



MDT-7X0 USER MANUAL

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Device

The tablet and the battery should not be thrown and not be used in areas where the temperature exceeds the specified values. This can lead to the outbreak of an issue or might even cause the battery to explode. In addition, this will result in a leak occurring and the functionality will be significantly reduced or the tablet can no longer be used. If you are charging the battery or when using the tablet, and you realize that the temperature of the case is unusual high, please quit the applications, because the battery has overheated.

Do not charge the battery continuously for more than 24hours. Should these precautions be disregarded, there is no guarantee. Please charge and discharge the device as one cycle at room temperature when devices are stored for half year or above.

Do not attempt to repair, customize, or disassemble the device without the appropriate knowledge and pre-cautions may lead to dangerous situations with chance on damaging the product. Do not use in extreme conditions such as high and low temperatures, high humidity or moist environments and around magnetic fields. Avoid long-time exposure to sunlight. Only use by the manufacturer permitted accessories to avoid damages to the product with possibly warranty loss.

Environment

- Ambient temperatures are from -10oC to 60oC possible.
- The impact resistance was with a drop height of 1.2m tested.

Package components



Tablet
which is covered by protective silicone sleeve



Cradle



Mount



Sunshield



USB Cable

Rubber Plug



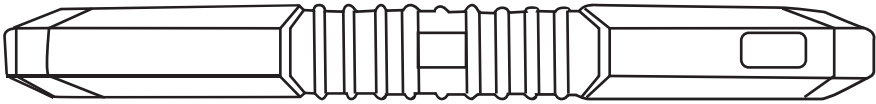
Switch Marking Tape



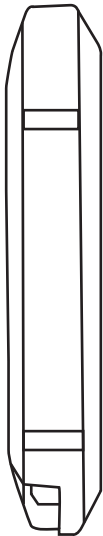
Screws:

- 21mm (M4) Philips Screws x 2 pcs.
- 21mm (M4) Hex Screws x 2 pcs.
- 12mm (M4) Philips Screws x 4 pcs.
- 9mm (M4) Philips Screws x 4 pcs.
- 3.5mm (M1.7) Philips Screws x 1 pc.

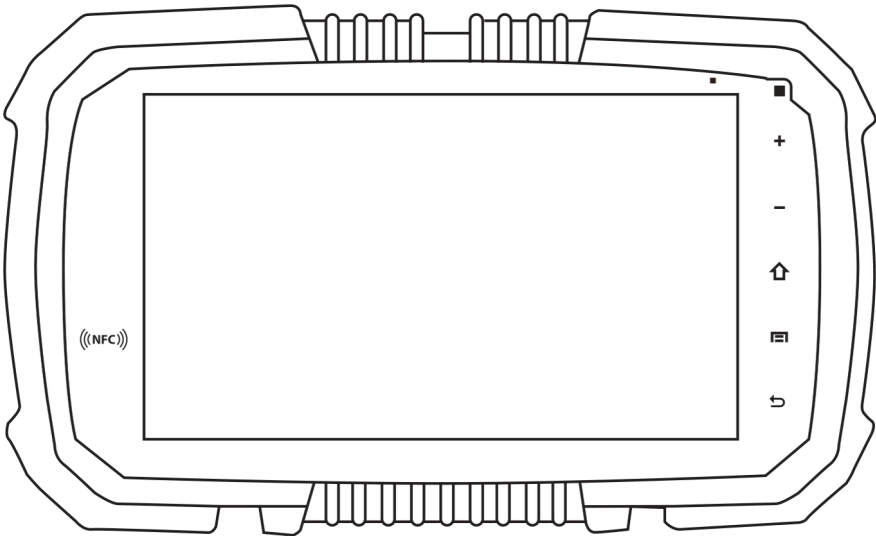
Front / Left / Right / Top / Bottom / Rear



