



TECHNICAL NOTE TN-999

SFE Programming: Enabling and Disabling.

31 March 2005

Applicability

This Technical Note is an instruction guide on how to use program Software Feature Enabling (SFE) codes into Tait products that support SFE functionality

1. Background on SFE.

What is an SFE?

A **S**oftware **F**eature **E**nabling key. Once a SFE is programmed into the product, turns on a feature that was not previously available to the user. This code is a purchasable item.

Who can get an SFE?

Currently only the Tait CSO's generate SFE codes. In future, once the appropriate systems and IT applications are in place, customers may be able to order upgrades over the internet.

How do I order and SFE for my product?

Contact your local CSO or dealer for a list of SFE features that are available. SFE keys can be ordered for all TB, TP and TM product ranges.

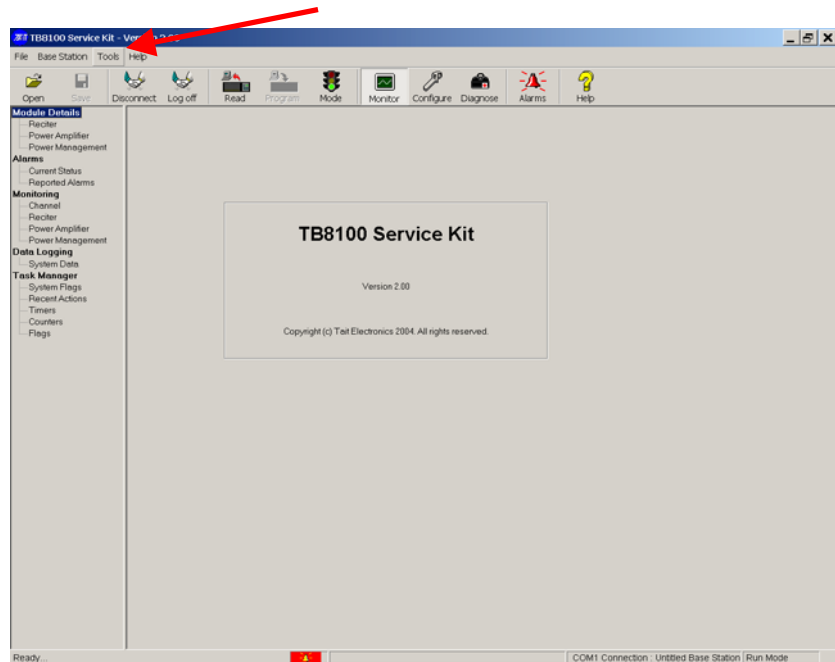
2. Product Programming

How to Program the Key into my TB8000

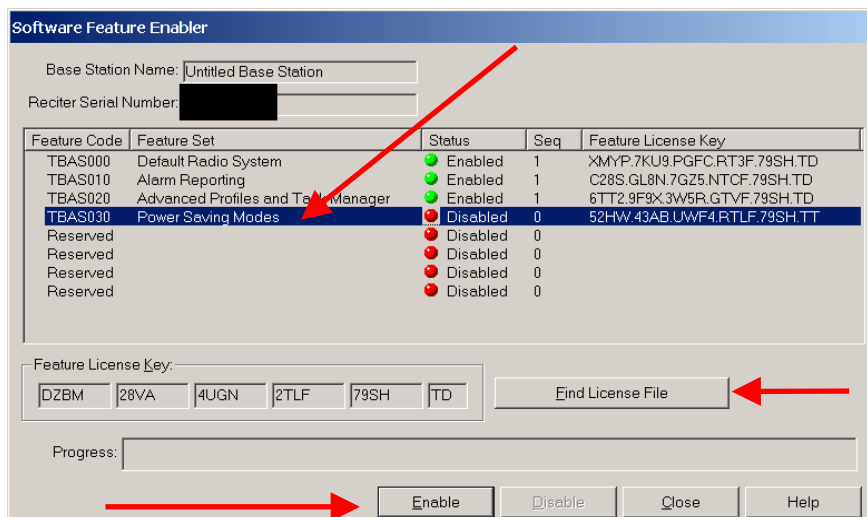
Instructions are always attached to the e-mail message that is sent with the SFE key file:

TB8000:

1. Connect and log on to the base station.
2. Save the license files (and any others that you received for other feature sets or other base stations) to the Programming application's license file folder (select Tools > Options to see which folder the Service Kit uses).
3. IMPORTANT: If you received a ZIP file containing multiple license files, you MUST unzip the contents of the ZIP file and save the individual license files into the correct folder.
4. Go into Standby mode, and then select Tools > Software Feature Enabler.



