

Micro-Master Touch Release Notes

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1 Micro-Master Touch Release 1.7

The Micro-Master Touch v1.7 is an upgrade release containing functionality enhancements and additions for the Micro-Master Touch.

Most of the information contained in these release notes is not included in the printed manuals. Please read the notes carefully.

2 Version Information

2.1 Current Released Versions

	Version	Comment
Controller		
Logic	1.7.7	
Station Module	1.12	
Analogue Module	1.5	
Digital Module	1.5	
RS485 Expansion Module	1.4	
Master Valve Module	1.0	
RMT200 Expansion	1.6	
RMT440A Field Module	1.1	
RMT440D Field Module	1.4	
RMT800 Field Module	1.4	
Remote Access Gateway	1.3	

3 Front Panel

3.1 Version 1.7

3.1.1 Known Problems

There are no known problems for this version.

3.1.2 New in Version 1.7

3.1.2.1 Remote Access Gateway

Support for the Remote Access Gateway has been added. The Micro-Master Touch Remote Access Gateway allows access from Apple ios iPhone and iPads, and Android devices. The Remote Access Gateway allows programs to be started, paused/resumed, skipped and stopped. Also, group runtimes and group valves can be altered.

The Remote Access Gateway can be used where there is Telstra 3G coverage.

3.1.3 Changes in Version 1.7

3.1.3.1 Internet drop outs

Support to mitigate faults in the internet connection between the controller and the cloud server have been improved by adding redundant servers links.

3.1.3.2 Program List Text Changes

The text for each program in the program list screen now displays more information if the program is currently held. For example, if the program is held by a rule, the program shows the rule name, the current group, remaining runtime, and cycle number. This information is a shortened version of the display when the program is running.

3.1.3.3 Chemical setup

The premix runtime for chemical injection displayed in seconds, but the time entry was in minutes and seconds. The display now shows minutes and seconds as mm:ss in the premix runtime to maintain consistency.

The "Mix While Injecting" option was not saved correctly and was always enabled.

A change to the allocated flowmeter will correctly update the chemical injection units.

3.1.3.4 Date, Time and Timezone

To support the Remote Access Gateway and access from timezone regions different than the controller, the controller now accesses geographical location, date/time and timezone information from the internet via the Remote Access Gateway. The geographical location is based on the mobile phone tower information and internet servers so may not be exact. The Remote Access Gateway uses the date/time and timezone information to adjust the controller date and time. The geographical location and timezone information is synchronised when the controller is powered on or restarted. The data and time is synchronised at power on or restart and approximately every 12 hours thereafter.

When a Remote Access Gateway is not installed, the user may enter time zone and geographical location information. In this version, these data are not used, but may be required for future functionality.

3.1.3.5 Controller Backup and Restore

If the controller ID was not 1, then the upgrade may not restore the controller data correctly. The controller now saves the controller data to an ID independent file.

3.1.3.6 Controller Firmware Upgrade

When performing a firmware upgrade, if the second file was corrupt, the first file would be processed and the second would fail. This could render the controller in an unusable state.

Before performing a controller firmware upgrade, the USB stick is checked for valid controller upgrade files. If the files are not validated correctly the upgrade is not performed.

3.1.3.7 Display Timeout

The timeout for a screen to revert to the Main Menu screen has been increased to 5 minutes.

3.2 Version 1.6

3.2.1 New in Version 1.6

3.2.1.1 Novice Mode

The Micro-Master Touch controller now incorporates a Novice Mode. In Novice Mode, only 1 pump set, 1 filter bank and 1 chemical injection are available. This should be the majority case, and Novice Mode is the default configuration when the controller is shipped and when the controller is reset to factory condition.

In Novice Mode, selecting a pump, filter, or chemical parameter from an edit screen will automatically select the first pump, filter or chemical as appropriate.

Novice Mode can be enabled or disabled via the Setup, and Global screens and then accessing the advanced Global settings.

