



## Flightcell<sup>®</sup> DZM3

The world's most advanced all-in-one communications and tracking system

Iridium satellite phone

Cell phone

GPS flight following



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# Maintenance Manual

(All DZM3 military and commercial units)

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MAN\_DZ3\_003

1.0

25<sup>th</sup> July 2012

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# Version history

## DZM3 Maintenance Manual

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Issue	Date	Author	Description	PCB Revision
1.0	25 <sup>th</sup> July 2012	F. Twissell	Initial version (FCN0380)	B

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# Contents

<b>Version history</b> .....	<b>2</b>
<i>DZM3 Maintenance Manual</i> .....	2
<b>About this manual</b> .....	<b>4</b>
<i>Flightcell® DZM3 models</i> .....	4
<i>Who should use this manual?</i> .....	4
<b>Your Flightcell® DZM3 at a glance</b> .....	<b>5</b>
<i>Front panel (English Commercial – other variants differ slightly)</i> .....	5
<i>Rear panel (All DZM3 units)</i> .....	5
<b>Periodic Maintenance</b> .....	<b>6</b>
<i>Reliability figures</i> .....	6
<i>Time to Replace</i> .....	6
<b>Removal and Replacement</b> .....	<b>7</b>
<i>Tools required</i> .....	7
<i>Removal</i> .....	7
<i>Refitting</i> .....	7
<b>Warranty and contact details</b> .....	<b>8</b>
<i>Limited warranty for your Flightcell® DZM3</i> .....	8
<i>Flightcell® International contact details</i> .....	8
<b>User notes</b> .....	<b>9</b>

# About this manual

## Flightcell® DZM3 models

The instructions and information contained within this manual are for three different models of the DZM3:

Flightcell® DZM3 Commercial Unit (all languages)

Flightcell® DZM3 Military Unit (all languages)

## Who should use this manual?

This manual is intended for use by engineers maintaining the DZM3.

Information on installing and configuring the DZM3 is provided in the Technical Installation Manual and the Operation Manual.

Flightcell® manuals are regularly updated. The latest version of each manual and the latest wiring diagrams are available on the Flightcell® website at <http://www.flightcell.com/support.aspx>, or by contacting Flightcell® International Ltd.

# Your Flightcell® DZM3 at a glance

Front panel (English Commercial – other variants differ slightly)



FIGURE 1: FRONT PANEL - ENGLISH MILITARY UNIT

Rear panel (All DZM3 units)



FIGURE 2: REAR PANEL – ALL DZM3 UNITS

## Periodic Maintenance

The DZM3 requires no periodic maintenance. The front panel should be kept clean and may be wiped using a slightly damp lint-free cloth. In general, solvents and abrasive cleaners should be avoided, but if necessary the unit can be cleaned using a small quantity of isopropyl alcohol.

Apart from the Iridium SIM there are no user-serviceable parts inside the DZM3. It is a sealed unit and should not be dismantled. In the event of a failure, the entire unit should be replaced. The procedure for installing or removing the SIM is described in the Installation Manual.

### Reliability figures

Based on in-service data from existing installations, we have observed an MTBF in excess of 50,000hrs.

### Time to Replace

Excluding procurement, the engineering time taken to replace a DZM3 unit is approximately 30 minutes.

# Removal and Replacement

## Tools required

Screwdriver with 7mm (5/16") flat blade

## Removal

Before removing the DZM3 it is advisable to make a note of the settings (audio levels, tracking configuration, other inputs e.g. collective switch).

Check that DC power is isolated from the DZM3.

If the rear support lug is used, this should be released first. Typically this will be screwed to a bracket to stabilise the rear end of the unit.

Release the four DZUS fasteners on the front panel by pushing and turning each one by 90 degrees anti-clockwise. The DZM3 can then be withdrawn from the panel. Unscrew and remove each of the connectors.

Note that some DZM3 units are supplied with a 'GA' front panel which is fitted to the instrument panel using screws rather than DZUS fasteners.

## Refitting

Screw the TNC (Iridium) and BNC (GPS) coaxial connectors fully home. Locate the D connectors and screw this into place.

Offer the DZM3 into the panel, and check that the slots in the DZUS fasteners are aligned horizontally. The DZM3 can now be pushed fully into place and the four DZUS fasteners locked by pushing each one in and turning it clockwise 90 degrees.

For DZM3 units that are fitted with the 'GA' front panel, the four fixing screws should be refitted.

If the rear support lug is used, refit the screw.

After installing a replacement DZM3, the settings from the original unit should be configured.

## Warranty and contact details

### Limited warranty for your Flightcell® DZM3

Flightcell® International Ltd's quality products are proudly designed and manufactured to the highest standards in New Zealand.

Your DZM3 is warranted for two years from date of sale. This warranty covers Flightcell® manufactured items only. Any ancillary items may be covered by individual manufacturer warranties.

The warranty is void if any labels are removed or if it is determined that your DZM3 has been:

Connected to a power supply delivering more than 32 Volts;

Connected with reverse polarity;

Installed in direct contravention to the guidelines outlined in the technical installation manual;

Physically damaged, or a fault has occurred due to the product being used beyond what is considered normal use, causing unusual deterioration of the product.

If the product is deemed to be faulty or in need of repair, please contact Flightcell® International Ltd to obtain a Returned Materials Authorization or download from <http://www.flightcell.com>.

### Flightcell® International contact details

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# User notes