



***DMR Conventional Radio  
Release Notes***



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# Documentation Information

This section describes the conventions and revision history of this document.

## Conventions

### Icon Conventions

Icon	Description
 <b>Tip</b>	Indicates information that can help you make better use of your product.
 <b>Note</b>	Indicates references that can further describe the related topics.
 <b>Caution</b>	Indicates situations that could cause data loss or equipment damage.
 <b>Warning</b>	Indicates situations that could cause minor personal injury.
 <b>Danger</b>	Indicates situations that could cause major personal injury or even death.

### Notation Conventions

Item	Description
" "	The quotation marks enclose the name of a software interface element. For example, click "OK".
<b>Bold</b>	The text in boldface denotes the name of a hardware button. For example, press the <b>PTT</b> key.
->	The symbol directs you to access a multi-level menu. For example, to select "New" from the "File" menu, we will describe it as follows: "File -> New".

### Revision History

Version	Release Date	Description
V1.0	February, 2017	Initial release.

# 1. Product Information

## Firmware Version

Radio Model	Version
PD6XX, PD7XX, PD8XX, PD98X, and X1 series MD6XX and MD7XX series	A8.01.02.003
	S8.01.02.003
	N8.01.02.003
	C8.01.02.003
Repeater	A8.01.02.003
	S8.01.02.003
	N8.01.02.003
	C8.01.02.003

## Application Version

Application	Version
Customer Programming Software (CPS)	V8.01.02.002
Debug and Testing Software (Tuner)	V8.00.01.005
Repeater Diagnostics and Control (RDAC)	V8.00.01.005
Record Manager	V1.00.01.002

## Documentation

In this release, the following documents are available:

Document	Description
DMR Conventional Radio_Release Notes_R8.1_V1.0	New
DMR Conventional Radio_Feature List_R8.1	Updated
Hytera DMR System Planner_R3.0	Updated
XPT_OTAP Help	Updated

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Document	Description
CPS Help	Updated
TUNER Help	Updated

## 2. What's New in This Release

### 2.1 Introduction

R8.1 is an upgrade version based on R8.0. This document describes only the new features and enhancements in R8.1.

### 2.2 Radio

#### 2.2.1 New Features

##### 2.2.1.1 Common Features

##### Multi-PTT Accessory

This feature allows the radio to quickly switch to the preset channel to transmit the voice services. To perform this feature on the radio, the third-party accessory supporting our GPIO pins is required. This feature is available only to the portable radio.

To set the related parameters in the CPS, go to:

- Conventional -> General Setting -> Setting -> Preset Channel
- Conventional -> General Setting -> Accessories -> GPIO Pins -> Multi-PTT 1/Multi-PTT 2
- Conventional -> General Setting -> Accessories -> Multi-PTT Buttons -> Multi-PTT 1 -> Preset Channel 1/2/3/4
- Conventional -> General Setting -> Accessories -> Multi-PTT Buttons -> Multi-PTT 2 -> Preset Channel 1/2/3/4

##### Czech Language

This release provides the Czech language packet. Languages available are subject to the language packet contained in the radio ([For more information on the language packet, please contact the nearest salesperson](#)).

##### Hebrew Language

This release provides the Hebrew language packet. Languages available are subject to the language packet contained in the radio ([For more information on the language packet, please contact the nearest salesperson](#)).

## CSBK Clarity Transmission

This release provides CSBK port, through which the radio communicates with the third-party software. This feature is applicable to the third-party development protocol ([For third-party development protocols, please contact the nearest salesperson or the Company](#)).

## 2.2.2 Enhancements

### 2.2.2.1 XPT Trunking Features

#### XPT Multi-site Roam

This release provides the following enhancements for the XPT Multi-site Roam feature:

- The number of roaming sites increases from 8 to 16.
- Voice Repeater can repeat GPS and RRS data.

For detailed description and configuration, refer to *XPT System\_Application Notes R4.0*. For more information, please contact your nearest salesperson or the Company.

To set the related parameter in the CPS, go to "XPT Trunking -> Roam -> Roam List -> Details of XPT Personalities".

### 2.2.2.2 Conventional Features

#### 5-Tone Signaling

To be better compatible with the 5-tone signaling feature for analog radios and to meet the individual needs of users, this release provides the following enhancements:

Both "Priority" and "Clear Down" options are added to the "Decode Type" drop-down list.