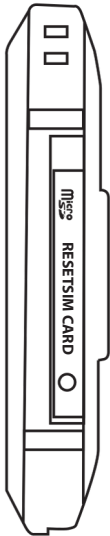
Top View



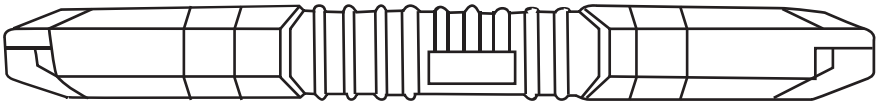
Left View



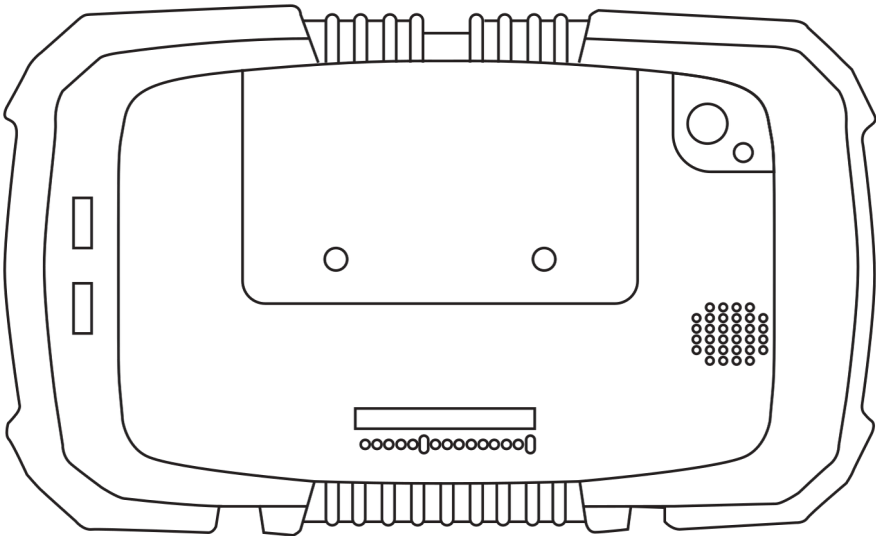
Front View



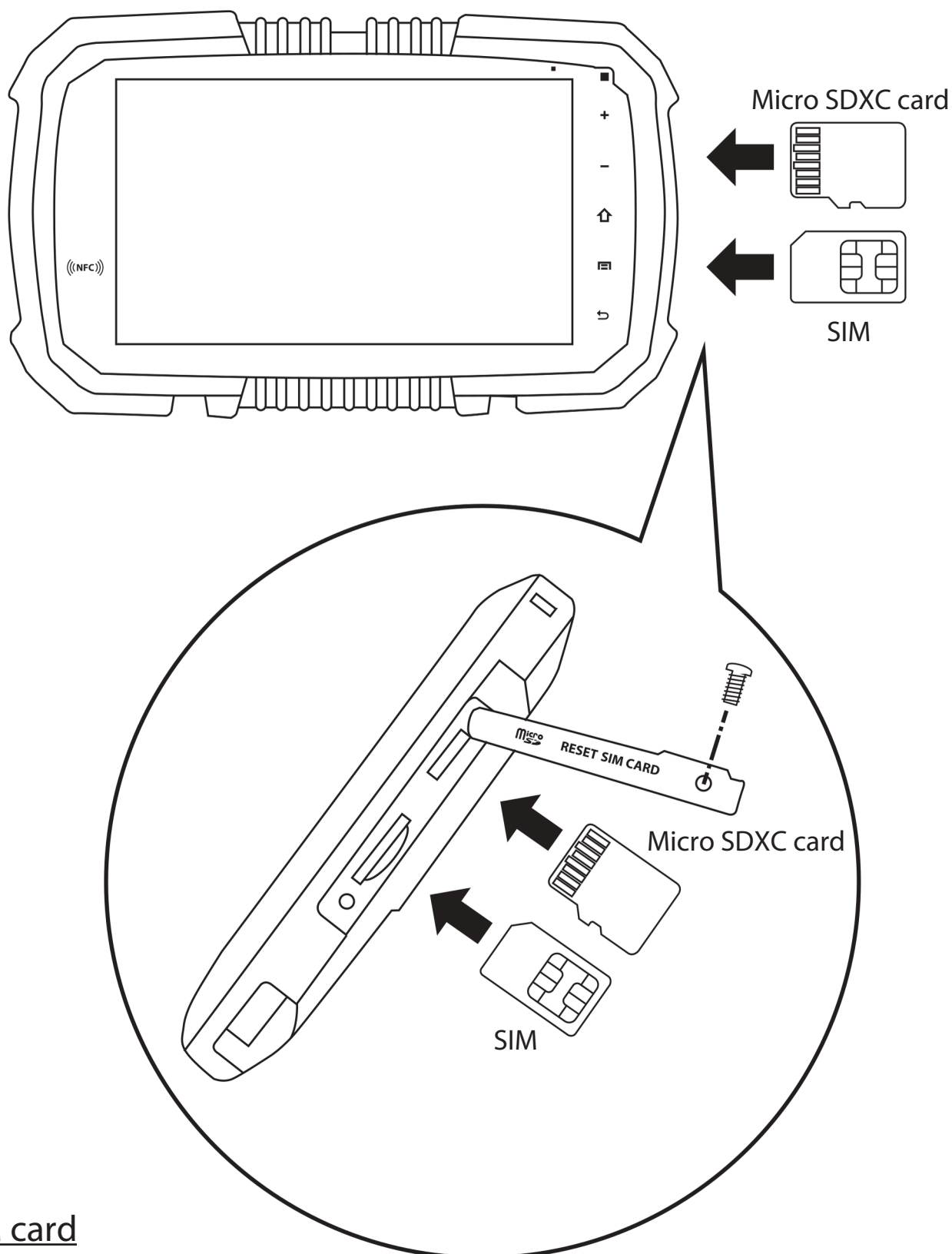
Right View



Bottom View



Rear View

Inserting SIM cardSIM card

- Screw out to unlock multi-card cover.
- Place / remove SIM / Micro SDXC card.
- Screw in to lock multi-card cover preventing the lost of SIM/Micro SDXC card.

