MANUAL

MDT1065 / MDT1060

TABLE OF CONTENTS

Device

The tablet and the battery should not be thrown into the fire and not be used in areas where the temperature exceeds the specified values.
This can lead to the outbreak of a fire or 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 this 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 -10°C to 40°C possible.
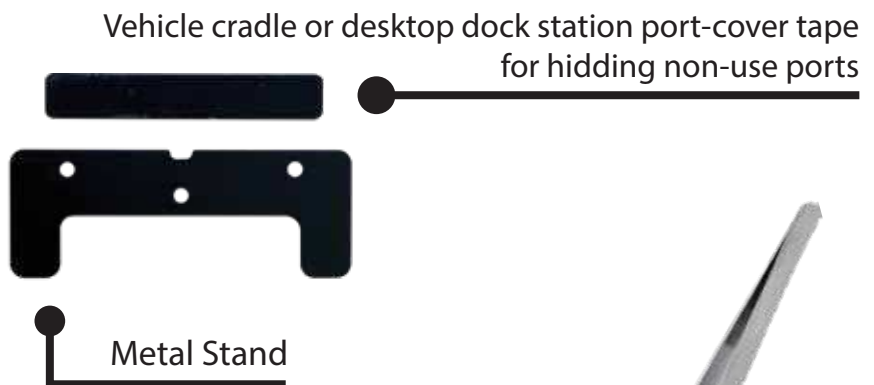
- The impact resistance was with a drop height of 1.2m tested.

Package components

Tablet
which is covered by protective silicone sleeve

Vehicle cradle or desktop dock station port-cover tape
for hidding non-use ports

Metal Stand

Vehicle cradle
or
desktop dock station
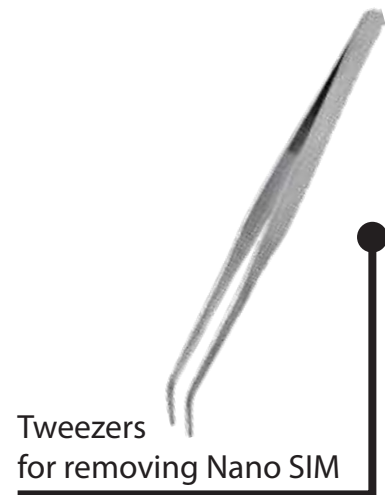
Tweezers
for removing Nano SIM
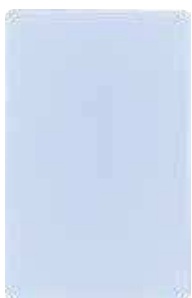
Card

High power home adapter
(the tablet may not able to
charge if only use standard 5V, 2A adapter)

