

AOK UI INSTRUCTION for HX-P180

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Change History

Issue	Date	Handle by	Comments
00	November-4-2015	Mir xie	First release

1. Product setting: buttons, LEDs, Audio sources

2.1 Buttons and switches and Touch, the systems have below buttons:

Button	Power button, MFB, Vol+, Vol- button
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2.2 Connection of Power and audio system, the system has the following connection:

Audio port	In	Aux-in
	Out	-
Data port		-
Power port	In	DC jack
	Out	USB out for charging

2.3 Button press Type and Duration. The following table describes how the buttons react and describes timing constraints

Button pressing time	
Press type	Duration(Seconds)
Short press	X<0.5
Long press	2<x<3
Press & hold	-

2.4 Feature List

#	Category	Feature	Value
1	Out of the Box/ After Factory Reset	Total volume level	16 steps
		Default volume level	10 steps (equal to 60% volume)
		Default audio source	BT,
		Duration for volume to change from min to max	<16 seconds

		Remember previous audio source	NO
		Remember previous connected BT devices	Yes, If Aux is not connected, always reconnect with last device which connected during power up
		Remember previous volume level	Yes (only if volume <60%, use previous volume, else use 60%) Volume at 10-70% memory, otherwise revert to the default 60%
2	Power mode	Supports Battery Mode?	Yes
		Charging hour	Within 2 hours
		Playback hour	4hours at 70% volume
		AC Mode	No
		External charging sourcing	Yes (USB, Power bank, etc.)
3	Battery mode	Battery management	i. Healthy: $X > 10\%$ ii. Low: $5\% < X \leq 10\%$ - Low battery indication available (Red LED flashing warning) -when $X > 95\%$ charging Red LED off iii. Critical: $X = 0\%$ - DUT off.
4	Connection	Audio input	Aux in, BT audio
		Audio output	No
		Physical button for audio switch	No special button available
		Auto audio switch feature	Aux-in audio source priority to BT audio.
5	ERP(Energy related product) compliance	Auto Standby	Yes
		Auto Standby Duration	Without BT connection, after 2 minutes ,it will shut off . BT connection,but don't play, after 15 minutes,it will shut off.
		Power consumption to meet ERP	<0.3W
		Auto shut off without paired	2 minutes
6	Reset	Factory Reset	Not
		Hardware Reset	Yes
7	Bluetooth connectivity	Bluetooth naming	HMDX Rebound
		Wireless range	10 m
		Supported audio codec	SBC
		Supported profiles	A2DP, AVRCP so on
		# of supported device in pairing list	1 paired device recorded
		Supports Dual devices	NO
		Volume sync	Synchronize volume with iOS
		BT Pairing duration	Within 1 minutes
		BT Reconnect duration	Power up = 10sec Link lost = 10sec

		BT reconnect method (single device or all devices)	Power up = attempt reconnect to same device. Link lost = attempt reconnect to same device twice, each time for 10 seconds
8	PC compatibility	Windows version	No information
		Mac version	MacBook (Pro, Air) with OS X 10.8.2 or later
9	Phone device compatibility	Phone model with OS version	iPod touch (2-5 Gen), iPod Nano (7 Gen), iPhone (6,5, 4s, 4, 3Gs, 3G), iPad (1, 2, 3, 4, mini 1, 2),

2.5 Audio source, Available audio source Input:

#	Audio input	Image
1	Line (3.5mm) In	
2	Bluetooth	

2.6 Available Audio Source Output: No audio output

Sequence & Priority

The audio source switch command shall allow DUT to switch sources using the following priority and sequence:

Priority	Audio input	Sequence	Default	Manual/Automatic switch
1	Line (3.5mm) In	Line in is 1 st	For Speaker is default.	NA
2	Bluetooth	BT is 2nd	Speaker, is default	NA