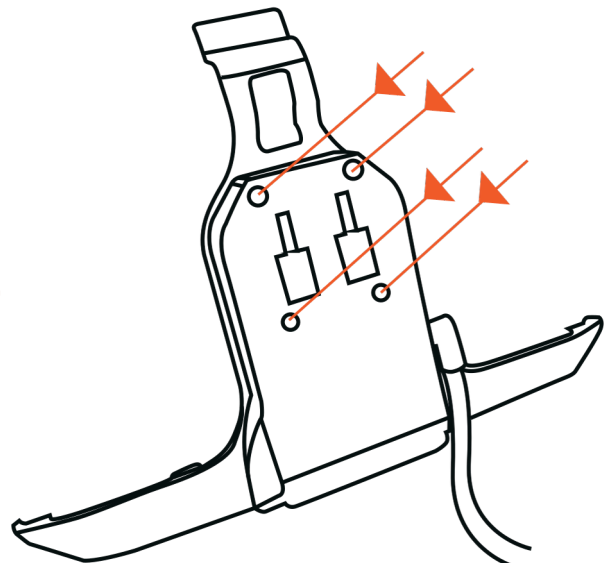
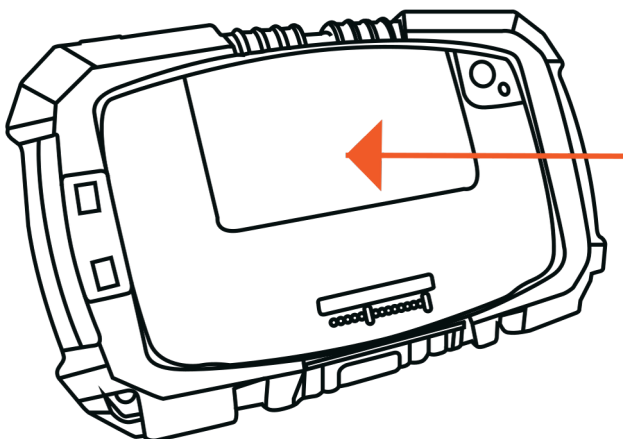
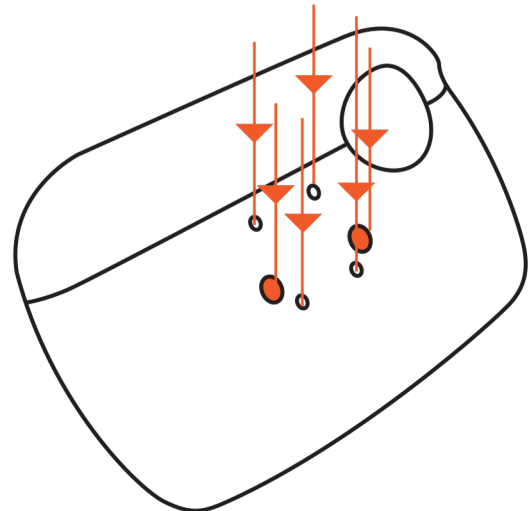
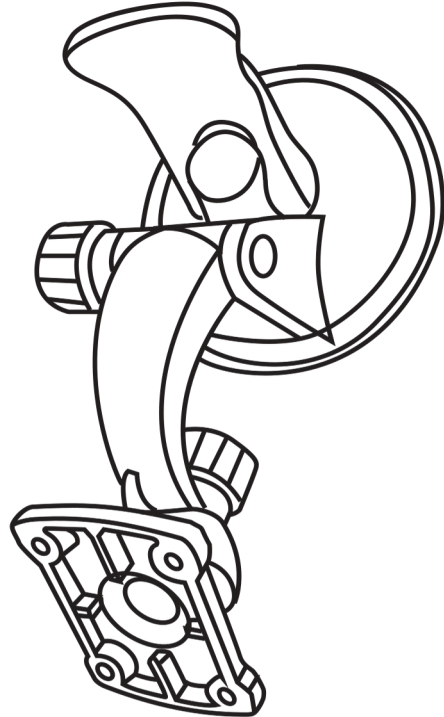
A) Installation method for windshield mount:

1. Standard windshield mount

- * With sunshield
- * Removable from cradle



9mm x M4 x 4 pieces



A) Installation method for windshield mount:

