

## DRIVE AWAY WITH MORE

# **OPERATOR'S MANUAL** Johnson Truck Body's General Body Care & Maintenance

WARNING: This manual contains important safety information. Read manual carefully. Keep manual with truck body at all times. OM-GENERAL BODY Rev. 013122 © 2024 Johnson Truck Bodies All Rights Reserved. Printed in USA.

# INTRODUCTION

## THANK YOU...

Thank you for your order of a Johnson Truck Body. We are grateful you chose our thermally efficient fiberglass body.

This manual contains important information about your Johnson Truck Body and should remain with the truck body at all times. This manual has been prepared to assist you in retaining the safety, dependability, and performance that are built into Johnson Truck Bodies. It is essential that this body receives periodic inspections, maintenance, and service parts replacement.

This manual includes safety checks that the operator must perform periodically. Reading your operator's manual will help you and others avoid personal injury or damage to the system. The information in this manual will provide the operator with the safest and most effective use of the truck body. Knowing how to operate the truck body safely and correctly will allow you to train others on the proper operation.

It is important that every truck body owner and/or operator have an organized preventative maintenance program. The United States Department of Transportation requires that the maintenance records be kept on every commercial highway vehicle. It is to your advantage to be able to show that regularly scheduled inspection checks have been made on every piece of equipment operated. A regular preventative maintenance program will assure that you get the most from your Johnson Truck Body. It is recommended that you use similar preventative maintenance practices with regard to this refrigeration system as well.

It is important to have your body serial number intact and on record when you are making a call to Johnson Truck Bodies. This identifies the build specifications for that unit. It can be found on the IVD tag located on the front wall. Some bodies may have a duplicate tag inside the body above the rear door.

Finally, please note that you can find information on our website by going to www.greatdane.com. Under 'Products,' you will find Johnson Series for our current product offerings, 'Parts & Services,' you will find 'Johnson Truck Body Parts' library, and 'Inside Great Dane,' you will find our common Operational and Maintenance manuals. At any time you need assistance, please call our Customer Service Department at 800-922-8360.

## **IMPORTANT**

READ THIS MANUAL CAREFULLY AND BECOME FAMILIAR WITH YOUR JOHNSON TRUCK BODY. KNOW ITS APPLICATIONS, ITS LIMITATIONS AND ANY HAZARDS INVOLVED. SHOULD YOU HAVE ANY FURTHER QUESTIONS, CONTACT JOHNSON TRUCK BODIES AT 800-922-8360 AND ASK FOR CUSTOMER SERVICE. PLEASE HAVE YOUR BODY SERIAL NUMBER READY WHEN YOU CALL. THIS MANUAL SHOULD BE KEPT WITH THE BODY AT ALL TIMES.



# **OPERATOR'S MANUAL**

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## REGISTRATION

Record your model number & equipment model numbers below.

BODY	LIFT GATE
Serial Number	Make
Date put into Service	Model
Contact Johnson Truck Bodies Customer Service	Serial Number
at 800-922-8360 for Parts & Service questions.	Contact your local dealer for support.
ALL ELECTRIC (AE) SYSTEM	THERMO KING/CARRIER
ALL ELECTRIC (AE) SYSTEM Make	THERMO KING/CARRIER Condensing Unit
Make	Condensing Unit



# **SAFETY WARNINGS & PRECAUTIONS**

## SAVE THESE INSTRUCTIONS

These safety warnings and precautions draw attention to potential safety concerns, system damage, operation and service information. Please read all the information carefully to avoid injury and equipment damage.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

The safety alert symbol (<u>)</u>) is used with a signal word (DANGER, WARNING, or CAUTION), a pictorial and/or a safety message to alert you to hazards.

## **SAFETY PRECAUTIONS**

Johnson Truck Bodies recommends that all services be performed by a qualified service technician. However, there are several general safety practices which you should be aware of.



**WARNING:** Always wear safety glasses or goggles when working with or around the truck body and its refrigeration system. Refrigerant can cause permanent damage if it comes in contact with your eyes and/or skin.



**WARNING:** Keep hands and loose clothing clear of fans, belts, and gears at all times when the unit is operating.



**WARNING:** Use extreme caution when servicing refrigeration unit, and when climbing onto or off of chassis and equipment.



**CAUTION:** Exposed coil fins can cause painful lacerations. Use caution when performing service work on the evaporator or condenser coils; service work is best left to a qualified service technician.





**WARNING:** Unit may start at any time when the unit is connected to grid power.

**WARNING:** Be sure to disconnect power supply when inspecting any part of the unit.

## **ELECTRICAL HAZARD**



**WARNING:** Be sure to disconnect unit from grid power before working on the unit. This is an all-electric unit and could present a potential electrical hazard.

## A DANGER

AN IMMEDIATE HAZARDOUS SITUA-TION. IF THE HAZARDOUS SITUATION IS NOT AVOIDED, DEATH OR SERIOUS INJURY WILL OCCUR.

## **△ WARNING**

A POTENTIALLY HAZARDOUS SITUA-TION. IF THE HAZARDOUS SITUATION IS NOT AVOIDED, DEATH OR SERIOUS INJURY COULD OCCUR.

## **CAUTION**

A POTENTIALLY HAZARDOUS SITUA-TION. IF THE HAZARDOUS SITUATION IS NOT AVOIDED, MINOR OR MODER-ATE INJURY COULD OCCUR.

## **IMPORTANT**

INDICATES HELPFUL INFORMATION FOR PROPER OPERATION OR MAINTE-NANCE OF YOUR TRUCK BODY.

## A WARNING

CALIFORNIA PROPOSITION 65 WARNING: ENGINE EXHAUST FROM THIS VEHICLE CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFOR-NIA TO CAUSE CANCER, BIRTH DE-FECTS, OR OTHER REPRODUCTIVE HARM.

## REFRIGERANT

Although fluorocarbon refrigerants are classified as safe, observe caution when working with refrigerants or around areas where they are being used in the servicing of your unit.

## FIRST AID

**EYES:** For contact with liquid, immediately flush eyes with large amounts of water. Get prompt medical attention.

**SKIN:** Flush areas with large amounts of warm water. Do not apply heat. Wrap burns with dry, sterile bulky dressing to protect from infection or injury. Get prompt medical attention.