5. Click the feature set to select it



6. Click Find License File. This searches the license file folder for a license file for the current base station and the selected feature set. If the
7. Programming Application finds one, it displays the license key (in the feature set's row and in the Feature License Key boxes), and increments the Seq column by 1.
8. Click **Enable**. This enables the feature set. The license key appears in the feature set's row and the Seq column is incremented by 1

Software Feature Enabler

Base Station Name:

Recorder Serial Number:

Feature Code	Feature Set	Status	Seq	Feature License Key
TBAS000	Default Radio System	Enabled	1	XMYP.7KU9.PGFC.RT3F.79SH.TD
TBAS010	Alarm Reporting	Enabled	1	C28S.GL8N.7GZ5.NTCF.79SH.TD
TBAS020	Advanced Profiles and Task Manager	Enabled	1	6TT2.9F8X.3W5R.GTVF.79SH.TD
TBAS030	Power Saving Modes	Enabled	1	DZBM.28VA.4UGN.2TLF.79SH.TD
Reserved		Disabled	0	
Reserved		Disabled	0	
Reserved		Disabled	0	
Reserved		Disabled	0	

Feature License Key:

Progress:

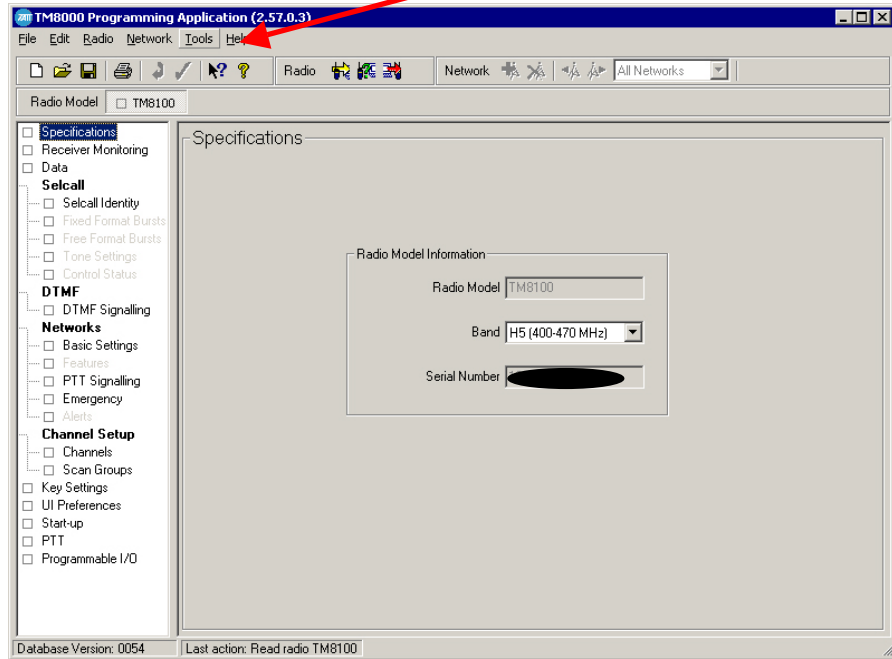
9. The feature has now been enabled in the product.

