ZENITH Z7 PRO & LITE Specifications

Driving Excellence, Beyond Diagnosis:
Your Satisfaction, Our Commitment.

EZDS
E-ZENITH DIAGNOSTIC SYSTEM

○ ZENITH Z7 Design Overview

■ 2. Diagnostic Tablet of ZENITH Z7

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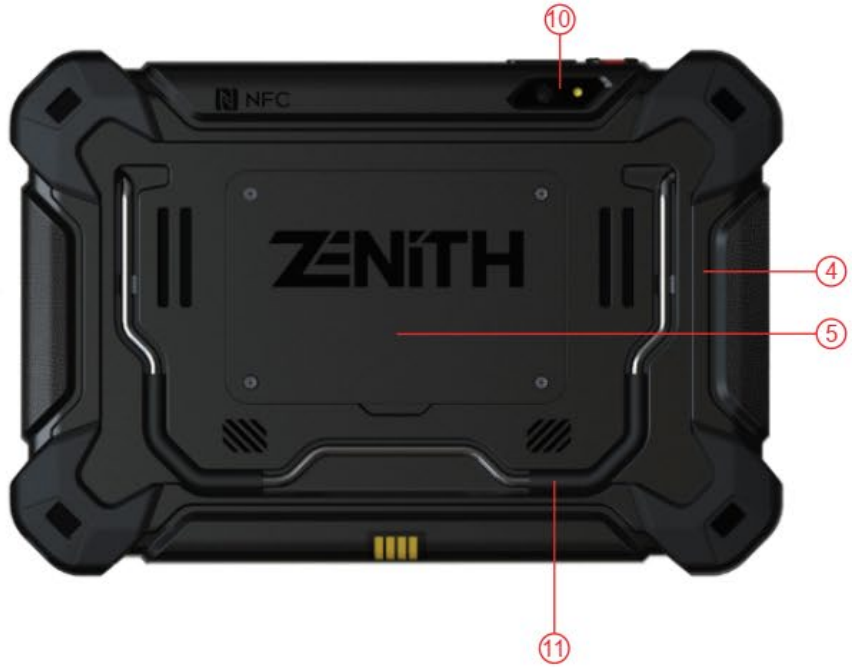
○ Design of the Diagnostic Tablet

