

# DUAL BRAKE DELUXE

## FOOT OPERATED

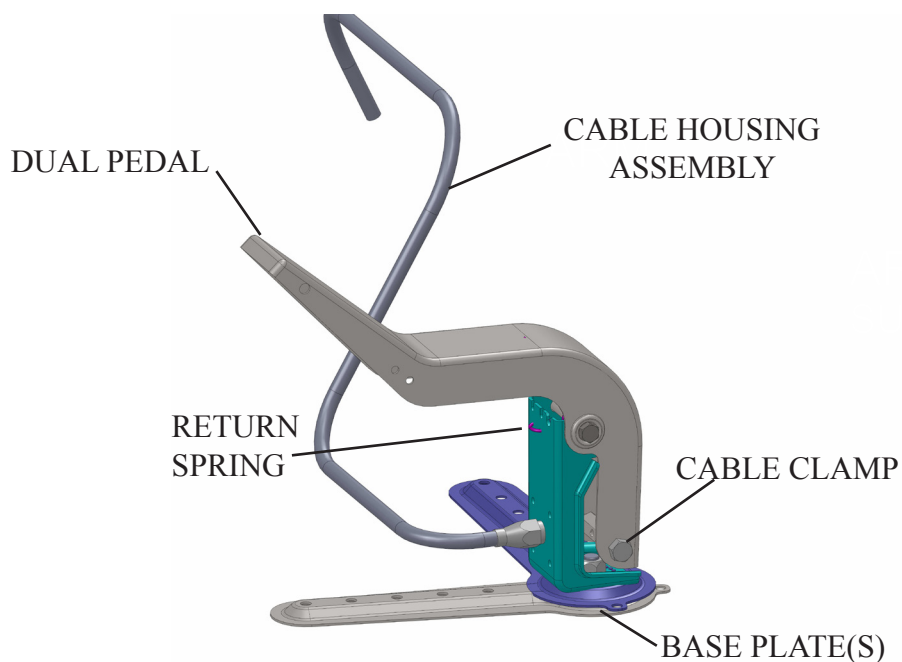
### INSTALLATION MANUAL



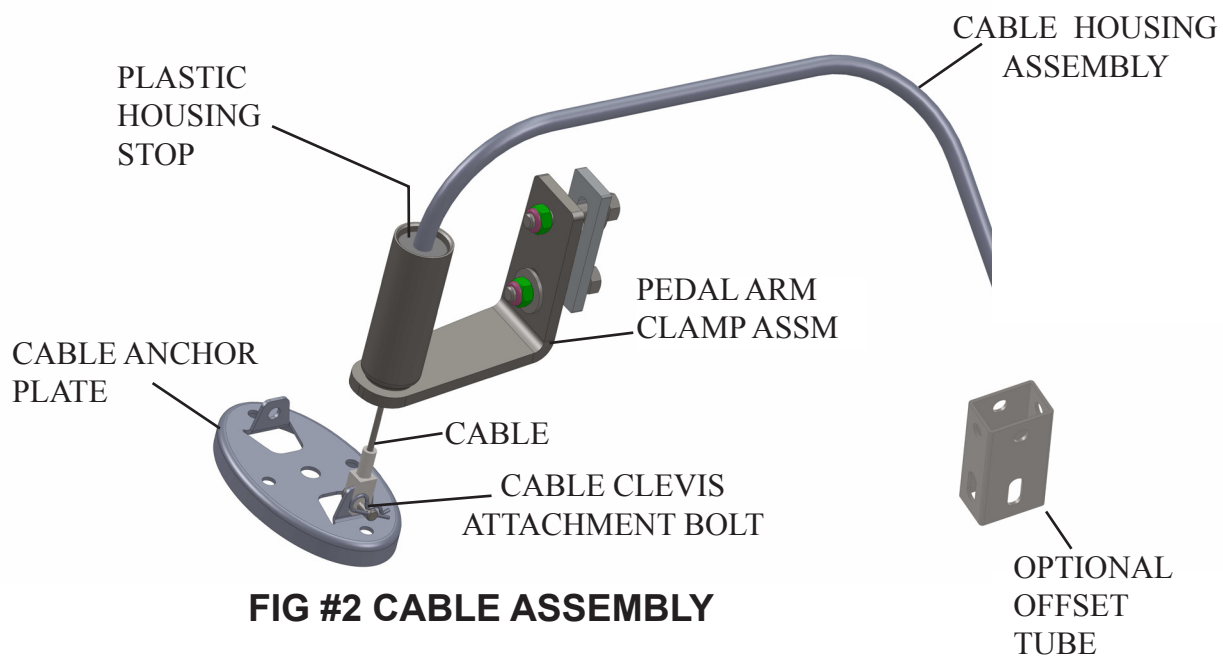
Installation & Product Description



## THIS PACKAGE CONTAINS:



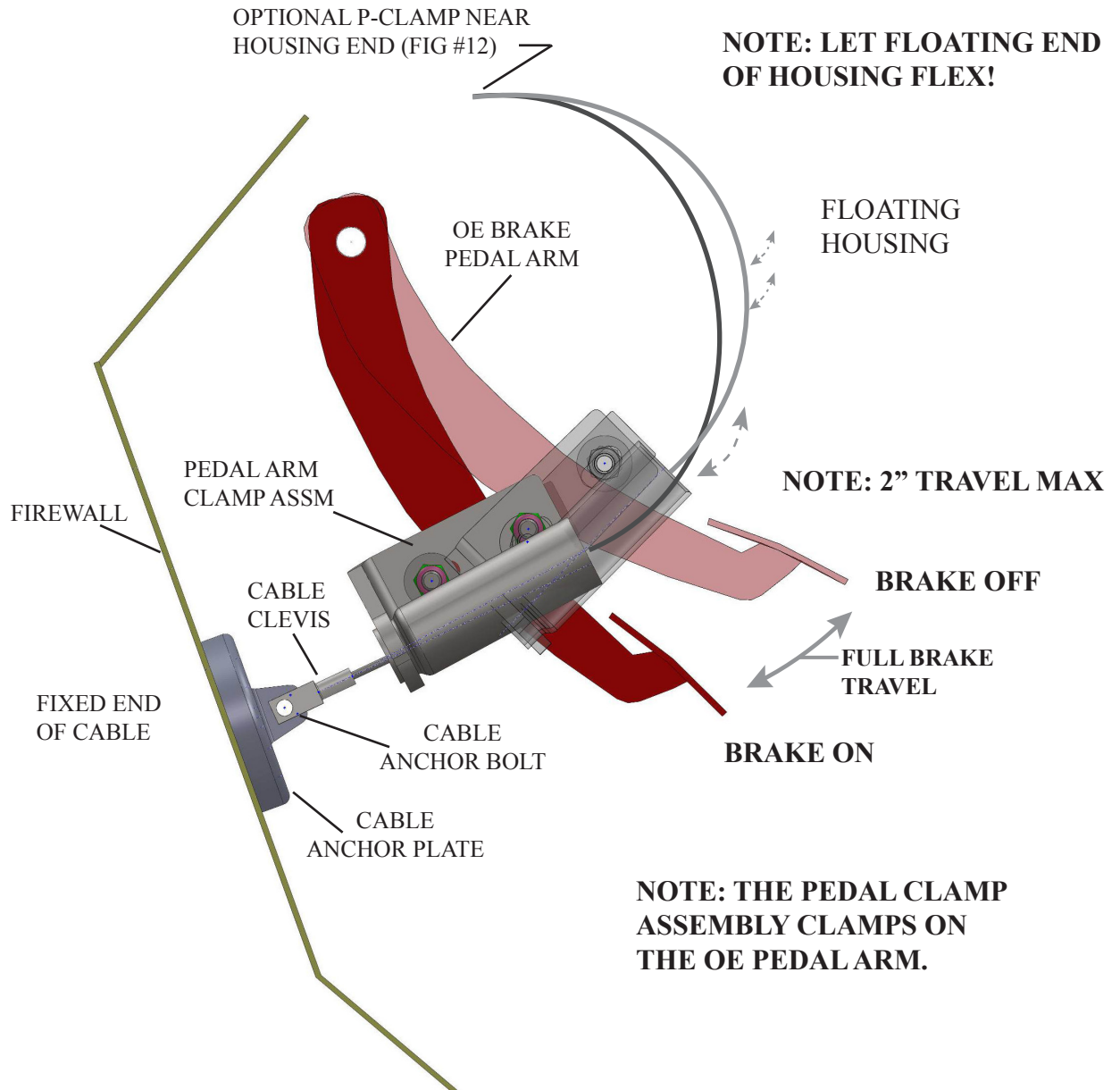
**FIG #1 PEDAL ASSEMBLY**



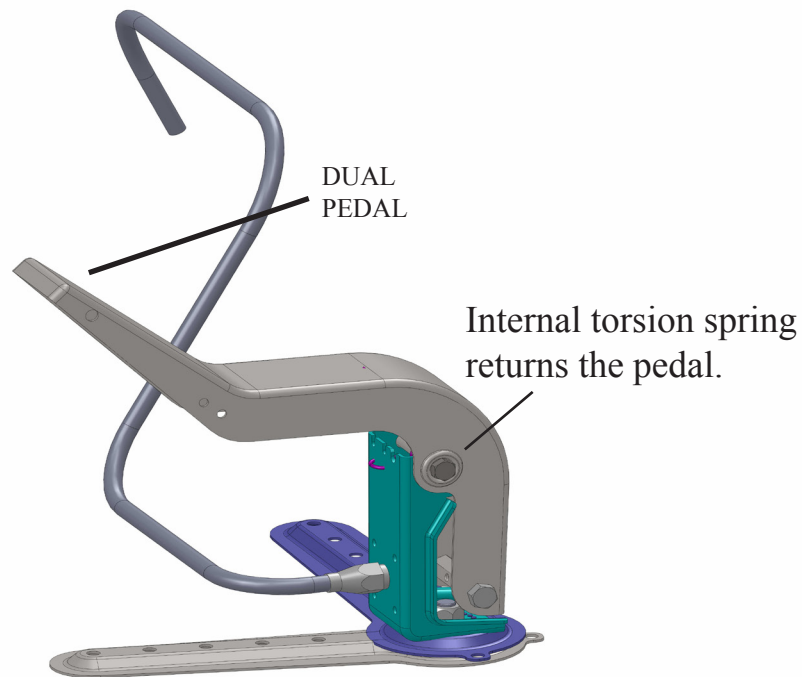
**FIG #2 CABLE ASSEMBLY**

**UNDERSTAND HOW IT WORKS!**

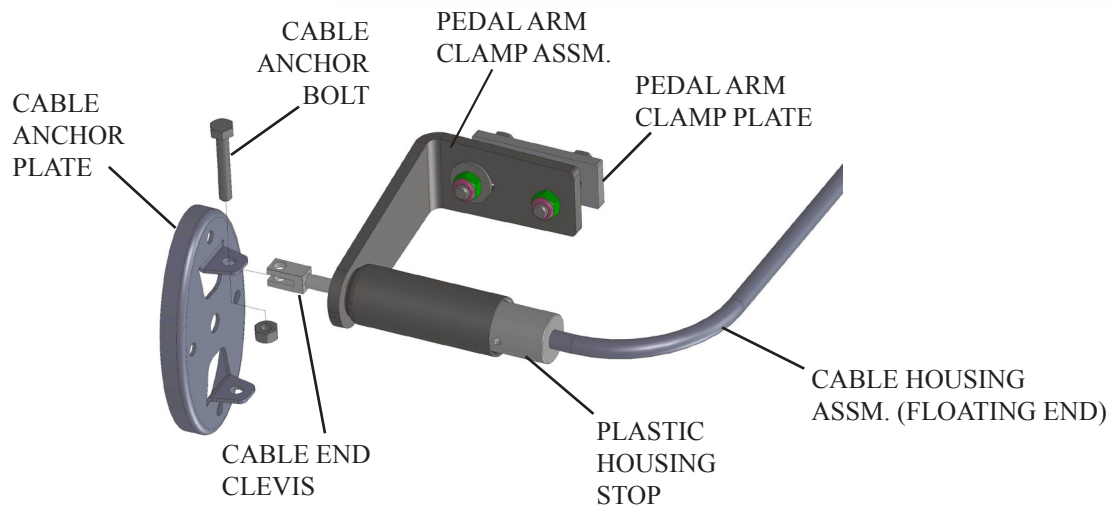
With the cable clevis attached to the firewall via the cable anchor plate, and the pedal clamp assembly attached to the OE brake pedal arm, depressing the control lever (Fig.3) will draw the floating housing end toward the cable anchor plate, thus bringing the OE brake pedal with it.

