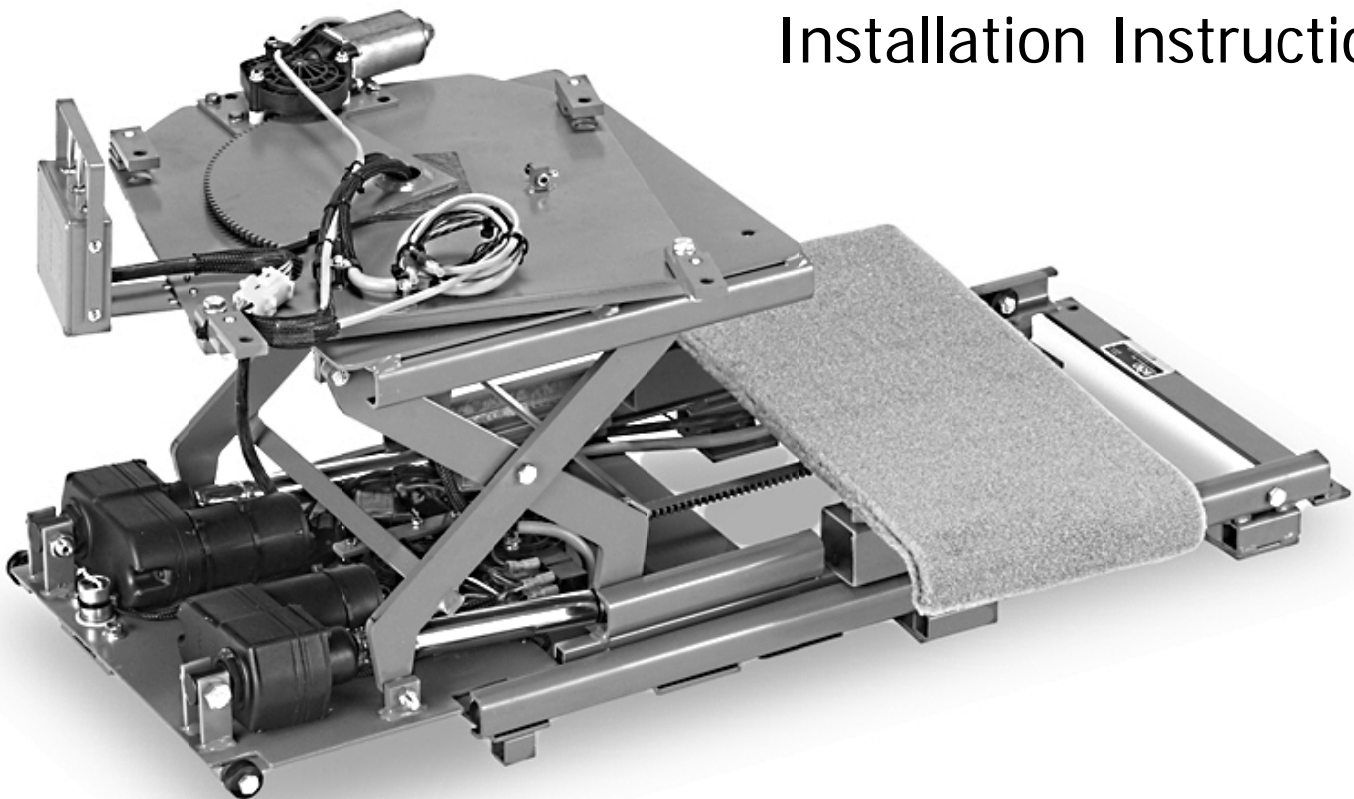


Leadership 41 Series Installation Instructions



For Use with the L41D-EFP-1, L41D-EM-1, L41D-GMC-1, and L41D-GEN-1



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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.



