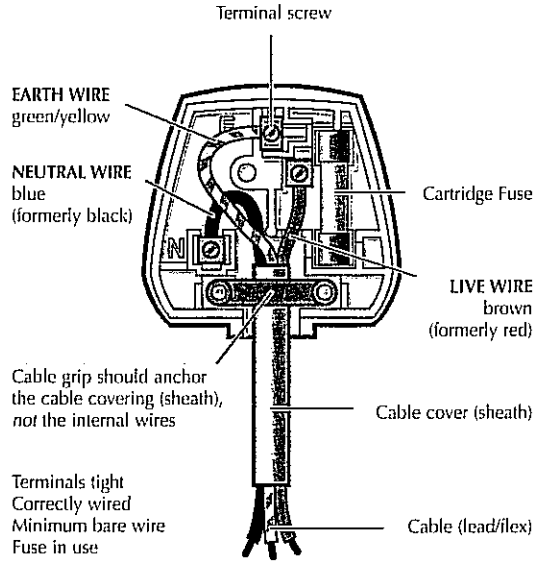
Please find below a fuse rating diagram and a plug diagram for your assistance

**FUSE RATINGS**

| Wattage | Fuse Required |
|---|---|
| Up to 720 Watts | 3 Amp |
| 720 Watts to 1200 Watts | 5 Amp |
| Over 1200 Watts | 13 Amp |

**PLUG WIRING DIAGRAM**




Before use ensure that the instrument is clean and dry. Check the condition of the mains cable and instrument case. Avoid storage in damp conditions and excessive temperature variations.

Parker Bell (Instruments) Ltd reserves the right to alter specification without notice.

**The PAC 500-XP is a precision instrument and requires annual Calibration. For details of our calibration service, repairs or accessories please contact:**


**Parker Bell (Instruments) Ltd**
4a Newbery Commercial Centre
Exeter Airport
Devon
EX5 2UL

Telephone: 01392 364933
Fax: 01392 364695

Email: parker-bell.co.uk


**HELP LINE NUMBER**
**01392 364933**

## PAC 500-XP Specifications

Mains input voltage 230V RMS +/- 6% 50/60 Hz
Fuse Rating: T3.15A
Insulation nominal test voltage is 500VDC +/- 10%
Insulation between live and neutral joined and earth connection (also probe clip) pass level greater than 2 Mohms.
Earth bonding between socket earth connector and probe tip greater that 0.3 ohms must fail, less than 0.2 ohms must pass.
Test current can reach 25 amps. This specification is valid at 240V mains supply, small variations will occur if the supply voltage varies.
Calibration performed at nominal 20°C.

Parker Bell

# PAC 500-XP

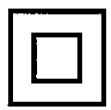
# INSTRUCTIONS

# Portable Appliance Checking Instructions

## 1. Is the Appliance Class I or Class II (double insulated)?

**Class I** - this is an earthed appliance - look for 3 wires in the plug.

**Class II (Double Insulated)** - this has no earth wire and if double insulated has the following symbol



**Now go to No. 2**

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## 2. Do a Visual Inspection of the Appliance

Check appliance for damage, cracks, burn marks, overheating, loose parts or screws.
Check cable for cuts and abrasions.
Check plug is wired correctly, no bare wires except at terminals and terminal screws are tight.
Correct fuse is being used for this appliance. **Refer to back page**
Cable grip is holding outer sheath of cable tightly and not the internal wires.

**Now go to No. 3**

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## 3. Locating an earth point on Class I Appliance (if no earth wire go to No.5)

Take the small crocodile clip on the Quick Earth Finder and clip it onto the earth pin of the appliance's plug.
Use the probe to touch an exposed metal part on the appliance.
While touching the metal part with the probe press the button on the Quick Earth Finder and if it buzzes and the light comes on, then you have located an Earth point.
Keep doing this until you have located an earth point.

**WARNING - UNDER NO CIRCUMSTANCES OPEN UP THE APPLIANCE TO FIND AN EARTH POINT OR PROBE INTO THE APPLIANCE**

**Now go to No. 4**

---

## 4. PAC 500-XP Test on Class I Appliance (IT equipment refer to Page 3)

Connect appliance to PAC 500-XP by putting the jack on the test lead into the green socket on PAC 500-XP.
Attach crocodile clip on test lead to earth point located on the appliance.
Plug appliance into socket on top of PAC 500-XP.
Ensure that the appliance is switched on.
Plug PAC 500-XP into mains socket and switch on power.

**DO NOT TOUCH ANY METAL PARTS ON THE APPLIANCE OR THE PAC 500-XP DURING THE TEST OR FOR 30 SECONDS AFTER COMPLETING THE TEST SEQUENCE.**



Press switch on PAC 500-XP and hold down for 1 second.

Results should be

| | | | |
|---|---|---|---|
| **Insulation** | **PASS** | **Earth Bond** | **PASS** |

Turn off the mains power and unplug PAC 500-XP.
This appliance is now ready to be labelled.

**Now go to No. 6**

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## 5. PAC 500-XP Test on Class II (Double Insulated) Appliance (IT equipment refer to Page 3)

Connect appliance to PAC 500-XP by putting the jack on the test lead into the green socket on PAC 500-XP.
Attach crocodile clip on test lead to any exposed metal on appliance, if none then attach to outer casing of the appliance.
Plug appliance into top of PAC 500-XP.
Ensure that the appliance is switched on.
Plug PAC 500-XP into mains socket and switch power on.

**DO NOT TOUCH ANY METAL PARTS ON THE APPLIANCE OR PAC 500-XP DURING THE TEST OR FOR 30 SECONDS AFTER COMPLETING THE TEST SEQUENCE.**

Press switch on PAC 500-XP and hold down for 1 second.

