



Technical Note TN-602

1. TOP-xx11x Elan Conventional
New V1.07 Firmware
2. TOP-xx21x Excel Conventional
New V1.07 Firmware
3. TOP Conventional
New V1.11 Programming Software

30 November 1999

1. TOP-xx11x Elan Conventional V1.07 Firmware

Applicability Software changes to TOP-xx11x Elan 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 Elan Conventional Radios.

Serial Number "G" and "T" band radios between **14034267** and **14035000** will be fitted with V1.07 firmware. All other production from **14041284**

1.1 New features available V1.07

Feature	Description	Impact on Customer
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 Noise Burst	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 Computer Controlled Data Interface, only if SELCALL is sent from radio.	Significant for CCDI users
Increase "low battery" warning volume	Increase in "low battery" warning volume level	Less chance to miss "low battery" alarm.
Ring only after auto-acknowledge	Selcall does not ring until auto-acknowledge is sent.	Minor
Faster Ringing	Solves the 2 second wait when Selcall has not received all sub-sequences	For Alcatel Minor
SDM Auto-acknowledge	Fix to allow SDM auto-acknowledges to be disabled	Minor Improvement

SELCALL Decode	Fix to decode SELCALL C—R—S when C = R	Minor Improvement
Ready for : Microphone Switching	This firmware is ready for top microphone. Allows user to switch between bottom and top microphone. <i>Radio Hardware Dependant. Wait for separate product announcement.</i>	Future feature 1Q2000
Ready for : Receive Signal Tracking	This firmware is ready for automatic adjustment of the receiver frequency. <i>Radio Hardware Dependant. Wait for separate product announcement.</i>	Future Feature 1Q2000

1.2 Compatibility of V1.07

Item	Description
Programming S/W	This Radio firmware requires TOP Conventional Programming Software V1.11 or greater
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
SDM Auto-acknowledge	When sending a SDM through the CCDI on a channel that has SELCALL, the radio is not able to decode the data auto-acknowledge after the SDM is sent.	Minor
Partial SELCALL Ringing Tones	If the CTCSS reverse tone burst is set for greater than 50ms, and the auto-acknowledge delay time is greater than 1600ms then partial SELCALL ringing tones are transmitted at the end of SELCALL auto-acknowledges.	Minor. Radio will auto re-set.

2. 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.

Serial Number Production of “G” and “T” between **14033951** and **14035000**. All other bands from **14040547**

2.1 New features available V1.07

Feature	Description	Impact on Customer
Fixed Tx Noise Burst	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 Computer Controlled Data Interface	Significant for CCDI users
Selcall Decode after receipt of SDM	The radio is now able to decode further Selcalls after a SDM has been received.	Significant improvement
Increase “low battery” warning volume	Increase in “low battery” warning volume level	Less chance to miss “low battery” alarm.
Ring only after auto-acknowledge	Selcall does not ring until auto-acknowledge is sent.	Minor
Faster Ringing	Solves the 2 second wait when Selcall has not received all sub-sequences	For Alcatel Minor
Ready for : Microphone Switching	This firmware is ready for speaker microphone. Allows user to switch between bottom and top microphone. <i>Radio Hardware Dependant. Wait for separate product announcement.</i>	Future feature 1Q2000
Ready for : Receive Signal Tracking	This firmware is ready for automatic adjustment of the receiver frequency. <i>Radio Hardware Dependant. Wait for separate product announcement.</i>	Future Feature 1Q2000

2.2 Compatibility of V1.07

Item	Description
Programming S/W	This Radio firmware requires TOP Conventional Programming Software V1.11 or greater
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

2.3 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 still displays 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.

3. TOP Conventional New V1.11 Programming Software

Applicability Software changes to TOP Conventional Programming Software have been made, resulting in the release of a new version of programming software, v1.11. This software is required to program TOP Excel radios with radio firmware V1.07. It is optional for all other conventional TOP radios.

3.1 New features available V1.11

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	Better display
Entry of scangroups / alpha	This version allows the entry of scangroups in the “alpha” mode (as per manual & help text).	TEA & TEU requirement
Saving of data files to other than “C:”	Resolves a bug with V1.10 where data files saved a location other than default directory were being corrupted	Minor Improvement

3.2 Compatibility of V1.11

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) V1.11 is backwards compatible.

3.3 Known issues remaining with V1.11

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 - some computers, both laptops and desktop PCs are not programming the radios and are reporting an asynchronous timeout error.	Irritation for radio programmers. Try another machine.

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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