2. Standard windshield mount

* With sunshield

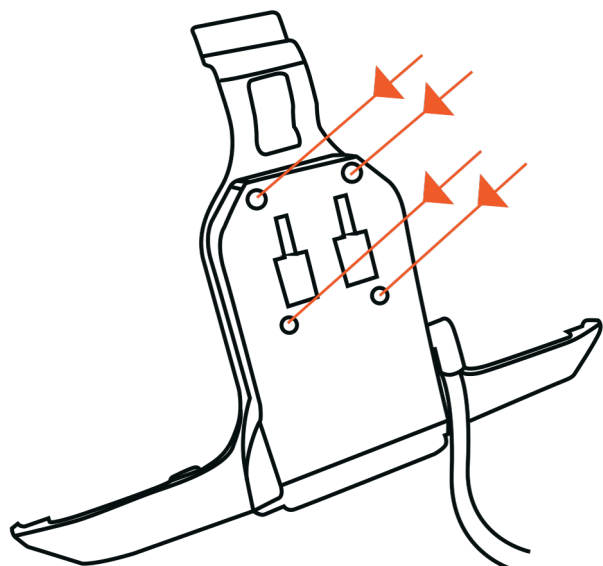
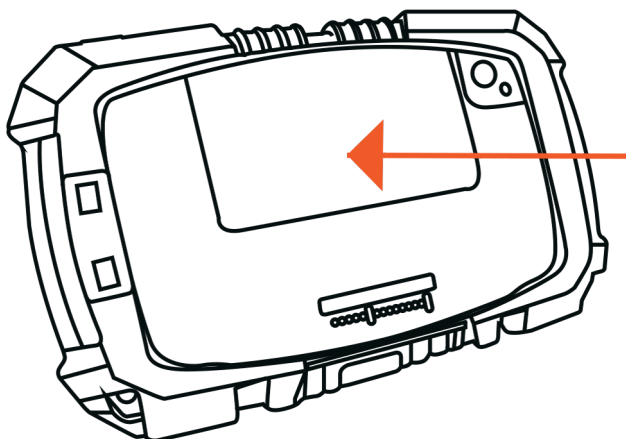
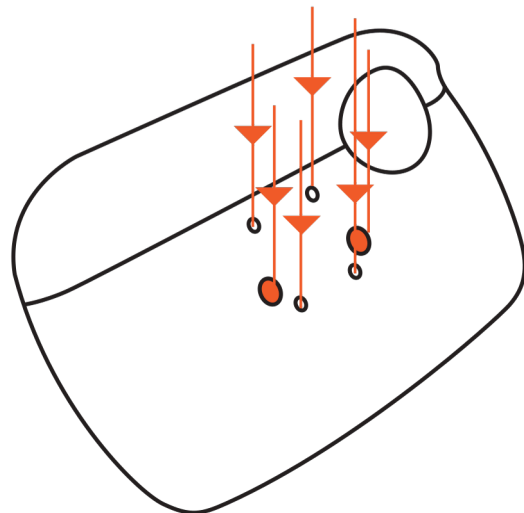
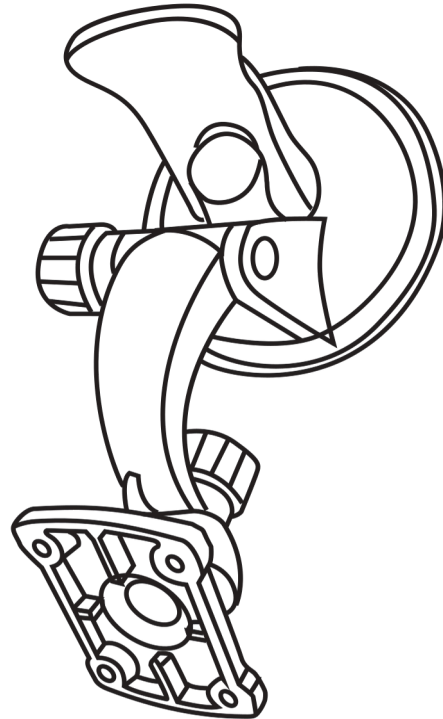
* Removable from cradle