L41 Sub Assembly Part Listing

Figure 1.1 is a sub assembly listing of Model L41. Note: PN 4160 & 4150 are not sold individually.

| DET # | PART # | DESCRIPTION |
|-------|---------------|------------------------------|
| 1 | 4101 | ECONOLINE SLIDE RAIL |
| | 4113 | DODGE RAM SLIDE RAIL |
| | 4119 | GM SLIDE RAIL |
| 2 | 4130 | BOTTOM PLATE ASSEMBLY |
| 3 | SA-19-L41 | SOLENOID KIT |
| 4 | 8604 | 6" STROKE ACTUATOR |
| 5 | DSM-L41 | DUAL SLIDE MOTOR ASSEMBLY |
| 6 | 4160 | OUTSIDE LEG ASSEMBLY |
| 7 | 4150 | INSIDE LEG ASSEMBLY |
| 8 | SM-L41-12 | SWIVEL MOTOR ASSEMBLY |
| 9 | SA-8-L41-ECON | ECONOLINE TOP PLATE ASSEMBLY |
| | SA-8-L41-GMC | GM TOP PLATE ASSEMBLY |
| 10 | SA-13-DEL | DELTRIN BEARING KIT |
| 11 | 4144 | SLIDE GEAR BAR |
| 12 | SA-4195-ECON | ECONOLINE FOOTREST |
| | SA-4195-C | GM FOOTREST |

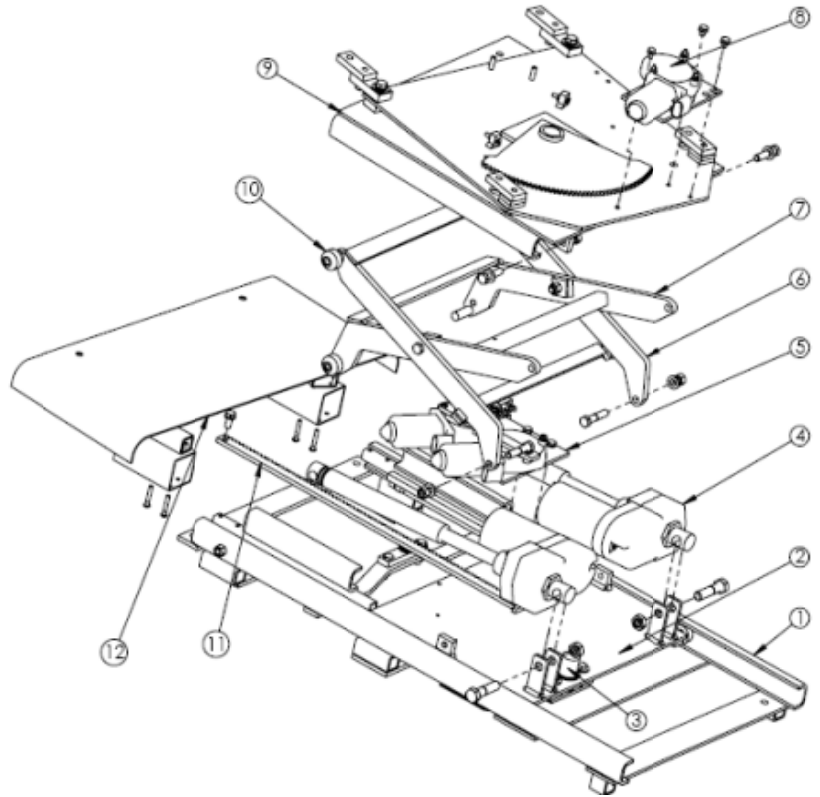


Figure 1.1

L41 Top Plate Assemblies

Figure 1.2 contains a diagram of the top plate assemblies for the three variations of models; each has unique bracket placement that can assist in identification of the seat base.

