

## 3. SUBSYSTEM TECHNICAL INFORMATION

### 3-1. RIG CLEANING

#### 3-1-1. CHASSIS CLEANING

**Step 1:** I have found all forms of foreign matter in rigs emerging from long term storage. My favorite of cleaning method is the bathtub, Scrubbing Bubbles bathroom cleaner, and the shower hand wand. I set the rig in the tub, back side down, front panel up. With the rig leaning against the side of the tub I spray it full of Scrubbing Bubbles and let it set 3 to 5 minutes. Then I spray it full again and after 5 minutes I rinse it using the shower hand wand. I do this on the top and bottom side of the chassis. I keep the Scrubbing Bubbles away from the front panel, dials and meters, just use common sense. All the brown residue, smoke odor and filth literally run down the drain. Very seldom is any scrubbing needed, if it is I do it with a ¾" wide paint brush with half the length of the bristles cut off. I rinse it a second time then it sets in front of a fan for a day. See following photos.

**Step 2:** Now that it is squeaky clean the potentiometers need the application of a suitable control cleaner/lubricant.

**Step 3:** Some mechanical drive trains to tuning devices require special lube so don't forget them.

**Step 4:** The relays are next. I use thin strips of card paper, about 3" long and 3/16" wide. Place a drop of DeOxit on the paper and slide it back and forth between the contacts. Manually energize the relay and clean the normally open contacts as well. A pair of hemostats simplifies this step. NEVER USE SANDPAPER.

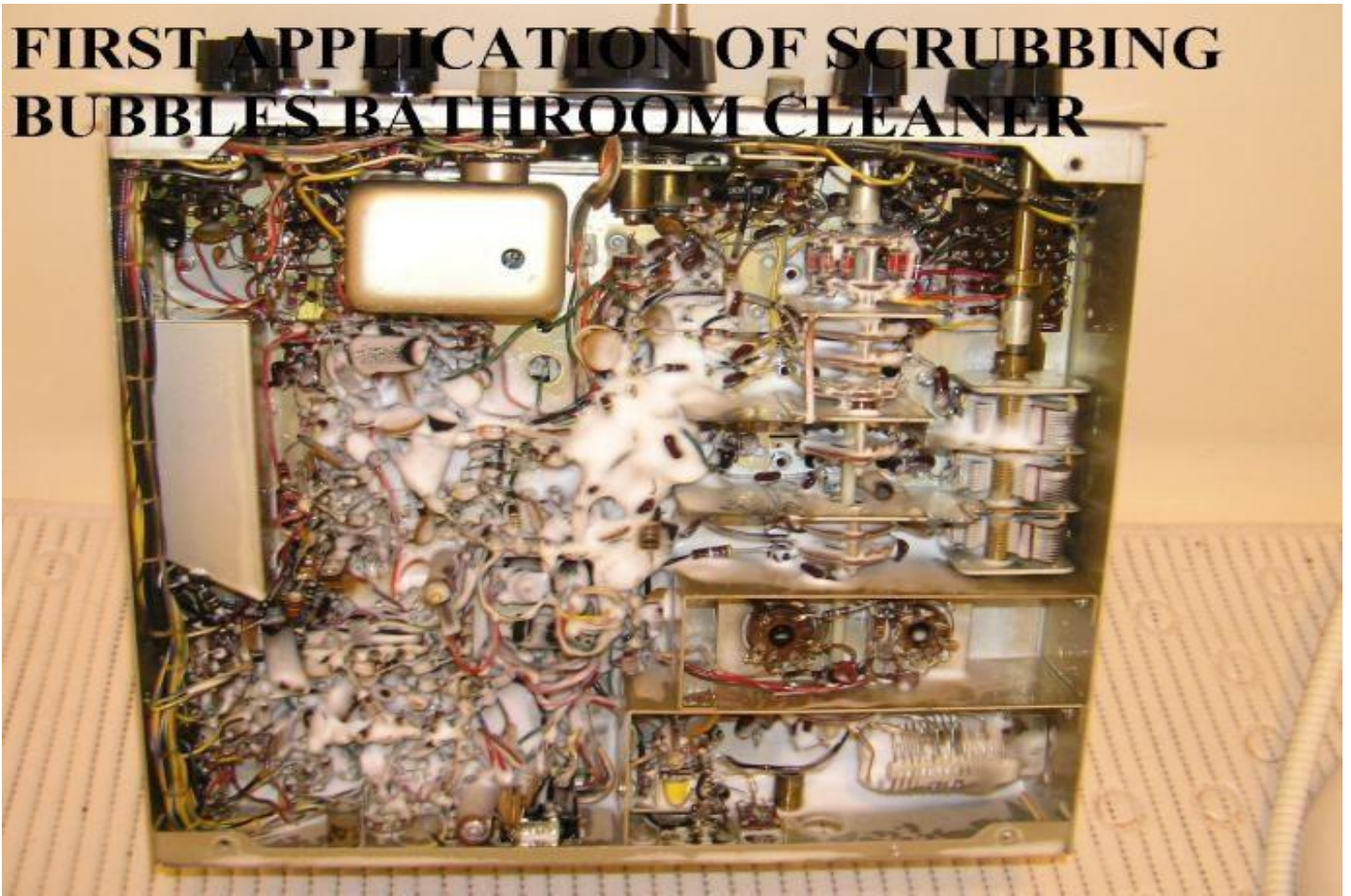
**Step 5:** Now for the controversy, The Wafer Switches! Every three months or so on one of the ham forums a wafer switch cleaning war breaks out. No minds are changed, no territory is conquered. Hostilities subside only to be resurrected a few months later when the "new be" asks How do I clean my wafers. There are at least 3 regulars out there that vehemently oppose my method and that is ok. It works for me and to date I have not suffered any loss due to it. First I take a cotton swab and cut a little cotton off the tip. I spray a little DeOxit in a small glass bowl. I dip the swab in the DeOxit and clean the switch. Pretty simple and no over spray. I **NEVER** spray DeOxit into a rig.

