PIN Definition

Micro-B-1 :
RS232 Full-duplex
*function switch with SERPO1

1	NC
2	RS232-TX Data
3	RS232-RX Data
4	RS232-RTS
5	RS232-CTS

GPIO : GPIO PIN

1	GPIO_DFX0	6	GPIO_DFX5
2	GPIO_DFX1	7	GPIO_DFX6
3	GPIO_DFX2	8	GPIO_DFX7
4	GPIO_DFX3	9	Ground
5	GPIO_DFX4	10	Ground

Micro-B-2 :
USB 2.0

1	5V
2	USB-DN
3	USB-DP
4	ID
5	Ground

SERPO2 :
RS232 Full-duplex
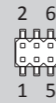
1	Clear To Send (CTS)
2	Receive Data (RXD)
3	Transmit Data (TXD)
4	Request To Send (RTS)
5	Ground
6	5V Power

SERPO1 :
RS232 Full-duplex
*function switch with Micro-B-1
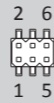
1	Clear To Send (CTS)
2	Receive Data (RXD)
3	Transmit Data (TXD)
4	Request To Send (RTS)
5	Ground
6	5V Power

SMB-I2C : SM-Bus & I2C Bus
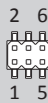
1	SM-Bus Clock
2	I2C-Bus Clock
3	SM-Bus Data
4	I2C-Bus Data
5	Ground
6	Ground

USB : USB 2.0

1	5V Power
2	USB Data-
3	USB Data+
4	Ground
5	NC

SPI : SPI Interface

1	3.3V Power
2	Serial Clock
3	Chip Select
4	Ground
5	Master Input / Slave Output
6	Master Output / Slave Input
7	Ground
8	Ground

TPM : TPM Module
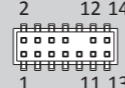
1	Low PIN Count Clock (25MHz)
2	3.3V Standby
3	Reset
4	3.3V
5	LAD0
6	SERIRQ
7	LAD1
8	TPM Detect
9	LAD2
11	LAD3
12	Ground
13	LFRAME#
14	Ground

80H : 80 Port

1	Low PIN Count Clock
2	Ground
3	LFRAME#
4	LAD0
5	Reset
6	LAD1
7	LAD3
8	LAD2
9	3.3V Power
10	SERIRQ#

Package Contents

65 Watt power adapter
& power cord
※輸入：DC 19V, 3.42A

1 x EL-20
- NOT Include any of the following: 3G module, SIM card
- 3G-Modul, SIM-Karte, SO-DIMM-Speicher: nicht enthalten
- Ne contient pas les éléments suivants : module 3G, carte SIM
- No incluye: módulo 3G, tarjeta SIM, SO-DIMM de memoria
- Não inclui nenhum dos itens: módulo 3G, chip SIM
- Non sono inclusi: Modulo 3G, Scheda SIM
- НЕ ВХОДЯТ в комплект поставки: 3G модуль, SIM-карта
- Nie zawiera: modułu 3G, karty SIM
- 3G modülü, SIM kart, bellek dahil değildir
- 不包含下列項目：3G模組、SIM卡
- 不包含下列项目：3G模块、SIM卡
- 下記品物を除く：3Gモジュール、SIMカード
- 미포함 항목：3G 모듈, SIM카드

