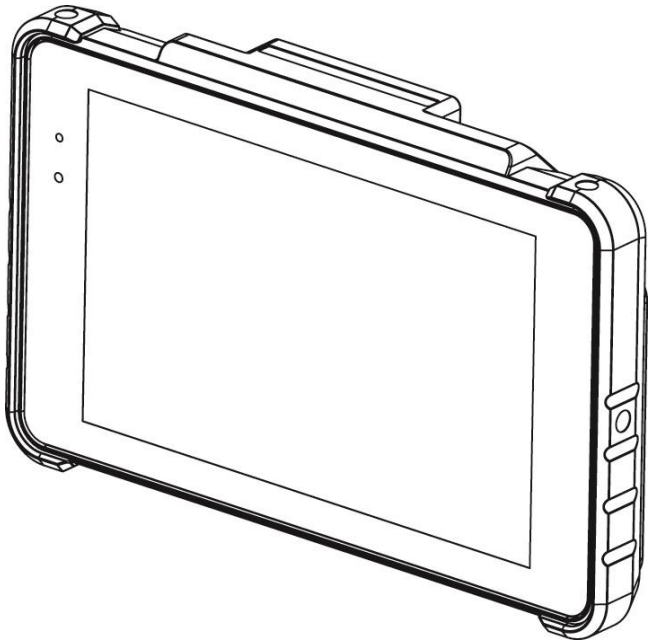
User Manual

Version V1.1 Jan. 2015

VariPAD W series™
W1/W2



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Copyright

Manual Version 1.0

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We make no warranty of any kind with regard to this material, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. We shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

TRADEMARK

The material in this manual is subject to change without notice.
Bluetooth is a registered trademark of Bluetooth SIG.
Microsoft®, Windows® and ActiveSync® are either registered trademarks or trademarks of Microsoft Corporation.
All other product or service names are the property of their respective owners.

Safety Information

Regulatory Information

Caution: Only use approved and UL Listed accessories, battery packs and battery chargers. Do NOT attempt to charge damp/wet mobile computers or batteries. All components must be dry before connecting to an external power source.

Power Supply

Use only the approved power supply 50-14000-148 output rated 5 Vdc and minimum 2 A. The power supply is certified to EN60950-1 with SELV outputs. Use of alternative power supply will invalidate any approval given to this device and may be dangerous.

Warning for Use of Wireless Devices

Please observe all warning notices with regard to the usage of wireless devices.

Potentially Hazardous Atmospheres

You are reminded of the need to observe restrictions on the use of radio devices in fuel depots, chemical plants etc. and areas where the air contains chemicals or particles (such as grain, dust, or metal powders)
and any other area where you would normally be advised to turn off your vehicle engine.

Safety in Aircraft

Switch off your wireless device whenever you are instructed to do so by airport or airline staff.

Pacemakers

Pacemaker manufacturers recommended that a minimum of 15cm (6 inches) be maintained between a handheld wireless device and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with independent research and recommendations by Wireless Technology Research.

Persons with Pacemakers

Persons with Pacemakers should ALWAYS keep the device more than 15cm (6 inches) from their pacemaker when turned ON and hence they should not carry the device in a breast pocket
Should use the ear furthest from the pacemaker to minimize the potential for interference
If you have any reason to suspect that interference is taking place, turn OFF your device.

Hearing Aids

The wireless device may interfere with some hearing aids. In the event of interference you may want to consult your hearing aid supplier to discuss solutions.

Other Medical Devices

Please consult your physician or the manufacturer of the medical device, to determine if the operation of your wireless product may interfere with the medical device.

FCC/EU RF Exposure Guidelines

Safety Information

This device complies with internationally recognized standards covering Specific Absorption Rate (SAR) related to human exposure to electromagnetic fields from radio devices.

Reducing RF Influence - Use Properly

It is advisable to use the device only in the normal operating position.

Handheld Devices

This device was tested for typical body-worn operation. Use only tested and approved belt-holsters, hand strap and similar accessories to ensure FCC Compliance. The use of third-party belt-clips, holsters, and similar accessories may not comply with FCC RF exposure compliance requirements, and should be avoided.

