls. The catalyst will be rendered useless and the emissions will not be controlled. Excess sulfur will plug the particulate trap which may cause a back pressure and possibly damage the engine. It could void the engine warranty and is against federal law.

⚠ DANGER

Always extinguish cigarettes and ensure there are no open flames or sparks in the vicinity during refueling, as diesel fuel is flammable and poses a fire hazard.

ⓘ NOTICE

Failure to remove spilled fuel from the bus body may result in paint damage. Use of unauthorized lubricants, filters, fluids, fuels, or parts and/or neglect of scheduled maintenance may void warranties for your vehicle.

ⓘ CAUTION

In the event of a fuel spill, take immediate action to contain and clean it up to prevent environmental contamination. Dispose of any contaminated materials in accordance with local environmental regulations.

FUEL TANK SAFETY TIPS

Proper handling of fuel is crucial to ensure the safety of you, your passengers, and those around your vehicle. Misuse or improper handling can lead to fire, explosion, or health hazards. To promote safe fueling practices, adhere to the following guidelines:

1. Use Recommended Fuel:

- Always use the fuel type specified in your Chassis Manual. Using the correct fuel ensures optimal engine performance and reduces the risk of damage or hazardous situations.

⚠ WARNING

Mixing gasoline with diesel fuel can cause an explosion. The wrong type of fuel will also cause damage to the engines emission system.

ⓘ NOTICE

Using the wrong fuel in your vehicle can cause damage to the engines emission system. This damage could result in a costly repair that would not be covered under warranty.

2. Engine Shutdown:

- Before refueling, turn off the engine. This minimizes the risk of igniting fuel vapors during the fueling process.

3. Attend to Fueling Process:

- Never leave the vehicle unattended while refueling. Continuous supervision allows you to respond promptly to any issues that may arise.

4. No Smoking or Open Flames:

- Refrain from smoking or using open flames, such as matches or lighters, in the vicinity of the fueling area. Fuel vapors are highly flammable and can ignite easily.

5. Ventilation and Fume Avoidance:

- Position yourself upwind of the fueling nozzle to avoid inhaling fuel vapors, which can be harmful to your health. Ensure the fueling area is well-ventilated to disperse any accumulated fumes.

6. Avoid Overfilling:

- Do not top off the fuel tank. Leaving space allows for fuel expansion and prevents overflow, which can lead to spills and environmental contamination.

7. Spill Management:

- In the event of a fuel spill, clean it up immediately using appropriate materials. Dispose of contaminated materials in accordance with local regulations to prevent environmental harm.

⚠ WARNING

Improper handling of fuel could result in serious injury or death caused by fire, explosion, or asphyxiation. Refer to your chassis manuals for fuel to use in your vehicle as well as all of the proper procedures and safety information.

GENERAL SAFETY TIPS

Ensuring the safety of your vehicle, passengers, and surrounding environment requires a proactive approach to proper usage and maintenance.

Several key areas must be carefully managed to prevent accidents, malfunctions, and hazards. The following sections outline essential safety practices related to the vehicle's electrical system, passenger assistance, fire prevention, and routine maintenance.

Adhering to these guidelines will help maintain the integrity of your vehicle's safety features while promoting a secure and comfortable travel experience.

1. Electrical System Safety

- Do not overload the electrical system by connecting unauthorized devices. Excessive electrical loads may cause system malfunctions or fire hazards.
- Do not modify or alter any wiring without the manufacturer's explicit written approval. Unauthorized modifications may compromise safety systems and void warranties.

2. Safety Device Integrity

- Never disconnect, bypass, or tamper with any safety devices installed on your bus. These devices are critical for the protection of passengers and operators.

3. Passenger Assistance

- If you have passengers who require special loading and unloading procedures, ensure you are trained in the proper techniques for securing, assisting, and responding to their needs.
- Steps and running boards may become slippery in wet, snowy, or icy conditions. Regularly inspect and clear these surfaces of debris, snow, or ice to prevent slipping hazards
- Inform passengers of potential hazards when entering and exiting the bus, especially in adverse weather conditions.

4. Fire and Asphyxiation Hazards

- Never store or transport portable fuel-burning equipment such as wood, charcoal grills, or stoves inside the bus. These devices pose a severe fire and asphyxiation risk.

Regularly review and follow the maintenance schedule for all safety-related components. Routine inspections and servicing are essential to ensure that all safety features remain in proper working order.

PASSENGER ENTERTAINMENT SYSTEM OVERHEAD TELEVISIONS

The Grech Motors EG40 is equipped with a high-quality multimedia system designed to enhance the passenger experience. This system includes six overhead televisions, with three mounted on the curb side and three on the road side of the cabin, providing clear visibility from all seating areas.

These passenger screens are controlled through the vehicle's main stereo head unit, located at the driver's cabin. From this unit, the operator can manage and play multimedia content that is displayed on all six televisions simultaneously.

SUPPORTED MEDIA SOURCES

Multimedia content can be played using:

- A USB drive, connected directly to the stereo
- An AUX input, allowing connection to phones, tablets, or other media devices

This setup allows for seamless playback of music and video content during trips, creating an enjoyable atmosphere for passengers.

NOTICE

Source Compatibility: Ensure media files on the USB drive are in a compatible format supported by the stereo system (e.g., MP4, MP3). Incompatible files may not play correctly.

NOTICE

Maintenance Tip: Periodically clean the screen surfaces with a microfiber cloth. Do not use harsh chemicals or abrasive materials to avoid damage.

CAUTION

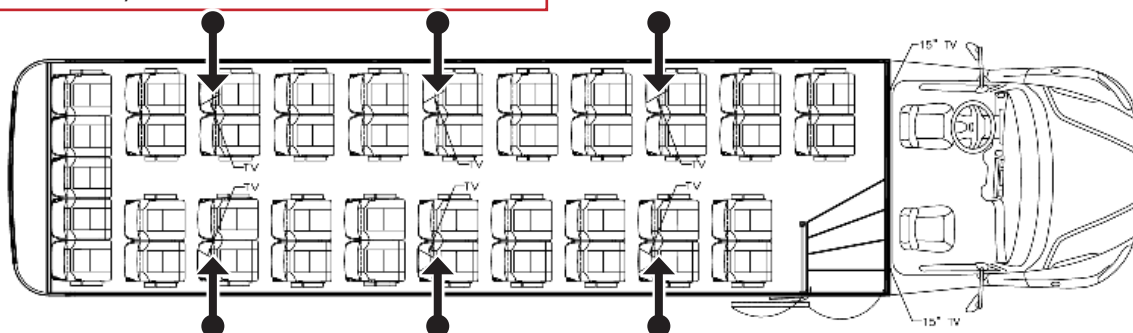
Driver Distraction: Do not operate the multimedia system or attempt to browse files on the USB or AUX device while driving. Driver distraction can lead to loss of vehicle control, causing injury or death.

WARNING

Driver Distraction: Do not operate the multimedia system or attempt to browse files on the USB or AUX device while driving. Driver distraction can lead to loss of vehicle control, causing injury or death.

DANGER

Electrical Shock: Never attempt to service or modify the entertainment system while the vehicle is powered on. Always consult qualified personnel for any electrical work.



BUS OPERATION | INTERIOR

MAIN PASSENGER SECTION MONITORS

The Grech Motors EG40 is equipped with a high-quality multimedia system designed to enhance the passenger experience. This system includes two main monitors located at the front of the passenger section for optimal viewing. One monitor is positioned on the back of the copilot seat (curb side) and the other on the back of the driver seat (road side). These monitors provide passengers with a clear view of multimedia content during travel.

SUPPORTED MEDIA SOURCES

Multimedia content can be played using:

- A USB drive, connected directly to the stereo
- An AUX input, allowing connection to phones, tablets, or other media devices

These monitors are controlled through the vehicle's main stereo system, which is located in the driver's cabin. The operator can manage and play content displayed on the monitors, offering an enjoyable atmosphere for passengers.

NOTICE

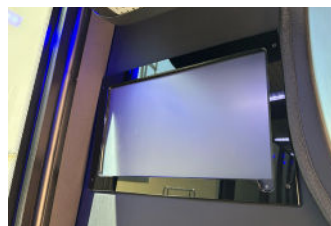
Monitor Position: The monitors are designed for easy viewing from both the curb and road sides of the vehicle, providing convenient access to entertainment for all passengers.

CAUTION

Driver Focus: Excessive interaction with the monitors can lead to distractions. The driver should remain focused on operating the vehicle, with minimal interference from the entertainment system.

DANGER

Monitor Maintenance: Do not attempt to modify or repair the monitor system while the vehicle is in motion. Always ensure the vehicle is stationary and powered off before making adjustments to prevent potential hazards.



PASSENGER SEAT OVERHEAD FEATURES

Each seat in the Grech Motors EG40 is equipped with features to enhance comfort and convenience:

Ventilation:

- Each seat has its own ventilation vent, ensuring a cool and comfortable experience during travel.

