

# LRS455-C-U, CE-U, -T-U

These sections describe the updates and known limitations in each firmware version for the identified model numbers, as of this document's release. The latest documentation and firmware versions are available on the FreeWave Web site at <a href="https://www.freewave.com">www.freewave.com</a>.

## Version 1.79

# Release Date: July 2018 Additions and Changes

- Fixed TX waveform for 2GFSK mode to have more margin with the mask.
- Fixed TX waveform for 4GFSK mode to have more margin with the mask.
- Adjusted 4GFSK RX thresholds with new waveform to improve sensitivity.

#### **Known Limitations and Workarounds**

- 4GFSK (data rate setting of 4) data rate is not OTA backwards compatible with all prior firmware versions.
  - 2GFSK (data rate setting of 5) data rate is backwards compatible with prior firmware versions.
- OTA does not pass through Repeaters nor does it update the Repeater.
  - In networks with a Repeater, for an OTA upgrade, the Endpoints should be updated from the Repeater and then the remaining network from there.
  - Repeater and Gateways should be updated locally when updating Endpoints OTA.
- Upgrade methods not available: Tool Suite or Data port.
  - Users **must use** the .exe and the Diagnostic port for upgrades.

### Version 1.77

Revision: JuL-2018

# Release Date: January 2015 Additions and Changes

- Setting to RS485 is now stable.
  - This was a software-only fix and no hardware or other functionality changes were required.

#### **Known Limitations and Workarounds**

No known additional limitations.

# Version 1.74

# Release Date: April 2013 Additions and Changes

- Use of frequency 452.25 MHz (CH 2760) now functions correctly.
  - This was a software only fix, and no hardware or other functionality changes were required.

#### **Known Limitations and Workarounds**

- The RF Data Rate parameter displays 0 to 5 as valid entries.
  - In LRS455-C and LRS455-T models, only RF Data Rates 4 and 5 are valid and accepted.
- Setting 2 in the Use Break to Access Setup parameter is NOT supported.
  - Use option 1 to use the Break to Access Setup functionality.
- Operation Mode 6 is NOT supported.
- In some cases, if the Slave is powered up before the Master, the Slave may not maintain its link to the Master.
  - To ensure the Slave maintains its link, power up the Master prior to powering up a connecting Slave.
  - A Slave doe NOT re-link to the Master immediately if the Master is momentarily powered
    off.
- If a Slave is communicating through a Repeater, the Slave is unavailable in Network Diagnostics within Tool Suite.
- Local Diagnostics in Tool Suite is NOT supported.
- The Tx remote LED output is currently unavailable.
- Over the air firmware updates via the data port are NOT recommended at this time.

# Version 1.72

### **Additions and Changes**

Crystal drift firmware fix. No visual changes or updates to functionality.

#### **Known Limitations and Workarounds**

- The RF Data Rate parameter shows 0 to 5 as valid entries.
  - In LRS455-C models, only RF Data Rates 4 and 5 are valid and accepted.
- Setting 2 in the Use Break to Access Setup parameter is NOT supported.
  - Use option 1 to use the Break to Access Setup functionality.
- Operation Mode 6 is NOT supported.
- In some cases, if the Slave is powered up before the Master, the Slave may not maintain its link to the Master.
  - To ensure the Slave maintains its link, power up the Master prior to powering up a connecting Slave.

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- If a Slave is communicating through a Repeater, the Slave is unavailable in Network Diagnostics in Tool Suite.
- Local Diagnostics in Tool Suite is NOT supported.
- The Tx remote LED output is currently unavailable.

## Version 1.71

Release Date: May 2011 Additions and Changes

Fixes to support VCO Range testing.

# Version 1.70

Release Date: February 2011 Additions and Changes

Miscellaneous fixes. No details provided.

#### **Known Limitations and Workarounds**

Point-to-Point Repeaters are NOT supported

## Version 1.69d9

Release Date: October 2010 Additions and Changes

Transmitter response fixed.

# Version 1.67o

Release Date: August 2010

**Known Limitations and Workarounds** 

- Setting Master Packet Repeat to 0 and Modbus RTU to 1 results in a large data transmission delay.
  - Master Packet Repeat should be set to 1 or higher if the Modbus RTU setting is enabled.

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