**INHALATION:** Move victim to fresh air and restore breathing if necessary. Stay with victim until arrival of emergency personnel.

## A DANGER

FLUOROCARBON REFRIGERANTS MAY PRODUCE TOXIC GASES. IN THE PRESENCE OF AN OPEN FLAME OR ELECTRICAL SHORT, THESE GASES ARE SEVERE RESPIRATORY IRRITANTS CA-PABLE OF CAUSING DEATH.

## **DANGER**

FLUOROCARBON REFRIGERANTS TEND TO DISPLACE AIR AND CAN CAUSE OXYGEN DEPLETION WHICH COULD RESULT IN DEATH BY SUFFO-CATION. PROVIDE ADEQUATE VENTI-LATION IN ENCLOSED OR CONFINED AREAS.

## A WARNING

FLUOROCARBON REFRIGERANTS EVAPORATE RAPIDLY, FREEZING ANY-THING THEY CONTACT IF ACCIDEN-TALLY RELEASED INTO THE ATMO-SPHERE FROM THE LIQUID STATE.



## **REFRIGERANT OIL**

Observe the following precautions when working with or around refrigerant oil.

## **FIRST AID**

**EYES:** Immediately flush eyes with large amounts of water for at least 15 minutes while holding the eyelids open. Get prompt medical attention.

**SKIN:** Move victim to fresh air and restore breathing if necessary. Stay with victim until arrival of emergency personnel.

**INHALATION:** Do not induce vomiting. Immediately contact poison control center or physician.

## A WARNING

ALWAYS WEAR SAFETY GLASSES OR GOGGLES TO PROTECT EYES FROM CONTACT WITH REFRIGERANT OIL.

## A WARNING

PROTECT SKIN AND CLOTHING FROM PROLONGED OR REPEATED CONTACT WITH REFRIGERANT OIL. RUBBER GLOVES ARE RECOMMENDED.

## **WARNING**

WASH THOROUGHLY AND IMMEDI-ATELY AFTER HANDLING REFRIGER-ANT OIL TO PREVENT IRRITATION.



# **SAFETY LABELS AND LOCATIONS**

# UNDERSTANDING THE SYSTEM SAFETY AND OPERATIONAL LABELS

These safety warnings and labels shown below are placed on this system to draw attention to potential safety concerns, system damage, operation and service information. Please read all the information carefully to avoid injury and system damage.

For replacement parts contact Johnson Truck Bodies at 800-922-8360.

## **REFRIGERATION SYSTEM SAFETY LABELS**

#### Electrical Hazard



Locations vary depending on model. Can be found near all power receptacles, high voltage tray covers and interface boards. Indicates a dangerous hazard which, if not avoided, will result in death or serious injury by electrical shock. Depending on Maintenance task, may require a NFPA 70E PPE category 1-4.

### **TRUCK BODY SAFETY LABELS**

#### WARNING: Door Holdback Decal - Part # 087-1032

Door must be fully engaged into holdback device to retain door in the full open position. Failure to secure door into holdback device may result in the door swinging shut on the operator. Door holdback device needs to be replaced immediately if damaged.

Located at eye-level on the inside of every door of the body approximately 60"-66" from the ground.

### CAUTION: Interior Cam Hardware Door Release Maintenance Required Decal - Part # 029-1048

Interior Door Releases need to be lubricated annually to ensure emergency use of door release to be used.

#### NOTICE: Interior Cam Hardware Door Release Decal - Part #

Interior Door Release allows you to not remain locked inside if you have an interior door release handle or lever. Notice instructs user to unscrew T-Handle on interior door pan completely from the exterior hasp, the hasp will drop away and you can push the door open to exit body. Reassemble components to close door.

## CAUTION: Automotive Interior Door Release & Gasket Lubrication Decal - Part # 087-1066

Interior Door Release latch must be cleaned and lubricated regularly with a Food Grade Silicone Lube to ensure continued performance.

Food Grade Silicone Lube should also be applied to door gaskets to clean and reduce condensation and freezing.

Located on interior access panel near door latch.

CAUTION: Automotive Door Latch Internal Release Decal Part # 087-1067

Pull release lever located on top or bottom of door latch to open door from inside compartment.

Located on interior access panel near door latch.



# DAILY OPERATING INSTRUCTIONS FOR YOUR MECHANICAL OR ALL-ELECTRIC SYSTEM

### **OPERATING INSTRUCTIONS**

See your Supplemental Refrigeration Operation Manual for proper steps to operate your refrigeration system.

## **PROPER LOADING INSTRUCTIONS**

Proper loading practices will help ensure the appropriate environment for temperaturecontrolled products and will optimize the refrigeration performance to ensure delivery of the highest quality products. All products must be loaded in a manner that allows for an envelope of air to circulate around the sides, top, front, back, and underside of the product. Proper air circulation is critical to maintaining the desired product temperature.

### NOTE:

- 1. Truck body must be pulled down to required air temperatures prior to any product being introduced (i.e., Pre-chill or pre-freeze body).
- 2. Be sure the product is at or below required product temperatures prior to loading.

### **RETURNING FROM ROUTE**

See your Supplemental Refrigeration Operation Manual for proper steps to operate refrigeration system returning from route.

## **CAUTION**

DO NOT START TRUCK ENGINE UNTIL UNIT HAS BEEN PROPERLY DISCON-NECTED FROM GRID POWER. FAIL-URE TO DO SO COULD CAUSE SYSTEM FAILURE AS WELL AS ELECTRICAL HAZARDS.



# **COLD CHAIN BEST PRACTICES GUIDE**

Cold chain is an uninterrupted supply system that manages a constant cold temperature, helping ensure product safety and stability. The following practices are recommended for product protection during the loading, transport, and delivery process. Proper practices help ensure the appropriate environment for your temperature-controlled product and will optimize refrigeration system performance.

### LOADING, TRANSPORT AND DELIVERY

### Product MUST be stored and loaded at the required temperature for the product.

Pre-cool, store, and verify the product is at the proper temperature before loading. Refrigeration units are designed to maintain product temperature, not to pull down product temperature.

### Use dependable packaging.

Materials must be durable, crush-resistant.