○ Design and Description of the Diagnostic Tablet

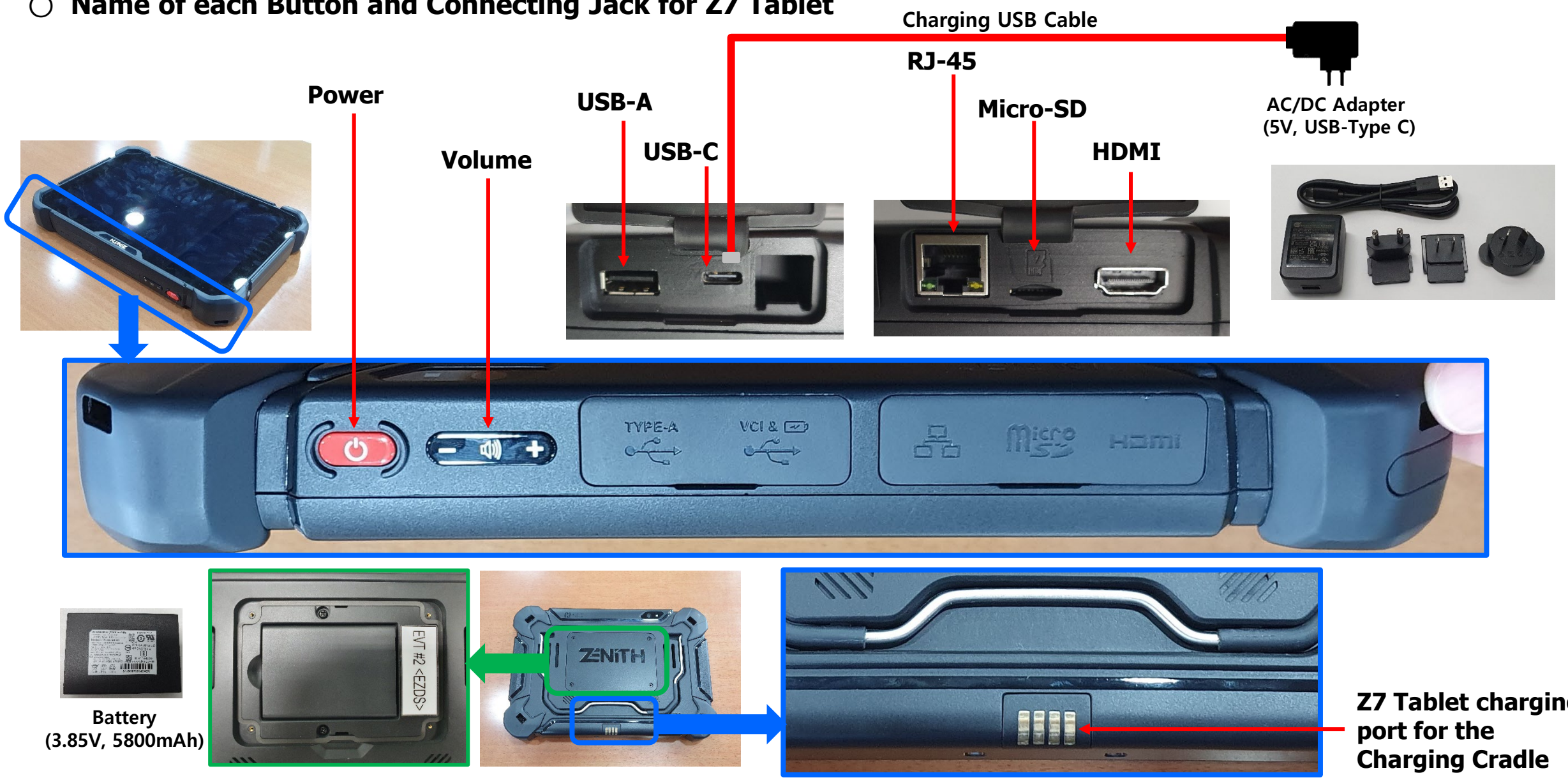


NO	PART NAME
1	Cover_Front
2	LCD & TOUCH
3	CAP_Shock Protecting
4	Cover_Rear
5	Cover_Battery
6	Power Button

NO	PART NAME
7	VOLUME BUTTON
8	CAP_USB-A & USB-C
9	CAP_HDMI/SD/RJ45
10	WINDOW_CAMERA/FLASH
11	STAND RING
12	STYLUS PEN

■ 2. Diagnostic Tablet of ZENITH Z7

○ Name of each Button and Connecting Jack for Z7 Tablet



■ 2. Diagnostic Tablet of ZENITH Z7

Rev_6.0

Category	Specifications
	Z7 Tablet
CPU	2.2GHz (Octa-Core)
System Memory	RAM: 4GB, Inner Memory: Flash 64GB
External Storage	Micro SD Card Slot Supported (up to 256GB)
OS	Android 11
LCD /Touch Screen	10.1” (FHD, 1920X1200) / Capacitive Touch Screen
Touch Pen	Stylus Pen(Length: Long, Tip Type: Soft)
External Key	3 Hard Keys(PWR, Vol UP&DN), Industrial Button
Camera	8MP A/F with LED Flash(Rear)
Sound/MIC/Earjack	Speaker, MIC
External USB port	USB Host(Type-A) 1ea, USB Host & Slave(Type-C) 1ea (with Locking Type)
HDMI	Type A (FHD, 1920 X 1080 px)
Ethernet	RJ-45 Ethernet(10/100Mbps)
Wi-Fi	Wi-Fi 802.11 a/b/g/n
Bluetooth	Bluetooth 5.0 (Communication with VCI)
NFC	NFC Supported (Rear Side)
Rechargeable Battery	Li-ion 3.85V(5800mAh), Limited Charge Voltage: 4.4V
Sensor	Light Ambient Sensor, Accelerometer / Gyro sensor
Operating Voltage	DC 5V (But Supported through VCI Module for Vehicle Voltage)
Power Input Conn.	USB-C Type(Locking Type)
Size (mm), Weight	About 275 X 187 X 36, About 1.24kg
Others	Charging Cradle(Only Charging Function) is Supported