3.2.1.2 RMT440A 4 Station, 4 Input Field Module

Support for the Radio-Master for Touch RMT440A Field Module has been added.

The RMT440A is a 4 Station, 4 Input Field Module.

The 4 inputs are 4-20mA inputs and can be used as flowmeter inputs or general purpose 4-20mA sensors.

The 4 Inputs occupy the 4 lower locations in a module position and the 4 Station Outputs (latching) occupy the upper 4 location. For example, if an RMT440A is configured as part of Remote Unit C, Module position 1, then the 4 inputs occupy Analogue Sensor location C1 through C4 and the 4 Stations occupy station locations C5 through C8.

Configuration of the RMT440A is the same as for other Radio-Master for Touch Field modules.

Note that because 4-20mA sensors require power and the RMT440A Field Module is battery powered, the RMT440A only activates the + output of the sensor when a measurement is required.

3.2.1.3 Master Valve Module

Added support for Master Valve Expansion Modules. A Master Valve Expansion Module installs in Expansion Module 5 or 6. The Master Valve Expansion Module closes a voltage free relay whenever any station on the unit is active. The module is designed to be used on units incorporating solar panels and irrigation inverters to enable the irrigation inverter. The module also could be used to control a pump starter.

3.2.2 Changes in Version 1.6

3.2.2.1 Filter Banks

Filter Banks have new functionality and changed operation.

Filter Banks are now associated with Pump Sets, instead of with each single or multi-station program. This reduces the number of setup actions, and also allows filter flushes to occur during Spot Water and Walkthrough irrigations.

Filter Banks now have start and stop buttons to allow manual initiation and interruption of a filter flush.

A PD input closure at anytime will cause a filter flush to occur. This allows filter flushes to occur when pressure activated jacking pumps are used and main irrigation pumps are not in operation.

The PD Backup timer now continues to count down from the last timer value. In the case of a PD switch failure, the PD Backup timer will initiate a filter flash after a specified period of time over a number of irrigations. Previously, the PD Backup time was reset at the start of each irrigation.

3.2.2.2 Station Program List

Single station programs could be used as a sophisticated pump control. This has been removed in this version.

3.2.2.3 Rules, Flowmeters and Aggregate Flowmeters

Rules, Flowmeters and Aggregate Flowmeters now include a scan delay time. When the conditions for a sensor to trigger are met, the sensor waits for the scan delay time before showing the triggered state. This removes the likelihood of a flow sensor becoming triggered before the first flow pulse has been received.

3.2.2.4 Global Enable

Selecting the Global Enable parameter to disable all programs now checks if irrigation is in progress before disabling programs. If irrigation is on progress, the disable will fail.

3.2.2.5 Display

3.2.2.5.1 Display Timeout

The timeout for a screen to revert to the Main Menu screen has been increased to 3 minutes.

3.2.2.5.2 Status Screen

If a program cannot start due to either a rainswitch condition, or the Stop Sensor is active, the program will not be shown in the 'Next Programs to Start' list on the Status screen.

3.2.2.5.3 Program List

If a program cannot start due to either a rainswitch condition, or the Stop Sensor is active, the program icon will alternate between the disabled and idle icons, and the program text will alternate between the reason for the non-start and the normal text. This will provide an indication of programs that will not start at the next start time when expected.

3.2.2.5.4 Backup and Restore Screen

Controller Rest, Backup and Restore functions have been moved to their own screen.

Reset functions have been expanded into Factory and Default options.

Resetting the controller to Factory options will reset all configuration settings, including Novice Mode, and Unit, Radio-Master for Touch and RS485 configuration and address information.

Resetting the controller to the default configuration will clear all program information, including all pump, filter, chemical and sensor configuration. This option does not reset Unit, Radio-Master for Touch or RS485 configuration or address information.

3.2.2.5.5 Single Station Program Screens

The Station List screen only shows valid Station Expansion Modules and RMT440A, RMT440D and RMT800 Field Modules.

