INSTRUCTION SHEET
TWISTLOCK VEHICLE STABILIZER (TVS) SYSTEM
PN’S: 22-797010, 22-797020, 22-796161

COMPONENTS:
1. TVS-100, PN 22-797010: 47” – 60” (119 cm – 152 cm) stroke TwistLock Vehicle Stabilizer. Component weight, 29.2 lbs. (13.2 kg).
2. TVS-200, PN 22-797020: 68” – 96” (173 cm – 244 cm) stroke TwistLock Vehicle Stabilizer. Component weight, 41.1 lbs. (18.6 kg).
3. Tie-Down Keys, PN 22-796161: Two sets included; used for attaching the components of a vehicle to the ratchet belt. Component weight, 1.5 lbs. (.7 kg)

FIGURE-1

TVS-200 RETRACTED & FULL EXTENSION
TVS-200 RETRACTED & FULL EXTENDED
ADJUSTABLE HANDLE
RATCHET LOCKED POSITION
TVS-100 RETRACTED & FULL EXTENDED

Paratech Incorporated
P.O. Box 1000, Frankfort, IL 60423 USA
Customer Service: 800.435.9358
Phone: 815.469.3911 Fax: 815.469.7748
www.paratech.com E-mail: paratech@paratech.us

Paratech Europe, Branch of Paratech Inc.
P.O. Box 174, 5260 Odense S, Denmark
www.paratech.com Email: Paratech@paratech.dk

MADE IN THE USA
HANDLE ADJUSTMENT:
The handle is set at the factory approximately at the TVS’s center of gravity to assist with easy transport. To adjust the position of the handle, simply loosen the 6-socket head cap screws (3/16” Allen Wrench) holding the handle onto the tube, reposition to the desired location, and retighten screws evenly. The handle should not block the product label. Note: The screws do not have to be completely removed, only loosened, for the handle to slide along the body tube.

OPTIONAL COMPONENTS:
1. Anchor Ring Field Replacement Kit, PN 22-796188: Assembles onto the base/clevis and is used as a connection point for ratchet belts, j-hooks, etc. Component weight, 2.5 lbs. (1.1 kg). Note: addition of the optional Anchor Ring will hinder the TVS base from folding flat when in storage.
2. Carrying Bags, PN’S 22-797096 (TVS-100) & 22-797098 (TVS-200): Made from reinforced black ballistic nylon; features internal pouches to store Tie-Down Keys a full length zipper, and strap-type handles. Bags not pictured in this document.
RATCHET BELT OPERATION (FIGURE-2 & 2-1):

NOTE: The ABS system lets you release the pre-tension force in small steps.

1. Pull the ratchet release trigger, open the ratchet handle fully and release the trigger. This locks the ratchet handle in the neutral position 4 and allows the belt to move freely through the ratchet mechanism, see Figure 2 & 2-1.

2. Pull out the desired length of belt from the base end of the device and attach the free sliding hook, if required, to desired position on the car.
   **Note:** Belt is under tension due to auto-rewinding drum.

3. To adjust the belt tension, pull up the trigger and rotate the handle into belt tensioning position 1, moving the ratchet handle forward and backward within position 1 will increase the belt tension systematically until the desired tension is achieved. Move the ratchet handle back to locked position 3 after tensioning, Figure 2-1.

4. To release tension off the belt, pull the release trigger up and rotating the handle into the controlled release position 2 and release the trigger, Figure 2-1.

5. The tension is released by moving the handle forward and backward within position 2. Release occurs in small increments with every stroke of the handle, Figure 2-1.
   **Note:** Controlled release is only applicable when there is a load on the belt.

To free the belt, pull the release trigger up and rotate the handle into neutral position 4. The ratchet is now fully open and the belt can be pulled free through the ratchet mechanism, Figure 2 & 2-1.
STABILIZER OPERATION:

1. Place one hand on the knurled TwistLock Collar and another hand on the knurled portion of the Compact Multi-Base, see Figure-3. Note: The TVS-200 has 2-Twistlock Collars, one at each end of the body tube; any combination of extension length can be used on either side of the strut, see Figure-1.

