

Leadership 51 & 53 Series Installation Instructions

For Use with the L51D, L51P, L53D and L53P B&D Seat Bases.



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B & D Independence Inc. Limited Warranty

B&D Independence Inc. (B&D) has one of the most comprehensive service warranties in the industry. The B&D warranty, outlined herein, covers its Transfer Seat Bases to be free from defects in material and workmanship for a period of **two years on parts and one year limited labor** from the date the product is placed in service in the original vehicle.

This Limited Warranty is effective when:

- The Transfer Seat Base has been installed in accordance with the B&D Installation Guidelines.
- A certified mobility dealer performs the installation.
- The Warranty Registration Card is filled out and on file at B&D.
- The Transfer Seat Base is placed in service within 6 months from date of manufacture.

The Warranty Registration Card must be completely filled out and in the possession of B&D within 30 days after installation. If the Warranty Registration Card is not returned to B&D, the warranty will revert to 1 year from the date the Transfer Seat Base shipped from our factory.

B&D will repair or replace, at B&D's option, any factory installed part that is found to be defective. This is the sole and exclusive customer remedy and shall be limited to such repair or replacement. Labor charges for the repair and/or replacement of warranty parts, will be reimbursed to the authorized B&D Dealer as per the B&D Limited Labor Reimbursement Schedule during the first year. Pre-authorization is required for labor charges prior to parts being sent.

Warranty Claims for parts must be submitted to B&D during the warranty period. B&D will not reimburse the cost of replacement parts, nor the labor, if the replacement parts are obtained from a source other than from B&D. The B&D Limited Warranty will not apply to defective parts or workmanship caused by misuse, abuse, modification, alteration, neglect, improper installation, operator error, or collision.

Warranty replacement parts will be sent from B&D to the servicing dealer via Fed-Ex Ground at no charge. If the servicing dealer requests an expedited shipping method, the servicing dealer will be billed for the difference between the expedited & ground shipping charges.

B&D Limited Warranty is NOT transferable and applies to the original purchaser only. This Limited Warranty excludes incidental or consequential damages, towing charges, rental vehicles, travel expenses, or any other expenses associated either directly or indirectly due to loss of use or defective parts covered under warranty. General maintenance and adjustments are not included in the B&D Limited Warranty. B&D will not be responsible for any damages due to use of its products.

The B&D Limited Warranty extends to our products that are installed in transportation vehicles only. Any other use of any of the products manufactured by B&D, other than as specified above, is not authorized by B&D and all warranties will be null and void. Entities that use and/or install a B&D transfer seat base in an unauthorized manner will do so at their own risk.

The above warranty states the entire liability of B&D with respect to the products it manufactures. There are no other warranties either expressed or implied. B&D reserves the right to make design changes to improve its products without obligation to update or retrofit existing products in service.

Dealer Warranty Claim/Replacement Parts Program

1. The following procedure applies to Warranty Parts needed for Transfer Seat Bases covered by the B&D Independence Limited Warranty.
2. B&D does not sell or ship parts to anyone other than an Authorized B&D Independence Sales & Service Dealerships.
3. Please have the Transfer Seat Base Serial Number, description of the problem and the parts required.
4. Obtain a Return Material Authorization (RMA) Number from B&D Independence.
5. Warranty replacement parts will be sent from B&D to the servicing dealer via Fed-Ex Ground at no charge. If expedited, shipping charges will be at the dealers expense.
6. B&D may require that the defective parts to be returned for credit.
7. When the defective part is ready for pickup, please call B&D and we will arrange for pickup and further instructions. Parts sent to B&D freight-collect or COD will be refused. Returned warranty parts that are unused may be subject to a 20% restocking fee.
8. IF DEFECTIVE PART IS NOT RETURNED TO B&D WITHIN 60 DAYS OF THE ORIGINAL INVOICE DATE, THE WARRANTY CLAIM WILL BE DEEMED ABANDONED AND NO CREDIT WILL BE ISSUED.

Precautions and Warnings

Throughout these installation instructions, you will find several safety precautions highlighted for easy identification. Please familiarize yourself with these symbols and be sure to read through each carefully.



L51 and L53 Sub Assembly Part Listing

Figure 1.1 is a sub assembly listing of Model L51 and L53. Note: PN 5140 & 5150 are not sold individually.