### Verify setpoint temperature.

Confirm setpoint temperature. Mechanical units primarily use an in-cab control feature (factory set). All-Electric units primarily use thermostats located inside the body.

### Pre-cool truck body by activating refrigeration.

Pre-cool body to setpoint temperature. Refer to your thermometer to verify the unit has reached the appropriate temperature before loading the product.

#### Loading product.

Load quickly to minimize inside and outside air exchange. Allow for an envelope of air to circulate around the sides, top, front, back, and underside of the product when loading. Proper airflow is critical to maintaining required product temperature. Load cargo securely to prevent the risk of shifting and damage to product during handling and transit.

NOTE: The body's interior air temperature will be higher after loading product.



Vented containers for fresh products



Non-vented containers for low temperature



**Block pallets** for sufficient air circulation









Cornershell Thermometer

#### Minimize door openings.

Limit the number and duration of door openings to minimize inside and outside air exchange.

### Always use door strip curtains.

Install and/or maintain door strip curtains properly to help reduce internal and external air exchange while loading product.

### Allow for body temperature recovery.

Body temperature recovery time will increase with the entry of ambient air. Allow time for refrigeration system to recover from door openings. The greater the temperature gap between the setpoint temperature and actual body temperature, the more time it will take to recover to setpoint.

### Loading/delivering product at docking station.

Position body tightly against and maintain an effective seal between body and dock. Move product quickly to limit exposure to non-refrigerated areas.

#### Defrost system regularly.

Monitor system automatic defrost cycle, or initiate a system defrost when frost/ice accumulates on evaporator coil or eutectic cold plates to ensure optimal refrigeration performance.

### Door switches to shut down fans.

The use of door switches to shut down fans when the door is opened is considered best practice to conserve the air temperature within the body and not force it out through the door opening. It may also reduce your heat load recovery time. If you do not have door switches, you can accommodate this same effect by shutting your refer system off at each stop when the door is opened. You can turn it back on when the doors are closed. Contact your refrigeration dealer for an aftermarket service to potentially add door switches to your existing body.



Outside Air Exchange







Frost/Ice Accumulations





### **PROPER AIRFLOW**

Proper airflow is critical to maintaining the required product temperature. Even with optimal system performance, obstructions create poor air circulation and uneven temperature distribution, risking damage to your product. Load product evenly to provide passable airways between the top of the cargo and body ceiling when loading. Do not block the system's warm air intake and cold air discharge. Do not load the product tightly against walls or doors. This restricts airflow and will negatively affect system cooling efficiency. The truck body interior must be kept clean to prevent contamination and obstruction of airflow. Clear the body floor and drains of all debris to prevent circulation blockage, and check the evaporator unit regularly to make sure it is free of debris. Keep the floor beneath the product open so warm air can return back through the cooling system. Block pallets help provide an airflow channel by forming additional space between the body floor and cargo. If you do not use pallets, you can utilize Johnson's polyslat floor racking systems. They are constructed of polyslat (recycled plastic) material to resist moisture and rot. Johnson's Airflow flooring option is designed to ensure sufficient airflow on the underside of the product. The channels provide a means for air to pass beneath the product, while the foam insulation below the flooring acts as a barrier to keep the body floor cool. Secure pallet loads with plastic netting instead of stretch film, which severely restricts proper ventilation. Avoid using slip sheets or hand stacking as these are not favorable methods for adequate airflow.



Johnson's Airflow Flooring



Tapered Polyslat Floor Rack





# **PREVENTATIVE MAINTENANCE**

It is important that every refrigerated truck body owner and/or operator have an organized preventative maintenance program. A closely followed preventative maintenance program will help to keep your Johnson Truck Body in top operating condition. The following general schedule is provided to assist in monitoring that maintenance.

## **CARGO AREA INSPECTION**

Johnson Truck Bodies are designed to maintain the required temperature for the product being carried during time of transit. To assist the unit in performing this function, the operator should:

- Inspect outside of body for loose or improperly sealed doors.
- Inspect that the refrigeration system is operating, has pulled down, and has stabilized to the desired air operating temperature prior to loading the product.
- Inspect inside of body for damaged walls. **Any damage to the wall or insulation must be repaired.** See Body Care and Maintenance section of this manual.
- Be sure loads are at the proper carrying temperature when loaded into the truck body.
- Supervise loading to make sure there is sufficient air space around the load for proper air circulation.
- See Thermo King Operator's Manual and/or Carrier, lift gate, etc. for maintenance and troubleshooting guidelines.

## **EXTERIOR BODY INSPECTION**

- Inspect refrigeration equipment and cowling to ensure it is intact and that all fasteners are present.
- Inspect aluminum roof band, cornershell/roof band joints, and exterior roof sealant to ensure they are intact and reseal as needed.
- Inspect all fiberglass areas: roof, doors, front wall, rear wall, sidewalls, and cornershells for cracks, separation, or damage.
- Inspect rain gutters to ensure they are all intact and all fasteners are present.
- Inspect all lighting, interior and exterior, camera, and proximity sensors to ensure they are working or aligned.
- Inspect all electrical power connections for wear and service.
- Check fenders, rub rail, bumper, storage boxes, mud flaps, and splash guards for damage.
- Inspect lift gate to ensure it is working properly; maintain per lift gate manufacturer's instructions.
- Be sure decals and reflective markers are all intact.

## A WARNING

TO REDUCE THE RISK OF SERIOUS PHYSICAL INJURY, NEVER REACH INTO THE CONDENSING UNIT WHILE THE SYSTEM IS PLUGGED INTO GRID POWER. ALWAYS DISCONNECT POW-ER SUPPLY WHEN SERVICING CON-DENSING UNIT. SERVICING OF THE CONDENSING UNIT IS ONLY TO BE CONDUCTED BY A CERTIFIED REFRIG-ERATION TECHNICIAN.



### **BODY DOOR INSPECTION**

- Inspect exterior sheet, interior pan, and door lips for damage.
- Inspect if rubber gaskets are missing or torn.
- Inspect interior and exterior door hardware for damage or wear. Door latches should be free of dirt and grime. *NOTE: Silicone spray for door latches and gaskets.*
- Lubricate interior door handles.
- Adjust door hardware for proper seal (dollar bill test). This prevents warm air from entering the body as well as cold air from escaping.
- Inspect grab handles.
- Check door holdback stops or t-holders and (if applicable) cornershell bracket.
- Check interior wiring harness to door pan, if applicable.
- Check interior door pull straps, if applicable.
- Inspect door curtains.