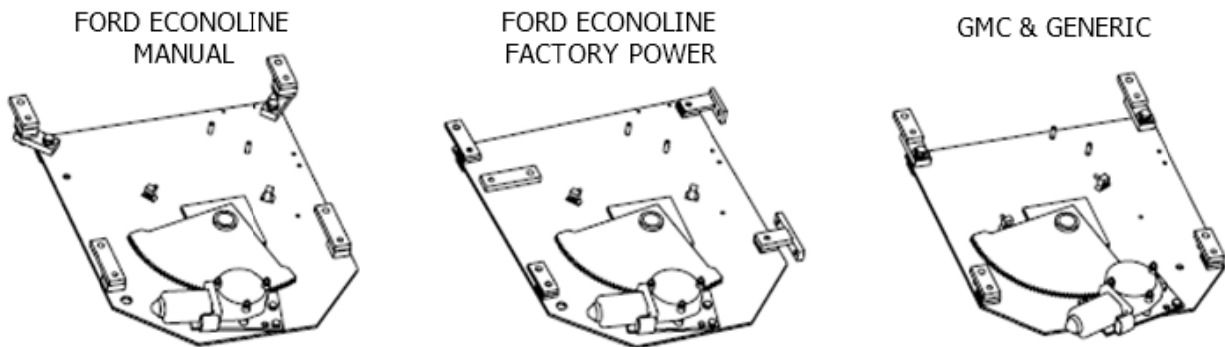


Figure 1.2

Installation Guide

1.) Prepare the Transfer Seat Base

- a.) The Model L41 has the B&D Leadership "Direct-Mount" Signature Feature on all Ford Econoline and GM applications. On these vehicles no measurements are required prior to removing the OEM seat & pedestal from vehicle and no drilling is necessary. Dodge and some older vehicles may not mount through the OEM mounting holes and thus require drilling through the floor. See "A Note on the L41D-GEN-1" on the last page of this document if this applies to your vehicle.
- b.) Locate the transfer seat base on work table. If applicable, remove the optional footrest plate assembly from the box and set aside; it will be installed as one of the last steps. Leave the switch box assembly attached to the top plate with the plastic tie wraps at this time.

2.) Attach the Switch Box

Econoline Manual, GMC, and Generic: Remove the Switch Box Assembly from the top plate. Attach the 90° Switch Box Mounting Bracket (#1 in Figure 1.3) to the underside of the top plate using the 2 ¼"-20 Hex Head Bolts (#2 in Figure 1.3). Check the wire harness to ensure it does not contact the swivel gear.

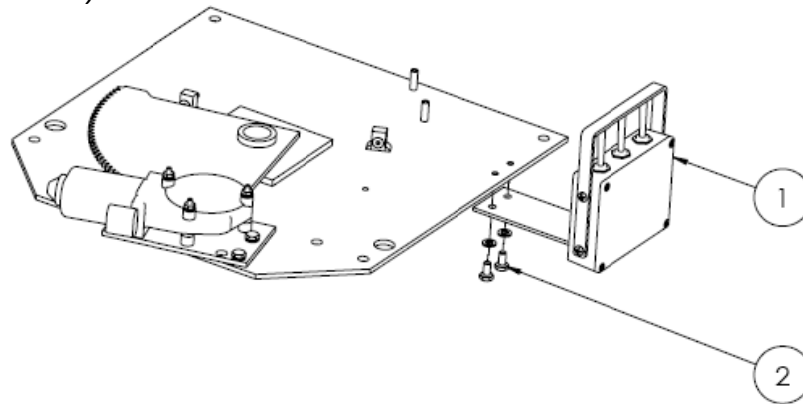


Figure 1.3

Econoline Factory Power: Remove the Switch Box Assembly from the top plate. Discard the nut & lock washer used to attach it. (Skip to the next page and perform steps #4 through #7; then, continue here). Attach the 90° Switch Box Mounting Bracket to the right vertical flange of the factory power seat mechanism using the 2 remaining M10 bolts on the right vertical flange; these 2 remaining bolts hold an OEM drive screw guide to the vertical flange. Attach the 90° Switch Box Mounting Bracket to the outside of the vertical flange by re-installing the 2 removed M10 bolts. When tightening the two M10 bolts, be sure to push up on the OEM drive screw guide so the bottom of the OEM drive screw guide is flush with the bottom of the vertical flange. Use Figure 1.4 as a visual reference. Check the wire harness to ensure it does not contact the swivel gear.



Figure 1.4

3.) Measure the OEM Seat Original Position (if other than "Direct Mount")

Generic: Prior to removing the seat and pedestal from the vehicle, position the seat in its full-back full-down position. Bring the seatback to the full-upright position. Measurements have to be taken from the seat to the dash and the seat to the side wall of the vehicle.

