

SKI LIFT AUXILIARY DIESEL ENGINE CONTROL SYSTEM

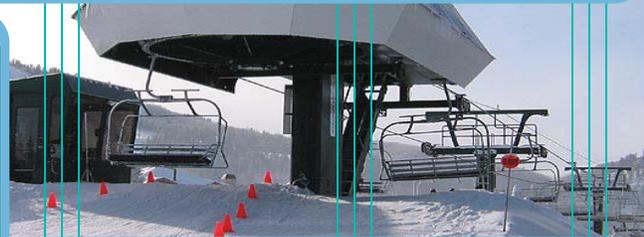
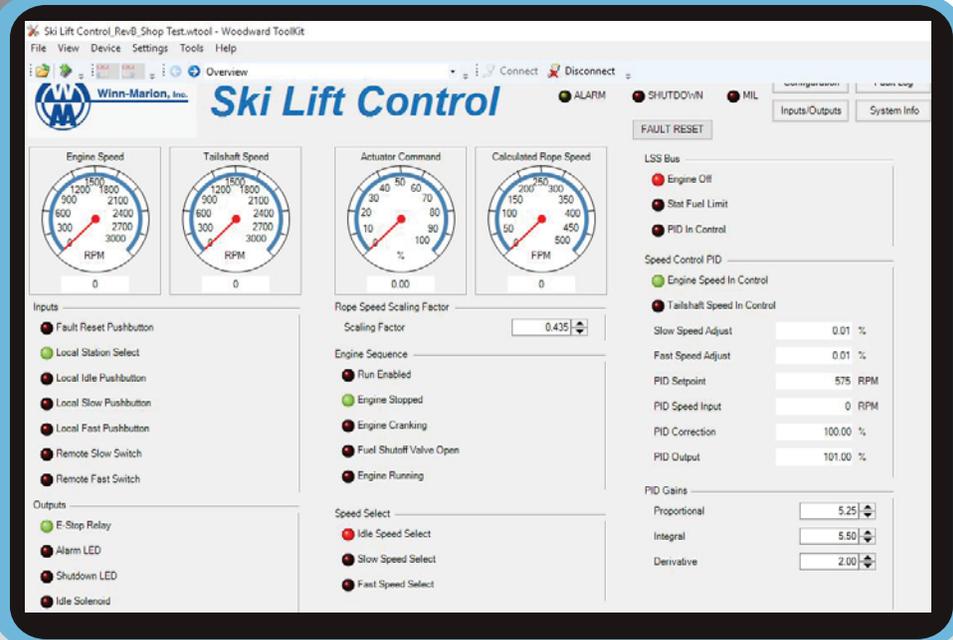


SKI LIFT ENGINE CONTROL SYSTEM

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Winn-Marion's Ski Lift Auxiliary Diesel Engine Control System is designed to replace the obsolete ramp generators and speed governors found on many ski lift auxiliary engines.

The system uses the proven and reliable Woodward PCM-HD Controller, which is in widespread use in industrial applications, and heavy-duty passenger-carrying vehicles throughout the world. This system can safely and reliably accommodate either a Normally Closed or Normally Open fuel actuator. Other actuator types can easily be accommodated.



THE SYSTEM COMES COMPLETE WITH:

- 12x14x7" Control Panel That Can be Mounted On or Near the Engine
- New Engine and Tailshaft Speed Sensors
- Cables
- Free Configuration & Diagnostic Software

Denver, CO - 303.778.6767
 Billings, MT - 406.259.9234
 Farmington, NM - 505.326.4069
 Phoenix, AZ - 480.968.9344
 Salt Lake City, UT - 801.676.0155

Williamsport, PA - 720.201.3257
 Evans, CO - 970.339.9211
 Gillette, WY - 307.686.9196
 Roosevelt, UT - 435.725.0082
 Arnegard, ND - 844.557.5271

