



TRANS-STOP

Mechanical Shift Inhibitor

Because One Accident A Year is Too Many!

Flight kitchen trucks, refueling trucks, lavatory trucks - all ground support equipment needs to be as safe as possible. GSE vehicles can accidentally jump into gear, accelerate over chocks, or move before drivers have their foot on the brake.

All of these situations can cause damage to people and property, but if that property happens to be an aircraft, you're talking major dollars! You not only have the cost of repairing the aircraft, you also have to factor in the cost of the plane being grounded.

Safety Systems & Controls' (SSC) patented **TRANS-STOP™** system can be set up to be both a transmission Shift Inhibitor and an Interlock on the same vehicle.

As a **Shift Inhibitor**, TRANS-STOP™ requires the operator to apply brake pressure to stop (or nearly stop) the vehicle prior to shifting the transmission to change vehicle direction. This prevents transmission, driveline and drive axle shock load failures that occur when a driver shifts incorrectly while a vehicle is still moving.

As an **Interlock**, TRANS-STOP™ mechanically locks the transmission in Park or Neutral until all monitored switches are in a "Safe" position. Take, for instance, an airline flight kitchen truck. TRANS-STOP™ prevents shock load damage during normal drive situations and acts as an Interlock when the truck bed is raised to service the aircraft. The vehicles can not be shifted into a drive gear until the apparatus is stowed properly.

How Do Shift Inhibitors Work?

TRANS-STOP™ mounts externally on the transmission and is available on a wide range of equipment. Electrical installation does **NOT** intrude into the existing OEM wiring.

TRANS-STOP™ shift inhibitors prevent operators of vehicles from changing the direction of the vehicle and transmission until the vehicle comes to a complete stop. This is accomplished by (1) mounting a spring loaded solenoid from a bracket and



(2) attaching an arm with a curved ramp extending from and pivoting on the selector shaft. The solenoid pin rides on the curved ramp. The ramp has a 'window' in it and that 'window' intersects the solenoid pin when the transmission is shifted into Neutral. Every time the transmission is shifted through or into Neutral, we capture the transmission in Neutral unless sufficient brake pressure is applied. We use brake pressure switches to activate the TRANS-STOP™ solenoid. If sufficient brake pressure is applied, a green light illuminates on the dash of the vehicle instructing the operator it is okay to shift.

As an option, SSC offers throttle control. This feature prevents shifting out of Neutral if the vehicle's engine speed is above idle. By using an electronic solenoid, the system can be set up to prevent shifting of the transmission during unsafe operating conditions such as when lifts are not stowed properly, PTO's are engaged, doors are open, etc.

The TRANS-STOP™ system is simple in design. This allows the versatility of fitting a wide range of vehicles and transmissions with minor, if any, alterations in wiring and linkages. TRANS-STOP™ can be custom configured to lock the transmission to meet each customer's requirements. The inhibitors and interlocks are available on an extensive range of transmissions.

Applications

- ◆ Airline GSE
- ◆ Flight Kitchen Trucks
- ◆ Push Backs
- ◆ Agricultural Vehicles
- ◆ Refuse Trucks
- ◆ Snow Plows
- ◆ Yard Spotters
- ◆ Belt Loaders
- ◆ Lavatory Trucks
- ◆ Refuelers
- ◆ Forklifts
- ◆ School Buses
- ◆ Utility Equipment
- ◆ De-icers
- ◆ Maintenance Lifts
- ◆ Tow Tractors
- ◆ Off-road Equipment
- ◆ Shuttle Buses
- ◆ Van Conversions

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For additional information, or to order a TRANS-STOP™, contact Don Emerson at **503-286-2800** or 1-800-927-8750 or done@fmitrucks.com.