

GDL 69/69A XM Radio Data Link Receiver

STC Master Data List

STC SA01487SE-D

Garmin Ltd. or its subsidiaries
c/o Garmin International, Inc.
1200 E. 151st Street
Olathe, Kansas 66062 USA

Dwg. Number:
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FAA APPROVED  _____ ODA ADMINISTRATOR 8/6/2009 _____ DATE ODA-240087-CE Garmin International 1200 E. 151st, Olathe KS 66062

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Rev.	Date	Description of Change
A	12/20/04	Initial Release
B	2/16/05	Add 400/500 interface
C	7/28/05	Add GDU-104X interface and SW Ver 3.00
D	10/27/05	Revised to add SW Ver. 3.02
E	6/29/06	Add GA 55A, GA 57 antennas and reference to Antenna STC
F	10/18/07	Revised to add SW Ver. 3.20
G	1/16/08	Add GRT10/GRC10
H	2/15/08	Change version of CSD 005-00217-80 to Rev 2
J	8/20/08	Add GDL 69 SW v3.30 and GDU 620
K	7/30/09	Add GDL 69 SW v3.40, Re-issue STC under ODA

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1. INTRODUCTION

1.1 Purpose

The purpose of this document is to list the data required to support STC SA01487SE-D installation of the Garmin GDL 69/69A XM Satellite Radio data link and optional GRT 10/GRC 10 Wireless Remote System in accordance with STC requirements.

1.2 Scope

This document applies to the installation of the GDL 69/69A and optional GRT 10/GRC 10 when installed in accordance with the data listed in this document on the Approved Model List aircraft as defined for STC SA01487SE-D. This document includes general installation requirements, special installation instructions, and it provides an index of STC data.

1.3 STC includes Approved Model List

The STC includes an approved model list that should be consulted for applicability to each installation.

1.4 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.

1.5 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) **STC:** Supplemental Type Certificate
- 7) **TIA:** Type Inspection Authorization

2. DATA AND EQUIPMENT LIST REQUIRED FOR INSTALLATION

2.1 Data Required for Installation

2.1.1 GDL 69/69A Installation Data

All documents listed in Table 1 are required for installation purposes.

Table 1 STC Data

Doc No.	Rev	Description
005-C0217-00	K	GDL 69/69A Master Data List (this document)
190-00355-00	D	GDL 69/69A Instructions for Continued Airworthiness
190-00355-02	J	GDL 69/69A Installation Manual

2.1.2 Continued Airworthiness

Instructions for continued airworthiness are found in Garmin document number 190-00355-00 Instructions for Continued Airworthiness. See Table 1 for document revision.

2.2 PMA Parts

The following document lists all parts and assemblies PMA approved under STC SA01487SE-D.

005-00217-A6 FAA-PMA Parts List for the GDL 69/69A in STC SA01487SE-D

2.3 Equipment List

All equipment must have the Part Numbers and Software Versions contained in the following table.

Table 2 - Required Equipment List

	Description	Part Number	Mfg.	Software Ver.
OR	GDL 69 XM Satellite Radio	011-00986-00	Garmin	Ver. 2.11, 2.13, 2.14,
	GDL 69A XM Satellite Radio Data with audio	011-00987-00	Garmin	3.00, 3.01, 3.02, 3.10, 3.20, 3.30, 3.40
OR	GRT 10 Transceiver (optional)	011-01557-00	Garmin	2.01
	GRC 10 Remote Control (optional)	011-01558-00	Garmin	2.00
	GA 37 XM/GPS Antenna (Thru mount)	013-00245-00	Garmin	N/A
	GA 55 XM Antenna (Stud mount)	011-01033-00	Garmin	
	GA 55A XM Antenna (Thru mount)	011-01153-00	Garmin	
	GA 57 XM/GPS Antenna (Thru mount)	011-01032-00	Garmin	

This STC requires previous or concurrent installation of a control display unit if installing the GDL 69/69A, and a control display unit and audio panel if installing a GDL 69A. The GDL 69/69A Installation Manual, document number 190-00355-02 provides a list of control display equipment compatible with the GDL 69/69A.

