Cover

DAESUNG ELTEC

Issued by	Document Name	Date	Version
GS Park	DS-MMCBT-SPE_200304-x	9/04/20	0.49

I. Design

1   Operation Specification

The explanation of the related key operation is shown as following:

Ⅰ. Short press: press the key,and release it within a time-period.

Ⅱ. Long press: press the key and hold it more than a time-period.

Ⅲ. Press: Independent of (Ⅰ)(Ⅱ),only a key operation.

2   RADIO

2.1   Channel change manually UP/DOWN

2.1.1   Operation key

Head unit key

NO.	Key name	operation	reference
1	▶▶|	Short press	<1.5 seconds
2	|◀◀	Short press	<1.5 seconds

2.2   Channel change automatically UP/DOWN

2.2.1 Operation key

Head unit key

NO.	Key name	Operation	reference
1	▶▶|	Long press	>1.5 seconds
2	|◀◀	Long press	>1.5 seconds
5	↰	Short press	<1.5 seconds
6	↰	Long press	>1.5 seconds

2.3   Band transition

2.3.1   Operation key

Head unit key

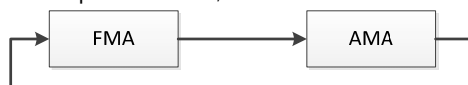| NO.	Key name	Operation	Reference
1	RADIO	Short press	<1.5 seconds
2	RADIO	Long press	>1.5 seconds

2.3.2   Band transition

① When radio mode, press operation key(RADIO), it will change the band.

At this time,return to the last received channel.

② In auto preset mode, band transition is shown as following.

2.4 Preset call

2.4.1 Operation key

Head unit key

NO.	Key name	Operation	Reference
1	PRESET KEY-CH1/DISP	Short press	<1.5 seconds
2	PRESET KEY-CH2/PAGE	Short press	<1.5 seconds
3	PRESET KEY-CH3	Short press	<1.5 seconds
4	PRESET KEY-CH4/RPT	Short press	<1.5 seconds
5	PRESET KEY-CH5/RDM	Short press	<1.5 seconds
6	PRESET KEY-CH6	Short press	<1.5 seconds

2.4.2 Preset call

① When radio is in reception status, press operation key(CH1~CH6), transfer to the preset channel.

2.5 Preset memory

2.5.1 Operation key

Head unit

NO.	Key name	Operation	Reference
1	PRESET KEY-CH1/DISP	Long press	>1.5 seconds
2	PRESET KEY-CH2/PAGE	Long press	>1.5 seconds
3	PRESET KEY-CH3	Long press	>1.5 seconds
4	PRESET KEY-CH4/RPT	Long press	>1.5 seconds
5	PRESET KEY-CH5/RDM	Long press	>1.5 seconds
6	PRESET KEY-CH6	Long press	>1.5 seconds

2.5.2 Preset memory

① When radio is in reception status, long press operation key(CH1~CH6), transfer to the preset channel.

2.6 Transition between Auto preset mode and Common mode

2.6.1 Operation key

Head unit key

NO.	Key name	Operation	Reference
1	AUTO-P	Long press	>1.5 seconds
2	AUTO-P	Short press	<1.5 seconds
3	RADIO	Short press	<1.5 seconds

3 USB

3.1 USB source transition

3.1.1 Operation key

Head unit key

NO.	Key name	Operation	Reference
1	MEDIA	Short press	<1.5 seconds

3.1.2 USB source transition

① When short press operation key (MEDIA), transfer to USB source.

② When USB device is not connected, it will display "NO DEVICE"

3.2 File select up/down

3.2.1 Operation key

Head unit key

NO.	Key name	Operation	Reference
1	▶▶	Short press	<1.5 seconds
2	◀◀	Short press	<1.5 seconds

3.3 Fast forward/Rewind down

3.3.1 Operation key

Head unit key

NO.	Key name	Operation	Reference
1	▶▶	Long press	>1.5 seconds
2	◀◀	Long press	>1.5 seconds

3.4 Repeat

3.4.1 Operating key

Head unit key

NO.	Key name	Operation	Reference
1	4/RPT	Short press	<1.5 seconds

3.4.2 Repeat

① The repeat of the USB include single track repeat and the folder repeat.

3.4.3 One track repeat

① During the play, press operation key(4/RPT), transfer to one track repeat mode.

3.4.4 Releasing from one track repeat

① When one track repeat operation, one track repeat will release.