**Step 6:** Now to clean the tube sockets. Somewhere around the tooth brushes at your local store you will find very small round brushes used to clean between teeth. There are usually 10 or 20 to a package. Once again I use DeOxit in the glass bowl. Dip the brush, insert the brush, spin the brush, repeat 150 times or so and you're done. See following photos.

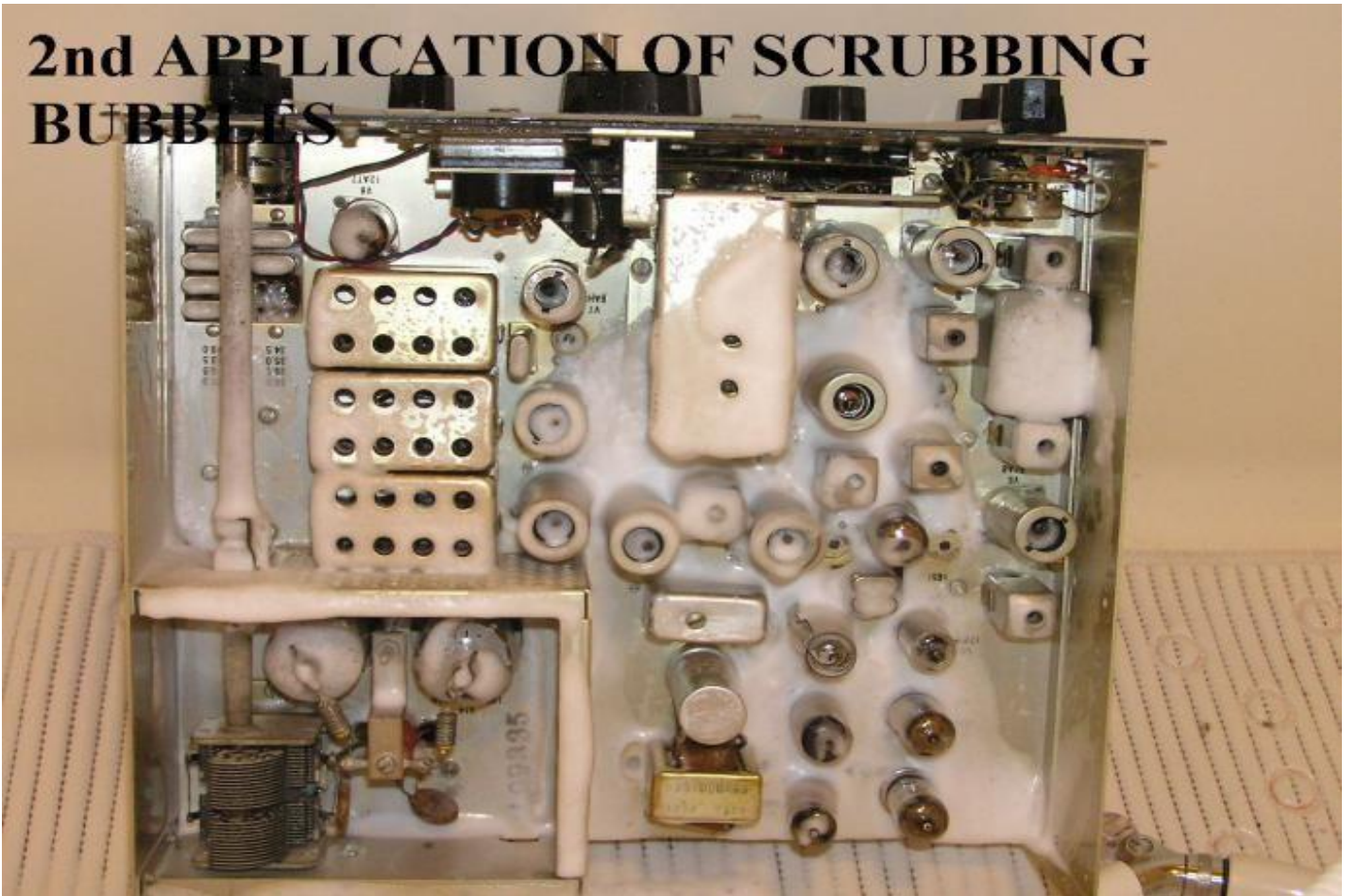
CHASSIS CLEANING CONTINUED

You can see that as the bubbles run down the chassis it is clean and shiny

**FIRST APPLICATION OF SCRUBBING  
BUBBLES BATHROOM CLEANER**

