

# HCD-GPX33/GPX55/GPX77/ GPX88

## SERVICE MANUAL

Ver. 1.2 2014.03



Photo: HCD-GPX88

US Model  
HCD-GPX55/GPX77

E Model  
HCD-GPX33/GPX55/GPX77/GPX88

Argentina Model  
HCD-GPX33/GPX55/GPX88

Australian Model  
HCD-GPX77

Mexican Model  
HCD-GPX33/GPX77/GPX88

Saudi Arabia Model  
HCD-GPX33/GPX77

- HCD-GPX33 is the amplifier, USB, CD player, Bluetooth, NFC and tuner section in MHC-GPX33.
- HCD-GPX55 is the amplifier, USB, CD player, Bluetooth, NFC and tuner section in MHC-GPX55.
- HCD-GPX77 is the amplifier, USB, CD player, Bluetooth, NFC and tuner section in MHC-GPX77.
- HCD-GPX88 is the amplifier, USB, CD player, Bluetooth, NFC and tuner section in MHC-GPX88.

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|            |                                    |                  |
|------------|------------------------------------|------------------|
| CD Section | Model Name Using Similar Mechanism | NEW              |
|            | CD Mechanism Type                  | CDM90-DVBU202/IM |
|            | Optical Pick-up Name               | CMS-S76RFS7G     |

### SPECIFICATIONS

#### AUDIO POWER SPECIFICATIONS

##### POWER OUTPUT AND TOTAL HARMONIC DISTORTION: (USA model only)

With 4 ohm loads, both channels driven, from 120 – 10,000 Hz; rated 130 watts per channel minimum RMS power, with no more than 0.7% total harmonic distortion from 250 milliwatts to rated output.

##### Amplifier section

The following are measured at USA model:

AC 120 V, 60 Hz

Mexican model:

AC 120 V – 240 V, 60 Hz

Other models:

AC 120 V – 240 V, 50/60 Hz

##### MHC-GPX88

Front speaker

Power Output (rated):  
350 W + 350 W (at 4 ohms, 1 kHz,  
1% THD)

RMS output power (reference):

600 W + 600 W (per channel at 4 ohms,  
1 kHz)

Subwoofer

RMS output power (reference):  
500 W + 500 W (per channel at 5 ohms,  
100 Hz)

##### LBT-GPX77/MHC-GPX77

HIGH speakers

Power Output (rated):  
350 W + 350 W (at 4 ohms, 1 kHz,  
1% THD)

RMS output power (reference):

600 W + 600 W (per channel at 4 ohms,  
1 kHz)

LOW speakers

RMS output power (reference):  
300 W + 300 W (8 ohms, 100 Hz)

#### LBT-GPX55/MHC-GPX55

Front speaker

Power Output (rated):  
350 W + 350 W (at 4 ohms, 1 kHz,  
1% THD)

RMS output power (reference):

550 W + 550 W (per channel at 4 ohms,  
1 kHz)

Subwoofer

RMS output power (reference):  
500 W (5 ohms, 100 Hz)

#### MHC-GPX33

Front speaker

Power Output (rated):  
350 W + 350 W (at 4 ohms, 1 kHz,  
1% THD)

RMS output power (reference):

600 W + 600 W (per channel at  
4 ohms, 1 kHz)

#### Inputs

TV/DVD/SAT (AUDIO IN) L/R

Voltage 2 V, impedance 47 kilohms

PC/GAME (AUDIO IN) L/R

Voltage 2 V, impedance 47 kilohms

MIC (MHC-GPX88 only)

