

Resource Summary

- Printed circuit board repair
- Wave soldering system
- Transformer and coil winding
- NC engraving / milling
- Auxiliary relay assembly
- Protection relay assembly
- Test & calibration facility
- High voltage testing to 15KV
- Noise immunity testing
- Environmental test chamber

Relay Technology

Application of the microprocessor for the design of protection relays is a relatively recent event in terms of the average age of equipment in service. A very large proportion of protection equipment is still based on electromechanical & analogue electronic technology. Indeed modern versions of these designs are still favored for many applications due to their inherent simplicity, ease of operation, proven reliability & low cost.

Why Repair Old Protection Relays?

There are many arguments in favor of repairing existing relays rather than replacement of an existing unit or a complete system upgrade:

- ◆ Engineering resources required
- ◆ Lead time to source a suitable replacement
- ◆ Implications to panel design & wiring
- ◆ Compatibility with existing switchgear & other equipment
- ◆ Unplanned Interruption to customer services
- ◆ System documentation & operator training

In other words the cost & the convenience!

Purpose

As an experienced manufacturer of protection relays, RMS has the testing facilities plus the expertise to fault find, repair & calibrate a wide range of utility grade equipment.

The purpose of this data sheet is to describe the relay repair service offered by RMS & the general procedure required to have a relay assessed, repaired & calibrated.

Relay Assessment & Repair Procedure

A Discuss with RMS

Contact RMS in the first instance to discuss the relay problem to establish if sufficient data exists to carry out an evaluation & repair.

B Relay Returns

Relays should be consigned freight pre-paid together with relevant product manuals & circuit diagrams as discussed.

C Assessment

A report on the evaluation together with the recommended actions will be provided. Cost: First half hour free & additional time at \$50 per hour to an agreed maximum figure.

D Quotation

Based on the relay assessment a quotation to carry out the recommended repairs will be provided. The quotation will detail:

1. The maximum allowed time for the repair work
2. A fixed price for the repair work based on point 1 above
3. The lead time required to carry out the repair
4. The additional cost for priority repair
5. The additional cost for a calibration certificate
6. RMS standard terms and conditions of sale (QF907) shall apply.

E Standard Repair

Standard repairs will be scheduled into the normal production schedule.

F Priority Repair

If a priority repair service is required the job will be turned around to suit the specified urgency & attract an additional fee as per point 4 above.

G Cost Escalation

If due to unforeseen circumstances the maximum allowed time for the repair work is exceeded then the customer shall be advised & the situation re-assessed.

H Job Cancellation

If the customer elects to cancel the repair then an agreed minimum charge for time & materials will be invoiced.

I Calibration Certificate

The repaired product will be provided with a letter stating details of the repair & that the relay is operational. If a calibration certificate is required this will be provided at a cost specified in point 5 above. Calibration certificates for relays originally manufactured by RMS will be provided free of charge.

J Freight

Relays will be returned in the original packaging & the freight cost added to the quoted repair price.

Australian Content

Unless otherwise stated the product(s) quoted are manufactured by RMS at our production facility in Melbourne Australia. Approximately 90% of our sales volume is derived from equipment manufactured in house with a local content close to 90%. Imported components such as semi-conductors are sourced from local suppliers & preference is given for reasonable stock holding to support our build requirements.

Quality Assurance

RMS holds NCSI (NATA Certification Services International), registration number 6869 for the certification of a quality assurance system to AS/NZS ISO9001-1994. Quality plans for all products involve 100% inspection and testing carried out before despatch. Further details on specific test plans, quality policy & procedures may be found in section A4 of the RMS product catalogue.

Product Packaging

Protection relays are supplied in secure individual packing cardboard boxes with moulded styrene inserts suitable for recycling. Each product & packing box is labeled with the product part number, customer name & order details.

Design References

The products & components produced by RMS are based on many years of field experience since Relays Pty Ltd was formed in 1955. A large population of equipment is in service throughout Australia, New Zealand, South Africa & South East Asia attesting to this fact. Specific product & customer reference sites may be provided on application.

Product Warranty

All utility grade protection & auxiliary relay products, unless otherwise stated, are warranted for a period of 24 months from shipment for materials & labour on a return to factory basis. Repair of products damaged through poor application or circumstances outside the product ratings will be carried out at the customers expense.

Standard Conditions of Sale

Unless otherwise agreed RMS Standard Terms & Conditions (QF 907) shall apply to all sales. These are available on request or from our web site.



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