

AR 3201 # 13690

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# SERVICE BULLETIN

SERVICE BULLETIN AR 3201 - 3/92

*Ma W e , A l b e r t*

TO : All BECKER Service Centers

SUBJECT : Synthesizer Modules AR 3201

Synthesizer Module 28110 - 13000.000  
Synthesizer Module 28141 - 13000.000

Ni/Cd-Batteries



*Request Support  
Henriette Metz*

## SUMMARY

This Service Bulletin describes the procedure of inspection and maintenance of Synthesizer modules of VHF transceiver AR 3201 containing Ni/Cd-batteries to assure data memory storage.

## REASON

Frequent temperature changes and long operation intervals limit the service life span of Ni/Cd-batteries. Ni/Cd-batteries are not absolutely gas-tight thus cristal sediments may occur at the connectors and under high humidity conditions printed conductors and surrounding components may be damaged by corrosion.

## PROCEDURE

- NOTE 1: Inspection and maintenance described in this Service Bulletin shall only be performed by authorized personnel.
- NOTE 2 : Use the correspondending manual "maintenance and repair" DV 28110.04 for disassembling modules.
- NOTE 3 : It is recommended to change Synthesizer Modules with module numbers up to CQ 2560 according to SERVICE BULLETIN COMM 2/85. Service Bulletin COMM 2/85 gives information on the changed type of the memory battery of the synthesizer module with module numbers above CQ2561b.

1. Determine manufacturing date of the Ni/Cd-battery. Since 1986 there is a marking on the battery's label (Bat. 3051 and Bat. 3052 or Bat 3001) which describes the manufacturing date.  
For example : 8707 means manufacturing date: 7th calendar week 1987
2. If the batteries are more than 4 years old it is recommended to replace the batteries, even if there is no visible damage.
3. Carefully check the battery connectors and the surrounding components for sediments
4. If there are any damages, remove the battery and surrounding components in order to get access to the contaminated printed conductors for cleaning. Use alcohol (methyl alcohol 94%) and a glass-brush for cleaning. Any component removed should be replaced with a new part.
5. If battery replacement is necessary, insert and solder new batteries as shown in Figures 1 to Figure 5. Ensure correct polarity!

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6. After assembling operate unit for several hours in "Standby"-mode to charge the new battery.
7. Record date of inspection

**MATERIAL**

Qty. dep. to rev. of module	Description	BFW-Partnumber	Price(1992)
1	Ni/Cd-Battery 2.4V/35mAh	782.262-391	13.30 DM

The batteries may be ordered from:

Product Support Department  
 BECKER Flugfunkwerk GmbH,  
 Niederwaldstr. 20, D - 7550 Rastatt

**REFERENCES**

VHF Transceiver  
 AR 3201 - ( )  
 Maintenance and Repair  
 Handbook DV 28110.04  
 Issue 1, April 1992

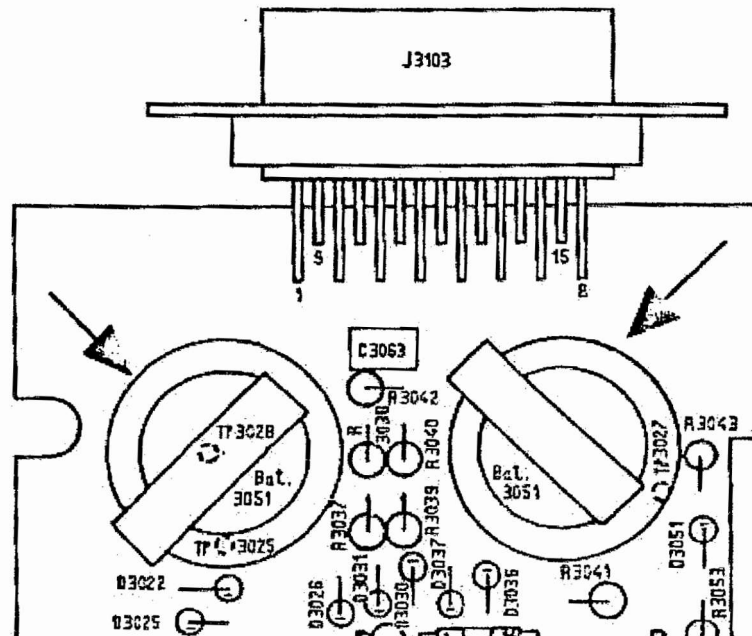


Fig 1: Location of battery Bat. 3051 on Synthesizer Module 28110 - 13000.000

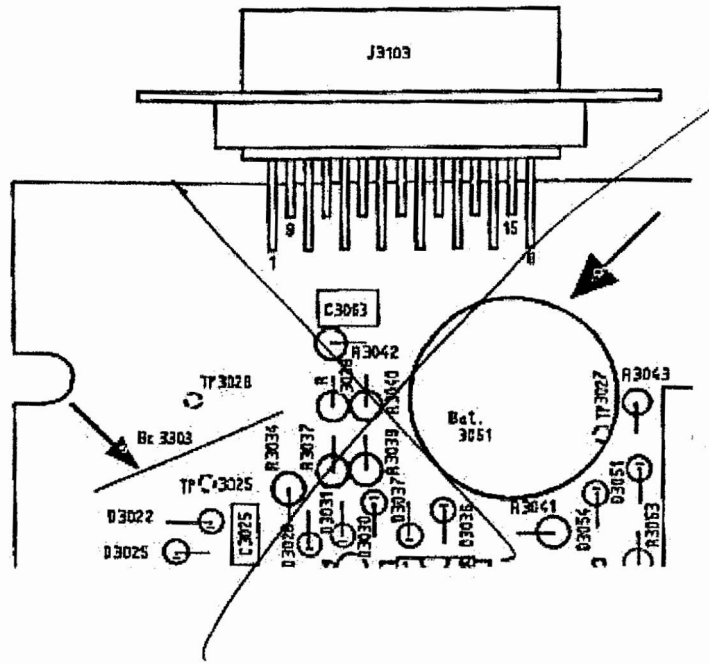


Fig. 2: Location of battery Bat. 3051 on Synthesizer Module 28110-13000.000 Change Index "b"

