

## Introductory Overview

The IntelliFlex Control System is an intelligent yet simple package of controls and input devices that provides a single source opportunity to install any type of motor controls on a range of products and have them all work together seamlessly in an installation.

The heart of the system is the SC1-Gen2 (see Fig. 1), a single motor switching relay with a built in microprocessor. Think of the SC1-Gen2 as being two different switches in one. The relay component acts as a switch to turn the power on and off to the motor, operator or device you wish to control. With the IntelliFlex system, the processor on the SC1-Gen2 control acts as the switch to tell the relay when to turn on and off.

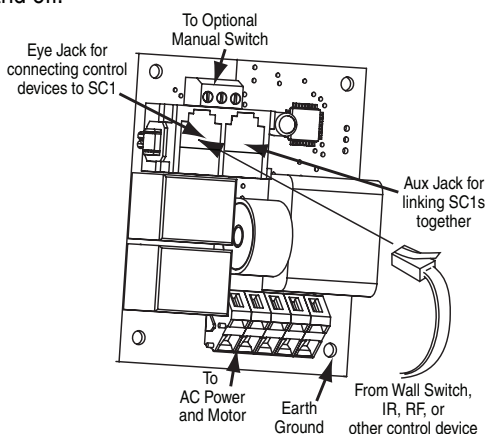


Figure 1

The SC1-Gen2 communication system uses the power of each device's microprocessor to receive and interpret commands. There are two ways of sending commands to the system. One is through a set of dry contact closure terminals on each SC1-Gen2. The second and most powerful method is via a low voltage data communication Bus system.

Each SC1-Gen2 has two RJ25 6-conductor modular phone plug ports that can be used to link multiple devices together. The microprocessor on each device listens for commands addressed to it. The Bus utilizes a proprietary protocol allowing up to 60 channels of communication to be shared between devices in a single system. Multiple systems can be combined in an installation.

Each microprocessor is programmed with firmware, which acts as the operating code for the system. Each device's firmware can be written to through special programming functions, allowing special features and actions to be enabled and modified. (For a complete listing of special functions see our quick reference programming guide.)

The key feature to reprogram for any installation is what is referred to as the Main Address. This is the primary Bus channel to which the SC1 processor is programmed to respond. While it is not necessary to edit this address, doing so allows each SC1-Gen2 in a Bus system to be addressed individually. Once an SC1-Gen2 has a unique main address on the Bus it can be addressed and programmed remotely, thereby eliminating the need to gain physical access to the SC1-Gen2 to modify or change its configuration!

Other features include up to six subgroup functions per SC1-Gen2 and the ability to enable up to four mid-window stopping positions. It can be set to turn a light on or off. The motor output terminals can be reversed via programming, eliminating the need for an electrician to deal with motor polarity, etc.

### Inputs:

The SC1-Gen2 dry contact input terminals are unique in the ability to change, through programming, the way the relays respond to contact closures. These terminals can be used in a standard latch and run mode or can be set to require a maintained contact for momentary motor action. They can also be set to X10 timing mode. This flexibility allows the system to be integrated with virtually any automation system.

The Bus communication is capable of receiving input commands from a wide variety of different input devices (see our reference sheet, and sample input device configuration sheets) in any combination and number and at any time, allowing great flexibility and power in providing a control system ranging from the most simplistic to the most complex, all in a plug and play fashion.

Input devices include, but are not limited to, IP devices to launch commands remotely via a Local Area Network (LAN), RS232 devices for launching commands from a local PC or HA system, sun sensors, wind sensors, timers, thermostat interfaces, interface devices for other building automation and fire alarm system overrides, radio remote controls, infrared remote controls, wireless wall switches and keypads, hardwired wall switches and keypads, standard toggle switches and key switches. Each input device can be used to launch individual, subgroup or group actions, or any combination thereof. Commands can also locate multiple shades to as many as four intermediate stops.

In addition, Draper has developed a "standard" "custom" switch program that allows the user to choose a wall switch configured to provide intuitive labeling and actions in a stocking switch program. The IntelliFlex Wall Switch is available in over 50 stocking configurations. Each of up to 12 available buttons can be programmed to send any command necessary, creating an extremely flexible user interface for the system.

Draper provides a number of ways to program the system and all are relatively inexpensive and simple to use. These include programming functions from a number of different keypads and transmitters, but the fastest and simplest methods are done using free programming PC software (requires Draper's RS232 translator to connect to the system).

For the most current information, check out our Web site, [www.draperinc.com](http://www.draperinc.com).