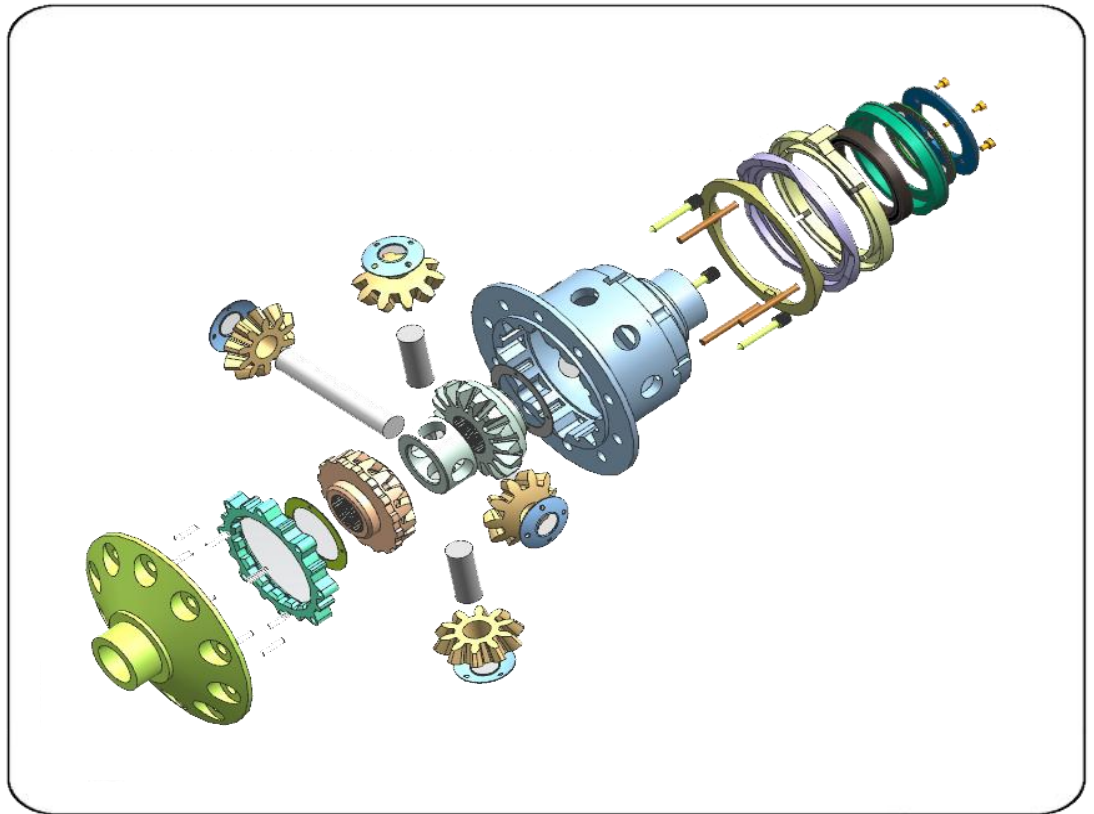

TRE E- LOCKER

INSTALLATION MANUAL



TE117

Dana 44,30 SPL,3.73 & DN

INSTALLATION MANUAL

Product Description:

The car with conventional differential is the same as the car with TRE electric locker when it is not turn on. The driving force is transmitted to the ring gear(Large tooth or Pelvic teeth) of the differential to rotate the differential. Instead of driving the half shaft directly, the small bevel teeth are free to rotate on the transverse axis of the differential. The half shaft is linked by splines and large bevel teeth, and when one of the half shafts rotates, the other half shaft rotates in the opposite direction. This process is called differential motion. Under normal circumstances, this differential rotation is beneficial to the car. When turning, the outer wheel of the car can rotate faster than the inner wheel, which is necessary for road driving. However, the differential will transmit the driving force to the wheel that is easy to rotate (such as the wheel that is idling) on a slippery ground or when a wheel is suspended, then all the driving torque is lost. TRE electric locker is the perfect solution to this problem.Turn on electric locker swicth to lock the differential gear, so that the two half shafts form a rigid connection,and both half shafts rotate with the large teeth, then the maximum adhesion can be maintained.