To comply with FCC RF exposure requirements, this device must be operated in the hand with a minimum separation distance of 2.5 cm or more from a person's body. Other operating configurations should be avoided.

Radio Frequency Interference Requirements - FCC

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.

CE Marking and European Economic Area

The use of 2.4GHz RLAN's, for use through the EEA, have the following restrictions:

- Maximum radiated transmit power of 100 mW EIRP in the frequency range 2.400 -2.4835 GHz
- France, outside usage is restricted to 2.4 - 2.454 GHz.
- Italy requires a user license for outside usage.

Bluetooth® Wireless Technology for use through the EEA has the following restrictions:

- Maximum radiated transmit power of 100mW EIRP in the frequency range 2.400 -2.4835 GHz
- France, outside usage is restricted to 10mW EIRP
- Italy requires a user license for outside usage.

Battery Information

Our rechargeable battery packs are designed and constructed to the highest standards within the industry. However, there are limitations to how long a battery can operate or be stored before needing replacement. Many factors affect the actual life cycle of a battery pack, such as heat, cold, harsh environmental conditions and severe drops.

When batteries are stored over six (6) months, some irreversible deterioration in overall battery quality may occur. Store batteries discharged in a dry, cool place, removed from the equipment to prevent loss of capacity, rusting of metallic parts and electrolyte leakage. When storing batteries for one year or longer, they should be charged and discharged at least once a year. If an electrolyte leakage is observed, avoid any contact with affected area and properly dispose of the battery. Batteries must be charged within the 32° to 95° F (0° to +35° C) ambient temperature range.

Replace the battery when a significant loss of run time is detected.

Battery Caution

Risk of explosion if battery is replaced by an incorrectly type.

Dispose of used battery according to the local disposal instructions.

Waste Electrical and Electronic Equipment (WEEE)

English: For EU Customers: All products at the end of their life must be returned to the reseller for recycling.

Notational Conventions

The following conventions are used in this document:

- Italics are used to highlight specific items in the general text, and to identify chapters and sections in this and related documents.
- bullets (•) indicate:
  - action items
  - lists of alternatives
  - lists of required steps that are not necessarily sequential
  - Sequential lists (e.g., those that describe step-by-step procedures) appear as numbered lists.

NOTE This symbol indicates something of special interest or importance to the reader. Failure to read the note will not result in physical harm to the reader, equipment or data.

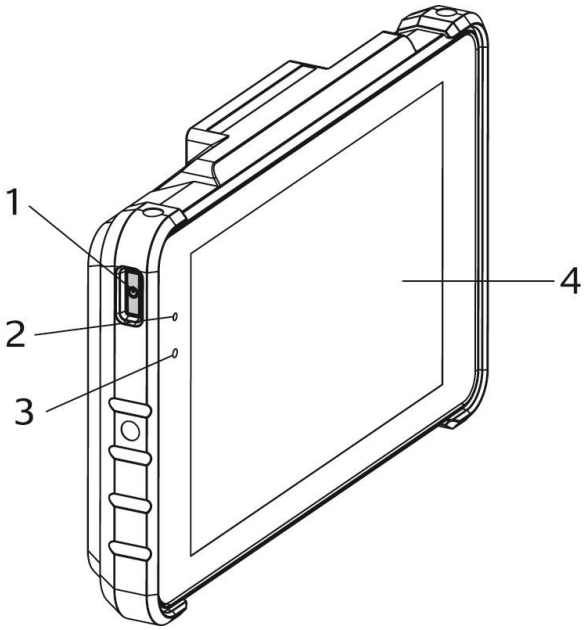
CAUTION This symbol indicates that if this information is ignored, the possibility of data or material damage may occur.

WARNING! This symbol indicates that if this information is ignored the possibility that serious personal injury may occur.

