

# SEATING, RESTRAINTS, HANDRAILS

## Overview

The seating in your Blue Bird All American bus is designed for your safety and comfort. The placement and installation of school bus passenger seats is governed by federal regulations. The bus seating meets or exceeds FMVSS222 School Bus Passenger Seating and Crash Protection.

**WARNING** Do not attempt to modify the location of the passenger seats in your Blue Bird All American without reading the FMVSS222 specifications.

## Driver's Seat

### Driver's Seat Adjustment

**WARNING** Do not attempt to adjust the driver's seat while vehicle is in motion. A sudden, unexpected adjustment to the driver's seat while vehicle is in motion could result in serious injury or death.

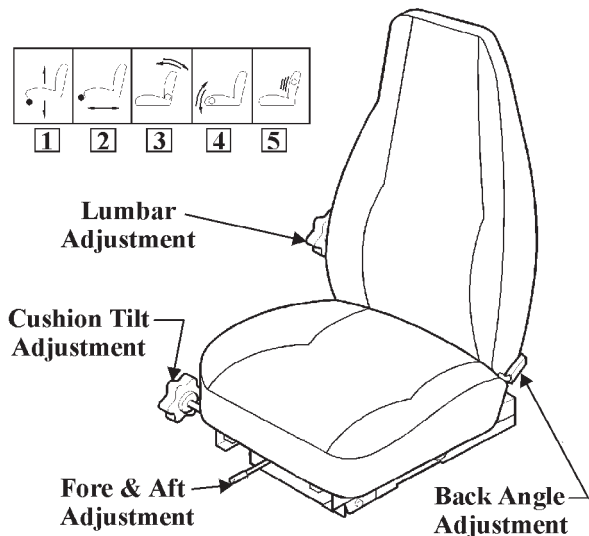
**Weight and Height Adjustment.** To adjust, push valve knob in to raise seat and pull out to lower seat. When properly adjusted, the seat should neither top nor bottom against the end limits of the vertical travel, under normal driving conditions. Adjustment position should also provide for driving visibility and vehicle control.

**Fore and Aft Adjustment.** Hold lever to the left to adjust seat position forward or backward.

**Back Angle Adjustment.** Lean forward slightly to remove pressure from seat back. Hold the handle rearward to adjust to any position within the seat's range.

**Cushion Tilt Adjustment.** Rotate seat tilt knob to decrease or to increase seat tilt.

**Lumbar Adjustment.** Rotate knob forward to increase or rearward to decrease the support in the lumbar area.



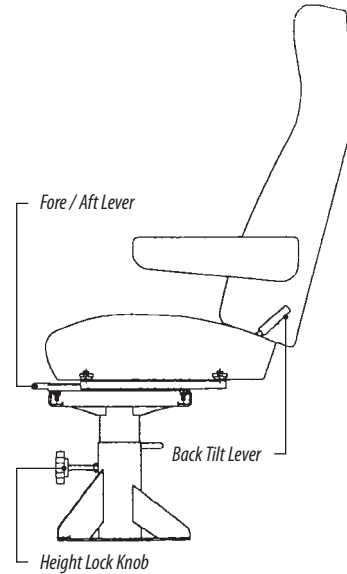
## Manually Operated Driver's Seat

### Manually Operated Driver's Seat Adjustment

**Fore and Aft Adjustment.** Hold lever to the left to adjust seat position forward or backward.

**Height Adjustment.** Loosen height lock knob in front. Lift height adjust handle on side. Slowly sit or stand to position seat at desired height. Release height adjust handle before applying full weight. Tighten handle in front. Fasten and adjust seat belt.

**Back Tilt Adjustment.** Lean forward slightly to remove pressure from seat back. Hold the handle rearward to adjust to any position within the seat's range.



### Driver's Seat Lubrication

**CAUTION** Lubricants can damage vinyl. Use caution around upholstery.

The moving parts of the driver's seat require occasional lubrication for ease of operation, and longevity of the seat. White lithium-based grease in an aerosol can is recommended. Motor oil 10W30 or 10W40 will provide adequate lubrication, although it may not be as easy to apply.

### Driver's Seat Removal

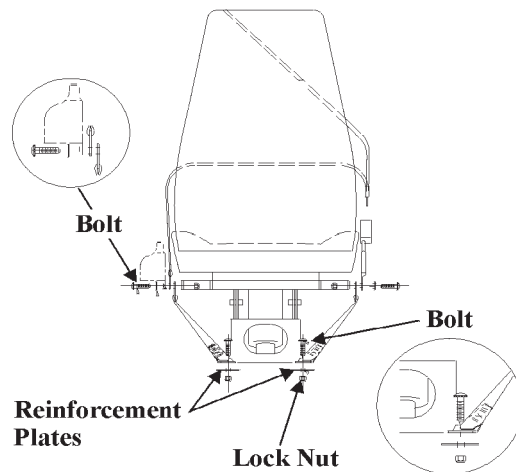
1. Remove two (2) bolts and washers from seat belt tether assembly, if equipped. See Figure 3—Driver's Seat Attachment Points.
2. Remove six (6) bolts from seat base mount and floor.