○ **Design of the VCI Module(ZVCI2) 1/2**

○ Design of the VCI Module(ZVIC2) 2/2

○ Description of each Port of ZVCI2 Module

[Diagnostic Cable (DLC) Connector]
(Type: D-SUB 15pin)
1. Power supplied by Diagnostic Cable from the vehicle

[DC Jack]
1. Used for power supplies from the vehicle battery
2. General 12V AC/DC Adapter could be used, but not supplied with basic set from EZDS.

[USB & 5V Output Port]
1. Used for communication between Z7 Tablet and ZVCI2 by using USB Connector
2. Z7 Tablet could be recharged from 5V power supplied through ZVCI2 Module

[RJ-45 Connector]
1. Used for DoIP communication from a vehicle's Diagnostic Connector by RJ-45 Cable
2. It does not provide ethernet connection to Z7 Tablet

Dognostic Over Internet Protocol

■ 3. ZVCI2 Module (Pro)

Rev_6.1

Category	Specifications
	Z7 VCI(ZVCI 2) for Z7 Pro
CPU	Cortex-M4,180MHz
System Memory	Flash 2MB / SRAM 512kB
External ROM	EEPROM 512Byte
Vehicle Comm. Protocol	Melco, Nissan, ISO9141-1&2
	CAN(High Speed, Low Speed, Single Wired)
	J1850(PWM, VPWM), J1708
	CAN-FD
	DoIP By-Pass (Line Activating & Option Channel Selecting)
FND(7 Segment LED)	Vehicle Voltage Display on Module
LED	4EA (POWER, PC COMM, DIAG DATA, STATUS)
Operating Voltage	8~32V
Bluetooth	Bluetooth 5.0 (Communication with Tablet)
External Comm. Port	USB-C Type(Locking Type)
Power Output	DC 5V Output for Tablet Charging with Z7 Special USB Cable
Power Input Conn.	DC Jack, DLC
Size (mm), Weight	About 170 X 124 X 32mm, 320g
Flash LED	Not Supported
Others	Rugged Design

○ Design of the ZVCI Module(Lite) 1/2

○ Design of the ZVCI Module(Lite) 2/2

○ Design of the ZVCI Module(Lite) 1/2

[ZVCI Flashlight]
1. Power supplied by AAA x2 batteries

[Diagnostic Cable (DLC) Connector]
(Type: D-SUB 15pin)
1. Power supplied by Diagnostic Cable from the vehicle