### **BODY DOOR INSPECTION**

- Inspect underbody subfloor for cracks or damage.
- Inspect subfloor ovals over wheels for damage.
- Inspect long stringers for cracks or damage.
- Inspect tie-down angle welds to ensure they are intact and tie-down bolts are tight.
- Inspect subframe attachments utility, cart, and cord boxes; check welds and fasteners.
- Inspect mud flaps and splash guards to ensure they are securely attached.
- Inspect drain holes/kazoo; clean if necessary.
- Inspect rear bumper and assembly for damage.
- Inspect steps and their grab handles.



### **BODY INTERIOR INSPECTION**

- Inspect ceiling and wall surfaces for cracks or damage, repair as needed.
- Inspect seams for cracks or openings, seal as needed.
- Inspect floors for damage or cracked welds, clean or repair as needed.
- Inspect wire conduit covers are in place, no wires exposed.
- · Inspect vacuum relief is tube open and label is present, primarily on Lo-Temp Bodies
- Inspect all interior shelving, slats, refrigeration equipment, etc., to be functioning and no damage.

## LIGHTS /ELECTRICAL INSPECTION

- Inspect the following lights are present and working:
  - Exterior clearance lights
  - Stop, turn and tail lights
  - Back-up lights
  - Exterior work or flood lights
  - License plate light
  - Interior dome light
  - Exterior courtesy lights, if present
- · Inspect that refrigeration's on/off switch, indicator light and/or plug-in outlet is not damaged or worn.
- Inspect circulation fan is operational.
- Inspect master electrical box is not damaged or worn.
- Inspect and check 12-volt master disconnect switch on electrical box is operable.
- Inspect back-up camera, proximity sensors and in-cab monitor are working properly, align as necessary.
- Inspect dash switches are operable.
- Cycle Automotive door locking system and key fob is functional, if applicable.



# **BODY CARE AND MAINTENANCE**

## FIBERGLASS MAINTENANCE AND REPAIR

To keep the exterior of your new fiberglass truck body in good condition, periodic preventative care and maintenance should be followed.

## **FINISH PROTECTION**

The Johnson fiberglass body has a beautiful, natural glass finish that will stay this way if washed periodically with common strength soap and water. High caustic soaps and solutions will cause premature color fade and panel surface deterioration. It is acceptable to use a hot water pressure washer system for cleaning; however to prevent premature deterioration of exterior finish, the water pressure against the surface of the panel should not be extreme. Mild to moderate amounts of pressure are efficient to apply soap and remove surface dirt.

### NOTE: heavy doses of acetone or lacquer should not be used.

For good finish protection, we recommend applying a coat of wax one or two times a year. Waxing helps protect against every day elements and ultra violet rays which cause surface deterioration and fading. Many automotive or fiberglass boat waxes can be used. Check the product label for recommended surfaces and application.

A mild, abrasive rubbing compound is recommended to be used with wax. Johnson Truck Bodies uses a product manufactured by "Meguiar's". Any fiberglass boat or automobile parts supplier should be able to provide this or an equivalent product for you.

Use Whink's Rust Remover to remove any surface rust streaks that may have occurred on your fiberglass surfaces.

### **FIBERGLASS REPAIR**

### Exterior walls, interior walls and floor

Johnson Truck Bodies are extremely durable, but occasional accidents do occur. If so, repairs are simple, amazingly inexpensive and easily done in your own shop. Fiberglass repair kits from local boat or hardware stores are readily available. Observe all manufacturers' instructions, which include safety precautions.

### Exterior fiberglass surface repairs

If Fiberglass Reinforced Plastic (FRP) surface has superficial cracks or a porous surface:

- 1. Remove any decals from the area of repair
- 2. Sand the area with 180-grit sandpaper
- 3. Wipe area clean and tack with a tack cloth
- 4. For light to moderate repairs, apply DuPont 4724 Lightweight Polyester Filler to area
- 5. For moderate or heavy repairs, apply DuPont Z-Chrome Rust Defender to area
- 6. Allow to dry and sand area with 220-grit sandpaper
- 7. Wipe area clean and tack with a tack cloth. May need to repeat steps 4 or 5, 6 and 7
- 8. Prime the area, using a DuPont Tufcoat Primer
- 9. Using a topcoat sealer, seal area according to customer's specifications (i.e. gel coat with Cooks Armorcoat Gel Coats or paint with DuPont's Imron or PPG's Ditzler Paints)



#### Exterior fiberglass panel repairs that include foam repair

If a fiberglass fracture or damage ever appears, it should be repaired as soon as possible.

- 1. Determine repair area, oversize the repair area by 2-4" for feathering fiberglass and buffing
- 2. Remove any decals and damaged fiberglass and foam from area of repair
- 3. Sand remaining area of fiberglass to remove all foreign matter, and rough up to assure a good bond. Best practice is to feather/bevel the old fiberglass edges to meet up with the new product.
- 4. Fill voided foam area with a urethane-based foam product
- 5. Allow foam to dry, and trim excess foam to within 1/4" of exterior of finished sheet
- 6. Clean and wipe down repair area to remove dust and oils
- 7. Fill area with Mar glass to within 1/8" of exterior of finished sheet
- 8. Allow to harden and sand
- 9. Cut oversized strips of fiberglass mat to cover area (approximately 2" larger than damaged area and about 3-4 strips)
- 10. Lay mat on clean cardboard
- 11. Saturate mat with resin and catalyst mixture
- 12. Place coated mat into repair
- 13. Remove all air bubbles from the layers of wet mat with brush or roller
- 14. Allow to dry

#### After area has hardened:

- 1. Sand, flush and feather edges to original liner
- 2. Prime and paint as needed

#### Exterior fiberglass fender replacement

- 1. You may need to remove the tires
- 2. Use a saw to cut off the old fender where it joins the exterior sheet, do not cut the exterior sheet
- 3. Pull the exterior sheet away from the body just enough to allow the lip of the new fender to be forced up behind the sheet, grind behind the sheet to even the surface
- 4. Mask all areas of the fender to avoid glue from sticking to exposed visible surfaces
- 5. Dry fit fenders to the opening, measure and cut 5-6 wood sticks to hold the fender in place or clamps
- 6. Using either two-part epoxy-based glue or resin method, install the fender so the lip is behind the exterior sheet:
- 7. Position flat pieces of wood around the fender against the body exterior sheet or clamp in place
- 8. Keep pressure on the fender lip and exterior sheet while curing
- 9. Allow to dry, then trim to length, sand and paint as needed.



