



## Technical Information Exchange

No: 062

Last updated 4/25/17

By: Mark Gilger, WB0IQK

# DRAKE PARTS, MATERIALS & RESOURCES

### DRAKE WEB PAGES:

- ☐ WB4HFN, Ronald Baker: <http://wb4hfn.com>
- ☐ Drake Virtual Museum: <http://www.drakemuseum.com/>
- ☐ K3HRN, Thom LaCosta: <http://www.zerobeat.net/drakelist/>
- ☐ LA6OP, Sindre Torp: <http://home.online.no/~sindtorp/>
- ☐ Ham Manuals <http://www.hamanuals.com/>
- ☐ Ham Manuals <http://bama.edebris.com/manuals/drake/>
- ☐ Ham Manuals <http://www.hamradiomanuals.com/>
- ☐ Ham Manuals <http://www.dxzone.com/cgi-bin/dir/jump2.cgi?ID=7140>
- ☐ Ham Manuals <http://www.mods.dk/>

### DRAKE INTERNET EMAIL REFLECTOR:

The reflector is a vehicle for sending a receiving email messages to the entire Drake group. You will start seeing email that other Drake users are sending the group. You can submit email to the group by using the submission email address listed below. It's a great place to post wants and request for help.

- ☐ To Subscribe: majordomo@[www.zerobeat.net](http://www.zerobeat.net) - subscribe drakelist in body
- ☐ To Submit email: drakelist@[www.zerobeat.net](http://www.zerobeat.net)

### YAHOO DRAKE RADIO GROUP:

The Yahoo group has over 800 active members. Lots of technical questions are asked and answered daily. <https://groups.yahoo.com/neo/groups/DrakeRadio/conversations/messages>

### BLUE FILTER MATERIAL:

**KG9BV** – The prices are as follows for the TR-3, RV-3, TR-4 series, RV-4, TR-6, and all twins. \$8.00 first set-includes dial and meter bluing, and dial diffuser. \$5.00 per set thereafter up to 99 sets \$4.00 per set for orders over 100 sets. \$2.00 meter strip for T-4 reciter and wattmeter of C-4 console, \$1.00 for extra strips. \$2.00 for extra dial and meter bluing sheets for customer wanting darker shade. The prices for the 7-line are as follows, and include 2 dial and 2 meter bluing pieces so customer can adjust color to own preference. Single sheet of bluing will give original look, two sheets will be darker blue. \$4.00 dial and meter bluing for TR-7. \$2.00 dial bluing for RV-7, \$5.00 meter bluing for L-7. Steve Sever, 6242 E SR 244, WALDRON IN 46182, Phone: 765-525-6996, Email: [KG9BV@Yahoo.com](mailto:KG9BV@Yahoo.com)



### **REPLACEMENT INTERCONNECTING CABLES FOR T-4X – R-4 SERIES:**

Cables are used to interconnect the receiver and transmitter or other station accessories, like the MS-4 speaker. The cables are 36 inches long with molded RCA style connectors on both ends.

- MS-4 Speaker cable, Mouser P/N 172-1103.
- Gray interconnecting cables (Not the Injection cable), Mouser P/N 17FH101,
  - Black interconnecting cables (Not the Injection cable), Mouser P/N 17-1101



- 1) **Nationwide Radio & Eq. Sales LLC**, Mark Olson "President", 1490 Norfield Rd, Suamico, Wi. 54173, Email: [ke9pq@new.rr.com](mailto:ke9pq@new.rr.com) Phone: (920) 434-8097 Web: <http://www.ke9pq.com>
- 2) **Mouser Electronics**, Phone 800-346-6873, Part Number: 606-CM53 Web: <http://www.mouser.com/>

### **Replacement Injection Cable for Twins:**

To make your own cable, you can use the following types and length of cables. Cable lengths are measured tip-to-tip.