**FIG#3, HOW IT WORKS**

Letting off of the dual pedal (Fig.#4) allows releasing of the OE brake pedal. With the release of pressure on the dual pedal, the torsion spring on the dual pedal and pressure of the OE brake will return both pedals to the brake-off position.



**FIG #4: PEDAL ASSEMBLY**



**FIG #5: FLOATING END OF CABLE ASSEMBLY**

A properly installed Dual Brake along with regular inspections and maintenance will provide excellent dual brake control in the vehicle.



**PLANNING THE INSTALL** Determine your application.

This model is required to be permanently installed.

The installer must select the best cable routing from the control lever of the Dual Brake to the OE brake pedal. This should accommodate the intended operator and the features of the vehicle. A permanent installation would suggest routing the cable and housing through the center console, providing a more out-of-sight installation. This may require disassembly of the cable end parts. A temporary installation would route the cable and housing around the center console, making the installation and removal slightly easier.



**FIG #6  
THROUGH CONSOLE  
ROUTING**

**Caution-**

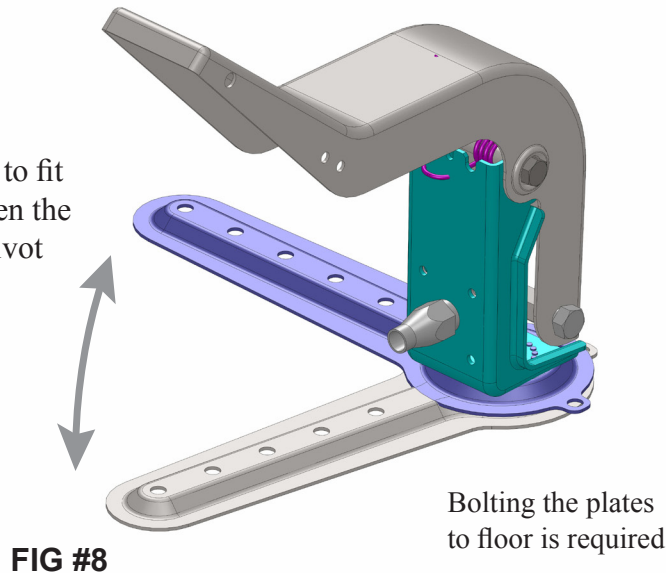
If your vehicle is equipped with adjustable gas and brake pedals, disable this feature prior to making adjustments to the cable or the pedal arm clamp assembly.