2 x WiFi antenna &
1 x 3G antenna

Quick Start Guide

*VESA mount bracket
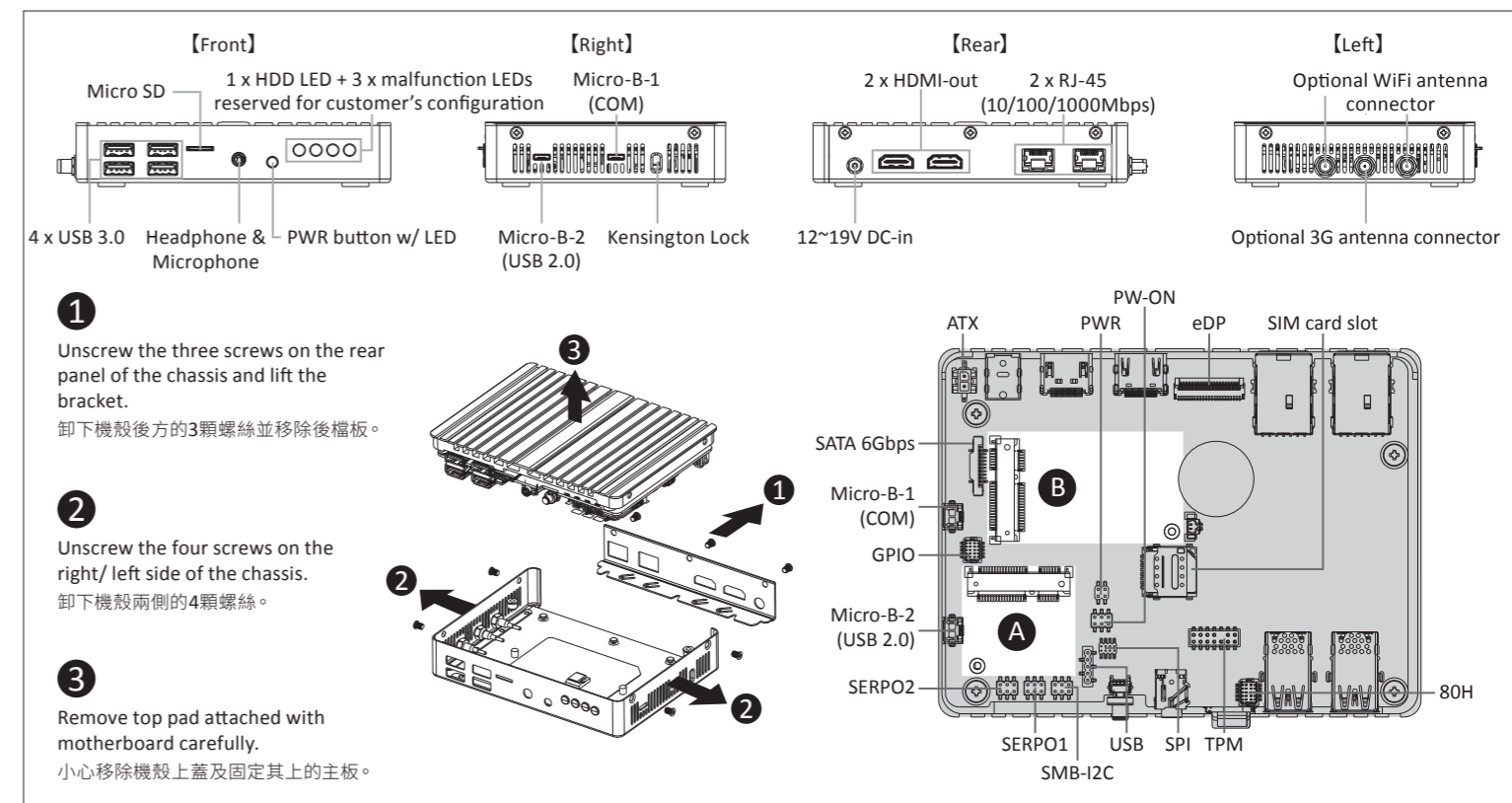& 6 x screws

Ultra Compact PC Kit

Ultrakompakt-PC-Set / Kit PC ultra compact / Kit PC ultra compacto
Kit PC Ultra Compacto / Kit PC Ultra Compatto / Ультракомпактный ПК
Ultra Kompaktowy zestaw PC / Ultra Compact PC Kiti / EL-20系列超微型電腦
EL-20超微型台式计算机 / ウルトラ・コンパクトPCキット / EL-20미니 PC 키트

Quick Start Guide

Schnellstartanleitung / Guide de démarrage rapide / Guía de inicio rápido / Guia de Início Rápido
Guida Rapida / Руководство по быстрой сборке / Skrócona instrukcja obsługi
Hızlı Başlangıç Kılavuzu / 快速入門使用者手冊 / 快速入门用户手册
クイック・スタート・ガイド / 빠른 시작 설명서

