

## UPGRADE - IC2 NRD-525 EPROM, version CBO V1.5

⇒ 5 filters IF selection and 11 tuning steps.

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<http://geip.pagesperso-orange.fr/NRD525En.htm>  
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### DESCRIPTION, INFORMATION AND PRECAUTIONS

(This EPROM is a modification of the 7DEJD0072B version, including RS232, RTTY functions).

#### All functions of the V1.4 version are included:

- You can use the 5 filters with the original WIDE BAND (>12KHz) when all optional filters are installed. ("BANDWIDTH" lit alone when this filter is selected).
- There is a read/write instruction "B4" for use this filter with RS-232 interface.
- A "J1" RS-232 command displayed your personal parameters on the RS-232 (version, JRC serial number and name).
- The MEMO function indicates the EPROM version and the JRC serial number.

#### New V1.5 version functions:

- You can use 11 tuning steps by pressing the RUN, <DOWN and UP> keys:

10Hz - 100Hz - 1KHz - 5KHz - 6,25KHz - 9KHz (or 8,33KHz) - 10KHz - 12,5KHz - 15KHz - 25KHz - 50KHz.

- The speed rotation of the central tuning knob is proportional for the 10Hz and 100Hz fine steps, as before. The speed is linear for the 9 others steps.
- Now, the central tuning knob, the <DOWN UP> keys and SWEEP function works with the same tuning steps, in all modes.

=> *This unique EPROM is a copy protected and you have advantages for the news upgrades.*

#### Check the package content:

- This notice (4 pages),
- A ½ page questionnaire,
- CPU 2764 EPROM labeled CBO V1.5 (this EPROM is tested OK before sending).

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If you encounter technical problems, contact a qualified technician or a professional assistance.  
Some interventions are delicate.

The author doesn't assume any responsibility about the following procedure, neither for any consequent damage or problem. You make this modification on your risk and responsibility.

**Before starting work, be sure to remove the power cable and all cables.**

**Do not remove any part which does not need to be removed.**

**Use adapted tools.**

**⚠ Warning!** This symbol indicates a particular precaution, or component sensitive to electrostatic discharge.  
=> Before handling any components, be sure to wear an anti-static wrist strap or touch a grounded object.

**=> WARNING : the contents in the preset memory may be lost after these operations.**

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## 1- REMOVING COVER

- Disconnect all cables.
- Remove the upper cover slowly by loosening 4 screws, taking care not to break the speaker wires.
- Remove the speaker connector (on the IF-AF AMP CAE-182 card).

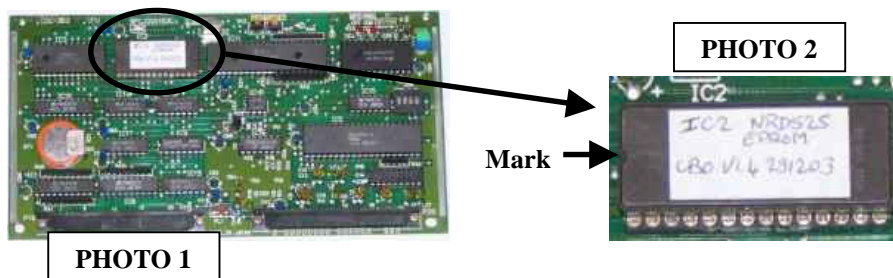
## 2- CPU CDC-353 CARD EPROM

### 2.1- Removing

- Locate the CPU CDC-353 card and remove it (insert the removal lever or a small screwdriver into the holes at both corners of the card).

### 2.2- IC2 CPU EPROM

Locate the 2764 IC2 EPROM on the CPU CDC-353 card:



- ⚠ If the EPROM is already on a socket, carefully extract it.

### 2.3- Installing the new CPU EPROM

- ⚠ Carefully insert the new CBO V1.5 EPROM into the socket with the mark in the correct orientation (near the IC3 RAM, see PHOTOS 1 and 2).

- ⚠ **The EPROM fits only in one correct orientation.**
- ⚠ **Other orientation or incorrect installation damage EPROM or CPU card !!**

## 2.4- Replacing the CPU card

- Put back the card to the original position by securely inserting it along the rails.

## 3- RE-ASSEMBLING THE RECEIVER

- Make sure all the cards are seated properly in their slots.
- Reconnect the speaker connector on the IF-AF AMP CAE-182 card.
- Mount the upper cover and the 4 screws.
- Connect the power cable and turn ON the power.

**⚠ The receiver should instantly work, if not, SHUTDOWN THE RECEIVER AND DISCONNECT THE POWER CABLE.**

**Check all procedures. Make sure the cards are seated properly in their slots.**

## 4- TESTS AND USE

- => 11 tuning steps can be used with the **[RUN]** and **<DOWN>** - **[UP>** keys.
- => The **[MEMO]** **9** command indicates the EPROM version and the serial number on the NRD-525 display.
  - ⇒ The "J1" command displayed your personals parameters on the RS-232.

### 4.1- TUNING STEPS SELECTING

- Set your receiver frequency at 10MHz, for example.
- With a first pressing on the **[RUN]** key, the actual tuning step is indicated on the display as below:

Pressing **[RUN]** key

STEP	Display on the NRD-525 :	
<b>10 Hz or 100 Hz (x10)</b>	- - . 0 0 . 0 1 KHz	1 0 . 0 0 . 0 1 KHz
<b>1 KHz or 10 KHz (x10)</b>	- - . 0 1 . 0 0 KHz	1 0 . 0 1 . 0 0 KHz
<b>5 KHz or 50 KHz (x10)</b>	- - . 0 5 . 0 0 KHz	1 0 . 0 5 . 0 0 KHz
<b>6,25 KHz</b>	- - . 0 6 . 2 5 KHz	(or 8,33 KHz)
<b>9 KHz</b>	- - . 0 9 . 0 0 KHz	
<b>12,5 KHz</b>	- - . 1 2 . 5 0 KHz	
<b>15 KHz</b>	- - . 1 5 . 0 0 KHz	
<b>25 KHz</b>	- - . 2 5 . 0 0 KHz	

Pressing **<DOWN>** or **[UP>** key

- You can multiply by 10 the 3 first steps with a second pressing on the **[RUN]** key.
- By pressing the **<DOWN>** or **[UP>** keys, you can decrease or increase the tuning step.
- This step display is cleared when you turn the tuning knob or if you press the **FREQ**, **CHANNEL**, **CLR**, **<MODE>**, **CLOCK**, **SCAN** or **SWEEP** key.

## 4.2- MEMO 9 FUNCTION

This function indicates the EPROM version and the serial number.

- Press the numerical key **9** with the **MEMO** key depressed.

The display indicates:

15 - [REDACTED] -  
↙ ↘  
CBO V1.5 EPROM version      NRD-525 serial number

- To clear this indication, press **CLR** key.

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## ONLY IF YOU HAVE THE CMH-532 or CBO-232 RS-232 OPTION:

### 4.3- RS-232 COMMANDS

Connect the NRD-525 RS-232 on an external device or computer and use a terminal program or other (300 or 1200 Bauds, 8 bits, 1 STOP bit, without parity, referring to the CMH-532 or CBO-232 manual).

- On the terminal, send "H1" string. The display on the NRD-525 indicates "REMOTE" and the **LOCK** LED is lit.

- If you sent "J1" string, the NRD-525 responds on the terminal:

```
CBO V1.5 [REDACTED] EPROM Version
NRD-525 [REDACTED]
```

- Send "H0" string. On the NRD-525, the indication of "REMOTE" disappears and the **LOCK** LED goes out.

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