Electronic Solutions Inc.

ES565 Module
Installation Instructions
(with Version 1.23.00 software)

General Description

The Electronic Solutions ES565 is a versatile microprocessor-controlled voice module which may be used for a variety of door applications. In its factory default configuration, the ES565 supports four unique voices, each of which may be up to five seconds in length. The voices may field recorded through the built in microphone, or may optionally be pre-programmed at the factory. Each voice is triggered by a dry contact input. An adjustable delay between voice annunciations is included.

Speaker Selection & Wiring

The total speaker load seen by the ES565 must be 4Ω minimum.   A single 4Ω speaker, or two 8Ω speakers in parallel, may be used. One 8Ω speaker may also be used, with slightly less volume. The speaker(s) must be connected *only* to the speaker output terminals of the ES565 module. Never connect speaker leads to either ground or power connections. The audio amplifier used in the ES565 can supply a maximum of 20W to a 4Ω speaker load, provided that the 12V power supply can provide sufficient current (see below). Good speakers will make a significant difference in the quality of the voice annunciations.

Power Supply Selection & Wiring

The ES565 is designed to operate from **12-16 volts DC only**. **Use of other supply voltages will damage the module.** A "wall wart" type power supply is acceptable. A minimum current rating of 800 mA (0.8A) is recommended for use with moderately loud levels and a single 8Ω speaker. If the need for extremely loud annunciations is anticipated, or a 4Ω speaker load is being driven, the current rating of the power supply should be increased accordingly. Observe polarity when connecting power to the module; *pin 1 must be positive*. The power supply may be damaged if wired incorrectly.

Input Wiring & Voice Playback

The ES565 module may be triggered by a dry contact applied to any of the voice trigger inputs IN1-IN4. A momentary contact will trigger an annunciation of that input's respective voice. A maintained contact will cause the voice to annunciate repeatedly, with the delay between annunciations set by DIP switches 1-4 as shown in the table below. Voices are always played in the order initially received; if more than one contact is held actuated, the module will rotate between the active voices, inserting the delay between each voice. The input burden for each actuating signal is 12VDC at 15 milliamperes maximum. The pushbuttons on the lower left side of the ES565 are connected in parallel with the dry contact inputs and may also be used to test the annunciator functions.

Dry Contact Output Wiring (optional)

With the factory standard software, the dry contact relay output of the ES565 will be triggered *during the delay between voice annunciations*. This contact may be used to eliminate the need for another accessory module in some applications. The relay is rated for 1A at 30VDC maximum.

Other functions for this contact are possible with factory custom programming; contact ESI for further details.

Recording Voices

With power applied, set all DIP switches 1-4 in the OFF position. Set DIP switch 8 to the ON position. The ES565 is now in "record ready" mode. To see what is currently recorded in each voice position, you may briefly press the appropriate button 1-4 on the lower left corner of the module. The voice which is programmed into that position will annunciate one time. It is normal for the red RECord light to flash briefly after each annunciation.

To record a voice, press *and hold* the appropriate button 1-4 on the lower left corner of the module for two seconds. (This delay is provided to reduce the likelihood of accidental erasure.) After two seconds, the red RECord light will come on. Speak directly into microphone M1, located in the approximate center of the module. When finished, release the button. The module will immediately annunciate the message you have just recorded. Repeat the procedure to record any other voices desired.

When all voices have been satisfactorily recorded, return DIP switch 8 to the OFF position. Utilizing the table below, set DIP switches 1-4 to provide the desired delay time between each annunciation. Adjust VOLUME control R16 to a suitable level.

General Notes and Tips

- To avoid possible loss of voice programming data, insure that DIP switch 8 is in the *off* position prior to applying or removing power.

- If the ES565 has been supplied with factory preprogrammed voices, DIP switch 8 should always remain in the *off* position to prevent erasure of the factory voices.

- The maximum duration of each voice utilizing the factory default software is approximately 5 seconds. Attempting to record a voice longer than this duration will result in truncation of the message.

- To prevent a mechanical switch "click" from being recorded by the microphone, it is suggested that the button be released gently instead of quickly when recording of the voice has been completed.

- Nothing but a slight hiss should be noted when the unit is not annunciating. "Hum" in the speaker(s) normally indicates a poor quality power supply – unfiltered, inadequately filtered, or with insufficient current capability.

