

TREBS

User manual

Bluetooth Hands free & 2.4Ghz
Wireless Rearview Mirror System

Model No.: CC-120



TRE-BS-132

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*Comfortcam is not responsible for any damage resulting from installation and use of this product.

*2.4 GHz devices as e.g. cell phones, navigation, bluetooth and Wi-Fi system scan have influence on the performance of this product.

FOREWORD

CONGRATULATIONS. CC-120 is a Bluetooth Hands free & 2.4GHz Wireless Rearview Mirror System with 3.5" TFT-LCD monitor. The system can make you to drive more safely and more convenient, and also provides you more recognition of backside image display. The Rearview Camera, when used as described, will give you years of dependable service in your car, or mini-van. We have taken numerous measures in quality control to ensure that your product arrives in top condition, and will perform to your satisfaction.

PACKING LIST



①



②



③



④



⑤



⑥



⑦



⑧

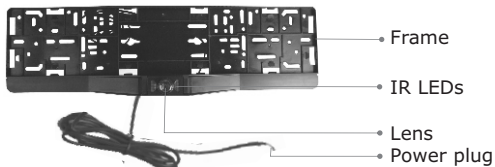


⑨

- 1.Rearview Camera: Wired Camera with Night Vision.
- 2.Monitor: 3.5 inch TFT-LCD, with 960*240 resolution
- 3.Earphone
- 4.Wireless Transmission Box : Connected to wired camera, car power wire. It transmits signals to monitor.
- 5.Power Adapter: 12 Volt Car Power Adapter and built in 2.4GHz wireless receiver
- 6.Audio cable for listening MP3.
- 7.3Fuse and sticker. Fuse is accessory for power adaptor, and sticker is for wireless receiver if necessary.
- 8.In-Line Wire Connectors: To expose reverse light wires.
- 9.Sheet Metal Screws: To install camera.



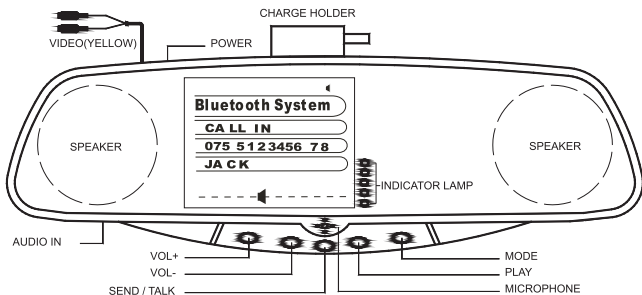
Rearview Camera



Wireless Transmission Box



TFT-LCD Monitor



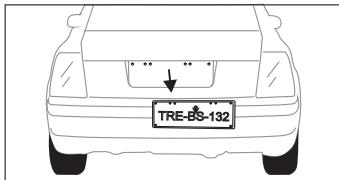
We advise to test the system before installation to prevent any damage on the vehicle. Follow the steps mentioned below precisely to test the system.

1. Connect 12V car adaptor to the vehicle's cigarette lighter and connect the black and yellow plugs to the monitor.
2. Search at the rear of the vehicle for find back up light wiring.
3. Splice the red wire of the Transmission Box power cable to the reverse light's positive (+) wire of the vehicle.
4. Splice the black wire of the Transmission Box power cable to the reverse light's negative (-) wire of the vehicle.
5. Replace the reverse light bulb, and then re-install the light socket. Re-attach the negative battery cable to the battery.
6. Engage the parking brake and turn the ignition key to the ON position. DO NOT start the vehicle. Put the gear shift into reverse.
7. The camera will start broadcasting, and the monitor will detect the signal and turn itself ON. If the monitor does not come ON, press the ON/OFF button.
8. If the image does not match your rear view mirror, press the **mode** button on the monitor to change the image until it matches your rear view mirror.
9. When you take the gear shift out of reverse the camera will turn OFF, and the monitor will turn black.