A Great Dane Company

### Interior fiberglass liner

If a fracture or damage ever appears, it should be repaired as soon as possible.

- 1. Sand entire area to remove all foreign matter and rough up to assure a good bond
- 2. Fill voided foam area with a urethane-based foam product, if necessary
  - a. Allow foam to dry and trim excess foam to within 1/8" of sheet
  - b. Sand area again to assure a good bond
  - c. Putty over foam to allow mat to adhere
- 3. Cut strips of fiberglass mat to cover the area
- 4. Coat area with resin and catalyst mixture (mixed according to manufacturer's instructions)
- 5. Lay pre-cut pieces of fiberglass mat over fresh resin removing any air bubbles
- 6. Work resin into the mat with a clean brush or roller, removing any air bubbles
- 7. Saturate the mat with more resin and catalyst mixture
- 8. Apply enough mixture to make a convex over the damaged area
- 9. Use a small roller or brush to work into place removing any air bubbles
- 10. Trim any edges or excess mat before completely hardened

After area has hardened:

- 1. Sand flush to the original liner
- 2. Re-coat with resin to give a smooth, glossy finish

### Fiberglass floor

If a definite fracture or crack appears, it can be repaired in the same manner as the interior liner repair. If an entire area of the floor wears thin, repair as follows:

- 1. Sand entire area to remove all foreign matter and rough up to assure a good bond
- 2. Cut strips of fiberglass mat to cover area
- 3. Coat area with resin (mixed according to manufacturer's instructions)
- 4. Lay pre-cut pieces of fiberglass mat over fresh resin
- 5. Apply additional resin to completely saturate the top of the mat
- 6. Use a paint roller to smooth the surface and remove the air bubbles
- If grit for a non-slip surface is desired:
- 1. Sprinkle grit (silica sand or aluminum oxide) on repaired area while resin is still wet
- 2. Allow to harden

3. Re-coat area with mixed resin and catalyst to lock in grit, do not overcoat or you will lose your grit surface









### **OTHER BODY CARE AND MAINTENANCE**

#### Interior drain holes

- 1. After defrost, make sure drains are clear of debris and check for proper drainage.
- 2. If drains are backed up or draining slowly, clean out with a pressure washer or water hose.

#### Cleaning body interior

Clean and sanitize body interior after cold plate defrost.

- 1. Make sure your drain holes are open or your door opening is sloped downhill
- 2. After defrosting unit, spray down walls using an all-purpose cleaner.
- 3. Rinse down walls using a water hose or pressure washer (2,600 lbs or less).
- 4. Wipe down or let air dry completely before closing up tight.

#### **Body Doors**

Make sure doors are sealing properly and correct leaks by performing a gasket compression test:

- 1. Place a dollar bill or similar paper type and size between the door gasket and jam while you open and close the door.
- 2. Try to pull the dollar bill back out. There should be some resistance as you pull the dollar out.
- 3. Do this around the perimeter of the door checking resistance on the bill as you go. If there is no resistance, either tighten or shim under the handle, lugs, cups, shim the hinge at that location or replace the door gasket if it appears to have lost its resilience or is missing.

### <u>Gaskets</u>

It is recommended that gaskets be checked monthly for tears or over-compression.

- 1. Wipe away any build-up and make sure surfaces are kept clean.
- 2. Check for any visible tears.
- 3. Check that adhesive is holding. If coming loose, use 3M 4799 rubber cement glue to reattach.
- 4. If flattened out (over-compressed), gasket needs to be replaced.
- 5. Retest gasket compression test noted above.

### Door hardware

- 1. Check and treat door hinges and hardware monthly to prevent rust and corrosion.
- 2. It is recommended to apply Fluid Film, a lanolin-based rust and corrosion preventative over tightly adhering rust, dry or damp metal surfaces and painted surfaces.
- 3. Shake can before using.
- 4. Hold can 6-8 inches from work surface. Do not spray with can in an inverted position.
- 5. Lubricate internal door releases with anti-seize
- 6. Review door holdbacks, replace as necessary
- 7. Adjust hardware for proper tension on gasket to prevent air leaks.

#### Strip curtain repair

- 1. Remove damaged curtain section by removing screws in aluminum strap.
- 2. Measure curtain length, and contact JTB Parts Department to order replacement curtain material.





# **CAM LOCKING DOOR HARDWARE GUIDE**

## **CAM LOCK ADJUSTMENT**

The cam lock hardware system on a Johnson Truck Body comes in powdercoat or stainless steel finishes. They are multi-point cam latches to pull the door closed and tight. They typically range in two to five-point assemblies based on your door height.

Adjusting Cam Lock Hardware:

- After performing the gasket check process and the notation of loose tension and/or forceful tension areas of the door seal, use either of the following methods to adjust the hardware. Once complete with adjustment, retest those areas. Repeat as necessary to get proper door seals.
- 2. If the gasket is not sealing along the lock side of the door, adjust set screws in the handle to adjust the paddle on the cam to increase or decrease tension.
- 3. If the set screws are maxed out, insert a shim behind the lug holder in that area. Repeat Gasket Check Process.
- 4. If the gasket is not sealing along the hinge side of the door, insert a shim behind the leaf portion of the hinge in that area. Repeat Gasket Check Process.













# SLAM LOCKING DOOR HARDWARE GUIDE

### **SLAM LOCK ADJUSTMENT**

The slam lock hardware system on a Johnson Truck Body is a chrome finish. They are multipoint slam latches to pull the door closed and tight. They typically range in one to two-point assemblies based on your door height. The hinges also range between two and five hinges based on your door height.

