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Flight Manual Supplement

Garmin GTN 750Xi / GTN 650Xi Navigators & Garmin GTX 345R Transponder

Bell 212

FMS-212-002

Revision A

January 3, 2023



Aircraft Registration: _____

Aircraft Serial Number: _____

Sections 1 to 4 inclusive of this document comprises the approved Flight Manual Supplement. Compliance with Section 1, "Limitations", is mandatory.

Sections 5 and 6 are unapproved and for information only.

The information and data contained in this document supersedes or supplements that contained in the basic Approved Flight Manual for the Eagle Single Bell 212 Models only in the areas listed herein when modified in accordance with STC SH21-44. For Limitations, Procedures, and Performance data not contained in this supplement, refer to the Approved Flight Manual or other applicable Approved Flight Manual Supplements.

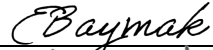
This Supplement must be attached to the Approved Flight Manual for the aircraft with the subject design change incorporated.

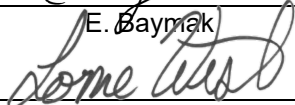
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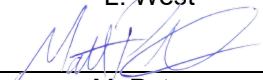
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Revision Record

Rev	Date	Description of Revision
A	See Cover Page	Initial Release. This document supersedes FMS21011-2 Rev NC.

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General Information

This flight manual supplement (FMS) is intended to supplement Eagle Single Flight Manual Supplement FMS-D212-725-1.

This installation consists of the following systems / equipment:

- Garmin GTN 650Xi / GTN 750Xi GPS/WAAS/NAV/COM Navigator (Qty 2)
- GPS/COMM Antenna (Qty 1)
- GPS Antenna (Qty 1)
- COMM Antenna (Qty 1)
- VOR/LOC Antenna (Qty 1)
- GTX 345R Transponder (Qty 1)
- Transponder Antenna (Qty 1)

This flight manual is divided into six sections as follows:

- Section 1: Limitations
- Section 2: Normal Procedures
- Section 3: Emergency And Malfunction Procedures
- Section 4: Performance Data
- Section 5: Weight and Balance
- Section 6: Systems Description

Section 1 to Section 4 contain Transport Canada approved data necessary to operate the helicopter in a safe and efficient manner.

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Section 1. Limitations

1. The Limitations of section 1 remain applicable with the addition of the following:

1.1. GARMIN GTN 650Xi / GTN 750Xi Navigation System

The GTN 650Xi / GTN 750Xi must utilize the following software versions or later

FAA approved versions:

SUB-SYSTEM	GTN 650Xi SOFTWARE	GTN 750Xi SOFTWARE
Main Sw Version	20.01 (or later approved)	20.01 (or later approved)
GPS Sw Version	8.1 (or later approved)	8.1 (or later approved)

Table 1 – Software Versions

2. The Fuel Planning page of the GTN 650Xi / GTN 750Xi shall not be used to determine actual fuel on board the aircraft.
3. Operating the GTN 650Xi / GTN 750Xi for primary navigation for latitudes above 89.00° N and below 89.00° S is prohibited.

1.2. Terrain Proximity Limitations

Rotorcraft Maneuvers and navigation shall not be predicated upon the use of the terrain display.

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Section 2. Normal Procedures

The normal procedures of Section 2 remain applicable with the following additions:

2.3. Preflight Check

2.3.2. Exterior Check

Add the following areas to be inspected

2A. Area 2A – Forward Belly

Antenna(s) – Condition and security

3A. Area 3A – Belly

Antenna(s) – Condition and security

2.9. In-Flight Operation

NOTE:

The secondary instrument lights should not be used under normal night flight conditions since their use could affect the GTN 650Xi / GTN 750Xi brightness when the PLT INST/CPLT INST/PED dimmers are set to dim settings. The use of secondary instrument lights should be reserved for when primary instrument panel lighting fails.

(Add the following section after Section 2.13 Post Flight Check)

2.14. Normal Operation

Operating instructions for the Garmin GTN Xi Series and the GTX 345R transponder, are contained in the following manual:

Garmin GTN Xi Series Pilot's Guide 190-02327-03, Revision C dated November 20, 2020 (or later applicable revision)

2.14.1. Transponder Operation

The installed Transponder system is able to respond to interrogations in Modes A, C and S and is compliant with requirements of EASA CS ACNS.D.ELS (Mode S Elementary Surveillance).

2.14.2. Navigation Sources Available For Selection On PFD

NAVIGATION SOURCE	PFD ANNUNCIATION		
GTN 750Xi Primary	GPS 1	VOR 1	LOC 1
GTN 650Xi / GTN 750Xi Secondary	GPS 2	VOR 2	LOC 2

Table 2 – PFD Navigation Sources

2.14.3. Bearing Pointer Sources Available For Selection On PFD

BEARING NAVIGATION SOURCE	PFD	
GTN 750Xi Primary	GPS 1	NAV 1
GTN 650Xi / GTN 750Xi Secondary	GPS 2	NAV 2

Table 3 – Bearing Pointer Sources

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Section 3. Emergency And Malfunction Procedures

The emergency and malfunction procedures of Section 3 remain applicable with the addition of the following:

3.9. Communication System

Add the following section after section 3.9.1 intercom failure:

3.9.2. Loss Of Com Radio Tuning Functions

If no alternate COM is available:

GTN Volume Knob - Press and Hold for 2 seconds

NOTE:

This procedure will tune the active COM radio to the emergency frequency, 121.5, regardless of what frequency is displayed on the GTN. Certain failures of the tuning system will automatically tune 121.5 without flight crew action.

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Section 4. Performance Data

No change.

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Section 5. Weight And Balance Data

No change.

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Section 6. System Description

6.1. Systems Description

6.1.1. Garmin GTN 650Xi / GTN 750Xi Navigation System

The GTN 750Xi Navigation unit is installed in the instrument panel, and either a GTN 650Xi or 750Xi can be installed in the centre console. If dual GTN 750Xi's are installed, either position can be identified as the No. 1 GPS/NAV/COMM. They are fully integrated, panel mounted instruments, each containing a VHF COM Transceiver, a VOR/ILS Receiver, and a GPS Navigation computer.

Selection and display of the GTN 650Xi / GTN 750Xi navigation sources occurs at G500H TXi display. Status annunciations are displayed on the G500H TXi display. The remainder of functions of the GTN 650Xi / GTN 750Xi are accomplished at the respective front panels and touchscreens.

The GTX 345R transponder controls can be accessed via the XPDR key on the GTN 650Xi / GTN 750Xi Navigation Units.

6.1.2. Power

The Garmin GTN 650Xi / GTN 750Xi Navigators and their associated components are protected by the following circuit breaker:

CB LABEL	AMPS	LOCATION	BUS
NO 1 VHF	5A	OVERHEAD PANEL	ESSENTIAL AVIONICS BUS
NO 1 NAV/GPS	5A	OVERHEAD PANEL	ESSENTIAL AVIONICS BUS
NO 2 VHF	5A	OVERHEAD PANEL	NON-ESSENTIAL AVIONICS BUS
NO 2 NAV/GPS	5A	OVERHEAD PANEL	NON-ESSENTIAL AVIONICS BUS
XPDR	3A	OVERHEAD PANEL	ESSENTIAL AVIONICS BUS

Table 4 – GTN 650Xi / GTN 750Xi Navigation and Transponder Circuit Breakers

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