Instruction

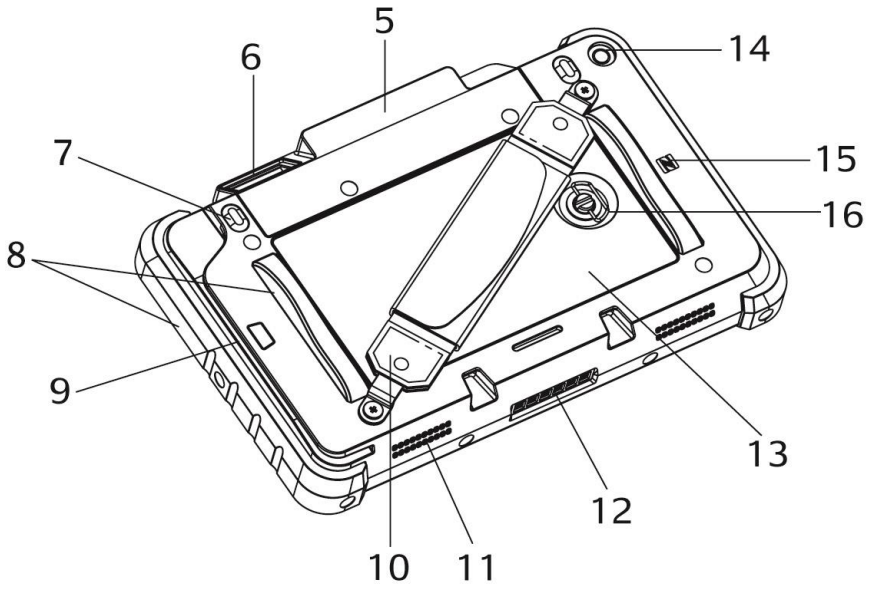
System Overview

Front View



No.	Description
1	Power button
2	Power LED light indicator
3	Ambient light sensor
4	TFT LCD

Rear View



No.	Description
5	Smart card reader (optional; will be installed to system prior to shipping)
6	Scanner (optional; will be installed to system prior to shipping)
7	Programmable button(default scan button)
8	Protection bumper
9	MSR
10	Hand strap
11	Speaker
12	Power charging slot
13	Battery cover
14	Camera
15	NFC logo
16	Pen screw

Specification

Model Name		VariPAD W1	VariPAD W2 (coming soon)
Main board	CPU	Intel® Bay Trail-T Z3745	
	Memory	2GB LPDDR3	
	Storage	32G eMMC (embedded Multimedia Card)	
Display	LCD Size	7”	10.1”
	Resolution	1280 x 800 (WXGA)	1920 x 1200 (WUXGA)
	Touch Screen	P-CAP 5 points Multi-touch	
Wireless Networking	Wireless LAN	802.11 a/b/g/n, 2.4G/5GHz	
	Bluetooth	4.0+LE, Class 2 (Bluetooth® Low Energy)	
	NFC	1*7	
Expansion I/O Ports	Micro SD Socket	1	
	DC input	6 pin	
Audio	Speaker	1 x 1W Speaker	1 x 2W Speaker
Control / Indicator	Power Button	1	
	Sensors	G-sensor, Ambient Light Sensor	
	Vibration	Built-in vibrating motor	
	LED Indicator	1 (Battery status indicator)*1	
Peripheral	Camera	5M pixel (Rear side)	
	MSR	3 Tracks MSR*6	
	Hand strap	1	
	IC card reader	Smart IC Card Reader (Optional)*8	
	Scanner	1D/2D Barcode Scanner (Optional)	
Cradle*2	USB Port	mini-USB 2.0 x 1	
	Power Adapter	10W / 5V	
Battery & Power		8000 mAh, 3.7V, 29.6 Wh (Operate 11 Hr / Charge 3 Hr)*3	

Certificate		FCC Class B / CE Mark / UL	
Certifications		CE, FCC, RoHS	
Environment	Sealing	IP54 (display side)	
	Fall Security	1.2M drop, 1 drop per side at 25 °C *4 *5	
	Storage Temperature	0º ~ 40ºC (32º ~104ºF,Not in charging mode) 0° ~ 35°C (32° ~ +95°F,running charging mode)	
	Operating Humidity	20% ~ 80% RH non-condensing	
	Storage Humidity	20% ~ 80% RH non-condensing	
Dimension		204 x 128 x 35.3 mm (8.0" x 5.0" x 1.3")	268 x 176 x 35.5mm (10.6" x 6.9" x 1.4")
Weight		665g (1.47lbs) / Max 690g (1.52lbs) (with all peripherals)	930g (2.05lbs) / Max 990g (2.18lbs) (with all peripherals)
Operating System		Windows 8.1 with Bing (Support 32bit only)	

*We reserve the right to alter specifications without prior notice.