Regular use of TRE electric locker:

When you need extra adhesion, press the electric locker switch when approaching difficult terrain. (Note that you must first open the rear locker and then open the front locker. It is generally not recommended to use the front locker separately. The rear locker can be used separately. Once the difficult terrain segment has been passed , press the electric locker switch again, then the electric locker will return to the normal state. It is important to note that the switch should not be opened when the wheel is idling, as this can damage the locking device.

When the TRE electric locker switch is closed, there is no difference between the operation of the electric locker and the differential of the original car. No need to have any control worries and driving skills.

Installation Method:

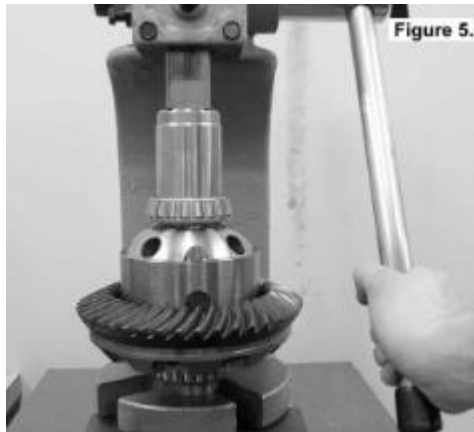
1. remove the old differential
2. remove the old bearing



3. Install the large tooth on the new electric locker, and fix it with the screw.



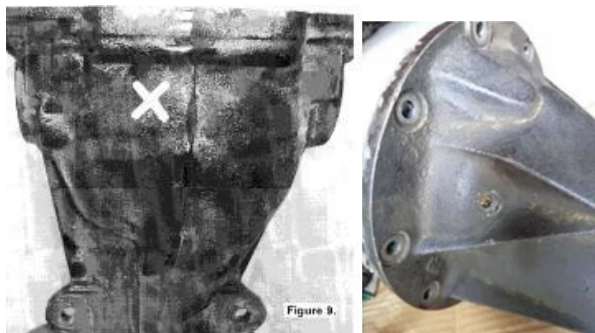
4. Press the bearings at both ends with a press.



5. Grind the bearing fixing bracket so that the electric suction cup bracket can be placed in (if the size is sufficient, it does not need to be ground).



6. Locate the thicker part of the housing where the differential case is facing up. As shown in the figure, drill a hole with a drill of 10.5 and tap the wire of M12*1.5 on it.



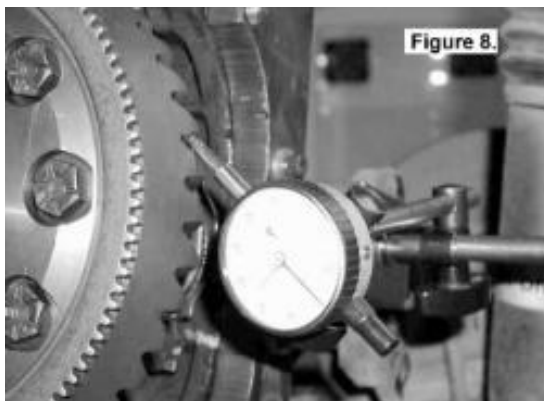
7. Cleaning the differential case and differential

8. Install the cleaned differential lock on the differential case and fix the bearings at both ends with screws. Do not tighten too tightly. Leave some clearance.



