

GDL 69/69A XM Radio Data Link Receiver

STC Master Data List

For FAA STC SA01487SE

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

Dwg. Number:
005-C0217-00 Rev. H

FAA ACTION

Seattle Aircraft Certification Office

Approved FAR's JAR's

Rejected Concurrence

Comments: _____

Branch	Concurrence	Date
1305	ttt	2/20/08

Project Engineer	Phone	Date
6486	6479	2/20/08

Manager	Phone	Date
08-1194	810-6/SA 01487SE/	

Ref # (WTS)	File Code	Staffing Standard
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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

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1. INTRODUCTION

1.1 Purpose

The purpose of this document is to list the data required to support STC SA01487SE 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, 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 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. 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.

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 and must be of the revision listed or later FAA approved revisions.

Table 1 STC Data

Doc No.	Rev	Description
005-C0217-00	H	GDL 69/69A Master Data List (this document)
190-00355-00	C	GDL 69/69A Instructions for Continued Airworthiness
190-00355-02	F	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 Substantiating Data

The documents listed in Table 2, or later FAA-approved revisions, contain information related to this STC but are not required for follow-on installations. A complete list of all substantiating data is listed in the System Accomplishment Summary (005-00217-04, revision listed in table below) or GRT10/GRC10 Compliance Summary (005-00217-80, revision listed in table below).

Table 2 Related Data (Substantiating Data)

Doc No.	Rev	Description
005-00217-04	5	GDL 69/69A STC System Accomplishment Summary
005-00217-33	3	GDL 69/69A Environmental Qualification Form
005-00217-80	2	GRT10/GRC10 Compliance Summary
005-00217-85	2	GRC 10 Environmental Qualification Form
005-00217-86	2	GRT 10 Environmental Qualification Form
005-00233-00	C	GA 55 Environmental Qualification Form
005-00240-00	C	GA 5X Environmental Qualification Form
010-00326-01	D	GDL 69 Top Assy Standard Remote
010-00326-02	B	GDL 69 Top Assy Standard Modular
010-00339-01	D	GDL 69A Top Assy Standard Remote
010-00339-02	B	GDL 69A Top Assy Standard Modular
010-00588-00	B	GRT 10 Top Assy Unit Only
010-00588-10	A	GRT 10 Top Assy Standard Kit
010-00589-00	B	GRC 10 Top Assy Unit Only
010-00589-10	A	GRC 10 Top Assy Standard Kit
010-10598-00	A	GA 55A Antenna Kit
010-10600-01	D	GA55 Antenna Kit, Stud Mount
011-00986-00	F	GDL 69 LRU (Sub Assy)
011-00987-00	E	GDL 69A LRU (Sub Assy)
011-01033-00	B	GA 55 LRU (Sub Assy)
011-01153-00	B	GA 55A Antenna
011-01557-00	A	GRT 10 LRU (Sub Assy)
011-01558-00	B	GRC 10 LRU (Sub Assy)

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 3 - Required Equipment List

	Description	Part Number	Mfg.	Software Ver. Or later FAA approved version
OR	GDL 69 XM Satellite Radio	011-00986-00	Garmin	Ver. 2.11, 2.13, 2.14, 3.00, 3.01, 3.02, 3.10, 3.20
	GDL 69A XM Satellite Radio Data with audio	011-00987-00	Garmin	
OR	GRT 10 Transceiver (optional)	011-01557-00	Garmin	2.01
	GRC 10 Remote Control (optional)	011-01558-00	Garmin	2.00
	GA 55 XM Antenna (Stud mount)	011-01033-00	Garmin	N/A
	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 in 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 4 – 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. 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: A 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 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 GA 55, GA 55A, and GA 57 antenna following 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.