Thanks for purchase of Perstel DMB Receiver.
Please read User's Manual before use.
Before use
Safety precautions

Please read this User’s Manual carefully for safe and convenient drive. Manufacturer is not responsible for material, mental and/or physical damages when safety precautions stated herein are not kept.

Safety precautions

Do not turn on the product before turning on the engine.

Install the antenna at the center of loop for best reception.

Do not operate the product while driving, or it may cause serious accident.

Please do not use the product while engine is not working, or vehicle battery may be discharged.

Please do not too much raise volume level, or it may take your attention away while driving.

Please keep the remote controller handy.

Please keep the product handy. Do not apply chemical or detergent.

Stop the engine for installation. Please do not block eyesight and/or airbag with the product.

Please clear the product with dry clothes. Do not apply chemical or detergent.

Do proper connection of cables, or it may cause damage to the product.

Please keep the product away from dirty and dusty place, or it may cause malfunctioning.

Do proper connection of cables, or it may cause damage to the product.

Do not dismantle the product without proper knowledge, or warranty will be void.

The product is designed to best work at 5 ~ 25C. Please maintain the temperature for best use in deep summer and winter.

The product is packaged with 12V cigar lighter charger. Please prepare 24V cigar lighter charger to use in buses and/or trucks.

Please refer to installation chapter of this manual, or consult with local dealer for installation.
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Legal disclaimer

- Manufacturer, importer, or distributor is not liable for any contingent damage caused by misuse of the product.
- Color, specification and contents are subject to change without prior notice.

Package contents

DMR432V
Remote controller
User’s manual
Quick guide

12V cigar lighter charger
Remote sensor
A/V cables
Antenna set

Optional accessories

These accessories are sold separately.

Wall adapter (indoor 12V)
24V cigar lighter charger

Images and color of product and accessories are subject to change without prior notice.
Product installation

* For safety reasons, it is highly recommended to consult installation work with local installation shops or dealers. Installation charge has to be borne by users.
* For safety reasons, it is highly recommended to keep the product underneath of driver’s or passenger’s seat.
* Far safety reasons, please turn off the engine for the entire installation procedure.

1. Best product position

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Connection diagram

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1. Home TV set
   Please make sure to follow RCA cable diagram to connect home TV set. A/V cables consist of Yellow (Video), White (Audio-L) and Red (Audio-R).

2. Vehicle TV set
   Please make sure to connect to AV1, AV2 or AV IN of vehicle TV set or monitor. If vehicle TV set or monitor shows the same configuration as 1, please refer to connection diagram of 1.
Remote sensor
For best interface with remote controller, post the remote sensor on dashboard or on front glass using double adhesive tape.

Antenna set
Insert antenna connector in DMR432 antenna port till it clicks. And, for best signal reception, locate antenna magnet base at the center of car loop.

Cigar lighter charger
Connect cigar lighter charger with DMR432.

Wall adapter (indoor 12V DC)
User wall adapter when DMR432 is used at home.

Power on
Connection is complete. Slide power switch to ON position following arrow on the diagram. It is recommended to use remote controller for operation and control.

Option items (indoor 12V wall adapter)
Plug in indoor 12V wall adapter to DC12V connector of DMR432.
### Functionality of DMR432 buttons

1. **Navigation**
   - **Up/Down**: For volume control, or scroll up and down the menu in menu mode.
   - **Left/Right**: For service change while receiving signal, or entering or escaping menu in menu mode.
   - **Right**: This button is used for confirming Select or Enter sub menu.

2. **Menu/OK (Activation)**
   - Enter the menu or escape the menu.
   - Activate or deactivate the unit when power is ON. (Press it and hold for more than 3 seconds.)

3. **LED**
   - **Tune LED**: Green when service is tuned.
   - **Power LED**: Red when power is engaged.

4. **Power switch**
   - Turn on and off main power.

5. **Antenna port**
   - For connection of external antenna.

6. **Remote sensor port**
   - For connection of external remote sensor.

7. **A/V out**
   - For connection of external display and audio devices.

8. **Power in**
   - For connection of various power input. (12V/24V cigar lighter charger and 12V wall adapter)

### Remote controller

- **Power**
  - Turn on and off of DMR432.

- **Navigation**
  - **Up/Down**: For volume control, or scroll up and down the menu in menu mode.
  - **Left/Right**: For service change while receiving signal, or entering or escaping menu in menu mode.