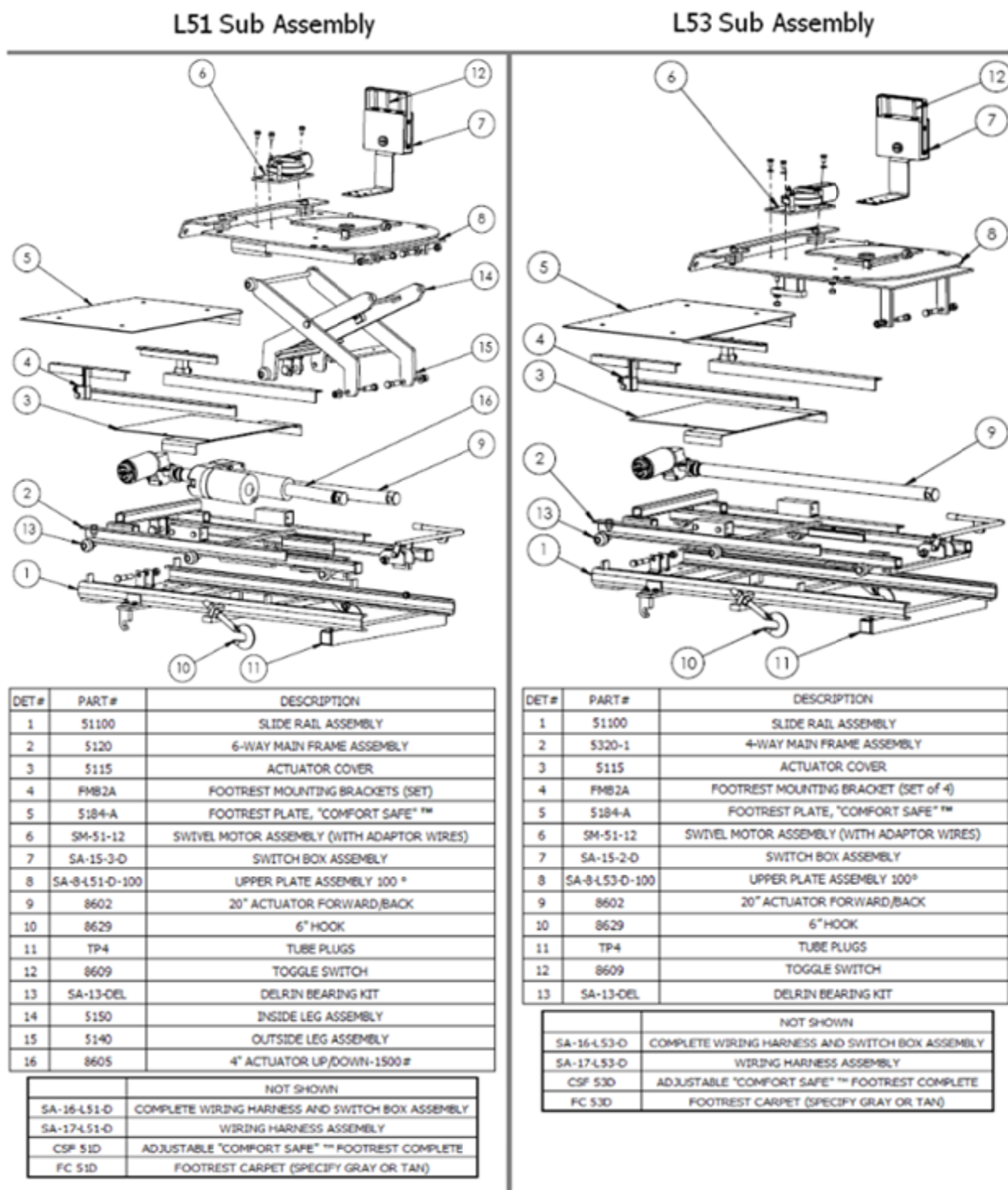


Figure 1.1

L51 Top Plate Assemblies

Figure 1.2 contains top plate diagrams for late model configurations of Chrysler, Toyota and Honda vans converted by Braun, VMI and Eldorado. Additional top plates are available.