The "Only Use Decode Status List" option is added in "Signaling Configuration" box, and the "Encode Status List" option is added in "5-Tone Services". Thus you can configure the decode status list and encode status list separately.

To set the related parameters in the CPS, go to:

- Conventional -> Analog Service -> 5-Tone Services -> Decode Definition -> Decode Options -> Decode Type -> Priority/Clear Down
- Conventional -> Analog Service -> 5-Tone Services -> Encode Status List

## Scan List

In this release, the number of scan list increases from 32 to 64.



To set the related parameter in the CPS, go to "Conventional -> Scan -> Scan List".

## 2.3 Repeater

### 2.3.1 New Features

#### Hebrew Language

This release provides the Hebrew language packet. Languages available are subject to the language packet contained in the radio ([For more information on the language packet, please contact the nearest salesperson](#)).

### 2.3.2 Enhancements

#### XPT Sites

In this release, the maximum number of XPT sites increases from 8 to 16, enlarging the communication coverage.

Please Note that:

- The maximum number of scan list is still 8
- The system supports 128 repeaters at most

For detailed configuration, refer to *XPT System\_Application Notes R4.0* ([For more information, please contact the nearest salesperson or the Company](#)).

#### Dedicated IP Address and Port for OTAP

This release provides dedicated IP address and port for OTAP, allowing the user to perform OATP while dispatching.

To set the related parameters in the CPS, go to:

- XPT Trunking -> General Setting -> Network -> Application Programming Interface -> OTAP Enable
- XPT Trunking -> General Setting -> Network -> Application Programming Interface -> OTAP Server IP
- XPT Trunking -> General Setting -> Network -> Application Programming Interface -> OTAP Slot1 Port
- XPT Trunking -> General Setting -> Network -> Application Programming Interface -> OTAP Slot2 Port

## 2.4 Application

### 2.4.1 New Features

None.

### 2.4.2 Enhancements

#### Channel Sorting

This release enhances the channel sorting feature. It allows you to sort the channels in a zone by type other than by name.

To sort the channels in a zone on the CPS, go to "Conventional -> Zone", right click a zone and then go to "Sort -> By Name/By Type".

## 3. Important Notes

### 3.1 Radio

#### 3.1.1 Software

##### Software compatibility in R8.1

All features in R8.1 are compatible with those in R8.0. For information on its compatibility with the earlier version, refer to *DMR Conventional Radio Release Notes R8.0 V1.0*.

#### 3.1.2 Hardware

##### New models in R8.1

None.

##### Newly supported frequencies and models in R8.1

- PD98X VHF
- PD78X Ex UHF3 BDS Digital Radio

### 3.2 Repeater

#### 3.2.1 Software

##### Software compatibility in R8.1

All features in R8.1 are compatible with those in R8.0. For information on its compatibility with the earlier version, refer to *DMR Conventional Radio Release Notes R8.0 V1.0*.

#### 3.2.2 Hardware

##### Newly supported frequencies in R8.1

None

### 3.3 Application

None.

### 3.4 Accessory

None.

## 4. Resolved Issues

This chapter introduces the solved serious problems which existed between R8.0 and R8.1. A serious problem is a problem that may have serious impact on users.

No.	Radio Type	Description
1	Portable/Mobile Radio	After the "Feature" of Pin 11 is set to "ACC TK", X1 series fail to perform this programmable function.

## Appendix

The table below lists the new model that supports 1 pulse per second (PPS) in R8.1:

Model	Model Number
PD70XG	PD70X-000G00PL-M00000-V1-0-B PD70X-000G00PL-000000-V1-0-B PD70X-000G00PL-M00000-U1-0-B PD70X-000G00PL-000000-U1-0-B PD70X-000G00PL-M00000-U2-0-B PD70X-000G00PL-000000-U2-0-B PD70X-000G00PL-M00000-U3-0-B PD70X-000G00PL-000000-U3-0-B PD70X-000G00PL-M00000-V4-0-A PD70X-000G00PL-000000-V4-0-A
PD70XS	PD700-00SG00PL-M00000-U1-0-B PD700-00SG00PL-M00000-V1-0-B
PD78XG	PD78X-000G00PL-M00000-V1-0-B PD78X-000G00PL-000000-V1-0-B PD78X-000G00PL-M00000-U1-0-B PD78X-000G00PL-000000-U1-0-B PD78X-000G00PL-M00000-U2-0-B PD78X-000G00PL-000000-U2-0-B PD78X-000G00PL-M00000-U3-0-B PD78X-000G00PL-000000-U3-0-B PD78X-000G00PL-M00000-U6-0-B PD78X-000G00PL-M00000-V3-0-B PD78X-000G00PL-000000-Ut-0-D PD78X-000G00PL-M00000-V4-0-A PD78X-000G00PL-000000-V4-0-A
PD78X Compass	PD78X-000C00PL-000000-V1-0-B PD78X-000C00PL-M00000-V1-0-B

