

Part II

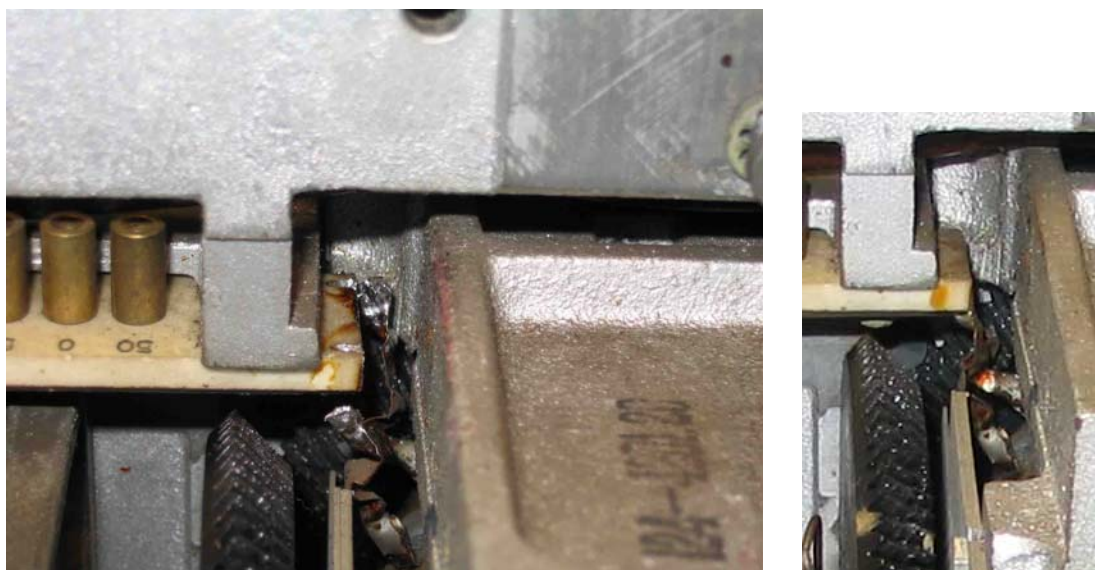


Photo 24 and Photo 24x

The next step is, to de-solder (disconnect) the flat-leads of the oscillator tuning C and the ceramic plate(mounting) (regard also photos 38/39, **Part III**). The second photo might give an impression how narrow the space actually is.

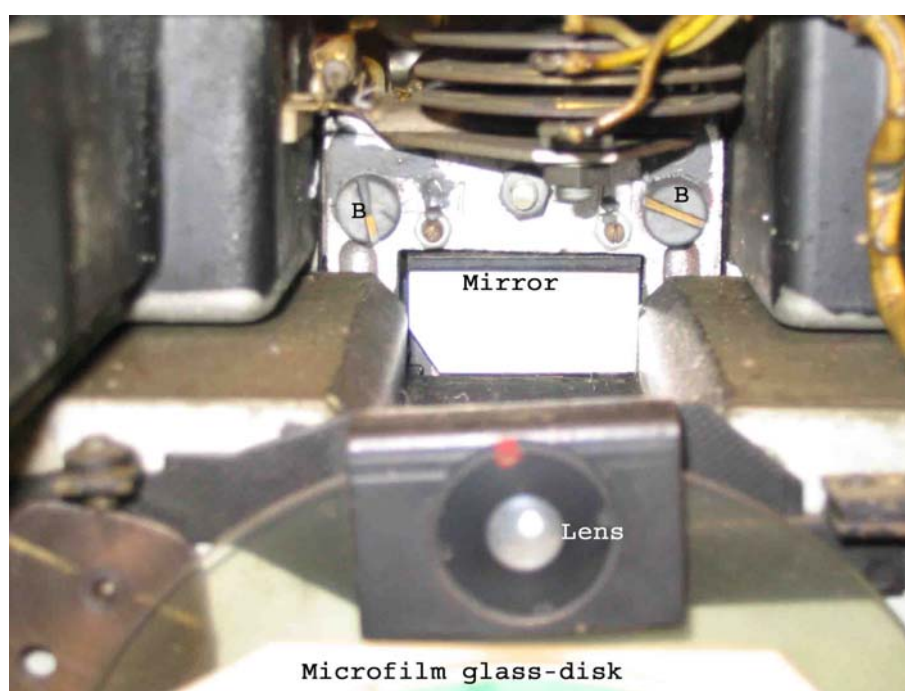


Photo 25

Both bolds B (right and left of the mirror) has to be detached, as to prepare for detaching the tuning-unit. The microfilm glass (scale)disk is mounted just behind the first optic lens. The transparency of the microfilm glass-disk indicates, that it is an: “Einheitsskala”, thus not individually being calibrated. **Keeping production parameters** is becoming more important!

