



## **TNT Portable Hand Controls**

# **Installation Instructions**

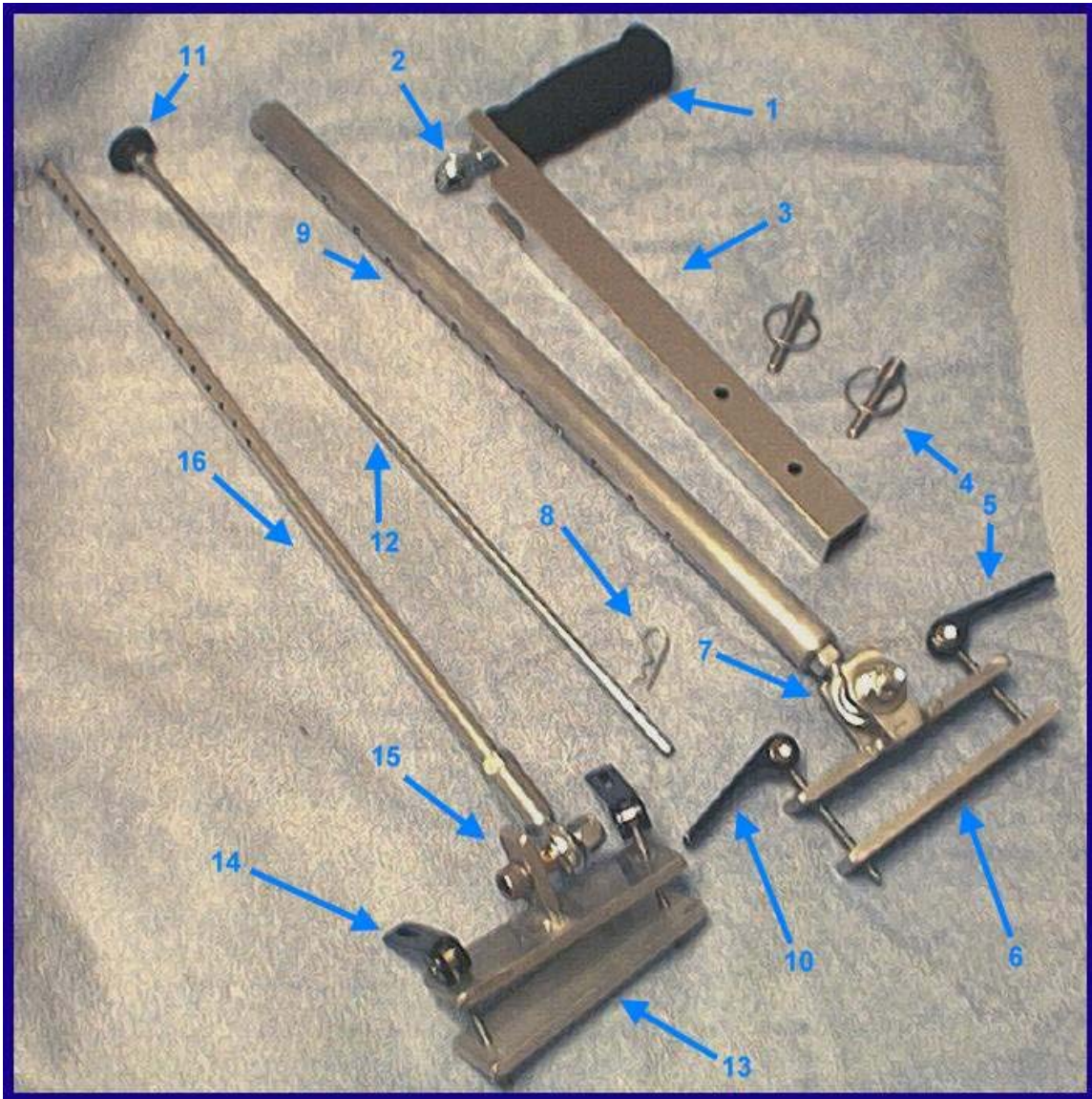


**Patent #:**US 6,571,656 B1

## **CONTENTS:**

- Breakdown & Individual Parts Listing
- Precautionary Instructions
- Accelerator Assembly & Installation
- Brake Assembly & Installation
- Assembly of Controls for Operation
- Testing the Hookup and Operation
- Testing the Installation and Functions of the Controls





