



Universal Notebook Battery Pack

User's Manual



Thank you for purchasing *Energy Box* universal notebook battery pack. *Energy Box* is ideal when your notebook built-in battery gets depleted or when you want to increase your notebook battery runtime. Please read the user manual thoroughly before start using *Energy Box* and keep it in a safe place for future reference.

### Safety precautions

**Danger!** Battery leakage, explosion or fire may be caused if you do not follow the below precautions carefully

In order to prevent battery leakage, heat or explosion, please be aware to:

- Do not throw the battery into water or fire. Avoid water (or any other liquid) seepage into the battery;
- Store the battery in a cool and dry place, do not use under extreme heat;
- Avoid to short circuit the battery terminals with metal objects, do not transport or store the battery with necklace, hair clipper or other metal objects near it;
- Avoid striking, throw or shaking the battery;
- Avoid piercing the battery shell via nail or other sharp objects, avoid to tamper with it, to hammer or to trample on the battery;
- Do not attempt to disassemble or alter the battery in any way.

**This device is designed to power equipments like notebooks. Do not use it to support medical equipments directly related to human life.**

## **Warning!**

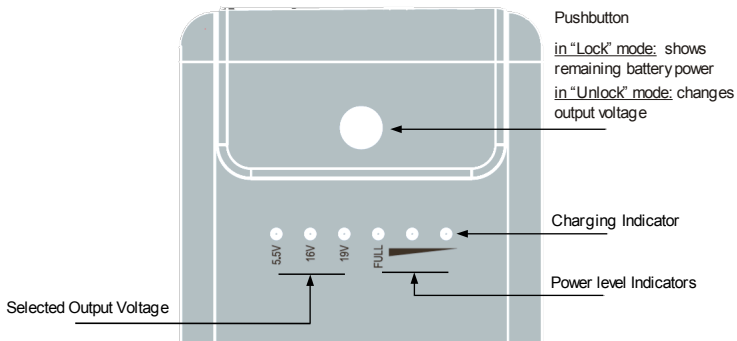
- Do not put battery into microwave oven or pressured vessel;
- Stop using when unusual smell, smoke, heating, colour-change of battery cover or other abnormalities come out of the battery;
- Keep away from the fire when leakage or unusual smell comes out from the battery;
- Leaked electrolyte may cause fire or explosion;
- Do not wipe your eyes if the leaked electrolyte enters into them: wash with running water and ask your doctor for immediate assistance, the eyes may be damaged if not treated timely.

## **Attention!**

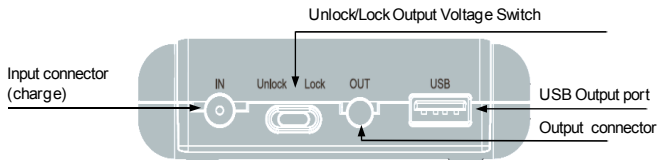
- Do not use the battery in extremely hot environment ( $>40^{\circ}\text{C}$ ), like inside the car with direct sunlight or in summer. Otherwise, the battery becomes overheated. High temperatures decrease the battery performance and shorten its service life.
- If you have to store the battery for a long time (over three months), keep it charged to 50% of the rated capacity (charge once every 3 months), store it in a dry place with a temperature not beyond  $-10^{\circ}\text{C} \sim 40^{\circ}\text{C}$ , and avoid the contact with corrosive objects. Keep away from the fire and heat sources in general.
- Teach children how to use the battery according to the user manual, and pay attention to guarantee their correct operations.
- If the battery leaks the electrolyte on skin or clothes, wash with running water, otherwise it will cause skin inflammation.

## Functions Illustration

### Front Panel Description



### Rear Panel Description



## Basic Operations

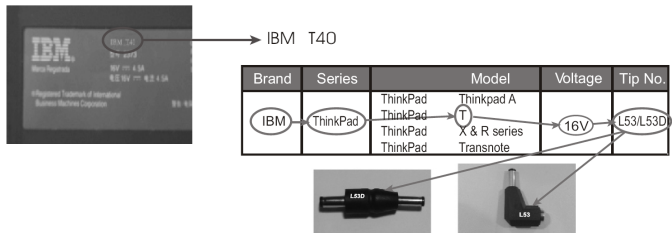
*Energy Box* provides two different voltage outputs (16V - 19V) in order to be compatible with most notebook models.

### Step 1:

Before using *Energy Box*, make sure it is fully charged. Read the “how to charge” section carefully first.

### Step 2:

Refer to the user manual of your notebook or check the label to figure out brand and model. From the compatibility list select the input (Lxx) and output (LxxD) proper tips and the voltage value according to the notebook brand and model. Take IBM T40 as an example.



The diagram illustrates the process of identifying a notebook model and selecting the correct power tip. On the left, a photograph of an IBM T40 notebook is shown with a label that includes the text "IBM T40", "ThinkPad", "16V ~ 4.5A", and "4.5V ~ 4.5A". An arrow points from the "IBM T40" label to the text "IBM T40". To the right is a compatibility table with columns for Brand, Series, Model, Voltage, and Tip No. The table contains the following data:

Brand	Series	Model	Voltage	Tip No.
IBM	ThinkPad	ThinkPad ThinkPad ThinkPad ThinkPad	16V	L53/L53D

Arrows from the table point to images of the power tips: one arrow points from the "L53" tip number to a black L53 tip, and another arrow points from the "L53/L53D" tip number to a black L53D tip.