Getting Familiar with Your Unit

Lernen Sie ihr Geräts kennen / Découvrez votre unité / Conozca su dispositivo / Conhecendo a sua unidade / Scopri la tua unità / Первое знакомство с устройством / Prezentacja zestawu / Cihazınızı daha iyi tanıyın
認識您的裝置 (※系統操作溫度0°C~35°C) / 熟悉您的设备 / 自分のBRIXについて詳しくなろう / 장치 숙지하기

【Front】
Micro SD
1 x HDD LED + 3 x malfunction LEDs reserved for customer's configuration
4 x USB 3.0
Headphone & Microphone
PWR button w/ LED

【Right】
Micro-B-1 (COM)
Micro-B-2 (USB 2.0)
Kensington Lock

【Rear】
2 x HDMI-out
2 x RJ-45 (10/100/1000Mbps)
12~19V DC-in

【Left】
Optional WiFi antenna connector
Optional 3G antenna connector

❶ Unscrew the three screws on the rear panel of the chassis and lift the bracket.
卸下機殼後方的3顆螺絲並移除後檔板。

❷ Unscrew the four screws on the right/ left side of the chassis.
卸下機殼兩側的4顆螺絲。

❸ Remove top pad attached with motherboard carefully.
小心移除機殼上蓋及固定其上的主板。

ATX
PW-ON
PWR
eDP
SIM card slot
SATA 6Gbps
Micro-B-1 (COM)
GPIO
Micro-B-2 (USB 2.0)
SERPO2
SERPO1
SMB-I2C
USB
SPI
TPM
80H

PIN Definition

ATX :
ATX Connector

1	Ground
2	PWR (12V or 19V)

PWR :
5V Power & GND

1	5V PWR
2	Ground
3	5V PWR
4	Ground

PW-ON :
PWR on / HDD LED / PWR LED
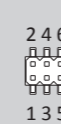
1	PWR Button Switch On
2	Ground
3	HDD LED+
4	HDD LED-
5	PWR Button Switch LED
6	PWR Button Switch LED-

eDP : Embedded Display Port
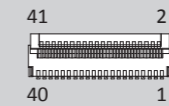
1	NC	26	Ground
2	Ground	27	Hot Plug Detect
3	ML_Lane 3 (n)	28	Ground
4	ML_Lane 3 (p)	29	Ground
5	GND	30	Ground
6	ML_Lane 2 (n)	31	Ground
7	ML_Lane 2 (p)	32	Backlight Enable
8	Ground	33	Backlight PWM
9	ML_Lane 1 (n)	34	NC
10	ML_Lane 1 (p)	35	NC
11	Ground	36	LED Anode / Backlight Power
12	ML_Lane 0 (n)	37	LED Anode / Backlight Power
13	ML_Lane 0 (p)	38	LED Anode / Backlight Power
14	Ground	39	LED Anode / Backlight Power
15	AUX CH (p)	40	NC
16	AUX CH (n)	41	NC
17	Ground		
18	LCD Logic & Driver Power		
19	LCD Logic & Driver Power		
20	LCD Logic & Driver Power		
21	LCD Logic & Driver Power		
22	NC		
23	Ground		
24	Ground		
25	Ground		

A) Optional Wireless Module Installation: How to Safely Install a Half-size Wireless Module

Sicheres installieren eines halben Größe Wireless-Modul / Comment faire pour installer en toute sécurité un module sans fil / Cómo instalar de forma segura un módulo inalámbrico de tamaño reducido
Como instalar em segurança um Módulo Wireless de tamanho reduzido / Come installare con sicurezza un modulo Wireless di dimensioni ridotte / Как безопасно установить малогабаритный модуль беспроводной связи
Jak bezpiecznie zainstalować moduł bezprzewodowy / Yarım boyutlu Kablosuz modül nasıl güvenle kurulur
安裝選購的Mini PCIe無線網卡 / 如何安全地安裝半高無線模块 / 安全にWiFiモジュールを取り付ける方法 / Half-size 무선 모듈은 안전하게 설치하는 방법

