

Apollo CNX80 STC Master Data List

Garmin AT
2345 Turner Rd SE
Salem, OR 97302

27 October 2003
Part #: 560-0987-00 Rev E

Apollo CNX80 Master Data List

Part Number: 560-0987-00
Document Revision: E
27 October 2003

Garmin AT, Inc.
2345 Turner Rd SE
Salem, OR 97302 USA

Phone (503) 581-8101
FAX (503) 364-2138

APOLLO® is a registered trademark of Garmin AT, Inc.
Garmin AT™ is a trademark of Garmin Ltd. or its subsidiaries.

Printed in the USA

Apollo CNX80 STC Master Data List

Garmin AT
2345 Turner Rd SE
Salem, OR 97302

27 October 2003
Part #: 560-0987-00 Rev E

Revision Log

Rev	Date	Description	EN	By
--	23-Apr-03	Original Release	7625	dfs
A	30-May-03	Revised document revisions in Table 1 and Table 2 to reflect updated documents.	7654	dfs
B	5-Jun-03	Changed revision status of AFM and added A33/A34 installation guides.	7659	dfs
C	19-Jun-03	Revised document revisions to reflect updated documents and added new documents to Table 1 and Table 2.	7662	dfs
D	27-Jun-03	Update document revisions (Table 1, Table 2)	7662	mak
E	27-Oct-03	Update documents for company name and v1.2 application software (Table 1).	7729	mak

Garmin AT, Inc.		Cage Code 0XCJ6	P. O. Box 13549 Salem, Oregon USA
Title:	Apollo CNX80 STC Master Data List	Number:	560-0987-00
Prepared By:	Daniel Schmidt	Date:	4/23/03
Approved By:	<i>Chris Schulte</i> Chris Schulte, CNX80 Project Manager (approval signature on file)	Date:	4/24/03
Approved By:	<i>Marv A. Kumley</i> Marv Kumley, Sr. Systems Eng. (approval signature on file)	Date:	4/24/03

Apollo CNX80 STC Master Data List

Garmin AT
2345 Turner Rd SE
Salem, OR 97302

27 October 2003
Part #: 560-0987-00 Rev E

Table of Contents

1	INTRODUCTION	4
1.1	PURPOSE.....	4
1.2	SCOPE.....	4
1.3	STC INCLUDES APPROVED MODEL LIST.....	4
2	DATA AND EQUIPMENT LIST REQUIRED FOR INSTALLATION	4
2.1	DATA REQUIRED FOR INSTALLATION	4
2.1.1	<i>Apollo CNX80 Installation Data</i>	4
2.1.2	<i>Continued Airworthiness</i>	5
2.2	RELATED DATA (SUBSTANTIATING DATA).....	5
2.3	REFERENCE DOCUMENTS	5
2.4	EQUIPMENT LIST	6
3	GENERAL INSTALLATION REQUIREMENTS	6
3.1	GENERAL.....	6
3.2	MECHANICAL	6
3.3	HARDWARE	6
3.4	WIRING	7
3.5	CIRCUIT PROTECTION	7
3.6	ELECTRICAL LOAD ANALYSIS	7
4	SPECIAL INSTALLATION INSTRUCTIONS	7
5	ADDITIONAL SYSTEM NOTES	7

Apollo CNX80 STC Master Data List

Garmin AT
2345 Turner Rd SE
Salem, OR 97302

27 October 2003
Part #: 560-0987-00 Rev E

1 Introduction

1.1 Purpose

The purpose of this document is to list the data required to support STC installation of the Garmin AT Apollo CNX80 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 Apollo CNX80 when installed to the Approved Model List as defined in the 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.

1.3 STC includes Approved Model List

The STC includes an approved model list that should be consulted for applicability to each installation. If the installation is covered under the STC, then the approved AFM can be directly used for that installation. The installer should complete page 1 of the AFM (add make/model, registration number and serial number) and include it with the aircraft's existing flight manual.

