

500W Series AML STC Installation

Master Data List

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Record of Revision

Rev.	Date	Description of Change
1	10-19-06	Initial Release
A	10-31-06	Revision for STC issuance

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1. INTRODUCTION

1.1 Purpose

The purpose of this document is to list the data required to support STC installation of the Garmin 500W series GPS/WAAS Nav/Com navigator in accordance with STC SA01933LA requirements, and to list other data associated with the STC which is not required for installation.

1.2 Scope

This document applies to the installation of the 500W series units when installed IAW the data listed in this document on the Approved Model List aircraft as defined for this STC. This document includes general installation requirements, special installation instructions, and it provides an index of STC data including both data required for installation and data associated with the STC, but not required for installation. This STC covers both new installations and upgrade installations.

1.3 Document Revision

This document shall be released, archived, and controlled in accordance with Garmin document control system. As such when this and other documents are revised, the entire document is revised and the new revision nomenclature is changed on each page of the revised document.

1.4 Definitions

The following terminology is used within this document:

- 1) **AC:** Advisory Circular
- 2) **AML:** Approved Model List
- 3) **DER:** Designated Engineering Representative
- 4) **FAA:** Federal Aviation Administration
- 5) **FARs:** Federal Aviation Regulations
- 6) **IAW:** In accordance with
- 7) **STC:** Supplemental Type Certificate
- 8) **TIA:** Type Inspection Authorization

2. DATA AND EQUIPMENT LIST REQUIRED FOR INSTALLATION

2.1 Data Required for Installation

2.1.1 500W Series Installation Data (New Installations)

All documents listed in Table 1 are required for installation purposes for new installations of the 500W series equipment. All documents must be of the revision listed or later FAA approved revisions.

Table 1 STC Data (New Installations)

Mfg.	Doc No.	Rev	Description
Garmin	005-C0221-01	A	500W Series Master Data List (this document)
Garmin	190-00357-65	A	500W Series Instructions for Continued Airworthiness
Garmin	190-00357-02	A	500W Series Installation Manual
Garmin	190-00357-63	A	500W Series AFMS

2.1.2 500W Series Installation Data (Upgrade Installations)

All documents listed in Table 2 are required for installation purposes when installing upgraded 500W series equipment in the location in the aircraft where a legacy 500 series unit was installed. Specific instructions for the installation of an upgraded unit is contained in 190-00357-06, STC Upgrade Installation Manual. All documents must be of the revision listed or later FAA approved revisions.

Table 2 STC Data (Upgrade Installations)

Mfg.	Doc No.	Rev	Description
Garmin	005-C0221-01	A	500W Series Master Data List (this document)
Garmin	190-00357-65	A	500W Series Instructions for Continued Airworthiness
Garmin	190-00357-06	A	STC Upgrade Installation Manual
Garmin	190-00357-02	A	500W Series Installation Manual
Garmin	190-00357-63	A	500W Series AFMS

2.1.3 Continued Airworthiness

Instructions for continued airworthiness are found in Garmin document number 190-00357-65 Instructions for Continued Airworthiness. See Table 1 or Table 2 for document revision.

2.2 Substantiating Data

The documents listed in Table 3, or later FAA-approved revisions, contain information related to this STC but are not required for follow-on installations.

Table 3 Related Data (Substantiating Data)

Doc No.	Rev	Description
005-00221-12	2	Project Specific Certification Plan (PSCP) for Installation of 400W and 500W Series unit in STC AML
005-00221-13	2	400W and 500W series STC System Accomplishment Summary
005-00221-07	3	400W and 500W series System Safety Assessment
005-00221-16	1	Ground Test Plan
005-00221-17	1	Flight Test Plan
005-00221-75	1	400W/500W Series Model Qualification Process
005-00221-76	1	400W/500W Series Acceptance Analysis for STC AML

2.3 Equipment List

All equipment must have the Part Numbers and Software Versions contained in the following table, or later FAA Approved revisions or versions.