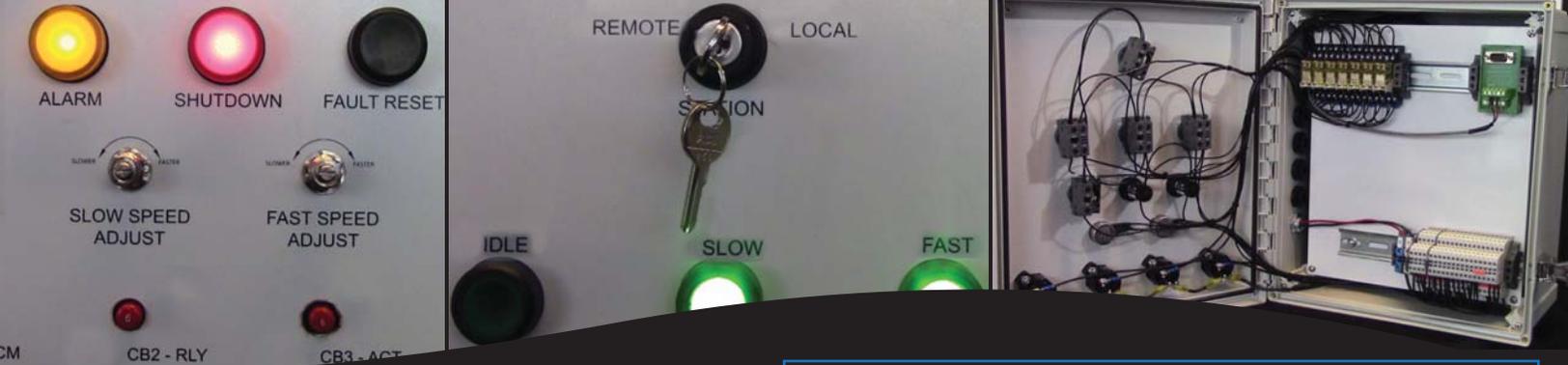


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Winn-Marion, Inc.

Johnson Matthey ABB WOODWARD Business Partner



SPECIFICATIONS

- Modern replacement for obsolete ramp generator and engine speed governor controls.
- Accommodates Normally Closed or Normally Open fuel actuators.
- Complete Ski Lift Auxiliary Diesel Engine Control System, ready to install out of the box with control panel, speed sensors, and free software.
- Local/Remote Keyswitch and panel-mounted speed select pushbuttons allow standalone operation, independent of lift PLC.
- Controls and monitors engine and tailshaft speeds simultaneously.
- Smooth operation and transition between lift speeds, providing a much better customer experience.
- Cost-effective solution with support extending long into the future.
- Heavy-duty industrial controller, purpose-built for engine control, monitoring, and safety.
- Direct interface with existing Lift PLC and Emergency Stop circuit.
- Easy installation and tuning with free software.
- Advanced diagnostics, monitoring, and fault logging with a laptop computer and free software.
- "Check Engine" style flash codes annunciate alarms and shutdowns without needing to plug in a laptop.
- Advanced safety features such as, engine and tailshaft overspeed monitoring, engine rev limiting, and hardware and speed sensor fault monitoring.
- Any level of customization to meet specific engine or resort needs can be accommodated.
- Denver-based engineering and field-service support, with offices in Durango and Salt Lake City.

SAFETY

Safety is Winn-Marion's #1 priority. The PCM-HD controller continually monitors the engine speed, tailshaft speed, and system sensors and hardware for problems and will trip the existing Emergency Stop circuit to shut down the lift if a critical problem occurs. Additionally, the system provides a keyed Local/Remote switch that allows the auxiliary engine to be operated completely independently of the lift PLC in an emergency situation. When operating the lift from the control panel, the same speed settings, transitions, and ramp rates are used, which helps transition to an emergency mode of operation without alarming the lift passengers or compromising their safety in the event of a PLC failure.

EASE OF USE

The system is ready to install out of the box, and tuning of the lift speed control is easily accomplished with free software that is included with the system. This consists of advanced monitoring and diagnostics; live data can be viewed and monitored with a laptop computer using the same tuning software. "Check Engine" style flash codes, through the panel-mounted ALRM LED, alert the lift operator of any issues and provide direction for troubleshooting without needing to plug in a laptop computer. Ramp rates, speed setpoints, alarm settings, and many other system parameters are easily configurable with the provided software.

SERVICE & SUPPORT

Winn-Marion's headquarters is located in Denver, Colorado, with service and support offices in Farmington/Durango, Salt Lake City/Roosevelt, Billings, and Gillette. We can easily and quickly accommodate installation, service, parts, and training needs for resorts in the Rocky Mountain region, or nationwide; and international support can be easily arranged. Nearly any level of customization can be provided to meet specific engine, PLC, or resort needs including varying engine or actuator types or additional sensors or safety features.

For more information, contact Winn-Marion at:
skilift@winn-marion.com