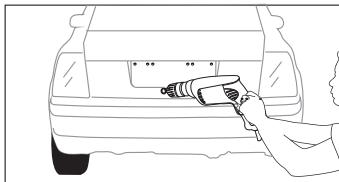
INSTALLATION

Installation of the camera:

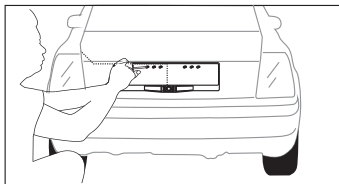
1. Loosen the license plate bolt or screw, and then remove the license plate on the rear of your car.



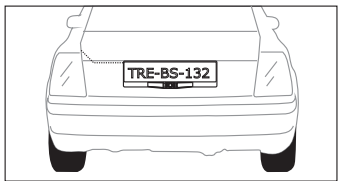
2. Drill one hole for power cable in the middle of below license plate, where the camera will exist.



3. Install the frame camera with bolt/screw, and adjust the camera to a suitable angle. Tow the power wire into the car through the interstices of the car.

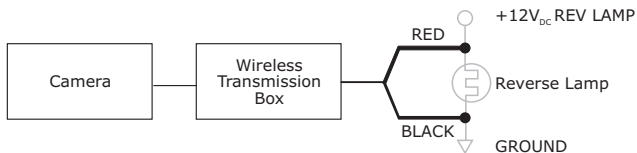


4. Install the license plate to the frame.



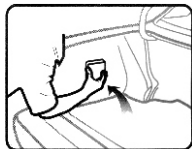
Wireless Transmission Box Installation

1. Wiring Connector Diagram



2. Basic Installation

1). Find proper spaces for install the transmission box.

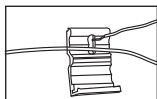


2). Connect the red wire of the transmitter to the positive wire of the back up light. Connect the black wire of the transmitter to the vehicle ground.

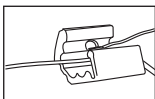
3). Connect the yellow plug of the transmitter to the yellow socket of the camera. Connect the black plug of the transmitter to the red socket of the camera. If the cable is too short extend with the supplied extension cable.

4). Instructions Line-In-Connection

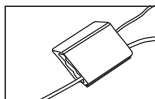
Before connecting the transmitter you may use the line-in connection.



Insert the existing wire to be tapped.



Insert the wire to be attached.



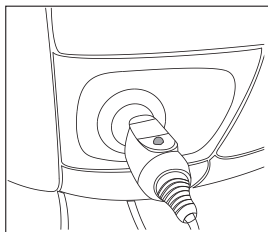
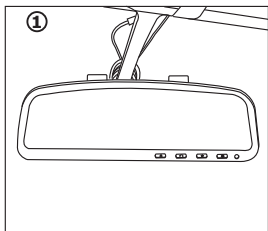
Crimp tap then close lock

3. BLUETOOTH installations

Please refer to extra manual of "BLUETOOTH User manual 3.0".

Installation of the monitor:

1. Camera is be attached the front rearview mirror instead of the front rearview mirror.
2. Connect power of the monitor. To use the car power adapter included in the package to get the power.
3. Power ON and adjust brightness etc. according to the details manuals of Bluetooth.



SPECIFICATIONS

	Items	CC-120
Camera	Imaging Sensor	CMOS
	Total Pixels	720×480(NTSC)720×576(PAL)
	Horizontal View Angle	80 degree
	Transmission Power	2mW/FCC,10wm/CE
	Minimum Illumination	0 Lux (IR ON)
	IR Night Range	4m
	Power Supply	Supplied By Transmission Box
	Consumption Current(Max.)	120mA
	Dimensions(W×D×H)	525×148×45(mm)
	Weight(about)	264g
	Monitor	LCD Screen Type
Effective Pixels		960 × 240
Received Sensitivity		≤-85dBm
Power Supply Voltage		+12Vdc
Consumption Current (Max.)		600mA
Unobstructed Effective Range(Min.)		40m
Dimensions(W×D×H)		285 × 90 × 24(mm)
Weight(about)		370g
Transmission Frequency		ISM 2,400~2,483 MHz

*Actual transmission range may vary according to the weather, location, interference and building construction.

*All the specifications are subject to minor change without prior notice.