*RG6 = 39inches*  
*RG58AU = 36 Inches*

### **REPLACEMENT AC POWER CORDS FOR R4, R4A AND R4B:**

A/C Power cord, Custom made for vintage radios. Brown or Black, Matte finish, 8 foot length, high quality, non-polarized. Bob's Antique Radio & Electronics, 111 East 29<sup>th</sup> Street, LaGrange Park, IL 60525, email: [RadioBob1@sbcglobal.net](mailto:RadioBob1@sbcglobal.net), Web: <http://www.radioantiques.com/>



### **CABINET SCREWS:**

1. **McMaster-Carr Supply Company**, P.O. Box 7690, Chicago, IL 60680-7690, Black Oxide Finish Pan Head Phillips, Machine Screw 18-8 Stainless Steel, 6-32 thread, ¼ inch length, (P/N 91249 A144). Phone: 330-995-5500, <http://www.mcmaster-carr.com/>
2. **Allen Martin / W7APM**, P.O. Box 4177, Palmer, Ak. 99645. Packages of 25 at \$10.00, or packages of 50 at \$20.00, price includes shipping. For more information or to place an order by e-mail: [w7apm@mtaonline.net](mailto:w7apm@mtaonline.net), Allen Martin / W7APM, P.O. Box 4177, Palmer, Ak. 99645



### **CABINET SCREWS FIBER WASHER:**

**McMaster-Carr Supply Company**, P.O. Box 7690, Chicago, IL 60680-7690, Made from plant-based fiber, these washers withstand compression better than washers made from leather and soft fibers such as felt, yet they won't mar surfaces. Color is black. (P/N 95225a320). Phone: 330-995-5500, <http://www.mcmaster-carr.com/>

### **RUBBER CABINET BUMPER FEET:**

1. **McMaster-Carr Supply Company**, P.O. Box 7690, Chicago, IL 60680-7690, Adhesive-Backed Bumpers, (P/N 95495K121). , <http://www.mcmaster-carr.com/> , Phone: 330-995-5500



**PANEL LAMP, #53, 14.4 Volt: ( #1815 last longer & is recommended replacement for #53 )**

TR-7 & TR-5: Both the VFO and S-meter lamps are #53's....

1. **Mouser Electronics**, Phone 800-346-6873, Part Number: 606-CM53  
<http://www.mouser.com/>
2. **Nationwide Radio & Eq. Sales LLC**, Mark Olson "President", 1490 Norfield Rd, Suamico, Wi. 54173, Email: [ke9pq@new.rr.com](mailto:ke9pq@new.rr.com) Phone: (920) 434-8097 Web: <http://www.ke9pq.com>

**PANEL LAMP, #1815, 14 Volt ( Last longer than a standard #53 )**

TR-7 & TR-5: Both the VFO and S-meter lamps are #53's....

**Mouser Electronics**, Phone 800-346-6873, Part Number: 606-CM1815 <http://www.mouser.com/>

**PANEL LAMP, #1850, 5 Volt for the L4B:**

1. **Mouser Electronics**, Phone 800-346-6873, Part Number: 606-CM1850 <http://www.mouser.com/>
2. **Replacementlightbulbs.com**, Web: <http://www.replacementlightbulbs.com/lamp12.html>,  
Phone: 800-692-3051
3. **Light Bulb Emporium**, Phone: 888-777-0649, Part# 756025,  
[http://www.lightbulbemporium.com/bulbrite\\_756025\\_12.asp](http://www.lightbulbemporium.com/bulbrite_756025_12.asp)
4. **1000 bulbs**, Phone: 800-624-4488, <https://www.1000bulbs.com/search?q=1850>

**PANEL LAMP, #47, 6.3Volt:**

1. **Pinball Life**, Chicago, Ill, Phone:773-202-8758 <http://www.pinballlife.com/>
2. **MCM Electronics**, Phone: 888-235-4692, Web: <http://www.mcmelectronics.com/>
3. **Antique electronic supply**, 6221 S. Maple Ave, Tempe, AZ 85283, Phone 800-706-6789, E-mail: [info@tubesandmore.com](mailto:info@tubesandmore.com), Part Number: P47, <http://www.tubesandmore.com>
4. **Mouser Electronics**, Phone 800-346-6873, Part Number: 606-CM47 <http://www.mouser.com/>
5. **Superbrightleds.com**, BA9s-W4 White LED bulb for the TR-4 Lower & Upper lamps and BA9s-B Blue LED bulb for the dial and meter. <http://www.superbrightleds.com/> [sales@superbrightleds.com](mailto:sales@superbrightleds.com)

