



FIELD CHANGE ORDER

Service

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Released by : G. Kramm **signed**
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Product Group : 742



OPTIMUS RAD / RF

APPLIES TO:

All Optimus RAD / RF generators release 3 9890 000 02001	RAD	R/F
serial number(s)	970218 - 970220; 970223 - 970763 980001 - 980743; 982998; 982999 990001 - 990742 000001 - 000801; 002996; 002997; 002999 010001 - 010874	971001 - 971130 982001 - 982332 992001 - 992266; 992998; 992999 002001 - 002204; 002998 012001 - 012213

TITLE:

Optimus RAD / RF release 3.x upgrade to release 3.5

LIST OF PAGES & DRAWINGS:

00 135 017 1 ... 3 02.0
ANR 02.0

INTRODUCTION:

- Symptom** : Different errors e.g. 03AB, 00X6, 00XU, 00B5, 00PP, 00PL, 00L2 or sporadic symptomatic failures like early waiting time indication etc.
- Cause** : All the different problems have different causes which have been solved in the CU rotor control and user desk software.
- Remedy** : Upgrade the CU software via flash load; exchange the high speed rotor control (where required) and control desk EPROM.

Bug fixes

- 03AB, 00X6 after preparation
- 00XU CU endless loop
- TTS data (Ta, Tb) now equal with OMCP TTS data
- 00L2 during APR programming
- Rotor temperature calculation
- 00B5
- 00PP
- 00PL dose digit disturbance
- 10LU displayed with preparation

Improvements

- Tube load counter similar to SCP or OMCP
- mAs backup * 9.5 for premature exposure termination
- Rotor energy value for TTS calculation reduced to 170Ws for SRO tubes
- No density corrections anymore for II technique
- Density correction step number changed, 2 * 25% or 4 * 12.5% or 8 * 6.25% to avoid that dose limits are exceeded during dose correction

MANPOWER / TIME TO COMPLETE:

2 hours, 1 engineer

TOOLS & TEST EQUIPMENT:

- Standard set of service tools
- PLCC extraction tool AMP 822154-1 12NC 2422 487 89772
- PC **with** hardkey
- Dual-beam memory oscilloscope to monitor kV during re-adaptation

MODIFICATION KIT / PARTS REQUIRED:

4512 104 96491 Containing:

- 4512 116 02206 Service disk A (OPTIMUS)
- 4512 116 02306 Service disk B (OPTIMUS)
- 4512 113 20525 EPROM human interface Rel. 2.5
- 4512 113 22323 EPROM rotor control HS
- 4512 109 24961 OM OPTIMUS V3.5, German
- 4512 109 24971 OM OPTIMUS V3.5, English
- 4512 109 24991 OM OPTIMUS V3.5, French
- 4512 109 25001 OM OPTIMUS V3.5, Spanish
- 4512 984 25551 UN UK OPTIMUS RAD/RF rel 3.5
- 4512 980 59421 FCO74200002 - Optimus RAD / RF release 3.x upgrade to release 3.5

Note

The modification kit is available free of charge till the end of April 2003 at the SL Hamburg. Please indicate the generator serial number when ordering the modification kit.

PROCEDURE:

- Upload the new firmware.
- Exchange the user desk EPROM.
- Exchange the rotor control HS EPROM if units 4512 104 7142. or 4512 104 7146. are present.
- Detailed description in instruction manual (4512 984 2551 UN UK OPTIMUS RAD/RF rel. 3.5).

PARTS DISPOSAL:

All parts are to be disposed of in a safe way in accordance with local safety regulations.

DOCUMENTATION:

- Log this action in section "History record" of the system reference manual.
- File this FCO in section "Service information" of the system reference manual.
- Fill out the attached action notification report and send it to your SSD Customer Support Manager.

FCO ACTION NOTIFICATION REPORT

For local SSD use only; do not return to PMG.

TITLE : *Optimus RAD / RF upgrade to Rel. 3.5*

CLASSIFICATION : *action for performance retrofit on failure*

FCO REF. NO.: 74200002

APPLIES TO : ***All Optimus RAD / RF***

HOSPITAL / ADDRESS :

LOCATION / FW SITE NO.:

SALES ORDER NO. / OA NO.:

PRODUCT NUMBER :

[illegible]

UNIT SERIAL NUMBER :

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ACTION ON THIS UNIT WAS: (select one)

JOB NO. / SERVICE INCIDENT NO.:

9

Completed per instruction on

DATE _____

1

Completed by the factory prior to delivery.

7

Not completed as this unit is not affected per instruction because: (state reason)

1

Not completed because customer has unit in storage.
Required parts & instructions received by the customer.

CUSTOMER ACKNOWLEDGEMENT (Required for **MANDATORY ACTIONS** only).

The **REASON** and **PURPOSE** of this modification have been explained to me.

CUSTOMER NAME (PLEASE PRINT)

TITLE

CUSTOMER SIGNATURE

DATE _____

BRANCH
REGION /
DEALER :

SERVICE UNIT /
SERVICE AREA NO.:

SIGNATURE CUSTOMER SUPPORT ENGINEER

DATE _____

SIGNATURE CUSTOMER SUPPORT MANAGER

MAIL TO : SSD Customer Support Manager