CAUTIONS

- 1.The system voltage is 9V~15V. Do NOT use the system for vehicles with voltage system higher than 15V; this will cause irreparable damage.
- 2.The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
- 3.The transmitter is integrated in the car adaptor. Do not make any adjustments.
- 4.The adapter built in wireless transmission mould, don't change it in any situation.
- 5.The camera/receiver can only be completely disconnected from the mains by unplug the adapter.
- 6.Do not cut the DC power cable of the apparatus to fit with another power source.
- 7.Attention should be drawn to the environment aspects of battery disposal.

Declaration of Conformity:

We, Trebs BV, declare under our sole responsibility that this product is in conformity with the essential requirements and other relevant requirements of the R&TTE Directive (1999/5/EC). The product is compliant with the following standards and/ or other normative documents:

EN 50371 : 2002

EN 60065 : 2002 + A1 : 2006

EN301 489-3 vl. 4.1 (2002-08)

EN300 440 -2 vl. 2.1 (2008-05)

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Trebs Comfortcam is a brand of Trebs BV. All other brands in this manual and/ or packaging do not belong to Trebs BV and have another justified holder.

EU Environmental Protection

Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.



The logo consists of the word "TREBS" in a bold, sans-serif font, enclosed within a thin black rectangular border.

TREBS

BLUETOOTH User manual 3.0
for model CC-120

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Welcome

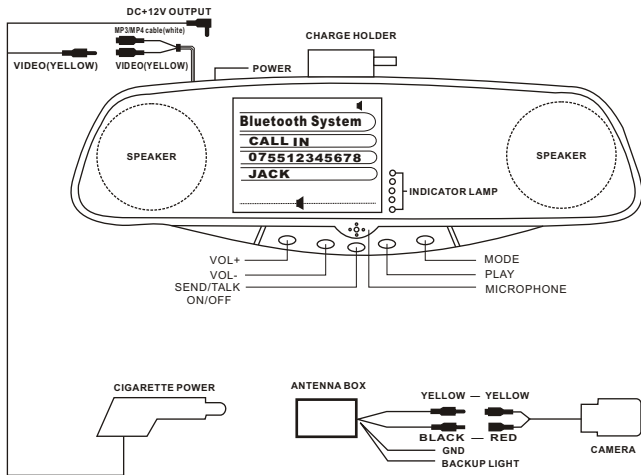
Thank you for the purchase of this Bluetooth Handsfree Car Kit. For the sake of making full use of the functions of Bluetooth Car Kit, please read the user manual carefully in advance.

Drive safely

It is dangerous to use cellphone when driving a car. It will increase the possibility of accident.

Please reduce conversation time by mobile as possible as you can while driving. It is good for you not to do any record or read. You'd better observe the surroundings before using the mobile first. When it's necessary (if the weather is bad;there is traffic jam; there are children in the car or something wrong with the car),You should leave the road and stop the car before dialing or receiving a call.

ILLUSTRATION: Figure 1



1. INTRODUCTION

The Bluetooth handsfree car kit mirror compose of the parts shown as **Figure 1**

- 1.1 1.1 Mode selector-Press the button to cycle through audio output-transmission frequency-monitor setup, Press and hold the button for 1.5 seconds to access the FM CHANNEL menu.You can set the frequency.Press and hold to cycle through the transmission frequencies.7 settings are available.
- 1.2 Function button (**PLAY**)--1.2 During active call the sound mutes if pause or stop mode is selected on a Bluetooth AV device. Press and hold the button for 3 seconds to switch to video mode.
- 1.3 Multi-function button(**TALK**)-- 1.3 Turn mirror on/off, answering a call, hanging up a call, voice dialing, last number redialing, rejecting a call.
- 1.4 Volume (**VOL+/VOL-**)--Set volume, select-ring tone; track skip +/- if Bluetooth-compatible audio device plays.
- 1.5 Power connector (**PWR**) --DC+12V input.
- 1.6 Audio input connector (**AUDIO**)--Connect to audio source, such as MP3, MP4, or CD player. While handsfree system is vacant (No call or Bluetooth AV activities),press "**PLAY**" key twice to open audio input,"MEDIA PLAY" will be displayed on mirror and the mirror can work as an stereo sound box or FM audio adapter(in FM mode).
- 1.7 3.5 inch TFT display--Call ID display, Camera display,Video in display.
- 1.8 Speaker--Built-in dual channel stereo loud-speaker.
- 1.9 Microphone--Built-in microphone.
- 1.10 Indicator lamp--State indicator lamp.