2 Data and Equipment List Required for Installation

2.1 Data Required for Installation

2.1.1 Apollo CNX80 Installation Data

All documents listed in Table 1 are required for installation purposes and must be of the version listed or later FAA approved revisions.

Table 1 - STC Data

Doc No.	Rev	Description
560-0987-00	E	Apollo CNX80 Master Data List (<i>this document</i>)
560-0985-00	E	Apollo CNX80 AFM Supplement
560-0986-00	D	Apollo CNX80 Instructions for Continued Airworthiness
560-0982-00	E	Apollo CNX80 Installation Manual
560-0984-00	C	Apollo CNX80 Pilot's Guide
560-0949-01	B	A33 GPS Antenna Installation Guide
560-5047-00	B	A34 GPS Antenna Installation Guide

Apollo CNX80 STC Master Data List

Garmin AT
2345 Turner Rd SE
Salem, OR 97302

27 October 2003
Part #: 560-0987-00 Rev E

2.1.2 Continued Airworthiness

Instructions for continued airworthiness are found in Garmin AT document number 560-0986-00 Instructions for Continued Airworthiness.

2.2 Related Data (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.

Table 2 - Substantiating Data

Doc No.	Rev	Description
424-2014-800	--	Apollo CNX80 Installation kit
PD3104	B	Apollo CNX80 System Certification Plan
PD2248	D	Apollo CNX80 STC System Accomplishment Summary
PD3105	--	Apollo CNX80 Plan Software Aspects of Certification
PD2215	--	Apollo CNX80 Plan for PLD Aspects for Certification
PD2249	A	Apollo CNX80 System Safety Assessment
PD2212	A	Apollo CNX80 Functional Hazard Assessment
PD2267	--	Process for the Acceptance for Aircraft on the CNX STC AML
PD2213	--	Apollo CNX80 Ground & Flight Test Plan
PD3108	A	Apollo CNX80 Environmental Test Report Summary
PD2106	A	Flight Test Report for Motorola Oncore GPS and UPSAT WAAS GPS Sensor

2.3 Reference Documents

The following documents are used as reference for the installation.

- FAA AC 43.13-1B, Acceptable Methods, Techniques, and Practices - Aircraft Inspection and Repair
- FAA AC 43.13-2A, Acceptable Methods, Techniques, and Practices - Aircraft Alterations
- FAA AC 20-138A (final draft) dated 02/01/2003, Airworthiness approval of Global Navigation Satellite System (GNSS) Equipment

Apollo CNX80 STC Master Data List

Garmin AT
2345 Turner Rd SE
Salem, OR 97302

27 October 2003
Part #: 560-0987-00 Rev E

2.4 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 - System Equipment List

Description	Model No.	Mfg. P/N	Mfg.	Comment
WAAS/GPS/Nav/Com	CNX80	430-6100-800-001	Garmin AT	SW Ver. 1.1 or 1.2
GPS Antenna	A-33	590-1104 AT-575-9	Garmin AT AeroAntenna	Standard antenna
GPS Antenna	A-34	590-1112 AT-575-93	Garmin AT AeroAntenna	Optional "teardrop" footprint

Equipment listed as equivalent in this document is equivalent with respect to functionality of the Apollo CNX80 activated via this STC. It is the responsibility of those installing the equivalent equipment to verify that it is also acceptable for all other interfaces, devices, or integration considerations, and that it is equivalent for any and all other airworthiness considerations.

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 wraps.... etc) shall be from standard aircraft hardware as described by AC 43.13-1B, Chapter 5, Aircraft Hardware.

Apollo CNX80 STC Master Data List

Garmin AT
2345 Turner Rd SE
Salem, OR 97302

27 October 2003
Part #: 560-0987-00 Rev E

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 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 560-0982-00 CNX80 Installation Manual provides specifications on the CNX80 power requirements.

4 Special Installation Instructions

None

5 Additional System Notes

No other system notes.