Small Light:

- A small light at each seat allows passengers to read or engage in activities without disturbing others, especially during nighttime travel.

Seat Switch:

- An individual switch for each seat lets passengers easily control lighting, offering personalized comfort.



NOTICE

Adjustable Lighting: Each seat is equipped with a small light that allows passengers to engage in activities such as reading without disturbing other passengers. This feature is especially useful during nighttime travel for maintaining comfort and convenience.

CAUTION

Excessive Interaction with Controls: While the seat switch is designed for easy use, excessive interaction with the switch may lead to wear and tear. Use the controls as needed to avoid unnecessary damage.

WARNING

Do Not Block Ventilation: Ensure that the ventilation vents are not obstructed by personal items, clothing, or other objects. Blocked vents can affect airflow and reduce the cooling effectiveness, compromising passenger comfort.

DANGER

Do Not Attempt to Modify or Repair Controls: Avoid attempting to repair or modify the ventilation system, light, or seat switch while the vehicle is in motion. Always ensure the vehicle is stationary and powered off before making adjustments to avoid electrical hazards or injury.

BUS OPERATION | INTERIOR

PASSENGER SEAT OVERHEAD FEATURES

In each passenger seat row of the Grech Motors EG40, 110V outlets are provided to offer convenience and comfort during travel.

Each pair of seats shares a single outlet, which is equipped with:

- Two wall outlets
- One Type C
- One USB input



NOTICE

Convenient Charging: Each pair of seats shares a single outlet with two wall outlets (Type C and USB input), offering passengers an easy way to charge devices such as phones, tablets, or laptops during the journey.

CAUTION

Monitor Device Compatibility: Ensure that the devices being charged are compatible with the outlet types (Type C and USB). Using incompatible devices can cause electrical issues or damage to the outlet.

WARNING

Avoid Overloading Outlets: Do not plug in too many devices or high-power equipment into the outlets. Overloading can cause the system to overheat, potentially leading to damage or fire.

DANGER

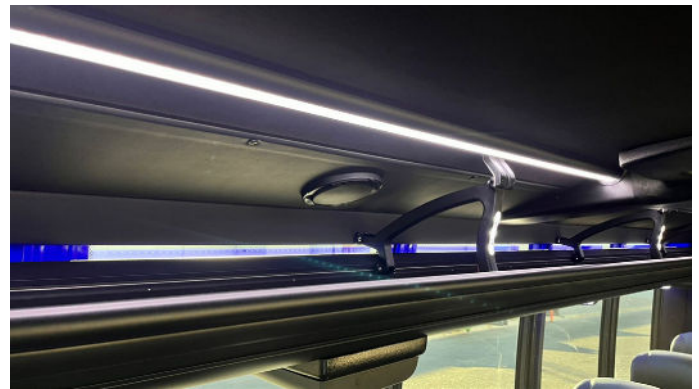
Do Not Attempt to Modify or Repair: Never attempt to modify or repair the outlets while the vehicle is in operation. Always ensure the vehicle is stationary and powered off before attempting any adjustments to avoid electrical hazards.

SPEAKER SYSTEM

The Grech Motors EG40 is equipped with a high-quality audio system designed to enhance the passenger experience. The vehicle features six speakers in total, distributed across both sides of the passenger cabin:

- Three speakers on the curb side's overhead rack
- Three speakers on the road side overhead rack

These speakers are located in the overhead racks, ensuring clear and immersive sound distribution for all passengers in the cabin. The audio system provides excellent sound quality for listening to music, announcements, or any multimedia content, enhancing comfort and the overall atmosphere of the journey.



NOTICE

Optimal Sound Quality: The six speakers provide clear and immersive sound across both the curb and road sides of the vehicle, enhancing the overall passenger experience during the journey.

CAUTION

Do Not Block Speaker Vents: Ensure that no objects obstruct the speakers located in the overhead racks. Obstructions can affect sound quality and reduce the effectiveness of the audio system.

WARNING

Avoid Excessive Volume: Listening to audio at high volumes for extended periods can cause discomfort or hearing damage. Driver should be mindful of volume levels to ensure a pleasant experience for everyone in the passenger cabin.

DANGER

Do Not Attempt to Modify or Repair the System While in Motion: Never attempt to modify, repair, or tamper with the speaker system while the vehicle is in motion. Always ensure the vehicle is stationary and powered off before making adjustments to prevent electrical hazards or injury.

ELECTRIC ENTRY DOOR

The electric entry door system offers a convenient and efficient method for passengers to board and exit the vehicle. This system can be operated using control buttons located in two specific areas:

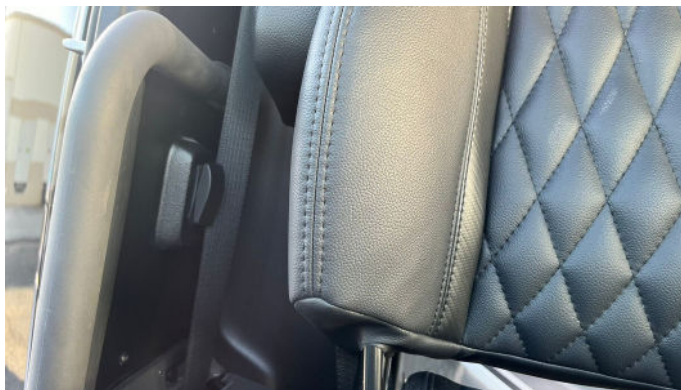
1. Driver's Overhead Control Panel Button

Located in the overhead panel directly above the driver's seat, this button is easily accessible to the driver by simply raising a hand to the control panel.



2. Co-Pilot Side Control Button:

Located on the wall adjacent to the co-pilot's seat, on the right-hand side.



NOTICE

Familiarize yourself with the manual override procedures for the door system in case of electronic failure or power loss.

CAUTION

Ensure that the door's path is clear of obstructions before activation to prevent unnecessary re-opening or halting.

WARNING

If the door fails to respond to controls or exhibits unusual behavior, do not attempt to manually force the door open or closed. Contact qualified personnel for inspection and repair.

OPERATIONAL FEATURES

Opening Function

- **Activation:** Press the designated button on either the driver's overhead control panel or the co-pilot's side wall to initiate the door-opening sequence.
- **Operation:** Upon activation, the door descends into its compartment, disengaging from the anchoring plates, and continues to rotate until it reaches the fully open position.
- **Limit Control:** The opening motion is regulated by a limit switch that halts the rotation at the predetermined point. In the event of a limit switch failure, the buffer on the swing arm serves as a mechanical stop.
- **Obstacle Detection:** If the door encounters an obstacle during opening, it will automatically stop, regardless of continued button activation.

NOTICE

You can stop the door at any time, both during the opening and during the closing phase, by pressing the button again.

SAFETY FEATURES

The Electric Actuated Passenger Door System is designed to enhance passenger safety by detecting and responding to obstructions during both the opening and closing phases. This system incorporates an anti-squashing mechanism to prevent injury and damage:

- **Anti-Squashing Mechanisms:** The door system utilizes micro switches that monitor the door's vertical movement. If an obstacle is detected during the closing phase, the door automatically reopens. On the other hand, if an obstruction is detected during the opening phase, the door halts to prevent contact.
- **Safety Override Function:** A dedicated micro switch is integrated into the system to temporarily deactivate the anti-squashing mechanisms during the final closing phase. When the door is near the compartment, the motor activates this feature, enabling the door to latch securely without interference from the safety systems.

DANGER

In the event of a crash or power failure, if the electronic door handles fail to operate, occupants may be unable to exit the vehicle promptly. It's crucial to locate and familiarize yourself with the manual emergency release mechanisms specific to your vehicle model.

OBSTRUCTION SENSING SYSTEM TEST PROCEDURE

It is essential to verify the functionality of the Obstruction Sensing System daily before operating the vehicle. The driver should perform the following steps:

1. Overhead Control Button:

Press the door control button to fully open the passenger door.

2. Create an Obstruction:

With the doorway clear of passengers and objects, place a piece of wood or other debris in the door's path to simulate an obstruction.

3. Attempt to Close the Door:

Press the door control button to close the passenger door.

4. Evaluate the Door's Response:

- **If the door contacts the obstruction and continues to close without stopping:** Immediately contact the Grech Motors Service Department at 1-855-994-7324. Do not operate the vehicle until the issue is resolved.
- **If the door stops and reopens without contacting the obstruction:** This may indicate a malfunction. Contact the Grech Motors Service Department at 1-855-994-7324 and refrain from operating the vehicle.
- **If the door cycles—contacting the obstruction, stopping, reopening, and then closing, repeating this sequence without remaining open after the third cycle:** This behavior suggests a system fault. Contact the Grech Motors Service Department at 1-855-994-7324 and do not use the vehicle until inspected.