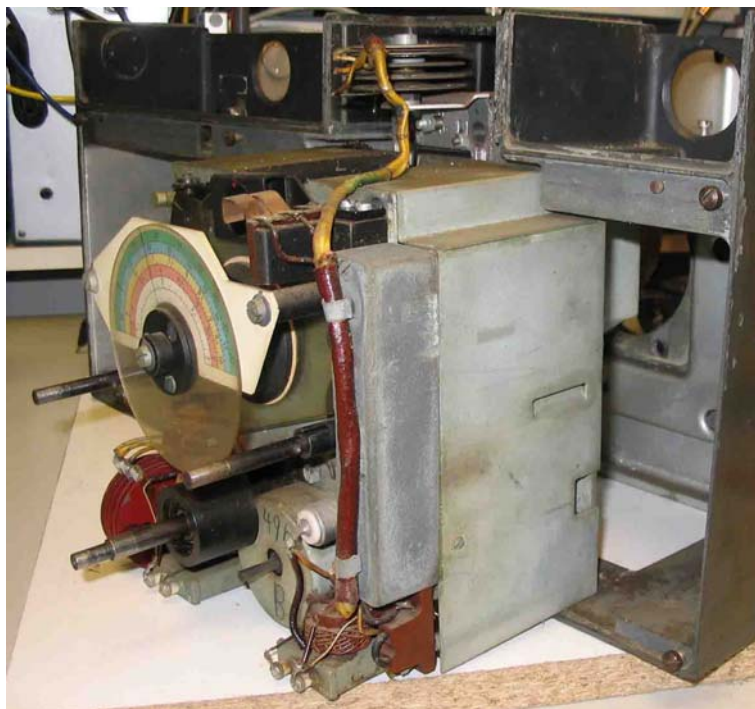


Photo 26

After having detached also two bolts at the rear, the tuning module can carefully be pulled forward. The two pin socket down on the right, is meant to connect (assemble) a remote-control unit at the front-side of the Köln receiver. However, although its existence appears in a Luftwaffe stock list, no one, to my knowledge, has ever actually seen such a device. A picture of its (not yet finished) prototype can be, nevertheless, found in: **Luftboden-Programm** catalogue of 1941, which is provided at this website.

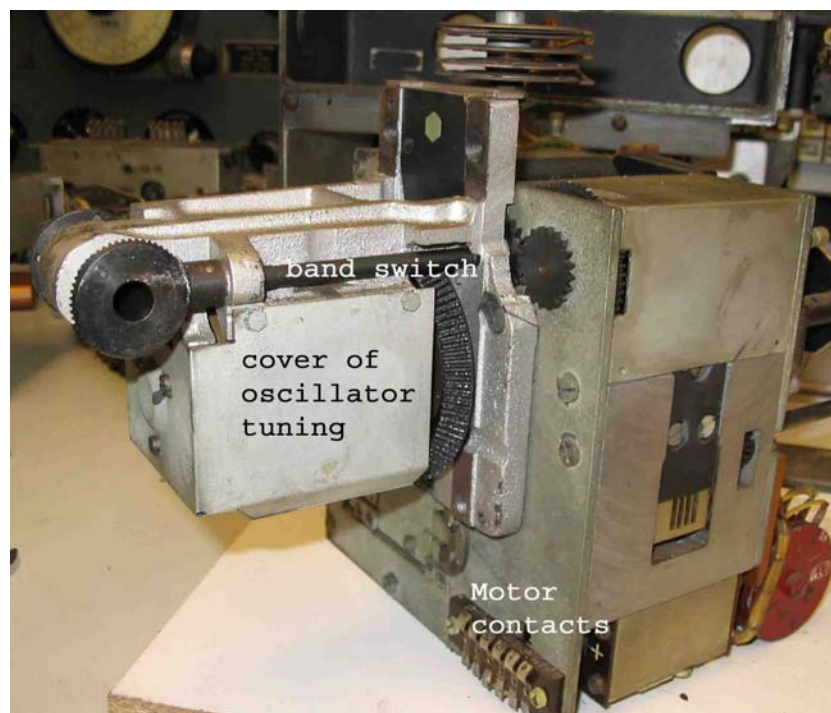


Photo 27

Rear vision of the tuning module. Consider the solidity of the die-cast frame(Al. paint)!



Photo 28

The two miniature driving motors are being marked 'M'. One is used for driving the band-switch, the second for tuning at 1 out of 4 selected spot frequencies (10,000 r/m, to overcome the: zero-momentum-clutch). I have demonstrated my own Köln type E 52a in the 1970s. And could return it to a spot frequency set in the 40 meter band tuned at an SSB QSO. It returned after switching through all ranges and frequencies to a clear SSB conversation again. This meant within +/- 10 to 15 Hz

