

Futurecom Repeater Configurator (FRC) Release Notes – October 2023

FRC Software (6A083X06): New Version: 1.36 Old Version: 1.35

Note: FRC 1.36 software supports all hardware platforms: DVR-LX[®], DVR, VRX1000, PDR8000[®].

FRC 1.36 contains three main components to service all hardware programming needs.

- 1. Configurator for VR (DVR-LX®, DVR, VRX1000), ver. 1.36
- 2. Configurator for PDR8000[®], ver. 1.36
- 3. Flash Downloader Utility, ver. 2.00

This release of FRC is **backwards compatible with all APX repeater and PDR firmware versions**. It supports reading and writing to all previously configured devices.

FRC Notes for VR release 1.85

To access new features/enhancements/improvements listed below, the repeater must be using applicable firmware version as identified in Compatibility Chart located on the Futurecom Website in the Support Portal: Home \rightarrow Support \rightarrow Documentation and Software

FRC New Features / Enhancements: N/A

FRC Issues Fixed:

- In 'VR Common Setup' under 'Power Up Options', if 'Mode' is selected as 'Fixed' the field below 'Fixed Mode' is greyed out DVR-2367
- When disabling the field 'VR Local Mode Allowed' in the 'VR Common Setup' menu, the configuration tool, FRC, shuts down unexpectedly DVR-2359
- The incorrect function call implementation was fixed in the RSSI Setup screen. The Local Mode Allowed and Operating Mode fields were enabled in the RSSI Setup screen DVR-2380

FRC Field Names Updates: N/A

FRC Known Issues: N/A

October 18, 2023 Page 1 of 15



FRC Notes for PDR8000® release 5.04

PDR8000[®] New Features / Enhancements:

N/A

PDR8000[®] Issues Fixed:

N/A

PDR8000® Field Names Updates: N/A

PDR8000[®] Known Issues:

 FRC may not allow editing of the "Personality Description" field in the "Personality Information" window. PDR-888

Workaround: utilize keyboard <delete> key on this field first, then type the desired characters.

October 18, 2023 Page 2 of 15



HISTORICAL RELEASE NOTES FOR REFERENCE

October 18, 2023 Page 3 of 15



Futurecom Repeater Configurator (FRC) Release Notes – August 2023

FRC Software (6A083X06): New Version: 1.35 Old Version: 1.34

Note: FRC 1.35 software supports all hardware platforms: DVR-LX®, DVR, VRX1000, PDR8000®.

FRC 1.35 contains three main components to service all hardware programming needs.

- 4. Configurator for VR (DVR-LX®, DVR, VRX1000), ver. 1.35
- 5. Configurator for PDR8000®, ver. 1.35
- 6. Flash Downloader Utility, ver. 2.00

This release of FRC is **backwards compatible with all APX repeater and PDR firmware versions**. It supports reading and writing to all previously configured devices.

FRC Notes for VR release 1.85

To access new features/enhancements/improvements listed below, the repeater must be using applicable firmware version as identified in Compatibility Chart located on the Futurecom Website in the Support Portal: Home → Support → Documentation and Software

FRC New Features / Enhancements:

- Announcing Legacy Template DPD is nearing end of support, recommendation is switched to use DCD template. DVR-2241
- Legacy features, VRS-EP Options window & Tables window will no longer be accessible with firmware version 1.85 or later. DVR-2201

FRC Issues Fixed:

- Resume displaying Channel-0 Base Frequency & Channel No. Spacing in Frequency Band Window DVR-1914
- Copy button issue in Repeater Channel Setup window DVR-2214
- Primary/Secondary window Business rule not forced even when Pri/Sec Processing is disabled DVR-1984

FRC Field Names Updates: N/A

FRC Known Issues:

- When disabling the field **'VR Local Mode Allowed'** in the **'VR Common Setup'** menu, the configuration tool, FRC, shuts down unexpectedly DVR-2359
- The incorrect function call implementation was fixed in the 'RSSI Setup screen'. The 'Local Mode Allowed' and 'Operating Mode' fields were enabled in 'RSSI setup screen' DVR-2380

