

CO Guardian LLC 1951 E. Airport Dr. Tucson, AZ 85706

Document No. ICA-101

# **INSTRUCTIONS FOR CONTINUED AIRWORTHINESS**

# **CARBON MONOXIDE DETECTOR MODEL 452 INSTALLATION**

**FOR** 

**CESSNA MODEL 172 AIRCRAFT** 

STC NO: ST9261LA-A

# **RECORD OF REVISIONS**

No.	Revision Inserted	Date	Ву	No.	Revision Inserted	Date	Ву
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#### 1. INTRODUCTION

This document presents the Instructions for Continued Airworthiness (ICA) for the Model 452 series Carbon Monoxide Detector installation in Cessna Model 172 aircraft when the Carbon Monoxide Detector is installed in accordance with Supplemental Type Certificate (STC) ST9261LA-A.

# 1.1 Applicable Documents

CO Guardian Installation and Operational Manual, 01-2510-02.

The operator should place installation manual in an appropriate location for easy access.

# 1.2 Scope

The scope of this document is limited to information, procedures, requirements, and limitations for Instructions for Continued Airworthiness for this Supplemental Type Certificate.

# 1.3 Applicability

These Instructions for Continued Airworthiness are applicable only to the CO Guardian Model 452 CO Detector installed on Cessna 172 model aircraft.

#### 2. DESCRIPTION

The Carbon Monoxide Detector indicator installation consists of one Model 452 CO Detector, one dedicated power circuit breaker, and one optional remote indicating light. The Carbon Monoxide Detector is a stand-alone system and is not interfaced to any existing aircraft systems other than the aircraft DC power buss.

The CO Detector continuously senses the concentration of carbon monoxide (CO) in the cockpit installation area and provides an aural and visual alarm within 5 minutes or less whenever the carbon monoxide level reaches 50 parts per million (PPM) by volume or above. The warning time is shortened at higher levels of CO concentrations and becomes approximately instant should the carbon monoxide level reach 400 parts per million by volume (PPM) or above. The unit has a built in three-minute delay at startup for the CO sensor to stabilize before it will detect CO.

# 3. DOCUMENT CHANGE CONTROL

Changes to this document will be distributed to registered owners of the Model 452 CO Detector series within 10 days after the revision is approved. Changes to this document will be indicated by a revision change in the header, vertical lines adjacent to the change, in the Record of Revisions, and in the List of Affected Pages.

#### 4. SERVICE INFORMATION

No servicing of the CO Detector is required.

#### 5. MAINTENANCE INSTRUCTIONS

The carbon monoxide detector and associated equipment consist of certain parts, which do not require periodic scheduled servicing or periodic scheduled preventive maintenance. At every power up the system will go through a self-diagnostic check and will show a green light within 10 seconds if the unit is working properly. The unit has a built in three-minute delay at startup for the CO sensor to stabilize before it will detect CO.

The CO Detector, the power circuit breaker, the interconnect wiring, and the CO Detector mating connector shall be included in general visual inspections for system integrity, security, corrosion and chaffing.

#### NOTE:

The unit must be returned to the manufacturer for overhaul every seven (7) years for sensor replacement and recalibration.

NO FIELD SERVICE OR OVEHAUL IS AUTHORIZED.

## 6. TROUBLESHOOTING INFORMATION

Return the unit to CO Guardian for repair or replacement if during Self-Test of the Model 452 unit, the amber alert light continues to blink once per second and the remote alert light, if installed, continues to blink at a rate of once each four (4) seconds.

No service or repair can be performed in the field.

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## 7. REMOVALS AND REPLACEMENT INFORMATION

Reference Document 01-2510-02, Carbon Monoxide Detector Model 452 Installation and Operational Manual for installation and removal information.

## 8. DIAGRAMS

Reference Document 01-2510-02, Carbon Monoxide Detector Model 452 Installation and Operational Manual for installation diagrams.

## 9. SPECIAL INSPECTION REQUIREMENTS

No applicable

# 10. APPLICATION OF PROTECTIVE TREATMENTS

Not applicable

## 11. DATA

# 11.1 Electrical Loads

Nominal -- 1 watt Maximum (14 VDC models, heater on) -- 9 watts Maximum (28 VDC models, heater on) -- 10 watts

## 12. RECOMMENDED OVERHAUL PERIODS

To maintain airworthiness status of the Model 452 Carbon Monoxide Detector indicator installation, it is <u>mandatory</u> that the unit be returned to CO Guardian for CO sensor replacement and recalibration every seven (7) years.

#### 13. AIRWORTHINESS LIMITATION SECTION

## **NOTE**

The Airworthiness Limitations section is FAA approved and specifies maintenance required under §§ 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been approved.

To maintain airworthiness status of the Model 452 Carbon Monoxide Detector indicator installation, it is <u>mandatory</u> that the unit be returned to CO Guardian for CO sensor replacement and recalibration every seven (7) years.

Because of the sensor calibration and special gases required for testing, if any discrepancies are noted with the unit during installation or during the seven (7) year operational life cycle, the unit shall be returned to CO Guardian for repair or replacement.

Return defective and end of service life units to:

CO Guardian, LLC 1951 E. Airport Drive Tucson, Arizona 85706

1-800-274-8451

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## 14. REVISION

Should any holder of this ICA find a need for a revision to this ICA they are requested to forward a request for change to CO Guardian. The request should contain a clear explanation of the reason for change.

Co Guardian will coordinate all valid changes with the FAA and obtain approval prior to providing ICA changes to registered owners of the Model 452 CO Detector installations.