
Release Notes

Release V1.4

Released: 26 January 2013

Release V1.4 Contents

The following documentation is included in this release:

Documentation	Version	Build Date
Release Notes	Release 1.4	1/26/2013
Firmware Update Manual	Release 1.4	1/13/2013
7330 Manual	V 3.3.1	1/26/2013

The following firmware is included in this release:

Firmware	Filename	Version	Build Date
SBOOT	SBOOT_1.3.0.bin	V 1.4.0	12/28/2012
DIAG	diag_1.2.0.bin	V 1.2.0	9/4/2009
7330	7330_3.3.1.bin	V 3.3.1	1/13/2013
Speech Library, English	SpLibEng_1.2.bin	V 1.2.0	5/8/2011

The following command line utility is included in this release to build custom speech libraries:

Firmware	Version	Build Date
BuildSpeechLib.exe	V 1.0.0	9/10/2009

The following support files are included in this release:

Support Files	Version	Build Date
Speech Library Named Constants for use with Scom Programmer	V 1.2.0	5/8/2011

Release V1.4 New Features

Controller Powercycle Command: A new command has been added to power cycle the controller. This gives you the ability to remotely powercycle a controller.

If/Then/Else, Activity Timer/Counter Booleans: New booleans have been added to the If/Then/Else command to check for active Activity Timer/Counters. These are useful in checking for repeater activity when scheduling messages.

If/Then/Else, Boolean for Enable/Disable Scheduler Setpoints: You can now test if a Scheduler Setpoint is enabled. This makes it easier to create complex schedules.

If/Then/Else, Boolean for Path Enabled and Path Timeout: You can now test path enabled and path timeout status. This simplifies macros that control repeaters and links.

If/Then/Else, Example: An example has been added describing the use of If/Then/Else, a software switch, and macros to implement pre-access.

Macros, Enable/Disable Command Responses In Macros: A new Software Switch has been added that enables and disables Command Responses in Macros. This switch defaults to disabled to match previous firmware versions. This command gives you more options to manage command responses.

Macros, Erase Macro Command Response: A new command called *Enable/Disable Erase Macro Command Returns OK* has been added so that the Erase Macro command returns OK instead of an error when erasing a macro that doesn't exist. This simplifies batch download of commands when macros aren't expected to exist..

Macros, Macro Size Now 200 Digits: The 7330 now supports macros of 200 digits (was 100 digits). The maximum number of macros continues to be 340 macros.

Macros, Maximum Expansion Increased: The 7330 now supports macro expansion of up to 50 commands (was 40 commands in previous versions).

Macro-Only Password: The controller now supports a special password that is only for use in macros. This password will always stay the same even if the MPW or CPW is changed. This minimizes impact to macro commands during programming updates.

Macro-Only Password Decoding Enable/Disable: A new Software Switch has been added that enables and disables Macro-Only Password Decoding.

Logic Outputs: The Logic Output state is now maintained when running the SBOOT command.

Paths, Disable Timeout Timer Command: A Timeout Timer value of zero now disables that timer.

Path Enable/Disable Command: A software switch has been added that allows individual enable and disable control of individual receiver-to-transmitter paths. You can use this command to enable and disable paths instead of modifying the path access mode to enable and disable a path. This enhancement simplifies programming scripts.

Path Access Mode, Example: An example has been added showing the steps to program access mode for each path.

Path Access Mode and Activity Timer/Counter/Macro, Example: An example has been added showing how to temporarily change a repeater's access mode.

Pause: This command has been added to the 7330. It has been enhanced from the 7K version. The Pause command now supports delays of 10ms to 655.35 seconds.

Pause, Cancel Pause: This command has been added to the 7330. This command can be entered on a DTMF or serial port that is not currently being paused to cancel the pause on another port.

Receiver Enable/Disable Command: A software switch has been added that provides enable and disable control of each receiver and all receiver-to-transmitter paths connected to that receiver. This command does not affect the receiver-to-DTMF path. This command complements the Transmitter PTT command for repeater control during service and troubleshooting. When the receiver is disabled, the COR and CTCSS LEDs alternately flash.