Keys

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
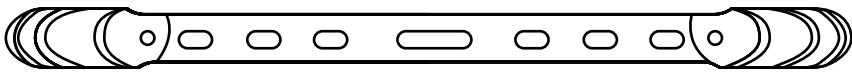
Top View
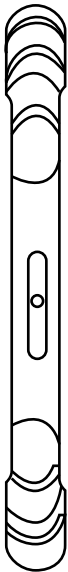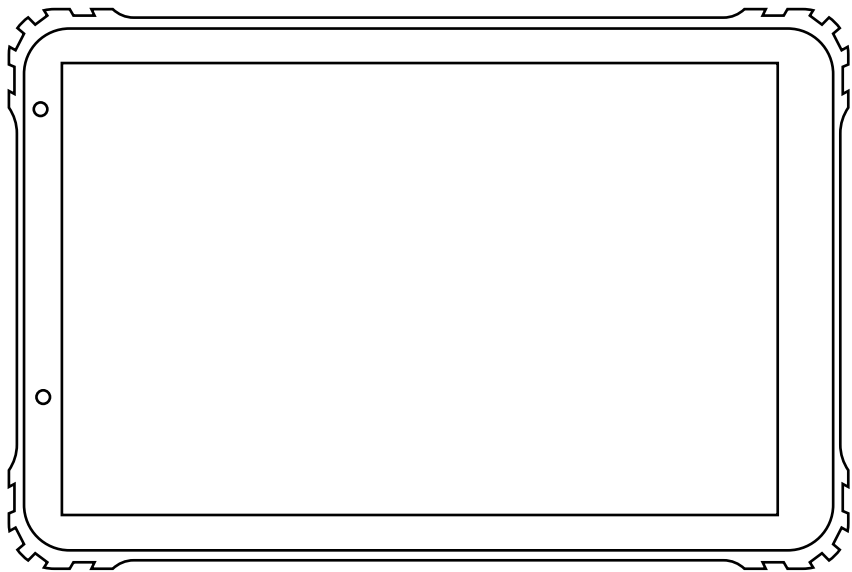
Left View   Front View   Right View
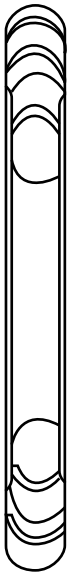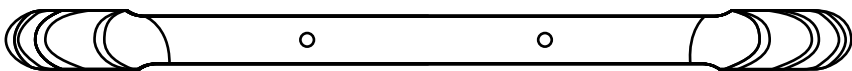
Bottom View