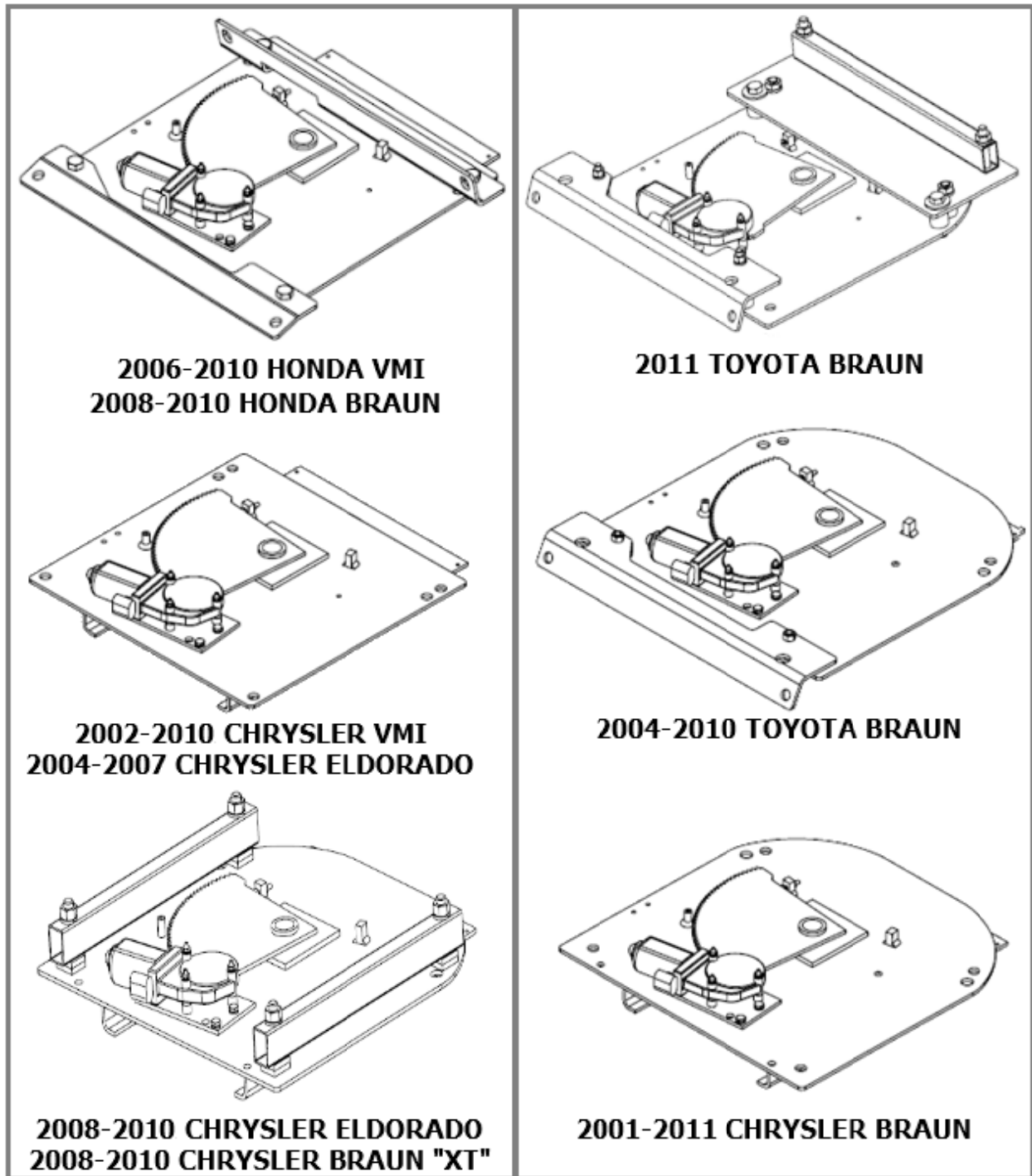


Figure 1.2

Installation Guide

1.) Prepare the Transfer Seat Base

Un-box the transfer seat base and, using two people, set the transfer seat base onto a work table.

2.) Attach Switch Box

Using the two ¼"-20 Hex Head Bolts (2) located on the B&D Top Plate, mount the switch box (1) to the underside of the Top Plate; rotate switch box to ensure cable loop is not kinked. The second set of mounting holes on the switch box bracket is to position the switch box closer to the seat if desired.

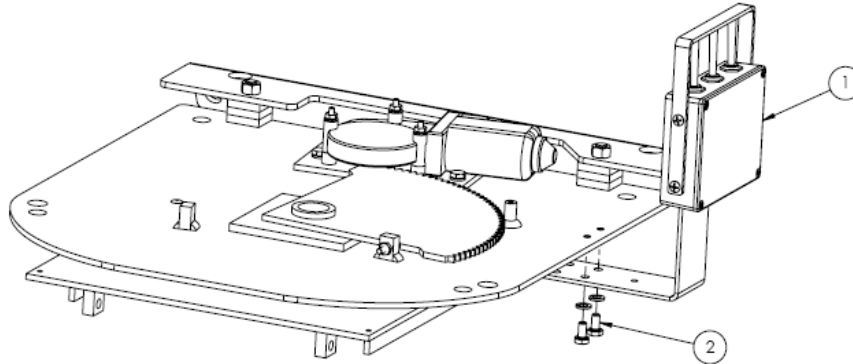


Figure 1.3

3.) Remove Seat & Pedestal from Van

Unplug the conversion company's wiring harness from the vehicle. Remove the original seat and the conversion company removable base from the vehicle.