3.2.2.5.6 Analogue and Digital Sensors Screens

Analogue and Digital Sensor List screens only show valid sensors/modules. For example, if a single Digital Expansion Module is installed in Expansion Module 3 of the Master Unit, and an RMT440D Field Module is configured as Remote Unit B, Module 1, the Digital Sensor List will only show page selections for A17-25, and B1-4. Selecting the B1-4 page will display only the 4 digital inputs on the field module.

3.2.2.5.7 Flickering Pause Buttons

The flickering of the Pause and Resume buttons is fixed.

3.2.2.5.8 Station Numbering

In the Unit Edit screen, the station and sensor idents are now in form B1, rather than 33.

3.2.2.5.9 Runtime Display

When a delay or runtime is greater than 60 minutes, the time shows as "h:mm:ss". When delays or runtimes are less than 60 minutes, the time shows as "m:ss".

3.2.2.5.10 Parameter Displays

Where applicable, units for parameters are now shown with the parameter value. For instance, delay times have "seconds" displayed after the value.

3.2.2.5.11 Parameter Edit Screens

The Number, Text, Group, Daytable, Allocated Station and Date/Time edit screens now show which parameter is being edited and limits for the parameter.

3.2.2.5.12 Progress Indicator

The progress indicator action has been improved.

3.3 Version 1.5

3.3.1 New in Version 1.5

3.3.1.1 RMT440D 4 Station, 4 Input Field Module

Support for the Radio-Master for Touch RMT440D Field Module has been added.

The RMT440D is a 4 Station, 4 Input Field Module.

The 4 Inputs occupy the 4 lower locations in a module position and the 4 Station Outputs (latching) occupy the upper 4 location. For example, if an RMT440D is configured as part of Remote Unit C, Module position 1, then the 4 inputs occupy Digital Sensor location C1 through C4 and the 4 Stations occupy station locations C5 through C8.

Configuration of the RMT440D is the same as for other Radio-Master for Touch Field modules.

3.3.2 Changes in Version 1.5

3.3.2.1 Station, Analogue and Digital Sensor Locations

The naming of these items within item lists has been changed from a number between 1 and 160 to a label including the unit designator and position.

For example, a sensor located in Remote Unit B at position 7 is shown in the sensor list as B7 rather than #39. This new naming reflects the naming of stations within groups as A1, A2, A3 etc.

This naming change is also reflected in the naming of Units within various selection screens.

3.4 Version 1.4

3.4.1 Changes in Version 1.4

3.4.1.1 Filter Bank

The number of filters in each filter bank has been increased from 8 to 32.

4 Station Expansion Module

4.1 Known Problems

There are no known problems for this version.

4.2 Version 1.12

4.2.1 Changes

Valve Current Limit

A period of over-current operation is now permitted. The period of time an amount of over-current is allowed varies from 1 minute at 2.5A down to 5 minutes at 2.1A.

The time and over-current is aggregated over the time period. For example, over-current of 2.5A for 30 seconds followed by 2 minutes 30 seconds at 2.1A will force the over-current limiting function to operate. The over-current limit function will attempt to reduce the current below 2A by successively turning off individual stations until the current is less than 2A.

4.3 Version 1.10

4.3.1 Changes

Valve Current Limit

The value at which action on valve overcurrent occurs was changed from 2A to 2.1A and occurs every 2 seconds instead of 1 second.

4.4 Version 1.9

4.4.1 What's New

Master Valve Expansion Module

Support for the Micro-Master Touch Master Valve Expansion Module was added.

4.4.2 Changes

RMT Module Configuration

When RMT modules are changed in the field, improvements to automatically change version and configuration information were included.

Module Status

When a command to start or stop stations is sent, the units and RMT Field Modules respond with acknowledgement and the current status. This provides quicker feedback of successful commands and supports the Master Valve operation.

4.5 Version 1.8

4.5.1 What's New

RMT440A 4 Station, 4 Analogue Input Field Module

Support for the Micro-Master Touch RMT440A 4 Station, 4 Analogue Input Field Module was added.