*1. Tablet LED indicator: Green light - Fully charged / Orange light - Charging / Red flashing light - Low battery / Red stable light - battery critically low

*2. Docking station Charger Indicator: Green light-Fully charged / Red light - Charging.

*3. The actual operation hours will be affected by the real application environment.

*4. The drop durability height is a measured value resulting from actual testing. It does not necessarily guarantee the product from damage.

*5. The drop durability height does not include protruding parts.

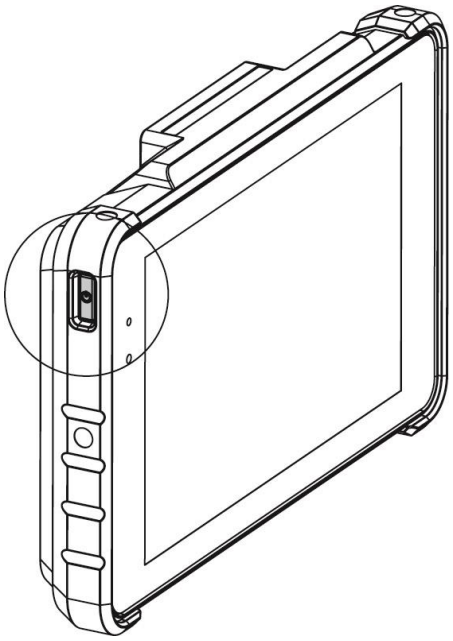
*6. MSR: ISO/IEC 7811 compliant.

*7. NFC: ISO/IEC 21481, 18092, 14443 (Type A, Type B), 15693, I^2 C interface compliant.

*8. Smart Card Reader: ISO/IEC 7816, I^2 C interface compliant.

Getting to know your VariPAD

Power On/Off the system



Push the power button to turn on the system and hold 4~5 seconds to turn off the system.

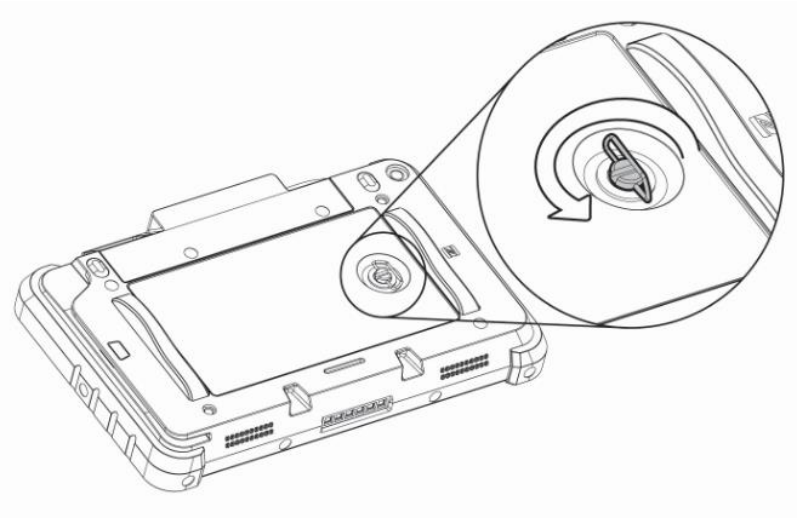
Note: For best touch performance, remove the protective plastic overlay from the LCD screen by peeling it away from one of the corners. Be sure to use a soft pointing device or fingertip to avoid scratching the screen during normal use.

CAUTION: Pressing and holding down the power button will result in the loss of unsaved information.