DIP1	DIP2	DIP3	DIP4	Delay between annunciations
OFF	OFF	OFF	OFF	(Selects Record Mode)
OFF	OFF	OFF	ON	1 second
OFF	OFF	ON	OFF	2 seconds
OFF	OFF	ON	ON	3 seconds
OFF	ON	OFF	OFF	4 seconds
OFF	ON	OFF	ON	5 seconds
OFF	ON	ON	OFF	6 seconds
OFF	ON	ON	ON	7 seconds
ON	OFF	OFF	OFF	8 seconds
ON	OFF	OFF	ON	9 seconds
ON	OFF	ON	OFF	10 seconds
ON	OFF	ON	ON	11 seconds
ON	ON	OFF	OFF	12 seconds
ON	ON	OFF	ON	13 seconds
ON	ON	ON	OFF	14 seconds
ON	ON	ON	ON	15 seconds

Annunciation Delay Settings

NOTE: DIP switches 5, 6, and 7 are not used at this time.
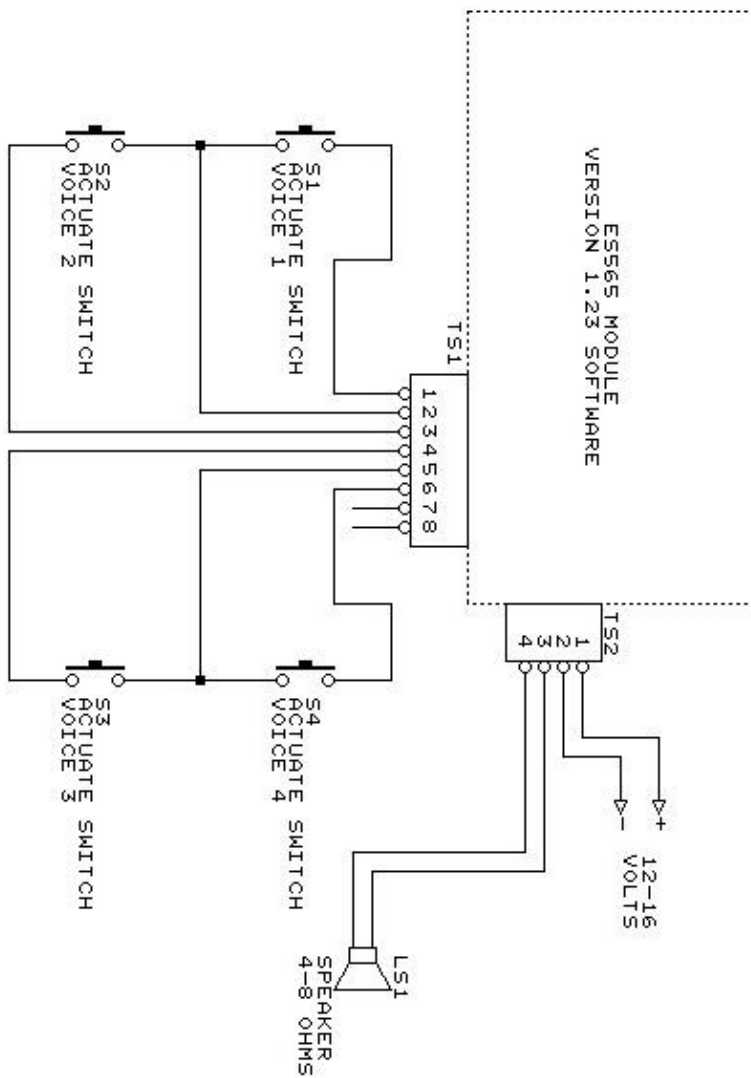
NOTES:

Power supply 12-16 volts DC only. Observe polarity!

Speaker load must be 4 ohms or greater.

Do not short either speaker terminal to ground at any time.

DIP switches 1-4 set delay between annunciations.

DIP switch 8 record safety switch.

Unconnected terminals not used.

ES565 MODULE
VERSION 1.23 SOFTWARE

TS1

1 2 3 4 5 6 7 8

TS2
1
2
3
4

S1
ACTUATE
VOICE 1
SWITCH

S2
ACTUATE
VOICE 2
SWITCH

S3
ACTUATE
VOICE 3
SWITCH

S4
ACTUATE
VOICE 4
SWITCH

LS1
SPEAKER
4-8 OHMS

12-16
VOLTS
+
−

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26 Dec 2006 ♦ 998-1039-2 ♦ Page 3 of 3