



ES505 Module Installation Instructions

Electronic Solutions Inc.

Wiring

Refer to the wiring diagram at the bottom of page 2 for typical applications. The ES505 module is equipped with one set of dry output contacts rated 3A at 28VDC.

The power requirement is 16-24 VAC or 24-35 VDC at 80mA maximum. Power may be obtained from many compatible door controls without the need for an extra transformer.

The ES505 may be triggered by either a dry contact or a 24 volt AC or DC voltage source as follows:

- a. Connect a dry contact between CN1-2 and CN1-3. The input burden is 24VDC at 10 mA or less.
- b. If a voltage source is used, clip out jumper JU1. With JU1 removed, the voltage source is totally isolated from the remainder of the control. The triggering voltage source should be connected between CN1-1 and CN1-2. Note that for a DC trigger voltage, CN1-1 must be positive.



IMPORTANT: To prevent erratic operation, a spike protection device (varistor or MOV) *must* be provided if a heavy load is to be controlled by the ES505. The protective device should be wired across the relay contacts. The protective device is *not* needed if the ES505 is triggering a typical door control.

Operation

The ES505 can function as either a standalone time delay or a latch (“ratchet”) relay. Set the DIP switches on the module as follows:

Set DIP switch 8 to **off** if the unit is to function as a simple time delay, or **on** if it is to be a latch relay.

DIP switches 1-5 set the time delay. The chart on page 2 shows the delays obtained for various settings of these switches. Values of 1-30, 45, or 60 may be chosen.

In time delay mode, DIP switch 7 selects whether the chosen delay is in seconds (DIP7 off) or in minutes (DIP7 on). *In latch relay mode*, DIP switch 7 selects whether the latch remains on indefinitely when triggered (DIP7 off), or automatically cancels after the delay set by DIP switches 1-5 (DIP7 on). *Note that in latch relay mode, the timeout delay is always in minutes.*

DIP switch 6 is currently reserved for future use.

The INPUT indicator shows when a trigger input is being received by the ES505. The STATUS indicator has multiple functions as follows:

When the unit is idle, the STATUS indicator blinks once every five seconds. This “heartbeat” indicator shows that the ES505 is functional and is awaiting an input trigger signal.

When the unit is in time delay mode and has been triggered, the STATUS indicator blinks rapidly.

When the unit is in latch relay mode and has been triggered, the STATUS indicator lights solid.

ES505 DELAY SETTINGS

DIP1	DIP2	DIP3	DIP4	DIP5	DELAY
OFF	OFF	OFF	OFF	OFF	45
OFF	OFF	OFF	OFF	ON	1
OFF	OFF	OFF	ON	OFF	2
OFF	OFF	OFF	ON	ON	3
OFF	OFF	ON	OFF	OFF	4
OFF	OFF	ON	OFF	ON	5
OFF	OFF	ON	ON	OFF	6
OFF	OFF	ON	ON	ON	7
OFF	ON	OFF	OFF	OFF	8
OFF	ON	OFF	OFF	ON	9
OFF	ON	OFF	ON	OFF	10
OFF	ON	OFF	ON	ON	11
OFF	ON	ON	OFF	OFF	12
OFF	ON	ON	OFF	ON	13
OFF	ON	ON	ON	OFF	14
OFF	ON	ON	ON	ON	15
ON	OFF	OFF	OFF	OFF	16
ON	OFF	OFF	OFF	ON	17
ON	OFF	OFF	ON	OFF	18
ON	OFF	OFF	ON	ON	19
ON	OFF	ON	OFF	OFF	20
ON	OFF	ON	OFF	ON	21
ON	OFF	ON	ON	OFF	22
ON	OFF	ON	ON	ON	23
ON	ON	OFF	OFF	OFF	24
ON	ON	OFF	OFF	ON	25
ON	ON	OFF	ON	OFF	26
ON	ON	OFF	ON	ON	27
ON	ON	ON	OFF	OFF	28
ON	ON	ON	OFF	ON	29
ON	ON	ON	ON	OFF	30
ON	ON	ON	ON	ON	60