General USB A to B Cable Port

[DC Jack]
1. Used for power supplies from the vehicle battery

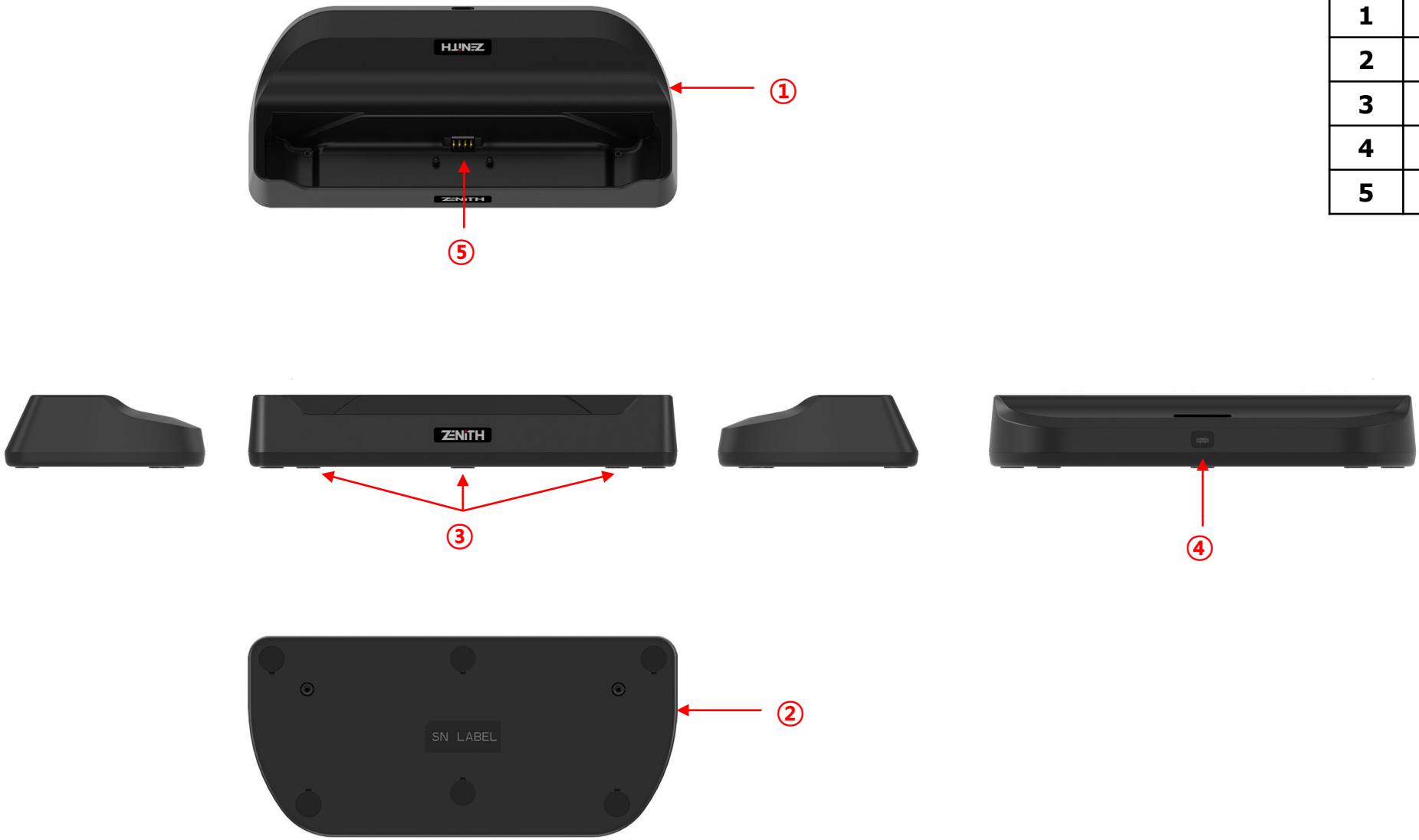
○ Specifications of the VCI Module(ZVCI Lite)

Category	Specifications
	Z7 VCI(ZVCI) for Z7 Lite
CPU	Cortex-M4,180MHz
System Memory	Flash 2MB / SRAM 512kB
External ROM	EEPROM 512Byte
Vehicle Comm. Protocol	Melco, Nissan, ISO9141-1&2
	CAN(High Speed, Low Speed, Single Wired)
	J1850(PWM, VPWM), J1708
	Not Supported
	Not Supported
FND(7 Segment LED)	Not Supported (But, Supported on Tablet Screen)
LED	4EA (POWER, PC COMM, DIAG DATA, STATUS)
Operating Voltage	8~32V
Bluetooth	Bluetooth 5.0 (Communication with Tablet)
External Comm. Port	USB-B Type(Normal Type)
Power Output	Not Supported
Power Input Conn.	DC Jack, DLC
Size (mm), Weight	About 130 X 89 X 32mm, About 180g
Flash LED	Supported with Alkaline Battery(AAA Type 2ea, Optional)
Others	General Design