Reset: Added a new text message to the serial port that reports "Cold Reset" when a power cycle of the controller occurs and all programming is erased.

Reset: Added a new text message to the serial port that reports the battery status as "Battery OK" or "Battery Low" when the controller is reset.

Reset Console Defaults: Added a new command to reset the console defaults. If you know your controller's password but forget the serial port configuration, you return the serial configuration to its defaults.

SBOOT, Directory Listing: Added the BootROM version to the listing. This provides additional information when working on a problem with S-COM Support.

Scheduler, Enable/Disable Scheduler Setpoints: This command has been added to the 7330. Previously, to disable a setpoint, it had to be deleted, then re-created later. With this new feature, one or more setpoints can be enabled or disabled. You can also test the enable/disable status using command 76, If/Then/Else.

User Timers: Changed the timer range for User Timers from 655.3 seconds (over 10 minutes) to 6553.5 seconds (over 109 minutes) to support these longer ranges. Applications include Beacon IDs that require longer intervals.

User Timer Booleans: Command 76, If/Then/Else can now be used to test if a User Timer is currently running.

Release V1.4 Fixes

Activity Counter: The Activity Counter did not work. Fixed.

Activity Counter: If the Activity Count Value is programmed while the counter is not zero, the new value wasn't recognized until the counter counted down to zero. Now, the value is recognized at the time of programming.

Activity Timer: If the Activity Timer Value is programmed while the timer is counting down from a larger value, the new value wasn't recognized until the timer counted down to zero. Now, the value is recognized at the time of programming.

Anti-Kerchunk No-Hangtime Mode: When the Anti-Kerchunk No-Hangtime Mode is enabled, and the PTT Minimum Unkey Delay is not zero, the unkey delay creates a hangtime that the No-Hangtime Mode is intended to get rid of. The same problem can occur with a COR Delay that is not zero. Fixed.

Anti-Kerchunk Rearm Timer: If a new Rearm Timer Value is programmed while the timer is counting down from a larger value, the new value wasn't recognized until the timer counted down to zero. Now, the value is recognized at the time of programming.

Command 20, Create Macro: Fixed a defect that occurred when creating more than 77 macros that corrupted the commands in the new macro. (Note: previously released as version 3.2.2.)

Command 48, Subtract Seconds with Inhibit: Fixed.

Command 76, If/Then/Else: The Boolean check of 0900 did not check for commands originating from the serial port. Fixed.

CTCSS Encoder: The CTCSS Event-Triggered Macros could sometimes trigger extra Active-Triggered or Inactive-Triggered Macros. Fixed.

DTMF Decoder: The Interdigit Timer did not work properly when 4th Digit Command Execution was enabled. Fixed.

DTMF Decoder: The DTMF Mute did not work properly with a properly decoded Long Tone. Fixed.

Logic Outputs Change While Running SBOOT: The Logic Output state is not maintained when running the SBOOT command. Fixed.

Messages: Message Run-Time Variables would not work properly if not preceded by CW, Single-Tone Beep, or Speech message control characters. Fixed.

Message Routing: COR and CTCSS Logic Input macros that play messages would play all messages on port #1. Now, the macros for ports 2 and 3 will play messages to the corresponding transmitter port.

No-Tail Timing: Several owners reported that setting all delays and timers to zero and erasing the Courtesy Message still resulted in a short tail of 40ms. The tail has now been shortened to 6-13ms, the shortest possible with the 7330 hardware design. Added a description on page 11-4 of the manual. Fixed.

SBOOT: Fixed a defect where changing console port assignments caused the serial ports to stop working.

Scheduler: Fixed a defect where an event could intermittently be queued multiple times. (Note: previously released as version 3.2.1 and 3.2.2.)

Serial Port: Macro names entered on the serial port, found in the directory and properly executed did not always return a response of "OK". Fixed.

Speech Library: Fixed the pronunciation of the word "Joaquin". (Note: previously released as version 1.1.0 and 1.2.0.)