If your laptop model is not included in the Compatibility List check the voltage of its power supply and then try if any of the tips can fit. Refer to “Tips

Specifications” chapter for the tips characteristics and polarity.

**Step 3:**

Set the battery pack output voltage at the value required by your notebook as follows:

1. Move the Lock/Unlock switch to Unlock position;
2. press the pushbutton to select output voltage. The output voltage is displayed by a LED (5.5V, 16V and 19V are selectable);
3. Move the Lock/Unlock switch back to Lock position;

**Step 4:**

Press the pushbutton on the front panel of the battery pack and check LED indicators. If only one or no indicators are lighted, it means that the battery is not charged and first you have to fully charge it using your notebook charger. Follow the instructions on the “how to charge” section in order to charge *Energy Box*. During the charge the first LED will be red lit. The fully charge status is indicated by the FULL LED (green) lit, and the red LED turned off. In order to improve the charge efficiency, during the charge process do not connect to *Energy Box* your notebook if its built-in battery is discharged.

**Step 5:**

Once *Energy Box* is fully charged, before proceeding the Lock/Unlock switch must be in Lock position. Then connect the selected output tip (LxD) to bundled output cable, then insert it into DC-IN connector of your notebook. Connect the other end of the output cable into OUT connector of *Energy Box*. The battery pack is now ready to supply power to your notebook. As soon as you connect the output cable, *Energy Box* will deliver selected voltage (16V or 19V) to your notebook.

## Battery Level Indicators

Three power level LED indicators show *Energy Box* power status. By pressing the pushbutton on *Energy Box* during discharging or when it is on idle status (switch on Lock position), the remaining power level will be displayed for some second. Details on indicators status are as following:

During charge		During discharge	
0% - 10% (red)		70% - 100% (green)	
10% - 40% (red)		70% - 40% (green)	
40% - 70% (red)		40% - 10% (green)	
100% (green)		<10% (green blink)	

5.5V   16V   19V   FULL

5.5V   16V   19V   FULL

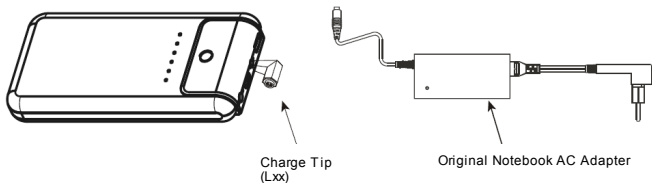
When the remaining power is below 10%, the battery pack goes into low voltage status. This condition is indicated by the first green LED blinking. When this happens, please save your work and switch to mains-operated power as soon as possible.

## USB Output

The USB port provides a 5.5V supply. Connect USB input device (eg. Mobile Phone, MP3 player USB cable, etc.) to *Energy Box* USB port and 5.5V will be delivered to the device.

## How to charge

Connect the proper input tip (Lxx) to the notebook original AC adapter, then connect it to the IN connector of battery pack (refer to illustration for more details). Connect then the other terminal with electricity source to start the charge. During the charge the first LED will be red lit. The fully charge will be indicated by the FULL LED (green) lit, and the red LED turned off. In order to improve the charging efficiency, during the charge of *Energy Box* do not connect your notebook if built-in battery is discharged. Otherwise, the charge time lengthens.



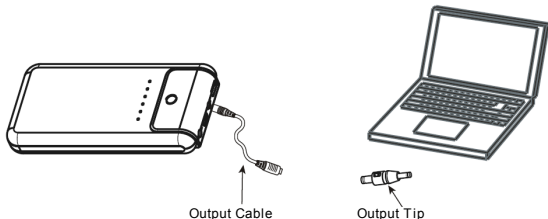
## Main Output Power

Before proceeding the Lock/Unlock switch must be in Lock position. Connect one terminal of the bundled output cable to the OUT connector of battery pack (refer to illustration for more details), and the other terminal to the proper output tip (LxxD) and then to the DC-IN connector of the notebook.

**Note:** make sure *Energy Box* is at proper output voltage level (16V or 19V)



before connect it to the notebook. During battery pack discharge, it will offer power supply to notebook first and charge the notebook built-in battery with small current. In order to improve *Energy Box* runtime, take out the built-in battery from the notebook (if discharged) before connecting it to *Energy Box*.



### Warnings & Protections

In case of high current requirement ( $>3,2A$ ) or abnormal use, *Energy Box* internal temperature can raise to a high degree: should this happen, the battery pack will shut off automatically.

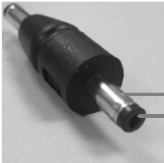
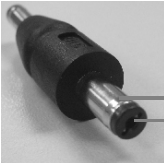
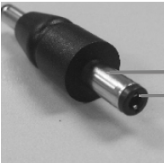
When the internal temperature decreases to a safe degree, the battery pack will turn on and unchain the safety protection automatically. Then it can be used again safely.

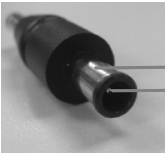
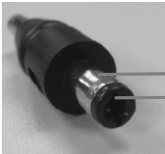
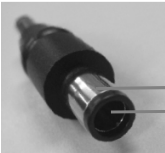

Do not use *Energy Box* with portable devices with high current requirement ( $>3,2A$ ).

