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Flight Manual Supplement

Garmin GI 275 Display System

Bell 212

FMS-212-008

Revision A

March 4, 2026



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.

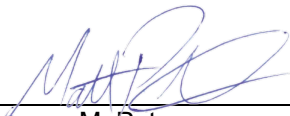
The information and data contained in this document supersedes or supplements that contained in the basic Approved Flight Manual for the Eagle Single Bell 212 Models only in the areas listed herein when modified in accordance with STC SH21-44. For Limitations, Procedures and Performance data not contained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

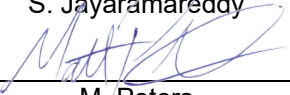
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Revision Record

Rev	Date	Description of Revision
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General Information

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

The base installation of this modification consists of the following systems / equipment:

- Garmin GI 275 ADAHRS ADI (Qty 2)
- Garmin GI 275 HSI (Qty 2)
- Garmin GMU 44B Magnetometer (Qty 2)
- Garmin GTP 59 OAT Sensor (Qty 2)

The flight manual is divided into seven 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 Data
- Section 6: Systems Description
- Appendix A: Optional Equipment Supplements

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

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1. Limitations

The limitations of Section 1 remain applicable with the following changes and additions:

1.21. Instrument Markings

1.21.1. Airspeed Indicator

The airspeed indicator markings are the same with the following changes and additions:

Below 25 knots: White Band

CAUTION:

Airspeed indications below 25 KIAS are unreliable. Airspeed indications should be ignored below 25 KIAS.

1.22. Avionics Systems

1.22.1. GI 275 Flight Display System

1. Rotorcraft equipped with the GI 275 ADI and HSI System is limited to VFR ONLY operations. The standby magnetic compass must be installed and operational.
2. The GI 275 must utilize the following approved software versions:

Component	Identification	Software Version (or later FAA approved)
GI 275	ADAHRS ADI	3.40
GI 275	HSI	3.40

Table 1 – Software Versions

1.22.2. GI 275 Helicopter Synthetic Vision

1. The synthetic vision presentation must not be used as the sole reference for rotorcraft control (without reference to the primary flight instruments).
2. The synthetic vision presentation must not be used as the sole reference for navigation or obstacle/terrain/traffic avoidance.

1.22.3. GI 275 ADAHRS

The GI 275 ADAHRS operation is not assured in the following areas:

- North of 72° North latitude at all longitudes
- South of 70° South latitude at all longitudes
- North of 65° North latitude between longitude 75° West and 120° West
- North of 70° North latitude between longitude 70° West and 128° West
- North of 70° North latitude between longitude 85° East and 114° East
- South of 55° South latitude between longitude 120° East and 165° East

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1.22.4. OAT Limitations

1. Use of the GI 275 information for performance calculations is prohibited. Use the OAT display for performance calculations.

1.22.5. Terrain Proximity Limitations

1. Rotorcraft maneuvers and navigation must not be predicated upon the use of the terrain display.

1.22.6. Traffic Display Limitations

1. The display of traffic is an aid to visual acquisition and is not to be utilized for aircraft maneuvering.

1.22.7. Headset/Helmet Limitation

1. Compatible headset or helmet must be used when operating the GI 275 Flight Display System.

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2. Normal Procedures

The Normal Procedures of Section 2 remain applicable with the following changes and additions:

2.3. Preflight Check

2.3.2. Exterior Check

Add the following areas to be inspected:

3A. Area 3A – Belly

Condition of OAT Probe

2.6. Systems Check

If the ambient temperature is below -20°C:

The ADI/HSI displays must be warmed up until they are operational.

If the ambient temperature is below 0°C:

The ADI/HSI displays may require a 5 minute warmup to meet full performance.

2.7. Before Takeoff

ADAHRS ADI/HSI Displays – Operational

“Terrain System Test Okay” Aural Message – Verify

If aural message is not heard:

Terrain Test – Initiate

“Terrain System Test Okay” Aural Message – Verify

If aural message is not heard, TAWS is considered inoperative.

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 brightness of the PFD/MFD Display 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.

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3. Emergency and Malfunction Procedures

The Emergency and Malfunction Procedures of Section 3 remain applicable with the addition of the following:

3.12. Warning and Caution Messages

3.12.1. Terrain-FLTA Warnings

Red annunciator and aural “TERRAIN” or “OBSTACLE”

Aircraft Controls – Initiate Escape Maneuver

3.12.2. Terrain-FLTA Cautions

Yellow annunciator and aural “TERRAIN” or “OBSTACLE”

Aircraft Flight Path – Verify and correct if required

3.13. GI 275 ADI Failure Conditions

3.13.1. Loss of Primary Flight Information (Display Malfunction)

If the primary GI 275 ADI fails (loss of some or all digital flight information, display is blank, frozen, or unresponsive).