## Breakdown & Individual Parts Listing



## Parts Breakdown & Description

- **1 Brake Grip Assembly** PN# **BG305**
- **2 Accelerator Ball Joint Guide** PN# **MM6072K63**
- **3 Brake Upper Housing** PN# **BUH310**
- **4 Quick Release Pin** PN# **MM95163A038**
- **5 Quick Release Clamp Screw Lock** PN# **QSL315**
- **6 Brake Back Clamp Plate** PN# **BBP320**
- **7 Brake Upper Clamp Assembly** PN# **BUP325**
- **8 Accelerator Linkage Hairpin** PN# **MM92391A024**
- **9 Brake Lower Adjust Rod** PN# **BLAR330**
- **10 Quick Release Pin** PN# **MM95163A038**
- **11 Accelerator Thumb Knob** PN# **ATK335**
- **12 Accelerator Upper Rod** PN# **AUR340**
- **13 Accelerator Lower Plate** PN# **ALP345**
- **14 Quick Release Clamp Screw Lock** PN# **MM95163A038**
- **15 Accelerator Upper Plate Assembly** PN# **AUP350**
- **16 Accelerator Lower Adjust Rod** PN# **ALAR355**

## Precautionary Instructions

1.  **CAUTION: Read, understand and practice the precautionary and operating instructions. Know the limitations and hazards associated with the TNT Portable Hand Controls.**
2.  **CAUTION: The TNT Portable Hand Controls should not be used under any the influence of alcoholic beverages or medications.**
3.  **CAUTION: Fully check and test all connections and tightness of all clamps each time before the use of the TNT Portable Hand Controls.**
4.  **CAUTION: The improper installation or miss use of this device is not in any way the responsibility of the seller or renter of the TNT Portable Hand Controls.**

## Accelerator Assembly & Installation



Fig. 5

**The accelerator assembly consist of the following parts:**

- (8) Accelerator Linkage Hairpin
- (11) Accelerator Thumb Knob
- (12) Accelerator Upper Rod
- (13) Accelerator Lower Plate
- (14) Quick Release Clamp Screw Lock Qty. of 2
- (15) Accelerator Upper Plate Assembly
- (16) Accelerator Lower Adjust Rod

**Locate the accelerator parts described above and place together.**

Make sure that the Quick release clamp screw locks (14) are threaded into the accelerator lower plate (13) and if not thread them into the lower plate. Thus making the clamp assembly complete to attach to the accelerator pedal. Locate the accelerator pedal in your vehicle. Place the accelerator clamp assembly over the pedal with back plate on rear of pedal and front assemble plate (15) on the front of the accelerator pedal. Slide the assembly fully down the pedal till it stops at the accelerator push rod connected to the pedal. Flip the lever of the Quick Release Clamp Screw Locks up to a vertical position. When both are extended vertical with the shaft, then screw both in equal amounts till there is contact with the pedal. Then slide the assembly to the left till the pedal is contacting the quick release clamp screw (14). This giving more clearance on right side of pedal to achieve more accelerator movement. \*Note\* Then equally screw in the quick release clamps on each side to get equal clamping pressure on the pedal. When both quick screw clamps are finger tight, then flip the locking part of the quick release clamp to a 90 degree position as shown in Fig. 5 above. This will produce a click sound when in the locked position. Then place assembly in your hand and check for movement of this assembly on the pedal up / down or side to side. If no movement then assembly is in place. If not flip up the quick release screw clamps and screw in clockwise more for more tension on the pedal and place the quick screw clamp back in the locked position till it clicks and locks.