4.) Remove Pedestal from Seat

Unbolt the factory seat and pedestal (if applicable) as 1 unit from the conversion company removable pedestal; keep the nuts.

5.) Mount Seat onto Transfer Seat Base

- a.) Transfer seat bases are designed to be used with the factory seats. If after-market seats are used, adjustments may be required in order to attach the seat to the base.
- b.) The "Additional Vehicle Tips" section located on page 9 of these instructions details any specific considerations necessary for mounting the seat onto the transfer seat base.
- c.) Do NOT completely tighten the seat to the transfer seat base until you have completed step 6.) Wiring Harness Installation.

6.) Wiring Harness Installation

- a.) It is recommended that the harness from the factory seat be routed between the factory seat pedestal and the transfer seat base top plate on the door side. Spacers (supplied by B&D) may be needed to gain sufficient clearance for the wire.
- b.) If possible, route and secure the wiring harness from the factory seat in such a manner that the wires are not stretched or pulled throughout the entire range of motion.
- c.) If extensions are necessary, it is recommended to contact the conversion company. B&D Independence does not manufacture or supply wiring harness extensions.
- d.) B&D recommends reconnecting every wire going to the factory seat. Failure to do so may cause the vehicle safety systems to not operate properly and warning lights will remain lighted on the dash.



- e.) ½" tall spacer blocks provided with the L51 and L53 series seat base allow clearance between the factory seat, swivel gear, and the wiring harness. Remove these spacer blocks if not necessary.

7.) Install Transfer Seat Base & Seat into Vehicle (SEE: Figure 1.4)

- a.) Set the B&D base, with the factory seat attached, into the vehicle using Figure 1.4 as a guide for orientation.
- b.) Unbolt the 6" hooks ① from the Hook Mounting Brackets located on the slide rails. Please note that the hooks are installed upside down for shipping purposes only.
- c.) Hooks are not required (or supplied) for bases designed to bolt to the floor. If installing a bolt-in transfer seat base, see the bolt-in section of the "Additional Vehicle Tips" located on page 9 for further installation help.
- d.) Bolt the 6" hooks ① in the Hook Mounting Brackets as follows:
 - i.) The threads of the hook should point upward and forward at about a 60° angle.
 - ii.) The hook rests on top of the dogbone with the "stub" end of the hook below the dogbone ②. Note that the rear of the base may need to be lifted slightly to allow the threads to go through the hole.
 - iii.) Verify the front dogbone hook is located tight against the front dogbone ③.
 - iv.) Hand tighten the top nut ④ until it touches the top surface of the Hook Mounting Bracket. Tighten one additional full turn only with a wrench. Caution: be sure the bottom nut ⑤ is not making contact with the Hook Mounting Bracket when tightening the top nut.
 - v.) Tighten the bottom nut ⑤ up against the back side of the Hook Mounting Bracket.

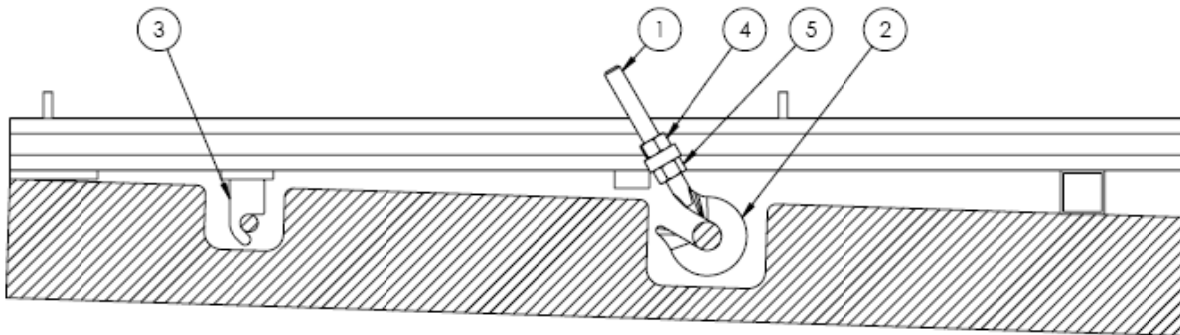
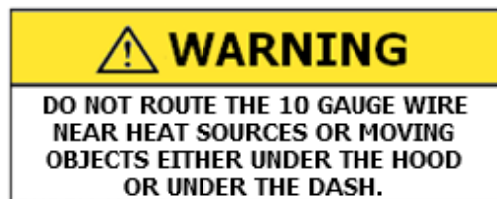