1. Use standalone Airspeed Indicator and Altimeter, along with visual references and secondary cues, for rotorcraft control.
2. Use standby magnetic compass for heading information.

3.13.2. ADC Failure

ADC failure is indicated by:

- Red X over the airspeed and altitude tapes.
- Yellow X over the digital vertical speed value.

If valid GPS data is available, the GI 275 will automatically revert to display GPS-calculated altitude relative to mean sea level. GPS altitude is displayed in magenta, in the same location as normal operation.

1. Use standalone Airspeed Indicator and Altimeter, along with visual references and secondary cues, for rotorcraft control.

3.13.3. ADAHRS Failure

ADAHRS failure is indicated by:

- Removal of the attitude/heading information
- Red X on the GI 275 ADI.
- Removal of the standard rate turn indicators.
- A heading failure may also occur as described in section 3.13.4.

1. Use standalone Airspeed Indicator and Altimeter, along with visual references and secondary cues, for rotorcraft control.

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3.13.4. Heading Failure

With GPS operational:

The HDG indications will be replaced with track (TRK) indications in magenta. The heading bug and course pointer will continue to function normally, using GPS ground track as a reference instead of magnetic heading.

1. Use standby magnetic compass to verify heading information.

Without GPS operational:

The heading failure will be indicated by a Red X in place of the heading readout on the ADI.

1. Use standby magnetic compass for heading information.

3.14. GI 275 HSI Failure Conditions

3.14.1. Loss of Navigation Information (Display Malfunction)

If the primary GI 275 HSI fails (loss of some or all digital flight information, display is blank, frozen, or unresponsive).

1. Use standby magnetic compass for heading information.
2. Refer directly to the navigation source for navigation information (such as GPS).

3.14.2. Heading Failure

With GPS operational:

The HDG indications will be replaced with track (TRK) indications in magenta. The heading bug and course pointer will continue to function normally, using GPS ground track as a reference instead of magnetic heading.

1. Use standby magnetic compass to verify heading information.

Without GPS operational:

The heading failure will be indicated by a Red X in place of the heading readout on the HSI.

1. Use standby magnetic compass for heading information.

NOTE: Without GPS and Heading, the HSI will act as a CDI.

4. Performance Data

No change.

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5. Weight and Balance Data

No change.

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6. System Description

Operating instructions for the systems contained in this supplement are contained in the following manual:

Garmin GI 275 Pilot's Guide, P/N 190-02246-01 Revision S, dated October 2024 (or later applicable revision).

6.1. Systems Description

6.1.1. Garmin GI 275 Flight Display System

The GI 275 is a multifunction indicator providing multiple pages and features. The GI 275s with ADAHRS are configured as Attitude Direction Indicators (ADI) for displaying attitude, airspeed, altitude, vertical speed and heading. The GI 275 basic multifunction indicators are configured as Horizontal Situation Indicators (HSI) to display heading, course/vertical deviation and GPS navigation information. The HSI can also display an inset map with hazard awareness overlays (traffic, terrain, topo) if configured.



Figure 1 - GI 275 ADI and HSI

The GI 275s may be interfaced to the GTX 345R transponder, GTN 650 and/or GTN 750 GPS/NAV/COMM/MFDs, GTS 855 TCAS I, GRA 5500 Rad Alt and/or GDL 69AH SXM Receiver depending on the specific aircraft configuration.

6.1.2. Navigation Sources Available on each HSI

Each HSI can display the following navigation sources:

Navigation Source	HSI Annunciation	
Pilot GPS	GPS 1	
Copilot GPS	GPS 2	
Pilot NAV	VOR 1	LOC 1
Copilot NAV	VOR2	LOC 2

Table 2 - HSI Navigation Sources

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6.1.3. Power

The Garmin GI 275 Systems are protected by the following circuit breakers:

CB Label	Amps	Location	Bus
PFD PILOT	5A	Overhead Console	Essential Avionics Bus
PFD COPLT	5A	Overhead Console	Essential Avionics Bus
HSI PILOT	5A	Overhead Console	Essential Avionics Bus
HSI COPLT	5A	Overhead Console	Non-Essential Avionics Bus

Table 3 – GI 275 Circuit Breakers

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