Workaround for the above issues (DVR-2359 & DVR-2380):

October 18, 2023 Page 4 of 15



- Load data from repeater
- Open RSSI Setup window and ensure 'Operating Mode' field is set to "OFF" or "SYSTEM"
- Close RSSI Setup window
- Load dcd/dpd file (overlays template onto current FRC displayed config) or change 'Local Mode Allowed' field if not using a dcd/dpd file
- Save changes to repeater

October 18, 2023 Page 5 of 15



FRC Notes for PDR8000® release 5.04

PDR8000[®] New Features / Enhancements:

- Improve Network Health status label in Monitoring window PDR-916
- Improve File handling when overlaying license file on template during offline editing PDR-699
- Improve the displayed labels around FM Deviation fields in Deployment General Configuration PDR-706
- Cosmetic improvement where we no longer generate errors or warnings against unused Deployment PDR-872

PDR8000® Issues Fixed:

- Toggle Gate Status Button in Monitoring Window disabled by mistake under some conditions PDR-673
- Correct the status string displayed for Synthesizer field in Monitoring window PDR-818
- Analog or Mixed-mode channel should not be allowed on V.24 Deployment Profile PDR-857

PDR8000[®] Field Names Updates: N/A

PDR8000[®] Known Issues:

 FRC may not allow editing of the "Personality Description" field in the "Personality Information" window. PDR-888

Workaround: utilize keyboard <delete> key on this field first, then type the desired characters.

October 18, 2023 Page 6 of 15



Futurecom Repeater Configurator (FRC) Release Notes – May 2023

FRC Software (6A083X06): New Version: 1.34 Old Version: 1.32

Note: FRC 1.34 software supports all hardware platforms: DVR-LX®, DVR, VRX1000, PDR8000®.

FRC 1.34 contains three main components to service all hardware programming needs.

- 7. Configurator for VR (DVR-LX®, DVR, VRX1000), ver. 1.34
- 8. Configurator for PDR8000®, ver. 1.34
- 9. Flash Downloader Utility, ver. 2.00

This release of FRC is **backwards compatible with all APX repeater and PDR firmware versions**. It supports reading and writing to all previously configured devices.

FRC Notes for VR release 1.80

To access new features/enhancements/improvements listed below, the repeater must be using applicable firmware version as identified in Compatibility Chart located on the Futurecom Website in the Support Portal: Home \rightarrow Support \rightarrow Documentation and Software

FRC New Features / Enhancements:

- FRC support to VR when factory calibration failure is detected DVR-1783
- More meaningful name for User Info window DVR-1447

FRC Issues Fixed:

- Permanent Primary text box doesn't update DVR-2012
- Cosmetic FRC issue when creating channels in DVR DVR-2056
- When loading an OLD. dcd template file, Date of Programming fields are all zeroes DVR-2081
- Modify pop up message when loading newer DCD to repeater with f/w on older map DVR-2119
- Applying License file may cause FRC to no longer function DVR-1979

FRC Field Names Updates: N/A

FRC Known Issues:

- Transmission initiated from the Monitoring window may not work
- When disabling the field 'VR Local Mode Allowed' in the 'VR Common Setup' menu, the configuration tool, FRC, shuts down unexpectedly DVR-2359
- The incorrect function call implementation was fixed in the 'RSSI Setup screen'. The 'Local Mode Allowed' and 'Operating Mode' fields were enabled in 'RSSI setup screen' DVR-2380

October 18, 2023 Page 7 of 15



Workaround for the above issues (DVR-2359 & DVR-2380):

- Load data from repeater
- Open RSSI Setup window and ensure 'Operating Mode' field is set to "OFF" or "SYSTEM"
- Close RSSI Setup window
- Load dcd/dpd file (overlays template onto current FRC displayed config) or change 'Local Mode Allowed' field if not using a dcd/dpd file
- Save changes to repeater