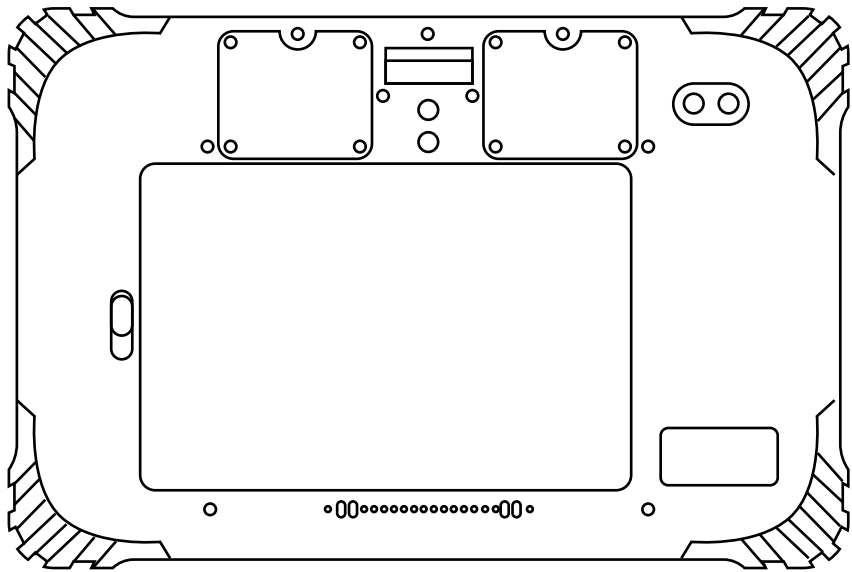
Rear View

Inserting SIM card

2. Remove the battery module

5. Insert the battery module

3. Insert SIM

SIM 2

1. Unlock

SIM 1

5. Lock

Micro SDXC card
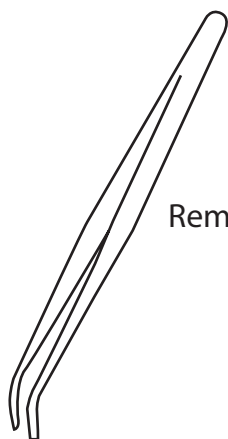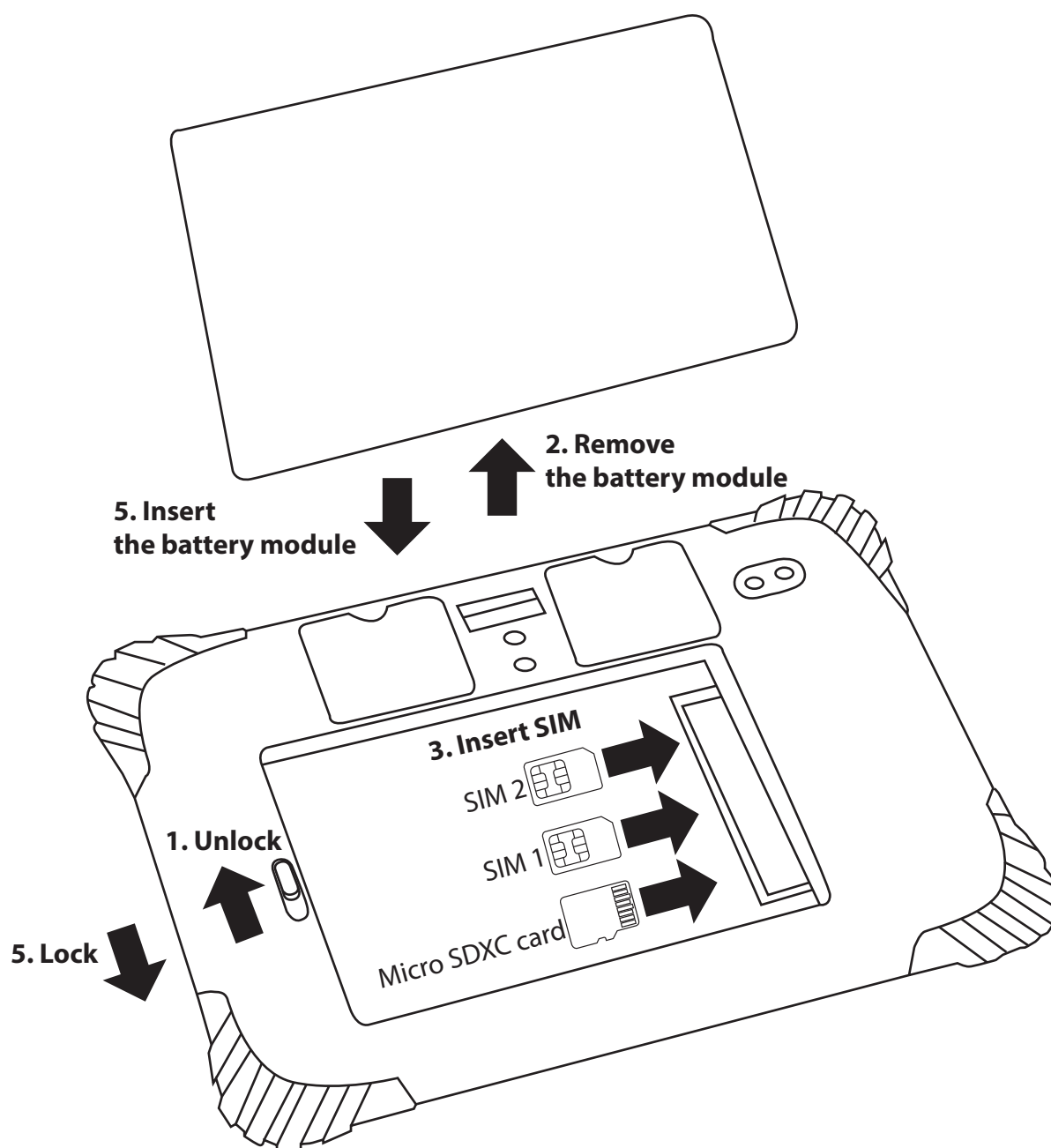
Remark: Use tweezers to remove Nano SIM

