



Shift-By-Wire Controls for Automatic Transmissions

Our shift-by-wire transmission controls were developed for on-highway vehicles including a line specifically for use with Allison 1000/2000 and 2400 series transmissions. These shift-by-wire controls are ideally suited for applications in buses, coaches, medium and heavy-duty trucks as well as recreational vehicles, and can be programmed to control any number of vehicle components, safety systems or operational features.

One of the key advantages of our Shift-By-Wire system is its installation simplicity. The actuator module is bolted to the transmission with a mounting bracket and connected to the dash mounted shift selector by a plug in wire harness. This design provides for easy service access and doesn't compromise anything on the transmission. It is a huge improvement over cable systems, which often require users to tear apart the chassis to route cables and mount shifters.

The Safe Bus system eliminates wear items like cables and linkages that require periodic adjustment and replacement. It is a sealed-for-life system, so no adjustment or maintenance is required over the life of the vehicle. District administrators and fleet owners can look forward to a significant reduction in maintenance costs associated with periodic cable adjustments as well as sticking and freezing cables.

We offer these controls in several configurations to meet a wide variety of application parameters. From proprietary dome switch technology to electro-mechanical designs with secondary function controls, we can provide the best shift control solution for your application.

System Actuator

The actuator control module mounts directly to the transmission shift shaft. The actuator incorporates an electric motor and gearbox, along with a Hall effect sensor for position feedback.

Features include:

- Small, lightweight, mounts directly to the transmission without modification.
- No periodic adjustments needed.
- No maintenance required.
- Redundant electrical system/components prevent single point electrical system failures.
- Provides smooth, fast rotary shift action.
- Park-Pull Out capability handles any situation at the touch of a button.

Shift Selector

The shift selector control replaces the mechanical T-handle shifter in the dash and offers the following features:

- 100% solid state construction for long life.
- Simple push button operation.
- Dual Select/Monitor display provides operator with real-time transmission shift information.
- Direct access to all five gears for maximum transmission utilization.
- Special Mode and Interlock capabilities.
- Redundant electrical system prevents single point failure.
- System available for PARK and non-PARK transmissions.
- Custom interlock features available upon request.

Programmable and Expandable

The Arens Safe Bus system is both programmable and expandable to accommodate the inclusion of other onboard equipment such as wheel chair lifts and door safety interlocks. The shift selector is capable of displaying transmission operation data over and above basic gear identification. Anything that can be sent out from the transmission control module—temperature, oil level, diagnostic information and more—can be displayed by the shift selector.*

As far as processing power; Safe Bus can be programmed to handle multiple inputs/outputs for optimum vehicle control.

Integrated redundancies built into the Safe Bus shift selector and system actuator protect against single point electrical failures and breakdowns.

*Feature not yet released.