

## 8 Intrinsically Safe (IS) Products

The following topics are covered in the IS Section of the manual:

<b>Section</b>	<b>Title</b>	<b>Page</b>
8.1	Introduction To IS Servicing	8.1.3
8.1.1	Overview	8.1.3
8.1.2	FM Approved IS Products	8.1.3
8.1.3	Identifying IS Handportable Radios	8.1.4
8.1.4	IS RF & Control PCB Servicing Requirements	8.1.5
8.2	IS PCB Information	8.2.1
8.3	T3000 IS Accessories	8.3.1



## 8.1 Introduction To IS Servicing

### 8.1.1 Overview

T3000 IS handportable radios and accessories are approved by Factory Mutual Corporation to the following standards:

Approval	Class	Division	Group	Temperature Rating
<b>Intrinsically Safe:</b> The unit is unable to cause ignition in normal or abnormal operating conditions.	<b>Class I:</b> Gas or petroleum type environment.	<b>Division I:</b> Hazardous mixtures are normally present.	<b>Groups C &amp; D:</b> Various chemical atmospheres.	<b>T2B:</b> 260° C
<b>Non-Incendive:</b> The unit is unable to cause ignition in normal operating conditions.	<b>Class I:</b> Gas or petroleum type environment.	<b>Division II:</b> Hazardous mixtures are usually contained/ventilated.	<b>Groups A, B, C &amp; D:</b> Acetylene gas, hydrogen gas & various chemical atmospheres.	<b>T2B:</b> 260° C

### 8.1.2 FM Approved IS Products

The following products have FM IS approval:

- All handportable radios with the following product codes:
 

T30XX-31XX-M22	T30XX-31XX-M27
T30XX-32XX-M22	T30XX-32XX-M27
T30XX-41XX-M22	T30XX-41XX-M27
T30XX-42XX-M22	T30XX-42XX-M27
T30XX-51XX-M22	T30XX-51XX-M27
T30XX-52XX-M22	T30XX-52XX-M27
T30XX-53XX-M22	T30XX-53XX-M27
T30XX-70XX-M22	T30XX-70XX-M27
T30XX-71XX-M22	T30XX-71XX-M27

**Note:** The following products are *not* FM IS approved:

T30XX-44XX	T30XX-56XX
T30XX-54XX	T30XX-57XX
T30XX-55XX	T30XX-80XX

- T3000-1052 IS NiCd Battery Pack
- T3000-2150 IS Speaker Microphone
- T3000-4402 Selcall & DTMF Options PCB

## 8.1.3 Identifying IS Handportable Radios

The following diagram explains the labels unique to T3000 IS radios.

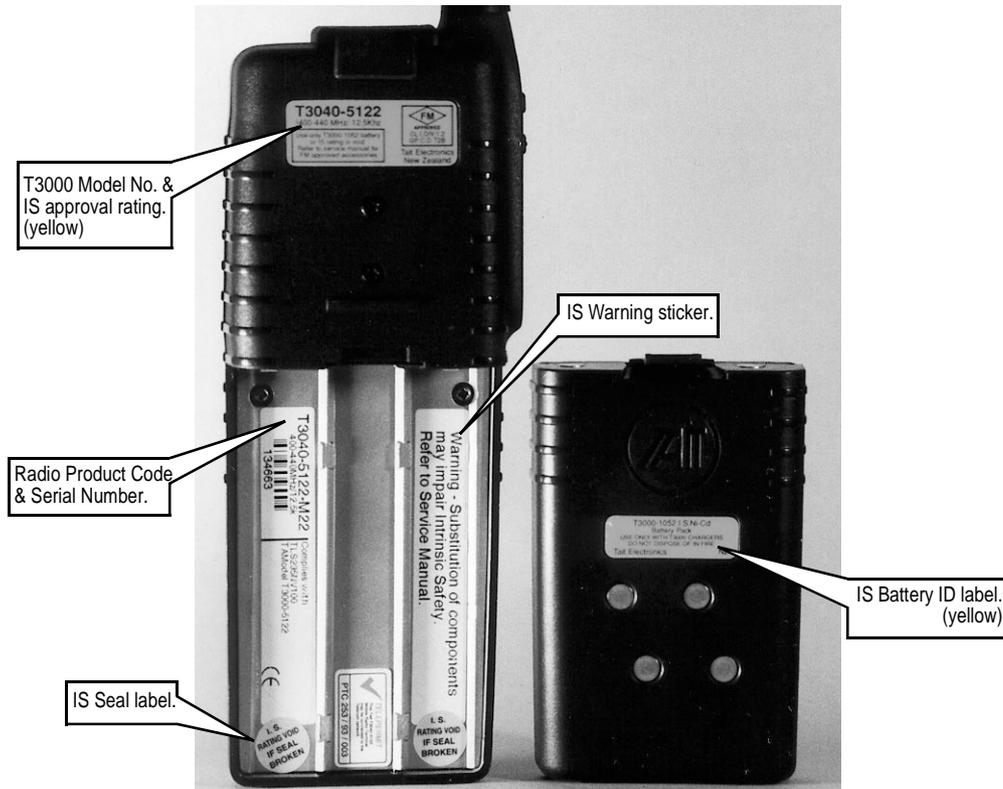


Figure 8.1.1 T3000 IS Radio Labels

## 8.1.4 IS RF & Control PCB Servicing Requirements

**Note:** T3000 intrinsically safe radios must be returned to an authorised Tait Branch or subsidiary for servicing. Any unauthorised repair or substitution of parts invalidates the intrinsic safety rating.

IS approval requires that certain components on the RF and control PCBs within the IS handportable are encapsulated, using RTV sealant. If the RTV coating on these components is damaged or removed during servicing, they need to be re-encapsulated.

Parts needing encapsulation are identified using shading in the Section 8.2 parts lists.

Refer to the “**Production Advice Note/Key Point**” manual for detailed instructions.