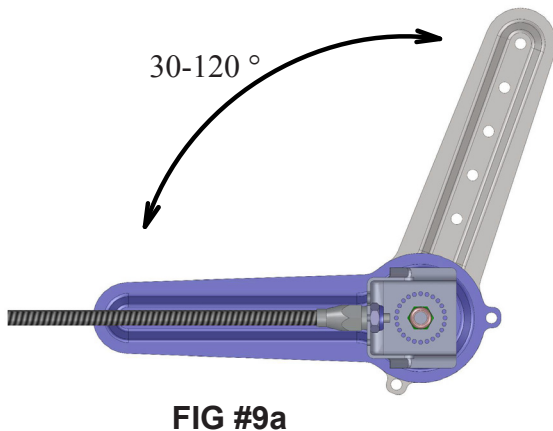
**FIG #7  
AROUND CONSOLE  
ROUTING**

Dual Pedal position: Depending on user preference the mounting and orientation of the dual pedal is flexible. A permanent installation will require attachment of the dual pedal to either the passenger floor or firewall (or both). To define a single location, the provided bolts can be used to hold the pedal base plates to the floor. The orientation of the base plates to the pedal can be changed to suit the user and accommodate the vehicle. The base plates contain an anti-rotational locking feature. To adjust the base plates under the pedal assembly, only loosen the large bolt under the pedal assembly. Re-orienting the base plates (in 15° increments) under the pedal assembly allows positioning flexibility within the passenger area.

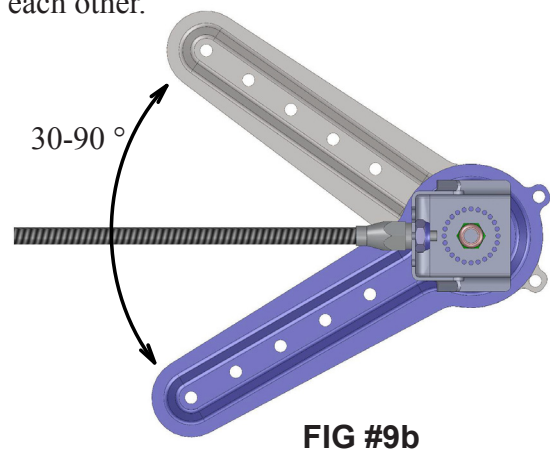
The base plates can be rotated to fit the passenger floor area. Loosen the nut under the base plate and pivot to the required positions.



When one base plate is in-line with the cable housing, the other plate can be rotated up to about 120°.



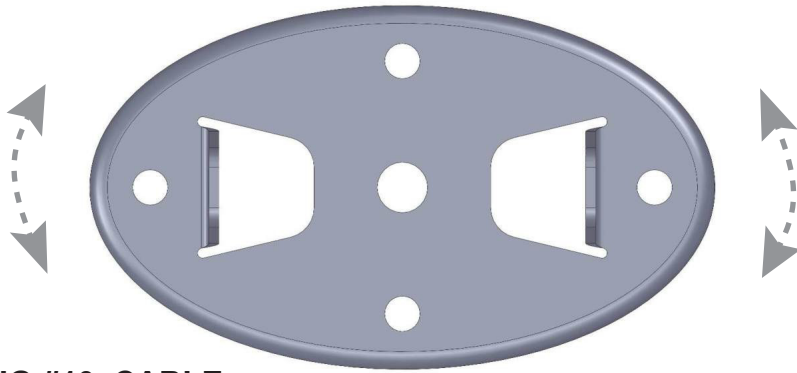
If the base plates need to straddle the cable housing, the plates should be no less than 30° and no more than about 90° from each other.





**ATTACHING TO THE VEHICLE**

Determine the best firewall or floor location for proper alignment to the brake pedal-clamp.



**FIG #10, CABLE ANCHOR PLATE**

Rotate the floor plate to the best position according to the vehicles features. The bolt holes must avoid brake lines, wire harnesses fuel lines, etc.

- The cable anchor plate can be bolted using any combination of at least two holes. If only one bolt is to be used, it should be installed in the center hole. Several different lengths of 1/4" bolts are provided to accommodate the thickness of the floor or firewall. Use these bolts with the nuts, lock-washers and flat washers underneath the vehicle.