①
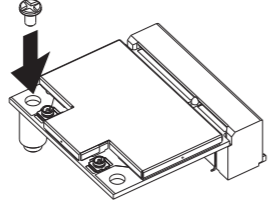Carefully insert the WiFi module (Mini-PCIe card) into place.
小心的把無線模組 (Mini-PCIe card)安裝於圖示A的插槽。
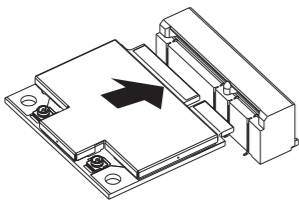
②
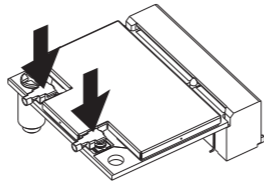The module is secured in place with a small screw in the left corner.
使用包裝隨附的螺絲 將無線模組固定。

③
Plug two WiFi antennas into the wireless module.
小心的將機殼內的兩條 WiFi天線扣入模組兩端 的天線接口。

依據低功率電波輻射性電機管理辦法【第十二條】經型式認證合格之低功率射頻電機，非經許可公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。 【第十四條】低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。 前項合法通信指依電信法規定作業之無線電通信。 低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。」

Note: Wireless module inclusion may vary based on local distribution.
注意：根據各地經銷商之產品規格配置，有些市場將不提供預載的无线模塊。

B1) Optional 3G Module Installation: How to Safely Install a 3G Module

Optional 3G Modul Installation: Wie sicher Installieren Sie ein 3G-Modul / Installation optionnelle Module 3G: Comment faire pour installer en toute sécurité d'un module 3G
Instalación del módulo 3G opcional: Cómo instalar de forma segura de un módulo 3G / Instalação opcional Módulo 3G: como instalar com segurança um módulo 3G
Installazione facoltativa di modulo 3G: Come installare in modo sicuro un modulo 3G / Дополнительный модуль 3G Установка: Как безопасно Установите модуль 3G
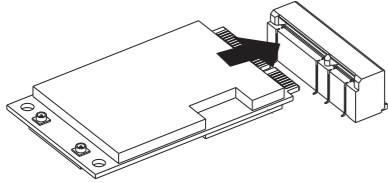Opcjonalny moduł 3G Instalacja: Jak bezpiecznie zainstalować moduł 3G / Opsiyonel 3G Modülü Montaj: Güvenle 3G Modülü Nasıl Kurulur
安裝選購的3G網卡 / 如何安全地安裝3G无线模块 / 安全に3Gモジュールを取り付ける方法 / 3G무선 모듈은 안전하게 설치하는 방법

①
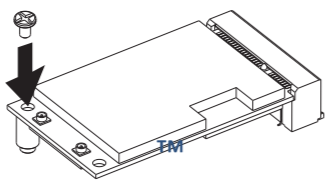Carefully insert the 3G module into slot B.
小心的把3G模組安裝於圖示B插槽。

②
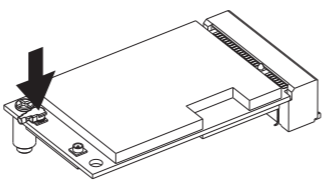The module is secured in place with a small screw in the left corner.
使用包裝隨附的螺絲將無線模組固定。

③
Plug the antenna into the 3G module.
小心的將機殼內3G天線扣入模組左側的 3G天線接口。

B2) Optional mSATA Installation: How to Safely Install a mSATA

mSATA SSD: Wie Sie die mSATA SSD installieren / SSD mSATA: Comment l'installer / mSATA SSD: Cómo instalar o SSD mSATA / SSD mSATA: Como instalar o SSD mSATA / mSATA SSD: Come installare un' unità mSATA SSD
Накопитель mSATA SSD: Порядок установки накопителя mSATA SSD / mSATA SSD: Jak zainstalować mSATA SSD / mSATA SSD: mSATA SSD nasıl kurulum yapılır
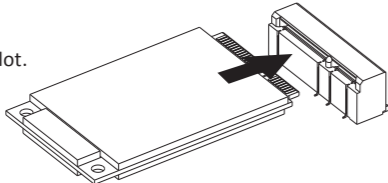如何安裝mSATA SSD / 如何安装mSATA SSD / mSATA SSD：mSATA SSDの取り付け方法 / mSATA SSD : mSATA방식 SSD을 설치하는 방법

