

**Voice Operated Relay Module  
Model A645**



**Model A645**

**THIS UNIT IS USED ON THE  
FOLLOWING AIRCRAFT:**

- NASA Projects

**GENERAL CHARACTERISTICS**

Input Power.....	28 VDC per MIL-STD-704A protected against 600 V spikes and transients
Size.....	.781" W x .656" L x 1.406" H over connector
Connector.....	SRE 7P-K

ENVIRONMENTAL.....	MIL-E-5400 Class 2
Temperature	
Continuous Operation.....	54° C to +71° C
Intermittent Operation.....	+71° C to +95° C

**PERFORMANCE**

Sensitivity.....	Adjustable from 1.4 to 12 Volts RMS
Frequency Range.....	300 to 2500 Hz
Attack Time.....	15 milliseconds maximum
Release Time.....	100 to 500 milliseconds
Insertion Loss.....	2 dB maximum
Isolation.....	60 dB minimum

**DESCRIPTION AND USE**

The A645 is a miniature, plug-in, voice operated relay module designed to provide hands-free operation in an interphone system without the objectionable background noise when no signals are present. The extremely fast attack time and lossless circuit insure no deterioration of the desired signal. The A645 is solid state, fully encapsulated and shielded.

C46-5399 Rev C

## INTERFACE DESCRIPTION

Voice Operated Relay (VOX)

- A645

Unit Connector

- SRE 7P-K, 7 pins

<u>Pin</u>	<u>Name</u>	<u>Description / Comments</u>
A	Battery Ground	<ul style="list-style-type: none"> <li>• DC Power Return</li> <li>• Input Low</li> <li>• Output Low</li> </ul>
B	VOX SENS LOW	<ul style="list-style-type: none"> <li>• VOX control Audio Input Low</li> <li>• 0 V to 0.1 Vrms</li> <li>• To external Potentiometer Low</li> </ul>
C	VOX SENS CTR	<ul style="list-style-type: none"> <li>• VOX sensitivity control Audio Input</li> <li>• To external Potentiometer wiper</li> <li>• Threshold Input, 0 to 6 Vrms</li> </ul>
D	VOX SENS HI	<ul style="list-style-type: none"> <li>• VOX sensitivity control Audio Input</li> <li>• 0 to 18 Vrms</li> <li>• To Potentiometer High</li> </ul>
E	VOX Input	<ul style="list-style-type: none"> <li>• Audio Input, 0 to 18 Vrms</li> <li>• Input Impedance &gt;1000 Ohms</li> </ul>
F	VOX Output	<ul style="list-style-type: none"> <li>• Audio Output, 0 to 18 Vrms</li> <li>• Output Load Impedance 600 Ohm</li> <li>• VOX control Pot set minimum, SENS: 12 Vrms</li> <li>• VOX control Pot set maximum, SENS: 1.4 Vrms</li> </ul>
H	+27.5 VDC	<ul style="list-style-type: none"> <li>• Normal Input Range 27 VDC to 28 VDC</li> <li>• Input Current maximum 15 mA</li> </ul>