With the cable anchor plate and pedal arm clamp assembly removed from the floating end of the cable housing, find a passage that provides smooth routing of the cable toward the OE pedal arm. The floating end of the housing will end up pointing perpendicular to the firewall (or floor). The housing should have the least amount of turns, not make more than 270 degrees of turns and no turn should have less than a 6" radius. Determine if the brake cable will fit through your chosen passage.



**FIG #11, CABLE ATTACHMENT**



**FIG #12**

A P-clamp can be attached to the vehicle to help suspend the cable housing. However, it should be located far enough away from the OE brake pedal in order to not restrict the movement of the floating end of the cable housing. (Fig.3)



FIG #13a

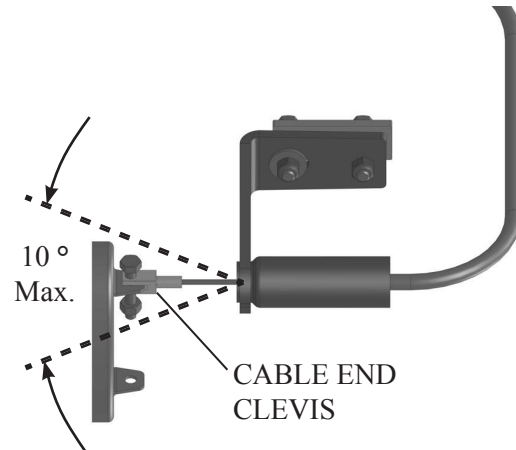


FIG #13b



FIG #13c



FIG #13d

## THE KEY TO A SUCCESSFUL INSTALL IS ALIGNMENT

Alignment of the cable anchor plate with the pedal arm clamp throughout its travel is critical. The goal is to keep the pedal arm clamp and cable path as much in line as possible, with minimal bends in the cable. A suitable anchor plate position must be chosen. The direction of travel of the pedal arm clamp should be directed toward the cable end clevis (Figs above) as the dual pedal is depressed [as the brakes are applied]. The cable should make only limited bends (refer to Fig.13b) as it exits the housing end on the pedal arm clamp.

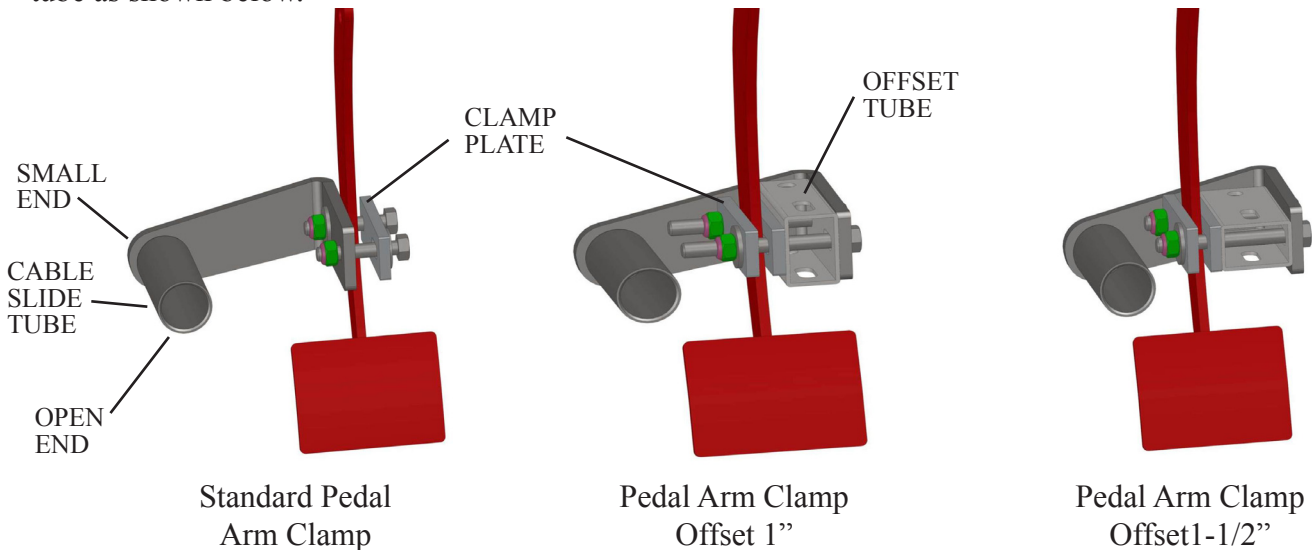
An improper alignment will cause the forces (pull) of the cable to be applied inefficiently, decreasing the effective power of the Dual Brake Deluxe. Good alignment will provide improved performance and increased longevity.

Always follow these guidelines for determining acceptable alignment.



## Alignment Continued:

To assist in overcoming obstacles under the OE brake pedal, the Pedal Arm Clamp assembly can be offset to the right. This can also aid in aligning the cable slide tube of the Pedal Clamp to the Cable Anchor Plate. By placing the offset tube between the side of the OE Pedal and the Pedal Clamp assembly in one of two orientations, two different offsets can be achieved. Longer bolts are supplied for use with the offset tube as shown below.