Figure 1.4

8.) Apply Power and Ground to Transfer Seat Base

- a.) In the vehicle engine compartment, attach the ring terminal of the Power Supply Wiring Harness Assembly to the battery terminal. Route and secure the red 10 gauge wire with the fuse holder to the vehicle chassis.



- b.) In the vehicle engine compartment, locate a wiring grommet on the firewall that leads behind the dash. Insert the end of the red 10 gauge wire (without a wiring terminal) through the grommet behind the dash.
- c.) Route the red 10 gauge wire from behind the dash to the front of the Power Transfer Seat Base.
- d.) Crimp the yellow insulated female spade connector (provided) to the end of the red 10 gauge wire.
- e.) Connect the red 10 gauge wire to the wire at the front of the Power Transfer Seat Base. If possible, cover the red 10 gauge wire from under the dash to the base with convoluted tubing, and make sure wire is routed out of the way of feet.
- f.) The black 18 gauge ground wire is located at the front of the slide rails. Attach the ring terminal to chassis ground using any existing screw installed into the chassis.
- g.) The Power Transfer Seat Base is ready to operate at this time.

9.) Check Fit & Function of Seat & Seat Base over all Ranges of Motion

Run the Transfer Seat Base through its entire range of motion, verifying that the factory seat travels freely and that the wiring harness does not catch on anything.

10.) Adjust the Swivel Gear Stop (SEE: Figure 1.5)

- a.) The Adjustable Swivel Gear Stop is pre-set so that the OEM seat is positioned squarely with the dash.
- b.) If you want the seat angled with respect to the dash, you will need to re-set the swivel gear stop; loosen the jam nut **1** on the #10-32 flat-head cap screw **2**, unthread the screw until the desired angle is attained, and tighten the jam nut to secure.

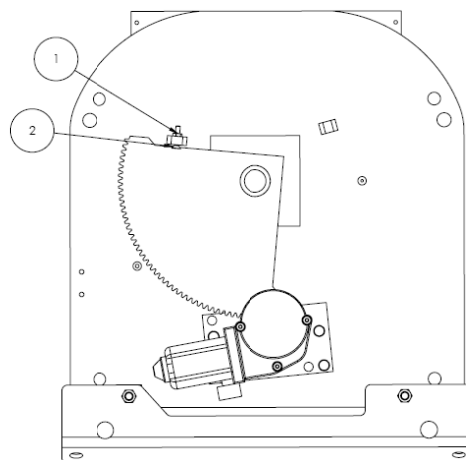


Figure 1.5

11.) Adjust the Footrest –Horizontal (SEE: Figure 1.6)

The Adjustable Comfort Safe Footrest™ comes attached to the seat base, ready for vertical and horizontal adjustment.

- a.) Run the Transfer Seat Base to the full forward position.
- b.) Detach the actuator cover.
- c.) Loosen all four 1/4" – 20 UNC Hex Head Bolts **1**.
- d.) Slide footrest angles all the way forward until they contact the firewall.
- e.) Tighten all four 1/4" – 20 UNC Hex Head Bolts **1**.

12.) Adjust the Footrest – Vertical (SEE: Figure 1.6)

- a.) Loosen all four 1/4" – 20 UNC Hex Head Bolts on the vertical adjustment bar **2**.
- b.) Adjust the footrest to a comfortable level for the customer and verify with the customer.
- c.) Mark and cut the vertical adjustment angles **4** so the bottom of the angle hangs only 1/2" below the bottom of the tube **3**.
- d.) Remove the footrest plate assembly.
- e.) Carpet the actuator cover and reinstall on the main frame. Please note that improper installation of the cover can result in contact with the Center Plate Assembly.
- f.) Carpet the footrest plate and reinstall; tighten the 1/4" – 20 UNC HHB **2**.
- g.) Install ABS Seat Base Covers (if applicable) using instructions that are included with the covers.