## Technical Specifications

Model	Energy Box – Universal Notebook Battery Pack
Capacity	4000mAh
Dimensions (W×D ×H)	170 x 85 x 23 mm
Weight	450 g
Operating Temperature	0 °C ~ 40 °C
<b>Input</b>	
Charge Input (voltage / current)	16Vdc~25Vdc / 4A ~ 2.5A
Charge Time	2.5 ~ 3.5 h
Cycle Life	More than 300 full charging cycles
<b>Output</b>	
Capacity	44.4 W/h
Voltage (OUT)	16V, 19V (selectable)
Voltage (USB OUT)	5.5V (USB port)
Current	3.2 A
Max Constant Output Power	50 W
<b>Accessories</b>	
Input Connector Tips	6 Different types
Output Connector Tips	6 Different types + 1 Output Cable

## Tips Specifications

Model	Picture	Polarity	Dimension
L01D		<p style="text-align: center;">-</p> <p style="text-align: center;">center+</p>	4.75x1.7mm
L51D		<p style="text-align: center;">-</p> <p style="text-align: center;">center+</p>	5.5x1.7mm
L53D		<p style="text-align: center;">-</p> <p style="text-align: center;">center+</p>	5.5x2.5mm

L54D	 <p>A close-up photograph of the L54D connector. It features a black plastic outer shell and a silver metal inner sleeve. Two arrows point to the inner sleeve: the top one is labeled '-' and the bottom one is labeled 'center+'.</p>	-	6.5x4.5mm
L55D	 <p>A close-up photograph of the L55D connector. It features a black plastic outer shell and a silver metal inner sleeve. Two arrows point to the inner sleeve: the top one is labeled '-' and the bottom one is labeled 'center+'.</p>	-	6.3x3.0mm
L61D	 <p>A close-up photograph of the L61D connector. It features a black plastic outer shell and a silver metal inner sleeve. Two arrows point to the inner sleeve: the top one is labeled '-' and the bottom one is labeled 'center+'.</p>	-	5.5x1.7mm
Output Cable	 <p>A photograph of a black output cable with a standard three-prong electrical plug at one end and a connector at the other.</p>		5.5x2.1mm

### Devices and Tips Compatibility List

Brand	Series Model	Voltage	Tips Number
<b>Acer/TI</b>	Extensa 501 Extensa 502 Extensa 503 Extensa 600 Series Extensa 700 Series Extensa 710 Series Extensa 712 Series	19V	Output Cable
	Extensa 390 Extensa 390C Extensa 391 Extensa 392 Extensa 393 Extensa 394 Extensa 395 Extensa 512 Extensa 513 Extensa 514 Extensa 515 Extensa 516 Extensa 517 Extensa 610 Extensa 610CD Extensa 610CDT Extensa 616 Series Extensa 620 Series Extensa 690 Series Extensa 900 Series	19V	L53/L53D

Brand	Series Model	Voltage	Tips Number
<b>Acer/TI</b>	Travelmate 200	19V	L51/L51D
	Travelmate 201		
	Travelmate 202		
	Travelmate 203		
	Travelmate 204		
	Travelmate 205		
	Travelmate 210		
	Travelmate 212		
	Travelmate 213		
	Travelmate 220		
	Travelmate 222		
	Travelmate 260		
	Travelmate 261		
	Travelmate 270		
	Travelmate 290		
	Travelmate 290E		
	Travelmate 310		
	Travelmate 311		
	Travelmate 312		
	Travelmate 313		
	Travelmate 314		
	Travelmate 330		
	Travelmate 332		
Travelmate 333			
Travelmate 340			
Travelmate 341			
Travelmate 342			
Travelmate 343			
Travelmate 344			
Travelmate 345			

Brand	Series Model	Voltage	Tips Number
<b>Acer/TI</b>	Travelmate 346	19V	L51/L51D
	Travelmate 347		
	Travelmate 350		
	Travelmate 351-354		
	Travelmate 361-364		
	Travelmate 505		
	Travelmate 506		
	Travelmate 507		
	Travelmate 508		
	Travelmate 520		
	Travelmate 521		
	Travelmate 524		
	Travelmate 525		
	Travelmate 527-529		
	Travelmate 534		
	Travelmate 600		
	Travelmate 602		
	Travelmate 603		
	Travelmate 604		
	Travelmate 610		
	Travelmate 611		
Travelmate 612			
Travelmate 613			
Travelmate 614			
Travelmate 620			
Travelmate 621			
Travelmate 622			
Travelmate 623			
Travelmate 630			
Travelmate 631			

<b>Brand</b>	<b>Series Model</b>	<b>Voltage</b>	<b>Tips Number</b>
<b>Acer/TI</b>	Travelmate 632 Travelmate 633 Travelmate 710 Travelmate 720 Travelmate 721 Travelmate 722 Travelmate 723 Travelmate 730 Travelmate 732 Travelmate 734 Travelmate 735 Travelmate 736 Travelmate 737 Travelmate 738 Travelmate 739 Travelmate 740 Travelmate 741 Travelmate 742 Travelmate 743 Travelmate 744	19V	L51/L51D
<b>ALPHA-TOP</b>	U370 Micron	19V	L53/L53D
	G756 U360	19V	Output Cable
<b>AMI</b>	FT6T20 TF6760	19V	L53/L53D
<b>AST</b>	Ascentia AST Ascentia A40 Ascentia A41	19V	L54/L54D