## INSTALLING CABLE END

1. Place pedal arm clamp assembly on the OE Brake lever arm with the small end of the slide tube toward the firewall.
2. Place the clamp plate on the opposite side of the OE brake pedal arm and bolt together.
3. Tighten the bolts only enough to hold the assembly in position while still allowing it to slide and pivot on the OE brake pedal arm.
4. Route the cable housing assembly through the cable slide tube. (Fig#15)
5. Bolt the cable end clevis to the cable anchor plate and hold it on the floor (or firewall) in front of the OE brake pedal arm.



FIG #14

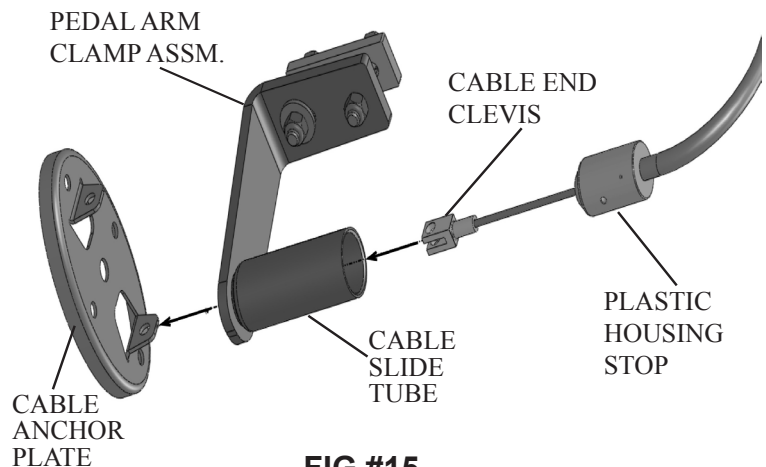


FIG #15

**Alignment Continued:**

Find the best position of both the cable anchor plate and the pedal-clamp assembly to provide proper travel and alignment.

5. Rotate or change position of the cable anchor plate to align it with the pedal arm clamp assembly. Find a good alignment position that will allow mounting holes to be drilled through the floor (or firewall) for bolting.

6. Firewall padding and carpet must be pulled away so it does not interfere with the anchor plate or cable. Carpet can later be slit to fit around the cable.

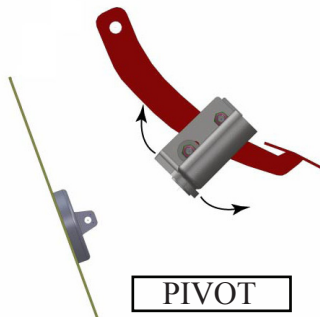
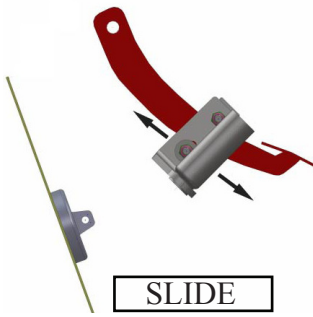
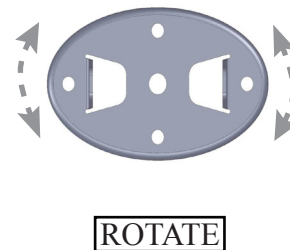
**\*\* Remove the floor padding in the area where the cable anchor plate is to be bolted.**

**\*\* When drilling holes through the floor or firewall panel, use extreme caution and plan your hole locations carefully in order to avoid any OE brake lines, fuel lines or electrical cables.**

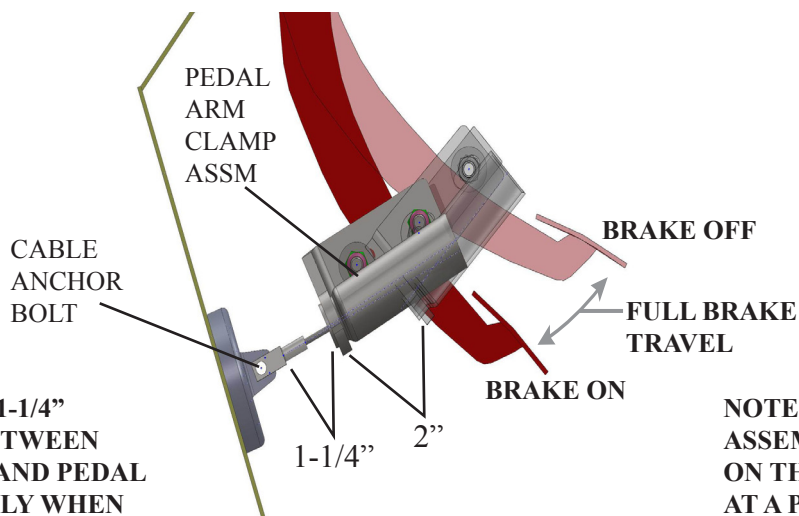
7. **Important:** Slide the pedal clamp assembly up or down the OE Brake lever to a point at which it travels about 2" as the OE brake is fully applied. (Refer to Fig. D)

8. Pivot the clamp on the OE Brake lever so the cable slide tube points to the cable anchor plate. Tighten the clamp plate bolts making sure it grips side of the OE Brake lever.