Sensitivity 1 mV, impedance 10 kilohms

ψ A (USB), ψ B (USB) port: Type A

#### USB section

Supported bit rate

WMA:  
48 kbps – 192 kbps, VBR, CBR

AAC:  
48 kbps – 320 kbps, VBR, CBR

Sampling frequencies

WMA: 44.1 kHz

AAC: 44.1 kHz

Supported USB device

Mass Storage Class

Maximum current

500 mA

#### Disc/USB section

Supported bit rate

MPEG1 Layer-3:  
32 kbps – 320 kbps, VBR

MPEG2 Layer-3:  
8 kbps – 160 kbps, VBR

MPEG1 Layer-2:  
32 kbps – 384 kbps, VBR

Sampling frequencies

MPEG1 Layer-3:  
32 kHz/44.1 kHz/48 kHz

MPEG2 Layer-3:  
16 kHz/22.05 kHz/24 kHz

MPEG1 Layer-2:  
32 kHz/44.1 kHz/48 kHz

#### Disc player section

System

Compact disc and digital audio system

Laser Diode Properties

Emission Duration: Continuous

Laser Output\*: Less than 44.6 μW

\* This output is the value measurement

at a distance of 200 mm from the

objective lens surface on the Optical

Pick-up Block with 7 mm aperture.

Frequency response

20 Hz – 20 kHz

Signal-to-noise ratio

More than 90 dB

Dynamic range

More than 88 dB

#### Tuner section

FM stereo, FM/AM superheterodyne tuner

Antenna:

FM lead antenna

AM loop antenna

#### FM tuner section

Tuning range

USA and Brazilian models:

87.5 MHz – 108.0 MHz

(100 kHz step)

Other models:

87.5 MHz – 108.0 MHz (50 kHz step)

#### AM tuner section

Tuning range

Pan American and Australia models:

531 kHz – 1,710 kHz (9 kHz step)

530 kHz – 1,710 kHz (10 kHz step)

Saudi Arabian model:

531 kHz – 1,602 kHz (9 kHz step)

Other models:

531 kHz – 1,602 kHz (9 kHz step)

530 kHz – 1,610 kHz (10 kHz step)

#### Bluetooth section

Communication system

Bluetooth Standard version 3.0 +

EDR (Enhanced Data Rate)

Output

Bluetooth Standard Power Class 2

Maximum communication range

Line of sight approx. 10 m<sup>1)</sup>

Frequency band

2.4 GHz band (2.4000 GHz – 2.4835 GHz)

Modulation method

FHSS (Freq Hopping Spread Spectrum)

Compatible Bluetooth profiles<sup>2)</sup>

A2DP (Advanced Audio Distribution

Profile)

AVRCP 1.3 (Audio Video Remote

Control Profile)

Supported codecs

SBC (Sub Band Codec)

AAC (Advanced Audio Coding)

<sup>1)</sup> The actual range will vary depending on

factors such as obstacles between devices,

magnetic fields around a microwave oven,

static electricity, reception sensitivity,

antenna's performance, operating system,

software application, etc.

<sup>2)</sup> Bluetooth standard profiles indicate the

purpose of Bluetooth communication

between devices.

– Continued on next page –

## COMPACT DISC RECEIVER

# SONY®

9-890-622-03

2014C80-1

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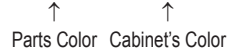
Sony Corporation

Published by Sony EMCS (Malaysia) PG Tec

## SECTION 7 EXPLODED VIEWS

**Note:**

- -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)