Model	Model Number
	PD78X-000C00PL-M00000-U1-0-B PD78X-000C00PL-000000-U1-0-B PD78X-000C00PL-M00000-U5-0-F PD78X-000C00PL-M00000-U3-0-B PD78X-000C00PL-000000-U3-0-B
PD75XG	PD75X-000G00PL-000000-U1-0-B PD75X-000G00PL-M00000-U1-0-B PD75X-000G00PL-000000-U2-0-B PD75X-000G00PL-M00000-U2-0-B PD75X-000G00PL-000000-V1-0-B PD75X-000G00PL-M00000-V1-0-B
PD88XL	PD88X-000G00PL-000000-U1-0-B PD88X-000G00PL-M00000-U1-0-B PD88X-000G00PL-000000-V1-0-B PD88X-000G00PL-M00000-V1-0-B PD88X-000C00PL-000000-U1-0-B PD88X-000C00PL-M00000-U1-0-B PD88X-000C00PL-000000-V1-0-B PD88X-000C00PL-M00000-V1-0-B
MD78XG	MD78X-000G00P0-000000-V1-H-F MD78X-000G00P0-000000-V1-L-F MD78X-000G00P0-000000-V3-L-A MD78X-000G00P0-000000-U1-H-L MD78X-000G00P0-000000-U1-L-L MD78X-000G00P0-000000-U2-H-L MD78X-000G00P0-000000-U2-L-L MD78X-000G00P0-000000-U3-H-L MD78X-000G00P0-000000-U3-L-L MD78X-000G00P0-000000-U6-H-K MD78X-000G00P0-000000-U6-L-K

Model	Model Number
	MD78X-000G00P0-000000-U7-H-L MD78X-000G00P0-000000-V1-A-F MD78X-000G00P0-000000-U6-L-L MD78X-000G00P0-000000-U6-H-L MD78X-000G00P0-000000-Ut-L-L MD78X-000G00P0-000000-Ut-H-L
MD78X Compass	MD78X-000C00P0-000000-U3-L-K MD78X-000C00P0-000000-V1-L-F MD78X-000C00P0-000000-V1-A-F MD78X-000C00P0-000000-V1-H-F MD78X-000C00P0-000000-U1-L-K MD78X-000C00P0-000000-U1-L-L MD78X-000C00P0-000000-U1-H-L MD78X-000C00P0-000000-U3-L-L MD78X-000C00P0-000000-U3-H-L
MD78XG_D	MD78X-000G00PD-000000-V1-H-B MD78X-000G00PD-000000-V1-L-B MD78X-000G00PD-000000-U3-H-A MD78X-000G00PD-000000-U3-L-A
MD65XG	MD65X-000G00P0-000000-V1-A-A MD65X-000G00P0-000000-U1-A-C MD65X-000G00P0-000000-U2-A-C
X1e	X1e0X-000G00P0-MB0000-U1-0-F X1e0X-000G00P0-MB0000-U2-0-F X1e0X-000G00P0-MB0000-U3-0-F X1e0X-000G00P0-MB0000-U6-0-F X1e0X-000G00P0-MB0000-V1-0-H X1e0X-000G00P0-MB0000-U1-0-G X1e0X-000G00P0-MB0000-U2-0-G

