

WEEE AND ROHS INFORMATION FOR TREATMENT CENTRES

1.0 BACKGROUND

Article 6 of the WEEE Directive requires that the treatment of WEEE shall, as a minimum, include the removal of all fluids and a selective treatment in accordance with Annex II of the Directive.

Article 11 requires that producers provide reuse and treatment information for each type of new EEE put on the market within one year after the equipment is put on the market. This information shall identify, in order to comply with the provisions of the Directive, the different EEE components and materials as well as locations of dangerous substances in EEE.

This document provides information on both WEEE and RoHS and is intended to help any person/organisation tasked with the job of discarding, dismantling or disposing of any HiTek Power product at end of life.

HiTek Power is not responsible for any contamination of the power supply that may occur from the environment in which the power supply is operated. It is the responsibility and duty of the last user to advise of any contamination when discarding the product. Similarly it is the duty of the treatment centre to take suitable precautions.

2.0 PRODUCT RANGE

HiTek Power design, manufacture and distribute a wide range of power supplies that can be split broadly into the following categories:

- a) HiTek Power designed products manufactured both inside and outside of the UK
- b) HiTek Power badged products

3.0 HITEK POWER DESIGNED PRODUCTS MANUFACTURED BOTH INSIDE AND OUTSIDE OF THE UK

3.1 General WEEE information

Table 1 provides suitable information about the materials and substances referenced in Annex 1 of the WEEE Directive. Most of this information applies to all products and is general in nature. There maybe some instances where it is necessary to contact HiTek Power for further information, as indicated in Table 1. Please ensure you have the model number, serial number and unit date available when you contact HiTek Power. Contact details are given in section 5 of this document.

3.2 Further information

Please take note of the following:

- 1) Unless the power supply is marked as RoHS assume that all aluminium parts have been treated with Alocrom (Hexavalent Chromium). Small internal aluminium parts may not be coated with Alocrom. If a part has a yellow/golden finish it is coated with Alocrom.
- 2) All internal wiring with plastic insulation (jacket or sheath) should be considered as PVC coated.
- 3) Both the epoxy and red rubber encapsulation has flame retardants added to meet flammability standards.
- 4) Unless the power supply is marked as RoHS assume that Lead will be present on the component leadouts, soldering and PCB.

To the best of our knowledge there are no further hazardous substances contained within HiTek Power products.

3.3 Disassembly of product

3.3.1 Metal enclosure

These products are fitted together using metal panels secured to each other using, principally, M3 and M4 fixings (screws, some countersunk). Removal of the enclosure top panel (and possibly side panel, depending on unit type) will make interior access easier. PCBs are fitted to metalwork generally using screws and occasionally nuts. Similarly other internal assemblies are held in place with either screws or nuts. All fixings are readily accessible – there are no hidden fixings.

3.3.2 Plastic enclosure

The plastic enclosures are held together using either screws, glue or visible (from the exterior) clips. There are no hidden fixings.

3.4 ROHS marking

3.4.1 RoHS label on exterior of the power supply

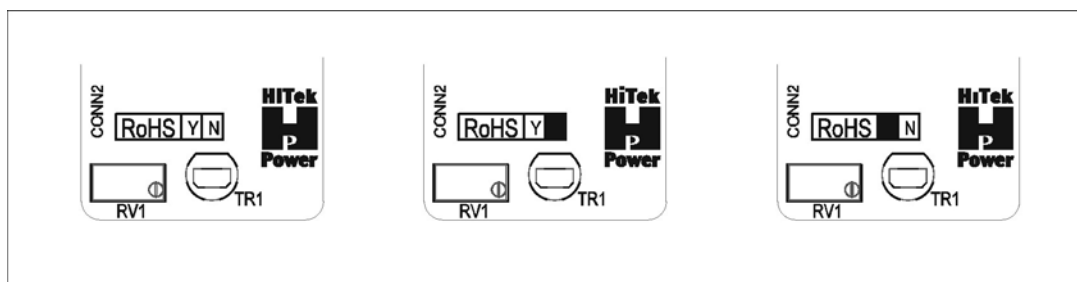
Any HiTek Power product that is RoHS compliant is marked with RoHS (either as a label or on the silkscreen) on the exterior of the power supply. This warrants that the complete power supply is RoHS compliant. Any of the RoHS restricted substances may be present up to the limits specified within the RoHS Directive. In some cases exemptions have been applied, principally:

- (i) High temperature melting lead-based solder used in power semiconductors
- (ii) Lead as an alloying element in steel, aluminium and copper alloy (Brass)
- (iii) Lead in glass used in electronic components
- (iv) Lead used in ceramic parts

3.4.2 RoHS indication on the PCB

From early 2006 some PCBs were marked with RoHS on the silkscreen. This indicates that the bare board detail is manufactured as RoHS compliant. This indication is for HiTek Power use only and does not guarantee that the completed PCB assembly is RoHS compliant unless the power supply is marked as “RoHS” on its exterior.