**\*Note\*** - Accelerator in most cases will not go to full throttle due to the addition to the Clamp Assembly.

## Accelerator Assembly & Installation — Cont.

After making sure that accelerator assembly is secure on the pedal, push in on linkage attached to the accelerator assembly to insure that the accelerator has good acceleration range and is not binding in any manner on anything and that it does return back to its neutral position of zero acceleration.



Fig. 2

Fig. 2 shows the accelerator clamp assembly. The lock levers are in the screw in position and are in-locked as shown.

The Brass spacers are for the vehicles that have the thicker pedals. If this is the case of your vehicle, un-screw the Quick Release Clamp Screw Locks (14) from the accelerator lower plate (13) and remove the spacers. Re-assemble the accelerator lower plate with the quick release clamp screws and install as described earlier.

## Brake Assembly & Installation



The brake assembly consist of the following parts:

- (1) Brake Grip Assembly
- (2) Accelerator Ball Joint Guide
- (3) Brake Upper Housing
- (4) Quick Release Pin - Qty. of 2
- (5) Quick Release Clamp Screw - Qty. of 2
- (6) Brake Back Clamp Screw Lock
- (7) Brake Upper Clamp Assembly
- (9) Brake Lower Adjust Rod

Locate the brake pars described above and place together.

Make sure that the Quick release clamp screw locks (5) are threaded into the accelerator lower plate (6) and if not thread them into the lower plate. Thus making the clamp assembly complete to attach to the brake pedal. Locate the brake pedal in your vehicle. Place the brake clamp assembly over the pedal with back plate (6) on rear of pedal and front assemble plate (7) on the front of the brake pedal. Slide the assembly fully across the pedal till it stops at the brake push rod connected to the pedal. Flip the lever of the Quick Release Clamp Screw Locks (5) up to a vertical position. When both are extended vertical with the shaft, then screw both in equal amounts till there is contact with the pedal. Then slide the assembly to the up till the pedal is contacting the quick release clamp screw (5). This giving more clearance on bottom side of pedal to achieve more foot clearance. \*Note\* Then equally screw in the quick release clamps on each side to get equal clamping pressure on the pedal. When both quick screw clamps are finger tight, then flip the locking part of the quick release clamp to a 90 degree position as shown in Fig. 5 on page 6. This will produce a click sound when in the locked position. Then place assembly in your hand and check for movement of this assembly on the pedal up / down or side to side. If no movement then assembly is in place. If not flip up the quick release screw clamps and screw in clockwise more for more tension on the pedal and place the quick screw clamp back in the locked position till it clicks and locks.

**\*Note\*** - Brake pedal clearance may vary from vehicle to vehicle. May have to adjust to your comfort.

## Brake Assembly & Installation - Cont.

After making sure that brake assembly is secure on the pedal, push in on linkage attached to the brake assembly to insure that the brake has good braking range and is not binding in any manner on anything and that it does return back to its neutral position of zero position.



Fig. 3

Fig. 3 shows the accelerator & brake clamp assembly. The lock levers are in the screw in position and are in-locked as shown.

The Brass spacers are for the vehicles that have the thicker pedals. If this is the case of your vehicle, un-screw the Quick Release Clamp Screw Locks from the accelerator or brake lower plate and remove the spacers. Re-assemble the accelerator & brake lower plates with the quick release clamp screws and install as described earlier.

## Assembly of Controls for Operation

To assemble the controls you will need to sit in the drivers seat, in your driving position. Take the brake upper housing assembly as shown in Fig. 4 and place handle in Left hand. Pick up the 7/8" rod coming off of brake pedal and insert into the housing. Adjust to the desired length, where the handle will at least sit on the edge of the seat in any of it's rest positions. Align the two holes in the 7/8" inner rod to the housing holes. Insert the pins in Fig. 6 in the two holes fully and they will protrude through the housing on the bottom side and lock into place. Pull up slightly on the ring on the pin to ensure the pin has locked into place. Push in on brake to insure the control is comfortable and that brake is working alright. The connection between the upper housing and the lower rod should look as the picture in Fig. 7.