Assemble with cradle (Be a vehicle cradle):

Tablet

As a vehicle cradle

Port-cover tape
for hidding non-use ports

Assemble with cradle (Be a vehicle cradle):

Assemble with cradle (Be a desktop dock station):
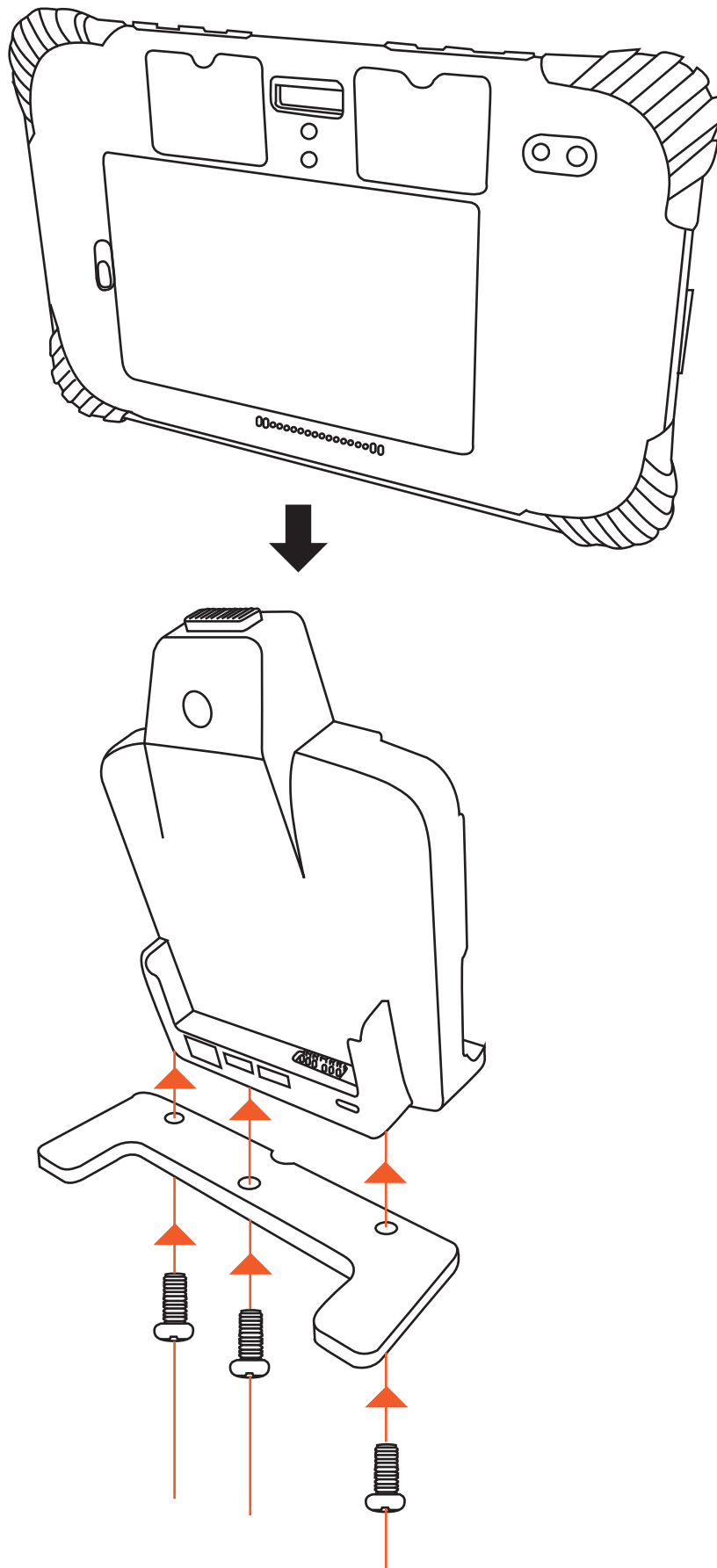
Assemble with cradle (Be a desktop dock station):
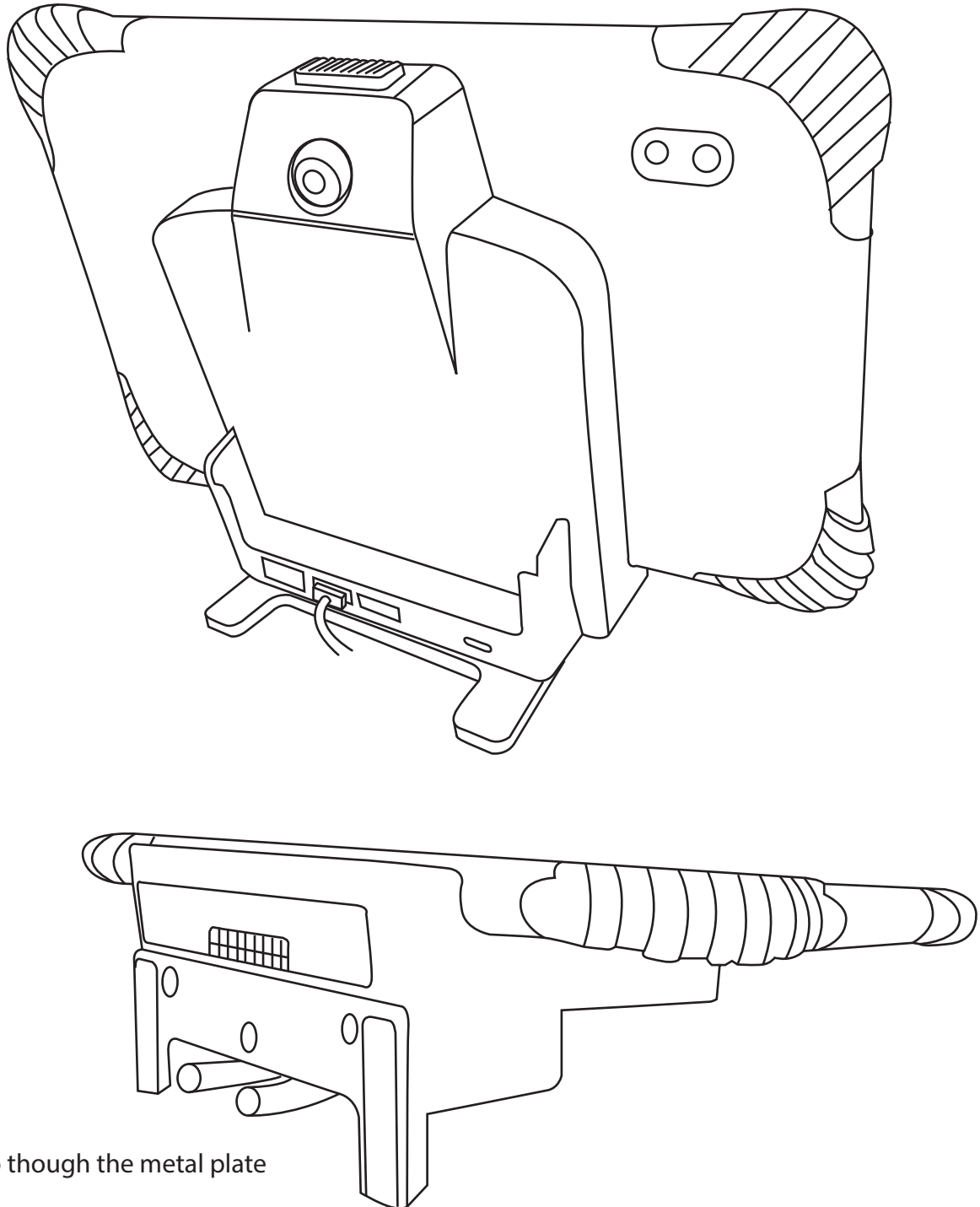
Cables go though the metal plate