①
B slot is simultaneously designed for 3G / mSATA installation.
B插槽同時支援3G模組或mSATA SSD使用。
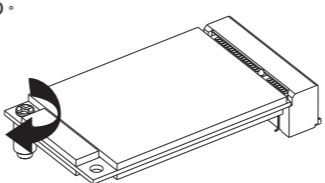
Carefully insert the mSATA SSD into the slot.
小心的安裝mSATA SSD於B插槽。

②
The mSATA SSD is secured in place with a small screw in the left corner.
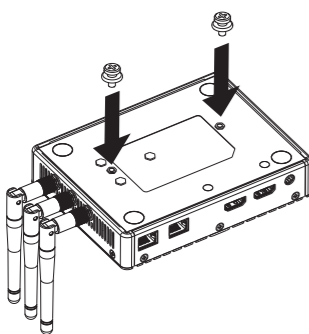使用包裝隨附的螺絲固定mSATA SSD。

VESA Bracket

VESA-Halterung / Support VESA / soporte VESA / Suporte VESA / Staffa VESA / Крепление VESA / Uchwyt VESA / VESA Desteği / VESA支架 / VESA支架 / VESA対応ブラケット / VESA 브래킷

①
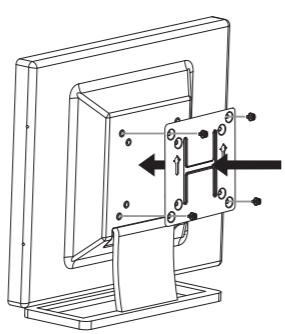Attach the screws provided on underside of the PC kit.
安裝隨附的VESA支撐架螺絲於PC Kit底部。

②
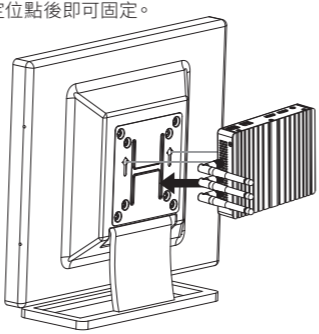Attach the VESA mounting plate to the rear of a compatible display using the screws provided.
安裝隨附的VESA支撐架於支援VESA支撐架的電腦 螢幕或電視機後背。

③
The digital PC kit can now be mounted by sliding the device into place.
將已安裝VESA支撐架螺絲的PC Kit插入VESA支撐架的 滑軌孔，向下壓至定位點後即可固定。

Multi-OS: Allows You to Choose the Boot Device

Multi-OS: Erlaubt Ihnen die Auswahl des Startgeräts / Multi-OS: vous permet de choisir le périphérique de démarrage / Multi-OS: le permite elegir el dispositivo de arranque
Multi-OS: permite que você escolha o dispositivo de boot / Multi-OS: consente di scegliere il dispositivo di boot / Multi-OS: позволяет выбрать загрузочное устройства
Multi-OS: pozwala na wybór urządzenia startowego / Çoklu OS: Boot cihazı seçmek için izin verir / 多系統共存: 讓你輕鬆的選擇優先啟動的作業系統硬碟
マルチOS：あなたは簡単にオペレーティングシステムのハードディスクのブート優先順位を選択することができます / 멀티 OS : 쉽게 운영 체제 하드 디스크 부팅 우선 순위를 선택할 수 있습니다

We provide a wide array of configurations for the EL-20 product, including a turnkey solution with Android™ or Windows operating systems pre-loaded in the eMMC memory. Users can switch between operating systems during the boot via an integrated device selection tool. The default boot priority of the EL-20 is as follow:
1) USB   2) mSATA   3) eMMC
EL20提供了多種客製化的產品選項，包括在eMMC預載Android或Windows作業系統的系統產品。我們同時提供方便的軟體工具讓用戶能自由選擇啟動預載在eMMC或外部硬碟 裡的作業系統。預設在EL20裡的啟動優先順序如下：
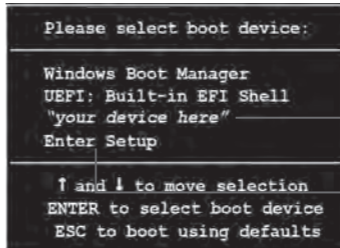1) USB   2) mSATA   3) eMMC

①
Press "F12" during device start up to enter the Boot Device select window.
開機後按啟F12鍵進 入設定畫面。

