

**INSTRUCTION BOOK**

**ILS 420  
LOCALIZER STATION**

**SINGLE FREQUENCY  
SINGLE EQUIPMENT PART NUMBER 098782  
TYPE FA-XXXX**

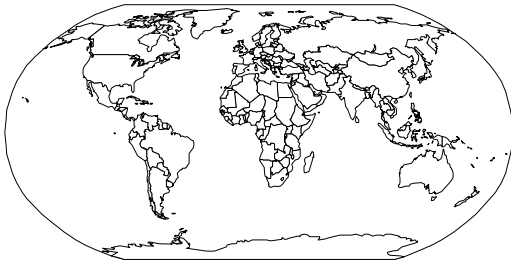
**DUAL FREQUENCY  
DUAL EQUIPMENT PART NUMBER 098783  
TYPE FA-XXXX**

**CONTRACT DTFAWA-05-C-00058**

THALES ATM Inc.  
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SHAWNEE, KANSAS 66227

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
27 FEBRUARY 2008





# THALES

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**DRAFT**

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**SINGLE FREQUENCY  
SINGLE EQUIPMENT PART NUMBER 098782**

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**MANUAL NO. 704749-0300**

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Revision A.5  
27 February 2008



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**- TECHNICAL SUPPORT AND ORDERING REPLACEMENT PARTS -**

For technical support and information on how to order replacement parts, contact your equipment provider listed below.

Thales  
23501 West 84<sup>th</sup> Street  
Shawnee, Kansas 66227 USA  
Tel: +1 913 422-2600  
Fax: +1 913 422-2962



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Page No.	*Change No.	Page No.	*Change No.	Page No.	*Change No.
Title.....	A.5	^i - ii .....	A.5		
Warranty .....	A.5	7-1 - 7-54 .....	A.5		
A.....	A.5	^i.....	A.5		
B Blank.....	A.5	ii Blank.....	A.5		
i .....	A.5	8-1 - 8-11 .....	A.5		
ii Blank .....	A.5	8-12 Blank .....	A.5		
iii - iv.....	A.5	^i - iii .....	A.5		
^i - viii.....	A.5	^iv Blank.....	A.5		
1-1 - 1-19 .....	A.5	9-1 - 9-62 .....	A.5		
1-20 Blank .....	A.5	^i.....	A.5		
^i - iv .....	A.5	^ii Blank.....	A.5		
2-1 - 2-63 .....	A.5	10-1 - 10-11 .....	A.5		
2-64 Blank .....	A.5	10-12 Blank .....	A.5		
^i - ii.....	A.5	^i - ii .....	A.5		
3-1 - 3-26 .....	A.5	11-1 .....	A.5		
^i.....	A.5	11-2 Blank .....	A.5		
^ii Blank.....	A.5	11-3 - 11-63 .....	A.5		
4-1 - 4-3 .....	A.5	11-64 Blank .....	A.5		
4-4 Blank .....	A.5	A-1 - A-9.....	A.5		
^i.....	A.5	A-10 Blank .....	A.5		
^ii Blank.....	A.5				
5-1 - 5-2 .....	A.5				
^i - ii.....	A.5				
6-1 - 6-50 .....	A.5				

\*A in this column indicates an original page.  
^Section Table of Contents





## SECTION TABLE OF CONTENTS

For a complete Table of Contents for each section, please refer to the section.

Section 1	General Information and Requirements
Section 2	Technical Description
Section 3	Operation
Section 4	Standards and Tolerances
Section 5	Periodic Maintenance
Section 6	Maintenance Procedures
Section 7	Corrective Maintenance
Section 8	Parts List
Section 9	Installation
Section 10	Computer Software
Section 11	Diagrams
Appendix A	Abbreviations/Acronyms



## INTRODUCTION

### The Equipment

The Instrument Landing System (ILS) 420 localizer station was developed according to Federal Aviation Administration (FAA) and International Civil Aviation Organization (ICAO) requirements and includes the localizer station and installation kit.

**NOTICE:** This equipment has been Type Accepted by the FCC (FCC ID BOJ420LOC) and changes or modifications not expressly approved by Thales may void the user's authority to operate this equipment.

### The Manual

This manual provides information needed to install, operate, and maintain the Thales ILS 420 localizer station. It is assumed that anyone using this book to operate the equipment has a thorough understanding of ILS and that anyone using it to maintain the equipment has graduated from the THALES ILS 420 localizer training course or has met required FAA training.

### Line-Replaceable Unit Maintenance Strategy

This manual supports a line-replaceable unit (LRU) maintenance strategy that simplifies onsite maintenance and minimizes downtime and life-cycle costs. With the LRU strategy, onsite technicians only need to know how to use the equipment's built-in diagnostics to identify faulty assemblies and how to replace them. The faulty assemblies are sent to THALES or another authorized depot for repair.

This strategy keeps the equipment in service, limits the time, skill, and equipment needs of onsite personnel, and limits assembly level diagnosis, repair, and testing to those facilities with the highly specialized equipment and technicians required to do it efficiently.

### Sections

**SECTION 1. GENERAL INFORMATION AND REQUIREMENTS.** This section describes the equipment, its purpose, physical specifications and requirements, and the interrelationships of the equipment in the group.

**SECTION 2. ~~THEORY OF OPERATION~~ TECHNICAL DESCRIPTION.** This section will help you understand how the whole system works and how its subsystems interrelate. It will also give you the perspective you will need to do broad troubleshooting when fault isolation procedures are not enough. It covers only those LRUs and other parts that can be replaced onsite and describes their inputs, outputs, and controls.

**SECTION 3. OPERATION.** This section tells you how to operate the equipment and includes controls and indicators, operating procedures, and a screen-by-screen explanation of how to control and monitor the equipment with ~~a portable maintenance data terminal (PMDT)~~ the local control panel (LCP).

**SECTION 4. STANDARDS AND TOLERANCES.** This section lists the standards, tolerances, and parameters of the equipment in the group.

**SECTION 5. PERIODIC MAINTENANCE.** This section tells you how and when to check and maintain the equipment to make sure it is always performing at its peak.

**SECTION 6. MAINTENANCE ~~PROCEDURES~~.** This section tells you how to maintain the equipment.

**SECTION 7. CORRECTIVE MAINTENANCE.** This section shows you how to troubleshoot, test, and adjust, ~~and troubleshoot~~ the equipment and lists recommended test equipment. It also provides onsite LRU replacement procedures, ~~for all of the LRUs in the system.~~

**SECTION 8. PARTS LIST.** This section lists those assemblies and parts that can be replaced onsite. When you have identified a faulty LRU, this section is where you will find the information you will need to order a replacement.

**SECTION 9. INSTALLATION.** This section tells you how to install, setup, and adjust the system for optimum performance.

**SECTION 10. COMPUTER SOFTWARE.** This section lists and describes the software used in the ILS 420 equipment. ~~When it is not applicable, it is omitted, as it has been here.~~

**SECTION 11. TROUBLESHOOTING SUPPORT DATA.** This section contains the schematicsinterconnect drawings, wiring diagrams, assembly drawings, and other drawings that support the other sections.

**APPENDIX A.** This appendix lists and defines the abbreviations used in the manual and is included in each manual and volume.

## Single and Dual Frequency Equipment Coverage

This manual covers the dual equipment, dual frequency and the single equipment, single frequency configurations.