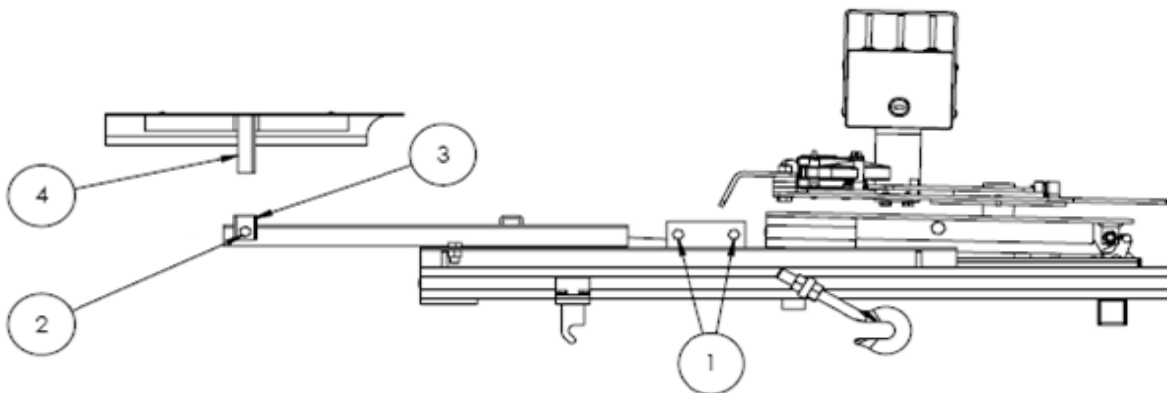


Figure 1.6

13.) Final Installation Check

A final check of the entire transfer seat base, wiring, factory seat, and anything else concerning or involving the transfer seat base, should be done to ensure safe, trouble-free operation. Some suggested items to check (but not limited to) are: exposed wiring and-or wiring connections, factory seat wiring harness extension does not get snagged or caught through entire range of motion, any exposed edges or surfaces that are sharp or rough, installation bolts are tight, all warning lights are OFF on the dash, and all functions of the factory seat work correctly.

Additional Vehicle Tips

Honda Mini Van:

- a.) The below items are the same for both the Honda VMI & Braun conversions.
- b.) Mounting the Honda factory seat onto the transfer seat base:
 - i.) Do not disassemble the Honda seat, sliders, pedestal and floor mounts. The B&D angle brackets are designed to be used with the floor mounting holes on the bottom of the pedestal.
 - ii.) Use the supplied nuts and bolts from B&D Independence.
 - iii.) Loosely install all 8 bolts holding the seat mounting brackets and OEM seat first; tighten all at the same time.
- c.) VMI has a harness extension available if necessary.
- d.) The passenger seat has a flip-up center tray; remove for passenger applications. Simply remove cover, un-bolt tray, re-install cover, trim cover as necessary, cover hole as desired.

Chrysler Mini Van:

Mounting the Chrysler factory seat onto the transfer seat base:

- i.) Keeping the ½" spacer block between the passenger manual pedestal and the top plate will allow the customer to retain the glove box under the seat.
- ii.) Re-use the nuts and bolts supplied with the factory seat.
- iii.) On manual seats, the pedestal cross-brace may need trimming in order to allow clearance for the swivel gear.

Toyota Mini Van

- a.) The earlier IMS conversion and the Braun conversion of the Toyota mini vans are the same for years 2004 through 2010.
- b.) Mounting the Toyota factory seat onto the transfer seat base:
 - i.) The vertical flange on the 2 rear seat mounting brackets need to be cut off flush with the bottom of the bracket.
 - ii.) Re-use the nuts and bolts supplied with the factory seat.
 - iii.) If the customer wishes to sit higher in the full-down position, install spacer blocks on top of the top plate assembly.
- c.) 2011 Toyota Minivan's require the new TCB-2 seat base models; there are a total of nine brackets to attach to the seat.

GM Mini Van:

- a.) Mounting the GM factory seat onto the transfer seat base:
 - i.) Utilize the supplied series of spacer blocks and tubes on top of the transfer seat base to achieve the correct, original height of the OEM seat.
 - ii.) Use the supplied nuts and bolts from B&D Independence.
- b.) Some GM vehicles have the location of the "B" pillar harness extension plug-in directly in-line with the transfer seat base horizontal travel. In this situation, the plug-in will need to be re-located or re-positioned to be out of the way.

Windstar/Freestar Mini Van:

Mounting the Ford factory seat onto the transfer seat base:

- i.) Do not attempt to remove the manual pedestal. This is due to the OEM Seat Position Sensor located on the slide tracks.
- ii.) Re-use the nuts and bolts supplied with the factory seat.

