



## Service Bulletin

**SB81440-XX-00-28, Rev A**

**2101 I/O Approach Plus GPS Navigation Systems, Part Numbers 81440-02-XXXX, 81440-03-XXXX, 81440-12-XXXX, 81440-32-XXXX, 81440-33-XXXX, and 81440-42-XXXX.**

**Release of operating system –241Q.**

**SUMMARY:** FreeFlight Systems has released software system –241Q for the 2101 I/O Plus.

### **I. PLANNING INFORMATION**

#### **A. Effectivity**

This Service Bulletin applies to the 2101 I/O Approach Plus GPS Navigators, Part Numbers 81440-02-XXXX, 81440-03-XXXX, 81440-12-XXXX, 81440-32-XXXX, 81440-33-XXXX, and 81440-42-XXXX, where XXXX equals the system operating software.

Installation of software version –241Q is optional, however FFS strongly encourages operators to incorporate the change, as it resolves the GPS week rollover Number event that occurred on April 6<sup>th</sup>, 2019. Without the “Q” update, the FreeFlight GPS Navigator Products (P/N’s referenced above) will compute an incorrect date when powered on after April 6, 2019.

Continued IFR operations after June/2009 will require software version -241M or later approved, in order to support the 4 MB Nav data bases.

**Installation of software version –241Q also requires implementation of hardware service bulletin 81440-XX-34-14, if not previously performed.**

#### **B. Reason**

This Service Bulletin includes the corrections previously incorporated in SB 81440-XX-00-19, software version 241J, and therefore, meets the terminating requirements of AD 2009-05-08.

This Service Bulletin advises all users of 2101 I/O Approach Plus Navigators, Part Numbers 81440-02-XXXX, 81440-03-XXXX, 81440-12-XXXX, 81440-32-XXXX, 81440-33-XXXX, and 81440-42-XXXX, of the availability of a revised operating system, -241Q.

The following changes have been incorporated into software version –241Q:

- UTC Date and time will be reported correctly by the Navigator on the “System Status” Page



- Serial and ARINC data outputs will report correct date and time.
- Navigation database expiration auto check will correctly notify the operator or installer to update the database every 28 days once expired.

**C. Description**

This service bulletin provides information for system release 241Q. Operating system –241Q is loaded at the factory. See Section III. ACCOMPLISHMENT INSTRUCTIONS for instructions on sending the systems for upgrade to the factory.

**D. Approval**

Operating software version –241Q is a minor modification to version –241P, which was previously approved under TSO C129 (A1). 2101 I/O installations that have been FAA approved with software programs other than –241x must be re-evaluated when software version –241Q is installed.

**E. Manpower**

The following man-hour estimates are based on incorporation concurrent with an unscheduled repair or during routine maintenance:

Units	Compliance	Man Hours
All RDUs	During Routine Maintenance	0.5
All RDUs	During Repair	0.5

**F. Weight and Balance**

None

**G. Electrical Load Data**

Not Affected

**H. Reference**

ECN S19002 and ECN 15147

**I. Other Publications Affected**

None

**J. Interchangeability and Identification**

Modified and unmodified units are not interchangeable.

2101 I/O Approach Plus GPS Navigation Systems having operating system –241Q shall be identifiable by the identification label on the top of the unit, bearing part number 81440-XX-241Q.

**II. MATERIAL INFORMATION**

**A. Price and Availability**

Contact FreeFlight Systems for price and availability at time of purchase.

Customers must send Navigators to the FreeFlight Factory Service Center; or they may send units for installation of this software upgrade.



Modifications accomplished at the Factory Service Center will be completed within fifteen (15) working days after receipt of the unit, depending upon parts availability.

**B. Parts List**

Part Number	Qty	Nomenclature
SB81440-XX-00-28	1	This document.

**C. Ordering Information**

Operators of the 2101 I/O Approach Plus wishing to upgrade their system may send the unit(s) to the FreeFlight Factory Service Center.

For FreeFlight Factory Service Center modification, send the Navigator and a purchase order requesting incorporation of Service Bulletin SB81440-XX-00-28 to:

FreeFlight Systems	Attn.: Repair Dept.
7333 Interstate 35 S.	Telephone 1 (254) 662-0000
Robinson, TX 76706 USA	Fax 1 (254) 662-9452

**D. Warranty**

This Service Bulletin does not affect the standard warranty of the unit from date of purchase. For units out of warranty, this modification will be covered for ninety (90) days.

**III. ACCOMPLISHMENT INSTRUCTIONS FOR UPGRADE**

1. Disconnect the back connectors J1 and J2 from the 2101 I/O Approach Plus
2. Remove 2101 I/O Approach Plus from aircraft.
3. Return to FreeFlight Systems Service Center for modification.