Speech Library: The words in the library were not recorded at full volume. This showed up when setting default message levels. Fixed. (Note: previously released as version 1.1.0 and 1.2.0.)

Speech Library: Some owners reported excessive time between words when speaking a message of library words. The new library has approximately 5% less quiet time at the beginning and end of words. Fixed. (Note: previously released as version 1.2.0.)

Transmitter Minimum Unkey Delay: When the Anti-Kerchunk No-Hangtime Mode is enabled, and the Tx Minimum Unkey Delay is not zero, the unkey delay creates a hangtime that the No-Hangtime Mode is intended to get rid of. Fixed.

Release V1.4 Changes to the 7330 Manual

Various: Fixed several typos and page number references.

Table of Contents: Adjustments for new pages and commands.

Chapter 2, Getting Started: Added page 2-2, *Testing On The Bench*.

Chapter 2, Getting Started: On page 2-3, clarify what gets erased during Controller Initialization.

Chapter 2, Getting Started: On page 2-8, *Where Do You Go From Here*, add simple examples and page references.

Chapter 3, Programming: On page 3-4, describe the new Macro-Only Password.

Chapter 5, Macros: The chapter has been updated to describe a macro having 200 digits.

Chapter 5, Macros: On page 5-3, show the order of command execution of a nested macro.

Chapter 5, Macros: On page 5-4, show the order of command execution with If/Then/Else.

Chapter 5, Macros: On page 5-5, describe how passwords in macros work. Describe macro name and password conflicts.

Chapter 5, Macros: On page 5-8, add the Enable/Disable Macro-Only Password Decoding command.

Chapter 5, Macros: On page 5-17, add the Enable/Disable Erase Macro Command Returns OK command.

Chapter 5, Macros: On page 5-19, updated the If/Then/Else command with the new Enable/Disable Scheduler Setpoint Boolean and the new User Timer Boolean.

Chapter 5, Macros: On page 5-22, add more examples of using command 76, If/Then/Else.

Chapter 5, Macros: On page 5-25, add an extensive example of using command 76, If/Then/Else, software switches and macros to implement Pre-Access.

Chapter 5, Macros: On page 5-27, updated the Pause command as implemented in the 7330. Added the Cancel Pause command.

Chapter 5, Macros: On page 5-29, added the Controller Power Cycle command.

Chapter 6, Messages: There was some confusion over the different types of beeps supported by the controller mainly because of inconsistent naming throughout the chapter. This was cleaned up so that only two are described: Single-Tone Beeps and Dual-Tone Beeps.

Chapter 6, Messages: On page 6-38, add the Enable/Disable No-Gap Hang Workaround command.

Chapter 7, DTMF: On page 7-3 and 7-4, clarify use of COR and CTCSS inputs by the DTMF decoder.

Chapter 7, DTMF: On page 7-8, clarify operation of Interdigit Timer.

Chapter 7, DTMF: Starting on page 7-21, add Long Tones to the list of tone types that the Mute Hang Time applies to.

Chapter 7, DTMF: On page 7-34, add the Enable/Disable Command Responses In Macros command.

Chapter 8, Serial: Descriptions of all the commands available on the serial port have been spread across multiple documents. All of that information has now been collected in this chapter.

Chapter 8, Serial: On page 8-2, add a description of the new “Cold Reset” message and the Battery status messages.

Chapter 8, Serial: On page 8-5, add a section on Batch Downloads.

Chapter 8, Serial: Starting on page 8-6, add a section on how to use the File Management commands of the SBOOT utility.

Chapter 8, Serial: On page 8-5, add flow control configuration in serial port and terminal emulator configuration tables.

Chapter 8, Serial: Add page 8-17 for the new Reset Console Defaults command.

Chapter 9, Paths: Add graphics in the chapter showing the audio paths within the controller and how the new Receiver and Path Enable commands affect the paths.

Chapter 9, Paths: Add page 9-6 for the new Enable/Disable Path command.