■ 5. Charging Cradle for Z7 Tablet

○ Design of the Charging Cradle

NO	PART NAME
1	Top Cover
2	Bottom Cover
3	Foot Rubber
4	Charging Port(USB Type-C)
5	Charging Terminal



■ 5. Charging Cradle for Z7 Tablet

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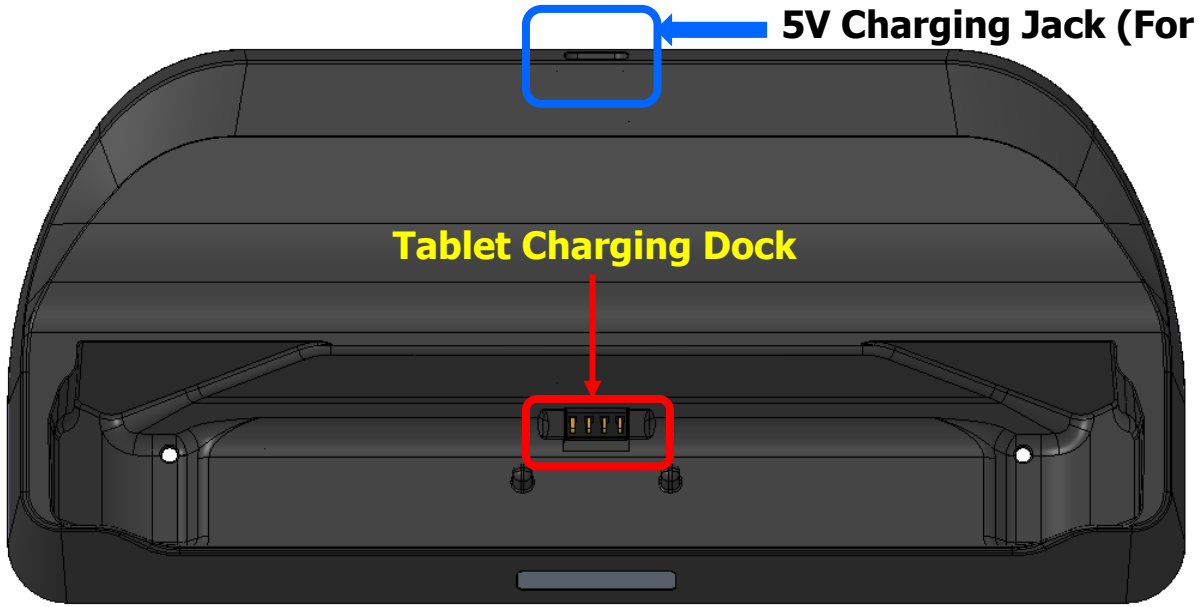
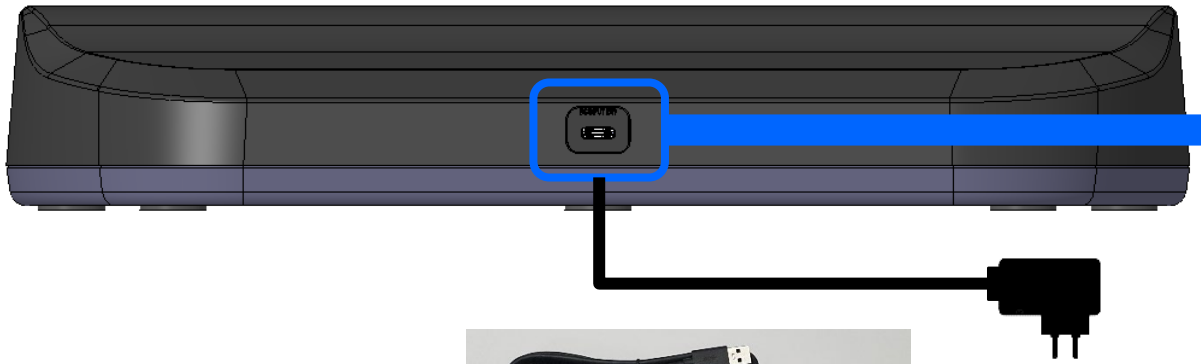
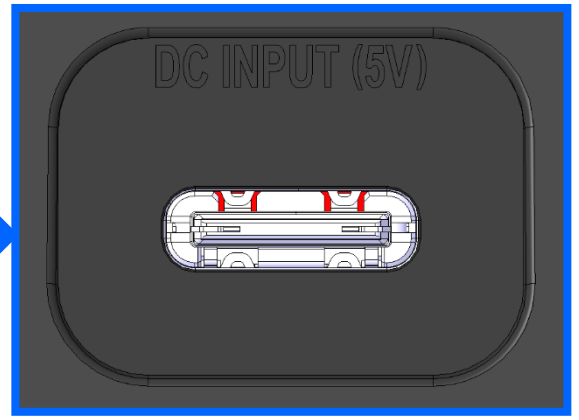
○ Design of the Diagnostic Tablet with the Charging Cradle