4.) Remove Seat & Pedestal from Van

Remove the factory seat & pedestal from the vehicle.

Econoline: Remove the 2 front-seat rear studs threaded into the floor. These studs will not be re-used.



5.) Remove Pedestal from Seat

Econoline Manual, GMC and Generic: Remove factory seat from factory pedestal. The pedestal will not be re-used. Keep the nuts.

Econoline Power: Only the 2 nuts on the left side will be re-used.

6.) Ensure Seat Clears Seat Base Through all Ranges of Motion of Seat & Base

Place the OEM seat onto the transfer seat base; check clearance of the plastic seat panels. Make sure plastic seat panel clears the Center Plate Assembly through all the ranges of motion. If seat is factory power, apply temporary power and ground to run the OEM seat through all of its ranges of motion, and verify that no piece of any plastic panel hangs down beyond the top surface of the center plate. Once verified, disconnect the temporary power and ground.

7.) Mount Seat onto Transfer Seat Base

Econoline Power: Apply temporary power & ground to OEM seat. Run OEM seat all the way 'down'. Disconnect power & ground. Attach with supplied hardware on right side, and OEM nuts for seat studs on left side. Left rear nut may require loosening the left rear seat mounting bar to get the nut positioned in the correct location. When tightened, there is enough room for the nut to be located. Verify the transmission housing on the front left corner has its 'nubbet' positioned in the hole on the mounting bracket that is bolted to the top plate. Go back to step #2 to resume attaching switch box assembly.

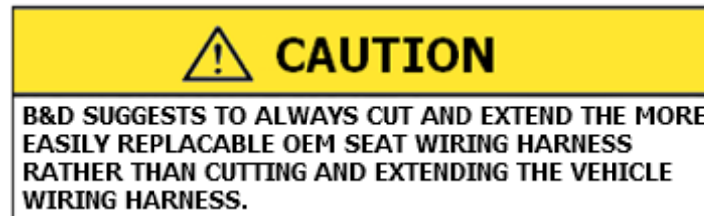
GMC and Econoline Manual: Secure using the OEM nuts. Set the front 2 seat studs into the front seat mounting bars first; loosely install the OEM nuts. Set the rear 2 studs into the rear seat mounting bars.

Generic: Set the rear 2 seat studs into the rear seat mounting bar first; loosely install the OEM nuts. Set the front 2 studs into the front seat mounting bars. Apply power and ground to the transfer seat base at this time. Run the transfer seat base rearward all the way. Disconnect power and ground.

8.) Install OEM Harness Extension

a.) B & D Independence has provided an OEM harness extension on this transfer seat base model. It is a bundle of 12 wires that are 18 Ga. in size; these are to be used to extend the signal wires to and from the seat. These 12 wires are numbered 1 through 11, and a single yellow/green wire, to make the 12 wire bundle. There maybe more wires here than necessary.

b.) The power & ground wires for the OEM seat will be provided from the B&D seat base harness. These wires are color coded white (+) 16 Ga black (-) 16 Ga, and originate from the B&D white 9-pin connector.



d.) Page 10 of these instructions is a Harness Extension Chart to keep track of what wire colors are extended by what number wires.

e.) *Econoline Power:* Apply temporary power & ground to the OEM seat. Run the OEM seat all the way down and rearward. Using Figure 1.5 and 1.6, attach the 18/12 wire harness and the power & ground harness to the round torsion bar at the front of the OEM seat. Route the harnesses as shown, and attach as

shown. By installing the harnesses at this location, all of the forward & rearward motion of the OEM seat will be taken up by wire harnesses that do not have any wire connections/splices.

