

Company Operating Procedures

Repairs

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1. **GENERAL**

- i. The company undertakes the repair of equipment. These repairs may take place at Viamed or at the customers premises and are carried out by those persons who have undergone the appropriate training.
- ii. The company is notified by the customer of a required repair and, if a telephone notification, details are recorded in the telephone duplicate book:-
 - a. Type of instrument/serial no
 - b. Company address, contact and telephone no.
 - a. Details of fault (see procedure VM/COP/03 section 1.2 'Technical Enquiries'

Customer Repair

2. **SERVICE CONTRACT**

- i. The customer is offered a service contract. The completed contract or an order agreeing to the terms is received by Viamed.
- ii. Dates of planned visits are put into Goldmine year planner.
- iii. Any special requirements such as site conditions, special medical or security clearances are kept in the customers file. A brief description is also held on computer customer database.
- iv. Approximately 1 week before visit is due, the customer is contacted and an appointment made
- v. Work is carried out at the agreed time.

3. **WARRANTY REPLACEMENT (WR) PROCEDURE**

- i. It is Viamed policy to replace items such as sensors under warranty immediately on customer notification of 'failure' and the following procedure will then apply:
- ii. Allocate a warranty number (WR) from the warranty book.
- iii. Raise a FOC Invoice/Despatch Note to be sent with the replacement item(s), quoting the WR number on it.
- iv. On receipt of the 'failed' item from the customer it will be booked in (Section 4.1) and tested.
- v. If the item is OK on tests, the customer will be asked for an order for the replacement item for invoicing.

4. **IN-HOUSE REPAIRS .**

i. **Booking-in Procedure: Non Probe repairs**

- ii. Items returned for repair are logged into the 'Goods Inwards' Book (Ref Procedure VM/COP/05) with destination - 'Workshop'. Check whether items returned have been replaced under the WR procedure (Section 3) and if so enter the WR number in the repair book. They will also reference the SRN No issued in the "Goods Inwards book".
- iii. The workshop staff will raise a service repair note (SRN), Form QC 09, for each item returned, and log the repair(s) into the Lotus Repairs Main database.
- iv. If the customer has sent the item back under warranty, the warranty date is checked by reference to the stock book and the SRN warranty 'YES' box ringed.
- v. Date of Purchase must be added to the SRN record
- vi. A copy of the SRN is retained with all customer correspondence in the office in a 'case' file.

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- vii. If the warranty is out-of-date the customer is informed and either an order obtained for the repair or an estimate prepared for customer approval to a repair.
- viii. The items and SRN's are then sent to the workshop. Goods are placed in plastic boxes or sealed plastic bags as appropriate with the boxes/bags identified to the customer. A customer repair label is affixed to each item.

5. **THE SERVICE REPAIR Note:(SRN) - Form QC09)**

- a. Also known as Job Cards or Worksheets. This form is used for recording the repair of equipment. The form is generated for every item excluding SpO2 probes and cables which is returned either by a customer for repair, specification checking, calibration, or safety check or from demonstration and requiring workshop attention before re-issue.
- b. Each form has a pre-printed SRN Service Repair Number in the top right hand corner. .
Below this number is a section to create a unique reference number.
 - 1) INT = Initials (two) of the person carrying out the repair.
 - 2) Year ie 92
 - 3) Month ie 05
 - 4) Day ie 02. These six numbers are the date in reverse order 2nd May_1992
 - 5) The last two spaces log the number of jobs recorded that day. As field service engineers carry a supply of worksheets the order they arrive in the office will be totally random. The pink copies are therefore filed in reference number order which is also datal order.
 - 6) The block below the reference number is a tick block to determine the nature of the job.
 - 7) The date and time (important where out of working hours is involved) and both incoming and completion time/dates are required.This helps us to determine lengths of time equipment resides in the workshop as well as response time of field personnel.
 - 8) 'TNT' requires initials of person who took the call and the person completing the job.
 - 9) Accessories received should be completed for every instrument noting, cables, and transducers etc.
 - 10) File No also known as account number
 - 11) Equipment type ie TED200, H2000 or part number, Serial number where applicable
 - 12) Description of the fault is the customers/users description either supplied via the telephone or letter
 - 13) Report: concise report on fault found
NFF No Fault Found
 - 1) Keyword: where possible use one word to describe problem. To help locate the worksheet should a future fault occur.
 - i) eg video noise, ECG, Leakage.
 - ii) The description of the work carried out should be comprehensive but concise. All parts used should be recorded whether chargeable or not. Used replacement parts should be described as used parts.
 - 2) On site repairs require the worksheet to be signed by the customer stating the work has been carried out satisfactorily

2. **REPAIR**

- i. The appropriate Engineer carries out the repair ,(or work required), ensures the equipment is clean, and tests the equipment in accordance with the original manufacturers specifications and the relevant test schedule. He/she completes a Final Inspection or

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Test Sheet, if required and an electrical safety test record, (Form QC10), where relevant or computer printout (QC10a)

- ii. Final Inspection and Test Sheet will quote the SRN No for that repair.
- iii. He/she then completes the SRN with details of parts used and the labour time for a non warranty repair.
- iv. He/she records if a safety check has been carried out and initials the SRN (Section 4.2).
- v. The SRN and item is put on the repair shelf in the main store for checking.
- vi. The Office Manager or delegate checks the repaired item and documentation and
- vii. packs the item.
- viii. The Office staff raise the Invoice and arrange despatch or collection.
- ix. A copy of the electrical safety test record is sent to the customer
- x. A copy of the SRN is filed in the Customer File with all correspondence/documentation from the 'Live' file.