5. Failure to Close When Engaging Gear:

If the door doesn't close automatically when the door control button is pressed check for any obstructions or contact your dealer. Contact the Grech Motors Service Department at 1-855-994-7324 and avoid operating the vehicle.

NOTICE

Regularly inspect the Obstruction Sensing System's sensors for cleanliness and proper function. Ensure sensors are free from obstructions such as mud, ice, or snow, which can impair their detection capabilities.

CAUTION

Ensure that the door's path is clear of obstructions before activation to prevent unnecessary re-opening or halting.

CAUTION

Do not place multiple obstructions simultaneously, as this may overwhelm the system's capacity to accurately detect and respond.

WARNING

If the door fails to respond to controls or exhibits unusual behavior, do not attempt to manually force the door open or closed. Contact qualified personnel for inspection and repair.

WARNING

Understand that the Obstruction Sensing System has limitations and may not detect all types of obstructions, especially those outside its designed detection range or under certain environmental conditions.

DANGER

If the Obstruction Sensing System is suspected to be malfunctioning (e.g., sensors are not detecting obstructions correctly), cease using the vehicle and contact the Grech Motors Service Department immediately. Operating the vehicle with a compromised system could lead to serious safety hazards.

DANGER

Failing to perform daily tests as outlined may result in undetected system malfunctions, increasing the risk of accidents due to unresponsive or improperly functioning doors.

PILLAR ASSEMBLY

The pillar assembly consists of a vertical column and two horizontally welded arms that anchor the door. The swing arm incorporates a mechanism that converts the motor's rotary motion into vertical movement, enabling the door to lift upon encountering an obstacle during both opening and closing operations.

Functions of Vertical Door Movement:

- **Obstacle Detection:** The vertical displacement allows the door to sense obstructions in its path, enhancing safety by preventing potential collisions.
- **Secure Closure:** During the closing phase, as the door approaches the entryway, it lifts and engages with the designated anchoring plates, ensuring a precise and secure seal.



DRIVER'S OVERHEAD CONTROL PANEL

The Driver's Overhead Control Panel is a centralized interface designed to provide the driver with easy access to various essential vehicle functions. Strategically located above the driver's seat, this panel enhances operational efficiency and safety by consolidating multiple controls and indicators.

DRIVER'S OVERHEAD CONTROL PANEL FEATURES

- **Door Switch:** Controls the opening and closing of the vehicle's entry door. Activating this switch allows the driver to manage the door's position, making it easier for passengers to get on and off the bus.
- **Reading Lights Switch:** Controls the individual reading lights located above each passenger seat. When the driver activates this switch, it enables passengers to independently operate their respective reading lights, providing personalized illumination without affecting the overall cabin lighting.

NOTICE

The operation of the reading lights is independent of the entry door's status; they can function regardless of whether the door is open or closed.

- **Interior Lights Switch:** Illuminates the overhead rack areas and additional medium-sized lamps positioned above each passenger seating row. Engaging this switch provides general cabin lighting, enhancing visibility for passengers accessing overhead compartments and moving within the cabin.

NOTICE

For this switch to operate, the entry door must be securely closed.

- **AUX Switch:** Activates auxiliary mood lighting within the cabin. When engaged, this switch turns on blue LED mood lights situated between the overhead racks and the windows, as well as along the supports of the overhead racks, creating a calming and aesthetically pleasing atmosphere.

NOTICE

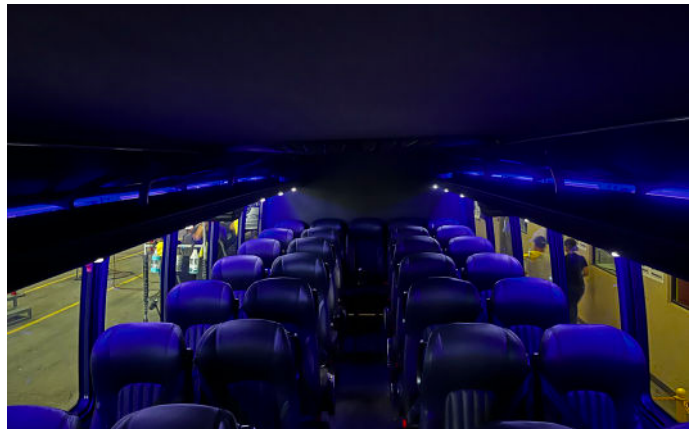
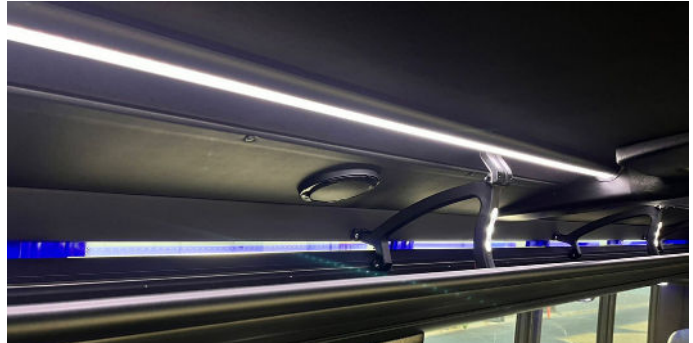
Similar to the interior lights, the AUX switch requires the entry door to be closed for proper operation.

NOTICE

Regular Inspections: Periodically inspect the control panel for signs of wear, damage, or loose connections. Early detection of issues can prevent more significant problems down the line.

NOTICE

Training: Ensure that all drivers receive comprehensive training on the functions and proper use of the overhead control panel. Familiarity with the controls enhances safety and efficiency during operation.



INDICATOR LIGHTS

In addition to the primary switches, the Driver's Overhead Control Panel features three distinct indicator lights designed to alert the driver to the status of various doors and exits. These indicators illuminate in bright red to provide clear visual warnings, enhancing safety and ensuring that all doors are securely closed before and during travel.

- **Door Ajar Indicator:** Illuminates when the passenger entry door is not fully closed. Alerts the driver to properly secure the entry door to prevent potential hazards while the vehicle is in motion.
- **Rear Door Ajar Indicator:** Lights up when the rear side luggage compartment doors are open or not securely latched. Notifies the driver to ensure that all luggage compartments are properly closed, preventing loss of cargo or safety risks.
- **Exits Indicator:** Activates when the emergency exit roof hatch is open. Signals the driver to confirm that the roof hatch is securely closed to maintain the integrity of the vehicle's safety features.

⚠ CAUTION

Avoid Distractions: Adjusting or operating the overhead controls while driving can divert attention from the road. Always make necessary adjustments when the vehicle is stationary to maintain focus and prevent accidents.

⚠ WARNING

Electrical Hazards: Tampering with or attempting to repair the control panel without proper training can result in electrical shocks or damage to the vehicle's electrical system. All maintenance or repairs should be conducted by qualified personnel.

⚠ DANGER

Malfunctioning Controls: If any switch or control on the panel becomes unresponsive or behaves erratically, it could indicate a deeper electrical issue. Continuing to use malfunctioning controls can lead to unpredictable vehicle behavior, posing a danger to occupants and other road users.



ⓘ NOTICE

Pre-Trip Inspection: Before commencing any journey, the driver should verify that none of these indicator lights are illuminated. An active indicator suggests that a door or exit is not properly secured, which could lead to safety concerns.

ⓘ NOTICE

In-Transit Monitoring: If any of these indicators illuminate while the vehicle is in motion, it is imperative to find a safe location to stop and address the issue immediately. Continuing to drive with open or unsecured doors can be hazardous.

⚠ CAUTION

Indicator Reliability: Regularly check the functionality of these indicator lights as part of routine vehicle maintenance. Malfunctioning indicators may fail to alert the driver to unsecured doors, compromising passenger safety.

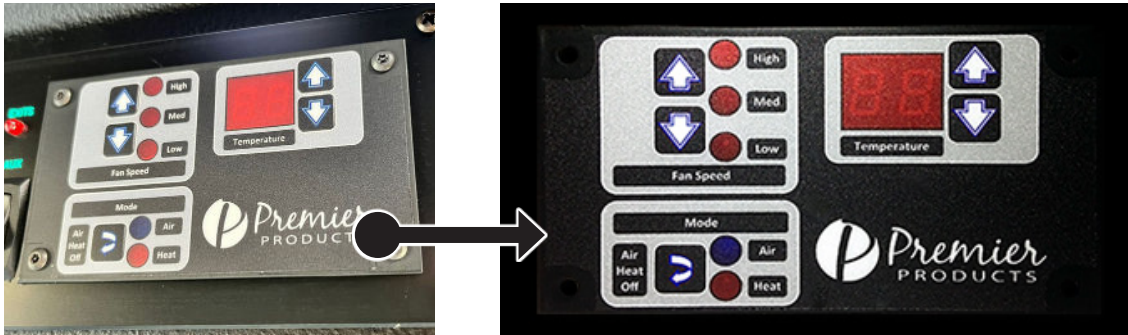
⚠ CAUTION

Sensor Maintenance: Ensure that door and hatch sensors are kept clean and free from debris to maintain accurate readings. Dirty or obstructed sensors can cause false readings or fail to detect open doors.