How to Program the Key into my TM8000

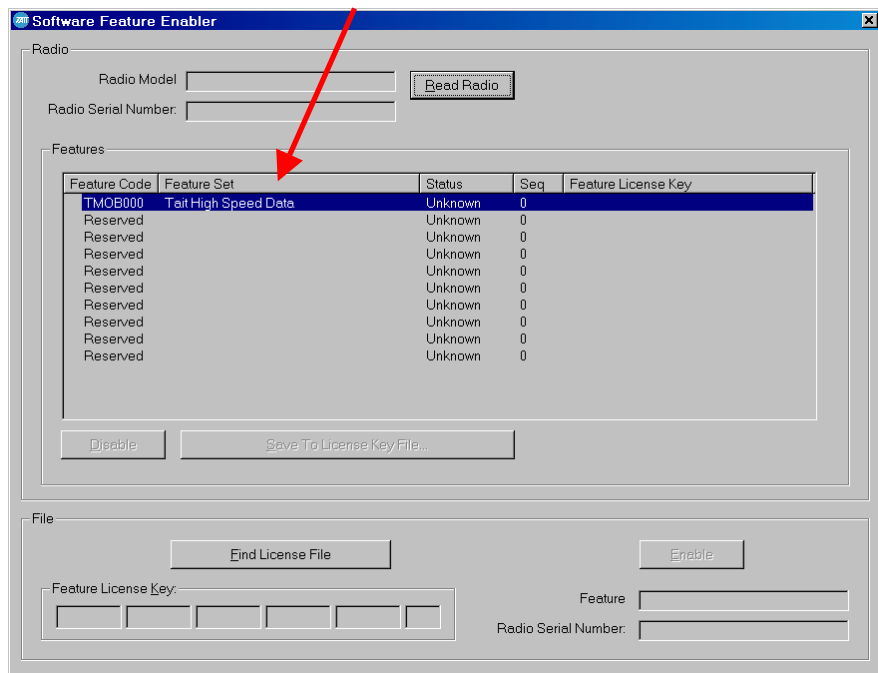
TM8000:

To enable an optional feature

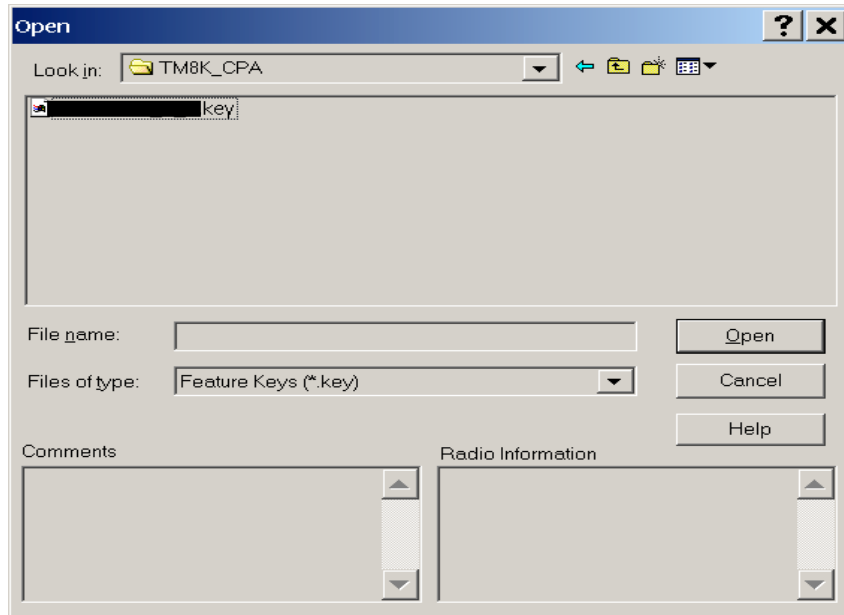
1. Read the radio. See Reading a radio for more information.
2. Select the Tools > Optional Features menu command.