Brand	Series Model	Voltage	Tips Number
<b>AST</b>	Ascentia A4 Ascentia A432 Ascentia A51 Ascentia A60 Ascentia A70	19V	L54/L54D
<b>ASUS</b>	A1000 Series ArtBook L7336 B1000 Series F7000 F7400 Grandio F7400 L1000B Series L2000B Series L2000D Series L2000E Series L3000C Series L3000S Series L7000 L7000C L7200 L7233 L7300 L8400 M1000 Series M2000 Series M2 Sereis MP8xxx Series S1000 Series T4700CS	19V	L01/L01D

<b>Brand</b>	<b>Series Model</b>	<b>Voltage</b>	<b>Tips Number</b>
<b>ASUS</b>	T7200 T9000 Series	19V	L01/L01D
<b>BAYCOM</b>	2200 Series 2700 Series 2850 Series	19V	L53/L53D
<b>ChemUSA</b>	Chembook 6120 Chembook 6120L Chembook 6120N Chembook 7020	19V	L55/L55D
	Chembook 1535 Chembook 2020 Chembook 2056 Chembook 2250 Chembook 2300 Chembook 2333 Chembook 2370VA Chembook 3015 Chembook 3015E Chembook 3815 Chembook 3830 Chembook 3830A Chembook 4025 Chembook 4027 Chembook 5200 Chembook 5400 Chembook 5580 Chembook 9400 Chembook 9750	19V	L53/L53D

<b>Brand</b>	<b>Series Model</b>	<b>Voltage</b>	<b>Tips Number</b>
<b>ChemUSA</b>	Chembook 9780 Chembook 9950	19V	L53/L53D
	Chembook 1200 Chembook 2060E Chembook 7200 Chembook 7300 Chembook 7400 Chembook 8200 Chembook 8400 Chembook 3300N	19V	L01/L01D
<b>Compaq</b>	Armada 100 Armada 4100 Armada 4200 Series	16V	Output Cable
	Armada 1100 Armada 1120 Armada 1125 Armada 1130 Armada 4110 Armada 4110D Armada 4110T Armada 4120 Armada 4120T Armada 4124D Armada 4125D Armada 4130 Armada 4130T Armada 4131 Armada 4131T	19V	Output Cable

Brand	Series Model	Voltage	Tips Number
<b>Compaq</b>	Armada 4150 Armada 4150T Armada 4160 Armada 4160T Armada 4210T Armada 4220T	19V	Output Cable
	Armada 110 Armada E300 Armada E500 Armada E700 Armada M300 Armada M700 Armada V300 Armada 600 series Armada 800 series Armada M-series	19V	L01/L01D
	Contura 3/20 Contura 3/25 Contura 3/25C Contura 4/20 Contura 4/25 Contura 4/25C Contura 4/25CX	19V	Output Cable
	Contura 386/486 series Contura 400C Contura 400CX Contura 410C Contura 410CX	19V	L53/L53D

Brand	Series Model	Voltage	Tips Number
<b>Compaq</b>	Contura 420C Contura 420CX Contura 430C Contura 430CX	19V	L53/L53D
	Presario 1000 Presario 1010 Presario 1020 Presario 1030 Presario 1040 Presario 1050 Presario 1060 Presario 1065 Presario 1070 Presario 1072 Presario 1075 Presario 1080 Presario 1082 Presario 1084 Presario 1090 Presario 1207 Presario 1210 Presario 1215 Presario 1220 Presario 1221 Presario 1230 Presario 1232 Presario 1235 Presario 1236 Presario 1237	19V	L53/L53D

Brand	Series Model	Voltage	Tips Number
<b>Compaq</b>	Presario 1240	19V	L53/L53D
	Presario 1244		
	Presario 1245		
	Presario 1247		
	Presario 1250		
	Presario 1255		
	Presario 1256		
	Presario 1260		
	Presario 1262		
	Presario 1266		
	Presario 1267		
	Presario 1270		
	Presario 1272		
	Presario 1273		
	Presario 1274		
	Presario 1275		
	Presario 1277		
	Presario 1279		
	Presario 1280		
	Presario 1400		
	Presario 1400T		
	Presario 1600		
	Presario 1610		
	Presario 1611		
	Presario 1615		
	Presario 1620		
Presario 1621			
Presario 1622			
Presario 1625			
Presario 1630			

Brand	Series Model	Voltage	Tips Number
<b>Compaq</b>	Presario 1640	19V	L53/L53D
	Presario 1650		
	Presario 1655		
	Presario 1665		
	Presario 1670		
	Presario 1672		
	Presario 1675		
	Presario 1680		
	Presario 1681		
	Presario 1685		
	Presario 1687		
	Presario 1688		
	Presario 1690		
	Presario 1692		
	Presario 1693		
	Presario 1694		
	Presario 1700		
	Presario 1700T		
	Presario 1700XL		
	Presario 1710		
	Presario 1710SB		
	Presario 1800		
	Presario 1800T		
	Presario 1800XL		
	Presario 1810		
	Presario 1820		
Presario 1825			
Presario 1827			
Presario 1830			
Presario 2700			