October 18, 2023 Page 8 of 15



FRC Notes for PDR8000® release 5.03

PDR8000[®] New Features / Enhancements:

- Update FRC with latest company Logo DVR-2023
- Extend the FRC support to PDR when factory calibration failure is detected PDR-809 and PDR-816
- FRC to block navigation to online monitoring/logging windows during offline editing session

PDR8000[®] Issues Fixed:

- FRC to add more fields to the DPD template PDR-704
- Update PDR Default Values in FRC PDR-757
- FRC to allow standard user access to Channel Number Spacing PDR-805
- FRC to restrict Rackmount Booster to specific channel/duplexer configurations PDR-810
- Update PDR Defaults for Reset Deployment PDR-759
- Clarify error message when creating channels in PDR PDR-828
- Certain Fields Marked with ¤ Symbol are Propagated Through Template File PDR-860
- Improve error handling when invalid input is entered to certain fields PDR-679, PDR-680

PDR8000® Field Names Updates: N/A

PDR8000[®] Known Issues:

- FRC may not allow editing of the "Personality Description" field in the "Personality Information" window. PDR-888
 - Workaround: utilize keyboard <delete> key on this field first, then type the desired characters.
- Customer sees warning message for unused Deployments PDR-872

October 18, 2023 Page 9 of 15



Futurecom Repeater Configurator (FRC) Release Notes – December 2022

FRC Software (6A083X06): New Version: 1.32 Old Version: 1.31

Note: FRC 1.32 software supports all hardware platforms: DVR-LX®, DVR, VRX1000, PDR8000®.

FRC 1.32 contains three main components to service all hardware programming needs

- 10. Configurator for VR (DVR-LX®, DVR, VRX1000), ver. 1.32
- 11. Configurator for PDR8000®, ver. 1.32
- 12. Flash Downloader Utility, ver. 2.00

This release of FRC is **backwards compatible with all APX repeater and PDR firmware versions**. It supports reading and writing to all previously configured devices.

VR Release Notes

To access new features/enhancements/improvements listed below, the repeater must be using applicable firmware version as identified in Compatibility Chart located on the Futurecom Website in the Support Portal: Home \rightarrow Support \rightarrow Documentation and Software

FRC New Features / Enhancements:

- Modify FRC menus to help understand DCD/DPD templates^{DVR-1796}
- Added MSU RF Bypass Switch Extension field^{DVR-1714}
- RSSI Setup: Change a few Threshold-related fields to read-only^{DVR-1777}
- Socket fields from Menu Bar in FRC were removed^{DVR-1881}

VR Issues Fixed:

- Added Missing Channel Offset/Deviation choice for NPSPAC^{DVR-1665}
- NAC Linking should not be enabled on a Tier 2 VRX1000^{DVR-1935}
- DCD files do not propagate fields in the upper section of the Frequency Band Configuration screen^{DVR-1883}

FRC Field Names Updates

Modify field labels in RSSI Setup window^{DVR-1745}

FRC Known Issues: N/A

October 18, 2023 Page 10 of 15



PDR8000® Release 5.02

PDR8000[®] Product Tested:

Repeater Module Firmware: 4C088X01 R5.02
Repeater Module Boot Firmware: 4C088X02 R5.00
Transceiver DSP: 4C083X03 R1.18
Baseband DSP: 4C083X04 R1.54
IF Module Firmware: 4C088X05 R5.02
IF Module Boot Firmware: 4C088X06 R5.02

PDR8000[®] New Features / Enhancements:

- File handling enhancements Change labels on menu entries PDR-698
- FRC field labels improved to indicate Configuration fields that are not propagated through template files PDR-700
- Remove access to fields not propagated via template files when doing offline editing of template PDR-701
- FRC field labels improved to indicate Configuration fields affecting FRC application, stored locally PDR-702
- Provide warning if user overlays a template file onto a repeater with different feature licenses
- Improve management of IP-based configuration fields (e.g., DFSI-related fields) PDR-708
- User can access the Display Unit field PDR-731
- Add necessary protection for FM Dev. Limit & PL FM Deviation when reading DPD files PDR-655