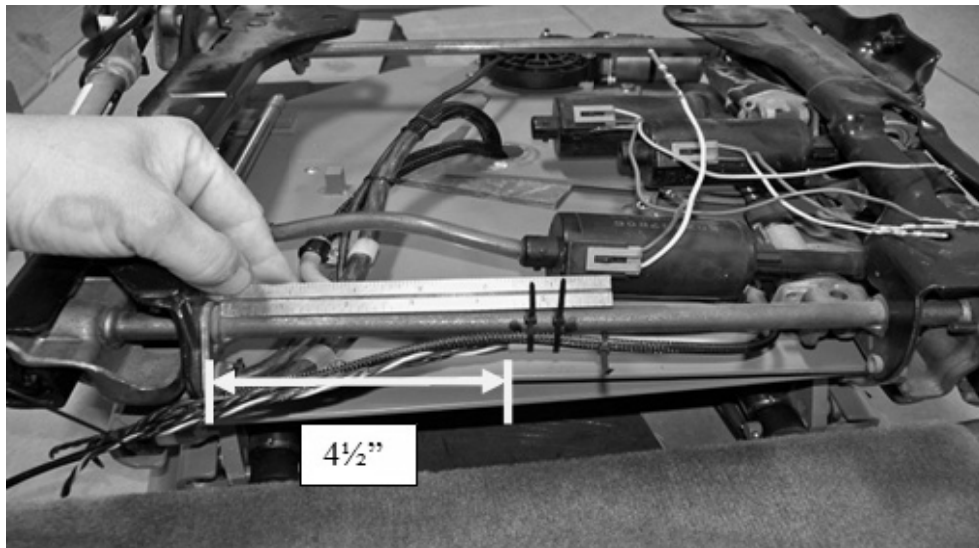


Figure 1.5

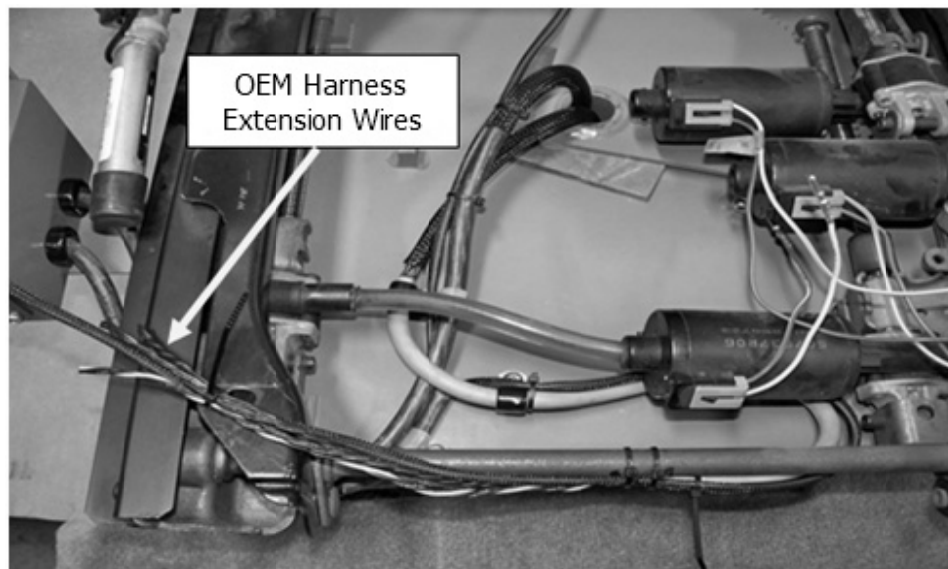
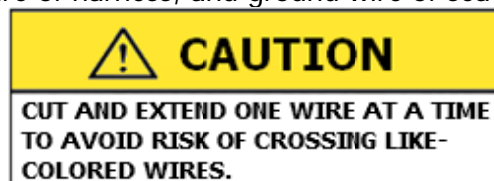


Figure 1.6

- f.) On OEM factory power seat wiring harnesses, cut power & ground wires 5" back from the electrical plug. Tape off the 5" ends to prevent electrical shorts. On the remaining harness on the seat, connect power wire of seat to white 16 Ga wire of harness, and ground wire of seat to black 16 Ga wire of harness.



- h.) Another **suggestion** is to install female push-on wire terminals on 1 end of the harness extension wires, and male push-on wire terminals on the other end of the harness extension wires; then, if the seat base is removed in the future, the OEM wires will have the correct wire terminals on them to be able to re-connect the OEM seat harness back together without re-wiring.
- i.) On the OEM seat wiring harness, cut all of the signal wires (the smaller 18-22 Ga. wires) but STAGGER the cuts by about 1 1/4" on each of the wires to prevent all of the wire terminals from being located at 1 large clump. Use the provided chart on page 10 to keep track of the wire extension numbers.
- j.) Install the appropriate wire terminals to the 2 sections of the cut seat harness.
- k.) Loop & secure the harness with its extension up to the underside of the OEM seat; do not allow it to hang down and interfere with the B&D harnesses.