2. Unlock the TwistLock Collar by rotating it counter-clockwise ( - label direction) until it stops, approximately 45°. This disengages interlocking teeth on the shaft.

3. Adjust the strut length (extending/retracting the shaft) to position the Compact Multi-Base at the designated point of contact on the vehicle. Note: The strut length only needs to be approximate to the insertion point on the vehicle with the TVS leaning into the vehicle at roughly 45° - 60° (45° being ideal); see Figure-4.

4. With both hands still in place, turn back the TwistLock mechanism clockwise ( - label direction) until the red, lock indicator stripes are aligned. WARNING: The TwistLock mechanism is spring loaded and may return on its own; however, the operator must always physically rotate the mechanism back to be sure the interlocking teeth have fully re-engaged.

5. Move the TVS into the desired position on the vehicle placing the Compact Multi-Base in place first.

6. As shown in the “RATCHET BELT OPERATION” section above; release the ratchet belt and attach the hook end to the bottom of the vehicle or opposing TVS. Tie-Down Keys can be used to facilitate a connection between the vehicle and ratchet belt hook as required.

7. Tighten the ratchet belt until the stabilizer is securely in place and lock the ratchet handle.

8. If necessary, repeat this operation on the opposite side of the vehicle.

9. To remove the TVS, reverse steps 1–6.

FIGURE-3
FIGURE-4: This is an illustration of an ideal vehicle stabilization using the TVS-100 and TVS-200. Note the optimal 45° angle between the stabilizers, ground, and vehicle. Insertion points and ratchet belt hooks are attached to the vehicle frame and A-post. The ratchet belt is in the locked position.

TOOL MAINTENANCE:

- Periodically lubricate the stabilizer shaft and TwistLock mechanism with a dry spray lubricant and keep free of dirt and debris.
- Replace worn, frayed, or cut ratchet belt as required.
- To clean, wipe all exposed surfaces with warm water and soft cloth.
TVS LIMITED WARRANTY

Each TVS or component thereof, manufactured by Paratech Incorporated, has been thoroughly inspected and properly adjusted before shipment to insure the highest quality and the greatest possible reliability.

Paratech Incorporated (hereinafter referred to as “Seller”) hereby warrants the TVS or component thereof to the original retail buyer only against defects in material and workmanship under normal use and service for a period of five years on the TVS mechanism and one year on the Ratchet mechanism from the date of purchase. There is no warranty on the BELT. This warranty shall constitute the sole warranty of the Seller with respect to the TVS or component thereof. THE SELLER HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. The Seller neither assumes nor authorizes any other person to assume for it any other obligations or liabilities in connection with the sale or use of this product.

Should there be any defects in the material or workmanship of the TVS, buyer should return the defective product to the factory for inspection with shipping prepaid within one year from the date of purchase. If inspection shows that the TVS or a component thereof is defective and that such defects were not caused by negligence, misuse, accident or unauthorized service, the product sold hereunder will be repaired or replaced at the option of the Seller, without charge, FOB at the factory, Frankfort, Illinois.

THIS REMEDY SHALL BE THE EXCLUSIVE REMEDY FOR BREACH OF WARRANTY WITH RESPECT TO THE TVS OR COMPONENTS THEREOF. THE SELLER SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY WITH RESPECT TO THE TVS AND COMPONENTS THEREOF FROM ANY DELAY IN THE PERFORMANCE OF THE REMEDY HEREUNDER.

PARATECH INCORPORATED
P.O. BOX 1000
1025 LAMBRECHT ROAD
FRANKFORT, ILLINOIS 60423-7000

TELEPHONE (815) 469-3911
FAX (815) 469-7748