RMT440D 4 Station, 4 Digital Input Field Module

Support for the Micro-Master Touch RMT440D 4 Station, 4 Digital Input Field Module was added.

RMT800 8 Station Field Module

Support for the Micro-Master Touch RMT800 8 Station Field Module was added.

5 Analogue Expansion Module

5.1 Known Problems

There are no known problems for this version.

5.2 Version 1.5

5.2.1 What's New

RMT440A 4 Station, 4 Analogue Input Field Module

Support for the Micro-Master Touch RMT440A 4 Station, 4 Analogue Input Field Module was added.

RMT440D 4 Station, 4 Digital Input Field Module

Support for the Micro-Master Touch RMT440D 4 Station, 4 Digital Input Field Module was added.

RMT800 8 Station Field Module

Support for the Micro-Master Touch RMT800 8 Station Field Module was added.

Master Valve Expansion Module

Support for the Micro-Master Touch Master Valve Expansion Module was added.

6 Digital Expansion Module

6.1 Known Problems

There are no known problems for this version.

6.2 Version 1.5

6.2.1 What's New

RMT440A 4 Station, 4 Analogue Input Field Module

Support for the Micro-Master Touch RMT440A 4 Station, 4 Analogue Input Field Module was added.

RMT440D 4 Station, 4 Digital Input Field Module

Support for the Micro-Master Touch RMT440D 4 Station, 4 Digital Input Field Module was added.

RMT800 8 Station Field Module

Support for the Micro-Master Touch RMT800 8 Station Field Module was added.

Master Valve Expansion Module

Support for the Micro-Master Touch Master Valve Expansion Module was added.

7 RS485 Expansion Module

7.1 Known Problems

There are no known problems for this version.

7.2 Version 1.3

7.2.1 What's New

Master Valve Expansion Module

Support for the Micro-Master Touch Master Valve Expansion Module was added.

7.3 Version 1.2

7.3.1 Changes

Serial Communication

Changes were made to the preamble to cater for changes to serial number capacity.

7.4 Version 1.1

7.4.1 What's New

RMT440A 4 Station, 4 Analogue Input Field Module

Support for the Micro-Master Touch RMT440A 4 Station, 4 Analogue Input Field Module was added.

RMT440D 4 Station, 4 Digital Input Field Module

Support for the Micro-Master Touch RMT440D 4 Station, 4 Digital Input Field Module was added.

RMT800 8 Station Field Module

Support for the Micro-Master Touch RMT800 8 Station Field Module was added.

8 Master Valve Expansion Module

8.1 Known Problems

There are no known problems for this version.

8.2 Version 1.0

8.2.1 What's New

Version 1.0 is the first release of the Master Valve Expansion Module.

9 RMT200 Expansion Module

9.1 Known Problems

There are no known problems for this version.

9.2 Version 1.6

9.2.1 Changes

Radio Communication

The radio message handling was improved to handle multiple incoming messages.

9.3 Version 1.5

9.3.1 Changes

Version Numbering

Some modules were shipped with an incorrect version number.

9.4 Version 1.3

9.4.1 What's New

RMT440A 4 Station, 4 Analogue Input Field Module

Support for the Micro-Master Touch RMT440A 4 Station, 4 Analogue Input Field Module was added.

RMT440D 4 Station, 4 Digital Input Field Module

Support for the Micro-Master Touch RMT440D 4 Station, 4 Digital Input Field Module was added.

RMT800 8 Station Field Module

Support for the Micro-Master Touch RMT800 8 Station Field Module was added.

Master Valve Expansion Module

Support for the Micro-Master Touch Master Valve Expansion Module was added.

9.4.2 Changes

Route Information

Handling of Route Information Packets was improved.

10 RMT440A Field Module

10.1 Known Problems

There are no known problems for this version.