**PANEL LAMP, #1847, 6.3Volt: (Longer Life #47)**

1. **Pinball Life**, Chicago, Ill, Phone:773-202-8758 <http://www.pinballlife.com/>
2. **MCM Electronics**, Phone: 888-235-4692, Web: <http://www.mcmelectronics.com/>

**TR-4 RECEIVE CIRCUIT PROTECT LAMP:**

(#12 Indicator Lamp, Bulb G-3 1/2, Miniature 2 Pin Base, 6.30 Volts, 0.150 Amps, 0.35 MSCP, C-6 Filament, Length 0.94 in., Dia. 0.43 in.)

1. **1000 bulbs**, Phone: 800-624-4488, (You have to call to order this part)
2. **donsbulbs.com**, <http://www.donsbulbs.com/cgi-bin/r/b.pl/12|6.3v|0.15a-usa.html>
3. **Light Bulb Emporium**, Phone: 888-777-0649, Part# 756025,  
[http://www.lightbulbemporium.com/bulbrite\\_756025\\_12.asp](http://www.lightbulbemporium.com/bulbrite_756025_12.asp)
4. **Replacementlightbulbs.com**, Web: <http://www.replacementlightbulbs.com/lamp12.html>,  
Phone: 800-692-3051



**R-4C AUXILIARY REAR CRYSTAL & FILTER COVER:**

**Sherwood Engineering Inc.**, 1268 South Ogden Street Denver, Colorado 80210 USA  
e-mail: [robert@sherweng.com](mailto:robert@sherweng.com) Phone: 303-722-2257 FAX: 303-744-8876 Web:  
<http://www.sherweng.com/>

**MS-4 SPEAKER REPLACEMENT :**

**Surplus Sales of Nebraska**, 1218 Nicholas Street, Omaha, NE 68102, Phone:  
(402) 346-4750,

**Web:** <https://www.surplussales.com/Microphones-Audio/MicroAudio-8.html>



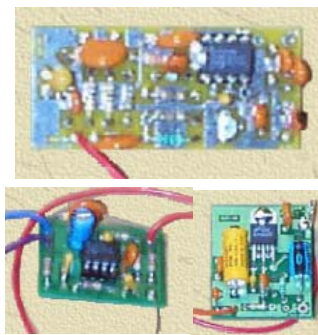
### **DRAKE SERVICE CD'S :**

Service Parts Locator for Drake 2B, 2-C/2-NT, B-Line, C-Line, TR-4, and TR-4C. Each radio comes on it's own CD. Go to Garey's web site for more detail. Garey Barrell, K4OAH, 10912 Virginia Forest Ct, Glen Allen, VA 23060-6503. e-mail: [k4oah@mindspring.com](mailto:k4oah@mindspring.com) , Web: <http://www.k4oah.com/>

### **R4C IMPROVEMENTS:**

**Sherwood Engineering Inc.**, 1268 South Ogden Street Denver, Colorado 80210 USA, e-mail: [robert@sherweng.com](mailto:robert@sherweng.com) Phone: 303-722-2257 FAX: 303-744-8876 Web: <http://www.sherweng.com/ham.html>  
First IF Crystal Filters

1. Filter brackets, Crystal and Mode Switch cover plates.
2. PRE-4 Preamp,
3. R-4C Filter Capacitor Replacement Kit
4. R-4C Audio Amplifier
5. R-4C Sold State 3<sup>rd</sup> Mixer.
6. R-4C Product Detector
7. R-4C New Replacement Power Supply Board



### **B-LINE CHROME CENTER REPLACEMENT FOR TUNING KNOB:**

1. Spun aluminum inserts for the Drake "B" Line radios and TR4 transceiver. Listed below are a series of pictures of the new inserts and the last picture shows you how their installed. To make a purchase or for further information please e-mail at the link listed above or call me at 630-879-1132. Alan / KC9YS
2. Inlays for Drake B-Line are \$3.00 each. Charlie Talbott, 13192 Pinnacle Lane, Leesburg, VA 20176-6146 Phone: 540-822-5643 Email: [k3ich@arrl.net](mailto:k3ich@arrl.net)