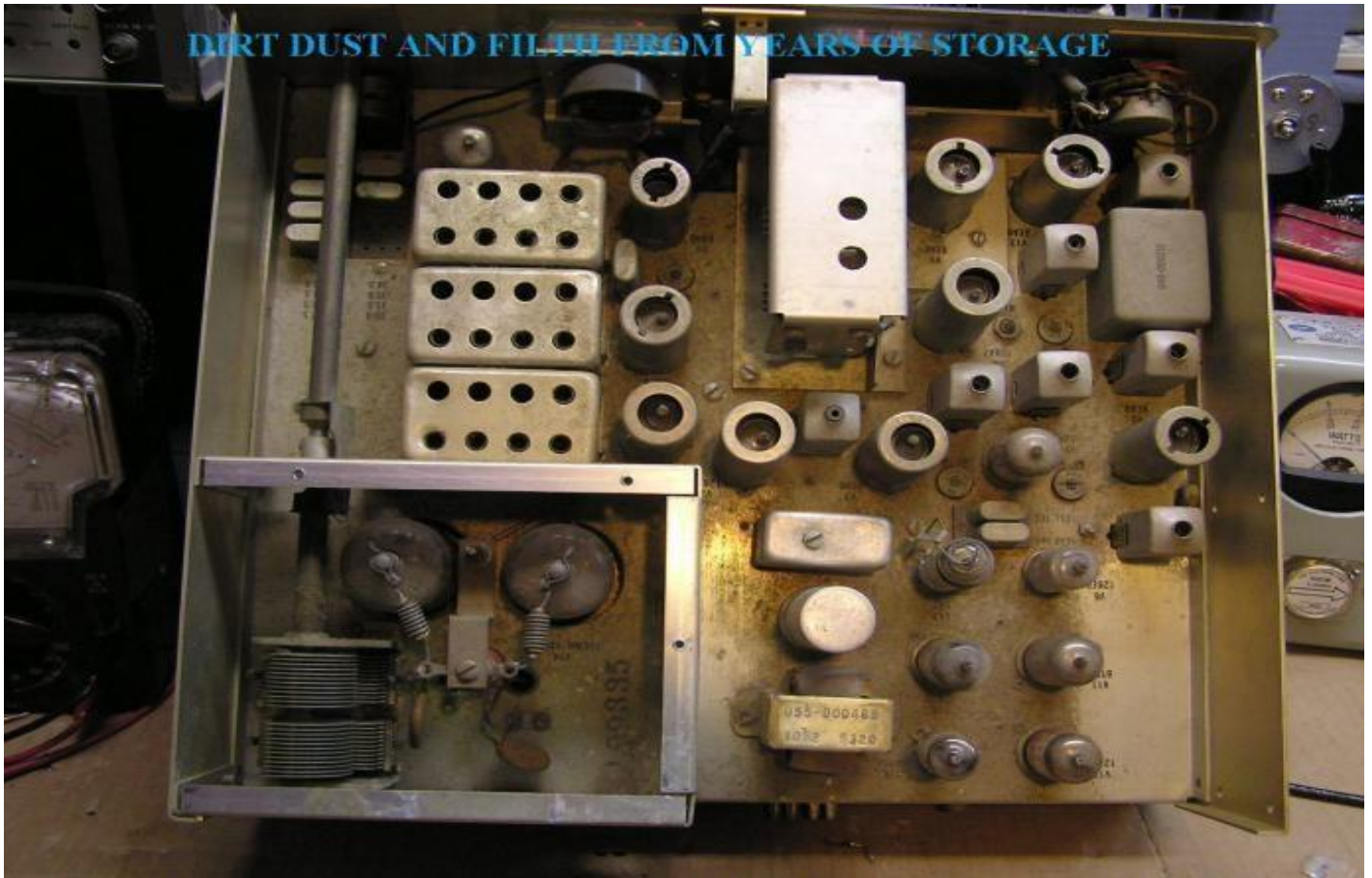


**2nd APPLICATION OF SCRUBBING  
BUBBLES**





BEFORE CLEANING



CLEAN CHASSIS

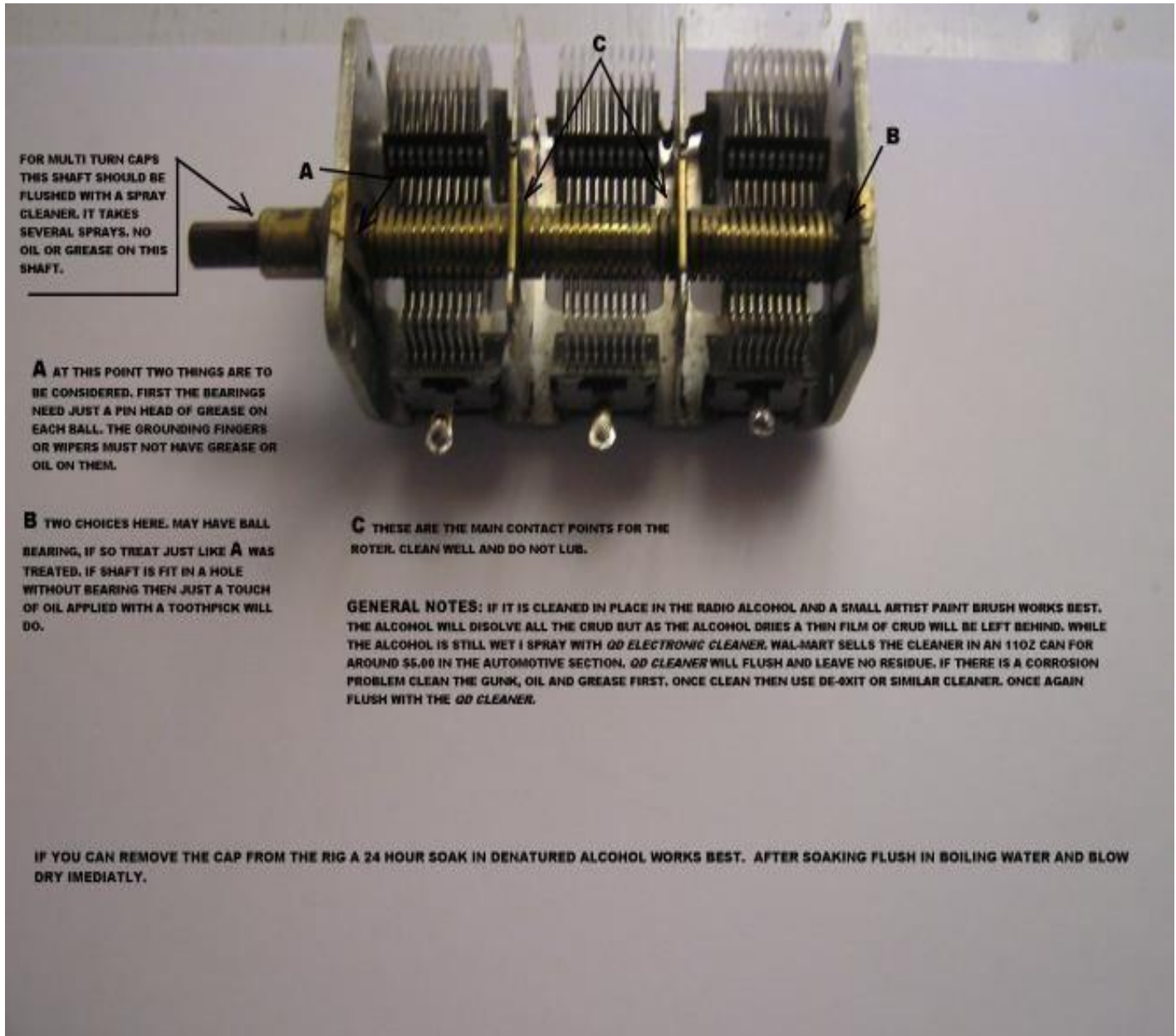


### 3-1-2. TUBE SOCKET CLEANING KIT



**NOTE: The brush end has bristles not a rubber tip. The rubber tipped brush will desolve in deoxid**

### 3-1-3. AIR VARIABLE CLEANING



FOR MULTI TURN CAPS THIS SHAFT SHOULD BE FLUSHED WITH A SPRAY CLEANER. IT TAKES SEVERAL SPRAYS. NO OIL OR GREASE ON THIS SHAFT.