PDR8000[®] Issues Fixed:

- Added Missing Channel Offset/Deviation choice for NPSPAC PDR-705
- Fan control got disabled when older DPD template file was loaded in PDR as default user PDR-583
- File History was not being updated in FRC PDR-781
- Default values not being set for Frequency Set 3 PDR-754
- Clarified meaning of Backlight Timeout field for PDR display PDR-773

PDR8000® Known Issues: N/A

October 18, 2023 Page 11 of 15



Futurecom Repeater Configurator (FRC) Release Notes – August 2022

FRC Software (6A083X06): New Version: 1.31 Old Version: 1.30

FRC 1.31 contains three main components to service all hardware programming needs

- 1. Configurator for VR (DVR-LX®, DVR, VRX1000), ver. 1.31
- 2. Configurator for PDR8000®, ver. 1.31
- 3. Flash Downloader Utility, ver. 2.00

This release of FRC is **backwards compatible with all APX and PDR repeater firmware versions**. It supports reading and writing to all previously configured devices.

VR Release

To access new features/enhancements/improvements listed below, the repeater must be using applicable firmware version as identified in Compatibility Chart located on the Futurecom Website in the Support Portal: Home \rightarrow Support \rightarrow Documentation and Software

VR New Features / Enhancements:

- DCD Improvements: DCDs, Offline Template Editing DVR-1015
- Update FRC pull down menu to reference Compatibility Chart DVR-1437
- Add FRC support for Power Limit in Rackmount DVR w Power Booster DVR-1476
- Added serial number restrictions to DCDs applied via FRC DVR-1437
- Changed Temperature Alarm Default to 70 in FRC DVR-1794
- Added warning when loading DCD created from different model repeater DVR-1855
- Changed default VR ID value to 0 (zero) DVR-1579
- Improve handling of template created from incompatible repeater^{DVR-1857}

VR Issues Fixed:

- When configuration with Speed in km/h & Distance in m, FRC may reports error in EEPROM maintenance icon when saving the configuration DVR-1443
- Corrected Busy Lock. Thresh. min/default values in RSSI Setup window for 800MHz band DVR/DVR-LX DVR-1679, DVR-1485
- Analog steering violates channel restrictions and rules of precedence DVR-401
- Fixed truncation of text in the FRC Primary Secondary Setup window DVR-1609
- Removed unexpected values in DPD file for RF/Analog Setup screen DVR-879
- Applying wrong frequency band DCD file using FRC changes Hardware Part Number DVR-1848
- FRC does not prevent writing incorrect GPS driven deactivation configuration to DVR DVR-1388
- VR Ch. List and MSU TG Names not loaded properly when overwriting with DCD DVR-1621
- User Info screen licenses are being changed after applying a DCD with no bundled licenses via RM-OTAP DVR-1614

October 18, 2023 Page 12 of 15



VR Field Names Updates

- "VRS-EP Compatible Mode Enabled" changed to "VRS-EP Compatible Mode" DVR-1872
- "Rep. Ch. Steering Enable" changed to "Rep. Ch. Steering" DVR-1872
- "Rep. Ch. Steering Revert Enable" changed to "Rep. Ch. Steering Revert" DVR-1872
- "Rep. Ch. UID Translation Enable" changed to "Rep. Ch. UID Translation" DVR-1872
- "Inband Calls Enable" changed to "Inband Calls" DVR-1872
- "Fallback in Analog Simplex Mode Enable" changed to "Fallback in Analog Simplex Mode"
- "Local to System Call Upgrade Enable" changed to "Local to System Call Upgrade" DVR-1872
- "VR Emergency Echo Ack Enable" changed to "VR Emergency Echo Ack" DVR-1872
- "TG1 Translation Enable" changed to "TG1 Translation" DVR-1872
- "Adaptive Power Control Enable" changed to "Adaptive Power Control" DVR-1872
- "Block TG Proxy" changed to "Enforce TG Matching" DVR-1377

