DOOR DYNAMICS
Automatic Door Opener

Obsolete Circuit Board

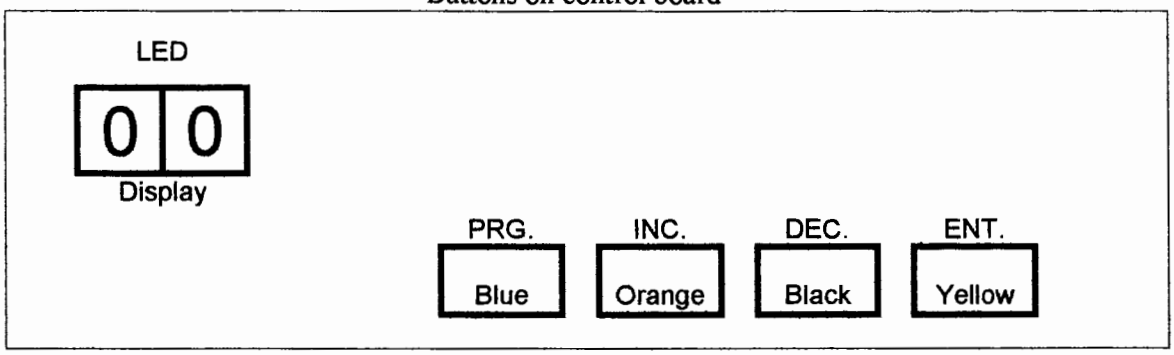
Prior to 1/1/98

Erich Industries, Inc.
Performance Products Division
550 N. Nine Mound Road
Verona, WI 53593

1-800-882-5839

Programming

Buttons on control board



1. To change the "Hold Open Time" of the doors press and release the blue program button one time. The LED display will show "P1". Press and release the blue program button again and the LED will show how long the doors stay open, in seconds. (Factory setting 5 sec.) To increase the hold open time press and release the orange "increase" button until the desired hold open time is reached, to "decrease" the time press and release the black "decrease" button. When properly set, press and release the yellow "ENT" button once to save this setting. The display will show "00".

2. To by-pass the time delay function (hold open time) and put the control in the "toggle" mode, press and release the "PRG" button until the LED indicates "P6", press and release again to show current setting (factory setting is "03") with the "INC" button set to "13", press and release the yellow "ENT" button once to save this setting.

3. Note: If the yellow "ENT" button is not used after each setting the control will only save this setting until the power is shut off, at which time the control will automatically return to the last setting entered. If at anytime during programming the buttons are left untouched for 30 seconds the processor will exit the programming mode, return to the run mode, and display "00".

   If you wish to have the control functions revert back to the original factory setting, turn the power off, press the orange and black buttons simultaneously and turn the power back on, continue holding both buttons down until the LED display shows "FP" (factory programmed). All field entered functions are now erased.

4. The display can also be used to read the counter which keeps track of the total number of cycles the door has been operated. This is done by repeatedly pressing and releasing the "PRG" button until C0 appears in the display. The next number and subsequent "C" numbers tell the total count. It is recommended that the following chart be copied and used to write down the numbers as they appear.

C0	C1	C2	C3	C4	C5	C6

For further and more detailed instructions on programming this control please refer to supplementary instructions or call 1-800-305-6736 for factory assistance.

Please refer to the pictorial drawing on the front page of this manual for help in locating items mentioned in the following section.

There are four push buttons located near the center of the control board. From the left, these are the "PRG" or program button, "INC" or increase, "DEC" or decrease, and "ENT" or enter buttons. Initially, the only button that will respond is the program button. Each time it is pushed and released, the program mode will advance to the next setting. First a prompt will indicate the next parameter or value to be seen, and then another pressing and release of the button will show the actual value of that parameter. When the value of a parameter is being displayed, it may be increased or decreased by the use of INC and DEC buttons. When all changes have been made, press the "ENT" button to end the programming session and preserve the new values so they will not be lost when the power is turned off.

Programming the control system to do exactly what is needed is normally done in advance at the factory. The most probable change made in the field will be the adjustment of the hold open time, which is the first parameter.

Below is a list of the parameters presently being used to control operation of the control board, and a description of what each parameter does.