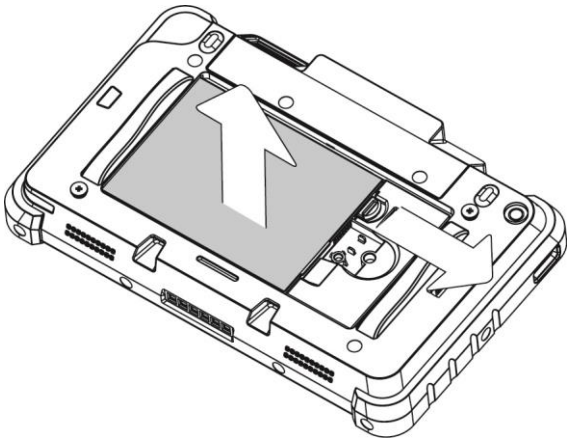
If the tablet has stopped responding and Windows® shutdown procedures are ineffective, press and hold the power button down for at least 5 seconds to turn off the tablet.

To learn more about your power settings, see your power options. Swipe from the right edge, and then tap **Search**. In the search box, type power options, and then select **Power Options**.

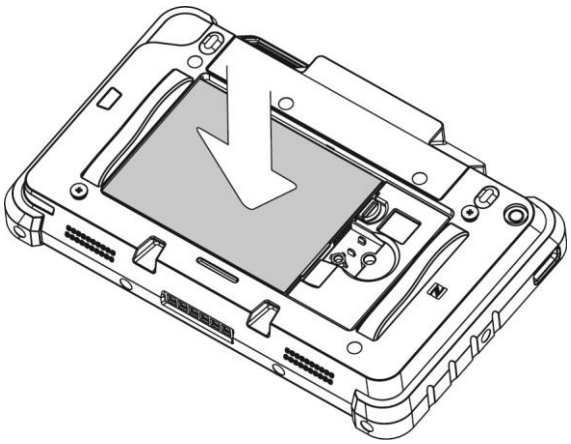
Replacing the battery



Loosen the pen screw counter-clockwise on the battery cover.

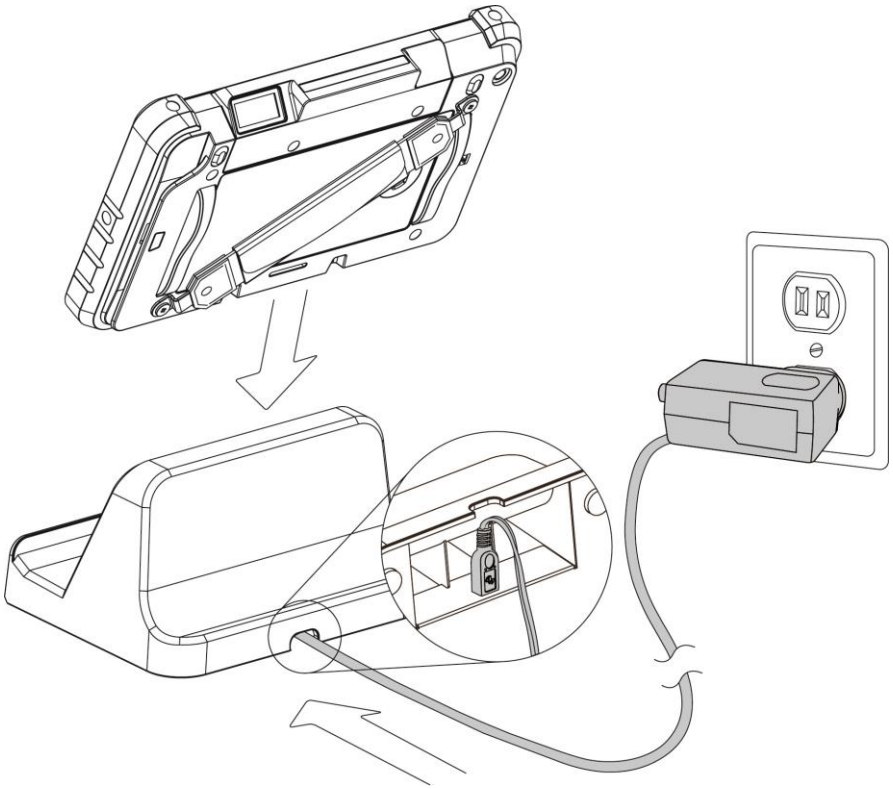


To remove the battery pull the plastic tap side and gently lift the battery out of the system.



