APX P25 Interfaced VR
Firmware Release 1.90 – Release Notes June 2024

	New Version	Old Version
VR Application Software (4C083X11):	**1.90**	1.85
VR Boot Firmware (4C083X02):	**1.80**	1.80
VR BB DSP (4C083x04):	**1.72**	1.72
DVR/DVR-LX® TR DSP (4C083x03):	**1.18**	1.18
VRX1000 TR DSP (4C087x05):	**1.07**	1.07
Futurecom Repeater Configurator Software (6A083X06):	**1.45**	1.40

Note: New firmware and FRC software support all hardware platforms - DVR-LX®, DVR and VRX1000.

Compatible with following Motorola Radio Firmware Versions:

DVR	**APX4000/6000/6500/7000/7500/8000/8500**	**R33.00.00 or later**
DVR-LX®	**APX4000/6000/6500/7000/7500/8000/8500**	**R33.00.00 or later**
VRX1000	**APX2500/4000/4500/5500/6000/6500/7000/7500/8000/8500**	**R33.00.00 or later**

NOTES:

- Older MSU firmware is not compatible with this release - **VR FW MISMATCH** message is displayed on control head if older MSU firmware is used with this version VR.
- Please check Futurecom website for Compatibility Chart.

New Features / Enhancements:

- None

Issues fixed:

- No local repeat fallback when FDMA-only PSU tries to talk on TDMA-only talkgroup DVR-2510
- After switching from one TDMA outbound call to another ongoing outbound call, PSU may fail to unmute DVR-2472
- When MSU scans to the secondary system, PSU may fail to unmute to outbound call (beginning of the voice is lost) DVR-2458
- When Unit ID translation is enabled on VR channel and MSU is on FDMA channel, inbound PSU call is not unmuting SSU DVR-2440

Known issues:

- None

HISTORICAL RELEASE NOTES FOR REFERENCE

APX P25 Interfaced VR
Firmware Release 1.85 – Release Notes August 2023

New Features / Enhancements:

- Improved Alternate Mode VR Status reporting feature DVR-2246

Features no longer supported:

- VRS-EP feature support is terminated DVR-2200

Issues fixed:

- DVR does not repeat MIC call in LOC Mode when “Local repeat in SYS mode” is disabled and “MSU System PTT In Local Mode” is enabled DVR-2061
- OTAP firmware update does not lock Flash sectors DVR-2170

Known issues:

- None

APX P25 Interfaced VR
Firmware Release 1.80 – Release Notes May 2023

Compatible with following Motorola Radio Firmware Versions: 30.00.00 or later

New Features / Enhancements:

- Extended maximum size of VR firmware upgrade file that could be applied via RM OTAP DVR-2070, DVR-2156

Issues fixed:

- When Unit ID translation is enabled on VR channel and MSU is on TDMA only talk group, PTT from non-TDMA capable DVRS Enabled PSU produces system talk-permit tones even though VR performs Local-only repeat DVR-2095
- If NAC Linking is enabled, VR emergency activation gets delayed if PSU repeats Emergency Alarm requests too quickly DVR-1991
- Multiple VR errors are not displayed cyclically on Control Head DVR-2053
- When MSU is on P25 Conventional or P25 Trunking channel, and VR is on Analog channel, if programmed “MDC PTT ID Offset” + PSU ID is greater than 65,535 (0xFFFF), then MSU ID is used to proxy Emergency Alarm DVR-2021
- When MSU is on P25 Conventional or P25 Trunking channel, VR is on Forced Analog or Mixed VR channel, and Talkgroup translation is used, if PSU ID is greater than 65,535 then MSU ID is used to proxy Emergency Alarm instead of PSU ID. In similar case if Talkgroup Proxying is used, Emergency Alarm is not sent. DVR-2021

Known issues:

- Generate Status on VR Mode Change is set to Alternate Mode (APX MSU – DVRS Profile) When DVRS (VR + MSU) is on trunking system and there is an ongoing (active) call, if a secondary VR's mode changes (Secondary to Off or Off to Secondary), this secondary VR sends an alternate VR status message (if enabled) in between a call creating a audio hole. This issue is also observed when a Primary VR changes its mode to Off during an active call.

APX P25 Interfaced VR
Firmware Release 1.76 – Release Notes December 2022

Compatible with following Motorola Radio Firmware Versions: 29.00.00 or later

New Features / Enhancements:

- Support “Alternate Mode” when generating status on VR Mode change DVR-1924
  If “Generate Status on VR Mode Change” and “Generate Status Alternate Mode” is enabled for a given DVRS Profile (in the APX MSU), DVRS sends VR mode change status indication to the Console Dispatcher quietly - no control head status display, no acknowledgement tones on speaker, delay status indication while VR is active.
- Support NAC Linking on Forced Analog channels DVR-1697
  If NAC Linking is enabled on a VR Forced Analog channel, VR provides NAC Linking support while MSU is operating on P25 Conventional or Trunking system and disables NAC Linking while MSU is operating on Analog Conventional or Type II trunking system.
- Support PSU Duplicate NAC detection DVR-1764
  If NAC Linking is enabled on a VR channel, PSU monitors and informs VR if same NAC is used by multiple VRs. Upon receiving such notification from PSU, VR changes to a different NAC and reattaches PSUs.

