

# XAV-AX4000

## SERVICE MANUAL

Ver. 1.2 2023.10

*US Model  
Canadian Model  
E Model  
Australian Model*



- This model is not equipped with a mechanism deck.

### SPECIFICATIONS

#### (US, CND)

**FOR THE CUSTOMERS IN THE USA. NOT APPLICABLE IN CANADA, INCLUDING IN THE PROVINCE OF QUEBEC.**

**POUR LES CLIENTS AUX ÉTATS-UNIS. NON APPLICABLE AU CANADA, Y COMPRIS LA PROVINCE DE QUÉBEC.**

#### AUDIO POWER SPECIFICATIONS

CTA2006 Standard  
Power Output: 20 Watts RMS × 4  
Channels at 4 Ohms and ≤ 1% THD+N  
Signal to Noise Ratio: 80 dBA (reference:  
1 Watt into 4 Ohms)

#### Monitor section

Display type: Wide LCD color monitor  
Dimensions: 17.6 cm/ 6.95 in  
System: TFT active matrix  
Number of pixels:  
1,152,000 pixels (800 × 3 (RGB) × 480)

#### Radio section (US, CND)

##### FM

Tuning range: 87.5 MHz – 107.9 MHz  
Usable sensitivity: 7 dBf  
Signal-to-noise ratio: 70 dB (mono)  
Separation at 1 kHz: 45 dB

##### AM

Tuning range: 530 kHz – 1,710 kHz  
Sensitivity: 32 µV

#### Radio section (E, E17, IND)

##### FM

Tuning range:  
87.5 MHz – 108.0 MHz (at 50 kHz step)  
87.5 MHz – 108.0 MHz (at 100 kHz step)  
FM tuning step:  
50 kHz/100 kHz switchable  
Usable sensitivity: 7 dBf  
Signal-to-noise ratio: 70 dB (mono)  
Separation at 1 kHz: 45 dB

##### AM

Tuning range:  
531 kHz – 1,602 kHz (at 9 kHz step)  
530 kHz – 1,710 kHz (at 10 kHz step)  
AM tuning step:  
9 kHz/10 kHz switchable  
Sensitivity: 32 µV

#### USB player section

Interface: USB Type-C® (Hi-speed)  
Maximum current: 3.0 A

#### BLUETOOTH section

Communication System:  
BLUETOOTH Standard version 5.0  
Output:  
BLUETOOTH Standard Power Class 1  
(Max. Conducted +7.5 dBm)  
Maximum communication range\*1:  
Line of sight approx. 10 m (33 ft)  
Frequency band:  
2.4 GHz band (2.4000 GHz – 2.4835 GHz)  
Modulation method: FHSS  
Compatible BLUETOOTH Profiles\*2:  
A2DP (Advanced Audio Distribution Profile) 1.3.1  
AVRCP (Audio Video Remote Control Profile) 1.6.1  
HFP (Handsfree Profile) 1.7.1  
PBAP (Phone Book Access Profile) 1.2  
Corresponding codec: SBC, AAC, LDAC™

\*1 The actual range will vary depending on factors such as obstacles between devices, magnetic fields around a microwave oven, static electricity, reception sensitivity, antenna (aerial) performance, operating system, software application, etc.

\*2 BLUETOOTH standard profiles indicate the purpose of BLUETOOTH communication between devices.