9. It is very important that there is at least 1-1/4" between the pedal arm clamp assembly and the cable anchor bolt when the OE brake pedal is fully depressed. (Fig. D)

**FIG # A****FIG # B****FIG # C**

**IMPORTANT:** REPEAT THESE STEPS WITH THE ENGINE RUNNING TO CHECK FINAL ALIGNMENT. WORK WITH EACH ADJUSTMENT UNTIL YOU ACHIEVE PROPER ALIGNMENT.

**FIG # D**

**NOTE:** ENSURE 1-1/4" CLEARANCE BETWEEN CABLE CLEVIS AND PEDAL CLAMP ASSEMBLY WHEN BRAKES ARE FULLY APPLIED.

**NOTE:** THE PEDAL CLAMP ASSEMBLY IS TO BE POSITIONED ON THE OE BRAKE PEDAL ARM AT A POINT WHERE IT TRAVELS 2" WHEN BRAKES ARE FULLY APPLIED.

## PEDAL MOUNTING

- Make the required adjustments to the orientation of the base plates on the passenger floor. If changes are made, be sure they include the reassembly of all the original bolts and lock-nuts.
- If the optional base plate is used, secure it to the floor panel with bolts, washers and locknuts. \*\*When drilling holes through the floor panel, use extreme caution and plan your hole locations carefully in order to avoid any OE brake lines, fuel lines or electrical cables. Bolting to floor is mandatory with the optional base plate.
- When the orientation is achieved, position the housing to provide a smooth curve and clamp it down with a p-clamp.

## CABLE ADJUSTMENT &amp; SECUREMENT:

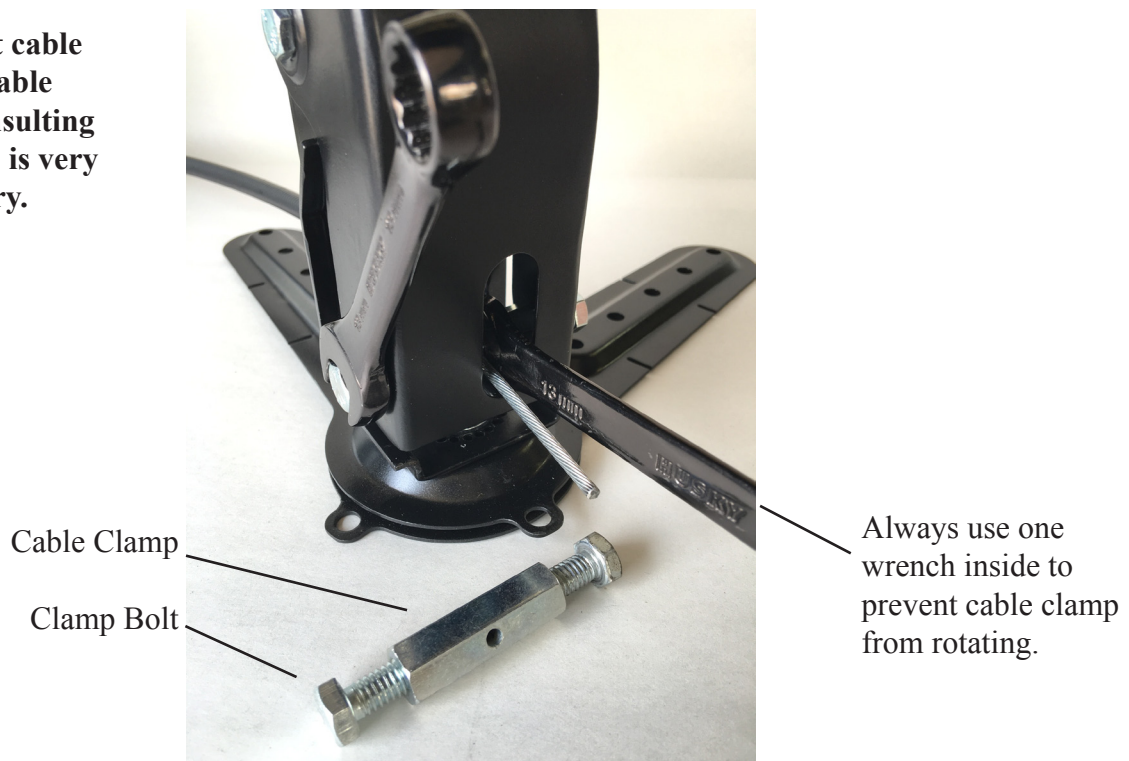
With the pedal arm clamp set in its final place, adjust the cable. A minimal amount of free travel of the dual pedal is necessary to ensure that the service brake is fully released. Excess travel on the other hand, will decrease the performance of the dual pedal. The lack of free travel runs the risk of causing problems; I.e. Brakes drag or brake lights stay on. Repositioning the dual pedal or pedal arm clamp may require that the cable adjustment be changed.