Bolt-In Transfer Seat Bases: Follow steps a through c before drilling.

- a.) Check the underside of the vehicle floor at each corner of the slide rails, for wiring harness, fuel lines, brake lines, frame members, A/C and heater hoses, as this is where the mounting holes will be drilled.
- b.) Apply temporary power and ground to the seat base. Run the seat base through its range of

motion to verify the seat will clear all obstacles through the seat base's range of motion. Note that the seat may require its manual sliders be adjusted to their mid-range for the seat to clear the vehicle side wall.

- c.) It is recommended to have the customer get into the transfer seat base and verify that the driving seat position is acceptable.
- d.) Bolt-In Econoline: Transfer Seat Base can be positioned at an angle on the floor; adjust swivel gear stop accordingly.

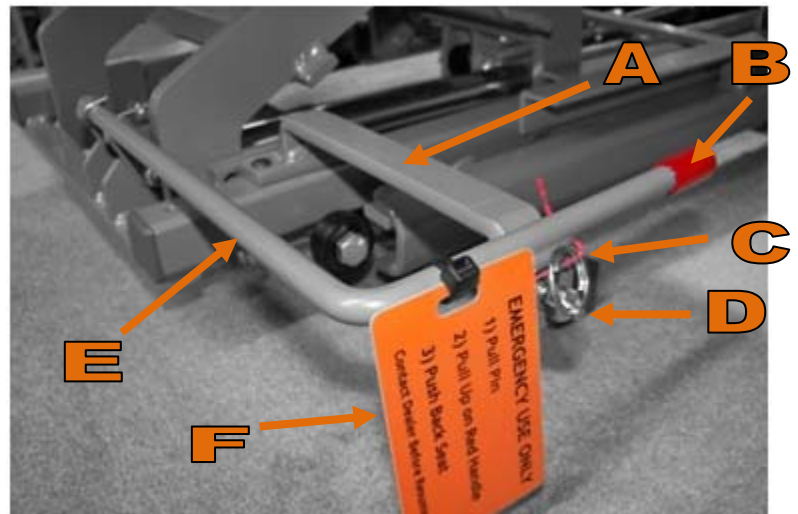
Norcal and Tuscany Econoline:

- a.) The Norcal and Tuscany seat bases will fit the 4," 6," and 9" dropped floor vehicles.
- b.) Mounting the Econoline factory seat onto the transfer seat base:
 - i.) Remove the factory pedestal and bolt the seat directly to the transfer seat base.
 - ii.) Re-use the ½" nuts and bolts supplied with the factory seat.

L51-L53 Instructions to Re-Engage Latch Release Mechanism

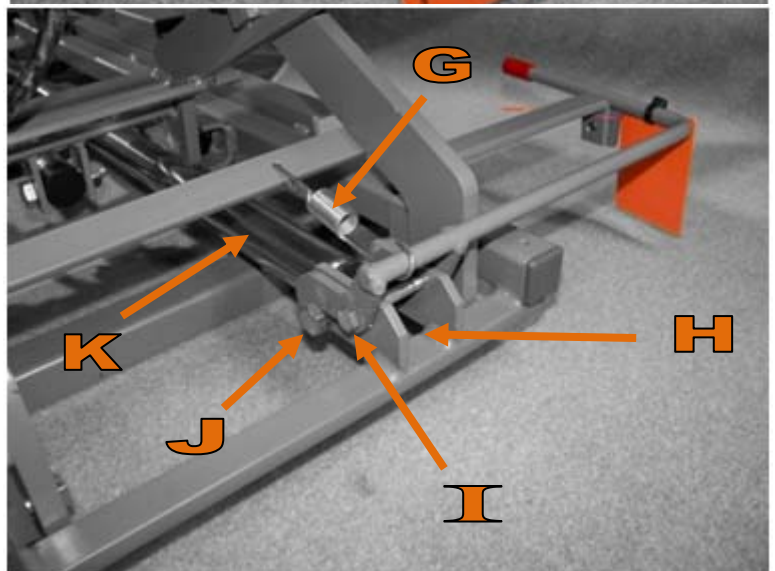
Latch Release Mechanism Components:

- A. Mounting bracket for spring-loaded pull-pin
- B. Red rubber end cap
- C. Red safety tie
- D. Spring-loaded pull-pin
- E. Release handle & latching jaw assembly
- F. Orange instruction tag
- G. Tension spring
- H. Receiver (part of the Main Frame)
- I. Pivot bolt
- J. Latch bolt
- K. Actuator extension tube



Assumed Starting Position to Re-Engage the Mechanism:

- 1) Transfer seat base pushed all the way rearward in the slide rails
- 2) Stainless steel extension tube dropped down and rotated to about a 45° angle
- 3) Release handle lowered down
- 4) Spring-loaded pull-pin not engaged into the release handle
- 5) Transfer seat base in the full-down position (and point straight forward)
- 6) Seat Base Covers can stay on.