2. INSTALLATION

Easy installation, step as following:

- 2.1 Hook bottom-stator of the mirror on original rearview mirror bottom edge. Ensure perpendicular bisector of the mirror is congruent with perpendicular bisector of original rearview mirror. Pull up-stator of the mirror until it is fix on original rearview mirror (up and bottom stator will adjust by spring). Then release hand.
- 2.2 Check if the mirror has been firmly clipped to the original rearview mirror, the congruence of the mirror compare to Original rearview mirror, and adjust accordingly.
- 2.3 If there is any loose, repeat above steps.
- 2.4 Plug the power adapter into the cigarette socket.

3. Turn mirror ON / OFF

Press multi-function button(**TALK**) and hold for 1.5 seconds,until “POWER ON”.The mirror sounds a brief beep tone,then release it. The device is turned on. Once power on the device will auto connect the latest used cellphone, if never paired with any cellphone yet, the device will enter pairing state.

Press multi-function (**TALK**) key and hold for more than 5 seconds. Until “POWER OFF” is displayed on mirror.The mirror sounds a brief beep tone. The device is turned off.

4. PAIRING

“Pair” means the handsfree system and mobile phone authenticate each other and store the authentication information. Only paired devices can establish link and audio connection.

STEP	STATE/RESULT
1. In power off state, press and hold (TALK) button for more than 5 seconds until Blue LED and red LED flash alternately to enter pairing state.	Blue LED and red LED will flash alternately, "PAIR ON" will be displayed on mirror.
2. Select "Search for Bluetooth devices" on your mobile phone. Please refer to mobile user manual.	After searching finished, the mobile will display all found Bluetooth devices.
3. According to the mobile prompt Information, select " WINS " in device list.	
4. Enter Pin code "0000" to confirm the pairing.	Pairing information will be stored. "PAIR SUCCESS" will be displayed on mirror once paired successfully.
a) Some mobile can connect to the device automatically after pairing successfully (such as nokia).	"MB CONNECTED" will be displayed on mirror and blue LED is on.
B) If the mobile was not connected after paired, just short press the (TALK) button, the Bluetooth mirror will try to connect mobile phone.	As above.

5. VOICE DIAL

STEP	STATE/RESULT
1. Ensure mobile has connected to device.	Blue LED is flash.
2. Short press function button (TALK).	“VOICE DIAL” will be displayed on mirror.
	The device will send voice dial prompt.
3 Bring out a pre-recorded voice tag.	The mobile will dial number, “CALL OUT” will be displayed on mirror.

Note: This function used only the user mobile phone supports the voice dial function. Please refer to mobile user manual for details.

6. REDIALLING THE LAST DIALED NUMBER

STEP	STATE/RESULT
1. Ensure mobile has connected to device.	Blue LED is flash.
2. Press and hold function button (TALK) for 1.5 seconds.	"REDIAL" will be displayed on mirror.
	Dial the last number. "CALL OUT" will be displayed on mirror.
3 Press function button (TALK)once again will hangup the out going call just now.	"HANG UP" will be displayed on mirror.

Note: This function depends on the feature of mobile. Please refer to mobile user manual. When you find the outgoing call number is not the desired, use Step 3 to cancel it.

7. CALL ANSWER AND CALL HANG UP

STEP	STATE/RESULT
1. Ensure mobile has connected to device.	Blue LED is flash.
2. Incoming call.	The mirror shows who is calling and the device rings.
	If the caller is unknown the device only rings.
3. Short press function button (TALK) once.	"ANSWER" "CALL ACTIVE" will be displayed on mirror.
4. Short press function button (TALK) once again to hang up a call during call active.	"HANG UP" will be displayed on mirror.

Note: Some mobile is in disconnected state after pair. it will automatically connect to the device when has an incoming call. Some mobile phone may not support the caller ID indication function and the caller ID will not be displayed.

