

# SERVICE INFORMATION

## NO. SI 42-254

## NO. SI 42NG-151

### **I TECHNICAL DETAILS**

#### **I.1 Airplanes affected**

Type: DA 42, DA 42 M, DA 42 NG, DA 42 M-NG

#### **I.2 Subject**

Safe Flight R-4065 Troubleshooting Guide for the Stall Warning System

ATA-Code: 05-00

#### **I.3 Reason**

Safe Flight Instrument, LLC has issued Doc. No. R-4065 - Troubleshooting Guide for the Stall Warning System on the DA 42 Aircraft.

#### **I.4 Information**

The purpose of this guide is to reliably identify unserviceable Lift Detectors. For detailed technical information refer to Safe Flight R-4065 Troubleshooting Guide for the Stall Warning System, which is applicable without any further additions or restrictions.

### **II REMARKS**

1. Safe Flight R-4065 Troubleshooting Guide for the Stall Warning System is attached to this Service Information.
2. In case of doubt contact Diamond Aircraft Industries GmbH.
3. For detailed information of the Service Information System refer to SI 42-001/ SI 42NG-001 latest issue.

**R-4065**  
**TROUBLESHOOTING GUIDE**  
**FOR THE STALL WARNING SYSTEM**  
**ON THE DIAMOND**  
**DA42 TWINSTAR AIRCRAFT**

***SAFE FLIGHT***

**REVISION NOTICE**

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**TABLE OF CONTENTS**

<b><u>Para.</u></b>	<b><u>Description</u></b>	<b><u>Page</u></b>
None	Title Page.....	1
None	Revision Notice .....	2
None	Proprietary Notice .....	3
None	Table of Contents.....	4
1.0	Introduction .....	5
2.0	Applicable Documents .....	5
3.0	Applicable Aircraft Components.....	5
4.0	Lift Detector P/N: C-99701-1 Functional Pinout.....	6

**1.0 INTRODUCTION**

This document is the Troubleshooting Guide for the Stall Warning System on the Diamond DA42 Twinstar aircraft.

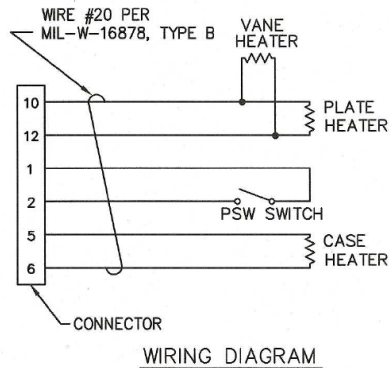
**2.0 APPLICABLE DOCUMENTS**

2.1 Diamond Schematic, Pitot and Stall Heat Wiring D60-9230-30-01 or equivalent

**3.0 APPLICABLE AIRCRAFT COMPONENTS**

3.1 Lift Detector (LD) PN: C-99701-1

## 4.0 LIFT DETECTOR P/N: C-99701-1 FUNCTIONAL PINOUT



The internal wiring diagram of the Lift Detector (LD) PN: C-99701-1 is detailed above. The Vane Heater and the Plate heater are wired in parallel.

Gain access to Lift Transducer connector to the aircraft harness. Carefully separate the Lift Detector connector from the aircraft harness and use an ohmmeter to troubleshoot the LD.

Lift Detector Function	Pins	Nominal Resistance @ Ambient	Notes
Vane Heater	10 – 12	22 Ω	Parallel resistance = 7.6 Ω ± 10% (6.84 – 8.36 Ω)
Plate Heater		11.6 Ω	
Case Heater	5 – 6	11.6 Ω	
Stall Warning (PSW)	1 – 2	Vane neutral = Open	
		Vane UP = Continuity	

Measurement	Resistances	Notes
Pins 10 – 12	7.6 Ω nominal @ ambient	If measurements read between 19.8 – 24.2 Ω, the <b>Mounting Plate heater</b> is open. Replace the Lift Detector
		If measurements read between 10.4 – 12.8 Ω, the <b>Vane heater</b> is open. Replace the Lift Detector
Pins 5 – 6	11.6 Ω nominal @ ambient	The <b>Case Heater</b> has only one failure mode. If the heater resistance is OPEN, replace the Lift Detector