②
A Popup will show "Windows Boot Manager" in Windows pre-loaded version. Select "Windows Boot Manager" to boot via eMMC or any other auto-detected options.
在選單選擇"Windows Boot Manager"啟動eMMC裡的Windows作業系統， 或選擇顯示於下方系統自動偵測的外接磁碟。

```
Please select boot device:

Windows Boot Manager
UEFI: Built-in EFI Shell
"your device here"
Enter Setup

↑ and ↓ to move selection
ENTER to select boot device
ESC to boot using defaults
```

The system will automatically detect and list any USB or mSATA storage you have installed.
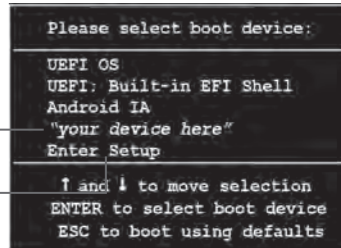系統會自動檢測並列出任何已安裝在 USB或mSATA存的儲存裝置。

Select "Enter Setup" to enter BIOS setup window.
選擇"Enter Setup"進入BIOS設定畫面。

③
A Popup will show "UEFI OS" in Android pre-loaded system. Select "Android IA" to boot via eMMC or any other auto-detected options.
在選單選取"Android IA"啟動eMMC裡的Android作業系 統，或選擇顯示於下方系統自動偵測的外接磁碟。

```
Please select boot device:

UEFI OS
UEFI: Built-in EFI Shell
Android IA
"your device here"
Enter Setup

↑ and ↓ to move selection
ENTER to select boot device
ESC to boot using defaults
```

Note: You have to select the OS mode in the BIOS before installing any OS on your device.
注意：需在BIOS選單中先選擇所要使用的OS模式，你的EL-20才能正確的啟動並安裝OS。

①
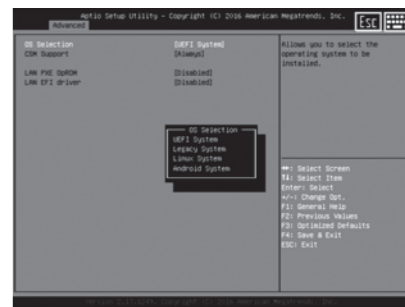Press "Del" during device start up to enter the BIOS.
開機後按啟Del鍵進 入BIOS設定畫面。

②
Select "Advanced" from menu bar to pick the correct BIOS mode includes :
"UEFI System" (Include Windows 8.x / Windows 10)
"Legacy System"   (Includes Windows 7)
"Linux System"
"Android System"
在BIOS主選單選取"Advanced"後再選取要安裝的OS類型。

Note: Due to a lack of USB 3.0 support on Windows 7, the USB 3.0 ports of EL-20 can not backward support the USB 2.0 devices. To help you install Windows 7, GIGABYTE provides a tool letting users to download from GIGABYTE website named "Windows USB Installation Tool". This tool helps you to create an installation dongle which includes the driver necessary for backward compatibility. To install Windows 7 using this tool, please follow below steps :
- Plug a USB 3.0 drive (4GB minimum) into another computer.
- Launch the "Windows USB Installation Tool".
- Add the Windows 7 installation files into this USB 3.0 drive.
- Plug the USB drive to EL-20 and follow the steps to install Windows 7.
After the installation of the OS and drivers, the USB 3.0 ports will be backward compatible with USB 2.0 devices.

Safety and Regulatory Information

Sicherheitshinweise und Normen / Information sur la Sécurité et Réglementation / Seguridad y Normativa / Informações Regulatórias e de Segurança / Informazioni di Sicurezza e Regolamenti
Меры безопасности и нормативная информация / Bezpieczeństwo i zgodność z przepisami / Güvenlik ve Yasal Bilgiler / 安全規範 / 安全规范 / 安全性と規制に関する情報 / 안전 및 규제 정보