### **C & 7 LINE SPUN ALUMINUM CENTER INSERTS FOR MAIN TUNING KNOB:**

I have a large quantity of spun aluminum inserts with clear epoxy coating available to fit several different radios. I have all of the various sizes to fit the Collins S-Line as well as the main tuning sizes for the Drake C-Line and Heath S-B Series. They are all new production and are in perfect condition, individually wrapped for shipment. I have shipped many of them and everyone is very happy with their appearance and ease of installation. For the Drake C-Line main tuning are \$3.00 each. Charlie Talbott, 13192 Pinnacle Lane, Leesburg, VA 20176-6146 Phone: 540-822-5643 Email: [k3ich@arrl.net](mailto:k3ich@arrl.net)





## **KNOBS:**

**Fred Freeman / N8BX**, The original Drake R-4 and TR-7 Plastic knobs weigh in around 1 ounce.. These premium USA made knobs weigh 8 ounces and they tune just wonderful. A spinner makes for fast and easy QSY. It actually makes frequent band changes pleasant and you soon forget how long it takes going from each end of the VFO. This knob is for the ham that uses his radios daily and wants a beautiful weighted knob with a luxurious feel. Installation is easy and all hardware is Stainless Steel. Everything is CNC Machined from billet stock right here in the USA. The set screw that holds the knob in place is a flat tip style (no marring of your VFO shaft) and the spinner is long lasting Delrin. P.O. Box 249, Caledonia, OH 43314 **Phone:** (419) 688-1505 Email: [n8bx@73cnc.com](mailto:n8bx@73cnc.com) **Web:** <http://www.73cnc.com/>



**Nationwide Radio & Eq. Sales LLC**, Mark Olson "President", 1490 Norfield Rd, Suamico, Wi. 54173, Email: [ke9pq@new.rr.com](mailto:ke9pq@new.rr.com) Phone: (920) 434-8097 **Web:** <http://www.ke9pq.com>

**Caltronics**, 335 Maple Ave., Torrance, CA 90503, **Phone:** (800) 346-4936 or (310) 787-0782, **Fax:** (800) 345-0414 or (310) 787-1096 <http://www.caltronix.com/>

- Drake "Bar Knob" that fits all the A, B and C Line radios p/n 50-133 is 0.938" in diameter with a 0.250" dia shaft.
- Smaller knob that goes on the SPR-4, p/n 50-132 is 0.750" dia with a 0.250" shaft. Their p/n 50-1418 is a 0.250" to 0.125" "Shaft Reducer" insert.
- Main Tuning Knob." Best description is that it is a C Line knob but without the spinner button. Their p/n 50-261 is a 1.750" dia / 0.250" shaft "
- The "BAR" Bandswitch knob (p/n 50-161) and the large tuning knobs (p/n 50-133) for the MN-2000. The tuning knobs do have a white indicator stripe on the top of the knob as well as on the skirt, but other than that they are identical.



## **TR-4C SSB FILTERS:**

Replacement SSB filters can be obtained from **International Crystal (INRAD)**, 13620 Tye Road, Umpqua, OR 97486, P/N #1902 (Lower Sideband), #1992 (Upper Sideband), phone#: 541-459-5623, Web: <http://www.coulee.com/inrad/index.htm>, email: [inrad@rosenet.net](mailto:inrad@rosenet.net). An article covering SSB filter replacement was written by: WA8SAJ, and are located at: <http://www.wb4hfn.com>

## **R-4C FILTERS:** ( CW, SSB, & AM )

1. **INTERNATIONAL RADIO (INRAD)**, 13620 Tye Road, Umpqua, OR 97486, Phone: 1-541-459-5623, Web: <http://www.inrad.net/home.php> , email: [inrad@rosenet.net](mailto:inrad@rosenet.net) Web: <http://www.coulee.com/inrad/>
2. **Sherwood Engineering Inc.**, 1268 South Ogden Street Denver, Colorado 80210 USA e-mail: [robert@sherweng.com](mailto:robert@sherweng.com) Phone: 303-722-2257 FAX: 303-744-8876 Web: <http://www.sherweng.com/>