Adjusting Slam Lock Hardware:

- After performing the gasket check process and the notation of loose tension and/or forceful tension areas of the door seal, use either of the following methods to adjust the hardware. Once complete with adjustment, retest those areas. Repeat as necessary to get proper door seals.
- 2. If the gasket is not sealing along the lock side of the door, adjust set screws in the handle or striker to adjust the tension on the tongue of the slam lock to increase or decrease tension against the striker.
- 3. If the set screws are maxed out, insert a shim behind either the handle or the striker in that area. Repeat Gasket Check Process.
- 4. If the gasket is not sealing along the hinge side of the door, insert a shim behind the leaf portion of the hinge in that area. Repeat Gasket Check Process.



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# **AUTOMOTIVE DOOR LOCK SYSTEM GUIDE**

## **AUTOMOTIVE DOOR INSPECTION**

This latch is a 2-detent latch similar to the latch on the chassis cab. The secondary position is a safety feature that keeps the door from opening in the event that it is not fully closed. However, this position will not provide a positive door seal. The primary position is fully closed and will ensure a good door seal. There is no adjustment on the latches. Adjustments are made on the strike post.

Automotive Door Inspection:

- 1. With the latch rotor in the open position, close the door gently on the strike post just until it clicks into the secondary detent. The door should be slightly ajar, but not able to open without pulling the handle.
- 2. Push the door fully closed until it clicks into the primary detent. The door should not be ajar and should be fully sealed.
- 3. Check for proper seal by placing a piece of paper in the door opening and close the door on the paper. There should be some drag on the paper when pulled out.
- 4. If there is no drag on the paper, loosen the (2) torx drive screws on the strike post and move the strike post in to pull the door tighter. Retighten screws and re-check the door seal. Move the door strike in small amounts (i.e. 1/16" increments) until proper door seal is acquired.
- 5. If the drag on the paper is too much and the door handle is difficult to open, the strike post is set too far inside. Loosen the (2) torx drive screws on the strike post and move the strike post out. Retighten screws and re-check door seal and handle function.





## STRIKE HOOP ADJUSTMENT PROCEDURE

If the seal is flattened or the primary catch will not engage, the strike hoop needs to be moved out. If the door operates smoothly and the primary catch is engaged but the door is not sealing, the strike needs to be moved in.

- 1. First, draw an outline with a pencil around the strike plate for location reference purposes.
- 2. Drill out the aluminum rivet (if present) using a 3/16" drill bit.
- 3. Loosen screws holding the strike but DO NOT remove. The screws should be loosened just enough to adjust the strike. Adjust the strike to the proper location and tighten screws. It won't need much of an adjustment. Moving the strike in or out 1/16" to 1/4" will most likely be enough.
  - most likely be enough.
- 4. After screws have been tightened, check the door for a proper seal.
- 5. Once a good seal is achieved, drill a 3/16" hole through the door strike plate opposite the original rivet location and into the door frame mullion. Then install a new 3/16" aluminum rivet.

## **IMPORTANT**

IF AFTER MOVING THE STRIKE HOOP EITHERIN OR OUT FOR "FULL STROKE" ADJUSTMENT AND THE DOOR SEAL IS STILL NOT ADEQUATE, THE STRIKE HOOP MAY NEED TO BE RELOCATED ON THE DOOR FRAME. SEE STRIKE HOOP RELOCATION FOR ADDITION-AL ADJUSTMENT INSTRUCTIONS.





Step 4



Step 5



Step 1



## STRIKE HOOP RELOCATION FOR ADDITIONAL ADJUSTMENT

If after moving the strike hoop either in or out and the door seal is still not adequate, the strike hoop may need to be relocated on the door frame.

- 1. Using a 13/64" drill bit, drill a new hole adjacent to the existing top and bottom fasteners in both strike hoop slots prior to loosening the fasteners.
- 2. Draw a second outline with a pencil around the strike hoop plate for location reference purposes.
- 3. Remove the two fasteners and strike hoop assembly from the door frame and fill all four holes with urethane sealant.
- 4. Reinstall the two fasteners through the strike hoop assembly and into the two newly established holes in the door frame.
- 5. Adjust the strike to the proper location and tighten screws. Once a good seal is achieved, drill a 3/16" hole into the door frame mullion and through the door strike plate opposite the original rivet location and install a new 3/16" aluminum rivet.
- 6. Once the latch is installed and functioning properly, reinstall the foam plug. Apply a small bead of silicone sealant around the perimeter of the access panel or around the opening in the door pan. Reinstall the access panel using a Phillips screwdriver. If using a drill or driver, set clutch to very low (3-4) and do not overtighten.

Step 1

Step 4



Step 5







Step 6











## **GLOSSARY**

Retrigerated Truck Bodies Agente bas (angay

This glossary is published for informational purposes only, and the information being furnished herein should not be considered as all-inclusive or meant to cover all contingencies.

**1-Phase plug** – 250-volt AC power. Three-prong, twist-lock connector, located on line cord end.

**3-Phase plug** – 250-volt AC power. Four-prong, twist-lock connector, located on line cord end.

**Air temperature vs. product temperature** – The United States Food and Drug Administration requires that frozen products be kept at a temperature in which they remain a frozen solid. This concept is often confused with the air temperature, which is defined as a measure of the heat content in the air. The air temperature may fluctuate due to door openings and/or other factors, but the product temperature must remain freezing.

**Ambient air temperature** is the temperature of the outdoor air surrounding the body.

**Amp** is the abbreviation for ampere, and the basic measuring unit of electrical current.

**Arcing** is caused by routinely plugging and unplugging the unit from grid power while the compressor on/off switch is left ON and can have detrimental effects on your electronic equipment. Arcing damage on the electrical components of this system can be indicated by burnt spots on electrical connections of the line cord wires, connector contacts, and prongs. It can also cause bodily harm. It is recommended to always shut off the power supply at the dockside's power supply disconnect box.

**BTU (British thermal unit)** is a common unit of measure for heat and is equivalent to the amount of heat energy required to heat one pound of water one degree Fahrenheit. For example, raising the temperature of one pound of water from 40 degrees to 41 degrees would take one BTU. This form of measure is referred to in the capacity of this refrigeration system.

**BTU capacity** of this refrigeration system is based on the application criteria used to calculate the heat load that the system is required to absorb and expel. BTU capacity of the system is referred to as the number of BTUs per hour of heat that can be removed from the cargo area.