○ Description of Charging Cradle(Z7 Tablet-specific adapter) & Parts Names







AC/DC Adapter
(5V, USB-Type C)

■ 5. Charging Cradle for Z7 Tablet

○ Specifications of the Cradle

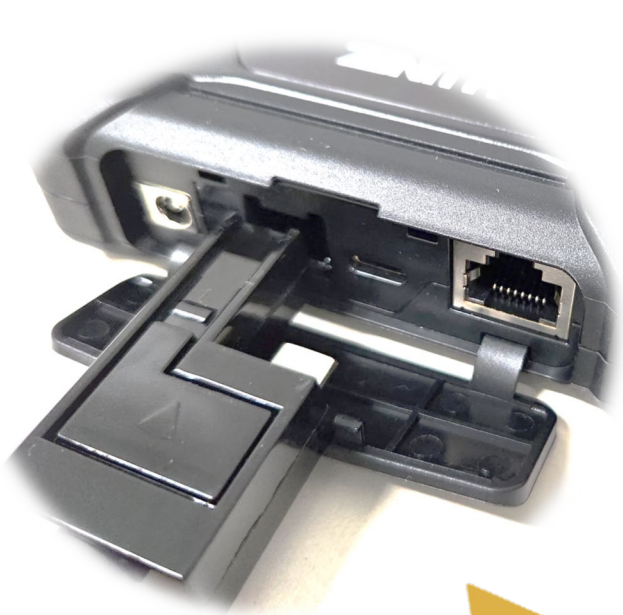
Rev_6.0

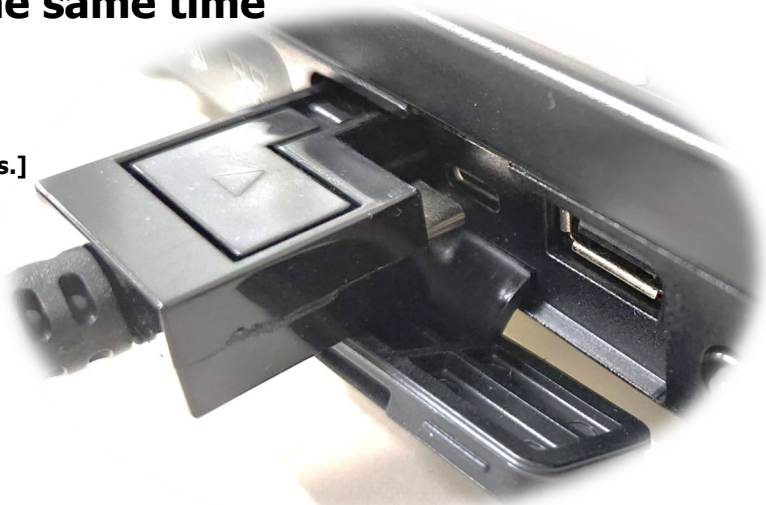
Category	Specifications	Remark
	Z7 Cradle	
General	Single Slot Cradle for Z7	
Function	Tablet Charging	
Dimension	About 298 X 140 X 51mm	
Weight	About 870g	
Docking Connetor	Battery connector 4Pin Type	
Power Connector	USB Type-C	
Input Voltage	DC 5V	