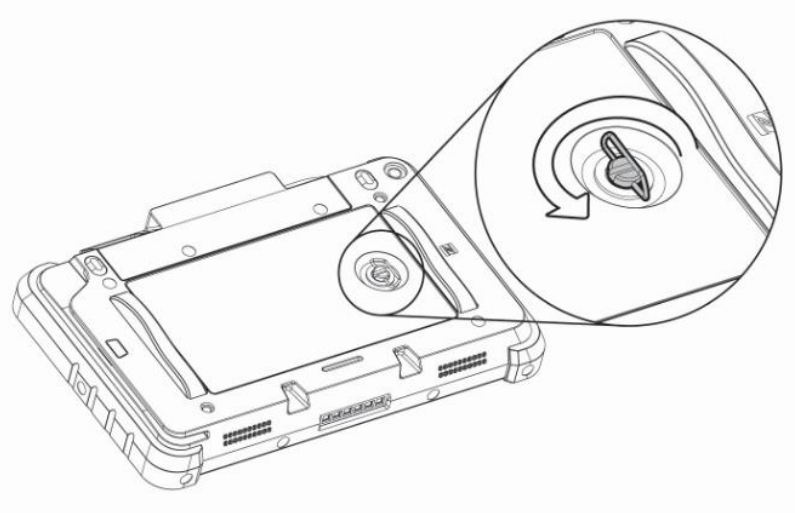
To install the battery put the battery in the slot and push until the battery clicks into place

Using the Charging Cradle

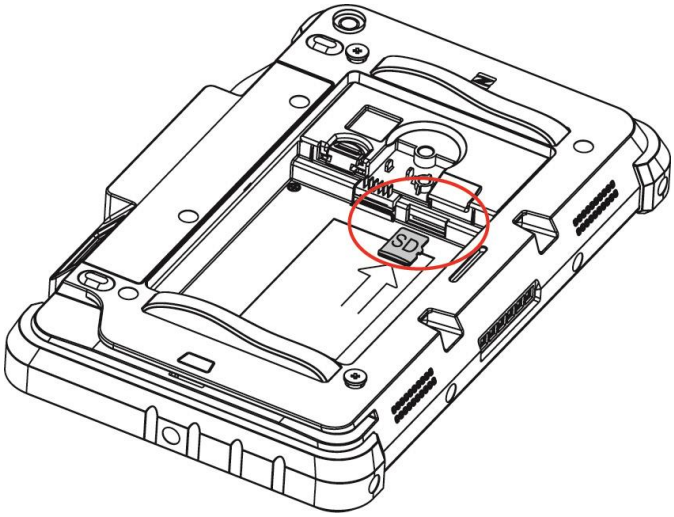


Connect the USB-AC adapter to the connector on the bottom of the cradle charger and the power outlet.