#### Wi-Fi section (US, CND, E17, IND)

Compatible standards:  
IEEE802.11 a/n/ac  
Radio frequency:  
5 GHz band (5.725 GHz - 5.850 GHz)  
Output power:  
Max. conducted 16 dBm (US, CND)  
Max. conducted 10 dBm (E17, IND)  
Frequency Tolerance: 20 ppm

#### Wi-Fi section (E)

Compatible standards:  
IEEE802.11 b/g/n  
Radio frequency:  
2.4 GHz band (2.401 GHz – 2.473 GHz)  
Output power:  
Max. conducted 18 dBm  
Frequency Tolerance: 20 ppm

#### Power amplifier section

Outputs: Speaker outputs  
Speaker impedance: 4 Ω – 8 Ω  
Maximum power output: 55 W × 4 (at 4 Ω)

#### General

Power requirements:  
12 V DC car battery (negative ground (earth))  
Rated current consumption: 10 A  
Dimensions (maximum):  
Approx. 178 mm × 100 mm × 132 mm  
(7 1/8 in × 4 in × 5 1/4 in) (w/h/d)  
Mounting dimensions:  
Approx. 182 mm × 111 mm × 115 mm  
(7 1/4 in × 4 3/8 in × 4 5/8 in) (w/h/d)  
Mass: Approx. 1.0 kg (2 lb 4 oz)  
Package contents:  
Main unit (1)  
Parts for installation and connections (1 set)  
Remote commander (1): RM-X400 (E, E17, IND)

Design and specifications are subject to change without notice.

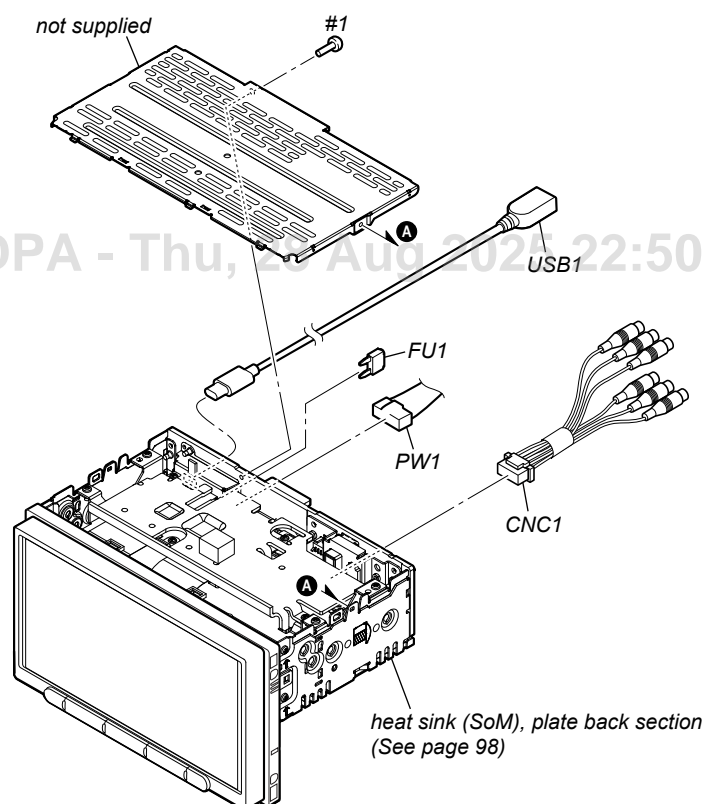
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