Re-Engage Procedure

- 1) Re-establish power to the transfer seat base
- 2) If possible, recline the factory seat all the way back to provide ample working space (not necessary on L53's).
- 3) Run the transfer seat base to its full-up position (if applicable)
- 4) Thread the horizontal travel actuator by hand until it is all the way forward.
- 5) By hand, unscrew the stainless steel extension tube of the actuator about 5".
- 6) Rotate the actuator tube so that the bolt head is located towards the right side of the seat base (both driver and passenger versions) and the bolt is oriented level with the ground; this is the orientation the bolt has to be or it will obstruct movement in the seat base.

- 7) From the center of the van, push the transfer seat base and factory seat forward in the slide rails until the rear two captive bearings (on the main frame) are within 2" of the rear of the slide rails.
- 8) Visually check to make sure the extension tube and latch bolt are lined-up with the receiver.
- 9) Push the transfer seat base forward in the slide rails until the latch bolt engages into the receiver. The latch bolt will automatically push upward on the front of the latching jaw assembly, and then push past the jaws and into the receiver. It may be necessary to reach in and lift up on the extension tube to get it to line-up with the receiver. See Figure 1.7 and 1.8 for further reference.
- 10) When it appears that the latch bolt is seated completely rearward into the receiver, pull and hold on the ring on the spring-loaded pull-pin to retract its plunger.
- 11) Lower the release handle to the full down position; release the pull ring; the plunger should automatically re-engage into its corresponding hole on the release handle.
- 12) Run the transfer seat base back and forth through its entire horizontal travel to ensure proper operations; the release handle should not try to re-open at any time.
- 13) Install a new red plastic beaded security tie.



Figure 1.7



Figure 1.8

Procedure to Re-Adjust Leg Bolts to Their Correct Tightness

Your B&D Independence transfer seat base is pre-adjusted at our factory. While unlikely, during the final check, you may find the outside and inside legs providing too much or too little resistance. Below are easy steps to re-calibrate the leg bolts for optimal effectiveness.

- a.) Tools required: 2 Box-End 9/16" wrenches.
- b.) Run base to the full-up position.
- c.) Steps #4 through #8 are repeated for each of the six leg bolts (See Figure 1.9).
- d.) Loosen the locknut one full turn.
- e.) Loosen the bolt enough to see clearance between the bottom of the head of the bolt and the leg. Tighten the bolt until snug (not tight.)
- f.) Loosen (back-off) the bolt 1/8 of a turn. The bolt is now adjusted to the correct tightness.
- g.) Prevent bolt head from rotating using 1 box-end wrench while tightening the locknut with the other box-end wrench.

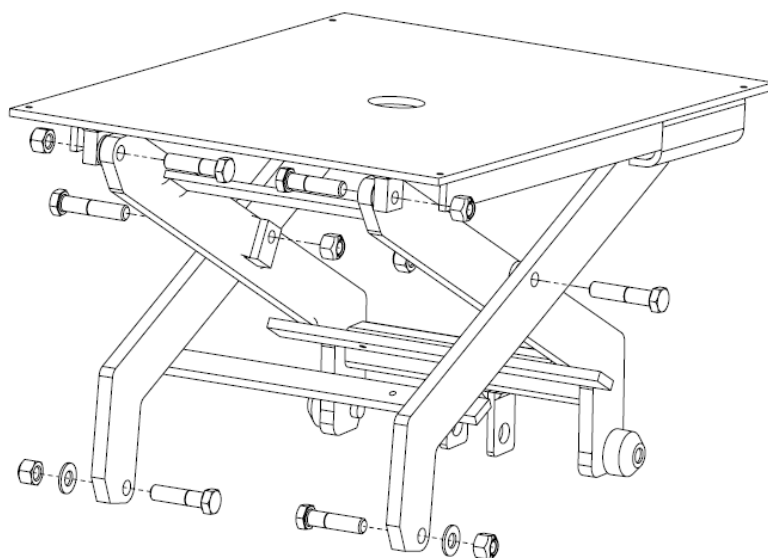


Figure 1.9