**Cold plate defrost** – Prevent frost build-up on the surface of the plates by running the cold plate defrost system. To prevent frost build-up on the surface of the plates, a cold plate defrost is recommended to be performed every 30 to 40 days or when frost accumulation exceeds ½" build-up on the plate surface.

**Compressor/condensing unit** is both a motor and a pump that moves refrigerant through the system. A vapor compression pump uses a scroll method to compress refrigerant gas and send it to the condenser. The condenser is a heat exchanger that removes heat from the hot

compressed gas and allows it to condense into a liquid. As a whole, this unit acts like the heart of the cooling system. It is controlled by a lowpressure cutout switch, and will run until the eutectic plates are frozen and the setpoint temperature inside the body is reached.

**Cornershell/Front wall thermometer** is the dial or digital thermometer that allows the operator to monitor the body's interior air temperature. Located primarily on the driver side front cornershell or front wall of the body.

**Door strip curtains** are flexible vinyl curtains used to reduce air exchange between the refrigerated compartment and the outside during door openings.

**Eutectic cold plates** act like the blue ice packs in a picnic cooler and absorb heat to maintain setpoint temperature levels in the body. When the system is plugged into grid power, refrigerant passes through the plates, recharging the salt brine/eutectic solution.

**Fahrenheit (°F)** is a unit of temperature measurement used in the United States and with this refrigeration system.

**Fiberglass reinforced plastic (FRP)** is a composite material made of a plastic matrix reinforced by fine fibers made of glass.

**Grid power**, also known as dockside power, refers to the electrical power source in which a truck's refrigeration system can be plugged in and recharged overnight at the customer's domicile location.

**Grid power outlet** is a standard outlet used to plug refrigeration system into grid power to be recharged.

Hertz (Hz) is a unit of frequency equal to one cycle per second.

**Horsepower (HP)** is a unit of power equivalent to 746 watts or 550 footpounds per second.

**Line cord** – 25-foot, 1-Phase or 3-Phase electrical cord provided inside the cab of the truck or cord box to connect the unit to grid power when recharging the refrigeration system. Amperage is dependent on the refrigeration system's amperage load design requirements.

**Low pressure cut-out switch (LPCO)** is a pressure-operated switch that opens to stop unit operation when suction pressure reaches a predetermined maximum.

### NOTE: Never adjust the low pressure control. The high and low-pressure cut in/outs are preset by the manufacturer and do not need to be adjusted.

**Low temperature refrigeration system** is designed to maintain the temperature of your deep frozen product.

**Pre-cooling** 1) To cool down an empty temperature-controlled area to the desired product temperature prior to loading. 2) To cool the product to a desired temperature before loading into the truck body.



**Recharging** the system is used in reference to plugging the unit into shore power to re-energize the capacity of the refrigeration cold plates.

**Reflective heating strips** – during the defrost cycle, two 3000-watt strip heaters will be activated and the red indicator light on the control box will illuminate when powered.

CAUTION: Never reach inside the body during the defrost cycle. Strip heaters are located between the cold plates and ceiling and

#### are extremely hot!

**Refrigerant** is the medium of heat transfer in a refrigeration system which absorbs heat by evaporating at a low temperature and releases heat by condensing at a higher temperature.

**Refrigerant oil** is a special oil used to lubricate compressors in refrigerant systems.

**Refrigeration** is defined as the removal and the relocation of heat.

**Refrigeration Power Supply Inlet** is the refrigeration system's power supply connection and on/off switch. This is used with a line cord to provide power to the refrigeration system and to turn the system on or off.

**Setpoint** is the temperature preset on the thermostat or in-cab control feature. This is the desired body interior air temperature.

Volt - The basic measuring unit of electrical potential.

Watt - The basic measuring unit of electrical power.

# WARRANTY

### **OWNER'S WARRANTY RESPONSIBILITIES**

As the refrigerated truck body owner, you are responsible for the performance of the preventative maintenance outlined in this Operator Manual for Body Maintenance.

As the refrigerated truck body owner, you should be aware that Johnson Truck Bodies may deny you warranty coverage if your refrigerated truck body, refrigeration system, or a part or component has failed due to abuse, neglect, improper maintenance, or unapproved modifications.

You are responsible for contacting Johnson Truck Bodies prior to any warranty work being done on your refrigerated truck body. Johnson Truck Bodies has to provide prior approval for warranty work before a qualified service technician performs any repairs.

If you have any questions regarding your warranty, please contact Johnson Truck Bodies and ask to speak with the Customer Service Department at 800-922-8360.

For warranty on the body's accessories (lift gate, chassis, walk-ramp, roll-up door, camera, or refrigeration system), please refer to the supplied Owner's Manual of the manufacturer's product installed. These manuals are forwarded to the customer, located in the cab of the chassis.

## **WARNING**

PRIOR TO CONDUCTING WARRAN-TY REPAIR WORK ON THIS BODY OR REFRIGERATION SYSTEM, PRE-AP-PROVED AUTHORIZATION MUST BE GRANTED BY MANUFACTURER OR THE MANUFACTURER'S WARRANTY WILL BE VOID. TO OBTAIN PRE-AP-PROVED AUTHORIZATION CONTACT JOHNSON TRUCK BODIES AT 800-922-8360.



## JOHNSON TRUCK BODIES WARRANTY SUMMARY

(Refer to Terms & Conditions from Original Sales Contract.)

### Body Components (See "Terms and Conditions"):

•	Structural Integrity (100% Parts Only)		60 months (See your contract's T/C)
•	Misc. Body Components (100% Parts Only	)	12 months (See your contract's T/C)

### **Refrigeration:**

<u>Condensing Unit</u> ; Misc. Refrigeration Components	
° 100% Parts and Labor	90 days (See your contract's T/C)
° 100% Parts Only	90 days to 12 months (See your contract's T/C)
Cold Plates	
° 100% Parts and Labor	90 days (See your contract's T/C)
° 100% Parts Only	90 days to 24 months (See your contract's T/C)
Mechanical Blower Units	Original Manufacturers Warranty
Lift Gates & Roll-up door	Original Manufacturers Warranty (12 months typical)

### NOTE:

Johnson Truck Bodies, LLC is not liable for incidental, special or consequential damages, or for any other loss, damage or expense of any kind, including loss of profits. (This includes but is not limited to: (truck rental, towing, product loss, driver down time, vehicle delivery charges).