- xi. The Lotus repair database is updated

3. **REPAIRS AT CUSTOMER PREMISES.**

- i. Viamed is notified by the customer, and details recorded in the telephone order diary
- a. The type of instrument/serial number.
- b. Company address, contact on site and telephone number.
- c. Details of the fault.
- d. An order number (for non warranty work).
- e. **NB** If required, an estimate for the work is supplied
- ii. The office staff make arrangements for a visit by a Service Engineer
- a. Where necessary, the engineer will notify the office of non stock items required against that job.
- b. The office is responsible for ordering the items.
- c. work carried out is recorded on a SRN, Form QC09, pink copies of which are held by the engineer.
- d. On completion the SRN is sent to the office for recording and filing
- e. As necessary, the Engineer will ring the office for non stock items.
- f. The order is processed by the office

4. **GENERAL**

- i. Repair and maintenance of customer's equipment must be carried out to the Manufacturer's original specifications (including where applicable, authorised modifications) or any other documents necessary to effect a repair, & in accordance with Viamed Workshop Manual.
- ii. Where customer equipment is dismantled, particular care and attention must be taken to provide adequate trays and/or containers to ensure identification and segregation of parts so that the equipment can be re-assembled using the original parts
- iii. Anti-static protection will be used when repairing or moving electrostatic sensitive devices
- iv. Conductive mats, wrist straps, and trays etc. should be checked before use and results recorded. Field service ESD components should be checked on each visit to the office or at least every six months
- v. All replacement parts must where possible conform to the same specification as those parts which they replace. Where this is not possible, the Service engineer must be capable of

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- i. demonstrating that the replacement parts are suitable in all respects
- ii. All removed components must be returned (or offered if large) to the customer and expired consumables will be disposed.
- iii. All equipment after repair/servicing will be labelled as follows, the engineer signing and dating the labels:
- iv. Where requested by a customer, a certificate of conformance (QC13) will be raised and signed by the service engineer and sent. A central record will be kept.
- v. All repairs are logged onto the computer file as soon as possible or on completion of repair.-

2. **EXCHANGE REPAIR**

- i. The company stocks equipment it has repaired for sale as an 'Exchange Repair' against the return of the customers equipment.
- ii. The Customer specifies an 'Exchange Repair' on his order which is confirmed at contract



review.

- iii. The 'Exchange Repair' is carried out in accordance with this procedure to original manufacturers instructions and the work recorded on an SRN.
- iv. Replacement parts will be equivalent to original components and identified on the SRN.
- v. The Engineer signs the SRN on completion of the repair and testing.
- vi. On withdrawal from stock the engineer re-tests the equipment and issues a Certificate of Conformance (QC13)

3. **SERVICE KITS**

- i. Each service engineer is provided with repair kits comprising:-
 - a. Standard tool kit a selection of spares contained in a separate box with individual components referenced by manufacturers part no
 - b. Test equipment. set of procedures.
 - c. Each engineer also has a selection of manufacturers technical data sheets or manuals relevant to the service required. It is the responsibility of the service engineer to ensure that he/she always has the correct information..
 - d. A special service kit is available at Viamed for use by Engineers carrying out major servicing of equipment under a service contract.
 - e. This kit includes complete sets of replaceable parts to be used identified to the equipment type.

4. **DEMONSTRATION EQUIPMENT**

- i. Equipment used by End User for a trial period or by sales as a demo will be:-Returned to demo area and/or labelled
- ii. .

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- i. Where necessary, an Engineer will check the machine for electrical safety, performance and cleanliness
 - ii. If a repair is necessary, then a SRN will be completed.
 - iii. A test label will be signed, dated and stuck on the equipment.
- 2. MAINTENANCE OF SERVICE & PRODUCTION EQUIPMENT**
- i. User responsibility
 - ii. It is the responsibility of the user to check the safety , calibration, and suitability of service

Demonstration Model

- and production equipment before it is used.
- iii. Equipment will be checked during routine Calibration and any manufacturers recommended maintenance carried out and marked with a label

(NON-PROBE REPAIRS) PRODUCING A WORKSHEET Electronically

1. Enter Lotus Approach and click on REPAIRS.APR.
2. Click on New Record, and then enter the file number (Opera account number).
3. Enter data into all the fields.
4. Click on print.
5. On the customer paperwork stamp the accepted stamp and write on the worksheet number (found on the bottom right of the worksheet in bold) and date and initial.
6. Photocopy the worksheet and staple the copy to the original customer paperwork. File this in Repair Worksheets file.
7. Photocopy the customer paperwork and staple the copy to the original worksheet. This is placed in the ducket with the repair.
8. The ducket is passed to the Chief Engineer.
9. The worksheet number is entered in the Goods In Book in the far right column.
10. Use the duckets:
 - a. Blue - UK Repairs & Sales
 - b. Red — Urgent
 - c. Orange — Export
 - d. Green - Equipment

PROBE REPAIR- (OPERA ENTRY&POST OPENING)

1. Open the package and ascertain if damaged in transit.
2. Write in the Goods In Book:
 - a. The date
 - b. The carrier (if not normal post enter the carrier no.)
 - c. The number of packages
 - d. If damaged
 - e. The number of probes to be repaired

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