The GDL 69/69A STC supports interfacing with compatible control display units and audio panels. It does not support installation of the interfaced equipment.

The GRT 10/GRC 10 Wireless Remote System is optional and requires installation of the GDL 69A. The GRT 10 and GRC 10 are configured to work as a pair; replacing either unit will require reconfiguring the GRC 10.

Table 3 – Interfaced Control Display Equipment Compatibility

GDL 69/69A	Interfaced Control Display Unit		Wireless Remote System	
Software Version Or later version	Model	Software Version Or later version	Model	Software Version Or later version
Ver. 2.11	MX20 GMX 200	Ver. 5.5 Ver 2.02	N/A	N/A
Ver. 2.13	GPS 400 GNC 420 GNC 420A GNS 430 GNS 430A	Ver. 4.03	GRT 10 GRC 10	Ver 2.01 Ver 2.00
	GPS 500 GPS 500A GNS 530 GNS 530A	Ver. 5.03		
Ver. 2.13	GPS 400W GNC 420W GNC 420AW GNS 430W GNS 430AW	Ver. 2.00	GRT 10 GRC 10	Ver 2.01 Ver 2.00
Ver. 2.13	GPS 500W GPS 500W TAWS GNC 530W GPS 530W TAWS GNC 530AW GPS 530AW TAWS	Ver. 2.00	GRT 10 GRC 10	Ver 2.01 Ver 2.00
Ver. 3.20	GDU 620	Ver. 2.01	GRT 10 GRC 10	Ver 2.01 Ver 2.00
Ver. 2.14	GDU 1040	Ver 4.01	GRT 10 GRC 10	Ver 2.01 Ver 2.00
	GDU 1042	Ver. 5.01		
	GDU 1043	Ver. 5.01		

Note: XM proposed change in XM Radio transmitted data would not be compatible with GDL 69/69A software versions 3.01 or earlier if the proposed change should ever be implemented. Garmin recommends that GDL 69/69A units with versions 3.01 or earlier be upgraded to version 3.02 or later.

3. GENERAL INSTALLATION REQUIREMENTS

3.1 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 4 Special Installation Instructions, which shall have precedence over the data listed in Section 2.1.

3.2 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.

3.3 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 5, Aircraft Hardware.

3.4 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.

3.5 Circuit Protection

All GDL 69/69A and optional GRT 10 modification circuits shall be protected in accordance with AC 43.13-1B, Chapter 11, Section 4, Circuit Protection Devices.

3.6 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 190-00355-02 GDL 69/69A Installation Manual provides specifications on the GDL 69/69A and GRT 10 power requirements. The GRC 10 is a portable battery-powered unit.

4. SPECIAL INSTALLATION INSTRUCTIONS

This STC requires either the aircraft has existing XM antenna installed, or the XM antenna must be installed using other approved data external to this STC. One method to install the XM antenna is per the Garmin GA Antenna AML STC (STC# SA01695SE) for applicable aircraft listed on the Approved Model List.

The optional GRT 10/GRC 10 Wireless Remote System requires installation of the GDL 69A. The GRT 10 and GRC 10 are designed to work as a pair; the initial installation or replacing either unit will require configuring the GRC 10 remote control to recognize the GRT 10 transceiver.

5. ADDITIONAL SYSTEM NOTES

The GDL 69/69A Installation Manual document number 190-00355-02 Rev. E or later removes installation data for the GA 55 antenna and now references the installation of the antennas to follow other installation STC data. GA 55 antenna installations installed under GDL 69/69A Installation Manual 190-00355-02 Rev D or prior revisions are still valid under this STC. Revision F or later covers the installation of the GRT10/GRC10.