### Driver's Seat Reinstallation

1. Clean the six (6) bolts, removing dirt and grease.
2. Apply Loctite™ 242 Blue to five or six threads.
3. Install six (6) bolts and washers into the driver's seat mount.
4. Torque the six (6) bolts 15 to 20 foot-pounds.

### Driver's Seat Belt Tether Installation (Air Seat Only)

1. Install two (2) washers and two (2) bolts.
2. Hand-tighten two (2) bolts.



**CAUTION** If washers are not installed, belt will not function as designed.



## Seat Care and Cleaning Tips

**Dirt and Soil.** Most dirt and soil may be removed with soap and warm water solution. If a stain is persistent, a stiff bristle brush may be used. Fabric covered seats should be rinsed with clean water after stain is removed.

**Paint, Tar and Asphalt.** Paint, tar and asphalt stains may become permanent if not cleaned immediately. Remove stain immediately, using a damp cloth and kerosene. Rub the stain gently, using small strokes.

**Nail Polish and Lacquer-based Stains.** Immediately soak up as much as possible with a dry cloth. Any remaining stain may be removed with a non-flammable cleaning fluid, such as Tuff Stuff™ or Ar-morall™ cleanser. Rinse thoroughly with clean water.

**Gum, Grease and Shoe Polish.** Immediately remove as much as possible. Shoe polish can permanently stain, if left unattended for a long period. Clean any remaining stain with a Tuff Stuff™ or Armorall™ cleanser.

**Ink.** Immediately remove stain using a damp cloth and alcohol.

## Passenger DOT Seats

Blue Bird seats are built to meet Federal Motor Vehicle Safety Standards. School bus seats are equipped with a special foam back pad. When the pad is damaged, replace with an approved replacement part.

### Passenger DOT Seat Maintenance

- Inspect and retighten seat leg and wall side mounting bolts every 90 days.
- Inspect and retighten cushion attachments with a Phillips head screwdriver each week.
- Inspect upholstery for cuts and tears every 90 days. If torn, remove upholstery by removing the staples at the bottom front of seat back, or bottom of cushion.

**WARNING** *If seat cushions are removed for maintenance, they must be re-installed using the following instructions. Failure to comply with these instructions could result in injury from unattached seat cushions in the event of an accident.*

### Passenger DOT Seat Cushion Removal

1. Loosen (do not remove) the two front swivel type clamps at the front underside of the cushion, with a Phillips tip screwdriver.
2. Rotate the swivel clamps to clear the front retaining channel frame.

3. Lift the forward edge of seat cushion 2 to 3 inches and pull cushion forward to remove.

### Passenger DOT Seat Cushion Reinstallation

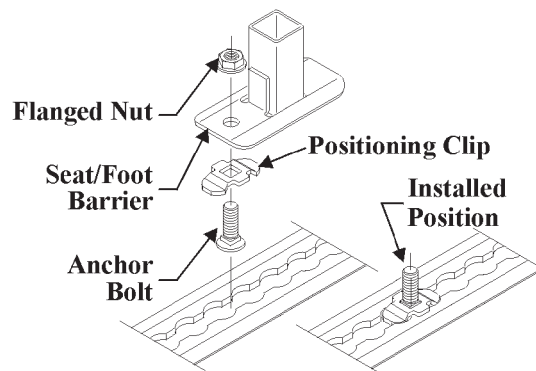
1. Place the rear edge of cushion down on the base portion of the seat frame, lifting the forward edge 2 to 3 inches.
2. Slide the cushion to the rear edge to engage the positive type clamp into the rear-retaining channel.
3. Lower the forward edge to the frame, making sure the swivel clamps are inside the frame and the positive type clamps are secure on the rear-retaining channel.
4. Rotate the swivel clamp to engage the forward retaining channel frame.
5. Tighten with a Phillips tip screwdriver until clamps no longer rotate.

### Track Mounted Passenger Seats

If your Blue Bird All American bus is equipped with track mounted passenger seats and you relocate a row of seats to accommodate wheelchairs, you must observe rules of spacing and placement. See FMVSS222 School Bus Passenger Seating and Crash Protection.

#### Track-Mounted Passenger Seat Removal

1. Remove flange nut from the anchor bolt at the seat/barrier foot.
2. Lift seat frame up and off of the anchor bolt.



#### Track-Mounted Passenger Seat Reinstallation

1. Set seat/barrier down on the anchor bolt and positioning clip.
2. Torque flange nut 34 to 37 foot-pounds.

## Seat Belts & Shoulder Harnesses

### Seat Belt Inspection and Maintenance

The seat belts, buckles and their attachments must be inspected weekly basis to ensure proper condition, security and operation. If necessary, lubricate seat belt buckles with a graphite lubricant. If a seat belt buckle is found inoperable, replace immediately. If there are any defects in the webbing of the seat belt (i.e., torn or frayed), replace before use. Hand-wash seat belt webbing with warm water and a mild soap. Rinse thoroughly and dry in shaded area.