- No movement of OE brake for 1/4" initial travel of Dual Pedal - **TIGHTEN CABLE** (at cable clamp, pull the cable through the clamp).
- Immediate movement of the OE brake with the Dual Pedal - **LOOSEN CABLE** (at cable clamp, push the cable through the cable clamp).

Lock in cable adjustment using two 1/2" wrenches. One of the wrenches must always be inside **HOLDING THE CABLE CLAMP** while tightening the two clamp bolts from the outside.

**NOTE: DO NOT LET THE CABLE CLAMP TURN AS THE CLAMP BOLTS ARE TIGHTENED.**

**Note: Do not cut cable housing or the cable without first consulting the factory. This is very seldom necessary.**



**FIG #16, CABLE ADJUSTMENT**

**TEST:**

PRELIMINARY TEST: Apply 50lbs force on Dual Pedal three times.

- WATCH for shifting parts anywhere in the assembly. Ensure that optimal cable and pedal-clamp alignment is maintained. Make sure that the floating end of the cable housing has sufficient freedom of movement.
- LISTEN for scraping or grinding sounds.
- FEEL for smooth operation. No clicking or sticky action.
- Properly tighten all bolts and screws.

Start the vehicle and repeat test. After applying the brakes with the Dual Pedal and releasing, pull back on the OE brake pedal to check if it was released completely. Also check that the brake lights turn off after releasing and turning off the vehicle. Brake lights that stay on indicate that the cable needs to be re-adjusted. Depress the OE brake pedal several times and check to be sure that there is nothing preventing the pedal from returning to the fully off position. Also check that the plastic housing stop slides easily within the cable slide tube.

ROAD TEST: Choose a deserted street along with a test driver. Make half-dozen stops including gradual stops and panic stops. Listen and feel for anything abnormal. Repeat the preliminary test.

Check-up schedule...Repeat test after one week later ie. to re-check.

**POST-INSTALLATION CHECKLIST:**

Use the following list to be sure the installation is complete and proper.

- Recheck that the bolts are still tight.
- With engine running, depress Dual Pedal completely and check if the OE brake pedal is fully applied
- Depress the OE brake pedal several times and watch that the plastic housing stop slides easily within the cable slide tube. The cable should not bend between the cable end clevis and the cable slide tube.
- Check that the brake lights consistently turn off upon release of both pedals.
- Perform routine check-up inspections at 90 day intervals. Visually note that all fasteners are tight. If in doubt, test or retighten any loose fasteners. Visually check the cable for wear at each end near the cable end clevis and the cable clamp.
- Cable replacements are available.



**CUSTOMERS LIMITED WARRANTY**

Dual Brake Deluxe (The “Company”) warrants to the original consumer/purchaser of a DBD product that the Company will repair or exchange, at its option, any part of the product that fails, by reason of defective material or workmanship, within one (1) year from the date of delivery. This period can only be altered by the receipt of the warranty registration by the company.

The warranty registration card provided with the warranty must be filled in by you and received by the Company within thirty (30) days after installation of the product; otherwise this warranty will not be honored or valid.

**SPECIAL PROVISIONS:** This warranty does not cover:

- A.** Labor and service charges incurred in the removal and replacement of any parts covered by this warranty. It is understood that the labor and service charges incurred in removal and replacement of parts may be covered for a certain period of time by the installer and mutually agreed upon by the owner. Therefore, they become the responsibility of the owner of the product.
- B.** Damage to parts caused by accident, misuse, abuse or neglect.

The Company’s obligation under this warranty is strictly and exclusively limited to the repair or exchange of parts that so fail within the applicable warranty period, and the Company assumes no responsibility for any other expenses or damages, including incidental and consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. No person or company is authorized to change or extend the terms of this warranty in any manner.

To obtain warranty service, you must **PROMPTLY** notify the Company or the Dealer from whom the product was purchased. This notice must be given within the warranty period. If the item is defective upon arrival, or fails within its warranty period, a replacement will be shipped or credit will be refunded to customer’s account upon return. All items reported defective will be tested upon return. If the item tests good, a 15% restock fee will be charged to the customer. Any unused items must be returned within 30 days of product shipment. A 15% restock fee will be charged to the customer for all returned unused items.

**WARRANTY REGISTRATION**

MUST BE COMPLETED AND RETURNED TO DBD IMMEDIATELY FOR WARRANTY TO BE VALID

Customer Name: \_\_\_\_\_

Invoice # \_\_\_\_\_

Address: \_\_\_\_\_

Date: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_ Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_

Signature: \_\_\_\_\_

**RETURN TO:** Dual Brake Deluxe, 32217 Stephenson Hwy, Madison Heights, MI, 48071