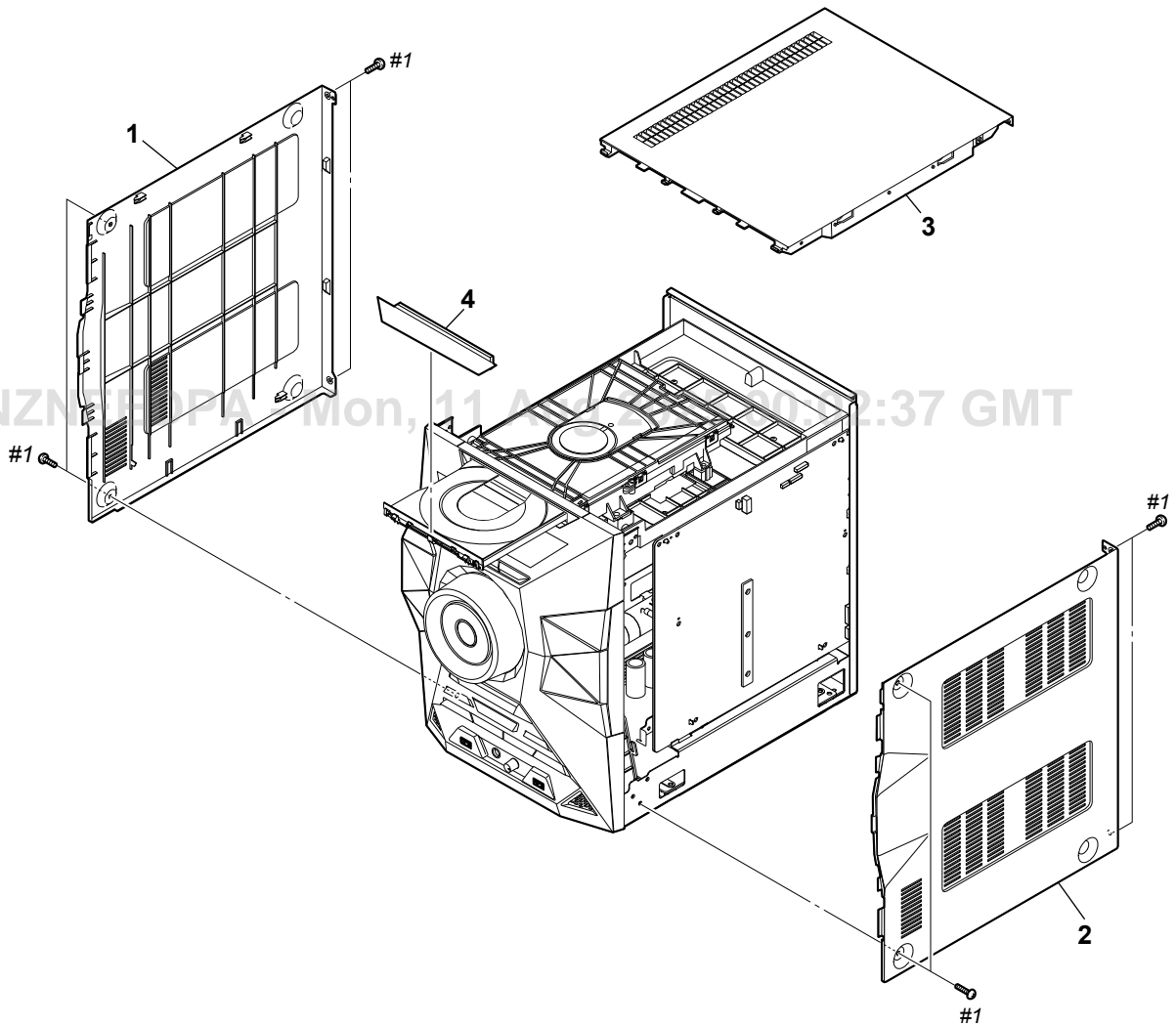


• Abbreviation

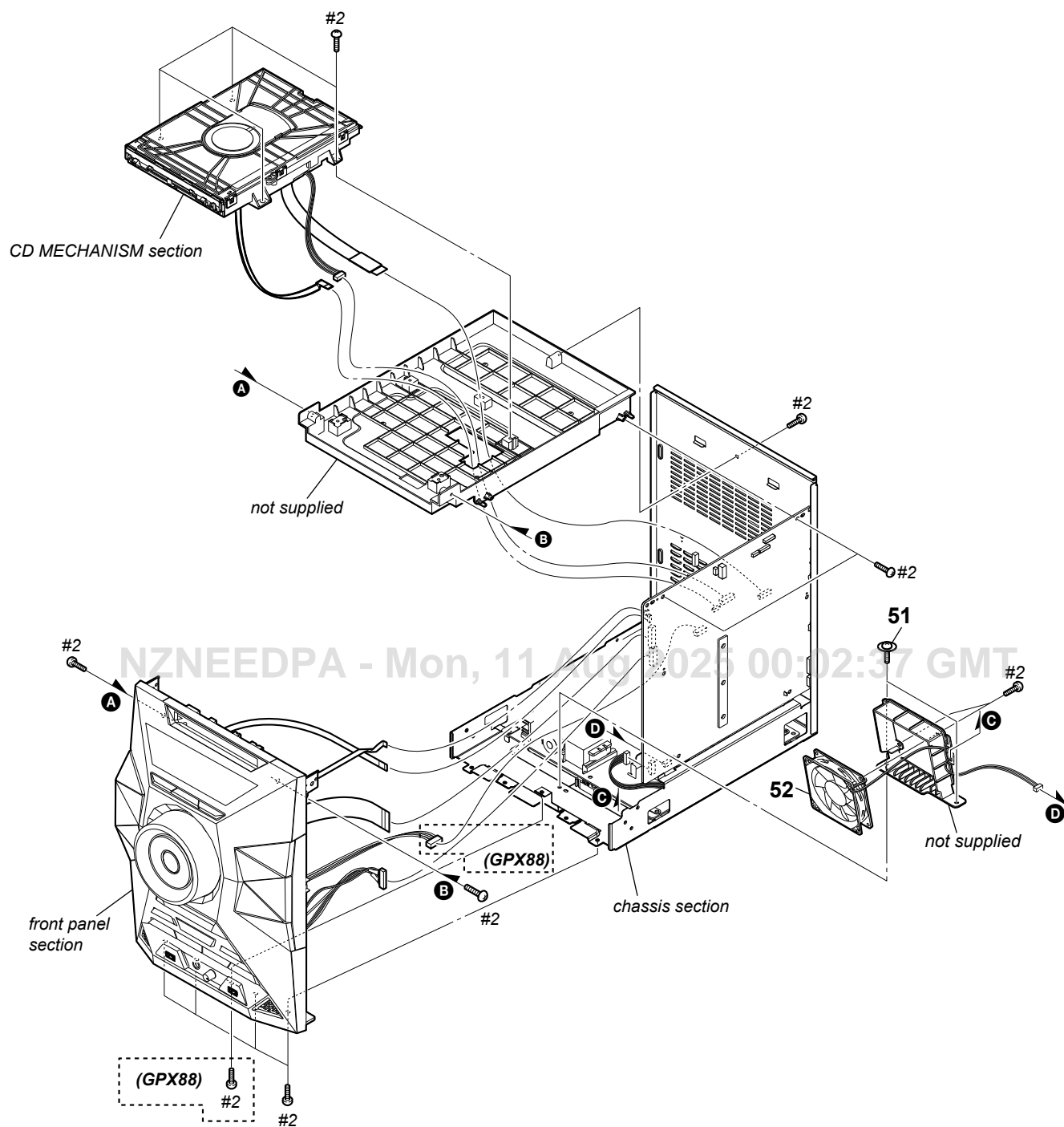
- AR : Argentina model
- AUS : Australian model
- E2 : 120 V AC area in E model
- E4 : African model
- E51 : Chilean and Peruvian models
- EA : Saudi Arabia model
- MX : Mexican model

The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety.  
Replace only with part number specified.

