Large Display

Release version 1.0.0 – 10/19/2018

Number of panels released: 1 - 10/20/2018

Release version 1.0.1 – 10/29/2018 firmware MS20.41

Number of panels released: 20 - 10/29/2018

Known bugs:

Startup key presses for Dfuse will work with only one button pressed. Either P1 or P4 held will cause the bootloader to be run. Fixed 10/30/2018. While writing the programming mode start up, the program was going into the bootloader.

Radio restarts every 5 min.

Reported bugs:

Rx and tx frequencies on the display don’t match the CPS programmed for a channel. Analog repeater with 147.075 rx and 147.675 tx plus ctss tone. Display shows 147.775 for both rx and tx.

Fixed: Inserting the decimal point into the string of digits missed a digit. Copy one more digit to the string.

Long channel name with lots of upper case exceeds space in the box. The name overlaps the DMR and Power box.

Fixed: Made a line width pixel counter. If greater than the space the font reduces so that it fits.

Version 1.0.2 firmware MS20.41

Fixed bugs:

Dfuse startup enters with both buttons pressed.

Rx and TX frequencies displayed wrong.

Long channel names exceeded the box size and overlapped channel type and power level box.

Radio does not reboot every 5 minutes.

Revisions:

Added radio waves Icon for the logo on the splash screen.

Added routine to mirror radio waves icon.

Forced splash screen to fixed colors.

Changed name of simple palette to default palette.

Startup button routines for going into programming mode and RCDB mode.

Screens for Programming and RCDB modes.

Added right knob control of menu items. Both panel menu and radio menu.

New Reported bugs:

When the screen displays the reduced font for the channel name the zone name disappears.

Fixed:

Variable for the channel name is 16 characters, array 0-15. Placed a NULL character at the end, so that standard string functions could be used. Placed NULL at location of the length of the channel name. The length of the name was 16, so the NULL went to location [16] which was past the end of the array. It ended up in the first position of the next array in memory, the zone name. When the zone name was displayed later, nothing was displayed because the first character was a NULL. Changed all 16 character arrays to 17 to allow space for the NULL, and still have a 16 char string.

Version 1.0.3 firmware MS20.43

Number of panels released: 85 + some of 1.0.2 were upgraded 11/26/2018

Added color code and slot number for DMR channels, shows up when a call is received.

Fixed colors in diagnostic screen that did not use saved palette.

Bugs found and fixed in 1.0.3 will be released in 1.0.4

Found Bugs:

In diagnostics test mode. The touch screen does not work, the diagnostics hang. UART1 is running and gets an overrun because the radio is connected and sending packets. Does not time out of the test and continue. Fixed. Eliminated old turn off touch panel routine from before I2C and touch panel fixes.

Volume test doesn’t work. Fixed.

Channel change test fixed. Test keypresses were being sent to the radio, turned them off until needed.

Squelch not displaying squelch message. Fixed.

Reported Bugs:

Long press on mic keypad does not work.

Fixed: Mic release flag was not being restored to zero after use. Long press only worked once.

Panel hangs when saving changed colors. Did not see the problem here, customer reported.

Possibly fixed. Wait for I2C to complete was not finishing. The code was a continuous while wait. Added timeout, reset and, error message.

No way to turn off screen while running on external power (not powered by the radio).

Fixed: added a 20 second delay after the radio powers down. Then the panel backlight turns off. Button lights are still on if the jumper is set. The display wakes back up when any packet comes in.

DMR channel reporting slot wrong (always slot 1). Testing shows reporting slot 0 and slot 1.

Fixed: Changed slot number calc to report 1 and 2.

Color and slot number do not change when changing channels, only when a reception occurs.

Fixed: changing channels clears color and slot. Color and slot only displayed after a contact.

Version 1.0.4 firmware MS20.45 or MS20.43

New:

Added clock check to the diagnostic test.

Added error count display to the diagnostic test

Added heartbeat indicator, shows that the radio is connected and sending info to the panel.

Bugs fixed:

Diagnostic screen working all the way through. Returns to panel menu when finished (no rebooting).

Mic keypad long press.

Screen shutdown when panel is on external power and the radio is shutdown. (20 seconds)

Hang at I2C – EEPROM color save.

Squelch displays radio messages. Level, tight, normal, on, off.

Power on message font change when message doesn’t fit the box.

Reported Bugs:

On Air indicator stays on sometimes.

Fixed: Indicator did not clear when watchdog timer timed out. Changed to clear regardless of watchdog state. Added turning off indicator when radio TX LED is turned off. That was needed to respond to channel timeout correctly. Increased watchdog timer to 10 seconds from 5 seconds.

Found bugs:

Extra characters at the end of event messages from a sub menu item. Fixed, added NULL terminator.

RX frequency overwrites box when last call pop-up is displayed, and a new call comes in. Fixed.

Icons appear on panel menu when a call is received. Fixed.

Version 1.0.5 firmware MS20.47

New:

Added correct button assignment per CPS and new radio info packet. Touch screen now works correctly for volume and channel if knobs are swapped in the CPS. Fixed previous problem when volume touch points changed the channel and visa versa due to CPS button assignments being swapped.

Added Advanced features to the panel menu. Zone favorites and Channel favorites now selectable in the advanced menu.

Added restore color settings to P3 held at startup. Will clear Zone and Channel favorites also.

Baud rate to radio increased to 57,600.