Results should be

| | | | |
|---|---|---|---|
| **Insulation** | **PASS** | **Earth Bond** | **FAIL** |

Turn off mains power and unplug PAC 500-XP.
This appliance is now ready to be labelled.

**Now go to No. 6**

---

## 6. Labelling and Records

Complete the label and fill out the report pad for the appliance.

It is important when completing these that you identify the appliance and the place where it is used.
The more frequently an appliance is moved, plugged and unplugged the more often it needs testing.

**It is very important if you are unsure of anything during either the visual inspection or the PAC 500-XP test, to seek expert advice from a qualified electrician.**

**If an appliance fails either the visual inspection or the PAC 500-XP test make sure that the appliance is marked with a FAIL label and cannot be used until it has been checked and repaired by a qualified electrician.**

# Portable Appliance Checking Computers

## 1. First and Foremost

Take a full back up onto diskette or tape of all the data on your computer.
Keep this back up in a safe place.

## 2. Shut Down your Computer

Proceed to shut down your computer in the normal way.
If your computer has an isolation rocker switch on the back of the computer put this in the OFF position. (this isolates the power source from the motherboard)
If your computer does not have an isolation rocker switch and does not switch off via a manual switch DO NOT USE THE PAC 500-XP TO TEST IT.

## 3. Prepare the computer for testing

Ensure the computer is switched off and unplugged from the mains.
Remove all cables other than the power cable i.e. the mouse, keyboard, network data cable, modem etc.
Carry out a full visual inspection as described on Page 1 Item 2.
Locate the earth point on the computer as described on Page 1 Item 3.

## 4. PAC 500-XP Test on Computers

Connect computer to PAC 500-XP by putting the jack on the test lead into the green socket on PAC 500-XP
Attach crocodile clip on test lead to earth point located on the computer.

**UNDER NO CIRCUMSTANCES MUST YOU CONNECT THE CROCODILE CLIP TO ANY OF THE INPUT OR OUTPUT SOCKETS ON THE COMPUTER.**

Plug computer into socket on top of PAC 500-XP.
Plug PAC 500-XP into mains socket and switch power on.

**DO NOT TOUCH ANY METAL PARTS ON THE COMPUTER OR PAC 500-XP DURING THE TEST OR FOR 30 SECONDS AFTER COMPLETING THE TEST SEQUENCE.**

Press switch on PAC 500-XP and hold down for 1 second.

| Results should be | Insulation | PASS | Earth Bond | PASS |
|---|---|---|---|---|

Turn off the mains power and unplug PAC 500-XP.
Ensure that the mouse, keyboard etc are put back correctly before restarting the computer.
The computer is now ready to be labelled. See page 2 Item 6.

Computers only need to be tested every 2 years, although we would recommend an annual visual inspection.



# Portable Appliance Checking Extension Leads and IEC Leads

## 1. Preparing Lead for PAC testing

Do a full visual inspection as described on Page 1 Item 2.

## 2. Testing Polarity of Leads

**IEC Leads**
Plug an IEC lead into IEC socket on the PAC 500-XP.
Plug the other end of the IEC lead into the mains socket and switch power on.
The 'Correct Polarity' neon should light up. If not refer to Test Results below.

**Extension Leads**
Plug lead into IEC socket on the end of PAC 500-XP.
Plug the other end of IEC lead into socket on Extension Lead.
Plug the Extension lead into mains socket and switch power on.
The 'Correct Polarity' neon should light up. If not refer to Test Results below.

**Test Results**

| | | |
|---|---|---|
| Correct Polarity Neon only | - | Polarity OK |
| Wiring Fault Neon only | - | Phase (Live) and Neutral reversed |
| Both Neons on | - | Earth disconnected |

**Note:** If the Earth and Neutral are reversed the extension lead will pass the above neon indicator tests but will fail the Earth Bond and Insulation tests on the PAC 500-XP.

## 3. PAC 500-XP Test on IEC Lead

Plug the IEC lead into the IEC socket on the end of PAC 500-XP.
Plug the other end of IEC lead into socket on top of PAC 500-XP.
Plug PAC 500-XP into mains socket and switch power on.

**DO NOT TOUCH ANY METAL PARTS ON THE IEC LEAD OR PAC 500-XP DURING THE TEST OR FOR 30 SECONDS AFTER COMPLETING THE TEST SEQUENCE.**

Press switch on PAC 500-XP and hold down for 1 second.

| Results should be | Insulation | PASS | Earth Bond | PASS |
|---|---|---|---|---|

Turn off mains power and unplug PAC 500-XP.
This IEC lead is now ready to be labelled. See Page 2 Item 6.

## 4. PAC 500-XP Test on Extension Lead

An IEC lead is required as an adaptor to enable an Extension Lead to be tested.

Plug IEC lead into IEC socket on PAC 500-XP.
Plug other end of IEC lead into socket of Extension lead.
Plug the Extension lead into socket on top of PAC 500-XP.
Plug PAC 500-XP into mains socket and switch power on.

**DO NOT TOUCH ANY METAL PARTS ON THE APPLIANCE OR PAC 500-XP DURING THE TEST OR FOR 30 SECONDS AFTER COMPLETING THE TEST SEQUENCE.**

Press switch on PAC 500-XP and hold down for 1 second.

Results should be

| | | | |
|---|---|---|---|
| **Insulation** | **PASS** | **Earth Bond** | **PASS** |

Turn off the mains power and unplug the PAC 500-XP.
This Extension lead is now ready to be labelled. See Page 2 Item 6.

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# ANY QUERIES OR PROBLEMS CALL OUR

# HELP LINE

# 01392 364933



***NOTES***