# Technical Note TN 596

## TOP-xx21x Excel Conventional New V1.07 Firmware
## TOP Conventional New V1.10 Programming Software

## 2 November 1999

### 1. TOP-xx21x Excel Conventional V1.07 Firmware

**Applicability**  Software changes to TOP-xx21x Excel Conventional have been made, resulting in the release of a new version of enhanced radio firmware, V1.07. This software will be used in all future productions of TOP Excel Conventional Radios.

### 1.1 New features available V1.07

| Feature | Description | Impact on Customer |
|---|---|---|
| **Selcall Updates** | | |
| Faster Ringing | Solves the 2 second wait when Selcall has not received all sub-sequences | For Alcatel Major |
| Ring only after auto-acknowledge | Selcall does not ring until auto-acknowledge is sent. | Minor |
| Selcall Decode after receipt of SDM | The radio is now able to decode further Selcalls after a SDM has been received. | Significant improvement |
| Fixed Tx Burst of Noise | Occasionally, when answering Selcall with the PTT, the radio did transmit a short burst of noise. This is now fixed. | Significant improvement for users. |
| CCDI Auto-acknowledge | Unit now sends auto-acknowledge message to **C**omputer **C**ontrolled **D**ata **I**nterface | Significant for CCDI users |
| **Other Updates** | | |
| Increase "low battery" warning volume | Increase in "low battery" warning volume level | Less chance to miss "low battery" alarm. |
| Ready for : Microphone Switching | This firmware is ready for top microphone. Allows user to switch between bottom and top microphone. ***Radio Hardware Dependant. Wait for separate product announcement.*** | Future feature 1Q2000 |
| Ready for : **R**eceive **S**ignal **T**racking | This firmware is ready for automatic adjustment of the receiver frequency. ***Radio Hardware Dependant. Wait for separate product announcement.*** | Future Feature 1Q2000 |

## 1.2    Compatibility of V1.07

| Item | Description | |
|------|-------------|---|
| Programming S/W | This Radio firmware requires TOP Conventional Programming Software V1.10 | |
| User Manuals | The new features are described in the Elan / Excel user manual : IPN 409-00410-00 | |
| Hardware | Orca masked DSP : | IPN 002-18932-10 |
| | Orca OTP DSP : | IPN 002-18937-13 |
| | Orca PCB VHF Main Radio Board variant 03 : | IPN 220-01401-03 |
| | Orca PCB VHF Main Radio Board variant 04 : | IPN 220-01401-04 |
| | Orca PCB VHF Main Radio Board new variant : | IPN 220-01588-03 |
| | Orca PCB sub-UHF Main Radio Board variant 01: | IPN 220-01503-01 |
| | Orca PCB sub-UHF Main Radio Board variant 04: | IPN 220-01503-04 |
| | Orca PCB UHF Main Radio Board variant 06 : | IPN 220-01392-06 |
| | Orca PCB UHF Main Radio Board variant 07 : | IPN 220-01392-07 |
| | Orca PCB UHF Main Radio Board variant 08 : | IPN 220-01392-08 |
| | Orca PCB UHF Main Radio Board variant 11 : | IPN 220-01392-11 |
| | Orca PCB UHF Main Radio Board variant 03: | IPN 220-01603-03 |
| | Orca PCB 900 MHz Main Radio Board variant 02: | IPN 220-01610-02 |

## 1.3    Known issues remaining with V1.07

| Issue | Description | Impact on Customer |
|-------|-------------|--------------------|
| Battery Capacity Indicator | If the radio powers down due to a flat battery during high powered transmission, when the radio is next powered up the battery indicator may still display two bars of charge. | Minor |
| SDM Error 24 | Rx over-run system error occurs occasionally when sending SDM's from a fast PC. | Minor. Radio will auto re-set. |
| Occasional Display Flicker | Occasionally the display will "flicker" when transmitting or when entering data. | Does not effect the function of the radio. |

## 2.    TOP Conventional New V1.10 Programming Software

**Applicability**    Software changes to TOP Conventional Programming Software have been made, resulting in the release of a new version of programming software, v1.10.  This software is required to program TOP Excel radios with radio firmware V1.07. It is optional for all other conventional TOP radios.

### 2.1    New features available V1.10

| Feature | Description | Impact on Customer |
|---|---|---|
| Supports TOP Excel V1.07 Radio Firmware | This programming software is required for the programming of TOP-xx21x Excel Conventional. | Essential |
| Display Contrast Adjustment | Allows the user to adjust the contrast of the display – via the user menu – for Eclipse radios only. | Better display |
| User Defined tone sets fixed. | Standard user defined tone sets will now work correctly. | NZ Police requirement |
| Entry of scangroups / alpha | This version allows the entry of scangroups in the "alpha" mode (as per manual & help text). | TEA & TEU requirement |

### 2.2    Compatibility of V1.10

| Item | Description |
|---|---|
| User Manuals | The new features are described in the manual : IPN 439-51100-01 |
| Conventional Radio Firmware Database | Versions : 2.00, 2.01, 2.02, 2.03, 2.04 (TOP-xx21x Excel Conventional V1.07 = database version 2.04) V1.10 is backwards compatible. |

### 2.3    Known issues remaining with V1.10

| Issue | Description | Impact on Customer |
|---|---|---|
| Selcall tones between 1500 and 1700 | QUID121- these tones are not allowed under "user defined selcall selection" | Very limited group of users. |
| Programming Timeout errors | QUID210 – Occasional asynchronous timeout error due to hitting ESC key to leave a window. Use "Done" button to quit read/write radio screen. | Irritation for radio programmers. |
| File saving | SCRF4373 – files are occasionally not saved to the correct directory with "SAVE" | Minor. Plan to fix in next version. |

**Note to CSO's**    This information is primarily of a technical nature. Use this information to fix reported problems. Distribute the firmware and the programming software as required only.


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