9mm x M4 x 4 pieces



21mm x M4 x 2 pieces



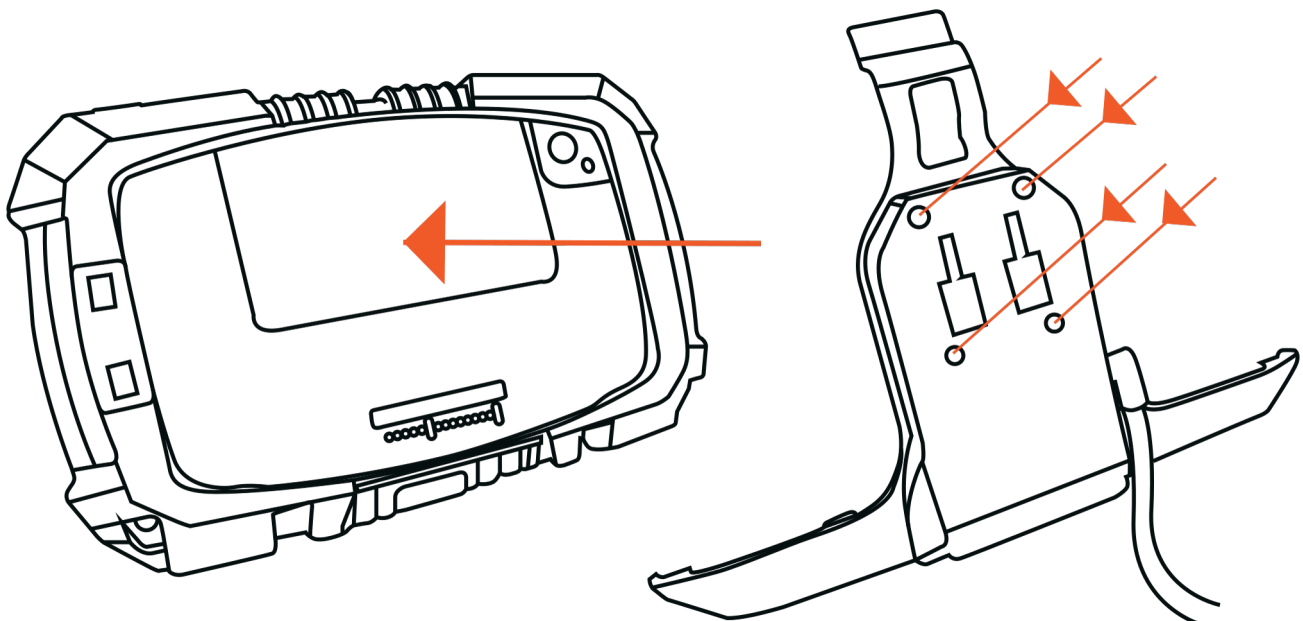
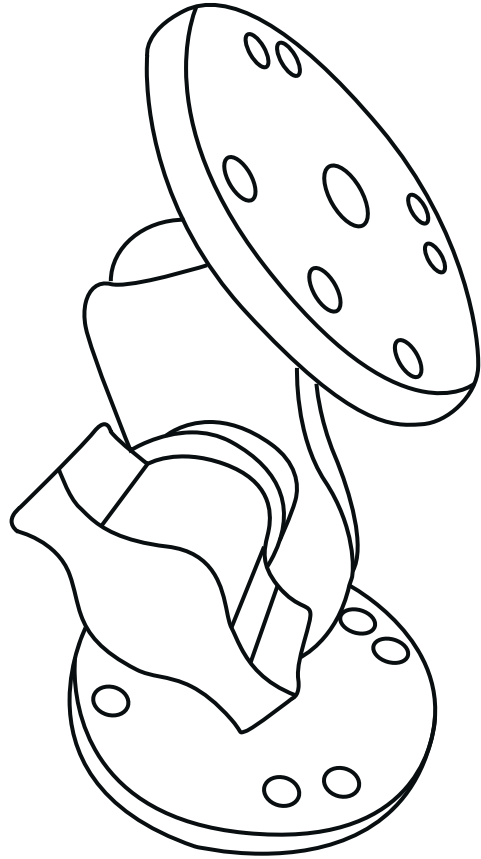
B) Installation method for dashboard mount (excluded in the standard pack):