Brand	Series Model	Voltage	Tips Number
<b>Compaq</b>	Presario 2700T	19V	L53/L53D
	Presario 700		
	Presario 700Z		
	Presario 701		
	Presario 702		
	Presario 703		
	Presario 704		
	Presario 705		
	Presario 705US		
	Presario 706		
	Presario 710		
	Presario 711		
	Presario 712		
	Presario 713		
	Presario 714		
	Presario 715		
	Presario 716		
	Presario 717		
	Presario 718		
	Presario 719		
Presario 720			
Presario 721			
Presario 722			
Presario 723			
Presario 724			
Presario 725			
Presario 800			
Presario 800XL			
	Prosignia 160 Prosignia 170	19V	L01/L01D



<b>Brand</b>	<b>Series Model</b>	<b>Voltage</b>	<b>Tips Number</b>
	Prosignia 190		
<b>DELL</b>	Latitude 433M Latitude 433MC Latitude 433MCX Latitude 450MC Latitude 450MCX Latitude 475C Latitude 475D Latitude 475MC Latitude LX Latitude LXX 4100/T	19V	L53/L53D
	Latitude LX 450 Latitude XP 4100 Latitude XP4100C Latitude XP4100CX Latitude XP4100T Latitude XP450C Latitude XP475C Latitude XP475D	19V	L54/L54D
	Latitude D400 Latitude D410 Latitude D500 Latitude D505 Latitude D600 Latitude D610 Latitude D800 Latitude D810 Latitude X300	19V	L61/L61D

<b>Brand</b>	<b>Series Model</b>	<b>Voltage</b>	<b>Tips Number</b>
<b>DELL</b>	Inspiron 1150 Inspiron 6000 Inspiron 8500 Inspiron 8600 Inspiron 9200 Inspiron 9300 Inspiron 300m Inspiron 500m Inspiron 600m Inspiron 700m	19V	L61/L61D
	Precision M20 Precision M60 M70 Workstation	19V	L61/L61D
<b>Digital</b>	HINOTE 700VP SERIES ERA-1000	19V	L53/L53D
<b>DUAL</b>	ERA 1000 VDA9950	19V	L53/L53D
<b>E-Machine</b>	Endeavor TK-300	16V	L53/L53D
	E Slate Series Action Note 800	19V	L53/L53D
	866 880 890 895 900 910	19V	L53/L53D

<b>Brand</b>	<b>Series Model</b>	<b>Voltage</b>	<b>Tips Number</b>
<b>EPSON</b>	CtionNote 800 CtionNote 866 CtionNote 880 CtionNote 895 CtionNote 900 CtionNote 910	19V	L53/L53D
<b>Featron</b>	FT 8850 FT 9900	19V	L53/L53D
<b>FUJITSU</b>	Series B Series C Series E Series FMV Series CX Series L Series I Series S	16V	L54/L54D
	Lifebook 270Dx Lifebook 280Dx Lifebook 400 Lifebook 420 Lifebook 420D Lifebook 435Dx Lifebook 470 Lifebook 520 Lifebook 520D Lifebook 520T Lifebook 530 Lifebook 530T	16V	L54/L54D

Brand	Series Model	Voltage	Tips Number
<b>FUJITSU</b>	Lifebook 531T Lifebook 531T Lifebook 535T Lifebook 535TX Lifebook 555TX Lifebook 565TX Lifebook 585TX Lifebook 635 Lifebook 635T Lifebook 635TX Lifebook 655 Lifebook 655TX Lifebook 656TX Lifebook 675TX Lifebook 690TX Lifebook 735CDT Lifebook 735TX Lifebook 755TX Lifebook 756TX Lifebook 765DX Lifebook 765TX Lifebook 770TX Lifebook 785TX Lifebook 790TX Lifebook 985TX Lifebook 990TX Lifebook 990TX2	16V	L54/L54D
	Lifestyle Milan	16V	L54/L54D

Brand	Series Model	Voltage	Tips Number
FUJITSU	MonteCarlo MontegoFujitsu LifeStyle Pen Centra 200 Stylistic 3400 Stylistic 2300 Stylistic 1200 Point 1600 Point 510	16V	L54/L54D
	Stylus 3400 Tablet		
Gateway	Solo 1100 Solo 1150 Solo 1400 Solo 1450 Solo 1200 Solo 9550 GATEWAY Solo 2100-9500 series except 3300,3450 and 3350	19V	Output Cable
HITACHI	Flora Prius 210 Flora Prius 220N	16V	L53/L53D
	Vision Book Pro Vision Book Elite Vision Book Plus Vision Book E Vision Book E100D Vision Book E100DC Vision Book E100DN	19V	L53/L53D