9.) Install Seat & Base into Vehicle

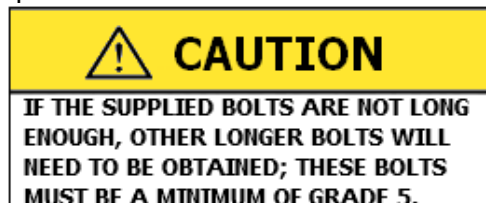
- a.) Remove all vehicle seats between the "B" & "C"-pillars. Remove any floor mounting brackets as well.
- b.) Using 2 people, set B & D Power Seat Base and factory power seat, as 1 unit, in vehicle. Line-up the 4 holes in the slide rails with the 4 floor mounting holes for the front seat. Bolts will be installed in step i.) and j.).
- c.) Disconnect power at the battery.
- d.) Re-connect the seat harness plug to the vehicle harness socket. Fasten the seat belt to the seat.
- e.) Re-connect power at the battery.
- f.) With the wiring harness extended, and the OEM seat electrical harness re-connected to the vehicle harness, turn the ignition key and start the engine.



- g.) Turn engine off.
- h.) Troubleshoot & correct any issues that are causing any dash warning lights to be illuminated.
- i.) *Ford Factory Power and Manual Only:* Use the provided M10 & M12 grade 10.9 bolts, and washers, to install the slide rails to the floor.
- j.) *GMC Only:* Check between all 4 floor mounts on the slide rails and the floor to make sure there are not any gaps. Place washers between floor mounts and floor to eliminate these gaps. Install all 4 nuts and tighten base to the floor.

The Following Steps are for the L41D Generic Only

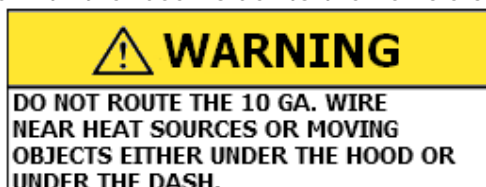
- k.) Verify the seat is positioned the same way as it was when the measurements were taken when the seat was in its full-back full-down position.
- l.) Position the seat and seat base on the vehicle floor to match these measurements.
- m.) Place two ¼" spacers between the floor and the slide rails at each corner.
- n.) 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.
- o.) 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 here that the seat may have to have its manual sliders adjusted to their mid-range for the seat to clear the vehicle side wall.
- p.) At this point, it is usually recommended to have the customer get into the transfer seat base and verify that the driving seat position is acceptable to them. And then verify the transferring position is OK also. Doing these items now will prevent having to drill multiple sets of holes in the floor.
- q.) Once the location of the seat base and seat is approved, drill four 3/8" holes through the floor. Make sure the two ¼" spacers are still present between the slide rails and the floor.
- r.) Use the provided "Bolt Kit" components to bolt the base to the floor.



- m.) Tighten bolts.

10.) Apply Power & Ground to Transfer Seat Base

- a.) B&D always recommends using the provided 40Amp fuse & holder connected directly to the battery.
- b.) In the vehicle engine compartment, remove "+" battery cable from battery. Attach the ring terminal of the Power Supply Wiring Harness Assembly to the battery terminal and re-install "+" battery cable. Route and secure the red 10 Ga. wire with the fuse holder to the vehicle chassis.



- c.) In the vehicle engine compartment, locate a wiring grommet on the firewall that leads to behind the dash. Insert the end of the red 10 Ga. wire (without a wiring terminal), of the supplied Power Supply Wiring Harness Assembly, through the grommet to behind the dash.
- d.) Route the red 10 Ga. wire from behind the dash to the driver side of the vehicle, and across to the left-rear floor mounting bolt on the slide rails. Crimp on the provided yellow female insulated push-on wire terminal to the red 10 Ga. wire. May want to cover any exposed red 10 Ga. wire from under the dash to the transfer seat base with convoluted tubing, and make sure wire is routed out of the way of feet.
- e.) Locate the 18" long Ground Strap next to where the red 10 Ga. power wire attaches to the transfer seat base. Attach this ground strap to chassis ground.
- f.) The Transfer Seat Base is ready to operate at this time.