9. Adjust the clearance with the adjustment collar, tighten the fixing screws, and fix the bearing.

10. Measure the gear clearance with a dial indicator.



11. put on the fixed pin

12. Cover the axle housing and seal it well.



13. Find a suitable place to open the hole in the cab to install the switch.

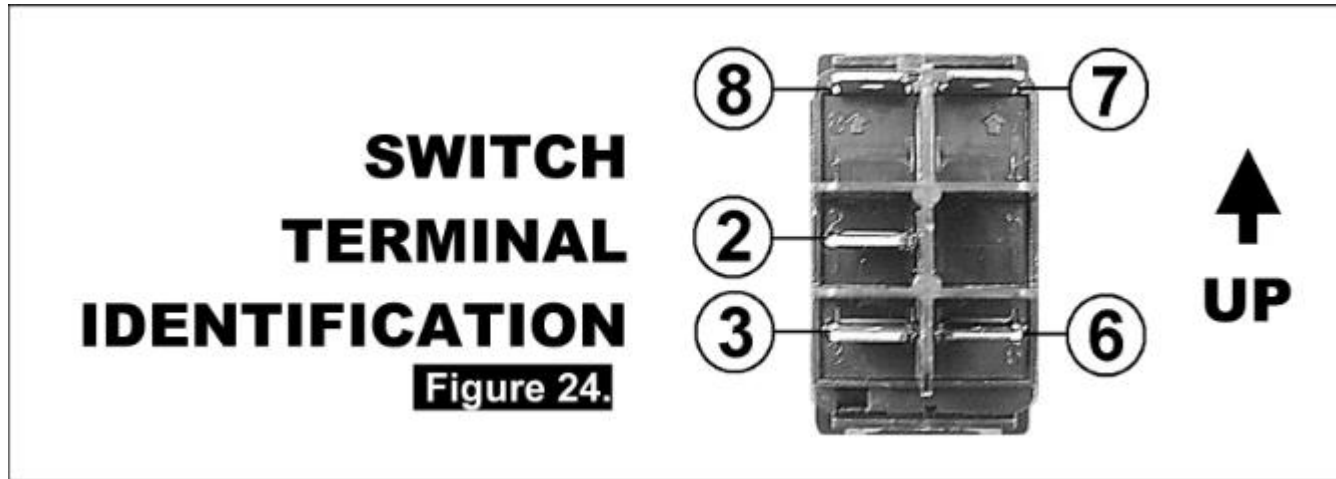


14. If you need to change the switch panel, please use professional tools (sold by the company), don't be hard, so as not to cause damage to the switch. Methods as below:



15. The wiring diagram is as follows:

	Air compressor
3	Red
2	Yellow and Red
8	Black
6	Blue and White
7	Black



16. Lead a wire from the ignition switch and connect it (red and yellow wire)

17. Lead a wire from the small lamp and connect it (blue and white)

18. draw power from the battery, when wiring, first connect the negative pole and then connect the positive pole (very important).

19. Conduct a field test and check if the electric locker device is working properly.

Precautions:

In order to ensure the safety of vehicles and occupants, there are several points that must be understood and observed.

1. When driving at high speed on high-adhesive pavement (ie dry pavement, cement pavement, asphalt pavement, gravel pavement, etc.), open the electric locker device will damages the transmission components and may cause accidents. The locking device can only be opened when it is required to pass the road surface with low adhesion.
2. When the electric locker is turned on, it will affect the steering. Please take time to learn how the differential will affect the steering. If you use it without knowing it, it may put you and the occupants at risk.
3. The electric locker switch should be installed within the easy range of the driver, but it must be ensured that the switch will not be accidentally touched by the driver, the occupant or the object released in the car. Unexpected opening or closing will cause the vehicle to lose control.
4. Although the design and manufacture of the TRE electric locker is very strong, the locking device should not be opened when the wheel is idling. Otherwise, the impact force generated when the two wheels are suddenly forced to rotate at the same speed may cause the half shaft. The damage is distorted and the locking part is worn. When starting the locking device, make sure that the vehicle is in a stopped state or is not activated or decelerated. Do not open the locking device when turning, do not open the locking device while braking.
5. In order to reduce the damage to the vehicle transmission system and reduce the risk of vehicle control, the speed should be reduced when driving the locking device, and the off-road driving should be carried out slowly and skillfully to achieve the optimal life of the vehicle and improve the service life.
6. Do not make sharp turns after locking the electric locker. Especially when the front and rear lockers are locked at the same time, keep the straight line as much as possible, otherwise it is easy to twist the half shaft or electric locker.
7. If the electric locker device is not used frequently, it will produce oil film. Please try it several times a month to ensure the normal use of the electric locker device.