Fig. 4



Fig. 6



Fig. 7

## Assembly of Controls for Operation - Cont.

To assemble the accelerator portion of the TNT hand controls, take the parts in Fig. 8 to finish the assembly. Insert Thumb rod through the accelerator ball joint guide and into the hollow tube from the accelerator pedal as shown in Fig. 9. Adjust the length of the thumb rod so that the thumb knob is at the full extension of your thumb while holding the brake handle in your hand. Then align the hole in the thumb rod to match appropriate hole in the accelerator rod from the pedal and then insert the accelerator linkage hairpin till it is firmly locked into place as shown in Fig. 10 below.

This completes the assembly of the TNT Portable Hand Controls.

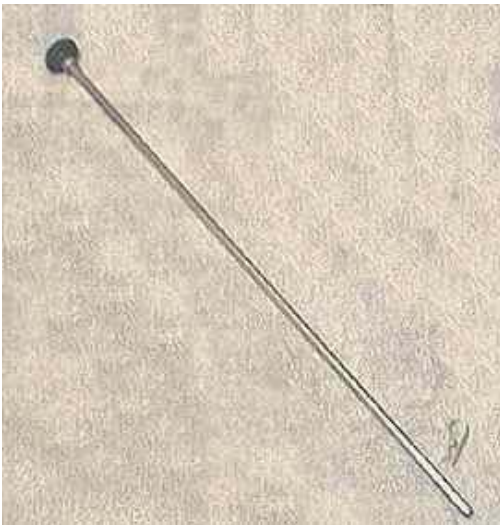


Fig. 8

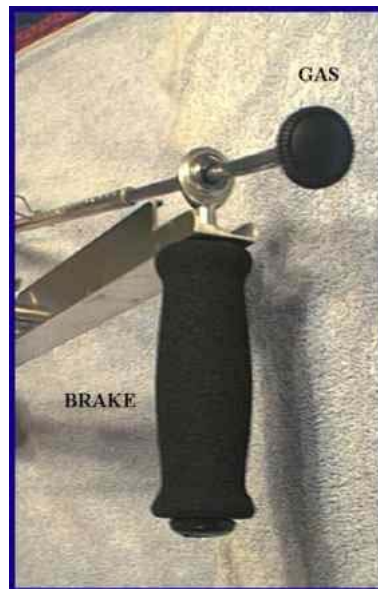


Fig. 9



Fig. 10

## **Testing the Installation and Functions of the Controls**

To test the TNT Portable Hand Controls, sit in the drivers seat and adjust the seat and steering wheel to your comfort. Place the handcontrols in your left hand and get comfortable with where you have adjusted them too. They must be able to lay between your legs and rest on the edge of the drivers seat without being able to fall off. First push in on the brake to make sure your brake is working without any problems and this very comfortable to you with your position you are sitting in. Next push the accelerator in with your thumb or lower palm of your thumb and with doing so make sure you have enough accelerator travel to operate vehicle. If the brake and accelerator is working fine from above, if not you may need to step back to the installation of the controls on the pedal as and make minor adjustments. If the lengths are slightly off and not comfortable to you, you can make minor adjustments to these lengths by changing the linking pins just installed to achieve the correct lengths.

After all minor adjustment are made, sit in drivers seat with controls in your left hand. Push in on the brake and start your vehicle, (**LEAVING THE TRANSMISSION IN PARK AT ALL TIMES DURING TESTING**), Press the accelerator with thumb to make sure the engine does accelerate with no problems.

Test is complete now turn off your Vehicle.

The final assembly should look like Fig. 12 less the connection to the pedals.

If you need assistance in installation, Please call our office for assistance in installing or questions concerning the TNT Portable Controls.



Fig. 12