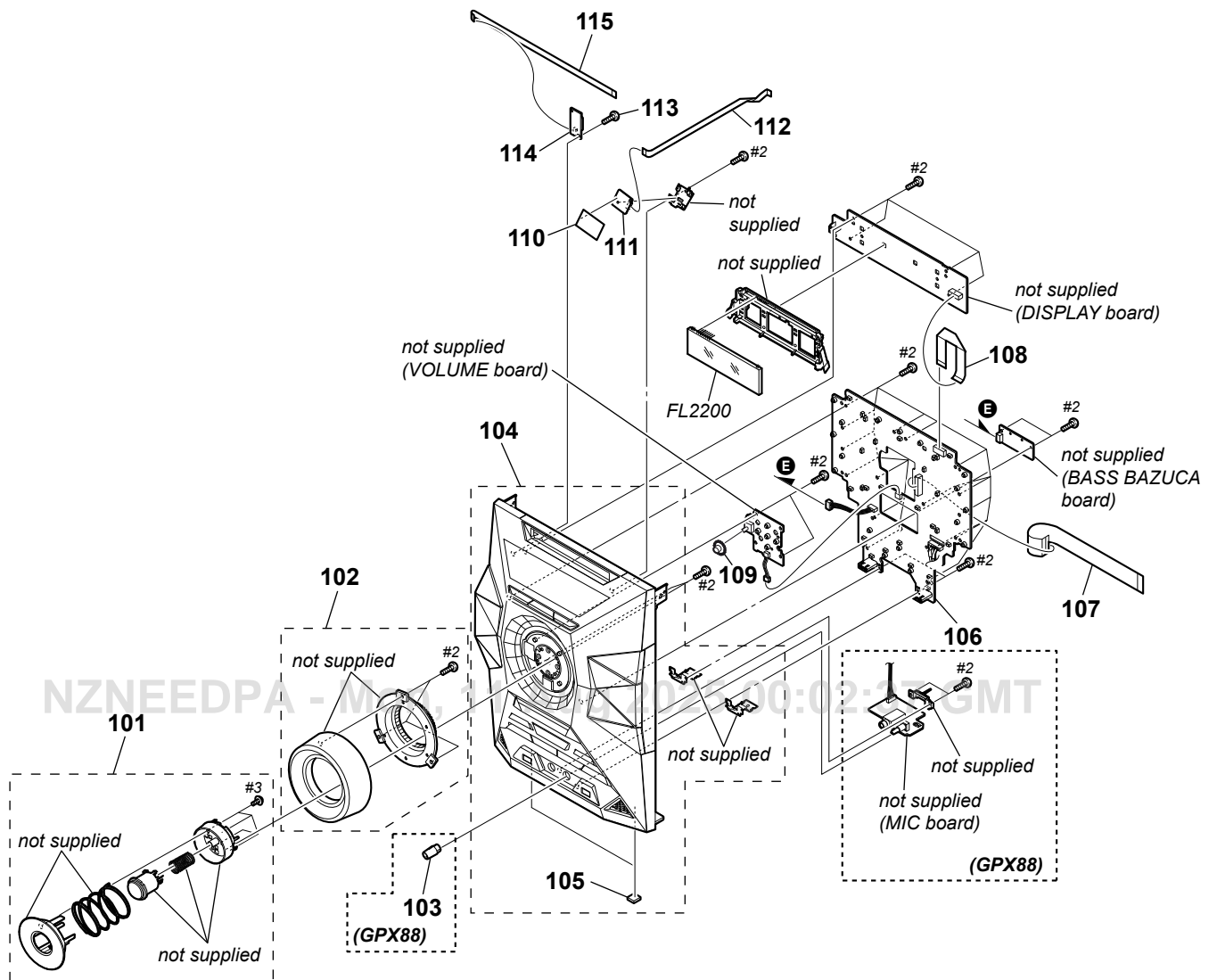
### 7-1. SIDE PANEL SECTION



## 7-2. DC FAN, CDM90 BRACKET SECTION



7-3. FRONT PANEL SECTION

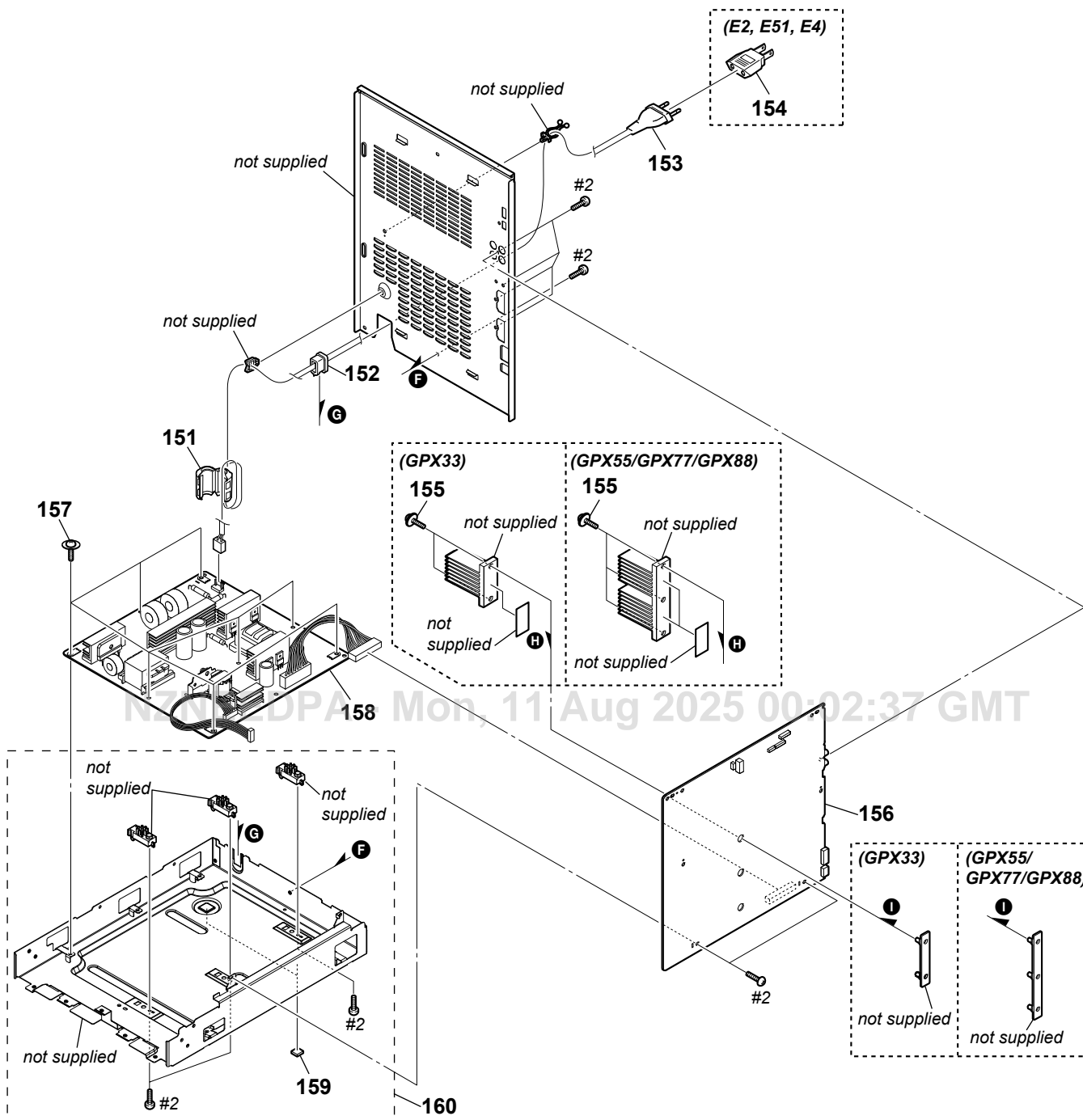