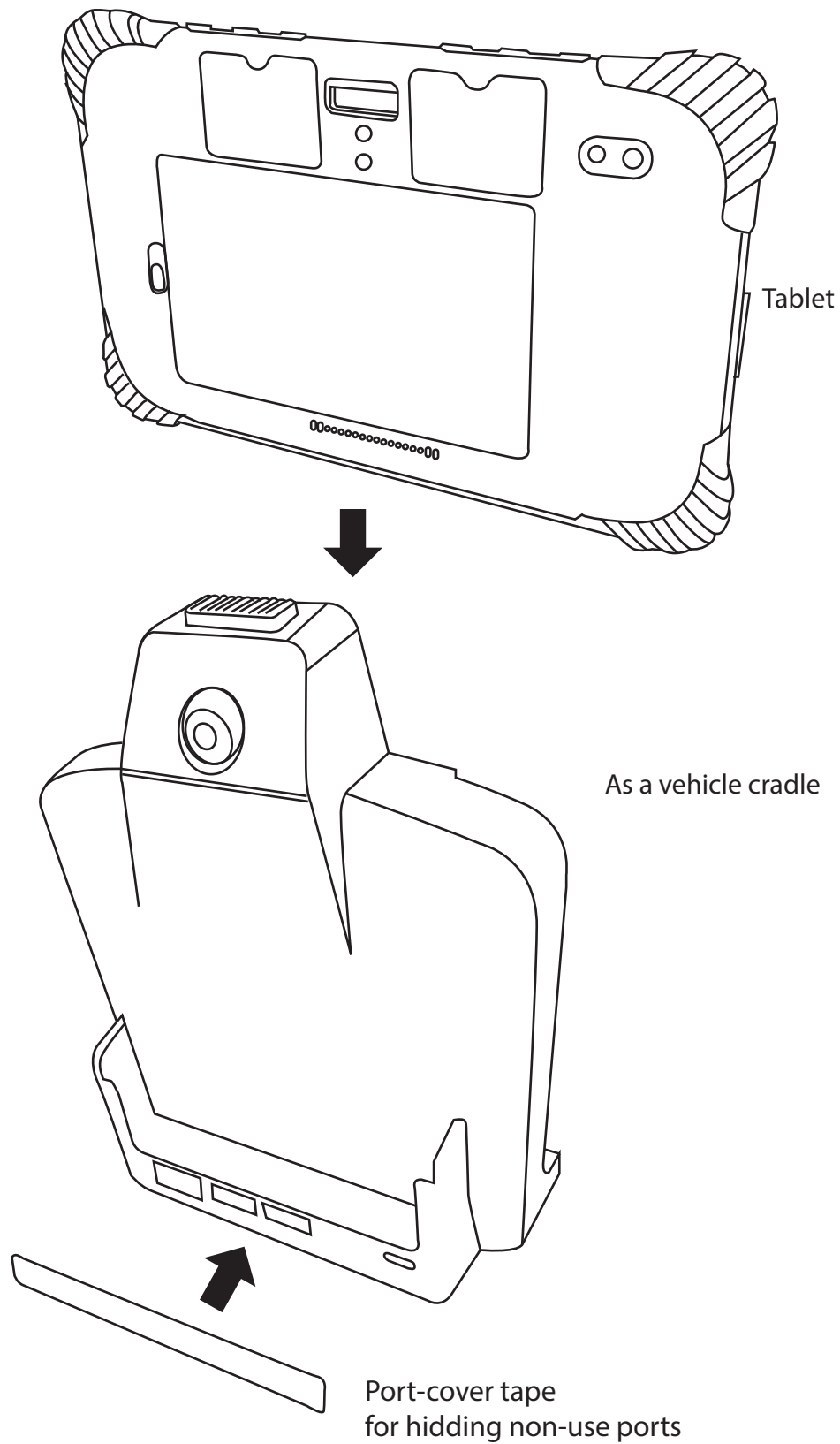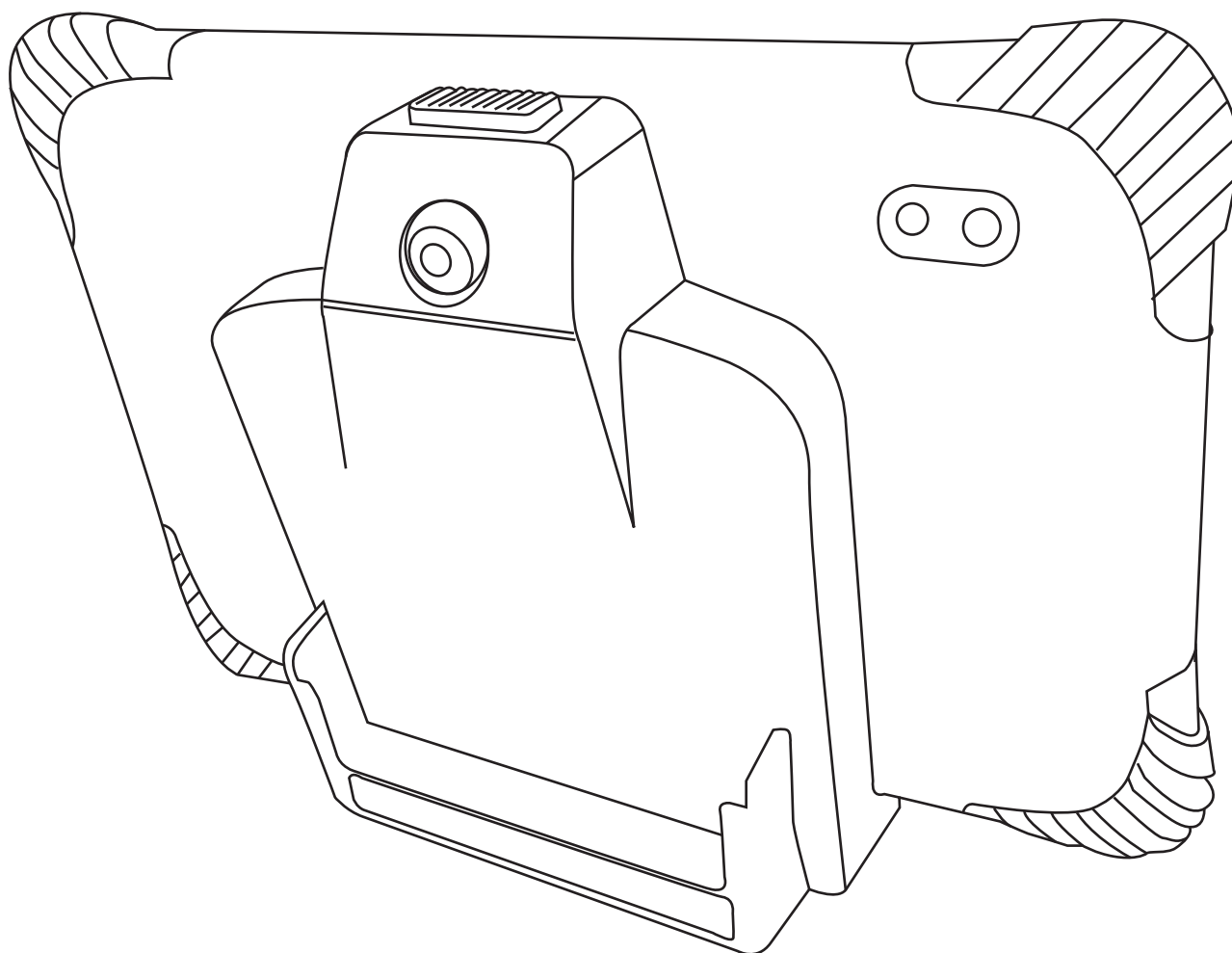| MODEL		
	MDT1065 (new!)	MDT1060
PERFORMANCE CHARACTERISTICS		
CPU	2.0GHz Octa Core Processor (Pro)	2.0GHz Octa Core Processor (Express)
OS	Andriod 11.0 with GMS or without GMS (Optional)	Andriod 11.0 with GMS or without GMS (Optional)
Memory	4GB LPDDR4X 32GB eMMC	4GB LPDDR4X 32GB eMMC
PHYSICAL CHARACTERISTICS		
Dimensions	260mm (L) x 174mm (W) x 17mm (D)	
Weight	930g	
Display	10inch, IPS panel (1920 x 1200 pixel)	
Touch Panel	Capacitive multi-touch / Glove, Wet, Stylus	
Backlight	LED backlight	
Power	Rechargeable Lit hium-ion Battery 3.85V 7600mAh	
Expansion Slot	User accessible micro SD card slot (standard supports up to 512G B)	
SIM	2 x Nano-SIM	
Interface	Docking Connector (18- 1xUSB Type C 2.0 OTG 1x3.5mm Audio Headphone Jack 2xUSB Type A 2.0 OTG on the cradle 1xRJ45 Connector on the cradle 1xType C on the cradle for power supply	
Notification	Audible tone, charging status LED	
Voice / Audio	Speaker, Microphone, Headphone	
Keypad	On-screen keypad	
WIRELESS WAN DATA AND VOICE COMMUNICATION		
Radio Frequency	GSM: 850/900/1800/1900MHz WCDMA: B1/B2/B4/B5/B8 LTE FDD: B1/B2/B3/B4/B5/B7/B8/B12/B17/B20/B28 LTD TDD: B38/B40/B41	
GLOBAL POSITIONING SYSTEM		
GPS	GPS, GLONASS, GALILEO	
WIRELESS LAN		
Radio	802.11 b/g/n; 802.11 d/e/ h/i/j/k/r/v/w	
Data Rate	2.4GHz: 802.11b/g/n — up to 144Mbps	
Security and Encryption	WFA WPA/WPA2 Personal, AES-CCMP, WPI-SMS4, GCMP, WPS2.0, WAPI (hardware)	