- **OK/ Mute**
  - **Menu mode**: For confirming Selection.
  - **Long key when receiving**: Current service will be saved in preset list. (Press it for more than 3 seconds.)
  - **Short key when receiving**: Audio will be muted.

- **Favorites**
  - **Press to instantly access to saved favorite memories.**
  - **While receiving services, press it (1 ~ 5) and hold to store or overwrite favorite memory.**

- **Menu**
  - Enter the menu or escape the menu.

- **List**
  - Shows preset list or hides the list.

- **Display**
  - Shows information of current service.

Buttons of DMR432 main unit do not provide full control. It is recommended to use remote controller for full control.
Before use

LCD indicator

- Battery replacement (Remote controller)
  Open the battery compartment by using tiny pin, and replace battery following polarity indication. Slide battery compartment back to original position.

LCD indicator

DMB mode
- Ensemble
- Tune mode
- Service name
- Current time
- Volume level
- Signal strength
- Information window

DAB mode
- Ensemble name
- Service name
- DLS info
- Current time
- Volume level
- Signal strength
- Tune mode

Getting started

Power on

1. Turn the power on using slide switch on the left side of the product.
   - Press and hold button, and the DMR432 is activated, or
   - Press button to activate the DMR432.

* Remote controller does not work if DMR432 power switch is on "OFF" position.

* To conserve vehicle battery DMR432 is designed to NOT work when vehicle is powered on though DMR432 power switch is "ON" position. To activate the DMR432 please press power button (remote controller).
**Volume control**

1. **DMB mode**
   - Press buttons to raise volume level.
   - Press buttons to raise volume level.

2. **DAB mode**
   - Press buttons to lower volume level.
   - Press buttons to lower volume level.

**Mute/Unmute**

1. : Press buttons shortly to mute audio.
   - To unmute audio, press mute button again, or adjust volume button.
   - Volume adjustment from remote controller or from DMR432 works same way to unmute audio.
Search

For the first time use, it is highly recommended to run a “Full Scan”. Full Scan finds and saves DMB services available at the location. To get better signal reception, place the DMR432 at wide open area.

1. Press menu button, and use up/down button to move to [Search].

2. Press menu/OK button, and use up/down button to move to [Search].

Service scan takes a while. Please be patient till it completes.
- Services found from service scan are automatically stored in service list. Service list will not be generated when no DMB service is available.
- Press any key to stop service scan while in process.

Preset tune mode

Preset mode enables users to tune to DMB services out of service list generated from service scan.

1. To change tuning mode, press \( \), and move to [Tune Mode] \( \rightarrow \) [Preset Mode] and press \( \) to confirm selection.

2. Press \( \) and move to [Tune Mode] \( \rightarrow \) [Preset Mode] and press \( \) to confirm the change.
Operation
Preset tune mode

2. DMR432 tunes to other services if left or right button is pressed while a service is being broadcasted.

Press left or right button to change to other service out of service list.

3. Do the followings to tune to desired service out of service list.

DMR432 tunes to other services if left or right button is pressed while a service is being broadcasted.

Press left or right button to change to other service out of preset list.

4. Press [LIST] button to bring up service list.

Scroll the list using up/down button and press [OK] button to confirm selection of desired service.

※ This function works only when tune mode is set at Preset.

※ If selected service is at very weak signal area and therefore no reception is made, "No signal" message will be displayed.

※ If selected service is at strong signal area but service is temporarily out, "No signal" message will be displayed.
Adding services to service list

- Do the followings to add current service to service list.
  1. Tune to a certain service that you wish to add to service list.
  2. Press and hold [OK/MUTE] button for more than 1 second.
  3. Current service is added to service list.

Deleting service from service list

- Do the followings to delete a certain service from service list.
  1. Bring up service list and move to the service that you wish to delete.
  2. Press and hold [OK/MENU] button for more than 1 second.
  3. Selected service will be deleted from service list.

Manual tune mode

- Press right button to see service list. Scroll up/down to find an ensemble you wished to tune. Press [OK/MUTE] to tune.

- Press right button to see service list. Scroll up/down to find an ensemble you wished to tune. Press [OK/MUTE] to tune.

When DAB/DMB signal exists, tune LED stays green and service window is active.

- Scroll up/down to a desired service and press [OK/MUTE] button to tune to it.

- Scroll up/down to a desired service, and press [OK/MUTE] button to tune to it.