Brand	Series Model	Voltage	Tips Number
<b>HITACHI</b>	Vision Book E133D Vision Book E133DN Vision Book E133T Vision Book E133TC Vision Book MX133T Vision Book MX150T Vision Book MX166T	19V	L53/L53D
	Flora prius 20L	19V	L54/L54D
<b>HP</b>	Pavilion Zt1125 Pavilion Zt1130 Pavilion Zt1131 Pavilion Zt1132 Pavilion Zt1135 Pavilion Zt1141 Pavilion Zt1142 Pavilion Zt1145 Pavilion Zt1150 Pavilion Zt1151 Pavilion Zt1152 Pavilion Zt1155 Pavilion Zt1161 Pavilion Zt1162 Pavilion Zt1170 Pavilion Zt1171 Pavilion Zt1172 Pavilion Zt1175 Pavilion Zt1180 Pavilion Zt1181	19V	L53/L53D

Brand	Series Model	Voltage	Tips Number		
<b>HP</b>	Pavilion Zt1182 Pavilion Zt1185 Pavilion Zt1190 Pavilion Zt1192 Pavilion 5200 series Pavilion 5400 series Pavilion ZE Pavilion ZT Pavilion ZU series Pavilion Xh455 Pavilion Xh485 Pavilion Xh535 Pavilion Xh545 Pavilion Xh555 Pavilion Xh575 Pavilion Xh675 Pavilion Xu155 Pavilion Xz185 Pavilion Xz275 Pavilion Ze1110 Pavilion Zt1114 Pavilion Zt1120 Pavilion Zt1121	19V	L53/L53D		
	Omnibook 2000 Omnibook 2100 Omnibook 2103 Omnibook 2105 Omnibook 3000 Omnibook 3100			19V	L53/L53D

Brand	Series Model	Voltage	Tips Number		
<b>HP</b>	Omnibook 3101 Omnibook 3250 Omnibook 4000 Omnibook 4000C Omnibook 4000CT Omnibook 4000E Omnibook 4000M Omnibook 4100 Omnibook 4150 Omnibook 4150B Omnibook 6000 Omnibook 6050 Omnibook 6100 Omnibook 6200 Omnibook 7100 Omnibook 7103 Omnibook 7150 Omnibook Vt6200 Omnibook Xt1000	19V	L53/L53D		
	XT15 2000 6000 series 7100 series 7150 series XE series XE2 series XE3 series 900 series			19V	L53/L53D
	N1340 N3100			19V	L53/L53D



Brand	Series Model	Voltage	Tips Number
<b>HP</b>	N3110	19V	L53/L53D
	N3150		
	N3200		
	N3215		
	N3250		
	N3270		
	N3290		
	N3295		
	N3300		
	N3390		
	N3400		
	N3402		
	N3410		
	N3438		
	N3478		
	N3490		
	N5000		
	N5100		
	N5125		
	N5150		
	N5170		
	N5190		
	N5195		
	N5200		
N5210			
N5240			
N5250			
N5270			
N5290			
N5295			

Brand	Series Model	Voltage	Tips Number
<b>HP</b>	N5300	19V	L53/L53D
	N5310		
	N5311		
	N5340		
	N5421		
	N5422		
	N5425		
	N5430		
	N5435		
	N5440		
	N5441		
	N5442		
	N5444		
	N5445		
	N5450		
	N5452		
	N5454		
	N5455		
	N5461		
	N5462		
	N5470		
	N5472		
	N5474		
	N5475		
N5481			
N5482			
N5484			
N5490			
N5491			
N5495			

Brand	Series Model	Voltage	Tips Number
<b>HP</b>	N5511 N5584 N6191 N6195 N6395 N6396 N6397 N6398 N6399 N6400 N6401 N6403 N6404 N6490	19V	L53/L53D
<b>IBM</b>	ThinkPad I- Series 1410 ThinkPad I- Series 1411 ThinkPad I- Series 1441 ThinkPad I- Series 1450 ThinkPad I- Series 1451 ThinkPad I- Series 1472 series	19V	Output Cable
	ThinkPad I- Series 1200 ThinkPad I- Series 1210 ThinkPad I- Series 1230 ThinkPad I- Series 1250 ThinkPad I- Series 1260 ThinkPad I- Series 1300 ThinkPad I- Series 1330 ThinkPad I- Series 1400	16V	L53/L53D

Brand	Series Model	Voltage	Tips Number		
<b>IBM</b>	ThinkPad I- Series 1412 ThinkPad I- Series 1418 ThinkPad I- Series 1420 ThinkPad I- Series 1434 ThinkPad I- Series 1435 ThinkPad I- Series 1436 ThinkPad I- Series 1442 ThinkPad I- Series 1470 ThinkPad I- Series 1476 ThinkPad I- Series 1480 ThinkPad I- Series 1500 ThinkPad I- Series 1512 ThinkPad I- Series 1540 ThinkPad I- Series 1541 ThinkPad I- Series 1552 ThinkPad I- Series 1560 ThinkPad I- Series 1700 ThinkPad I- Series 1720 ThinkPad I- Series 1721	16V	L53/L53D		
	ThinkPad 235 ThinkPad 240 ThinkPad 290 ThinkPad 310 ThinkPad 340 ThinkPad 345 ThinkPad 365 ThinkPad 380 ThinkPad 385 ThinkPad 390			16V	L53/L53D