* Specification is subject to change.

MODEL		
	MDT1065	MDT1060
WIRELESS PAN		
Bluetooth	v2.1+EDR, 3.0+HS, v4.1+HS	
WIRED LAN		
Ethernet	Support (w/Cradle)	
DATA CAPTURE		
Scanner (Optional)	1D&2D Imagers	
Camera	Rear camera 16.0MP AF with LED flash / Front camera 8.0MP	
Video Input (Optional)	Support one channel AHD 720P,1080P and analog camera (w/Cradle) Support four channels AHD 720P,1080P and analog camera (w/Camera Hub)	
NFC	Supported TAG-ICs: MIFARE Classic 1k/4k/Plus, MIFARE UltraLight MIFARE UltraLight C, MIFARE DESFire MIFARE DESFire Ev1, ISO 14443 A & B ISO 15693	
Serial Communication	2 x RS232	
SENSOR		
Light Sensor	Ambient Light	
Motion Sensor	Accelerometer, E-Compass, Gyroscope	
USER ENVIRONMENT		
Operating Temperature	-10°C to 40°C / -14°F to 104°F	
Storage Temperature	-20°C to 70°C / -4°F to 158°F	
Humidity	90% non-condensing	
Drop Specification	1.2m / 4 ft. to drop per MIL STD 810G	
Sealing	IP67	
Electrostatic Discharge (ESD)	+/-8kVdc air discharge +/-4kVdc direct discharge +/-4kVdc indirect discharge	
OPTIONAL ACCESSORIES		
Vehicle docking station Metal dash mount NFC reader at docking station Extra input and output at docking station		

* Specification is subject to change.

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 I^2C port is available both on the USB and (Pogopin) connectors.