## **TR-4C AM EXPERIMENTAL FILTERS:**

AM 9 mhz. filters Part # 1906 can be obtained from **International Crystal (INRAD)**, 13620 Tye Road, Umpqua, OR 97486 phone#: 541-459-5623, Web: <http://www.inrad.net/home.php> , email: [inrad@rosenet.net](mailto:inrad@rosenet.net). An article covering AM filter replacement was written by WA8SAJ, and are located at: <http://www.wb4hfn.com> See Jeff Covelli' article in Electric Radio #147.

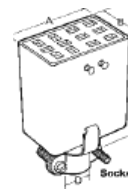
### **CINCH JONES CONNECTORS AC4 & AC3 (12 PIN MOLEX Part# S-3312-CCT):**

*Mouser Electronics*, Phone 800-346-6873, E-mail: [SALES@MOUSER.COM](mailto:SALES@MOUSER.COM), Part Number: 538-38331-8012, Web: <http://www.mouser.com/>

*Newark InOne*, 4801 N. Ravenswood, Chicago, Illinois 60640, Phone: 773-784-5100, Part Number: #14F2451 . Web: <http://www.newark.com/>

*Digikey*, 701 Brooks Ave. South, PO Box 677, Thief River Falls, MN 56701-0677, Phone: 218-681-6674, Part# CJ112S-ND , Web: [www.digikey.com](http://www.digikey.com)

*Atex Electronics*, Part Number S-312-CCT-P: Call, Phone: 1-877-367-2839 Email: [info@atxelectronics.com](mailto:info@atxelectronics.com) Web: <http://www.atxelectronics.com/connectors/jonesconn.htm>



### **CINCH JONES CONNECTOR TR7 - PS7 PWR(4 PIN MOLEX Part# S-5404--CCT):**

1. *Mouser Electronics*, Phone 800-346-6873, E-mail: [SALES@MOUSER.COM](mailto:SALES@MOUSER.COM), Part Number:538-38541-8404, Web: <http://www.mouser.com/>



### **CINCH JONES CONNECTOR TR7 - PS7 PWR (10 PIN CINCH-JONES Part# S-310-CCT):**

1. *Newark InOne*, 4801 N. Ravenswood, Chicago, Illinois 60640, Phone: 773-784-5100, Part Number: #29F864 . Web: <http://www.newark.com/>

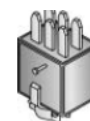
2. *Digikey*, 701 Brooks Ave. South, PO Box 677, Thief River Falls, MN 56701-0677, Phone: 218-681-6674, Part# CJ110S-ND , Web: [www.digikey.com](http://www.digikey.com)



### **CINCH JONES CONNECTOR TR7 - RV-7 (8 PIN MOLEX Part# P-3308-CCT):**

1. *Mouser Electronics*, Phone 800-346-6873, E-mail: [SALES@MOUSER.COM](mailto:SALES@MOUSER.COM), Part Number:538-38331-5608, Web: <http://www.mouser.com/>

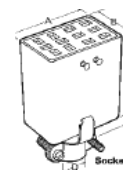
2. *Digikey*, 701 Brooks Ave. South, PO Box 677, Thief River Falls, MN 56701-0677, Phone: 218-681-6674, Part# CJ108P-ND , Web: [www.digikey.com](http://www.digikey.com)



### **CINCH JONES CONNECTOR DC3, DC4 & C4 (10 PIN MOLEX Part# S-3310-CCT):**

1. *Newark InOne*, 4801 N. Ravenswood, Chicago, Illinois 60640, Phone: 773-784-5100, Part Number: #14F2450 . Web: <http://www.newark.com/>

2. *Digikey*, 701 Brooks Ave. South, PO Box 677, Thief River Falls, MN 56701-0677, Phone: 218-681-6674, Part# CJ110S-ND , Web: [www.digikey.com](http://www.digikey.com)