### WARNING

Prior to conducting structural warranty repair work on this body or refrigeration system repair work, pre-approved authorization must be granted by manufacturer or the Manufacturer's Warranty will be void. To obtain pre-approved authorization contact Customer Service Department at Johnson Truck Bodies at 800-922-8360



# **SERVICE AND SUPPORT**

From pre-sale to post-sale, we are here to help you with your support needs from the initial sales inquiry to service support for the life of your Johnson equipment. At Johnson Truck Bodies, we are positioned to provide you with the most efficient and convenient local and field support available through our in-house experts and authorized Great Dane service repair locations nationwide.

## **SERVICE CONTRACTS**

Headquarters and Manufacturing Plant 215 E Allen Street Rice Lake, WI 54868 Toll Free: 800-922-8360 Local: 715-537-7400 Fax: 715-537-7495 Website: www.greatdane.com

Customer Service, Aftermarket Parts Orders, Warranty Claims, and Technical Service Support Toll Free: 800.922.8360 Option #3 for Aftermarket Parts Option # 6 for Customer Service Email: jtbcustomerservice@greatdane.com JTB Parts Website: www.greatdane.com/parts&service/parts/Johnson Truck Body Parts/

### **SUPPORT**

If you are experiencing any body, refrigeration, or electrical issues with your JTB equipment that you cannot troubleshoot with your service provider or maintenance team, we are here to assist you. All of our Customer Service Agents (CSA) are equipped to take your calls and your information for dispatching the appropriate service response for your issues or questions:

Contact Customer Service 800-922-8360,

Option #3 for Aftermarket Parts,

Option #6 for Customer Service.

Review the information below to assure your matter is addressed properly and efficiently.

**Customer Service Coverage**: Monday through Friday, 7:00am - 7:00pm CST.

There is a general voicemail (VM) center system that will be checked regularly for messages. Please leave a detailed message (including your Body Serial Number) and a Customer Service Agent (CSA) will return your call promptly.

Holidays and weekends will be forwarded to VM and a CSA will monitor messages and return calls based on urgency.

**Technical Support Coverage:** Monday through Friday, 7:30am - 5:00pm CST.

After hours Refrigeration or Body Support can be arranged only if CSA is contacted prior to service request to facilitate the call.

If you need Technical Support, our Customer Service Department will be requesting information to initiate the required type of technical support or research in order to resolve the issue quickly. They will issue you a Customer Service Response number (CSR #) to refer to when the CSA or Technician returns your call.

Scheduling a time for a Technical Support service call is not necessary during 7:30am - 5:00pm CST working hours, but may be of value to your time management.

To improve our response time, notify your service or maintenance personnel of the assigned CSR # for the issue you are having on your piece of equipment when they call.

After hours support needs to be arranged with a CSA prior to service to ensure the availability of our refrigeration technician.



### **TECHNICAL SUPPORT PROCESS SUMMARY**

- 1. Customer to provide Customer Service Agent (CSA) the body serial number of the unit; see Supplementary Details for more information.
- 2. For Body Issues, contact a CSA.
- 3. For Electrical Issues on Body or Refrigeration Wiring, refer to your Operations Packet for body wiring diagram to assist in initial troubleshooting. Inside the condensing unit weather-proof cover, you will find a CDU wiring diagram. If issues still persist, contact a CSA to request another diagram or support.
- 4. For AE Refrigeration Operational Issues, refer to your Operations Packet for body wiring diagram to assist in initial troubleshooting.
  - a. For our AE systems: First contact your local refrigeration service provider for service. They are able to service our equipment.
  - b. If they are not able to resolve your issue, you must contact our CSA prior to receiving Refrigeration Technical Support. CSA will gather information needed to issue you a CSR # for this occurrence.
    - i. Once you have your CSR #, be sure to have that available to provide to your service provider for fast service.
    - ii. It is preferred you call our CSA prior to the arrival of your service provider so we notify our refrigeration tech support of your needs.
  - c. Our Technicians will need to talk with your on-site service provider to get an accurate report of the operational conditions and issues you are having with the equipment. We will walk the service provider through a series of checks and inspections to resolve the issue.
  - d. If Parts are needed, our Technician will relay the parts list to the CSA to facilitate the order/shipment process.
  - e. CSA will then follow up at a later date to ensure your equipment is functioning.

### STRIKE HOOP ADJUSTMENT PROCEDURE

- The body serial number can be found on the JTB logo tag located on the front streetside corner of the body or in the driver-side door jamb of the truck. The S/N is 5-digits (i.e. "43208-20") followed by the year of manufacture. Some units do have a second serial number in the interior of the body, usually above the rear door.
  - a. When rotating to a new chassis, we recommend re-installing the Serial Number badge and adding the Serial Number to the new IVD label. Contact Parts Department for any replacements needed.
- 2. Our Operator's Manual was initially provided in the glove box of each chassis; if no longer in that location, contact a Customer Service Agent for a new copy.
- 3. Our refrigeration equipment is similar to other OEM equipment where issues must be investigated and addressed by a refrigeration service provider. Our equipment is typically serviced by commercial refrigeration or transport refrigeration service providers. In many cases, the same service provider that services Thermo King or Carrier Transicold reefer units or the coolers/freezers at your warehouse can service our system
- . 4. We cannot provide support for Thermo King or Carrier reefer units; these must be taken to your nearest Thermo King or Carrier Transicold service center.
- 5. It is always best to have a refrigeration technician investigate reported issues. However, more recent units (2016 or newer) are equipped with electronic controllers and user interface displays, which significantly improve troubleshooting capabilities and allow troubleshooting even without special tools and equipment right over the phone with our refrigeration service tech.
- 6. We cannot provide support for Liftgates; you must contact your liftgate manufacturer for their service center. The original manuals were also sent in the cab. There is a model and serial number badge on the liftgate for the service center. We do have a wiring diagram for how we connected the power to the truck; contact a Customer Service Agent for the diagram.













## **DRIVE AWAY WITH MORE**

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