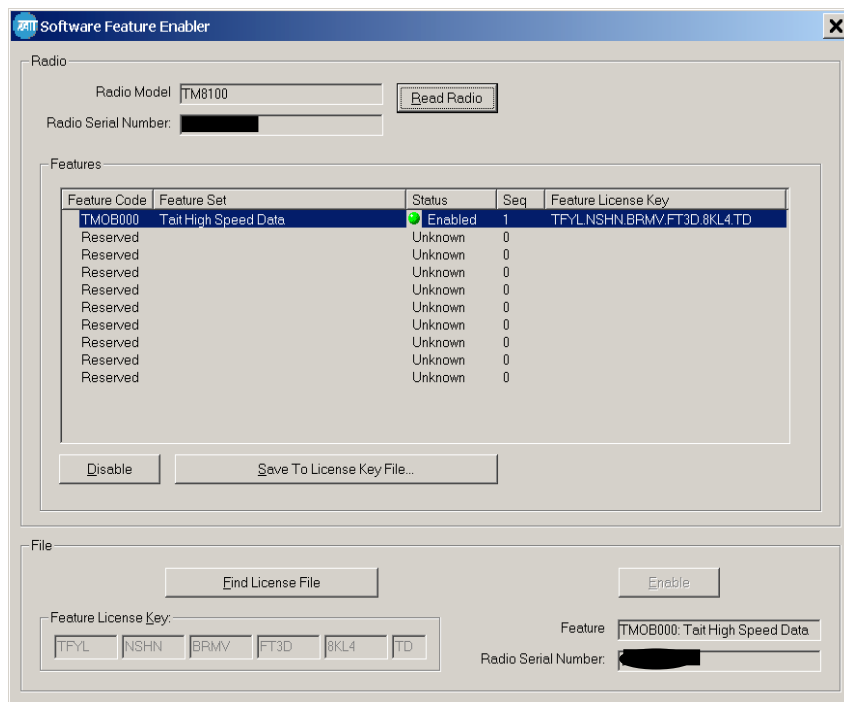
3. Click on the feature set that you want to enable in the Features box.



4. Obtain and enter a license key. Either:
 - Enter the code directly into the Feature License Key boxes.
 - Click the Find License File button, and double click a *.key file.



- 5 Click the Enable button

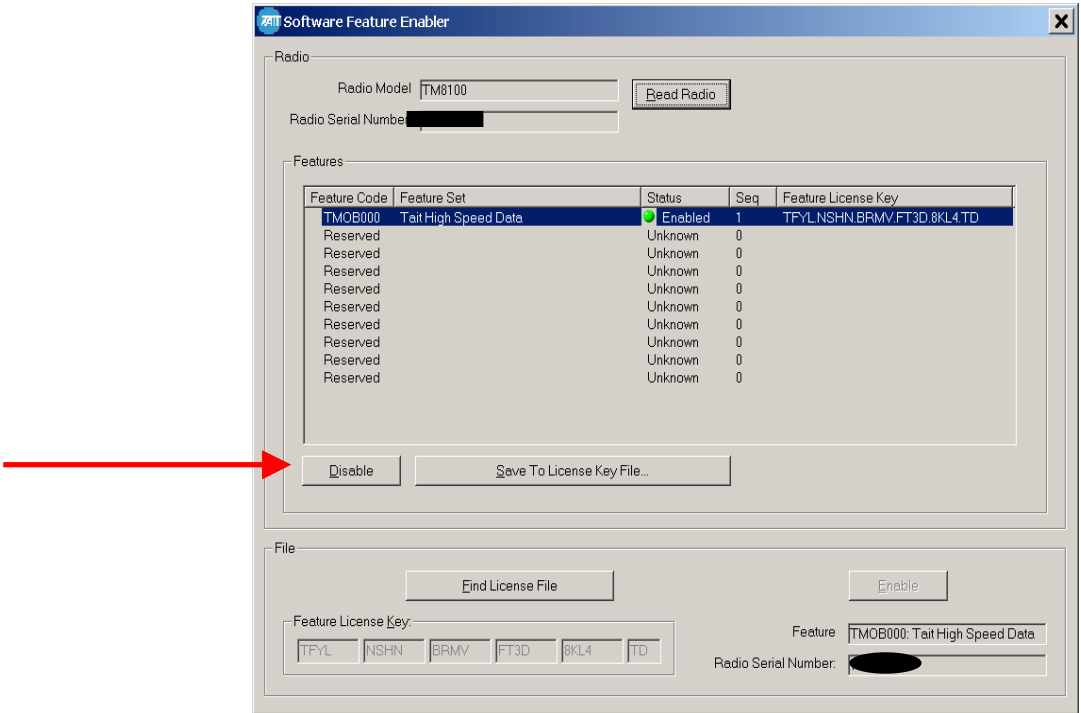


- 6 Close the dialog.
- 7 Enable relevant programmable settings. For example, to enable Tait high-speed data, select the Modem Enabled check box.