DRIVERS OVERHEAD CONTROL PANEL: MANUAL OPERATION

AIR CONDITIONER CONTROLS

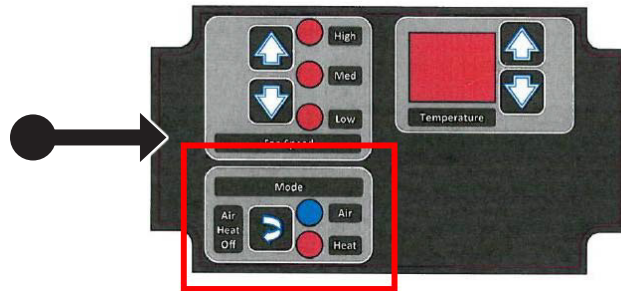
An air conditioner system is considered a major element in a bus. It ensures a comfortable climate experience for the passenger. The condition of the air is characterized by temperature, pressure and humidity. The control panel is located on the cockpit in between of the driver and the passenger.



MANUAL FAN CONTROL OPERATION

Set Mode:

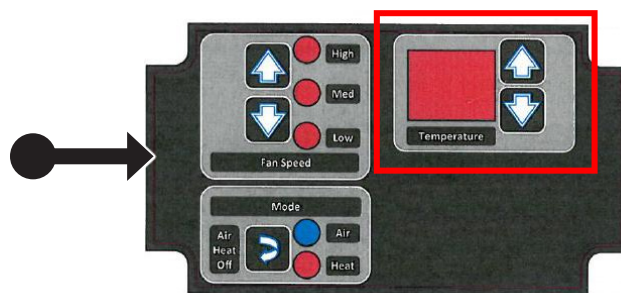
- **A)** Locate the mode selection button on the display controller face.
- **B)** When the mode selection button is pressed once, the blue air LED will illuminate, indicating air mode has been set.
- **C)** When mode selection button is pressed twice, the red heat LED will illuminate, indicating heat mode has been set.
- **D)** When mode selection button is pressed three times, both LEDs will extinguish, indicating the system is off.



SET DESIRED TEMPERATURE

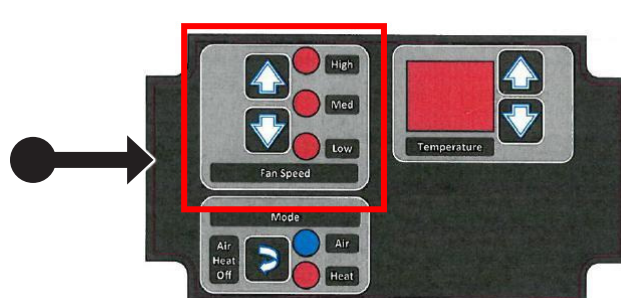
Setting the temperature thermostat:

- **A)** Locate the temperature selectin buttons on the display controller face.
- **B)** While the system is active (Set air or heat), the current temperature will be displayed.
- **C)** To adjust the thermostat, press the up arrow to increase or down arrow to decrease the current temperature.
- **D)** The temperature display will show the new desired temperature for three seconds before displaying the current temperature once more.



Setting the fan speed (low, med, high):

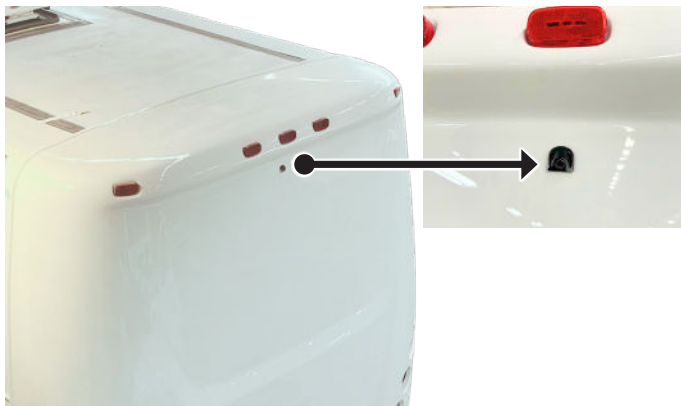
- **A)** Locate the fan speed buttons on the display controller face.
- **B)** While the system is active (Set to air or heat), the current fan speed LED will be illuminated.
- **C)** To adjust the fan speed, press the up arrow to increase or down arrow to decrease the current fan speed.
- **D)** The new selected fan speed LED will illuminate, extinguishing the previous fan speed LED.



REAR BACKUP CAMERA

The rear backup camera is an essential feature designed to enhance the safety and convenience of reversing the vehicle. It provides the driver with a clear and unobstructed view of the area behind the truck, helping to identify potential hazards and ensuring a safer maneuver when reversing. This system plays a key role in preventing accidents and improving overall awareness while backing up.

- **Function:** The rear camera automatically activates when the truck is shifted into reverse, displaying a live feed on the vehicle's screen to provide a clear view of what is behind.
- **Location:** The camera is mounted at the upper part of the truck's rear exterior for optimal visibility.



NOTICE

Camera Sensitivity: Some backup cameras are sensitive to light changes. Always be cautious of changes in light and adapt your driving accordingly.

CAUTION

Lens Cleaning: Regularly clean the camera lens to ensure optimal performance. Use a soft cloth to avoid damaging the lens or surrounding components.

CAUTION

Camera Calibration: If the camera feed appears distorted or misaligned, have the system inspected and calibrated by a professional technician to ensure accurate operation.

WARNING

Limited View: The rear camera provides a wide-angle view, but it does not eliminate all blind spots. Always check surroundings manually before reversing to avoid collisions.

WARNING

Camera Malfunction Risk: In case of a malfunction or screen display issue, refrain from relying solely on the camera for reversing. Always use mirrors and manual checks.

WARNING

Weather Conditions: Inclement weather (such as rain, fog, or snow) can affect the camera's clarity. Use caution when reversing under these conditions.

DANGER

Risk of Obstruction: Ensure the camera lens is not obstructed by dirt, snow, or debris. An obstructed lens can cause reduced visibility, leading to accidents or damage when reversing.

ELECTRICAL PANEL: RELAYS & FUSES

The vehicle is equipped with an advanced electrical panel that contains relays and fuses, which are crucial for controlling and protecting the electrical system of the bus. This panel is responsible for distributing power to various components, such as lighting, climate control systems, sensors, and other essential electrical systems in the vehicle.

- **Function:** The electrical panel is carefully designed to allow quick and easy access for servicing and maintenance, ensuring that the vehicle's electrical components can be checked and repaired when necessary.
- **Location:** The electrical panel is located behind the driver's seat within the passenger cabin. It is securely housed behind a black-colored door, which provides both protection and easy access for authorized personnel when servicing is required.

NOTICE

System Diagnostics: The electrical panel is integrated with diagnostic systems that may alert the technician to faults. Be sure to follow recommended diagnostic procedures when checking the panel for potential issues.

NOTICE

Temperature Awareness: If the bus has been in use for an extended period, be aware that the electrical panel may become warm. Allow the system to cool down before performing any maintenance or inspection.

NOTICE

Due regular check ups/ maintenance of the wiring connections and circuits making sure they have not become loose or broken. Check that ground cables are clean, undamaged, and tight.

CAUTION

Panel Maintenance: If you notice any signs of damage, such as burnt components, exposed wiring, or any unusual odor, refrain from using the bus until the panel is inspected and repaired by a trained technician.

CAUTION

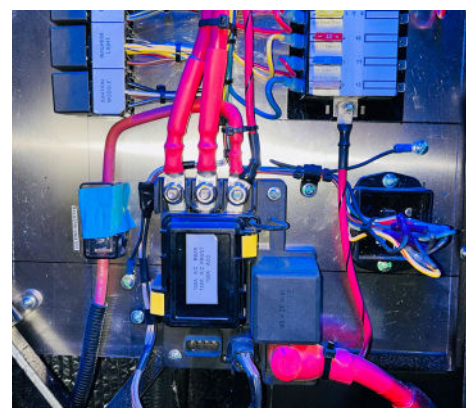
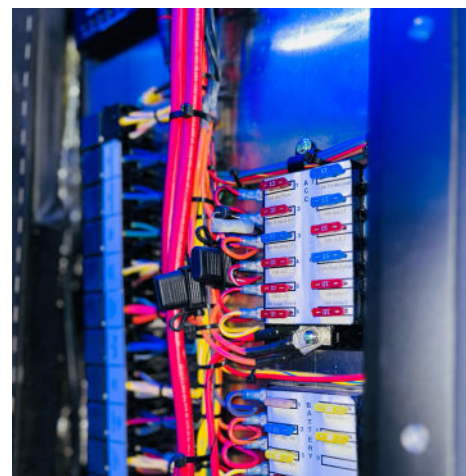
Secure Electrical Panel Door: Do not operate the bus if the electrical panel door is open. This can expose passengers to hazards and may cause electrical malfunctions or short circuits.

