1.1 INTRODUCTION
This sheet describes the installation of the SAFE528 Blower with fault detection output. It is intended for use by airframe manufacturers and certified repair stations to install the SAFE528 and includes both mechanical and electrical installation information. The installer should insure that the SAFE528 is operating according to its intended function.

1.2 PRODUCT DESCRIPTION
The SAFE528 is an avionics cooling fan that provides an operating indication. When the fan is normally operating, this is at low impedance. The output goes to high impedance whenever the RPM of the motor drops below a preset threshold, signaling the connected avionics of the reduction in cooling from the SAFE528.

1.3 TECHNICAL CHARACTERISTICS
1.3.1 PHYSICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Width</th>
<th>2.10”</th>
<th>Height</th>
<th>5.13”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depth</td>
<td>6.74”</td>
<td>Weight</td>
<td>1.19 lb</td>
</tr>
</tbody>
</table>

1.3.2 OPERATIONAL CHARACTERISTICS

- Operating Voltage: 22-31Vdc
- Current: Operating 0.400 Amps Nominal
- Start-up 0.550 Amps
- Air Flow (All Ports): 20 CFM No Static Pressure (10CFM @ 0.08 H2O Static Pressure)
- Operating Temp: -20 to +55 °C
- Max Operating Altitude: 55,000 Feet
1.3.3 Certification
FAA-PMA Beechcraft A36
DO 160D [F1]BAA[S2R2U(F,B2,M)]XXXXXXZBAZA[XX]M[XXXX][XX]XX

2.0 INSTALLATION PROCEDURES

2.1 General
The SAFE528 is supplied with a mounting connector and four contacts. Only three contacts are required and the spare one is provided in case one is destroyed during installation. The SAFE528 is mounted with three (3) number 6 or 8 screws. Cooling air is ducted to the device to be cooled using aircraft approved tubing. Unused ports should be capped.

2.2 Equipment Required

2.2.1 Supplied
SAFE528 System 705722-00
Includes: SAFE528 Fan 305722-00
Installation Kit 305477-00
Mating Connector 305479-03
Mating Pins 305478

2.2.2 Required but not supplied
Three (3) or six (6) Number 6-32, 8-32 or equivalent mounting screws depending on mounting.

2.3 Mounting
The SAFE528 mounts with three (3) or six (6) 6-32 or 8-32 or equivalent machine screws depending on mounting.

2.4 Electrical
The SAFE528 operates on 28Vdc. It will provide a low on the Fan Fail pin (center pin) of the connector when operating normally. When airflow drops to 65% of nominal, as determined by fan RPM, the Fan Fail pin will output a high. An external pull-up is required. Power to SAFE528 can be supplied from the aircraft buss or from the unit to be cooled if an output is available. If connected to the aircraft buss, the SAFE528 should be protected by a 1.0 amp fuse or breaker.

<table>
<thead>
<tr>
<th>Description</th>
<th>Manufacturer</th>
<th>Series Number</th>
<th>Manf. Part Number</th>
<th>Sandia Part Number</th>
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<tbody>
<tr>
<td>Connector Housing</td>
<td>Molex</td>
<td>2695</td>
<td>22-1-3037</td>
<td>305479-03</td>
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<td>Crimp Contact</td>
<td>Molex</td>
<td>2759</td>
<td>08-50-0114</td>
<td>305478</td>
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<td>Hand Crimper Tool</td>
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<td>*11-03-0022</td>
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<td>Insertion Tool</td>
<td>Molex</td>
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</table>

*or equivalent

Mating Connector and Contact Information

2.5 Calibration
No calibration of the SAFE528 is required. The unit is tested by slowing the fan manually and observing a high on the Fan Fail pin. Allow the fan to return to normal speed and observe a low on the Fan Fail pin.

2.6 Continued Airworthiness
Maintenence of the SAFE528 is on condition only. No scheduled maintenance is required

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305738-00
Rev. B 10/8/12
ECN 3932