<b>Brand</b>	<b>Series Model</b>	<b>Voltage</b>	<b>Tips Number</b>
<b>IBM</b>	ThinkPad 535 ThinkPad 560 ThinkPad 570 ThinkPad 600 ThinkPad 701 ThinkPad 770 ThinkPad 2621-xxx ThinkPad 1161-xxx ThinkPad 1171-xxx	16V	L53/L53D
	ThinkPad 600X Series ThinkPad 2645 ThinkPad 2611 ThinkPad Thinkpad A ThinkPad T ThinkPad X & R series ThinkPad Transnote	16V	L53/L53D
	ThinkPad 730T ThinkPad 350Series ThinkPad 500 ThinkPad 510 Series	19V	Output Cable
<b>ITRONIX</b>	GoBook Series	19V	Output Cable
<b>JETBOOK</b>	Jetbook Series	19V	L53/L53D
<b>LEO</b>	Designote 6800 9800 Green 400	19V	L53/L53D

Brand	Series Model	Voltage	Tips Number
<b>NEC</b>	Ready 220T Ready 330T Ready 340T Ready 360T series Ready 440T Ready VX	19V	L53/L53D
<b>PANASONIC</b>	ToughBook Cf01 ToughBook Cf07 ToughBook Cf17 ToughBook Cf25 ToughBook Cf27 ToughBook Cf28 ToughBook Cf33 ToughBook Cf34 ToughBook Cf35 ToughBook Cf37 ToughBook Cf41 ToughBook Cf42 ToughBook Cf45 ToughBook Cf47 ToughBook Cf48 ToughBook Cf61 ToughBook Cf62 ToughBook Cf63 ToughBook Cf71 ToughBook Cf72 ToughBook Cf-105B ToughBook Cf-170 ToughBook Cf-270 ToughBook Cf-37	16V	L53/L53D

<b>Brand</b>	<b>Series Model</b>	<b>Voltage</b>	<b>Tips Number</b>
<b>PANASONIC</b>	ToughBook Cf-380 ToughBook Cf-M34 ToughBook Cf-V21 ToughBook Cf-V21P ToughBook Cf-V25 ToughBook Cf-V41 ToughBook Cf-V45	16V	L53/L53D
<b>PRIMEBOOK</b>	P series	19V	L53/L53D
<b>QUANTEX</b>	H series I series T series W series 1550 TS30T H-1331	19V	L53/L53D
<b>SAMSUNG</b>	Pro sens 500 Pro sens 522 Pro sens 523 Pro sens 524 Pro sens 525	19V	L54/L54D
	Samsung GT 8000	19V	Output Cable
<b>SHARP</b>	Sharp Pc3000 Sharp Pc3010 Sharp Pc3020 Sharp Pc3030 Sharp Pc3040 Sharp Pc3050	19V	L53/L53D

Brand	Series Model	Voltage	Tips Number
<b>SHARP</b>	Sharp Pc3060 Sharp Pc3070 Sharp Pc3080 Sharp Pc3150 Sharp Pc9000 Sharp Pc9010 Sharp Pc9020 Sharp Pc9030 Sharp Pc9040 Sharp Pc9050 Sharp Pc9340T	19V	L53/L53D
<b>SONY</b>	Vaio GR Vaio SR Vaio SRX Vaio VX series Vaio 161L Vaio PCG-500 Vaio PCG-505 Vaio PCG-505EX Vaio PCG-505F Vaio Picturebook PCG-C1X Vaio 505, PCG-505FX Vaio PCG-505G Vaio PCG-505GX Vaio PCG-505LS Vaio PCG-505TR Vaio PCG-505TS Vaio PCG-505TX Vaio PCG-505X Vaio Picturebook PCG-C1X	16V	L54/L54D



Brand	Series Model	Voltage	Tips Number
<b>SONY</b>	Vaio PCG-XG	19V	L54/L54D
	Vaio 808		
	Vaio 812		
	Vaio 818		
	Vaio 838		
	Vaio PCG-Z505		
	Vaio PCG-Z600		
	Vaio PCG-R600		
	Vaio QR series		
	Vaio PCG-430 thru 490		
	Vaio PCG-431		
	Vaio PCG-450		
	Vaio PCG-461		
	Vaio PCG-480		
	Vaio PCG-481		
	Vaio PCG-490		
	Vaio PCG-491		
	Vaio PCG-700		
	Vaio PCG-705C		
	Vaio PCG-707C		
	Vaio PCG-717C		
	Vaio PCG-719C		
	Vaio PCG-731		
Vaio PCG-735			
Vaio PCG-737			
Vaio PCG-745			
Vaio PCG-747			
Vaio PCG-705 thru 748C			
Vaio PCG-F			
Vaio FX			

Brand	Series Model	Voltage	Tips Number					
<b>SONY</b>	Vaio XG series Vaio 580 Vaio 800 Vaio 161L Vaio PCG-900 Vaio PCG-955A Vaio PCG-9401 Vaio PCG-Z505 Vaio PCG-Z600 Vaio PCG-Z600 Vaio PCG-R600 Vaio QR Series	19V	L54/L54D					
	<b>TOSHIBA</b>			Libretto 20CT Libretto 30CT Libretto 50CT Libretto 60CT Libretto 70CT	16V	L55/L55D		
				Protégé 300 Protégé 320 Protégé 610 Protégé 620 Protégé 650 Protégé 660 Protégé 3400 Protégé 3600 Protégé 7000 Protégé 7010 Protégé 7020 Protégé 7030			16V	L55/L55D