**CAUTION** Do not bleach or re-dye the seat belt webbing. Such processing may severely weaken the belt.

### Driver's Seat Belt Operation

The driver's seat belt should be worn at all times when the vehicle is being driven. Blue Bird drivers' seat belts have automatic locking retractors and are self-adjusting. The seat belts also have an anti-cinch device to prevent the belt from tightening uncomfortably.

**WARNING** Be sure the lap belt is fitted snugly around the hips and not the waist. Failure to do so may increase the chance of injury in the event of a collision.

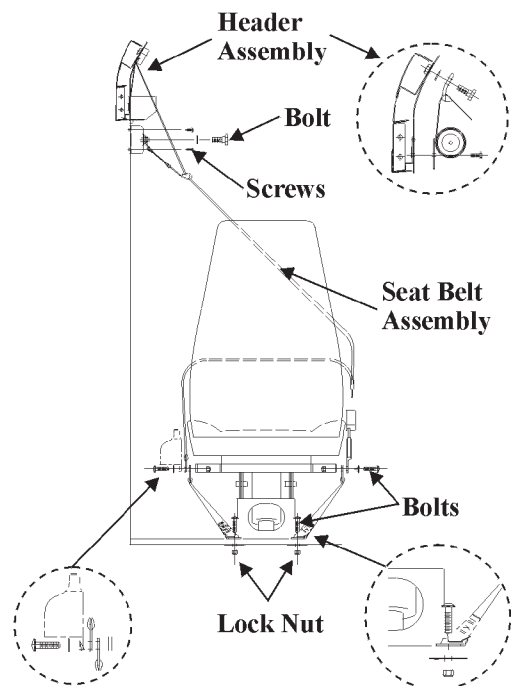
The driver's seat belt shoulder harness is an emergency locking belt. The harness may be either emergency locking or automatic locking, depending on the seat belt option chosen. The emergency locking retractor used for all shoulder harness, and specified lap belts, is dual sensitive, engaging when the vehicle tips 15 degrees or if the belt speed exceeds a preset rate.

Automatic locking retractors for specified lap belts are self-adjusting. Adjust the shoulder belt bracket upward for taller drivers downward for shorter drivers, or until maximum comfort is achieved.

To use, withdraw an ample length of seat belt from retractor(s) to allow engagement of buckle halves. Engage buckle halves and allow retractor to draw belt to a snub, comfortable fit. The seat can be released by pushing button in center of buckle.

### Driver's Seat Belt Removal

1. Remove one (1) capscrew and flat washer at seat belt retractor. See Figure 5—Driver's Seat Belt Attach Points.
2. Remove one (1) shoulder bolt and flat washer at the header assembly.
3. Remove two (2) screws at the header assembly.



4. Remove one (1) bolt from the mounting bracket. See Figure 5—Driver's Seat Belt Attach Points.
5. Remove two (2) bolts and washers from seat belt tether assembly. See Figure 5—Seat Belt Attach Points.
6. Remove one (1) lock nut, one (1) reinforcement plate and one (1) bolt from floor.

### Driver's Seat Belt Reinstallation

1. Clean bolt, removing dirt and grease.
2. Apply Loctite™ 242 Blue to five (5) or six (6) threads.
3. Install one (1) bolt, one (1) reinforcement plate, lock nut and washer into floor.
4. Torque nut on bolt 15 to 20 foot-pounds.
5. Install two (2) bolts and washers at the rear of the driver's seat. See Figure 5—Driver's Seat Belt Attach Points.
6. Install one (1) bolt at the mount bracket. See Figure 5—Driver's Seat Belt Attach Points.
7. Install one (1) flat washer and one (1) shoulder bolt at the header assembly.
8. Install one (1) capscrew and flat washer at seat belt retractor. See Figure 5—Driver's Seat Belt Attach Points.
9. Install two (2) screws at the header assembly.

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### Passenger Seat Belts

Individual lap belts for passengers are retractable or non-retractable, depending upon the option chosen. Insert the catch into the buckle, test for assurance of latch fit and pull loose end of strap until belt fits snugly across the lower hips, and not the waist.

**WARNING** *Be sure the lap belt is fitted snugly around the hips and not the waist. Failure to do so may increase the chance of injury in the event of a collision.*

The seat belt buckle can be released by pushing button in center of buckle. Turning the strap 90 degrees and pulling can move the adjustable end outward.



### **Passenger Seat Belt Removal**

1. Remove ten screws from seat belt cover on cross bar at the rear of seat on the aisle side and wall side.
2. Remove one flange head screw from rear frame under seat on the aisle side and wall side.

### **Passenger Seat Belt Installation**

1. Install one flange head screw to rear frame under seat on the aisle side and wall side.
2. Torque head screw 15 to 20 foot-pounds.
3. Install ten screws from seat belt cover on cross bar at the rear of seat on the aisle side and wall side. Screws are for the cover only, not the belt. Make sure they are in the plywood-tacking strip. Exposed screw points are not allowed inside back of seat.