11.) Check Fit & Function of Seat & Seat Base in Vehicle over all Ranges of Motion

Run the transfer seat base through its entire ranges of motion; checking for clearance and ensuring the B&D harnesses do not snag or move into the way of the OEM harness extensions. Finish by running the transfer seat base in the full-forward, full-down, and swiveled to face straight forward. Run the OEM seat through its entire ranges of motion to ensure nothing gets snagged or pulled.

12.) Adjust the Swivel Gear Stops

- a.) The Adjustable Swivel Gear Stop is already pre-set at a 5° angle 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 Fig 1.7) on the #10-32 flat-head cap screw (#2 on Fig 1.7), thread the screw all the way into the Adjustable Swivel Gear Stop, and tighten the jam nut up against the back side.

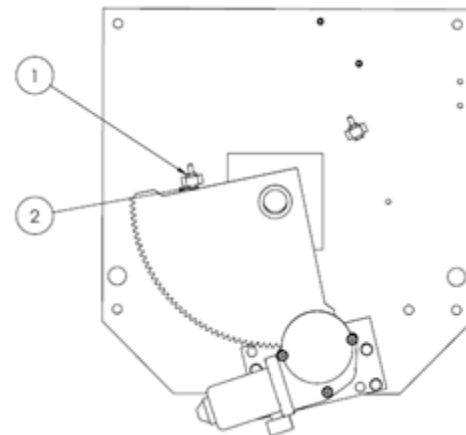


Figure 1.7

13.) Footrest Installation

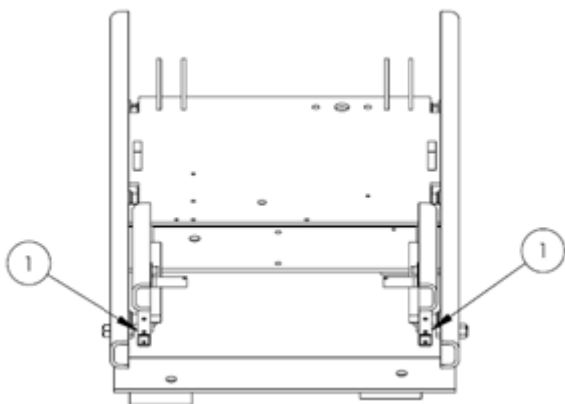


Figure 1.8

- a.) Run the transfer seat base 3" rearward from the full-forward position to install the footrest mounting bolts.
- b.) Install the Footrest Plate Assembly onto the Footrest Mounting Holes (See #1 of Figure 1.8) of the Bottom Plate Assembly.
- c.) Close the driver door. Run the seat base all the way forward. Make sure the Footrest Plate does not hit the door panel or the engine cover.
- d.) Tighten the bolts at this time.
- e.) Carpet the footrest plate (if applicable).

14.) Procedure to Re-Adjust Leg Bolts to Their Correct Tightness

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 d.) through h.) are repeated for each leg bolt.
- d.) Loosen the locknut (See #1 in Figure 1.9) 1 full turn.
- e.) Loosen the bolt (See #2 in Figure 1.9) enough to see clearance between the bottom of the head of the bolt and the leg.
- f.) Tighten the bolt until snug (not tight.)
- g.) Loosen (back-off) the bolt 1/8 of a turn. The bolt is now adjusted to the correct tightness.
- h.) Prevent bolt head from rotating using 1 box-end wrench while tightening the locknut with the other box-end wrench.