3.4.5 Folder repeat

① When one track repeat, press operation key(4/RPT) again. It will transfer to folder repeat.

3.4.6 Releasing from folder repeat

① When folder repeat, press operation key(4/RPT) again.

3.5   Random

3.5.1   Operating key

Head unit key

NO.	Key name	Operation	Reference
1	5/RDM	Short press	<1.5 seconds

3.5.2   One track random

① During the play, press operation key(5/RDM), play the random track, the figure is as following.

3.5.3   Releasing from random

① When set random, press operation key(5/RDM) again
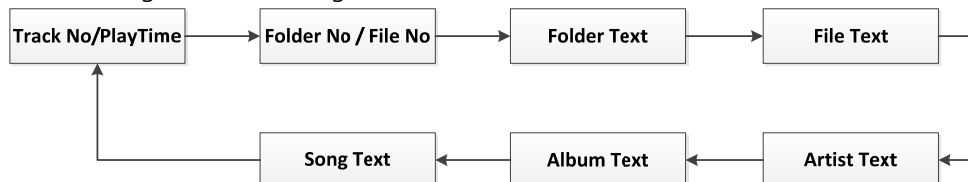
3.6   Transfer to text display

3.6.1   Operation key

Head unit key

NO.	Key name	Operation	Reference
1	1/DISP	Short press	<1.5 seconds

3.6.2   Transfer to text display

① When in USB source, press operation key(1/DSP), transfer to text display.

② The following content is changed in the order.

3.7   Text display page forward

3.7.1   Operation key

Head unit key

NO.	Key name	Operation	Reference
1	2/PAGE	Short press	<1.5 seconds

3.7.2   Text display page forward

① If USB text, Track text are more than 10 characters, press operation key(2/PAGE), the next 10 characters are displayed.

② If USB text, Track text are less than 10 characters, press operation key(2/PAGE), it is invalid.

③ If reach the final character, press operation key(2/PAGE), return to the first page.

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4 BT Audio

4.1 BT Audio source transition

4.1.1 Operation key

Head unit key

NO.	Key name	Operation	Reference
1	MEDIA	Short press	<1.5 seconds

4.1.2 BT Audio source transition

① When short press operation key(MEDIA), transfer to BT Audio source.

② When BT Audio device is not connected, it will display "NO DEVICE"

4.2 File select up/down

4.2.1 Operation key

Head unit key

NO.	Key name	Operation	Reference
1	▶▶▍	Short press	<1.5 seconds
2	▍◀◀	Short press	<1.5 seconds

5 BT Handsfree

5.1 BT Handsfree

5.1.1 Function

① Function to make a call with the device using Bluetooth through MIC and SPEAKER

5.1.2 Support profile

Bluetooth Core stack Version 5.0

- HFP(v1.7)
- PBAP(v1.1)

5.2 Call mode

5.2.1 Operation key

Head unit key

NO.	Key name	Operation	Reference
1	PHONE	Short press	<1.5 seconds
2	PHONE	Long press	>1.5 seconds
3	ENCODER	Rotation(Right)	Right
4	ENCODER	Rotation(Left)	Left

5.2.2 Incoming mode

① If pressing the operation key (PHONE) for less than 1.5 seconds, it converts to the call state.

5.2.3 Incoming Call Release

① If pressing all operation keys (PHONE, ENCODER) in the incoming state, the state is released.

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② If ACC is off during the call, the status will be released.

5.3 Handsfree mode

5.3.1 Operation Key

Head unit key

NO.	Key name	Operation	Reference
1	PHONE	Short press	<1.5 seconds
2	PHONE	Long press	>1.5 seconds
3	Encoder	Rotate(Right)	Right
4	Encoder	Rotate(Left)	Left
5	MENU	Short press	<1.5 seconds

5.3.2 Handsfree mode

① To enter the handsfree mode, press the operation key(PHONE) during the call status.

② When a phone number is selected through PHONE MENU and is sent to the outgoing state, it will switch to handsfree mode.

③ In Private mode, press the operating key (MENU) to switch to handsfree mode.

5.3.3 Method to be released handsfree mode.

① When the operation key(PHONE) pressing, the call is ended and switches to the previous source state.

② When the operation key(MENU), it is switched to Private mode.

③ If ACC is off during a call, the status is released.

5.4 Private mode

5.4.1 Operation Key

Head unit key

NO.	Key name	Operation	Reference
1	PHONE	Short press	<1.5 seconds
2	PHONE	Long press	>1.5 seconds
3	MENU	Short press	<1.5 seconds

5.4.2 Private mode

① In hands-free mode, press the Operation key (MENU) to switch to Private mode.