Found Bugs:

Using external power to the panel, with no radio connected, the program hangs.

Wait for radio and connected not displaying properly.

Bad color selection does not get restored to default at startup. Screen was all black.

Reported bugs:

RX frequency not displayed after last call pop-up is displayed and closed. Fixed

Version 1.0.6 firmware MS20.47

Fix for black screen after loading software.

Version 1.0.7 firmware MS20.47- 20.53

Testing and development only, not released for customer use.

Version 1.0.8 firmware MS20.53

Added functioning VFO mode to advanced features.

Added touch screen access to the panel menu by touching the power icon.

Added touch screen selection of channel favorites, and zone favorites. Exits directly back to main screen after selection.

Added direct access to channel and zone favorites from the main screen by touching the channel name or zone name.

Fixed RX and TX swapping values. Data in packets 17,18 was swapped.

Added rssi graph accessed by touch point on rssi icon. 9 minute history, 1 pixel every 3 seconds.

Bug: occasional long press occurs on left (channel) knob. Short press release is not getting sent on time.

Version 1.0.9 firmware MS20.53

Added Courier fonts, fixed width for FT857.

Overlapped led blinks and splash screen, to reduce startup time by half a second.

Added “radio is off” screen message to blink display when panel is powered by external supply and the radio has been powered down. Fixed radio is off message, waits before going to sleep.

Fixed touch point controls of buttons in the zone and channel favorites when accessed through a screen touch, instead of the menu.

Added spectrum view to advanced features.

Made a working Enhanced Channel Entry in advanced features.

Modified zone favorites to allow erasing a zone. Enter zone 0 to erase.

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Revised RSSI graph to adjust scale depending on the radios’ range.

Fixed error in graphics rectangle drawing routine. Makes faster screen updates.

Modified I2C, touch panel generates fewer resets. Improved touch point handling.

Version 1.1.0 firmware MS20.53 ( beta )

Added enhanced scanning mode to advanced features.

Revised Enhanced channel entry mode. Added an activate menu item, to eliminate using select on the receive frequency to activate. Made Mhz, Khz, hz display for step and offset.

Revised mic keypad handling routine. Sampling in short bursts instead of continuously. To reduce hum.

Fixed a bug hanging the program when zero is entered for the receive frequency.

Revised to clear channel numbers when a TempACH or TempDCH is set.

Fixed a bug causing slow key stroke handling.

Using the change radio type, but select the same radio as is current, the front panel reboots. Unintended behavior that allows rebooting the panel without having to turn off the power.

Version 1.1.1 firmware MS20.57 ( beta )

Revised squelch settings in the packet for temporary channels. To make Enhanced Channel entry, VFO mode, Enhanced scanning, and Spectrum View work properly.

New radio firmware fixed out of ham band frequency range that wasn’t working with enhanced channel. ( 453,509,200 to 454,164,400 ) .

Increased Mic debounce time to reduce unintended PTT activation.

Version 1.1.2 firmware MS20.57

Fixed CTCSS, DCS, INVDCS for transmitting in Enhanced Channel entry mode.

Many revisions to FT857D. Startup, SSI graph, cursor alignment in tag entry, clear screen when radio is off. Revisions to work with UART1 and UART2 (usb connector). Added error messages for FT857 to error logs.

Version 1.1.3 firmware MS20.58

Fixed “on Air” indicator, it was just a short flash. Prevented on air during programming mode which turned on the red LED. Relocated on air in advanced feature screens, enhanced channel, vfo mode, enhanced scanning.

Revisions to radio startup of FT857, external power or standalone.

Bug: broken favorite channel entry. Radio sent to zone 0, which hangs. Existing favorites works, just new entries failed.

Version 1.1.4 firmware MS30.04

Fixed Bug: 1.1.3 broken favorite channel entry.

Fixed numbering for channels above 16, for new version with greater than 16 channels.

Fixed unresponsive button presses, P1-P4.

Changed mic keypad button handler to work with new mic. Buttons were repeating.

Fixed “on air” indicator, again, turning off after 20 sec, not correctly showing Tx status.

Version 1.1.5 firmware MS30.11

Quick fix version to ignore packets from radio with unknown data.

Included 1.1.4b fix for FT857D

Revision to Mic keypad handler for new mics.

Changes to diagnostics, 4 point touch panel test, optional use of loopback on UART1.

Version 1.1.6 firmware MS30.14

Added led blink for screen controller hardware failure that occurs before screen is active.

Fixed favorite zone and favorite channel menu not clearing after zeroing a favorite.

Added screen brightness control sliders to color settings. Added day / night brightness buttons to the main screen.

Added DMR talk group monitor in Enhanced Monitor mode. Graph view, and text view.

Revised to clear contact ID on channel change. Leaving it on was confusing.

Added volume number to volume slider on main screen.

Fixed error, scan ending frequency would not decrease, only increase, also step was / 10.

Eliminated rapid flicker of Zone name.

Version 1.1.7 firmware MS30.14

Bug fixed. “On Air” not turning off after PTT release. Bug was introduced while fixing zone name flicker.

Bug fixed. Panel menu pages left in wrong states when the menu is aborted using the right knob button.

Added “Receive” indicator.

Bug fixed. Brightness controls get covered over in Palette RGB color adjust.

Bug fixed: Color brightness only getting saved after changing a color, not just a brightness change.

Bug fixed: menu not fully repainting after palette adjustment is displayed.