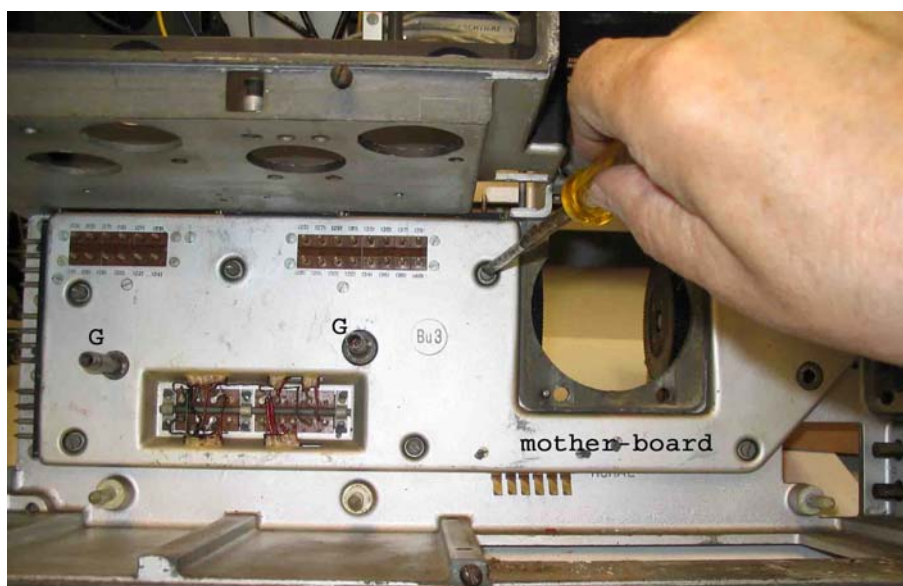


Photo 29

The next step is, to remove the central wiring Bü3, which I would like to call: mother board, as it represents the entire interconnecting wiring! G are shafts for fixing modules. Which are only kept mounted(position) by means of one lock-screw only (regard page 4 again)

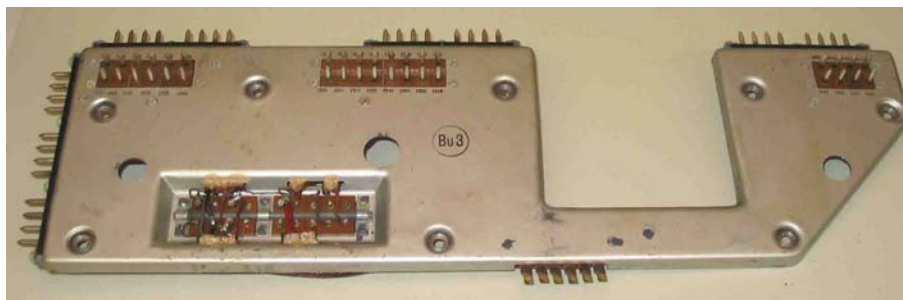


Photo 30

The various connectors can clearly be recognized. The contacts pointing to the left, were meant as to connect a HF/DF adapter. Which, like the remote-control system, never reached actual service. Nevertheless, there might have existed a so-called “Null-Serie”, which meant a few, more or less, hand made samples. See **Luftboden-Programm** at this website

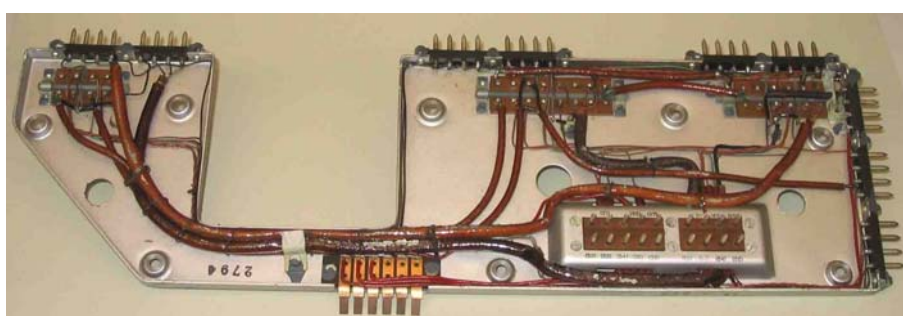


Photo 31

Shown is: the entire interconnecting wiring of a Köln receiver! The contacts pointing towards us, are to connect the power supply module. The silvered contact fingers, is to connect the tuning module. The HF/DF contacts are now facing to the right. The power supply unit has sufficient capacity to feed both Köln and the HF/DF adapter



Photo 32

The next step is: to detach the bolts holding the tuning-capacitors



Photo 33

On the left side we see the “corpus delictum” We can also see, that each tuning capacitor section has its individual “zero setting”. We must regard, that this was the setting where all tuning capacitors had their maximum capacitance



Photo 34

The best remedy proved: to rotate the ceramic shaft slightly and then using a drip of “Kontakt oil number 88”, as to restore (guarantee) its free movement inside its cylindrical housing again. It is, of course, necessary to repeat this operation for all capacitors similarly. My experience is, that the first (front-end) tuning-C is inflicted mostly. All Köln tuning capacitors were tuned “in line” not inside the receiver, though, at a special alignment set-up, somewhere in(at) the production site.



Photo 35

The free movement of the spring loaded ceramic shafts have been restored



Photo 36

The tuning capacitor of the mixer stage. If we look back at previous photos, then we may recognize that the rotation direction of the per-amp stages and mixed stage are rotating in opposite directions. Which, due to its universal design, does not provide problems. The adjusting (alignment) screw is good visible.