○ Connecting Z7 Tablet and ZVCI2 by USB Cable(Each ends of the cable is identical)

◆ USB enables Communicating & Charging at the same time

※ Tablet must have minimum amount of power remaining to recognize ZVCI2.
[Assuming the rechargeable battery is not very aged, users can have the Z7 Tablet charging while having USB cable connected with ZVCI2 by rebooting Tablet 1 or 2 times.]





Handstrap for Z7 Tablet

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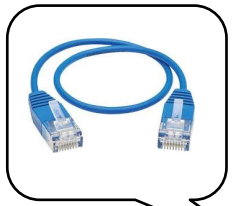
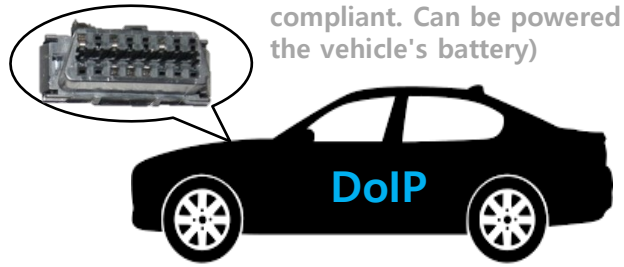
○ **Mounting Hand Strap for Z7 at the Tablet's Rear Side**

○ Configuration for use of Z7 Pro Tablet and ZVCI2 (Connecting Options)



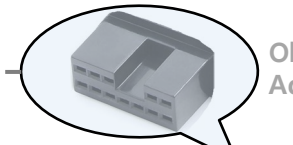
DLC Cable

DLC Connector(OBD-2 compliant. Can be powered by the vehicle's battery)



Bluetooth

Voltage input Range: 8~32VDC



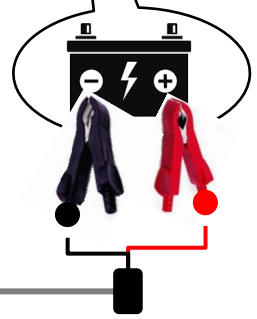
Old model (Before 2000s) Diagnostic Adapter (OBD 1)

OBD-1 Conn

OLD Vehicle

(No Powered w/OBD Conn.)

Power not supplied by OBD Connector (Separate Power supply is required from Battery of the vehicle)



General LAN Cable(CAT 5e이상, (Approx. 1~2m), Optional)

Battery to DC Cable

○ Configuration for use of Z7 Lite Tablet and ZVCI

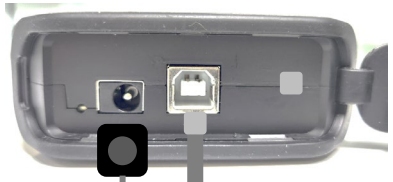
(Connecting Options)

DLC Cable

DLC Connector(OBD-2 compliant. Can be powered by the vehicle's battery)

Voltage input Range: 8~32VDC

Bluetooth



Old model (Before 2000s) Diagnostic Adapter (OBD 1)

OBD-1 Conn

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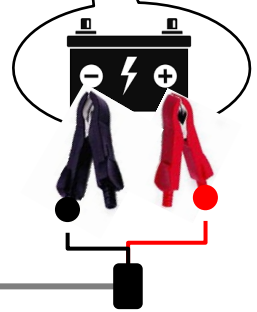

General USB A to B Cable(Optional)

Battery to DC Cable(Optional)