Table 4 Required Equipment List

Model	Description	Part Number	Mfg.	Software Ver. (or later FAA approved version)
GPS 500W	GPS Black bezel GPS Gray bezel Upgraded GPS Black bezel Upgraded GPS Gray bezel	011-01062-00 011-01062-10 011-01062-40 011-01062-50	Garmin	Main Ver. 2.00 GPS Ver. 2.4
GPS 500W TAWS	GPS Black bezel GPS Gray bezel Upgraded GPS Black bezel Upgraded GPS Gray bezel	011-01063-00 011-01063-10 011-01063-40 011-01063-50	Garmin	Main Ver. 2.00 GPS Ver. 2.4
GNS 530W	GPS Com Nav Black bezel GPS Com Nav Gray bezel Upgraded GPS Com Nav Black bezel Upgraded GPS Com Nav 28V, Black bezel Upgraded GPS Com Nav Gray bezel	011-01064-00 011-01064-10 011-01064-40 011-01064-45 011-01064-50	Garmin	Main Ver. 2.00 GPS Ver. 2.4
GNS 530W TAWS	GPS Com Nav Black bezel GPS Com Nav Gray bezel Upgraded GPS Com Nav Black bezel Upgraded GPS Com Nav 28V, Black bezel Upgraded GPS Com Nav Gray bezel	011-01065-00 011-01065-10 011-01065-40 011-01065-45 011-01065-50	Garmin	Main Ver. 2.00 GPS Ver. 2.4
GNS 530AW	GPS Com Nav 28V, Black bezel GPS Com Nav 28V, Gray bezel Upgraded GPS Com Nav 28V, Black bezel Upgraded GPS Com Nav 28V, Gray bezel	011-01066-00 011-01066-10 011-01066-40 011-01066-50	Garmin	Main Ver. 2.00 GPS Ver. 2.4
GNS 530AW TAWS	GPS Com Nav 28V, Black bezel GPS Com Nav 28V, Gray bezel Upgraded GPS Com Nav 28V, Black bezel Upgraded GPS Com Nav 28V, Gray bezel	011-01067-00 011-01067-10 011-01067-40 011-01067-50	Garmin	Main Ver. 2.00 GPS Ver. 2.4

3. GENERAL INSTALLATION REQUIREMENTS

4. GENERAL

The installation must be done in accordance with all applicable FARs. The installation shall conform to the data listed in Section 2.1, Data Required for Installation with exception of special instructions as defined in Section 5 Special Installation Instructions, which shall have precedence over the data listed in Section 2.1.

4.1 Prerequisite

This 500W Series STC requires a TSO-C144 GPS/WAAS antenna as specified in the 190-00357-02 Installation Manual. This STC does not support mounting installation of these antennas, but this STC does support the operational checks for the GPS/WAAS antenna. For mounting installation of the GPS/WAAS antenna, use STC SA01695SE, follow aircraft manufacturer's installation data, or use other approval method.

4.2 Mechanical

Mechanical installation, wiring, cable bundling and routing, and connections to existing aircraft systems must conform to those specific instructions or requirements found in the STC data. Those aspects of the STC where specific installation instructions or requirements are not provided in the STC data, the installer shall conform to the recommended practices and procedures found in AC 43.13-2A, Chapter 2, Radio Installations, and Chapter 3, Antenna Installations; AC 43.13-1B, Chapter 11, Electrical Systems, Section 3, 4 and 7.

4.3 Hardware

Hardware not supplied with the equipment, or otherwise specified in the appropriate installation manuals or other STC data (ie screws, nuts, tie wrap.... etc) shall be from standard aircraft hardware as described by AC 43.13-1B, Chapter 7, Aircraft Hardware, Control Cables and Turnbuckles.

4.4 Wiring

All wire used in the installation shall be of appropriate standard aircraft quality grade and size as described in AC 43.13-1B, Chapter 11, Sections 5-20.

4.5 Circuit Protection

All 500W series unit modification circuits shall be protected in accordance with AC 43.13-1B, Chapter 11, Section 4, Circuit Protection Devices.

4.6 Electrical Load Analysis

An electrical load analysis shall be performed on each aircraft, as described in AC 43.13-1B, Chapter 11 Section 3. The document P/N 190-00357-02 500W Series Installation Manual provides specifications on the 500W Series power requirements.

5. SPECIAL INSTALLATION INSTRUCTIONS

None

6. ADDITIONAL SYSTEM NOTES

No other system notes.