② Even if ACC is turned off during a call, the status is not released.

5.4.3 Method to be released Private mode

① When the operation key(PHONE) pressing, the call is ended and switches to the previous source state.

② When the operation key(MENU), it is switched to Private mode.

5.5 Pairing mode

5.5.1 Operation Key

Head unit key

NO.	Key name	Operation	Reference
1	PHONE	Short press	<1.5 seconds
2	Encoder	Rotate(Right)	Right
3	Encoder	Rotate(Left)	Left
4	Encoder	Short press	<1.5 seconds
5	BACK	Short press	<1.5 seconds
6	BACK	Long press	>1.5 seconds

Steering wheel Key

NO.	Key name	Operation	Reference
7	CALL	Short press	<1.5 seconds
8	CH UP >	Short press	<1.5 seconds
9	CH DN <	Short press	<1.5 seconds
10	ENDCALL	Short press	<1.5 seconds

5.5.2   Pairing mode

① To use Bluetooth pairing mode, the device (phone) to be connected must first be activated in Bluetooth mode.

② To enter pairing mode, select the operation key (encoder) from the PHONE MENU of Head Unit.

③ When entering pairing mode, search for searchable Bluetooth devices and display the detected devices on the screen. The timeout to detect Bluetooth devices is 60 seconds.

④ The detected device is displayed by the name of the device.

⑤ If the connection fails, display it as "Fail" and keep the list of devices that have been rescanned.

⑥ If the connection is successful, display "CONNECTED" and return to normal mode.

5.6 BASS adjusting mode

5.6.1 Function

It is adjust to the low tone of the voice output.

5.6.2 Operation key

Head unit key

NO.	Key name	Operation	Reference
1	Encoder	Short press	<1.5 seconds
2	Encoder	Rotation(R)	Right
3	Encoder	Rotation(L)	Left

5.6.3 BASS adjusting mode

① For step, from center point up/down 5steps. (-5 ~ 0 ~ 5)

② Initialization : 0

③ When BASS adjusting mode, turn operating key(Encoder), it will change to the up.

④ When BASS adjusting mode, turn operating key(Encoder), it will change to the up.

5.7 TREBLE adjusting mode

5.7.1 Function

It is to adjust the high tone of the voice output.

5.7.2 Operation key

Head unit key

NO.	Key name	Operation	Reference
1	Encoder	Short press	<1.5 seconds
2	Encoder	Rotation(R)	Right
3	Encoder	Rotation(L)	Left

5.7.3 TREBLE adjusting mode

① For step, from center point up/down 5steps. (-5 ~ 0 ~ 5)

② Initialization : 0

③ When TREBLE adjusting mode, turn operating key(Encoder), it will change to the up.

④ When TREBLE adjusting mode, turn operating key(Encoder), it will change to the up.

5.8 FADER adjusting mode

5.8.1 Function

It is to adjust the AMP which is behind or before the voice output.

5.8.2 Operation key

Head unit key

NO.	Key name	Operation	Reference
1	Encoder	Short press	<1.5 seconds
2	Encoder	Rotation(R)	Right
3	Encoder	Rotation(L)	Left

5.8.3 FADER adjusting mode

① For step, from center point up/down 11steps. (REAR11 ~ 0 ~ FRONT11)

② Initialization : Center

③ When FADER adjusting mode, turn operation key(Encoder), if the front amp is emphasized, the selected value will be the amp.

5.9 BALANCE adjusting mode

5.9.1 Function

It is to adjust the AMP which is on the right or left the voice output.

5.9.2 Operation key

Head unit key

NO.	Key name	Operation	Reference
1	Encoder	Short press	<1.5 seconds
2	Encoder	Rotation(R)	Right
3	Encoder	Rotation(L)	Left

5.9.3 BALANCE adjusting mode

① For step, from center point up/down 11steps. (REAR11 ~ 0 ~ FRONT11)

② Initialization : Center

③ When BALANCE adjusting mode, turn operation key(Encoder),if the right amp is emphasized, the selected value will be the amp.

④ When BALANCE adjusting mode, turn operation key(Encoder),if the left amp is emphasized, the selected value will be the amp.

FCC Warning

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and receiver.
• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
• Consult the dealer or an experienced radio/TV technician for help

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum 20 cm between the radiator and your body
This transmitter must not be collocated or operating in conjunction with any other antenna or transmitter unless authorized to do so by the FCC