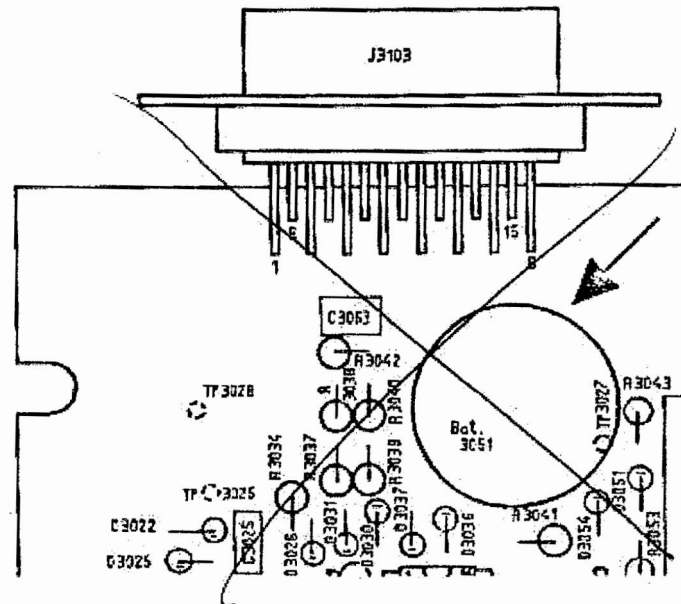


Fig. 3: Location of Bat. 3051 on Synthesizer Module 28110 - 13000.000 (new lay out)

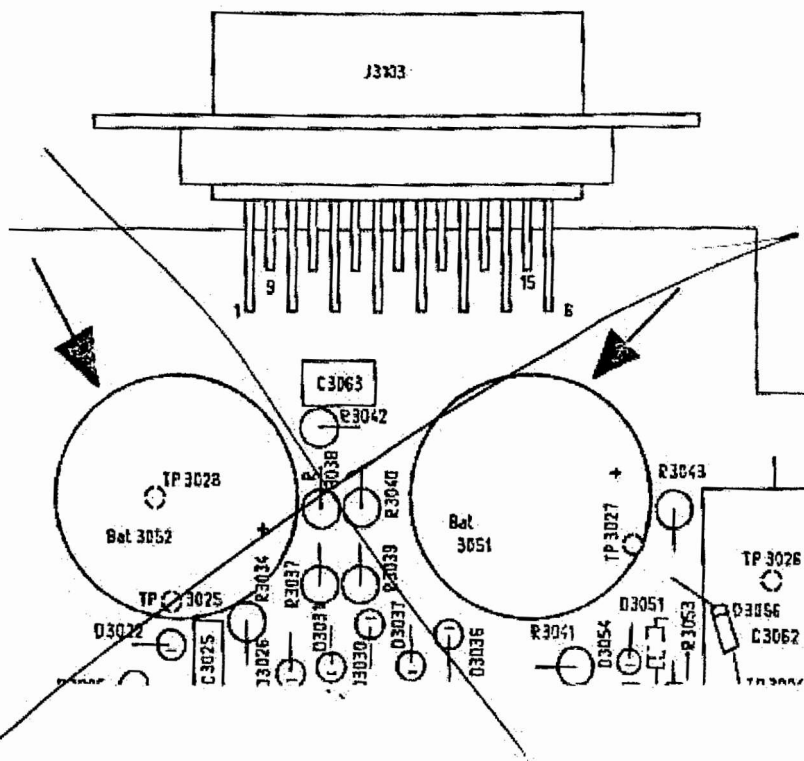
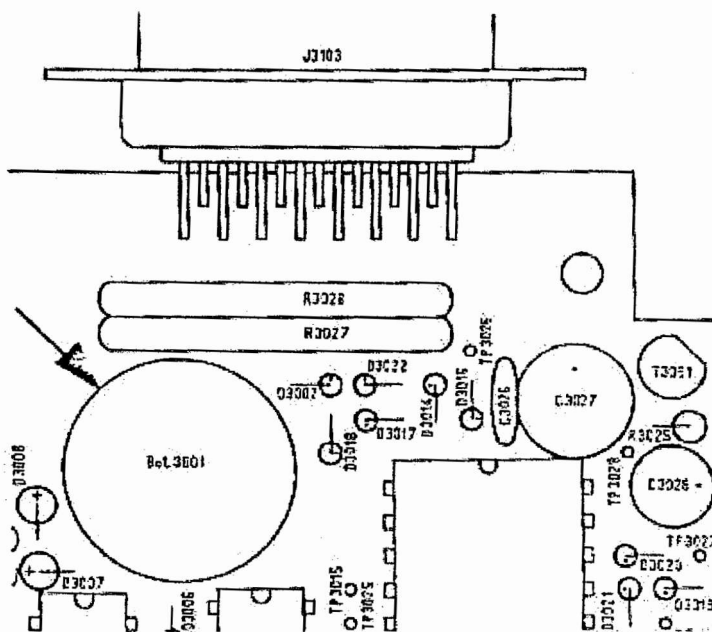


Fig. 4: Location of batteries Bat. 3051 and 3052 on Synthesizer Module 28110-13000.000 Change Index "e"



*My module*

Fig. 5: Location of battery Bat. 3001 on new Synthesizer Module 28141 - 13000.000