Replacing a Micro SD card

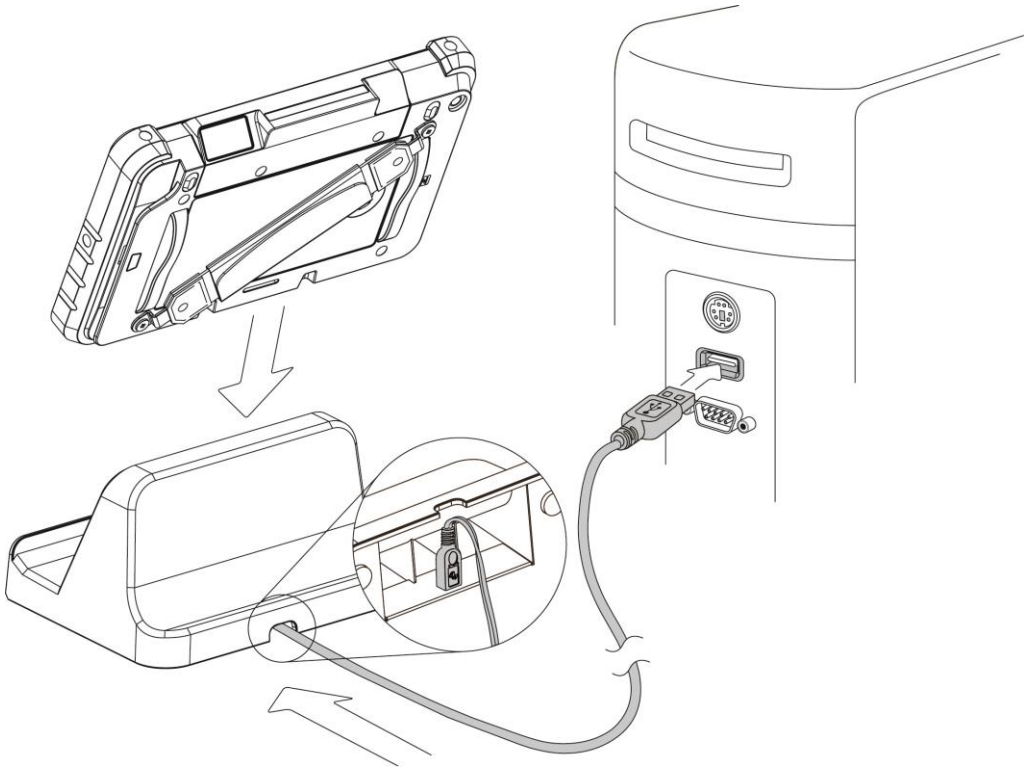


Loosen the pen screw counter-clockwise on the battery cover.



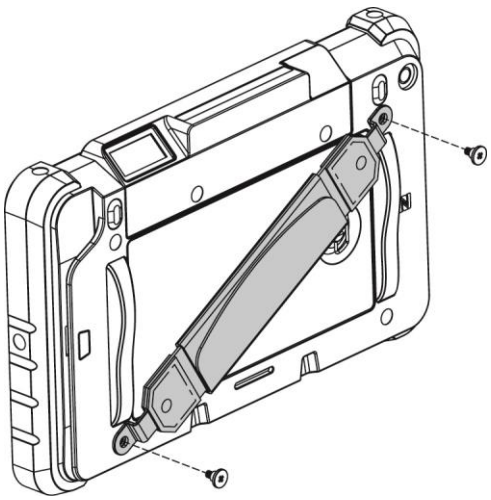
To install a Micro SD card insert the Micro SD card into slot until it snaps in place.
To remove the Micro SD card just push the card again and slide it outwards.

Connect to other device



NOTE: Connect the **OTG** USB cable to the connector on the bottom of the cradle and connect the other end to USB flash drive, USB hub, mouse etc.

Using the Hand Strap



Application Programming Interface

Operating System

The API operation has been verified with the following operating systems:

Microsoft Windows 7 32/64 bit

Microsoft Windows 8 32/64 bit

EC Version

12 or later version can support

OpenFunKeyLib

[Function]

This opens the Function Key API service.

[Format]

int OpenFunKeyLib (char *FunKeyControlVersion)

[Argument]

uchar *FunKeyControlVersion → get EC version.

[Return Value]

If opening service was successful, the return SV_ERROR_SUCCESS value, If there is can't found EC control, the SV_ERROR_FAILED_NO_FOUND_DEVICE are returned, if return SV_ERROR_FAIL the service can't form EC control get return value.

[Explanation]

Before using an API function other than this function, it is necessary that this function be executed first.

[Example]

```
char HIDVer[100];
If(OpenFunKeyLib(HIDVer) == SV_ERROR_SUCCESS)
//Normal Processing
Printf(HIDVer);
else
//Error Processing
```

SetFunKey1

[Function]

Set Button 1 output key.

[Format]

int SetFunKey1(const char* SetKey, bool ButtonEnable)

[Argument]

const char* SetKey → Set button1 output key.

bool ButtonEnable → Enable/Disable key output.

Trur is enable, False is disable.

[Return Value]

If set value successful, the return SV_ERROR_SUCCESS value. If there is an error, the SV_ERROR_FAIL are returned.

[Explanation]

None

[Example]

```
DWORD Rtn;
Rtn = SetFunKey1("A", true); //Set button 1 output 'A'
```

SetFunKey2

[Function]

Set Button 2 output key.