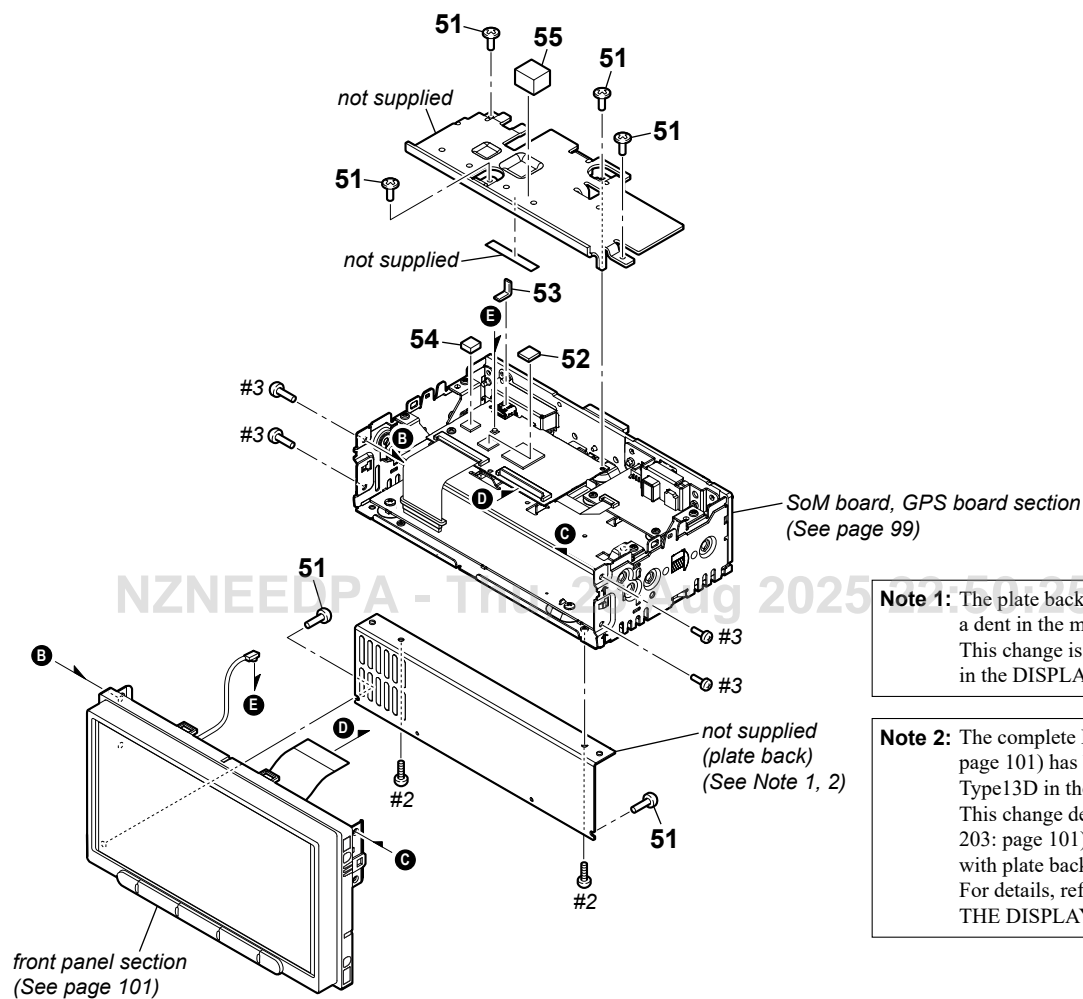
- The mechanical parts with no reference number in the exploded views are not supplied.
- Color Indication of Appearance Parts Example:  
 KNOB, BALANCE (WHITE) . . . (RED)  