Risk of explosion if the battery is replaced with an incorrect type. Batteries should be recycled where possible. Disposal of used Batteries must be in accordance with local environmental regulations.	Failure to use the included Model EL-20 Power Adapter may violate regulatory compliance and may expose the user to safety hazards.
Es besteht Explosionsgefahr, wenn die Batterie durch einen falschen Typ ersetzt wird. Batterien müssen recycelt werden, sofern möglich. Gebrauchte Batterien müssen gemäß den örtlichen Umweltschutzvorschriften entsorgt werden.	Die Nichtbenutzung des mitgelieferten Netzteils Modell EL-20 könnte eine Einhaltung gesetzlicher Vorschriften nicht mehr gewährleisten und für den Benutzer zu einem Sicherheitsrisiko werden.
Risque d'explosion si la batterie n'est pas dcompatible. Les piles doivent être recyclées quand cela est possible. Le rejet des batteries usagées doit être effectué en fonction des réglementations locales.	Si no se utiliza el adaptador de corriente incluido modelo EL-20 pueda violar el cumplimiento normativo y puede exponer al usuario a riesgos de seguridad.
Riesgo de explosión si se reemplaza la batería por una incorrecta. Las baterías deben ser reciclados donde sea posible. Eliminación de baterías usadas debe ser de acuerdo con las regulaciones ambientales locales.	O não cumprimento na utilização da fonte de energia modelo EL-20 incluso, pode violar o regulamento e pode expor o usuário a riscos de segurança.
IRisco de explosión caso a bateria seja substituída por tipo errado. Baterias devem ser recicladas. O descarte de baterias usadas devem ser feitas em locais de acordo com o regulamento ambiental.	Il mancato utilizzo della dotazione del modello EL-20 Power Adapter può violare la conformità normativa e può esporre l'utente a rischi per la sicurezza.
Rischio di esplosione della batteria se sostituita con una non corretta. Le batterie devono essere riciclate dove possibile. Lo smaltimento delle batterie usate deve essere svolto in accordo con la regolamentazione locale.	Применение стороннего блока питания отличного от устройства из комплекта поставки модели EL-20 может повлечь за собой нарушение нормативных требований и правил техники безопасности.
Характеристики батареи отличные от оригинальных могут привести к разрушению корпуса элемента (микровзрыву). Использованные батареи должны быть утилизированы в соответствии с рекомендациями местных регулирующих органов.	Użycie innego zasilacza niż dostosowanego do modelu EL-20 może spowodować uszkodzenie sprzętu, a także być niebezpieczne dla zdrowia.
Istnieje ryzyko wybuchu, w razie zastosowania nieodpowiedniego typu baterii. Zużyte baterie mogą być oddpadami niebezpiecznymi. Zużyte baterie powinny być zatem segregowane i utylizowane w miejscach do tego przeznaczonych.	Güvenlik Uyarısı: EL-20 Güç Adaptörünün kullanılmaması kullanıcıya ve cihaza zarar verebilir.
Yanlış şekilde pil takıldığında patlama tehlikesi bulunmaktadır. Piller mümkün olduğunda geri dönüştürülmelidir. Kullanılmış piller yerel çevresel düzenlemelere uygun olarak atık işleme tesislerine gidecek şekilde atılmalıdır.	若不使用隨貨附贈的EL-20型號電源變壓器，可能會違反規範合規性，並讓使用者暴露在危險中。
若以不正確類型的電池進行更換，可能會有爆炸的危險。應儘可能回收電池。應依照當地環保法規實置使用過的電池。	若不使用隨貨附贈的EL-20型号电源适配器，可能不符合规格，并给用户的人身安全带来危险。
若以不正確類型的電池進行更換，可能會有爆炸的危險。應儘可能回收電池。應依照當地環保法規實置使用過的電池。	EL-20に付属の電源アダプターと電源ケーブルは専用品となります。他の機器で使用しないで下さい、安全上の問題や各種規制違反になる場合がございます。
間違ったバッテリーの交換は、破裂など事故の原因になります。可能であればバッテリーはなるべくリサイクルしてください。使用済みバッテリーは地域の環境規制に従い処理してください。	제공된EL-20전원 어댑터를 사용하지 않은 것은 관련 규정을 어긴 것이며 이로인해 안전상의 위험에 노출될 수 있습니다.
	배터리를 잘못된 타입으로 교체하면 폭발 위험이 있습니다. 가능한한 배터리를 재활용하십시오. 수명이 다한 배터리는 현지의 환경 규정에 따라 폐기해야 합니다.