[Format]

int SetFunKey2(const char* SetKey, bool ButtonEnable)

[Argument]

const char* SetKey → Set button1 output key.

bool ButtonEnable → Enable/Disable key output.

Trur is enable, False is disable.

[Return Value]

If set value successful, the return SV_ERROR_SUCCESS value. If there is an error, the SV_ERROR_FAIL are returned.

[Explanation]

None

[Example]

```
DWORD Rtn;
//Set button 2 is barcode reader's trigger
Rtn = SetFunKey2("<BarCode>", true);
```

Appendix A: KeyMap.ini

[ASCII]

32=2C	44=36	56=25	68=07	80=13	92=31	104=0B	116=17
33=1E	45=2D	57=26	69=08	81=14	93=30	105=0C	117=18
34=34	46=37	58=33	70=09	82=15	94=35	106=0D	118=19
35=20	47=38	59=33	71=0A	83=16	95=2D	107=0E	119=1A
36=21	48=27	60=36	72=0B	84=17	96=35	108=0F	120=1B
37=22	49=1E	61=2E	73=0C	85=18	97=04	109=10	121=1C
38=24	50=1F	62=37	74=0D	86=19	98=05	110=11	122=1D
39=36	51=20	63=38	75=0E	87=1A	99=06	111=12	123=2F
40=26	52=21	64=1F	76=0F	88=1B	100=07	112=13	124=31
41=27	53=22	65=04	77=10	89=1C	101=08	113=14	125=30
42=25	54=23	66=05	78=11	90=1D	102=09	114=15	126=35
43=2E	55=24	67=06	79=12	91=2F	103=0A	115=16	

[FunctionKey]

{Return}=28	{F11}=44	{NumLock}=53	{KeypadPointDelete}=63
{Escape}=29	{F12}=45	{KeypadDivision}=54	{KeyboardPower}=66
{Backspace}=2A	{PrintScreen}=46	{KeypadMultiplication}=55	{KeyboardVolUp}=80
{Tab}=2B	{ScrollLock}=47	{KeypadSubtraction}=56	{KeyboardVolDn}=81
{Space}=2C	{Break}=48	{KeypadAdd}=57	{CapsLock}=82
{CapsLock}=39	{Pause}=48	{KeypadEnter}=58	{NumLock}=83
{F1}=3A	{Insert}=49	{Keypad1End}=59	{ScrollLock}=84
{F2}=3B	{Home}=4A	{Keypad2Down}=5A	{LeftCtrl}=E0
{F3}=3C	{PageUp}=4B	{Keypad3PageDn}=5B	{LeftShift}=E1
{F4}=3D	{Delete}=4C	{Keypad4Left}=5C	{LeftAlt}=E2
{F5}=3E	{End}=4D	{Keypad5}=5D	{RightCtrl}=E4
{F6}=3F	{PageDown}=4E	{Keypad6Right}=5E	{RightShift}=E5
{F7}=40	{RightArrow}=4F	{Keypad7Hoem}=5F	{RightAlt}=E6
{F8}=41	{LeftArrow}=50	{Keypad8Up}=60	
{F9}=42	{DownArrow}=51	{Keypad9PageUp}=61	
{F10}=43	{UpArrow}=52	{Keypad0Insert}=62	

[MediaKey]

(ScanNextTrack)=00B5	(VolumeDown)=00EA	(WWWSearch)=0221
(ScanPreviousTrack)=00B6	(BassUp)=0152	(WWWHome)=0223
(Stop)=00B7	(BassDown)=0153	(WWWBack)=0224
(Play/Pause)=00CD	(TrebleDown)=0155	(WWWForward)=0225
(Mute)=00E2	(MediaSelect)=0183	(WWWStop)=0226
(BassBoost)=00E5	(Mail)=018A	(WWWRefresh)=0227
(Loudness)=00E7	(Calculator)=0192	(WWWFavorites)=022A
(VolumeUp)=00E9	(MyComputer)=0194	

[SpecialKey]

<BarCode>=1111

Version Change History

Version	Date	Description
1.0	January 2015	1st release
1.1	February 2015	Add OTG function