2. Dash metal mount (STD-WS-001)\

* Without sunshield



9mm x M4 x 4 pieces



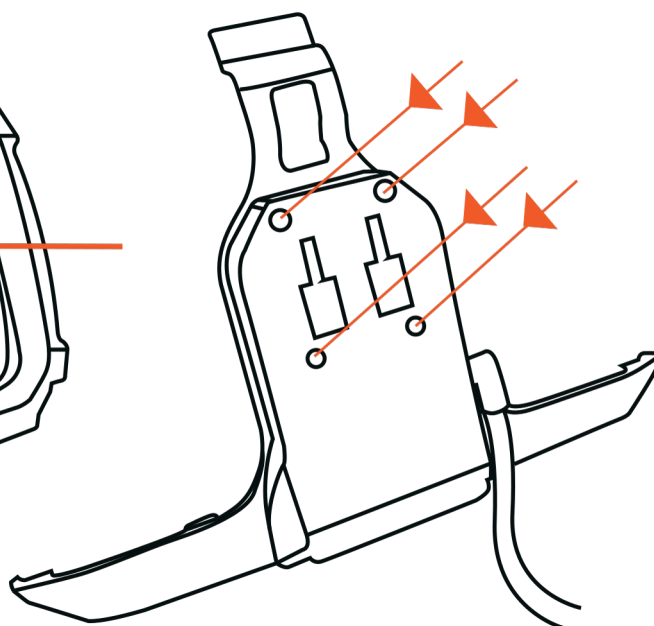
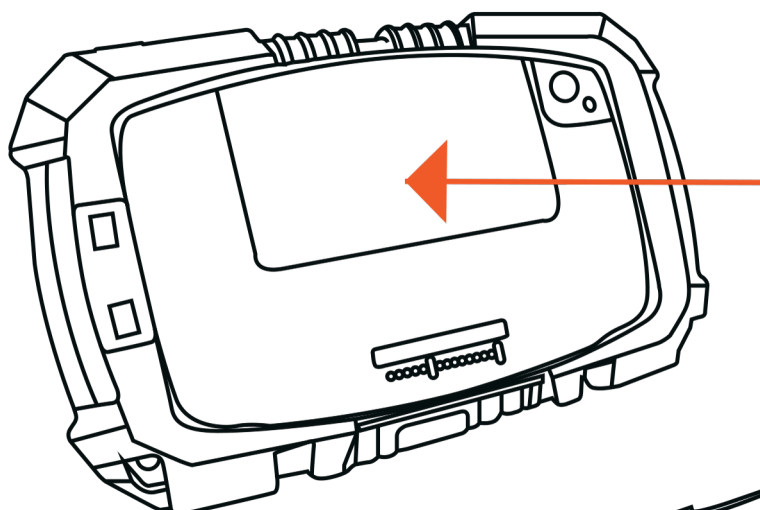
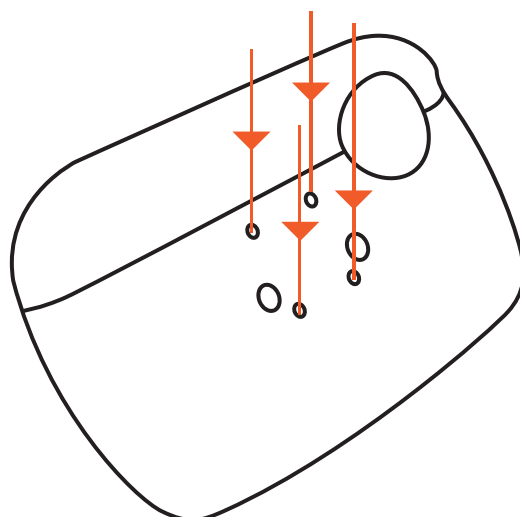
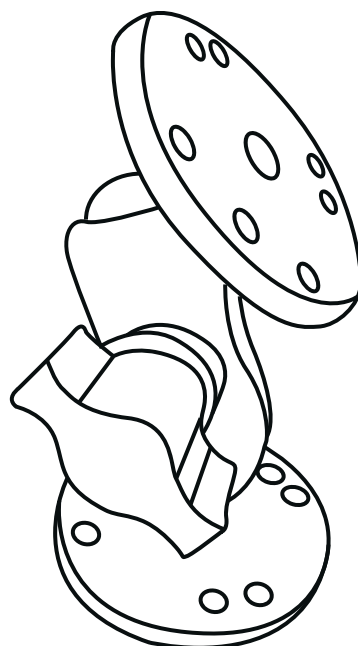
B) Installation method for dashboard mount (excluded in the standard pack):

2. Dash metal mount (STD-WS-001)

* With sunshield



12mm x M4 x 4 pieces



More mount options:

3. low cost dash mount (part number: STD-DASH-001)



4. Motorcycle mount (part number: RAM-MOTO-3)



5. Metal screw mount with suction cap (part number: RAM-SUCTION-01)



Cradle options

1. standard cradle –

mainly for connecting to vehicle battery, ignition and GND. 1x RS232 is available in standard cradle



2. video input

For video input cradle, it will extra Din camera input cable and video trigger
Pls ask us for more details if you are interested in it



3. V21 cradle – support up to 5 switches input (ie. Seat sensors and 1 SOS button)
Pls ask us more details if you are interested in it

