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## FIELD CHANGE ORDER

Service

Issued by : DMC Hamburg  
Released : K.-H. Hamburg **signed**  
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Product Group : 742

*This FCO replaces the issue  
(99.0) of December 1999*



## OPTIMUS 65 / 80 RAD & RF & C

### APPLIES TO:

OPTIMUS 65/80 RAD, RF CU Rel 3.x  
OPTIMUS 65/80 C with CU Rel 1.1  
And double converter units only:

9890 000 02001	OPTIMUS Family PEI
9890 000 00263	OPTIMUS 65
9890 000 00264	OPTIMUS
9890 000 61631	OPTIMUS 80 RAD, 1T
9890 000 61632	OPTIMUS 80 ,1T THORAVISION
9890 000 02161	OPTIMUS 65, 1T RD sn: 980080(1x)
9890 000 62181	OPTIMUS 80, 2T RD
9890 000 6218x	OPTIMUS 65, 2T RD sn: 980700(1x)
9890 000 00861/2	OPTIMUS 50 R/F, 2T, Special Ghana(5x)
9890 000 00275	OPTIMUS 65 R/F
9890 000 00871	OPTIMUS 65 R/F, 2T
9890 000 00922/3	OPTIMUS 65 TELE DIAGNOST
9890 000 00952/3	OPTIMUS 80 TELE DIAGNOST
9890 000 60911	OPTIMUS 80, 1T R/F NEU
9890 000 61531	OPTIMUS 65 DIAGNOST 15
9890 000 61651	OPTIMUS 65 R/F, 2T
9890 000 61661	OPTIMUS 80 R/F, 2T
9890 010 08851	DIAGNOST 15 PLUS
9890 010 07292	Chall 3: D56 Key Comp
9890 000 02191	OPTIMUS C
9890 000 00276	OPTIMUS C

SN's of OPTIMUS generators concerned:

970218 - 99 0656           OPTIMUS 65/80 RAD  
971001 - 99 2241 + 992245 OPTIMUS 65/80 RF  
996006 - 99 6044           OPTIMUS 65/80 C

**TITLE:**

FW Update kV-Control **Rel 3.2 OPTIMUS RAD**, resp. **Rel 1.2 OPTIMUS R/F**

**LIST OF PAGES & DRAWINGS:**

1 ... 3   (00.0)  
ANR      (00.0)

**INTRODUCTION:**

- Symptom**   : • The factor for duty cycle for 480V mains can exceed limits.  
              • Wrong data table in R/F generators can damage the converter.
- Cause**       : At critical conditions the data table of the kV-Control signal can cause a converter damage.
- Remedy**     : Release update into level .2  
              Note: Make sure the FCO 135 006 is implemented

**MANPOWER / TIME TO COMPLETE:**

1 engineer    3.5 hours

**TOOLS & TEST EQUIPMENT:**

- Allan keys, 3 + 4 mm
- 10 mm open-end wrench
- PLCC extraction tool AMP 822154-1           12NC: 2422 487 89772
- standard tool set
- dual beam oscilloscope, e.g. Fluke PM 105, 125

**MODIFICATION KIT / PARTS REQUIRED:**

Only for generators mentioned under APPLIES TO, one of the following kits can be ordered at SL Hamburg.

- **4512 104 91941 Kit kV-Cont. Rel 3.2 OPT RAD**  
comprising:  
4512 113 xxxxx    PROM kV-RF Control EZ 130 D800  
4512 980 58361    FCO document 00 135 014  
4512 984 23131    Mod-Instruction manual

**or in case of RF Generator:**

- **4512 104 91951 Kit kV-Cont. Rel 1.2 OPT R/F**  
comprising:  
4512 113 xxxxx    PROM kV-RF Control EZ 130 D800  
4512 980 58361    FCO document 00 135 014  
4512 984 23131    Mod-Instruction manual

**Note:**

*The modification kit will be available free of charge till the end June 2000 at the spare SL in Hamburg. Please, refer the generator serial number when ordering the modification kit. Please, note the correct type of RAD or R/F version.*

**PROCEDURE:**

- Exchange firmware on PCB KV-Control EZ 130
- Run Re-conditioning and Re-adaptation of the tube(s)
- Do adjustment of duty cycle factor

Detailed mod-instruction manual is supplied with the update kit.

**PARTS DISPOSAL:**

All parts are to be disposed of in a safe way in accordance with local Safety Regulations.

**DOCUMENTATION:**

File this FCO document, the mod- instruction manual, the revised sections kV control adjustment and conditioning in the binder Service Manual Subsystem OPTIMUS .

# FCO ACTION NOTIFICATION REPORT

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

TITLE : FW Update kV_Control Rel 3.2 OPTIMUS RAD, resp. Rel 1.2 OPTIMUS R/F, Rel 1.1 OPTIMUS 65/80 C	
CLASSIFICATION : <b>Action for Performance</b>	FCO REF. NO.: <b>00 135 014</b>
APPLIES TO : <i>OPTIMUS 65/80 RAD, RF CU Rel 3.x OPTIMUS 65/80 C with CU Rel 1.1 and double converter units only:</i>	

HOSPITAL / ADDRESS :	
LOCATION / FW SITE NO.:	SALES ORDER NO. / OA NO.:
PRODUCT NUMBER :	<input style="width: 100%;" type="text"/>
UNIT SERIAL NUMBER :	<input style="width: 100%;" type="text"/>

<b>ACTION ON THIS UNIT WAS:</b> (select one)	JOB NO. / SERVICE INCIDENT NO.:
<input type="checkbox"/> Completed per instruction on _____ DATE <input style="width: 150px;" type="text"/>	
<input type="checkbox"/> Completed by the factory prior to delivery.	
<input type="checkbox"/> Not completed as this unit is not affected per instruction because: (state reason) _____	
<input type="checkbox"/> 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	<b>MAIL TO : SSD Customer Support Manager</b>