To move to other service, press right button.
Scroll up/down to a desired service when current service list is brought up, and press [OK] button to select new service.

To move to other service, press right button.
Scroll up/down to a desired service when current service list is brought up, and press right button to select new service.

- When service list is displayed.
- Press left button to return to ensemble list.

※ This function is available when tune mode is set to Manual.
Display button

1. Press DISP button to display service information related to current DMB service. Current ensemble, service name, signal strength, current time and volume level will all be displayed for a few seconds.

Favorite services

- Favorite services can be stored at and restored from 1, 2, 3, 4, 5 (1/2/3/4/5) for instant access.

Menu

- When using remote controller
  1. Press [MENU] button to enter menu.
  2. Scroll the menu using up/down buttons and press [OK] button to enter sub-menu.
  3. For sub-menu to set values, use up/down to set value and press [OK] button to finish setting.

- When using DMR432 buttons
  1. Press [OK/MENU] button to enter menu.
  2. Scroll the menu using up/down buttons and press right button to enter sub-menu.
  3. For sub-menu to set values, use up/down to set value and press right button to finish setting.

Favorite 1 saved

1. To store current service to favorite service memory, press and hold favorite number until "Favorite (1) saved" message is displayed. To restore favorite service, press favorite number.
Screen Mode

Screen Mode enables users to extend screen. Do the followings to expand screen:

- Press [MENU] → [Setting] → [Screen Mode] → [Full] and press [OK] to extend screen.

- Press [MENU] → [Setting] → [Screen Mode] → [Full], and press right button to extend screen.

Country setting

DAB/DMB frequency is not all the same per region. When Country setting changes, frequency band and reception area changes accordingly. Check Country before running “Search”.

Do the followings to change region setting.

- Press [MENU] → [Setting] → [Country] → select Country, and press right button.
- Press [MENU] → [Setting] → [Country] → select Country, and press right button.
Do the followings to set message and menu language to Korean or English.

Press 
[ MENU ] → [ Setting ] → [ OSD Language ] → select OSD language, and press [ OK ] to set the change.  

Press 
[ MENU ] → [ Setting ] → [ OSD Language ] → select OSD language, and press right button to set the change.

Video Out enables users to select video signal type. NTSC stands for the National Television Standards Committee. It is a video signal standard used by the color television industry in the United States and Japan. (See details below) PAL stands for the Phase Alternating Line. This is a video standard used by the color television industry and is the common standard used in Europe. (See details below)

<table>
<thead>
<tr>
<th>NTSC</th>
<th>South Korea, USA, Japan, Taiwan, Philippines, Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAL</td>
<td>Hong Kong, North Korea, China, India, Singapore, Indonesia, Malaysia, Australia, Germany, Italia, Austria, Spain, Finland, England, Israel</td>
</tr>
</tbody>
</table>

Press 
[ MENU ] → [ Setting ] → [ Video Out ] → select video signal type, and press [ OK ] to change.

Press 
[ MENU ] → [ Setting ] → [ Video Out ] → select video signal type, and press right button to change.
System Reset

"System Reset" clears the entire user settings and return to factory default setting. Please reconfirm whether initializing is really necessary. Do the followings to initialize DMR432 settings.

- Press [MENU] → [Setting] → [System Reset] → [Yes], and press [OK].

- Press [MENU] → [Setting] → [System Reset] → [Yes], and press right button.
### Product specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model</strong></td>
<td>DMR432VL</td>
</tr>
</tbody>
</table>
| **Frequency**  | BAND-III : 174MHz ~ 240MHz  
                      L-BAND : 1452~1492MHz |
| **Technical standards** | Europe: ETSI EN 300 401  
                          Korea: TTAS.KO-07.0024  
                          TTAS.KO-07.0026 |
| **Sensitivity** | Better than -96dBm @ BER = 1 x 10^-4 (BAND-III)  
                           Better than -92dBm @ BER = 1 x 10^-4 (L-BAND) |
| **Video decoding** | MPEG-4 / H.264 |
| **Audio decoding** | MUSICAM & MPEG4/BSAC |
| **Audio output**  | 750mVrms/ch. (Stereo) |
| **Video output**  | 1Vp-p/75ohm |
| **Interface**    | Antenna: MCX 50ohm  
                           Power: +12V DC |
| **Power source** | 12VDC (Adapter or cigar lighter charger) |
| **Dimension (WHD)** | 138 x 72 x 31 (mm) |
| **Weight**       | 139 (g) |