****1 x RS232 and 1 x RS485 will be available.**

Seat sensors



4. V22 cradle This cradle can support up to 3 ADC inputs, 3 digital inputs and 3 digital outputs.

****1 x RS232 will be available.**



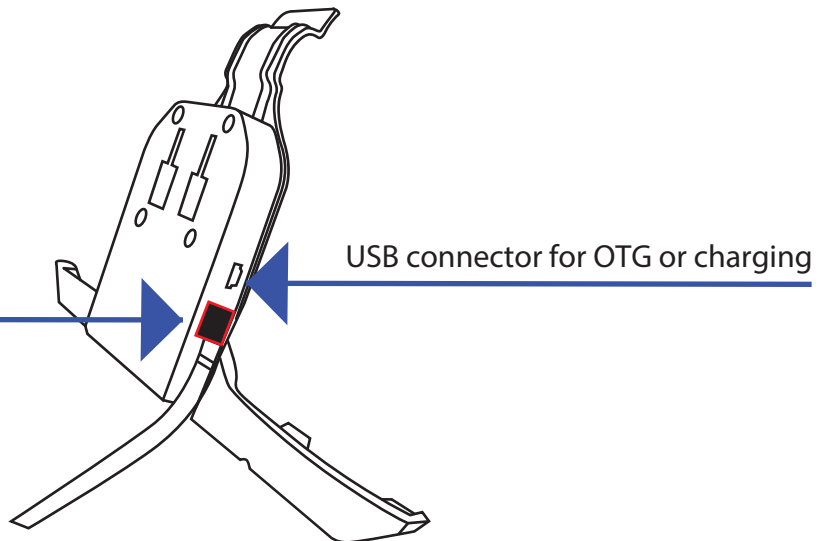
2. There are RS232 interface and OTG from cradle.

Highlights: OTG port from device (10pin usb connector) and cradle are sharing same pins.

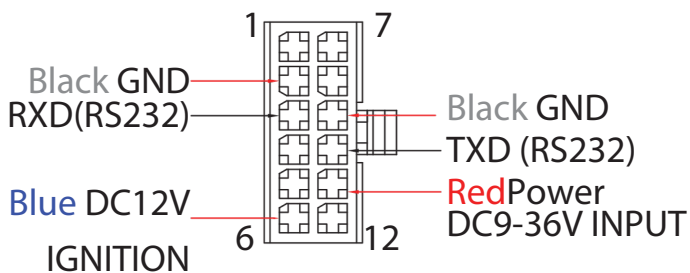
Only 1 OTG interface can be used.

This cable can be customized when you place order.

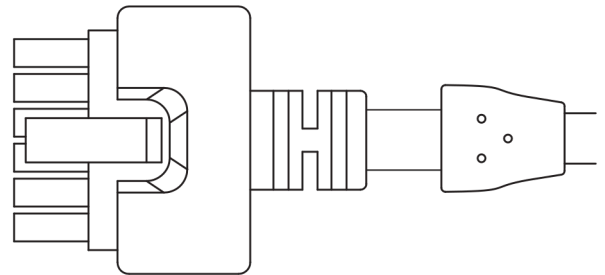
For sample, it will be 12 pins connector, pls see below or pins assignment.



Cradle cable pin assignment



Power Connector



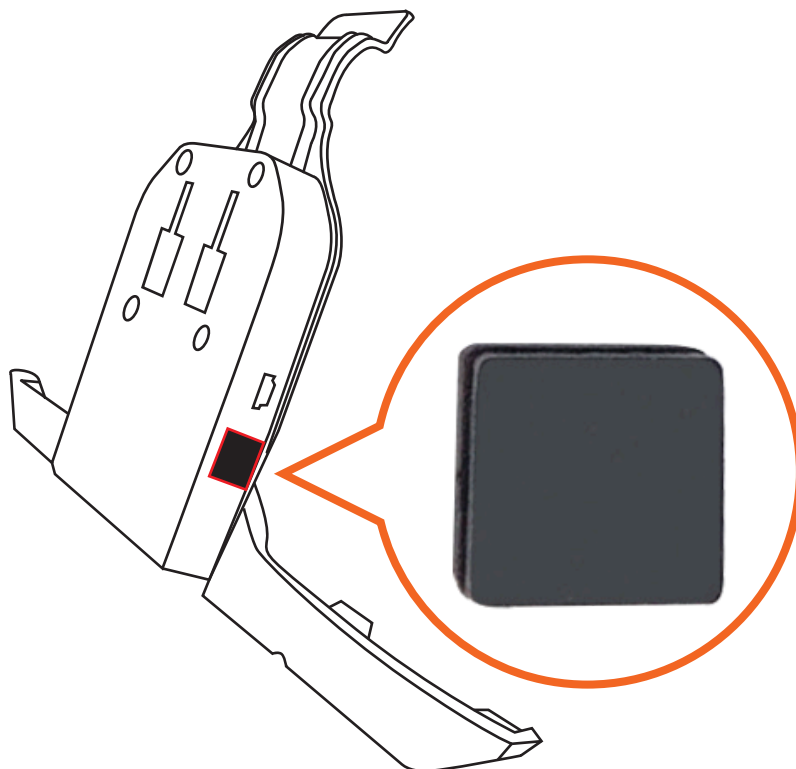
Option for ignition control the power supply

1. Switch position in right hand side (default), power supply will be applied no matter how the status of ignition is, but you can read the ignition status to let the tablet go to sleep mode or power off mode:
 - 1a. for reading the ignition status, please go to page 16 or ask us for demo apk and source code.
 - 1b. for letting the tablet go to power off mode, please go to page 17 or ask us for demo apk and source code.
2. Switch position in left hand side, power supply will be controlled by status of ignition. If ignition is OFF, the power supply will cut (cannot be charged). If ignition is ON, there is power supply and able to charge the device. Therefore, when the engine (IGN) is ON, the device will power on automatically even in sleep mode or power off mode. However, you cannot read the status of ignition in this option.