10.2 Version 1.1

10.2.1 What's New

PosiSense

Support for PosiSense diagnostics has been improved, but does not change the module operation.

10.3 Version 1.0

10.3.1 What's New

Version 1.0 is the first release of the RMT440A Field Module.

11 RMT440D Field Module

11.1 Known Problems

There are no known problems for this version.

11.2 Version 1.3

11.2.1 What's New

PosiSense

Support for PosiSense diagnostics has been improved, but does not change the module operation.

11.3 Version 1.2

11.3.1 What's New

Field Module Temperature

Field Modules return the module temperature in their status message.

11.4 Version 1.1

11.4.1 What's New

Master Valve Expansion Module

Support for the Micro-Master Touch Master Valve Expansion Module was added.

11.4.2 Changes

PosiSense

PosiSense valve handling was improved to reduce false reports.

Route Information

Handling of Route Information Packets was improved.

12 RMT800 Field Module

12.1 Known Problems

There are no known problems for this version.

12.2 Version 1.4

12.2.1 What's New

PosiSense

Support for PosiSense diagnostics has been improved, but does not change the module operation.

12.3 Version 1.3

12.3.1 What's New

Field Module Temperature

Field Modules return the module temperature in their status message.

12.3.2 Changes

Node Identification Timeout

The RMT Field Modules use a Node Identification (NI) message to automatically associate with and identify themselves to an RMT network. The Field Modules send this NI message if a request for status has not been received for more than 5 minutes. Originally, this only occurred at power up, but now occurs anytime.

12.4 Version 1.2

12.4.1 What's New

RMT440A 4 Station, 4 Analogue Input Field Module

Support for the Micro-Master Touch RMT440A 4 Station, 4 Analogue Input Field Module was added.

RMT440D 4 Station, 4 Digital Input Field Module

Support for the Micro-Master Touch RMT440D 4 Station, 4 Digital Input Field Module was added.

RMT800 8 Station Field Module

Support for the Micro-Master TouchRMT800 8 Station Field Module was added.

Master Valve Expansion Module

Support for the Micro-Master Touch Master Valve Expansion Module was added.

12.4.2 Changes

PosiSense

PosiSense valve handling was improved to reduce false reports.

Route Information

Handling of Route Information Packets was improved.

13 Remote Access Gateway

13.1 Known Problems

There are no known problems for this version.

13.2 Version 1.2

13.2.1 Changes in Version 1.2

13.2.1.1 Daylight Saving Time

At Daylight Saving Time changes, the controller would only pick up the change in time when the Remote Access Gateway or controller were restarted. A change to the Remote Access Gateway and controller firmware will make the change when the network time changes. (This will need to be confirmed when DST changes again)

13.3 Version 1.1

13.3.1 What's New

Version 1.1 is the first release of the Remote Access Gateway.

14 Android, iOS Apps

14.1 Known Problems

There are no known problems for this version.

14.2 Version 1.2

14.2.1 Changes in Version 1.2

14.2.1.1 Daylight Saving Time

At Daylight Saving Time changes, the controller would only pick up the change in time when the Remote Access Gateway or controller were restarted. A change to the Remote Access Gateway and controller firmware will make the change when the network time changes. (This will need to be confirmed when DST changes again)

15 Documentation Updates

Changes have been made to the firmware since the manual was printed.

These changes relate to the configuration of Radio-Master for Touch Field Modules and Radio-Master for Touch RMT200 Expansion Modules and improve the reliability of communications, and reduce the possibility of interference from neighbouring radio systems.

The changes are described in the module installation documents supplied with the expansion modules.

16 Where To Find Information

These Release Notes contain last-minute information about the Micro-Master Touch.

For further information about the Micro-Master Touch, in the first instance, refer to the manual supplied with your Micro-Master Touch Master Controller, or contact your local Toro agent, or TDS Software Solutions.

NOTE: All printed and online documentation assume that you have installed Micro-Master Touch using the default configuration.

Technical support for the Micro-Master Touch Controller can be obtained from:

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