Subsequently the PCB marking was changed with “Y” and “N” boxes following RoHS on the PCB silkscreen. Either the Y or N is blanked out to indicate the RoHS status of the PCB assembly. A “Y” following RoHS on the silkscreen indicates that the complete PCB assembly is RoHS compliant. An “N” following RoHS indicates that the complete PCB assembly is not RoHS compliant. Typical examples are shown below.



RoHS compliant PCB

Non compliant PCB

A RoHS compliant PCB assembly does not guarantee that the complete power supply is RoHS compliant unless indicated on the outer enclosure of the power supply itself with a label or on the silkscreen.

4.0 HITEK POWER BADGED PRODUCTS

4.1 General WEEE information

WEEE information has been obtained from the product suppliers and is available for the products listed in Table 2.

This information is provided in good faith and has not been checked for accuracy.

If the power supply is not listed please contact HiTek Power for information quoting model number and serial number.

4.2 Disassembly of product

4.2.1 Metal enclosure

These products are fitted together using metal panels secured to each other using, principally, M3 and M4 fixings (screws, some countersunk). Removal of the enclosure top panel (and possibly side panel, depending on unit type) will make interior access easier. PCBs are fitted to metalwork generally using screws and occasionally nuts. Similarly other internal assemblies are held in place with either screws or nuts. All fixings are readily accessible – there are no hidden fixings.

4.2.2 Plastic enclosures

None of the products listed in this section have a plastic enclosure.

4.3 RoHS marking

These will be RoHS compliant if marked on the power supply. Typically this could be on the metalwork, ratings label or on a “large” component such as the bulk electrolytic capacitor.

5.0 CONTACT DETAILS

Should you require further information please contact HiTek Power. The appropriate contact details are:

Name: Jeff Edwards
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When contacting HiTek Power please ensure you have the model number, serial number and, if possible, the date of manufacture (generally found on the rating label or as part of the serial number).

TABLE 1: HITEK POWER DESIGNED PRODUCTS MANUFACTURED BOTH INSIDE AND OUTSIDE OF THE UK

	MATERIAL	PRESENT, IF SO WHERE?
1	Fluids	NO, except in water cooled power supplies where water may still be present.
2	Poly chlorinated biphenyls (PCB) contained in capacitors	Production of PCB banned in 1978. Any power supply manufactured before this date or up to about 1980 could have PCB present. Contact HiTek Power for advice.
3	Mercury containing components	Contact HiTek Power for advice.
4	Batteries	Present in AP units with IEEE488 option, DVM100/20 and IT7 units.
5	Printed circuit boards of area greater than 10cm ²	Almost without exception all PCB areas will be greater than 10cm ² .
6	Toner cartridges	NO
7	Plastics containing brominated flame retardants	Contact HiTek Power for advice.
8	Asbestos waste and components containing asbestos	NO
9	Cathode ray tubes	NO
10	Chlorofluorocarbons (CFC), hydrochlorofluorocarbons (HCFC) or hydrofluorocarbons (HFC), hydrocarbons (HC)	NO
11	Gas discharge lamps	NO
12	Liquid crystal displays of a surface area greater than 100cm ²	NO
13	External electric cables	Visual examination of power supply will confirm this, but as a rule nearly all power supplies are fitted with detachable input and output cables.
14	Components containing refractory ceramic fibres as described in Commission Directive 97/69/EC	NO
15	Components containing radioactive substances with the exception of components that are below the exemption thresholds set in Article 3 and Annex I of Council Directive 96/29/Euratom	NO
16	Electrolyte capacitors containing substances of concern (height > 25mm, diameter > 25mm or proportionately similar volume)	Some power supplies will contain electrolytic capacitors of this volume and greater. These will be clearly seen from a visual inspection. Contact HiTek Power for component locations if required.

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Please note that all information given in this table is believed to be correct and given in good faith at time of writing

TABLE 2: PRODUCTS FOR WHICH WEEE INFORMATION IS AVAILABLE

HTK-110C
TEK200 / 300 series
GMA series
PPM3 series