Brand	Series Model	Voltage	Tips Number
<b>TOSHIBA</b>	Protégé 7140 Protégé 7200 Protégé M200 Tablet Protégé R100	16V	L55/L55D
	Satellite A85 Satellite 1000 Satellite 1005 Satellite 1600 Satellite 1605 Satellite 1625 Satellite 1700 Satellite 3000 Satellite M30X Satellite M35X	19V	L53/L53D
	Satellite T1850 Satellite T1900 Satellite T1910 Satellite T1950 Satellite T1960 Satellite T2400 Satellite T3400 Satellite T3600 Satellite T4500 Satellite T4600 Satellite T4700 Satellite T4700C Satellite T4700CS Satellite T4700CT Satellite T4700	19V	Output Cable

Brand	Series Model	Voltage	Tips Number
<b>TOSHIBA</b>	Satellite T4800 Satellite T4800CT Satellite T4850CT Satellite T4900 Satellite T4900CT Satellite T4950CT	19V	Output Cable
	Satellite T200 thru 4100 Satellite 200 Satellite 220 Satellite 225 Satellite 305 Satellite 315 Satellite 320 Satellite 325 Satellite 330 Satellite 335 Satellite 440 Satellite 460 Satellite 470 Satellite 480 Satellite 490 Satellite 1555 Satellite 1800 Satellite 2000 Satellite 2100 Satellite 2140 Satellite 2180 Satellite 2210 Satellite 2280 Satellite 2500	16V	L55/L55D

Brand	Series Model	Voltage	Tips Number
<b>TOSHIBA</b>	Satellite 2590	16V	L55/L55D
	Satellite 2600		
	Satellite 2615		
	Satellite 2655		
	Satellite 2675		
	Satellite 2700		
	Satellite 2715		
	Satellite 2800		
	Satellite 2805		
	Satellite 4000		
	Satellite 4010		
	Satellite 4020		
	Satellite 4030		
	Satellite 4060		
	Satellite 4080		
	Satellite 4090		
	Satellite410		
	Satellite 4200		
	Satellite 4280		
	Satellite 4300		
Satellite 4600			
Satellite 1800-S203			
Satellite 1800-S253			
Satellite 2250XCDS			
Satellite 2250CDT			
Satellite M30			
	Satellite Pro 400 Satellite Pro 405 Satellite Pro 410 Satellite Pro 415	16V	L55/L55D

Brand	Series Model	Voltage	Tips Number
	Satellite Pro 420 Satellite Pro 425 Satellite Pro 430 Satellite Pro 435 Satellite Pro 440 Satellite Pro 445 Satellite Pro 460 Satellite Pro 465 Satellite Pro 470 Satellite Pro 480 Satellite Pro 490 Satellite Pro 490X Satellite Pro CDX Satellite Pro CDS	16V	L55/L55D
<b>TOSHIBA</b>	Tecra 500 Tecra 505 Tecra 510 including CDT Tecra M1 Tecra M2 Tecra S1 Tecra 520 Tecra 530 Tecra 550 Tecra 700 Tecra 710 Tecra 720 Tecra 730 Tecra 730X Tecra 740 Tecra 750	16V	L55/L55D

<b>Brand</b>	<b>Series Model</b>	<b>Voltage</b>	<b>Tips Number</b>
<b>TOSHIBA</b>	Tecra 780 Tecra 8000 Tecra 8100 Tecra 8200 Tecra 9000 Tecra 9100	16V	L55/L55D
	4090XDVD 2545CDS	16V	Output Cable
<b>TRIGEM</b>	Dreamboo A Dreamboo F Dreamboo T Dreamboo U Dreamboo X Dreamboo A Dreamboo F Dreamboo T Dreamboo U Dreamboo X	19V	L01/L01D
<b>Twinhead</b>	Figaro 300TG Figaro 500TZ.500TG Figaro P88T Figaro 600	19V	L53/L53D
	SlimNote 910CV SlimNote 9133TV SlimNote 9133TZ SlimNote 9159TZ SlimNote 9166TZ SlimNote VX	19V	L53/L53D

Brand	Series Model	Voltage	Tips Number
<b>Twinhead</b>	SlimNote VXE SlimNote VXE3 SlimNote Gx2 SlimNote 602TZ	19V	L53/L53D
	Marco Polo S Body Power Slim 601TZ Power Slim 600	19V	Output Cable
<b>VIEWSONIC</b>	Viewsonic Viewpad 1000	16V	L53/L53D
	Viewsonic Viewpad 100	19V	L53/L53D
<b>Winbook</b>	Winbook XP Series Winbook Xp5 Pro Series Winbook FX Series Winbook Si Series Winbook Z Series Winbook X Series Winbook J Series (all models)	19V	L53/L53D
	Winbook XL Winbook XL2 Winbook X L3 Series	19V	L51/L51D



1. The above list is to be considered a partial list. Additional tips not bundled with Energy Box might be necessary for compatibility with digital devices not included on the list.

2. Standard Tips bundled: L01, L01D, L51, L51D, L53, L53D, L54, L54D, L55, L55D, L61, L61D

[www.microdowell.com](http://www.microdowell.com) – [info@microdowell.com](mailto:info@microdowell.com)