VR Field Names Removed

- "MBX2 Compatibility" removed DVR-1377
- "ID" removed DVR-1377
- "Mstr Bit Clr Time" removed DVR-1377
- "Channel-0 Base Frequency" removed DVR-1817
- "Close Socket Connection" removed DVR-1881
- "Repair Socket Connection" removed DVR-1881
- "Rx Mobile Gain" removed DVR-1569
- "Mobile FM Deviation" removed DVR-1569
- "Mobile Microphone Gain" removed DVR-1569
- "Temp" removed DVR-1458
- "PA t" removed DVR-1458

VR Known Issues/Limitations: N/A

PDR Release 5.01

Product Tested:

Repeater Module Firmware: 4C088X01 R5.01
Repeater Module Boot Firmware: 4C088X02 R5.00
Transceiver DSP: 4C083X03 R1.18
Baseband DSP: 4C083X04 R1.54
IF Module Firmware: 4C088X05 R5.00
IF Module Boot Firmware: 4C088X06 R5.00

October 18, 2023 Page 13 of 15



Futurecom Repeater Configurator (FRC) Release Notes – May 2022

FRC Software (6A083X06): New Version: 1.30 Old Version: 1.29

FRC 1.30 contains three main components to service all hardware programming needs

- 1. Configurator for VR (DVR-LX®, DVR, VRX1000), ver. 1.30
- 2. Configurator for PDR8000®, ver. 1.30
- 3. Flash Downloader Utility, ver. 2.00

This release of FRC is **backwards compatible with all APX repeater and PDR firmware versions**. It supports reading and writing to all previously configured devices.

VR Release

To access new features/enhancements/improvements listed below, the repeater must be using applicable firmware version as identified in Compatibility Chart located on the Futurecom Website in the Support Portal: Home \rightarrow Support \rightarrow Documentation and Software

VR New Features / Enhancements:

- NAC Linking Compatibility option shown when detecting firmware version 1.73 or later. DVR-1515
- Eliminated incorrect warning message when loading DPD/DCDs created from a sibling DVR/DVR-LX, allowing user to move easily between DVR and DVR-LX units DVR-1398

VR Issues Fixed

- FRC now warns user of mismatched licensing options DVR-1053, DVR-1298
- PDR Error shown when loading previously saved DPD file PDR-686
- Offline editing DCD file does not allow creation of new Repeater Channel (issue since FRC 1.27) DVR-1372

VR Field Names Updates

- FRC "Save DCD File" menu option changed from Attach to Bundle DVR-1489
- Removed "Use MSU Emergency ID" on FRC Emergency Setup Window DVR-1460
- "Morse Code" Sub-folder is called "Station ID Setup" in the window FRC DVR-1389
- AVRA, Primary/Secondary Preference input name replaces AVRA/Primary/Secondary Preference DVR-1399

VR Known Issues/Limitations: N/A

October 18, 2023 Page 14 of 15



PDR8000® Release 5.00

Product Tested:

Repeater Module Firmware: 4C088X01 R5.00
Repeater Module Boot Firmware: 4C088X02 R5.00
Transceiver DSP: 4C083X03 R1.18
Baseband DSP: 4C083X04 R1.54
IF Module Firmware: 4C088X07 R5.00
IF Module Boot Firmware: 4C088X08 R5.00

Tested With:

PSU Type: APX7000 PSU Firmware: D15.71.55

Modems: Motorola UDS V.3225, Raymar-Telenetics V3600

GCM 8000 Comparator: CvCM_R07.17.005 Digital Conventional Gateway: DCG 9000

MLC AGU: R060027

October 18, 2023 Page 15 of 15