Parameter	Setting	Range	Function
P1	05	02-99	Sets the hold open time. If the value of P6 is 10, 11, 12 or 13 the value of P1 is ignored. If the value of P6 is 14, 15, 16, or 17 then the unit is changed to toggle mode with a timeout enabled also.
P2	1.0	0.0-9.9	Tells the computer how many tenths of seconds a safety signal has to last to be considered valid.
P3	4.0	0.0-9.9	Tells the computer how many tenths of seconds during door closing time to wait for the safety device to detect the door. At the end of this time or after getting a safety signal, the system considers the door shut.
P4	05	00-99	Determines delay till sending a signal to open a second set of doors. Also delays a signal to a secondary door strike.
P5	01	01-04	Sets the magnetic strike time. Even if no strike is used, this value is not allowed to go below 1.
P6	03	0,1,2,3 10,11,12,13 14,15,16,17	Tells the computer what type of action it should perform. Numbers 0, 1, 2 & 3 dictate operation as a timer style operator. Numbers of 10, 11, 12 & 13 will cause operation as a toggled on/off control, and numbers of 14, 15, 16 & 17 dictate operation as a toggled on/off with a timeout that closes the doors even if the off toggle has not been activated.
P7	05	00-99	Sets the number of door cycles to count between the activation of the air-tank purge signal.
P8	0.2	0.0-9.9	Sets the amount of time that the air-tank purge signal is to stay on.
P9	05	00-99	This is a display of the current software revision number and should not be changed by anyone in the field.

See the following page for determination of proper value for Parameter "P6"

How to select parameter P6 value:

For timer style of operation:

P6: 0 Require proof of closure to allow door to open
Safety zone is not extended into DB-11 beam

P6: 1 Requires proof of closure to allow door to open
Safety zone extends into DB-11 beam

P6: 2 Does not require proof of closure to allow door to open
Safety zone is not extended into DB-11 beam

P6: 3 Does not require proof of closure to allow door to open
Safety zone extends into DB-11 beam

For toggle open/close style of operation:

P6: 10 Requires proof of closure to allow door to open
Safety zone is not extended into DB-11 beam

P6: 11 Requires proof of closure to allow door to open
Safety zone extends into DB-11 beam

P6: 12 Does not require proof of closure to allow door to open
Safety zone is not extended into DB-11 beam

P6: 13 Does not require proof of closure to allow door to open
Safety zone extends into DB-11 beam

Note: For automatic reclose in the toggle mode, add 4 to value selected above. This will cause doors to reclose after set time if left open.

SECURITY APPLICATIONS

The Door Dynamics control system has the ability to operate electro-mechanical locking systems of any type: latches which energize to unlock - (fail-secure), those which energize to lock - (fail-safe), and also magnetic locking devices - (fail-safe).

In such applications, the initiate signal to open the door is provided by a means which allows controlled access, such as a card reader or keyed switch, or a timer system interrupting the initiate signal during preselected periods of the day. Also a remotely located switch can be connected in series with the initiate signal line or used in place of an initiate signal to control the door.

In any case, when conditions dictate that the door should open a normal timing sequence will begin which will first issue control signals to any connected locking devices and then begin to open the door.

FIRE ALARM CONNECTIONS

The "Kwik Op" control unit is designed to be used as part of a building fire alarm system when connected to control contacts originating from the building fire alarm system. Connection is made according to our schematic **DD9701**. In this way, when signaled of fire conditions, the operator turns completely off and the door closes and latches according to the operation of the fire rated hardware used on the door. In such a case, the door latching mechanism would be of the fail-secure type, latching upon removal of power. Such doors are normally equipped with panic hardware also, allowing personnel to exit by manually pushing the doors open.

The following pages of this section show popular applications and schematics for security and fire alarm connections as described above.

Special Functions

Hold down the "Inc" and "Dec" Keys and power the unit on, this will reset all of the parameters back to the factory defaults.

Hold down the "Ent" key and power the unit on, this will start the controller unit in the "flip-flop" mode. (for REV. 6 and up)

A computer may be used to communicate with the eeprom on the board using a special communications adapter card and an RS232 interface. Notes can be written to the notepad that is built into the board. The notepad can hold up to 80 characters of text.

The controller can be used in conjunction with building security devices such as electromagnetic strikes and electromagnetic door locks. It can be activated through card readers, key pads, radio control, touchless switch, microwave sensor, infrared sensor, beam, keyed switch, palm switch and pressure pads or any device that switches using dry contacts.

The controllers can be used in conjunction with each other to create an interlocking door system that can be used for airlocks and vestibules for laboratory or security areas. This system can be used for 2 or 3 sets of double doors.

8 separate outputs can be configured to activate a wide variety of devices, 3 outputs are standard;

1) Solenoid actuated pneumatic valve
2) Air Tank purge valve
3) Electromagnetic striker-plate control

The control board keeps track of the total amount of times that it has been actuated up to 9,999,999. After reaching this point the count rolls over and begins again. This count is read through the "C" values on the board or through the computer and communications adapter card with the RS232 interface.