↑↑

Parts ColorCabinet's Color

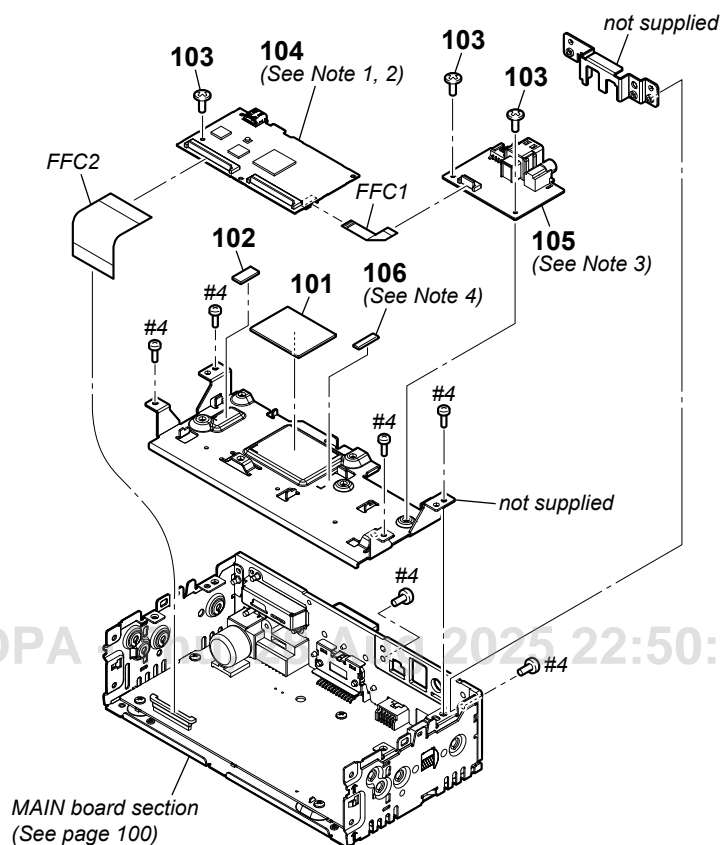
## 6-1. OVERALL SECTION



**6-2. HEAT SINK (SoM), PLATE BACK SECTION**

**Note 1:** The plate back has been changed to a part with a dent in the midway of production. This change is not synchronized with changes in the DISPLAY board (Note 2).

**Note 2:** The complete DISPLAY board (Ref. No. 202: page 101) has been changed from Type12D to Type13D in the midway of production. This change deletes gasket (upper) (Ref. No. 203: page 101) and requires its combination with plate back. For details, refer to "ABOUT CHANGING THE DISPLAY BOARD" on page 22.

**6-3. SoM BOARD, GPS BOARD SECTION**

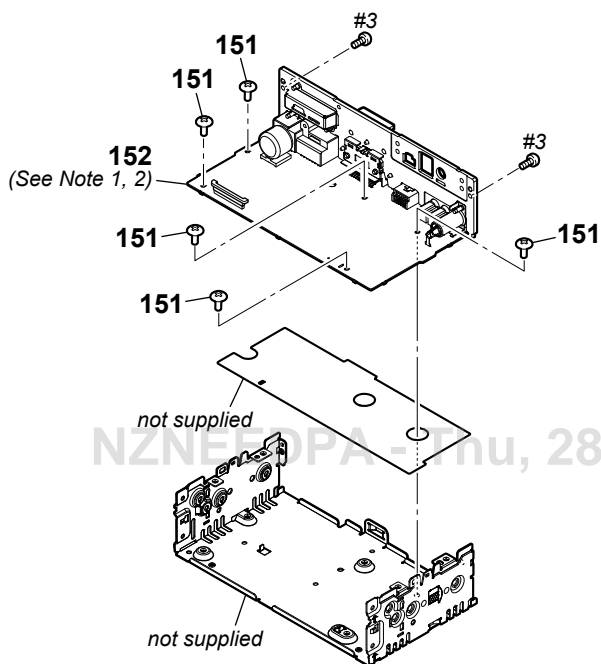
**Note 1:** Replaced old complete SoM board (Ref. No. 104) is destroyed with the hammer, and dispose it.

**Note 2:** When the complete SoM board (Ref. No. 104) is replaced with a new board, be sure to refer to "IMPORTANT NOTE OF REPLACING THE SoM BOARD" on page 8, and perform it.

**Note 3:** When the complete GPS board (Ref. No. 105) is replaced with a new board, or the GPS board is repaired, be sure to refer to "GPS RECEIVE CHECKING METHOD" on page 14, and perform it.

**Note 4:** The gasket (Ref. No. 106) has been changed in the midway of production. When replacing the gasket with a new part, there is no problem using either gasket, but the long side size is different.