WARNING

Unauthorized Access: Only authorized and trained service personnel should access the electrical panel. Unauthorized access may not only void warranties but also pose serious safety risks due to improper handling.

WARNING

Fire Hazard: Improper handling or faulty components within the electrical panel may cause short circuits, leading to overheating or even fire. Always ensure that the panel is maintained properly and that all components are in good working condition.



DANGER

Risk of Electrical Shock: Never attempt to open or tamper with the electrical panel without proper training. Direct contact with the relays, fuses, or wiring can lead to serious electrical shock, causing severe injury or even death.

BATTERY SYSTEM

The Freightliner S2 chassis used in the Grech Motors EG40 is equipped with three heavy-duty 12V starting batteries designed to deliver dependable cranking power and support the vehicle's electrical demands.

These batteries are classified as Group 31 commercial starting batteries, which are commonly used in heavy-duty vehicles due to their durability and high power output.

BATTERY SPECIFICATIONS

The starting battery is a critical component of your vehicle's electrical system, providing the necessary power to start the engine and support essential functions. Below are the key specifications for the battery, ensuring optimal performance and reliability:

- **Voltage:** 12V
- **Cold Cranking Amps (CCA @ 0°F):** 950
- **Reserve Capacity (RC):** 175 minutes
- **Battery Group Size:** Group 31

BATTERY LOCATION AND ACCESS

The batteries are located on the side luggage compartment doors on the driver's side of the vehicle.

To access them:

- Use the switches located beneath the pilot's seat to open the luggage compartment doors.
- Once the doors are open, the battery tray can be pulled out for inspection or service.

NOTICE

What is a Group 31 Battery?

Group 31 refers to a standardized battery size and terminal arrangement set by the Battery Council International (BCI). These batteries are known for their high cranking power, robust construction, and compatibility with commercial and heavy-duty vehicle systems. Group 31 batteries are widely used in commercial vehicles, providing durability and efficiency in high-demand applications.

WARNING

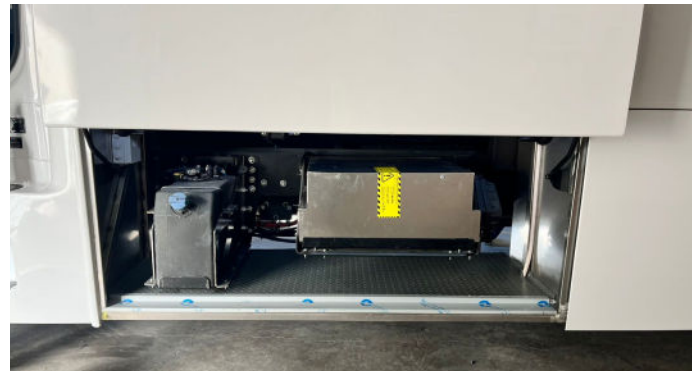
Battery Handling: The batteries should be handled with care. Always ensure that the correct procedures are followed during maintenance to prevent electrical shock or system damage.

WARNING

Qualified Technician: Battery inspection, maintenance, or replacement must be conducted by a qualified technician to prevent potential hazards or damage to the electrical system.

WARNING

Potential Fire Hazard: Always avoid short-circuiting the battery terminals. A short circuit can cause sparks, fire, or explosions.



CAUTION

Corrosive Materials: Batteries contain sulfuric acid, which can cause severe burns. Wear proper protective equipment, such as gloves and safety goggles, when handling or working near the battery.

CAUTION

Proper Disposal: Batteries must be disposed of according to local regulations. Do not discard them with regular waste to avoid environmental hazards.

CAUTION

Temperature Extremes: Avoid exposing the batteries to extreme temperatures. High or low temperatures can reduce battery life and performance, especially when the vehicle is not in use.

DANGER

Explosion Risk: When working with batteries, avoid sparks, flames, or smoking near the battery, as gases emitted during charging could lead to explosions.

DANGER

Electric Shock: Batteries store significant amounts of electrical energy. Always ensure the battery terminals are not exposed to metal objects to prevent accidental shocks or short circuits.

WHEELS AND TIRES

TIRES

The Grech Motors EG40 built on the Freightliner S2 chassis is equipped with heavy-duty tires designed for optimal performance and safety.

Regular maintenance and inspections are essential for extending tire life, improving fuel efficiency, and ensuring safe operation. The tire specifications for your vehicle are as follows:

Gross Vehicle Weight Rating (GWR):

- 33,000 lbs (14,968 kg)

Gross Axle Weight Rating (GAWR) Front:

- 12,000 lbs (5,443 kg) with 295/75R22.5G tires mounted on sa rims at 110 PSI (758 Kpa/cold)

Gross Axle Weight Rating (GAWR) Rear:

- 21,000 lbs (9,522 kg) with 295/75R22.5G tires mounted on 22.5x8.25 rims at 110 PSI (758 Kpa/cold)

1. Regular Inspections:

Before each trip, conduct a visual inspection of all tires for signs of:

- Embedded objects, cuts, cracks, or bulges in the sidewall
- Uneven tread wear, which may indicate alignment or inflation issues

2. Tire Pressure:

- Maintain tire pressure at 110 PSI (cold) for both front and rear tires.
- Always check tire pressure when the tires are cold, ideally before driving for the day.
- Use a reliable pressure gauge to verify and maintain the recommended PSI.

3. Tread Depth:

- Measure tread depth regularly using a tread depth gauge.
- Replace tires when tread depth reaches the minimum legal limit (typically **4/32"** for steer tires and **2/32"** for drive tires in the U.S.).
- Watch for uneven tread wear, which may signal the need for tire rotation or wheel alignment.

4. Alignment and Balancing:

- Ensure proper alignment of the wheels to prevent uneven wear and to reduce strain on suspension components.
- If you notice vibrations while driving, have the tires balanced, especially after new tire installations.

5. Tire Rotation:

- While dual rear tires are not always rotated, the front tires should be rotated periodically to ensure even wear. Follow manufacturer recommendations for rotation patterns.

6. Avoid Overloading:

- Do not exceed the GAWR or the Gross Vehicle Weight Rating (GWR). Ensure that weight is distributed evenly across all axles.
- Overloading can cause excessive wear or overheating of the tires.

7. Driving Habits

- Avoid rapid acceleration, hard braking, and sharp turns.
- Be cautious when driving over potholes, curbs, or debris to minimize the risk of tire damage.

8. Storage

- If storing the vehicle for a prolonged period, ensure that the tires are properly inflated (to the recommended 110 PSI) and park the vehicle on a level surface.
- Move the vehicle periodically to prevent flat spots from developing on the tires.

9. Professional Inspections

- Have a qualified technician inspect the tires at regular intervals, particularly before long trips or during scheduled maintenance.
- Professional inspections should include checking for internal tire damage, ensuring proper alignment, and confirming tread depth and condition.



TIRE TERMINOLOGY

Tire Label:

- A label that displays the original equipment tire sizes, recommended cold inflation pressures, and the maximum load the vehicle can carry.

Tire Identification Number (TIN):

- A number on the sidewall of each tire providing information about the tire brand and manufacturing plant, tire size and date of manufacture.

Inflation Pressure:

- The amount of air inside a tire, measured in pounds per square inch (PSI) or kilopascals (kPa). Proper inflation is critical for tire performance, safety, and longevity.

kPa (Kilopascal):

- A metric unit of air pressure used alongside PSI. 1 PSI \approx 6.895 kPa.

PSI (Pounds per Square Inch):

- A standard unit of measurement for air pressure in the United States. Used to indicate recommended tire pressure.

Cold Tire Pressure:

- The tire pressure when the vehicle has been stationary and out of direct sunlight for an hour or more and prior to the vehicle being driven for 1 mile (1.6 kilometers).

Bead Area of the Tire:

- The inner edge of the tire that sits on the wheel rim. This area ensures an airtight seal between the tire and the rim.

Sidewall of the Tire:

- The portion of the tire between the tread and the bead. It contains important tire information such as size, load rating, and TIN.

Tread Area of the Tire:

- The rubber surface of the tire that makes direct contact with the road. Tread design affects traction, braking, and water dispersion.

Rim:

- The metal wheel that supports the tire. On the EG40, the recommended rim size is 22.5 x 8.25 inches.

Load Range:

- Indicates the strength and load capacity of the tire (e.g., Load Range G).

Maximum Load Rating:

- The maximum weight a tire can safely support at a given inflation pressure.

TIRE SIDEWALL INFORMATION

Tires used on the Freightliner S2 chassis are marked with standardized information required by U.S. and Canadian regulations. This information identifies and describes the key characteristics of the tire and includes the U.S. DOT Tire Identification Number (TIN) used for safety certification and recall tracking.