8. CALL REJECT

STEP	STATE/RESULT
1. Ensure mobile has connected to device.	Blue LED is flash.
2. Incoming call.	The mirror displays, which ring tone is set.
	Or only ring, but doesn't display caller ID.
3 Press and hold function button (TALK) for 1.5 seconds reject.	"REJECT" will be displayed on mirror.

9. AUDIO TRANSFER

During call active or call out going state, Press and hold function (**TALK**) button and hold for 1.5 seconds to switch the call between Bluetooth handsfree and mobile, "MIRROR PHONE" "MOBILE PHONE" will be displayed on mirror.

10. VOLUME CONTROL

Press "**VOL+**" to increase volume, press "**VOL-**" to decrease volume.

11. ANSWER MODE SET

In idle state hold both "**VOL+**" and "**VOL-**" for 1.5 seconds to set the answer mode as auto answer or manual answer.

12. MUTE CONTROL

During active call, press "**PLAY**" button and hold for 1.5 seconds to mute microphone, "MUTE ON" will be displayed on mirror, long press "**PLAY**" button 1.5S again to release mute, "MUTE OFF" will be displayed on mirror.

13. SELECT RING TONE

Press the “**VOL+**” or “**VOL-**” key and hold for 3 seconds to select the ring tone, total 16 sorts of ring tones are available.

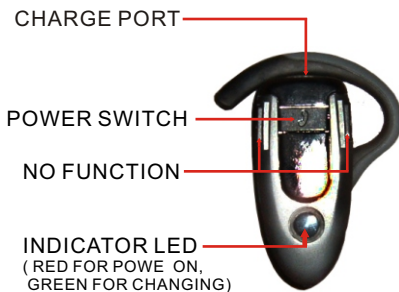
14. BLUETOOTH AV DEVICE OPERATION

STEP	STATE/RESULT
1. If AV not connected, shortly press “ PLAY ” key to connect.	“BT STEREO” will be displayed on mirror.
2. Shortly press “ PLAY ” key to play or pause playback.	“AV PLAY” or “AV PAUSE” will be displayed on mirror.
3 Press and hold “ PLAY ” key for 1.5S to stop playback.	“AV STOP” will be displayed on mirror.
4. Long press “ VOL+ ” or “ VOL- ” button for 1.5 seconds, and release once heard an prompt tone to skip forward or skip.	“AV FORWARD” or “AV BACKWARD” will be displayed on mirror.

15. SWITCH AUDIO OUTPUT MODE AND PICTURE ADJUSTMENT

STEP	STATE / RESULT
1. The default mode of audio output is speaker mode.	"SPEAKER" will be displayed on mirror and green LED will be on.
2. Shortly press " MODE " key to switch to FM transmitter mode.	"FM" will be displayed on mirror and right red LED will be on.
3. At FM transmitter mode, press and hold " MODE " key to select to the desired transmitting frequency, then tune your car radio to receive the frequency accordingly.	Selected transmitting frequency will be displayed on mirror : 87.7, 87.9, 88.1, 88.3, 88.5, 88.7, 88.9.
4. Shortly press " MODE " key to switch to picture adjustment mode.	Picture menu will be displayed on mirror, press and hold " MODE " key to select item "BRIGHTNESS" or "CONTRAST" or "COLOR", use "VOL+" and "VOL-" to change the value.

16. FM HEADSET USE



To make use of the Fm headset from the charging point on the mirror take them from the mirror. In the case the audio output mode automatically change to FM 107.9(the receiving frequency of the FM headset).Then press the headset button to turn on the headset(red led on) to start talk. The operation range is about 1m. Once headset put back to the charging socket, the audio output mode will be auto restored to the mode before headset unplug.

Attention:Keep volume below 11 to avoid noise when using FM headset.If there is a radio station 107.9MHZ,it may interfere with FM headset.

17.To Set Audio On and Off

When the handsfree system is vacant(no call in or call out), you can open the audio input by shortly pressing “PLAY” key twice, “MEDIA PLAY” will be displayed on mirror, shortly press “PLAY” key twice again to shut the audio input , “MEDIA OFF” will be displayed on mirror.

18.To Resume Factory Default Mode

Press and hold “VOL+”and “VOL-” key together for 10 seconds to resume factory default mode , “DEL ALL BT” will be displayed on mirror,all bluetooth device will be cancelled.