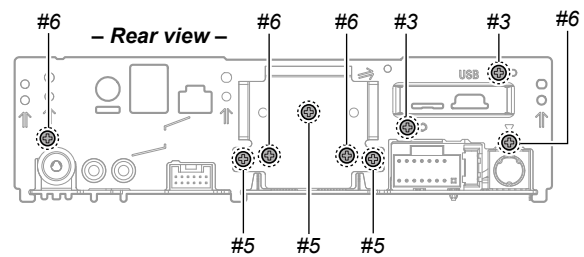
## 6-4. MAIN BOARD SECTION



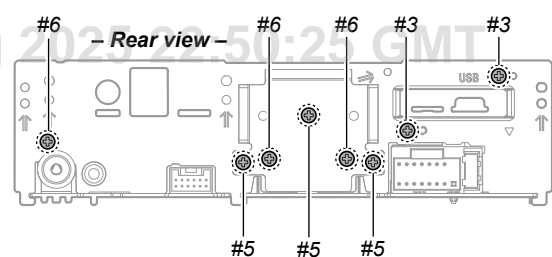
### • Screw for fixing the heat sink

**Note 1:** Heat sink and screws are included in Ref. No. 152.

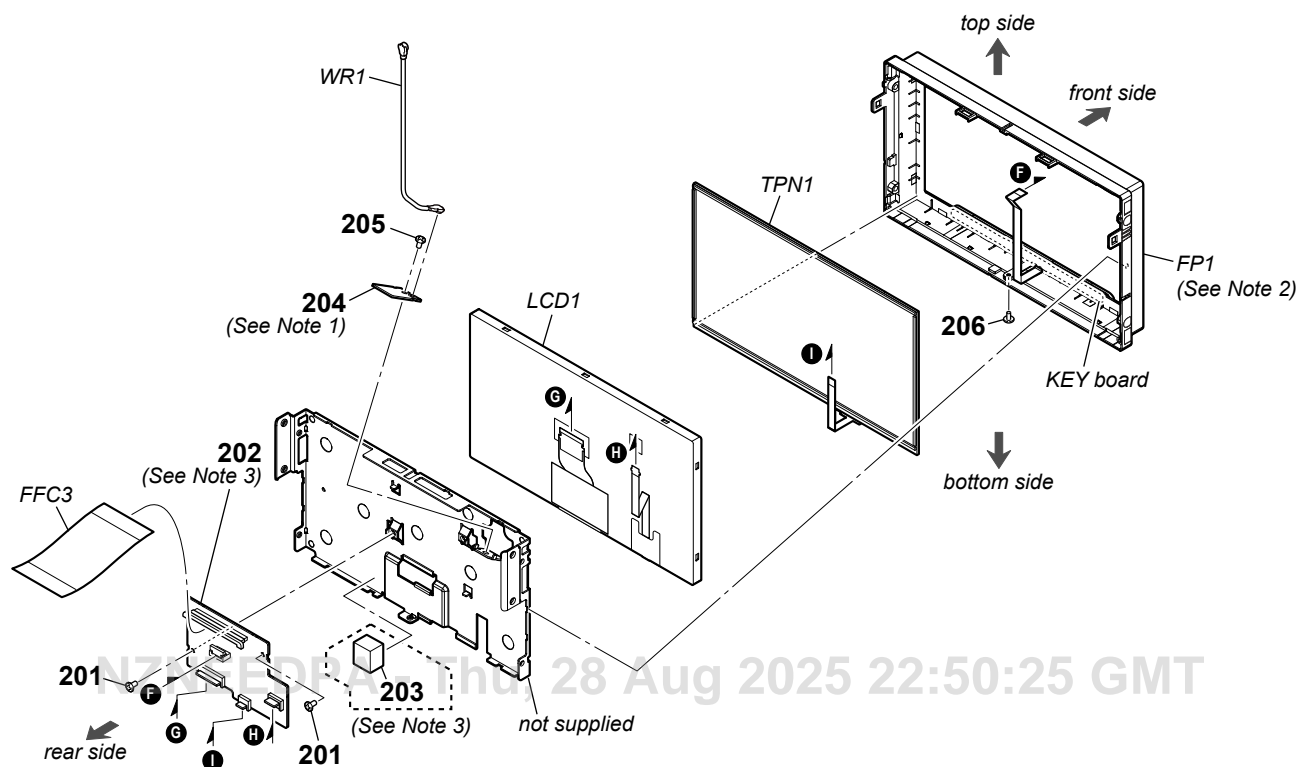
#### US, CND



#### E, E17, IND



**Note 2:** When the complete MAIN board (Ref. No. 152) is replaced with a new board, or the MAIN board is repaired, be sure to refer to "WIRELESS (Wi-Fi) COMMUNICATION CHECKING METHOD FOR Apple CarPlay OR Android Auto" on page 12, and perform it.

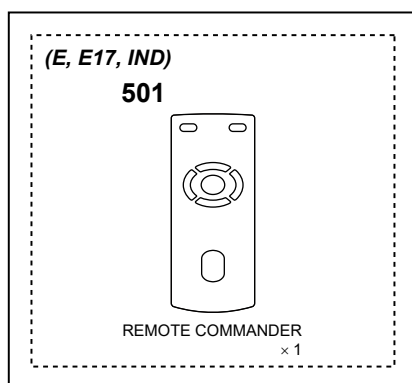
**6-5. FRONT PANEL SECTION**

**Note 1:** When the complete ANT board (Ref. No. 204) is replaced with a new board, or the ANT board is repaired, be sure to refer to “IMPORTANT NOTE OF REPLACING THE ANT BOARD” on page 8, and perform it.

**Note 2:** The panel assy (Ref. No. FP1) includes the KEY board. When the KEY board is defective, replace the panel assy with a new part.

**Note 3:** The complete DISPLAY board (Ref. No. 202) has been changed from Type12D to Type13D in the midway of production. This change deletes gasket (upper) (Ref. No. 203) and requires its combination with plate back (page 98). When replacing the complete DISPLAY board with a new board, refer to “ABOUT CHANGING THE DISPLAY BOARD” on page 22 to identify the type of DISPLAY board.

