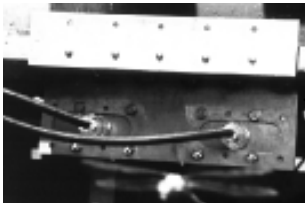


BRIDGE ALIGNMENT

SOLID STATE MONITORING SYSTEM



Lock bar driven detection



Rail surface detection



Lock bar engagement

- Allows removal of high maintenance switch circuit controllers and switch machines
- Eliminate unnecessary trouble calls
- Reduce costly and time consuming mechanical repairs
- Fewer train stops and better traffic performance

The key components of the bridge alignment monitoring system operation are proximity sensors and the Vital Proximity Detection system. The proximity sensors are used to detect and monitor the physical and mechanical positions of the rail surface and the bridge locking system. The VPD circuit board is used to analyze data inputs from the proximity sensors and provide relay drive to the appropriate bridge relays. The VPD system checks, analyzes, and verifies that all proximity sensors are accurate and operate within the allowed time frame throughout the complete bridge operation cycle.

The bridge monitoring system ties directly to current signal relays. Non-vital PLC's requiring additional programming and special environmental precautions are completely removed from this system. Existing signal relay logic can be used, thereby requiring little or no additional signal design expense.

BRIDGE ALIGNMENT

SOLID STATE MONITORING SYSTEM

- A full service solution for bridge mechanical, electrical, and signal maintenance problems
 - Project completion within 120 days after on-site evaluation*
1. On-site evaluation – a two (2) man evaluation team will visit the bridge site to make a preliminary system analysis. Extensive photos and a video will be taken and later incorporated into the technical and owners manual.
 2. Mechanical Evaluation – The mechanical team will evaluate all aspects of required parts and mounting components for proximity sensor detection points.
 3. Signal and Circuitry Analysis – If the application requires, new logic circuits and programming will be designed. Preliminary circuitry and mechanical component locations will be identified using the photos. This will provide adequate information for conduit and wire installation by the customer.
 4. System Packaging – All components will be provided and shipped in stages to expedite the installation process.
 5. On-Site Final Installation – The installation team, consisting of a mechanical and signal specialist, will return to the site for the final installation. They will remain until the complete package is installed and through final cut over by the customer of the new solid state system. This may or may not require disabling parts of the current operating system but may be run simultaneously until the system is fully functional and cycle tested. All manuals and system documentation will follow installation.
 6. Continued Analysis & Monitoring Program – For those customers choosing this option, a remote monitoring system will be installed. This system will allow remote off-site operational data analysis. It will capture and identify any problems so maintenance issues can be pinpointed preventing unnecessary on-site investigations.
 7. Extended Warranty Program – Parts and upgrades will be provided at no charge for the duration of the contract. On-site work and expenses will be provided at one half the standard rates.

*Requires customer pre-installation work completion.