

## SWITCH CONTROL PACKAGES

Typically for confined space or safety reasons, switches are frequently operated either manually or electrically from a remote location. Standard switch operating handles are supplied with an eye at one end for manual hookstick or rope operation. For remote operation, various control packages are available.

## SINGLE WAY, TWO POSITION CONTROLS

For electrical remote operation, switch operators can be supplied with externally mounted 24V DC motor actuators. Actuators can be factory installed or retrofitted in the field. Single way controls are available for RP and LP style switches and vacuum interrupters. The controls can be powered by 120VAC or 24VDC and are available with or without battery backup. Controls are available in enclosures for permanent mounting or in a portable aluminum, water-tight carrying case permitting use at different switch sites. Controls incorporate colored lights to indicate switch contact position and permit push-button operation. SCADA interface is available. Approximate time for a single switching operation is 3-5 seconds.

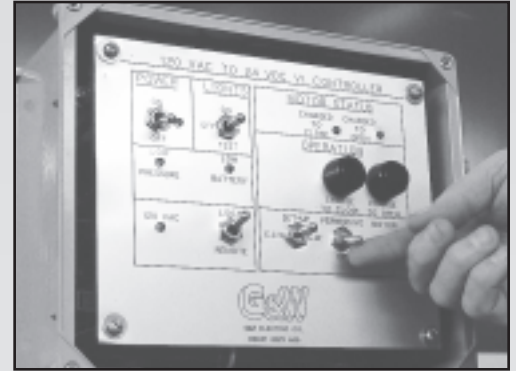
## MULTI-WAY, TWO OR THREE POSITION CONTROLS

Switch controls are available for applications requiring one control to operate numerous switch ways on one switch or numerous switches from one control. The controls can be AC or DC powered and are housed within enclosures for installation directly on the switch tank or on a nearby wall or structure.



Single way stationary control. ▶

◀ Motor actuators are available in two position and three position styles.



Universal 24VDC ▶ portable control permits remote operation at the installation site.



▲ Multi-way switch control.

# AUTOMATION

Multi-way control enclosures can be designed with an interface for external RTU or sized to incorporate an integral RTU in one enclosure. Switch status and push-button control functions are built-in features. When connected to a gas pressure switch, the control can provide automatic lockout if the pressure falls below a predetermined level.

## **SCADA PACKAGES**

For SCADA applications, G&W offers a variety of packages from simple SCADA ready switches to full SCADA system packages including RTUs, master stations and all accessory products.

## **AUTOMATIC TRANSFER**

For critical load applications where downtime is excessively costly, G&W offers various automatic transfer control (ATC) packages which can be applied to any G&W two-position, SF<sub>6</sub> switch through 35kV incorporating dual incoming feeders. Various styles of microprocessor based controls are available. Standard transfer schemes permit either automatic transfer and automatic return to a preferred source or automatic transfer where the secondary source becomes the primary. Using a standby generator for the alternate source is a selectable feature.

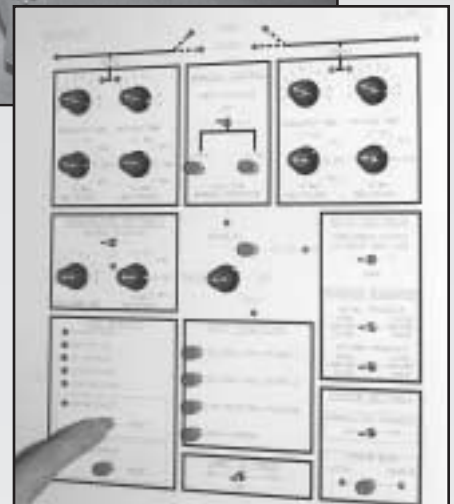
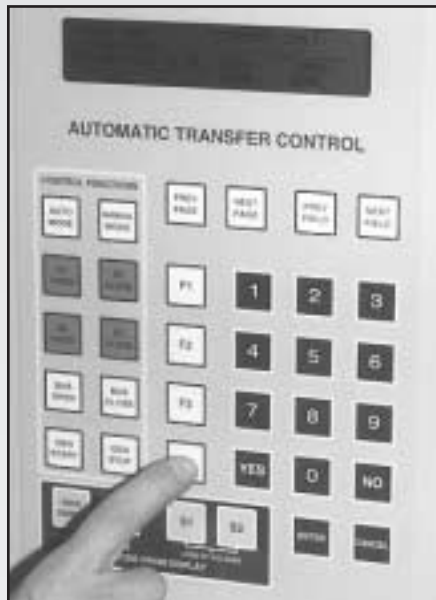
### **Standard Speed ATC Controls**

For standard configuration RP and LP style switches, automatic transfer controls provide transfer operation within 8-10 seconds (3-5 seconds per open/close operation).

The ATC 201 provides a microprocessor based programmable control. This package permits standard transfer schemes and an added benefit of selecting between a common bus and bus tie system configurations. The unit provides an LCD and keypad controls.



▲ Vault switch application with ATC and RTUs.



▲ Microprocessor ATC 101 with selector switch controls.

◀ Microprocessor ATC 201 with LCD and keypad controls.

The ATC 101 provides a microprocessor based control which requires hardwiring for applications where the switches are closer together or within the same switch tank. The unit provides selector switch and push-button controls.

### **ATC Controls with Cock-and-Trip Mechanisms**

For LP style switches incorporating a stored energy mechanism, automatic transfer controllers provide transfer operation within cycles.

*Refer to separate ATC Catalog for more details.*