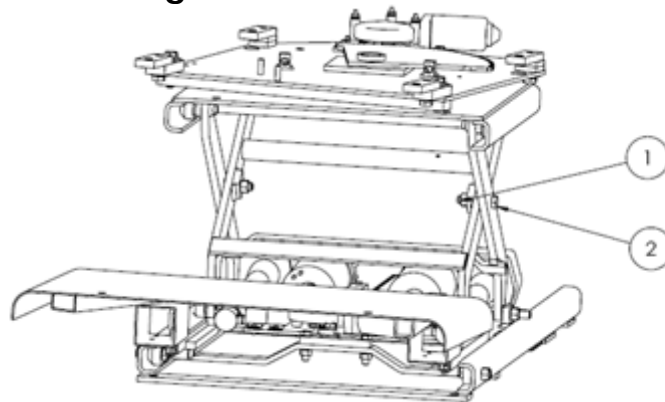


Figure 1.9

OEM Harness Extension Chart

| <u>OEM Seat Wire Color</u> | <u>goes to</u> | <u>18 Ga. Extension Wire #</u> |
|----------------------------|----------------|--------------------------------|
| _____ | goes to | Black Wire # 1 |
| _____ | goes to | Black Wire # 2 |
| _____ | goes to | Black Wire # 3 |
| _____ | goes to | Black Wire # 4 |
| _____ | goes to | Black Wire # 5 |
| _____ | goes to | Black Wire # 6 |
| _____ | goes to | Black Wire # 7 |
| _____ | goes to | Black Wire # 8 |
| _____ | goes to | Black Wire # 9 |
| _____ | goes to | Black Wire # 10 |
| _____ | goes to | Black Wire # 11 |
| _____ | goes to | Yellow/Green Wire |

A Note on the L41D-GEN-1

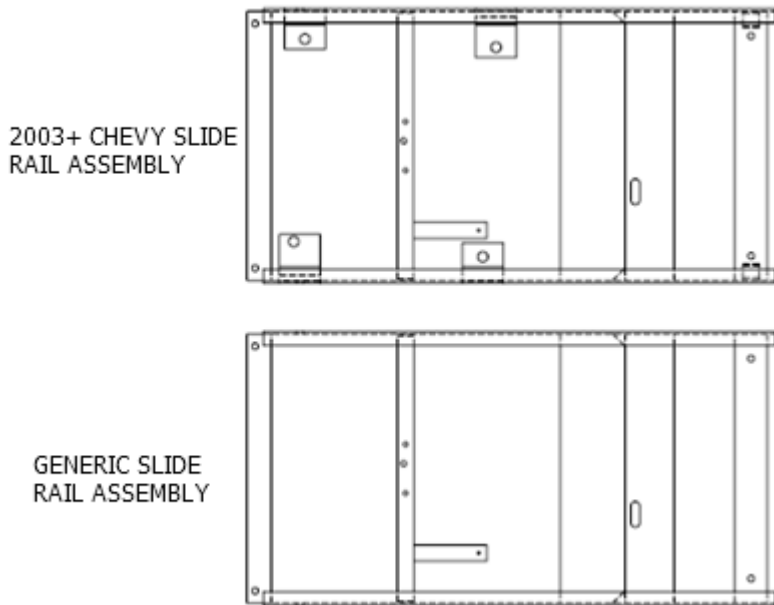


Figure 1.10

The L41D-GEN-1 does not have the “Direct-Mount” Feature. Instead, it must be located, drilled, and bolted to the vehicle floor.

The L41D-GEN-1 is built exactly like a L41D-GMC-1, except the Chevy floor mounting brackets have been removed (See Figure 1.10). This seat base comes with adjustable seat mounting bars already mounted to the Top Plate Assembly; these adjustable seat mounting bars are able to be loosened, and moved, to reach a large variety of aftermarket seat bolt stud patterns.

An important item to note is that most (but not all) Dodge Ram Vans do not have OEM seats from Dodge; they usually are aftermarket seats that either have manual sliders, or have an aftermarket 6-way power unit installed between the seat cushion

and whatever type of pedestal is in the vehicle. Any seat that has a power seat mechanism will most likely require the aftermarket power seat mechanism be removed in order to get the seat back to the original height of the van. Note also that the Dodge Ram Van has a 3” tall air bag sensor under the driver seat that has varied in its position throughout the vehicle’s production years.

Contact Us

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