Chapter 9, Paths: On pages 9-12, 9-14, and 9-15, state that the Timeout Timer can also be disabled by setting the timeout value to zero .

Chapter 9, Paths: On page 9-27, add an example of how to delete a Courtesy Message.

Chapter 9, Paths: On page 9-28, added a new example of how to use logic inputs or any other boolean to change a Courtesy Beep Message.

Chapter 10, Receivers: Add graphics in the chapter showing the Front Panel LEDs and how the new Receiver and Path Enable commands affect the paths.

Chapter 10, Receivers: Add page 10-28 for the new Enable/Disable Receiver command.

Chapter 11, Transmitters: Add graphics in the chapter showing the Front Panel LEDs.

Chapter 11, Transmitters: Added page 11-4 describing the settings that affect the tail timing and how you use them for Repeater and Link/Remote Base applications.

Chapter 11, Transmitters: On page 11-6, add a description of setting the delay differently for different types of transmitters.

Chapter 12, Identifier: On page 12-3, state that a message interval of zero disables the IDer. It always did; it just wasn't documented.

Chapter 12, Identifier: Add page 12-11 with the example of the Periodic or Beacon Identifier.

Chapter 20, User Timers: On page 20-2, changed the timer range for User Timers from 655.3 seconds (over 10 minutes) to 6553.5 seconds (over 109 minutes).

Chapter 20, User Timers: Add page 20-9, a new example of implementing Time-Spaced macros.

Chapter 20, User Timers: Add page 20-10, a new example of implementing Timed Disable of DTMF Mute.

Chapter 22, Scheduler: Add page 22-6, a new example of playing a top-of-the-hour message.

Chapter 22, Scheduler: Added page 22-7 to describe the new Enable/Disable Scheduler Setpoints command. Rearranged the chapter pages to make it easier to find information. Improved the top-of-the-hour example on page 22-6.

Appendix A, Programming Tables: Fix many typos. Fix the command 76 example in the boolean tables. Add command 76 examples in other categories. Improve the tables with port/transmitter/receiver-specific entries to make it more clear what value should be specified. Add port-specific path booleans for Path Timeout and Path Enabled. Add Activity Timer/Counter booleans. Added the boolean table for port 9.

Appendix B, Installation: On page B-1, add a Static Warning.

Appendix B, Installation: On page B-3, add a section on the Jumpers that are provided with the controller and recommendations on how to store them.

Appendix B, Installation: Add page B-7, Setting Audio Levels. There is a graphic on this page that shows the expected levels and the order to make adjustments to the jumpers and pots.

Appendix B, Installation: On page B-14, added part number for the power connector.

Appendix B, Installation: Added page B-17, a full page board outline showing the location of color coded jumpers, potentiometers, and connectors.

Appendix B, Installation: Added page B-27, instruction on Battery Replacement.

Appendix E, TIM: Removed this information from the appendix. The TIM is not currently supported.

Release V1.4 Known Issues

Analog-to-Digital Converter: The support for measuring external analog inputs is not yet available.

Audio Delay Adjustment: When the Audio Delay potentiometer is turned full counter-clockwise for no delay and the controller power is removed and restored, there may not be any repeated audio from the receiver input. If no audio delay is required for a receiver, move the DLY jumper to NODLY instead of setting the potentiometer to minimum.

Command Response Routing Command: Root number 91 is not yet available and is not documented in the manual. By default, message responses are heard on the port that the command was entered. For scheduler macros, messages are heard on port 1.

Firmware Update: Procomm XModem transfers do not work reliably.

Remote Base: The Doug Hall RBI-1 remote base support is not yet available.

Save/Restore Controller Configuration: The option to upload and download controller configurations is not yet available. Also, the option to save/restore the controller configuration in the flash is not yet available.

Release V1.4 Cautions

The next firmware release will require a *Cold-Start* of the controller causing loss of all programming. Be sure to document your programming so that you can reprogram the controller after the update. It is recommended that you enter commands in a text file and send these to the controller when an update is required. (See *Chapter 8, Serial Port*, for more information on sending commands from a text file.)