**Note:** If wire (flat type) is replaced, install it after bending it in the same form as that before replacement.

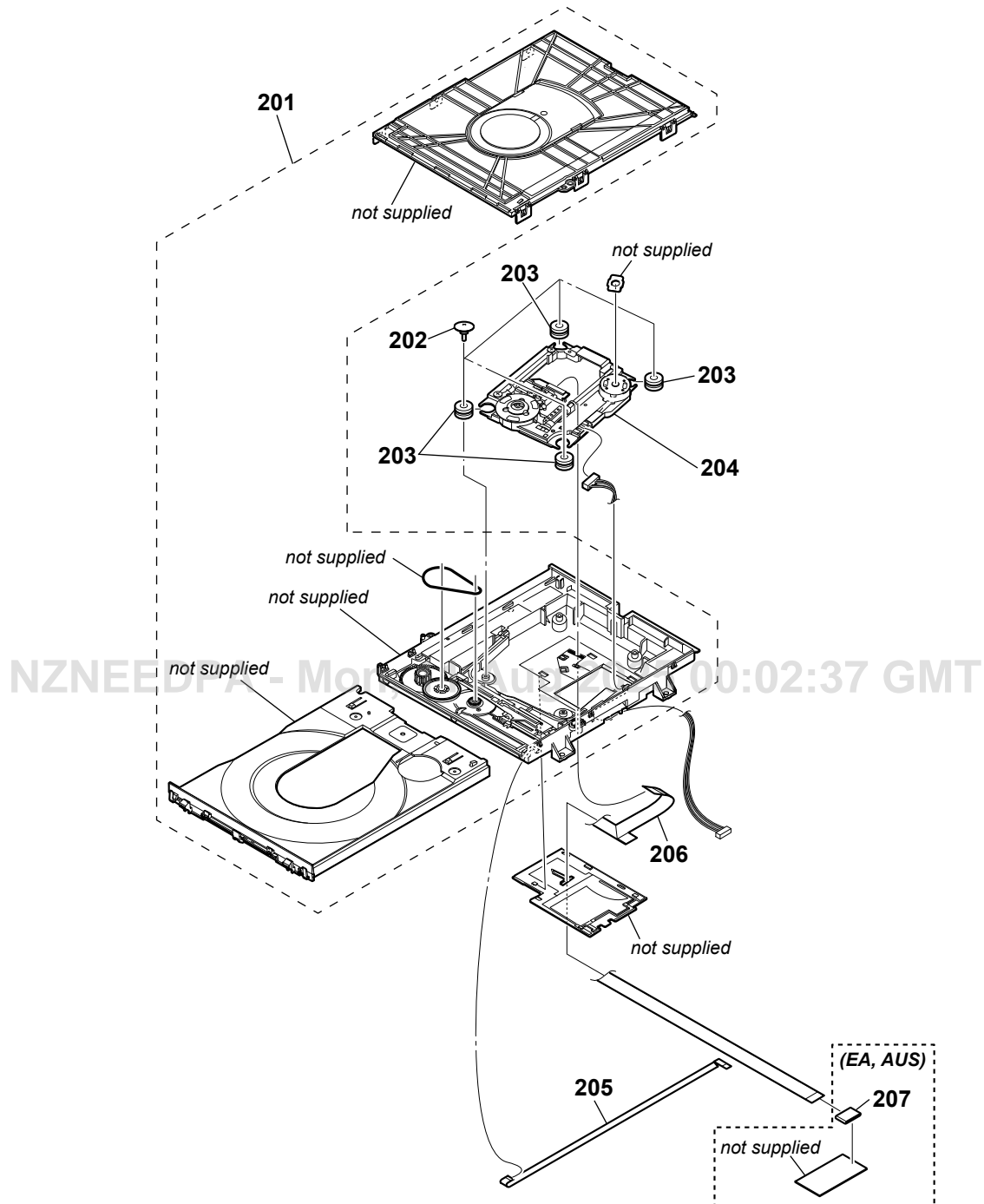
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## 7-4. CHASSIS SECTION



7-5. CD MECHANISM SECTION  
(CDM90-DVBU202//M)



**Note:** If wire (flat type) is replaced, install it after bending it in the same form as that before replacement.