Issues fixed:

- If NAC Linking Compatibility Mode is enabled and NAC Linking is downgraded by PSU Talk Around call, PSU Talk Around call is not repeated DVR-1988
- If NAC Linking Compatibility Mode is enabled, downgraded NAC Linking VR with Rx NAC F7E may proxy late entry voice call from PSU attached to another VR DVR-1989
- Attempt to enable OTAP licence via RM-OTAP fails on DVR repeaters manufactured before October 2018DVR-1972
- TDMA system outbound emergency call is displayed on PSU as ID instead of EID DVR-1877
- Analog Fallback Local Repeat calls are upgraded to system calls even though Local to System Upgrade option is not enabled DVR-1919
- DVRS Menu Timeout timer may turn VR OFF shortly after AVRA activation - if external mode change is triggered by AVRA while DVRS Menu is active, accept user’s VR channel selection and terminate DVRS Menu DVR-1690
- Ignore VR channel and VR mode selection if remote mode change initiated while DVRS Menu is active - if VR mode change is triggered by PSU Call Alert, MSU Call Alert or DTMF activation while DVRS Menu is active, VR ignores user selections and terminates DVRS Menu DVR-1871
- System Subscriber call on TDMA system, VR on simplex TPS channel, ID of calling radio shows on PSU display for a very short time DVR-1858
- Replaced 'SYNC ERROR' error message with 'RESYNC VR-MSU' message DVR-207

Known issues:

- None

APX P25 Interfaced VR
Firmware Release 1.74 – Release Notes August 2022

Compatible with following Motorola Radio Firmware Versions: 28.00.00 or later

New Features / Enhancements:

- Support TPS signaling on MSU Conventional Mixed Rx/ASTRO Tx channel with TPS enabled, and Non-ASTRO Signaling Type set to None DVR-1124
  DVR uses TPS signaling to proxy radio IDs for inbound, outbound and MIC calls
- Rackmount DVR-LX Booster PA support DVR-454
  To prevent damage of Booster PA, DVR output power is limited to 1.78 W
  Note: Primary/Secondary and Busy Lockout features are not supported on Rackmount DVR with Booster PA.

Issues fixed:

- MIC PTT on TPS channel - MSU ID not displayed properly on PSU DVR-1854
- Late entry PSU call not proxied on TPS VR channel DVR-1803
- Minimize possibility of simplex analog audio looping on P25 Trunking system when “On/Off Trigger” is configured for RSSI DVR-1839, DVR-1833
- Disallow Private Call setup between local PSUs on Forced Analog All VR channel DVR-1756
- “Block TG Proxy” (“Enforce TG Matching”) configuration prevents PSU initiated VR Mode Change DVR-1708
- “Analog Encryption Warning Tones” do not work when MSU is on TDMA channel DVR-1722
- If “Fallback to Local Repeat” is disabled, VR may try to initiate inbound call again even though initial attempt was denied by P25 Trunking system (call interrupt not allowed) DVR-1626
- "VR Emergency Echo Ack Enable" configuration option not working as expected DVR-1603
- After sending Call Alert from a local PSU to a secondary DVR in System mode, the operating mode may toggle to Local mode DVR-1571

Known issues:

- None

APX P25 Interfaced VR
Firmware Release 1.73 – Release Notes

Compatible with following Motorola Radio Firmware Versions: 27.00.00 or later

New Features / Enhancements:

- Support NAC Linking Compatibility Mode DVR-846 if enabled VR would automatically downgrade NAC Linking operation when presence of older, non-NAC linking capable PSUs are detected (DVRS-enabled subscriber units: XTL PSUs or APX PSUs with older R23 or prior firmware). Once downgraded, VR would handle both types of PSUs by using default/programmed Rx/Tx NACs. NAC Linking operation will automatically resume on subsequent VR activation (VR channel change, Mode change from Off to Local/System or power-up).

Issues fixed:

- Permanent Primary on standby takes longer to activate after active Permanent Primary downgrades its status to regular Primary DVR-1249
- When VR is set to Forced Analog ALL (FA-All) channel, and MSU is on digital system, PSU calls are repeated as local-only calls DVR-1479
- Inconsistent behavior of PM button and DVRS long button press when both Permanent Primary Status and Control are enabled DVR-1316
- When “Steering Revert” on analog VR channel and “VR Activation via MSU Mode Change” is enabled, traffic on selected PL/DPL may change VR mode DVR-1455
- VR configuration write progress report is done in two consecutive 50% sessions DVR-862
- Auth Demand not sent to PSU after MSU roams from Foreign System back to Home System DVR-1440
- VR does not transmit activation tones when moving from analog VR channel to digital VR channel DVR-1433
- When PL steering is enabled, VR fails to activate on DTMF tone sequence received from PSU DVR-1383
- PSU not affiliated after VR channel is changed from UID translated channel to non-UID translated channel DVR-1260
- On TDMA system and Analog VR channel, ID of System Subscriber initiating outbound call not passed to PSU DVR-905
- VR is not performing Primary/Secondary Preference if AVRA is disabled DVR-1397
- MDC Emergency PSU ID being passed when "Use MSU Emergency ID" is enabled DVR-1281
  Note: “Emergency Setup → Use MSU Emergency ID” is now obsolete, removed from FRC
  When operating on systems with reduced ID range (MDC, Type II) “Mobile Radio Channel Setup → PTT ID” setting will determine if MSU or PSU ID is used to proxy PSU Emergency Alarm to system

Known issues:

- None