For commercial-grade tires such as the 295/75R22.5G tires used on the Grech Motors EG40, the following sidewall markings are present:

Tire Size and Type:

- Indicates tire width, aspect ratio, construction type, and rim diameter. For example, "295/75R22.5" means the tire is 295 mm wide, has a sidewall height that is 75% of the width, is of radial construction ("R"), and fits a 22.5-inch diameter rim.

Load Range and Inflation Limits:

- Indicates the tire's load-carrying capacity and maximum cold inflation pressure. The EG40 uses Load Range G tires, rated for a maximum of 110 PSI (758 kPa) cold.

Maximum Load – Dual (lbs/kg @ PSI/kPa):

- Specifies the maximum load per tire when used in a dual configuration (two tires per side on a rear axle).

Maximum Load – Single (lbs/kg @ PSI/kPa):

- Specifies the maximum load per tire when used alone on an axle.

DOT Code / TIN:

- A unique alphanumeric code that identifies the manufacturer, tire plant, tire size, and the week and year of production (e.g., "DOT 1A2B 3CDE 2523" indicates the tire was manufactured in the 25th week of 2023).

TIRE LABEL LOCATION

The vehicle's manufacturer label, is located under the pilot's side seat and becomes visible when the pilot's door is opened, making it easily accessible during routine checks or service procedures. Additional details about this label can be found in this manual under the section titled LABELS | LOAD CARRYING.



WHEELS AND TIRES

U.S. DOT TIRE IDENTIFICATION NUMBER (TIN)

The U.S. DOT Tire Identification Number (TIN) is a standard requirement for all tires sold in the United States (and Canada) to ensure that they meet federal safety standards. This includes the EG40 Freightliner S2 tires as they are commercial tires designed for use in the U.S. market.

- **DOT Number:** Every tire, includes a DOT number on its sidewall, as required by law. This will include:
 - **Plant Code:** Where the tire was manufactured
 - **Tire Size Code:** The specific size of the tire.
 - **Tire Build Week/Year:** When the tire was made.

⚠ CAUTION

Verify tire manufacturing details: Always refer to the DOT Number to verify the tire's manufacturing origin, size, and build date before purchasing or replacing.

⚠ CAUTION

Check the tire age: The week and year of manufacture can help determine if a tire is nearing the end of its recommended service life.

⚠ CAUTION

Proper tire replacement: Ensure that replacement tires match the original tire specifications, including the size and manufacturing plant, for consistent performance and safety.

⚠ WARNING

Ensure compliance with safety standards: All tires, including those for the eG40 Freightliner S2, must meet U.S. federal safety standards. Non-compliant tires can affect vehicle performance and safety.

⚠ DANGER

Tire failure risks: Using tires with invalid or unverified DOT numbers could result in tire failure, leading to vehicle accidents, loss of control, or personal injury.

⚠ DANGER

Defective tires: If a tire's DOT number is illegible or appears altered, it could indicate a counterfeit or defective tire, which poses serious safety risks.

⚠ DANGER

Inadequate tires can lead to accidents: Using tires that do not meet the required safety standards can compromise vehicle handling, potentially resulting in catastrophic accidents.

HOW TO CHECK TIRE PRESSURE

1. Check Tires When Cool:

- Measure tire pressure when the tires are cold, ideally before driving or after being stationary for several hours.

2. Pre-Check:

- If you need to drive to inflate, check and note the tire pressure before driving. Add the appropriate air pressure when you reach the pump to correct any discrepancies caused by heat buildup.

3. Measuring Pressure:

- Remove the valve cap from the tire's valve stem, press the tire gauge onto the valve, and check the reading.

4. Adjust Pressure:

- If the tire pressure is below the recommended level, add air until the correct pressure is reached. If you accidentally overinflate the tire, release air by pressing the metal stem in the center of the valve, then recheck the pressure to ensure it is correct.

5. Replace Valve Cap:

- After adjusting the tire pressure, always replace the valve cap to prevent dirt and debris from entering the valve, which could cause leaks or inaccurate readings.

6. Repeat for Each Tire:

- Perform this procedure for each tire.

7. Visual Inspection:

- Visually inspect each tire for embedded objects like nails or debris that could puncture the tire and cause a slow air leak.

8. Sidewall Inspection:

- Check the sidewalls for any gouges, cuts, or bulges. Damage to the sidewalls can weaken the tire's structure and lead to potential tire failure. Replace the tire if any of these issues are found.

⚠ CAUTION

Check Before Driving: Always check tire pressure when tires are cool to ensure accuracy. If checking after driving, expect pressure to be higher due to heat.

⚠ CAUTION

Weather Considerations: Adjust tire pressure accordingly when there are significant temperature changes to maintain proper inflation.

WHEELS AND TIRES

INFLATING YOUR TIRES

Ensuring your tires are properly inflated is essential for the safe operation of your vehicle. Tires can lose up to half of their air pressure without appearing flat, making regular checks crucial for safe driving.

Before you drive, inspect all your tires daily. If one appears lower than the others, use a tire gauge to check the pressure of all tires and adjust as needed. Additionally, at least once a month and before long trips, check each tire with a tire gauge to ensure the pressures are within the recommended range.

For the Grech Motors EG40 on the Freightliner S2 chassis, the recommended tire pressures are as follows:

- **Front tires:** 110 PSI (758 kPa) for 295/75R22.5G tires on 22.5x8.25 rims.
- **Rear tires:** 110 PSI (758 kPa) for 295/75R22.5G tires on 22.5x8.25 rims.

Proper tire inflation is essential for safety, vehicle performance, fuel efficiency, and prolonging tire life. Always follow the manufacturer's guidelines for tire specifications to maintain optimal performance and even wear.

NOTICE

Tire Pressure Gauge Recommendation: It is strongly recommended to use a reliable tire pressure gauge to ensure accurate readings, as automatic service station gauges may not be reliable. Grech Motors recommends using a digital or dial-type tire pressure gauge rather than a stick-type gauge.

NOTICE

Maximum Inflation Pressure: The Maximum Inflation Pressure is the highest permissible pressure set by the tire manufacturer. It is typically higher than the recommended cold inflation pressure, which can be found on the Max. Clearance Label.

NOTICE

Temperature Impact: A 10°F (6°C) drop in temperature can cause a 1 psi (7 kPa) decrease in tire pressure.

CAUTION

Tire Valve: Always ensure that the tire valve is properly closed after checking or adjusting tire pressure to prevent air leakage.

CAUTION

Manual Gauge Cleanliness: When using a manual gauge, always ensure the gauge is clean and free of debris before use. A contaminated gauge could give inaccurate readings.

CAUTION

Compressor and Safety: When inflating tires, ensure that the air compressor is in proper working condition, and always wear safety glasses to protect your eyes from debris or sudden air pressure fluctuations.

TIRE INFLATION PRESSURE IMPORTANCE

Proper tire inflation is crucial for the safety and performance of your vehicle. For the Grech Motors EG40, ensure tires are inflated to the recommended cold inflation pressure (e.g., 110 PSI for both front and rear tires).

- Cold inflation pressure is the pressure of the tire when it has not been driven for at least 3 hours.
- Check tire pressure regularly as tires can lose up to half of their air without appearing flat.
- The recommended tire pressure is listed on the Manufacturer's Label under the pilot's side seat.

RISKS OF INCORRECT TIRE INFLATION

Under-Inflation:

- Causes sidewall flexing, leading to heat buildup, cracking, tread separation, or blowouts.
- Reduces vehicle control and increases accident risk.

Over-Inflation:

- Can result in uneven tire wear and reduced lifespan.
- Affects handling and can cause tire failure.

Shimmy:

- Incorrect tire pressure (too low) or improper tires may cause "shimmy," a vibration in the steering wheel that doesn't stop on its own after driving over bumps or dips.
- If you experience shimmy, reduce speed gradually by lifting off the accelerator or gently applying the brakes.

WARNING

Tire Pressure Limits: Do not exceed the manufacturer's recommended tire pressure. Over-inflating your tires can result in premature wear and may cause tire failure. It is equally important to never go below the recommended pressure.

WARNING

Cold Tire Pressure: Always check tire pressures when the tires are cold—ideally, before the vehicle has been driven or after the vehicle has been stationary for at least 3 hours. Tire pressure increases with temperature when driving, leading to inaccurate readings if checked when the tire is warm.

DANGER

Under-Inflation Risks: If you continue to drive with under-inflated tires, the risk of a tire blowout significantly increases. This is particularly dangerous at high speeds or in hot weather conditions, where tire failure can occur suddenly.