## SECTION 8 ACCESSORIES



**(US, CND only)**

**Note:** The remote commander for US, CND is prepared as service exclusive part. For service exclusive remote commander, refer to “SERVICE EXCLUSIVE REMOTE COMMANDER (US, CND only)” on page 8.

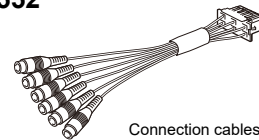
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**551**



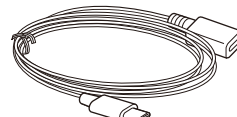
Power supply leads  
× 1

**552**



Connection cables  
(Audio/Camera)  
× 1

**553**



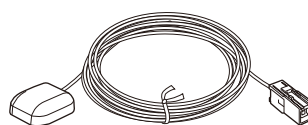
USB Type-C extension cable  
× 1

**554**



Cable for steering wheel  
remote input (RC-SR1)  
× 1

**555**



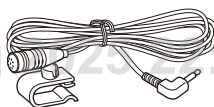
GPS antenna (aerial)  
× 1



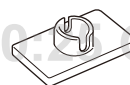
Metal plate  
× 1

GPS ANTENNA  
× 1

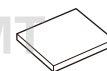
**556**



Microphone  
× 1



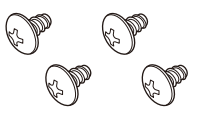
Flat-mount base  
× 1



Double-sided tape  
× 1

MICROPHONE UNIT  
× 1

**557**

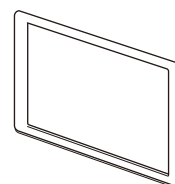


Mounting screw  
(5 × max. 9 mm)  
× 4

SCREW ASSY  
× 1

(IND)

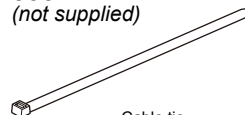
**559**



Trim ring  
× 1

**558**

(not supplied)



Cable tie  
× 1