Model	Model Number
	X1e0X-000G00P0-MB0000-U3-0-G X1e0X-000G00P0-MB0000-U6-0-G X1e0X-000C00P0-MB0000-U1-0-G X1e0X-000C00P0-MB0000-U3-0-G X1e0X-000C00P0-MB0000-V1-0-H
X1p	X1p0X-000G00P0-MB0000-U1-0-F X1p0X-000G00P0-MB0000-U2-0-F X1p0X-000G00P0-MB0000-U3-0-F X1p0X-000G00P0-MB0000-U6-0-F X1p0X-000G00P0-MB0000-V1-0-H X1p0X-000G00P0-MB0000-U1-0-G X1p0X-000G00P0-MB0000-U2-0-G X1p0X-000G00P0-MB0000-U3-0-G X1p0X-000G00P0-MB0000-U6-0-G X1p0X-000G00PE-MB0000-V1-0-K X1p0X-000G00PE-MB0000-U1-0-K X1p0X-000G00PE-MB0000-U3-0-K X1p0X-000C00P0-MB0000-U1-0-G X1p0X-000C00P0-MB0000-U3-0-G X1p0X-000C00P0-MB0000-V1-0-H X1p0X-000C00P0-MB0000-V1-0-K X1p0X-000C00P0-MB0000-U1-0-K X1p0X-000C00P0-MB0000-U3-0-K X1p0X-000C00PE-MB0000-V1-0-K X1p0X-000C00PE-MB0000-U1-0-K X1p0X-000C00PE-MB0000-U3-0-K
PD60XG	PD60X-000G00P0-M00000-Um-0-C PD60X-000G00P0-N00000-Um-0-C PD60X-000G00P0-100000-Um-0-C



Model	Model Number
	PD60X-000G00P0-M00000-V1-0-A PD60X-000G00P0-N00000-V1-0-A PD60X-000G00P0-100000-V1-0-A PD60X-000G00P0-N00000-U2-0-C PD60X-000G00P0-100000-U2-0-C
PD68XG	PD68X-000G00P0-N00000-Um-0-A PD68X-000G00P0-100000-Um-0-A PD68X-000G00P0-N00000-U1-0-A PD68X-000G00P0-100000-U1-0-A PD68X-000G00P0-N00000-U2-0-A PD68X-000G00P0-100000-U2-0-A PD68X-000G00P0-N00000-V1-0-A PD68X-000G00P0-100000-V1-0-A
PD66XG	PD66X-000G00P0-N00000-Um-0-A PD66X-000G00P0-100000-Um-0-A PD66X-000G00P0-N00000-U1-0-A PD66X-000G00P0-100000-U1-0-A PD66X-000G00P0-N00000-U2-0-A PD66X-000G00P0-100000-U2-0-A PD66X-000G00P0-N00000-V1-0-A PD66X-000G00P0-100000-V1-0-A PD66X-000G00P0-N00000-U1-0-C PD66X-000G00P0-100000-U1-0-C
PD78XE	PD78X-000G00PE-M00000-U3-0-B PD78X-000C00PE-M00000-U3-0-B
PD70X UL913	PD70X-0U0G00PL-M00000-U1-0-B PD70X-0U0G00PL-000000-U1-0-B PD70X-0U0G00PL-M00000-V1-0-B PD70X-0U0G00PL-000000-V1-0-B

Model	Model Number
	PD70X-0U0G00PL-000000-U2-0-B PD70X-0U0G00PL-M00000-U2-0-B
PD78X UI913	PD78X-0U0G00PL-M00000-U1-0-B PD78X-0U0G00PL-000000-U1-0-B PD78X-0U0G00PL-M00000-V1-0-B PD78X-0U0G00PL-000000-V1-0-B PD78X-0U0G00PL-000000-U2-0-B PD78X-0U0G00PL-M00000-U2-0-B PD78X-0U0G00PL-M00000-U3-0-B
X1p UL913	X1p0X-0U0G00P0-MB0000-U1-0-G X1p0X-0U0G00P0-MB0000-V1-0-H X1p0X-0U0G00P0-MB0000-U2-0-G
PD70X Ex	PD70X-0E0G00P0-M00000-V1-0-D PD70X-0E0G00P0-M00000-U1-0-N PD70X-0E0G00P0-M00000-U3-0-N
PD78X Ex	PD78X-0E0G00P0-M00000-V1-0-D PD78X-0E0G00P0-M00000-U1-0-N PD78X-0E0G00P0-M00000-U3-0-N PD780-0E0C00P0-M00000-U3-0-N
PD98X	PD98X-000G00PD-MB0000-Ux-0-D PD98X-000G00PD-MB0000-U3-0-D PD98X-000G00PD-MB0000-U1-0-D PD98X-000C00PD-MB0000-Ux-0-D PD98X-000C00PD-MB0000-U1-0-D PD98X-000C00PD-MB0000-U3-0-D PD980-000C00PD-MB0000-Ux-0-F PD980-000C00PD-MB0000-U1-0-F PD980-000C00PD-MB0000-U3-0-F

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Model	Model Number
	PD980-000G00PD-MB0000-V1-0-A PD980-000R00PD-MB0000-V1-0-A PD980-000C00PD-MB0000-V1-0-A



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