

# Repairs Procedure

- [1. Non-Warranty Repairs of PGC1, PGC2, PGC2D, NGC2, NGC2D, NGC3 & SMD210](#)
- [2. Frequently Asked Questions](#)

# 1. Non-Warranty Repairs of PGC1, PGC2, PGC2D, NGC2, NGC2D, NGC3 & SMD210

---

## # 1.1. Charges

The standard repair charge is £352.00. Return carriage is extra, at cost. We will use your carrier at no extra charge. Packed instruments weight 6.5 kilograms.

---

## # 1.2. Procedure

1. Ensure that there is a fault on the AML product. The most common fault on PGCs is due to fan failure. Instruments manufactured or repaired since 2000 are equipped with a fan-failure detector, which causes emission to be inhibited if the fan runs slow or stops.
  2. Obtain a return authorisation (RMA) number and shipping instructions, preferably by e-mail to [sales@arunmicro.com](mailto:sales@arunmicro.com). Quote the model and serial number of the instrument and a brief description of the fault.
  3. Return the instrument without any accessories, leads or manuals. It is your responsibility to pay for carriage, duty and tax. The instrument must be securely packed and showing the return authorisation (RMA) number and a description of the fault on a covering note or order. Advice on packing can be found in section 1.5 of this document.
  4. When returning from outside the United Kingdom, "BILL DUTIES AND TAXES TO:" on your Air Waybill must be set to "SENDER". Failure to do so will result in the goods being rejected at UK entry and returned to you. Commercial invoices with values greater than £135.00 will attract additional import charges.
  5. If de-contamination of biological, chemical or radiation hazards has been undertaken, a certificate signed by a responsible person must be provided.
  6. Issue a covering order carrying the appropriate standard charge and return carriage, if appropriate.
  7. Give the full postal address for return of the repaired instrument.
  8. If we are using your carrier, provide a valid account number for the charges.
- 

## # 1.3. Payment

AML will raise a prepayment invoice for customers without a pre-existing credit account. Payment can be made by bank transfer or credit card.

---

## # 1.4. Returns Address

Arun Microelectronics Ltd

Unit 2, Bury Mill Farm,

Bury Gate, Pulborough,

West Sussex, RH20 1NN,

---

## # 1.5. Packing

Good packing is very important, as mechanical damage in transit may cause the instrument to arrive beyond economic repair. Mechanical components for obsolete instruments are in short supply and cannot be manufactured in small quantities.

Use AML packing wherever possible. If several instruments are to be returned do not tape their cartons together, as this will decrease the protection of the standard packing: enclose them in an outer carton or ship them separately.

If using alternative packaging, protect the corners of the instruments with at least a 10 cm layer of air-trap polythene or 6 cm of rigid polyether foam and enclose in a double or triple-wall carton. Loose-fill foam plastic alone will not protect the instrument.

## 2. Frequently Asked Questions

---

### # 2.1. What instruments can be repaired?

PGC1, PGC2, PGC2D, NGC2, NGC2D, NGC3 & SMD210 instruments that are less than 20 years old.

Serial numbers starting with a letter corresponding to the year of manufacture:

Nxxx yyy = 2003

Oxxx yyy = 2004

Pxxx yyy = 2005

Eight-digit serial numbers start with the year of manufacture:

13xxx-xxx = 2013

14xxx-xxx = 2014 and so on.

---

### # 2.2. What will it cost?

98% of repairs are completed within the standard charge.

---

### # 2.3. What is covered by the standard charge?

- Rectification of all common faults and specific faults described by the user's fault description, resulting from use of the product under the specified operating conditions.
- Updating or replacement of the power supply.
- Replacement of the fan.
- Replacement of the battery-backed RAM if required.
- Functional and safety check.
- Re-calibration of the ion gauge electrometer.
- 3-day soak-test.
- 3-month warranty on repairs and components used, excluding fans.
- Re-packing in a new carton, where necessary.

---

### # 2.4. What is not covered by the standard charge and/or warranty?

- Damage caused by electrical discharges, overheating, fire or water.
- Mechanical damage to the instrument.
- Cleaning or decontamination.
- Repair of unauthorised modifications or rectification of repairs not made by AML.
- Problems caused by the use of gauges or leads not approved by AML.

- Problems caused by replacement (other than by AML) of sub-assemblies that comply with a different specification than those in the instrument at the time it was manufactured.
- Identification or repair of intermittent or unusual faults which were not in the user's fault description.
- Identification or repair of faults within the repair warranty period that are not related to the user's description of the repaired fault.
- Resolution of interface problems due to user or third-party software.
- Intensity-matching of LED displays.
- Replacement of LED display elements.

---

## # 2.5. What happens if the instrument cannot be repaired within the standard charge?

AML will provide an estimate or advise that the instrument is beyond economic repair. If our repair estimate is greater than the standard charge, we will require a new or amended order, or will issue a new prepayment invoice. AML reserve the right to declare any instrument beyond economic repair at any time. AML will not normally charge for instruments that cannot be repaired. If an instrument is returned to the customer without charging for a repair, then AML reserves the right to remove sub-assemblies that have been fitted.

---

## # 2.6. What happens if there is no fault or a trivial fault, such as a blown fuse or a failed fan?

We will complete the calibration, safety and soak test and may reduce the charge.

---

## # 2.7. How long will the repairs take?

Most repairs will be completed within 3 - 4 working weeks, however, depending on component and resource availability, repairs can sometimes take up to 8 weeks. Delay in providing an order, any requested information or invoice payment will extend this.

---

## # 2.8. What happens if AML does not receive an adequate order?

AML reserve the right to dispose of instruments returned without a covering order, a return authorisation (RMA), disposal instructions or with an unpaid invoice.

---

## # 2.9. Will I get a service report?

Generally not. However, if we detect an application problem or misuse that may have caused the fault, we will make you aware of this. If you request a service report, AML will charge for its production.

---

## # 2.10. What will happen to my gauge and trip settings?

In order to fully test the instrument, we may need to alter these or reset them to their default values. You should record your settings and re-set them as required after the instrument is returned to you.

---

## # 2.11. Do I need to return leads and gauges with a controller?

No, it is very risky. BA Gauges are very fragile. These and the leads can be adequately tested with an ohmmeter. BA gauges with leaky feedthroughs or distorted grids should be scrapped. Gauges should not be returned for replacement of filaments, as this is a simple procedure and instructions are provided with replacement filament kits. Pirani gauges are inexpensive and do not justify repair.