**A** AT THIS POINT TWO THINGS ARE TO BE CONSIDERED. FIRST THE BEARINGS NEED JUST A PIN HEAD OF GREASE ON EACH BALL. THE GROUNDING FINGERS OR WIPERS MUST NOT HAVE GREASE OR OIL ON THEM.

**B** TWO CHOICES HERE. MAY HAVE BALL BEARING, IF SO TREAT JUST LIKE **A** WAS TREATED. IF SHAFT IS FIT IN A HOLE WITHOUT BEARING THEN JUST A TOUCH OF OIL APPLIED WITH A TOOTHPICK WILL DO.

**C** THESE ARE THE MAIN CONTACT POINTS FOR THE ROTER. CLEAN WELL AND DO NOT LUB.

**GENERAL NOTES:** IF IT IS CLEANED IN PLACE IN THE RADIO ALCOHOL AND A SMALL ARTIST PAINT BRUSH WORKS BEST. THE ALCOHOL WILL DISOLVE ALL THE CRUD BUT AS THE ALCOHOL DRIES A THIN FILM OF CRUD WILL BE LEFT BEHIND. WHILE THE ALCOHOL IS STILL WET I SPRAY WITH *QD ELECTRONIC CLEANER*. WAL-MART SELLS THE CLEANER IN AN 11OZ CAN FOR AROUND \$5.00 IN THE AUTOMOTIVE SECTION. *QD CLEANER* WILL FLUSH AND LEAVE NO RESIDUE. IF THERE IS A CORROSION PROBLEM CLEAN THE GUNK, OIL AND GREASE FIRST. ONCE CLEAN THEN USE DE-OXIT OR SIMILAR CLEANER. ONCE AGAIN FLUSH WITH THE *QD CLEANER*.

IF YOU CAN REMOVE THE CAP FROM THE RIG A 24 HOUR SOAK IN DENATURED ALCOHOL WORKS BEST. AFTER SOAKING FLUSH IN BOILING WATER AND BLOW DRY IMMEDIATLY.