3. SFE Disabling Process.

How to disable a feature?

- Simply click the “Disable” button.
- The programmer will be prompted to ensure this is the desired action. Press OK
- The radio product will be re-programmed at this stage and the feature disabled.
- The status will change from “Enabled” to “Disabled”
- The sequence number will be incremented.



What do I do with the disable key?

- Upon disabling of a key, a new code is generated within the radio. This is the **SFE disable key**. This key needs to be provided to your closest CSO along with the chassis serial number of the product.
- **Reason:** If the feature is required to be turned on again in the future, the same SFE key used previously to turn the feature on can not be used (The “sequence” (see ‘Seq’ in the screen shot above) has incremented).
- By providing the disable key to the CSO representative, the key number can be entered into the SFE database which in turn resets the “Status Field” in the SFE application from “Enabled” to “Disabled” and incrementing the sequence in the SFE database to reflect what is in the radio.
- This means that next time the feature is required, an SFE key will be generated that will match the sequence the radio is up to for that particular feature.

4. Product Board Swap Process

What is Board Swapping?

When the internal PCB assembly inside the product is removed and is replaced with another PCB assembly. This repair method is done because the original PCB assembly is deemed irreparable or the customer requires a very quick repair turn around.

When this method of product repair is used, it is imperative that the CSO is notified of this repair. The following details need to be provided:

- Radio Chassis Serial Number
- New board Serial Number (7 digit number on the PCB assembly label)

The CSO is required to enter this information into the SFE database.

Why does the SFE database need to be updated when a Board Swap is performed?

With products such as the TM8000 and TB8000 series, it is becoming more and more apparent that board swapping will soon become the most economical repair for a product.

However, along with this comes a need to have better traceability of what board is actually inside the product. The SFE requirement compounds this as the SFE key is partly based on information supplied by the internal serial number of each individual board, not the chassis serial number.

When a board is swapped, the SFE keys (if features are enabled) will need to be re-generated for the new boards, as the old keys will not function on a new board.

What will happen if the database is not updated?

If a board swap repair has been made to a customers radio unit, the customer will not notice any problem until they come to purchase an SFE key.

The customer will quote the chassis serial number of the product they have in order to get the key generated. For this example, the chassis serial number is 12345678.

When the product was built from the factory, the internal serial number could have been 7654321.

However, it has now had a board swap performed and now contains a board with an internal serial number of 8765432.

When the SFE board swap application is asked to generate a new SFE key for the customer radio, the application will generate a SFE key for serial number 7654321 and not 8765432.

The end result is the SFE keys will not work for the customers' radio.

This situation can be remedied, but will require a manual database search that will take time and may cause delays for the customer.

Can a board that has been repaired be reused?

Yes. When a board is removed from the chassis it was in, this action is recorded in the serial number database that the SFE Board Swap application uses. Any board taken out of circulation because it is faulty goes back into an "unallocated" list of internal serial numbers. Therefore, if this board is repaired in future, it can be put into another radio as part of a board swap repair.

Are there any safe guards to prevent error?

There are no safe guards to prevent dealers from not informing the local CSO that they have completed a board swap. However, it is in their best interests to ensure that the process outlined in this document is followed.

Are there any charges involved?

No. The SFE features regenerated for a repaired radio are free of charge, as the customer has already paid for these features. There are safe guards in the system to ensure the Board Swap feature is not abused.

Compliance Issues	None
CSO Instruction	Please distribute freely to the Dealer network. Please take particular note of the requirements with regards to the SFE disable key.

5. Issuing Authority

Name and Position of Issuing Officer	Barry Crates Technical Support Team Leader – Terminal Product
Confidentiality	Confidential – This message or document contains proprietary information intended only for the person(s) or organisation(s) to whom it is addressed. All Recipients are legally obliged to not disclose Tait technological or business information to any persons or organisations without the written permission of Tait.
Distribution Level	Associate
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