Removing the cradle cable (12pin molex connector) if you don't want to use it.

1. you can find the rubber plug in our blackbox (see below picture).
2. open the cradle casing by screw driver
3. remove the 12pin molex cable from connector
4. put the rubber plug in the hole and close the cradle casing



We can provide serial port apk and NFC demo. Pls contact our Sales for details.

1. Pls also see the software setting for serial port

two serial ports are available on the device :

- One shares the the USB data pins of the mini A/B USB connector.
Only TX and RX pins are available, voltage is TTL 3.3V.
- One is on the Pogopin interface (pins 3, 5, 6 and 7).
TX, RX CTS and RTS are available, voltage is RS232 3.3V.

On the software side, the tty devices corresponding to these ports are :

- for the RS232 port, /dev/user_external_tty
- for the TTL port, /dev/user_tty

In addition, one I²Cport is available both on the USB and (Pogopin) connectors.

- The I²C interface is accessible through /dev/user_i2c

2. If your application want to read the ignition state, pls use below API.

The 12V input is reported to the application as a key press (high level pressed, low level depressed) in the java Android API, this key is KeyEvent.KEYCODE_TV_INPUT

A second way to access the ignition state is to register a broadcast receiver for the action "hk.topicon.intent.action.IGNITION"

The current ignition status is given by the extra boolean "state".

This intent is sticky, ie the application will be immediately notified of the current status at registration, even if no transition occurred.

Here is a code snippet :

```
private static final String ACTION_IGNITION = "hk.topicon.intent.action.IGNITION";
private BroadcastReceiver mIgnitionReceiver = new BroadcastReceiver() {
    public void onReceive(Context context, Intent intent) {
        String action = intent.getAction();
        if(!action.equals(ACTION_IGNITION))
            return;
        boolean state = intent.getBooleanExtra("state", false);
        if(state)
            Log.d(TAG, "ignition event is on");
        else
            Log.d(TAG, "ignition event is off");
    }
};
```


3. Power o or reset the device by applications

You can install the PowerProxy.apk package that will allow you to command power o or reset with a simple broadcast from non-privileged application (test application with source code is also provided.) PowerProxy.apk needs to be installed through perso (as it needs to be a system application. Pls download apk, source code from below link

https://drive.google.com/le/d/1QjDFnwe2h_KndVWEYWfxwvqY5zcSPI-n/view?usp=sharing

4. Install your apk and upgrade your apk remotely

4a) Install PackageInstallerProxy.apk through perso. You can also install if from the remote control server. If you don't install by perso or our remote control server, it will not work

After that you should have it in /oem/app/PackageInstallerProxy.vendor.apk

4b) Then install DemoPackageInstallerProxy.apk as a normal application and use it to install other packages. Its source code is also provided for you to integrate it into your own code.

PackageInstallerProxy apk

<https://drive.google.com/le/d/1QVKYrp0v9NoMcaOZP4pAlxE3GsUH4VyF/view?usp=sharing>

PackageInstallerProxy demo and source code

<https://drive.google.com/le/d/1oANWHYfhgl2lXYaSUhVzqzbcRwmKHLij/view?usp=sharing>

https://drive.google.com/le/d/1I9mUPJQB-J8RN8omR_V4yzf4U2yovQy/view?usp=sharing

CUSTOMIZATION SERVICES

PaceBlade's Mobile Device Management server is developed to allow customers to update different firmware and create akiosk mode function:

BOOT ANIMATION

INSTALL APK

ADD APN

DEFAULT SETTING

CUSTOMIZED BUTTON

.....

kiosk mode quick start guide:

https://docs.google.com/document/d/1nsodkquYQnlz6K0846ZwTNscECbnMiOzaJD_81x3cDo/edit

FCC RF Exposure Information and Statement

This device meets the government's requirements for exposure to radio waves.

The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health. The SAR limit of USA (FCC) is 1.6 W/kg averaged.

Device types: portable device has also been tested against this SAR limit. SAR information on this and other pad can be viewed on-line at <http://www.fcc.gov/oet/ea/fccid/>.

Please use the device FCC ID number for search.

This device was tested simulation typical 0mm to body.

To maintain compliance with FCC RF exposure requirements, use accessories should maintain a separation distance between the user's bodies mentioned above.

FCC Warning

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
- (2) This device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: 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.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CE

The product shall only be connected to a USB interface of version USB2.0 and that the connection to a power USB is allowed.

Use careful with the earphone maybe possible excessive sound pressure from earphones and headphones can cause hearing loss.



CAUTION
RISK OF EXPLOSION IF BATTERY IS REPLACED
BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING
TO THE INSTRUCTIONS