• The I^2C 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 sniplet :

```
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 off or reset the device by applications
You can install the PowerProxy.apk package that will allow you to command power off
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/file/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/file/d/1QVKYrp0v9NoMcaOZP4pAIxE3GsUH4VyF/view?usp=sharing

PackageInstallerProxy demo and source code
https://drive.google.com/file/d/1oANWHYfhgl2lXYaSUhVzqzbcRwmKHLij/view?usp=sharing
https://drive.google.com/file/d/1I9mUPJAQB-J8RN8omR_V4yzf4U2yovQy/view?usp=sharing

Topicon's device management server is developed to allow customer to update different firmware and make kiosk mode function:

- BOOT ANIMATION
- INSTALL APK
- ADD APN
- DEFAULT SETTING
- CUSTOMIZED BUTTON

kiosk mode quick start guide :

https://docs.google.com/document/d/1nsodkquYQnIz6K0846ZwTNscECbnMiOzaJD_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

IC WARNING

This device contains licence-exempt transmitter(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:
(1) This device may not cause interference.
(2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:
1. L'appareil ne doit pas produire de brouillage;
2.L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. 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 IC is 1.6 W/kg averaged. Device: Tablet (IC: 21087-MDT1065) has also been tested against this SAR limit. This device was tested simulation typical 0 mm to body. To maintain compliance with RF exposure requirements, the use accessories should not contain metallic components in its assembly, the use of accessories that do not satisfy these requirements may not comply with RF exposure requirements, and should be avoided. The highest reported SAR value for body condition for separate function is 1.183W/kg respectively.

L'équipement est conforme aux limites d'exposition aux rayonnements ambiants non contrôlés spécifiées dans le document IC RSS - 102. Ces lignes directrices sont fondées sur des critères établis par des organisations scientifiques indépendantes par le biais d'évaluations périodiques et approfondies de la recherche scientifique. Ces normes comportent une marge de sécurité importante et visent à assurer la sécurité de tous, quel que soit leur âge ou leur état de santé. La limite SAR pour IC est en moyenne de 1,6W/ kg. Équipement: Tablet (IC: 21087-MDT1065) a également été testée conformément à cette limite SAR. L'appareil a fait l'objet d'essais de simulation, généralement à une distance de 0 mm. Afin de maintenir la conformité aux exigences en matière d'exposition aux radiofréquences, les composants qui utilisent des accessoires ne doivent pas contenir de pièces métalliques et les accessoires qui ne satisfont pas à ces exigences peuvent ne pas être conformes aux exigences en matière d'exposition aux radiofréquences et doivent être évités. Les valeurs SAR les plus élevées rapportées pour l'état physique des fonctions individuelles étaient respectivement de 1.183W/kg.

Caution:
For the following equipment:
Product Name: Tablet
Brand Name: --
Model No.: MDT1065, MDT1060, LDT-101, X10, X10C, TABX10C, OBC1065, M1065A, M1065B, MDT1065D
TOPICON HK LIMITED
E-mail: keller.sin@topicon.hk

hereby declares that this [Name: Tablet, Model: MDT1065, MDT1060, LDT-101, X10, X10C, TABX10C, OBC1065, M1065A, M1065B, MDT1065D] is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

CE

Adapter shall be installed near the equipment and shall be easily accessible.
Only can use adapter as below:
Adapter Model: GS-W20A0938
Input:AC100-240V 50/60Hz 0.6A   Output:DC5/9V/12V 3A/2.22A/1.67A
Shenzhen Good-she Technology Co., Ltd.
The plug considered as disconnect device of adapter.

RED Article 10 2
-This product can be used across EU member states

RED Article 10 10
-The product is class 1 product, No restrictions

The RF distance between body and product is 0mm

2G

Frequency Range:	GSM900: Tx: 880-915MHz, Rx: 925-960MHz
	DCS1800: Tx: 1710-1785MHz, Rx: 1805-1880MHz
RF Output Power:	GSM900: 33.32dBm, GSM1800: 30.70dBm
	EDGE900: 27.20dBm, EDGE1800: 24.26dBm

3G

Frequency Range:	WCDMA Band 1: Tx: 1920-1980MHz, Rx: 2110-2170MHz
	WCDMA Band 8: Tx: 880-915MHz, Rx: 925-960MHz
RF Output Power:	WCDMA Band 1: 24.36dBm, WCDMA Band 8: 24.13dBm

4G

Frequency Range:	FDD-LTE Band 1: Tx: 1920-1980MHz, Rx: 2110-2170MHz
	FDD-LTE Band 3: Tx: 1710-1785MHz, Rx: 1805-1880MHz
	FDD-LTE Band 7: Tx: 2500-2570MHz, Rx: 2620-2690MHz
	FDD-LTE Band 8: Tx: 880-915MHz, Rx: 925-960MHz
	FDD-LTE Band 20: Tx: 832-862MHz, Rx: 791-821MHz
	FDD-LTE Band 28: Tx: 703-748MHz, Rx: 758-803MHz
	TDD-LTE Band 38: Tx: 2570-2620MHz, Rx: 2570-2620MHz
	TDD-LTE Band 40: Tx: 2300-2400MHz, Rx: 2300-2400MHz
Max.RF Output Power:	FDD-LTE Band 1: 23.83dBm, FDD-LTE Band 3: 23.16dBm,
	FDD-LTE Band 7: 23.72dBm, FDD-LTE Band 8: 23.58dBm,
	FDD-LTE Band 20: 23.62dBm, FDD-LTE Band 28: 23.72dBm,
	TDD-LTE Band 38: 23.96dBm, TDD-LTE Band 40: 23.49dBm

Bluetooth

Bluetooth Version:	Bluetooth V4.1
Frequency Range:	2402-2480MHz
Max.RF Output Power:	9.46dBm (EIRP)

Wi-Fi (2.4GHz)

Frequency Range:	2412-2472MHz for 802.11b/g/n(HT20)
	2422-2462MHz for 802.11n(HT40)
Max.RF Output Power:	15.14dBm (EIRP)

GPS

Frequency Range:	1575.42MHz Receiving

LORA

Frequency Range:	868.00MHz-868.6 MHz
	869.4MHz-869.650 MHz
RF Output Power:	868.1MHz:13.04dBm(ERP)
	868.3MHz:13.03dBm(ERP)
	868.5MHz:13.02dBm(ERP)
	869.525MHz:13.06dBm(ERP)

NFC

Frequency Range:	13.56MHz
Radiated H-Field:	14.49dBuA/m(@3m)