WHEELS AND TIRES

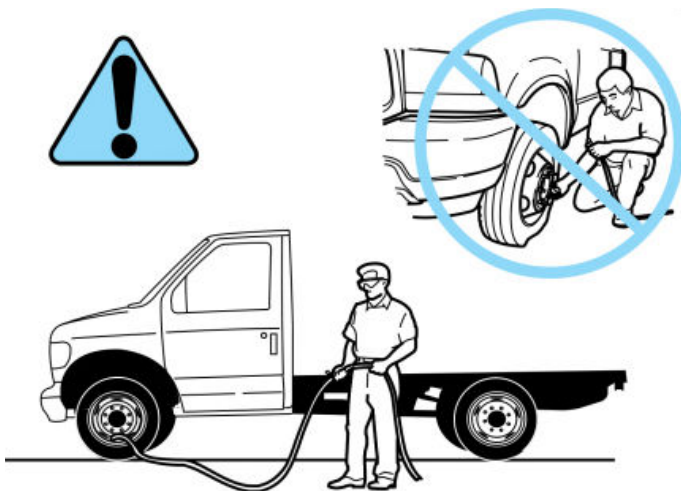
TIRE INFLATION INFORMATION

STEEL CARCASS TIRES

- **For Tires with Steel Carcass Plies:** Tires that feature steel cords in their sidewalls, like those with steel carcass plies, require special handling and cannot be treated like standard light truck tires. Tire servicing, including pressure adjustments, should only be performed by trained personnel, who must be properly equipped and supervised in accordance with Federal Occupational Safety and Health Administration (OSHA) regulations. When working with these tires, ensure that a remote inflation device is used during inflation procedures, and always keep people clear of the trajectory area.

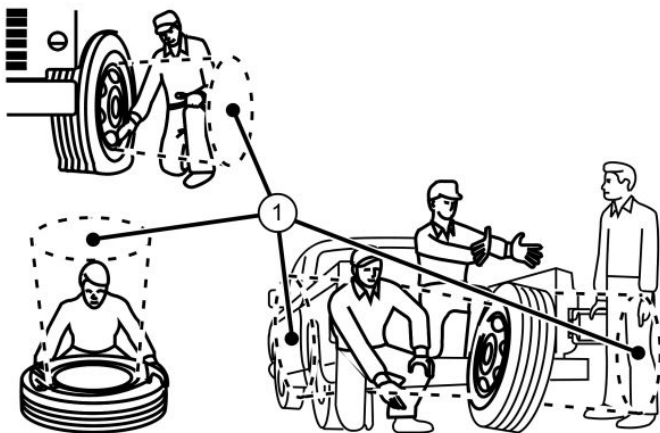
⚠ WARNING

Inflated tires and rims can pose significant hazards if not handled, serviced, or maintained correctly. To reduce the risk of serious injury or damage, never attempt to re-inflate a tire that has been run flat or is severely under-inflated without first removing the tire from the wheel assembly for a thorough inspection.



⚠ WARNING

Stay out of the trajectory as indicated in the illustration below.



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WHEN TO REPLACE YOUR TIRES

Proper tire maintenance is essential for the safety, performance, and reliability of your vehicle. Inspect all tires—including the spare—regularly and replace them if any of the following conditions exist:

Tread Wear:

Tire tread plays a critical role in traction and handling. Over time, the tread wears down, and when it reaches a certain limit, it can affect the safety and performance of the vehicle. Here's when you need to replace your tires based on tread wear.

- **Depth Limit:** Replace tires when tread depth reaches 1/16 inch (2 mm).
- **Wear Indicators:** Your bus is equipped with molded-in tread wear indicators (wear bars) in its grooves. When the surrounding tread wears down to these bars, the tire must be replaced.

Damage:

Tires can sustain damage from road hazards, impacts, or harsh driving conditions. Regularly inspect your tires for visible signs of damage, as this can impact their performance and safety. Inspect treads and sidewalls for:

- Bulges or bubbles in the tread or sidewall
- Cracks within the tread grooves
- **Cuts, punctures, or sidewall separation:** If you observe or suspect any damage, have the tire examined by a qualified tire professional before driving further.

ⓘ NOTICE

Damage Inspection: If any of the above damage is found or suspected, have the tire inspected by a qualified tire professional. Tires can also be damaged by harsh road conditions or impacts, such as hitting potholes, curbs, or road debris. Extra care should be taken after off-road use or any impact that could cause damage to the tire.

Tire Age:

Even if your tires have sufficient tread, age can affect their integrity. Environmental conditions, heavy loads, and extended storage can accelerate aging, so knowing when to replace your tires is key to maintaining vehicle safety.

- **Service Life:** Replace all tires once they reach six years from their manufacture date, even if tread wear is minimal.
- **Accelerated Aging:** Hot climates, heavy loads, or extended storage can degrade tires faster—consider earlier replacement if conditions warrant.

⚠ WARNING

Tires degrade over time depending on many factors such as weather, storage conditions, and conditions of use (load, speed, inflation pressure) the tires experience throughout their lives.

WHEELS AND TIRES

TIRE INFLATION SAFETY PRECAUTIONS

Proper tire inflation is critical for the safe operation of your EG40 Freightliner S2 bus. Incorrect tire mounting or inflation can lead to serious injury or damage to the vehicle. When mounting replacement tires or inflating tires to high pressures, it is essential to follow strict safety precautions to ensure the safety of both the technician and anyone nearby.

IMPORTANT SAFETY GUIDELINES

1. Ensure correct tire and wheel size :

- Always verify that you're using the correct tire and wheel combination, as specified by Grech Motors. Incorrect tire and wheel sizes can lead to poor vehicle performance, safety hazards, and potential damage to the vehicle.

2. Lubricate the tire bead and wheel bead seat area:

- Proper lubrication helps the tire seat correctly on the rim, making it easier to mount and reducing the risk of damage to the tire or wheel. It also helps prevent air leaks once the tire is inflated.

3. Maintain a safe distance of at least 12 feet (3.6 meters):

- Standing clear of the tire during inflation helps reduce the risk of injury should something go wrong during the mounting process. This distance ensures that any potential failure does not result in harm.

4. Wear both eye and ear protection:

- Safety gear, including eye and ear protection, is a must when handling tires that are being inflated. The loud noise of inflation and the risk of flying debris makes these precautions essential for personal safety.

⚠ NOTICE

Remember to replace the wheel valve stems when the road tires are replaced on your vehicle. The two front tires or two rear tires should generally be replaced as a pair.

⚠ CAUTION

Avoid improper mounting: Incorrect inflation can result in the tire not seating properly on the rim, leading to air loss or damage.

⚠ CAUTION

Be mindful of tire pressure: Excessive inflation pressure could cause damage to the tire or wheel if not performed correctly.

⚠ CAUTION

Check tire bead seating: If the bead does not seat correctly at the maximum pressure, do not exceed the recommended inflation pressure; lubricate and try again.

⚠ WARNING

Tire and Wheel Compatibility: Only use replacement tires and wheels that are the same size, load index, speed rating, and type as those originally provided by Grech Motors. The recommended tire and wheel size may be found on either the Safety Compliance Certification Label or the Tire Label. If this information is not found on these labels, contact your authorized dealer as soon as possible.

⚠ WARNING

Risks of Non-Recommended Tires and Wheels: Use of any tire or wheel not recommended by Grech Motors can affect the safety and performance of your vehicle, which could result in an increased risk of loss of vehicle control, vehicle rollover, personal injury, and death.

⚠ WARNING

Potential Vehicle Damage from Incorrect Tires: The use of non-recommended tires and wheels could cause steering, suspension, axle, transfer case, or power transfer unit failure. If you have questions regarding tire replacement, contact your authorized dealer as soon as possible.

⚠ WARNING

Maximum Pressure for Mounting Replacement Tires: To reduce the risk of serious injury, when mounting replacement tires and wheels, you should not exceed the maximum pressure indicated on the sidewall of the tire to set the beads without additional precautions listed below. If the beads do not seat at the maximum pressure indicated, re-lubricate and try again.

⚠ DANGER

Risk of injury: Improper inflation or handling of tires can cause serious injury or even death. Always follow safety guidelines and use proper equipment.

⚠ DANGER

Explosion hazard: Tire and rim assemblies can explode if over-inflated, causing serious harm or fatal injuries. Never exceed recommended pressure limits unless instructed by professional guidelines.

WHEELS AND TIRES

DUAL REAR TIRE ROTATION AND MAINTENANCE

Your vehicle is equipped with dual rear wheels, it is important to rotate the tires periodically to ensure even wear and optimize performance. The recommended procedure for the Freightliner S2 EG40 bus is to rotate the front and rear tires side to side as pairs.

1. Rotate Tires Side to Side:

- Always rotate the front and rear tires from one side to the other, but keep the dual rear tires together as a pair. Don't mix or separate them.

2. Keep Dual Tires Together:

- Never separate the dual rear tires. Moving both tires on the same axle at the same time helps keep your vehicle balanced and prevents uneven wear.

ⓘ NOTICE

Tire Rotation Importance: Regular tire rotation helps ensure even wear, especially for dual rear tires.