19.REARVIEW SYSTEM

While car backward, the rearview system auto start working, the image of back around from camera will be displayed on mirror. There will be several different transmitting and receiving frequency, the box will be marked 1,2,3,4, to represent different frequencies 2414MHz, 2432MHz, 2450MHz, 2468MHz . The same tag can be used in conjunction with transmitting and receiving.

20. PHONE BOOK

1. First store phone number into your mobile with English name.
2. Press "MODE" button twice to enter address list transfer, "B CARD READY" will be displayed on mirror. To choose address list transfer by bluetooth from mobile phone.
3. The English name will be displayed on mirror if transfer success.
4. Max. 200 address can be stored. If over 200 address, the new address will cover the earlier.
5. To delete address list: Press and hold "PLAY" button for 6 seconds, "DELETE PB" will be displayed on mirror, press "PLAY" button twice within period of 15 seconds to delete phone book.

21. SELECT LAST 10 CALLS DIAL-BACK FROM BLUETOOTH MIRROR

Press "TALK" button twice to resume the last answered call, then press "VOL+" or "VOL-" button to scroll the last 10 calls, press "TALK" button to dial the number.

22. SWITCH TO VIDEO INPUT MODE

Press and hold "PLAY" key for 3 seconds to switch to video input mode, you can connect the video in socket to a video source. Press and hold "PLAY" key for 3 seconds again to exit video input mode.

23. Frequently asked questions

23.1 Can Bluetooth mirror connect to any bluetooth devices?

Re: Bluetooth mirror can connect with any bluetooth devices which support headset profile or handsfree profile. But different bluetooth devices may have different operation. For the mobile supporting headset profile, it disconnects normally, but it can connect to handsfree automatically and cannot display caller ID.

23.2 What is useful distance between Bluetooth mirror and phone?

Re: Usually distance between device and phone is 10M.

23.3 Does any interference when use Bluetooth mirror?

Re: Wireless and wireless network devices may have interference during communication. Use bluetooth devices and keep away from RF generator will reduce interference.

SPECIFICATION

SECTION	UNIT	DATA
1.Blue tooth Standard:Blue tooth 2.0+EDR		
2.Blue tooth Frequency:2.4GHz ISM band		
3.Blue tooth Transmit Power:≤4dBm, class 2 (communication distance:10 meters)		
4.3.5 inch TFT LCD with resolution:960X240		
5.Power Supply: 9V~15V		
6.Operating Temperature:-10°C~60°C		
7.Audio Distortion(1KHZ/1000mv input)	%	0.3
8.Speaker Output Power(1 KHZ/1000mv input,max,volume)	W	0.5
9.Transmission Frequency(F1\F2\F3\F4)	MHZ	ISM 2414\2432\2450\2468
10.FM Transmitter Output Level	NW	40
11.Wireless earphone receiving frequency	MHZ	107.9
12.Wireless earphone receiving distance	M	1.0
13.Wireless earphone output power	MW	60
14.Wireless earphone charging time	H	2
15.Wireless earphone working time	H	4~6
16.Received Sensitivity	DB	≤-85
17.Mirror Consumption Current(MAX.)	MA	600
18.Unobstructed Effective Range(Min)	M	40
19.Mirror Dimensions(W X D X H)	MM	285X90X24
20.Mirror Weight(about)	G	370
21.Camera Imaging Sensor		CMOS
22.Camera Total Pixels		720x480(NTSC) 720x576(PAL)
23.Camera Horizontal View Angle	Degree	80
24.Camera Transmission Power	MW	2/FCC,10/CE
25.Camera Minimum illumination		0 Lux(IR ON)
26.Camera IR Night Range	M	4
27.Camera Power Supply		Supplied By Transmission Box
28.Camera Consumption Current(Max.)	MA	120
29.Camera Dimensions(WxDxH)	mm	525x148x45
30. Camera Weight (about)	G	264

*Actual transmission range may vary according to the weather, location, interference and building construction.

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EN301 489-1 V1.8.1 (2008-04)

EN301 489 -17 V2.1.1 (2009-02)

EN300 328 V1.7.1 (2006-10)

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CE

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EU Environmental Protection
Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.