2. SYSTEM FEEDBACK

3.1 The system has the following indicators, list of Audio Indications. (Prompt tone)

#	Indicator	Description	File Name
1	Power on	Hold down the power button 3 seconds	Provide by HMDX
2	Power down	Hold down the power button 3 seconds	Provide by HMDX
3	Auto power off	No Bluetooth connection and Audio input	Provide by HMDX
4	Low battery warning	The batter low 3.5 Volts	No
5	BT Pairing started	Blue LED flashing	Provide by HMDX
6	BT pairing successfully	Blue LED flashing one time per 5s	Provided by HMDX
7	BT pairing timeout	Blue LED flashing	No
8	BT disconnect manually	After pressing Vol+ button and Vol- button 5 seconds, then enter into paring status	Provided by HMDX
9	BT disconnect – link lost	Entering into paring status	No

10	BT reconnect successful	As pairing successful	Provided by HMDX
11	BT reconnect timeout	Entering into pairing status	No
12	Max volume reached	Reminder	Provided by HMDX
13	Min volume reached	no	No

3.2 List of Physical Visual Indications

Product off, USB connected

Indicator	color	Description
Product LED	null	off
Charging LED		Solid as long as charging. Off when charging complete

Power off and USB not connected

Indicator	color	Description
Product LED	null	off
Charging LED	null	off

Powering up

Indicator	color	Description
Product LED		On

Powering down

Indicator	color	Description
Product LED	null	off

Product on

Event	indicator	color	Description
Aux audio source	Product LED		Aux as active audio source
BT audio source	Product LED		- At Re-connect or Pairing mode, Product LED flashing - After paired, Blue lights flash once five seconds.

Charging mode

Event	Indicator	color	Description
Charging	Charging LED		Solid as long as charging. Off when charging complete.

Battery mode

Event	indicator	color	Description
Battery healthy	Charging LED	null	Charging LED off, not required
Battery low	Product LED		Flashing 1 sec on, 1 sec off until USB cable is inserted or battery died.

Battery critical	All LEDs	null	Off, device is off.
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BT activity (The Flashing LED 0.2 seconds on and 0.2 seconds off)

Event	indicator	color	Description
BT not active	Product LED		Aux as active audio source.
BT pairing	Product LED		Speaker: Blue LED Slow flashing (0.2sec on, 0.2sec off) for 2min or until paired successfully. Blue lights flash until the pairing is successful
BT connected	Product LED		Speaker: Blue LED stable on .Blue lights flash once five seconds
BT disconnecting	Product LED		Pressing Vol+ and Vol- simultaneously for 5 seconds, disconnect current BT device, enter into pairing mode

Factory Reset

indicator	color	Description
Product LED	null	Unknown

3. Product status

State	Description
Off	Details: When device is Off without USB connected or Power off (MCU off, Amp off, charging off, BT off,) To Enter: Removed USB cable and battery off To Exit: Insert USB cable charging
On	Details: Device is on (MCU on, Amp on, charging on, BT on – connectable) To Enter: Power on To Exit: Power off
BT on	Details: Device is on (MCU on, Amp on, charging on, BT on – discoverable, connected, connecting) To Enter: BT activity in progress To Exit: Power off

Key Assignment

Power switch

States vs Press type	On position	Off position
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On	Power on	/
Off	/	Power off

Play/Pause

States vs Press type	SP (<0.5)	LP >2~3s)
On	Play or pause	No response
On-aux inserted	Play or pause	No response.
BT on power up reconnect	No response	No response
BT on pairing	No response	No response.
BT on connected	Play/pause	No response

<Vol+> or <Vol->

States vs Press type	SP (<0.5)	LP >2~5s)
Off	No response	No response
On	Change volume by 1 step.	No response
On-aux inserted	Change volume by 1 step	Change volume continuously.
BT on power up re-connect	Change volume by 1 step.	No response
BT on pairing	Change volume by 1 step.	No response
BT on connected	Change volume by 1 step.	next or previous
Vol+ and Vol- pressing at the same time	No response	Disconnect current BT, enter into pairing mode.

4. UI

Refer to "SPC-0028 - HMDX Controls Logic Specification - Bluetooth Loudspeakers(D)" for the UI flow chart

5. FCC Statement

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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

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