ⓘ NOTICE

Follow Manufacturer's Schedule: Stick to the tire rotation intervals outlined by the vehicle's manufacturer.

ⓘ NOTICE

Inflation Pressure Adjustments: After rotating the tires, make sure to adjust the air pressure based on the new tire positions. Check the vehicle's manufacturer specifications to inflate the tires to the correct pressure for the best performance.

ⓘ NOTICE

Matching Tires: When rotating dual rear tires, always ensure the tires are the same size, load capacity, speed rating, and tread pattern. Mismatched tires can cause uneven wear and affect your vehicle's handling, braking, and overall safety.

⚠ CAUTION

Check Tire Pressure: Always check tire pressure after rotation. Incorrect inflation can affect handling, fuel efficiency, and safety.

⚠ WARNING

Tire Mismatching: Never mix tires with different sizes, load ratings, or tread patterns on the dual rear wheels. This can affect handling and tire life.

⚠ WARNING

Failure to Rotate: Skipping regular tire rotations leads to uneven wear, affecting handling and increasing accident risk.

⚠ DANGER

Tire Blowouts: Improper pressure or uneven wear can cause tire blowouts, especially with dual rear wheels, risking loss of control.

⚠ DANGER

Tire Blowouts: Improper pressure or uneven wear can cause tire blowouts, especially with dual rear wheels, risking loss of control.

SAFETY PRACTICES FOR TIRES

Proper driving habits and awareness of highway hazards are essential for maximizing the lifespan of your tires and ensuring your vehicle's safety, particularly for the EG40 Freightliner S2. This section provides essential guidelines on how to drive in a way that reduces tire wear, prevents damage, and enhances the safety of the vehicle. Adhering to speed limits, avoiding harsh driving conditions, and being mindful of tire care during highway hazards can significantly prolong tire life and ensure smooth, safe driving.

DRIVING HABITS

- **Speed Limits:** Always important for any vehicle, including the EG40, to adhere to speed limits to ensure tire longevity and safety.
- **Avoiding Fast Starts, Stops, and Turns:** This helps prevent excessive wear on tires, especially dual rear tires like those on the EG40.
- **Avoiding Potholes and Road Objects:** Keep an eye out for potholes or road debris, as these can cause serious damage to tires, especially in heavy-duty applications.
- **Curb Impact:** Avoiding hitting curbs is crucial to prevent sidewall damage and premature wear of the tires.

HIGHWAY HAZARDS

- **Flat Tire Procedures:** It's always important to reduce speed and pull over safely if a flat tire occurs, which applies to all vehicles, including the EG40.
- **Vibration or Ride Disturbance:** If there's any sign of tire or vehicle damage (such as vibration), reducing speed and pulling off the road to inspect the tires is a necessary safety measure.

MAINTENANCE SCHEDULE

The following Maintenance Schedule provides a general guideline for the essential systems and components that require regular servicing on the Grech Motors EG40 Freightliner S2 Bus. This schedule is meant to serve as a reference, but it should not be considered an exhaustive list of all maintenance requirements.

IMPORTANT NOTES:

1. Adjustments Based on Severity of Service:

- The maintenance intervals listed should be considered as maximum intervals. It is highly recommended to refer to the Original Chassis Manufacturer's Suggested Maintenance Schedule for a comprehensive service guide.
- The type of operation your vehicle undergoes plays a crucial role in determining maintenance intervals, as varying operating conditions (e.g., frequent city driving, long-distance touring) can influence how often your vehicle needs servicing.

2. Inspection Frequency:

- Grech Motors recommends that inspections and maintenance services be conducted at shorter intervals than the ones listed, especially under more demanding conditions. More frequent checks can help maintain optimal vehicle performance and prevent unexpected issues.

3. Inspection Frequency:

- Tailored Maintenance: Depending on the conditions in which your EG40 operates (e.g., weather, terrain, usage), you may need to adjust these intervals. Ensure that you consult an authorized dealer if unsure about the appropriate maintenance schedule for your specific use case.

MAINTENANCE REQUIREMENTS

The following maintenance requirements are tailored for the Grech Motors EG40 Freightliner S2 Bus and are designed to support the safe, efficient, and long-term operation of your vehicle. These checks should be performed at the intervals specified to ensure that key components are functioning as intended.

Routine inspections and servicing are essential to avoid premature wear and to maintain passenger safety and vehicle performance. Always refer to Grech Motors and Freightliner service manuals for additional chassis-specific maintenance procedures.

Daily Checks:

Perform the following inspections each day before operating the vehicle:

- Complete all items listed in the Inspection Procedure Checklist on pg 13.
- Check the side passenger entry door for correct operation, locking ability, emergency release, physical damage, and test the obstruction sensing system.
- Inspect the emergency roof hatch for functionality.
- Test the emergency egress window latches.
- Confirm that all interior and exterior lights are functioning.
- Tire pressure check (Cold Inflation):
 - **Front tires:** 110 PSI (758 KPa/cold)
 - **Rear tires:** 110 PSI (check both inner and outer tires)
- Look for any fluid leaks from the transmission, engine, power steering system, engine coolant reservoir, gear oil system, or fuel lines.
- Inspect all seatbelts for correct operation and signs of damage.

MONTHLY CHECKS:

Perform the following inspections and maintenance tasks every month:

- Lubricate door linkage and pivot arms; inspect for worn or damaged components.
- Lubricate the entry door step mechanism
- Clean the A/C system's air intake filter to ensure unobstructed airflow and optimal cooling performance.

EVERY 5,000 MILES OR 600 OPERATING HOURS:

At this interval, perform the following:

- Inspect all tires for uneven wear, sidewall damage, and measure tread depth.
- Clean the A/C system's air intake filter to ensure unobstructed airflow and optimal cooling performance.
- Lubricate all door seals using a silicone spray and inspect for proper sealing.
- Verify the entry door mechanism and proper torque adjustment.

PREVENTATIVE MAINTENANCE SCHEDULE

To maximize the performance, reliability, and lifespan of your Grech Motors EG40 bus, it's essential to follow a structured preventative maintenance schedule.

The following intervals and tasks outline the minimum service requirements at key mileage and hour thresholds. These checks support optimal operation of the suspension, electrical systems, tires, and door mechanisms. Always refer to the Freightliner S2 chassis manual for detailed chassis-specific service procedures.

AT 15,000 MILES/1800 HOURS DO THE FOLLOWING:

- Reinspect torque settings on the suspension system.
- Lubricate all door seals and check for proper sealing.
- Inspect the air system for leaks and verify all electrical connections.
- Check the torque of all hardware on the passenger entry door system.

AT 20,000 MILES/2400 HOURS DO THE FOLLOWING:

- Inspect tires for wear and tread depth.
- Rotate all tires to ensure even wear.
- Inspect the engine air filter; replace if necessary.
- Clean battery terminals.
- Check the torque of all hardware on the passenger entry door system.

AT 25,000 MILES/3000 HOURS DO THE FOLLOWING:

- Repeat tire inspection and rotation.
- Reinspect engine air filter.
- Inspect engine air filter.
- Clean the HVAC condenser coils.
- Check the torque of all hardware on the passenger entry door system.

AT 30,000 MILES/3600 HOURS DO THE FOLLOWING:

- Lubricate all door seals and check for proper sealing.
- Reinspect torque settings on the suspension system.
- Check the torque of all hardware on the passenger entry door system.

AT 45,000 MILES/3600 HOURS DO THE FOLLOWING:

- Lubricate all door seals and inspect for proper contact and flexibility.
- Reinspect torque settings on the suspension system.
- Check the torque of all hardware on the passenger entry door system.

AT 60,000 MILES/7200 HOURS DO THE FOLLOWING:

- Lubricate all door seals.
- Reinspect torque settings on the suspension system.
- Check the torque of all hardware on the passenger entry door system.

AT 75,000 MILES/9000 HOURS DO THE FOLLOWING:

- Lubricate all door seals.
- Reinspect torque settings on the suspension system.
- Check the torque of all hardware on the passenger entry door system.

AT 90,000 MILES/10800 HOURS DO THE FOLLOWING:

- Lubricate all door seals.
- Reinspect torque settings on the suspension system.
- Check the torque of all hardware on the passenger entry door system.

NOTICE

At 100,000 MILES re-implement the initial 5000 mile maintenance routine and follow each mileage milestone as you did in the beginning. Example 100,000 miles, 115,000 miles, 120,000 miles etc

BASIC TROUBLESHOOTING GUIDE TEMPLATE

This section is designed as a flexible space for recording troubleshooting techniques related to commonly encountered issues with your Grech Motors EG40 built on the Freightliner S2 chassis. Use it to document symptoms, probable causes, and corrective actions as they arise during operation or inspection. You may print and reuse this template as often as needed to expand your personalized troubleshooting reference within your Bus Owner's Manual.

PROBLEM	POSSIBLE SOLUTIONS