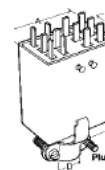


### **CINCH JONES CONNECTOR TR7 ASSESSORY (12 PIN MOLEX Part# P-3312-CCT):**

1. *Mouser Electronics*, Phone 800-346-6873, E-mail: [SALES@MOUSER.COM](mailto:SALES@MOUSER.COM), Part Number:538-38331-5612, Web: <http://www.mouser.com/>

2. *Digikey*, 701 Brooks Ave. South, PO Box 677, Thief River Falls, MN 56701-0677, Phone: 218-681-6674, Part# CJ112P-ND , Web: [www.digikey.com](http://www.digikey.com)

3. *Atex Electronics*, Part Number: P-312-CCT-P Call, Phone: 1-877-367-2839 Email: [info@atxelectronics.com](mailto:info@atxelectronics.com) Web: <http://www.atxelectronics.com/connectors/jonesconn.htm>



### **MICROPHONE PLUGS, .206 INCH, STRAIT: (Switchcraft S-260)**

1. *Mouser Electronics*, Phone 800-346-6873, E-mail: [SALES@MOUSER.COM](mailto:SALES@MOUSER.COM), Part Number:502-S260, Web: <http://www.mouser.com/>

2. *Newark InOne*, 4801 N. Ravenswood, Chicago, Illinois 60640, Phone: 773-784-5100, Part Number: 98F7746. Web: <http://www.newark.com/>



### **MICROPHONE PLUGS, .206 INCH, RIGHT ANGLE: (Switchcraft S-230)**

1. *ONLINECOMPONENT.COM*, Part Number: S230, <http://www.onlinecomponents.com>

2. *Mouser Electronics*, Phone 800-346-6873, E-mail: [SALES@MOUSER.COM](mailto:SALES@MOUSER.COM), Part Number: 502-S230, Web: <http://www.mouser.com/>

3. *Nationwide Radio & Eq. Sales LLC*, Mark Olson "President", 1490 Norfield Rd, Suamico, Wi. 54173, Email: [ke9pq@new.rr.com](mailto:ke9pq@new.rr.com) Phone: (920) 434-8097 Web: <http://www.ke9pq.com>



### ASTATIC D-104 MICROPHONE CRYSTAL CARTRIDGES:

- **Astatic D-104 elements are no longer manufactured.**
- **W2ENY HiFi Mic Element:** Robert Langston, 286 Hudson Street, Cornwall-on-Hudson, N.Y. 12520, Web: <http://w2eny.com/D104UpgradeKit/>
- **DX Engineering,** Heil HC-5.1 Microphone Element Conversion Kit, Part No: HC51RETROKIT Phone: 800-777-0703, Web: <http://www.dxengineering.com/parts/hls-hc51retrokit/>

### TR4C ANTENNA RELAY (AMF/POTTER & BRUMFIELD #R10-E1Y4-V2.5K):

1. **Harbach Electronics**, Jeff Weinberg - W8CQ, P/N RY-T4RC/T4XC, Phone: 419-945-2359, email: [info@harbachelectronics.com](mailto:info@harbachelectronics.com), Web: <http://www.HARBACHELECTRONICS.COM/>
2. **Mouser Electronics**, Part Number 655-R10-E1Y4-V2.5K, Phone 800-346-6873, <http://www.mouser.com/>
3. **DIGI-KEY CORP.** 701 Brooks Ave. South, Thief River Falls, MN 56701-0677, Phone Number: 800-344-4539, Digi-Key P/N : PB123-ND. Web:<http://www.digi-key.com>



### BURNISHING TOOL (Used to clean relay contacts):

1. **Mike Sandman**, Chicago's Telecom Expert, 390 E. Irving Park Rd., Roselle, IL 60172 Phone: 630-980-7710. Web: <http://www.sandman.com/> Order Model T001E for \$18.95
2. **Neuses Tools**, 1401 Rohlwing Rd., Rolling Meadows, IL 60008. Phone: 847-253-6555, Fax: 847-253-6652. Web: <http://www.pkneuses.com/www.pkneuses.com/index.html> (CB-5 Contact Burnisher with 6 (No.266B) .007" (.178mm) thick blades. (Included in the TK-18 Tool Kit. CB-54 Same as CB-5 except has 6 (No. 466B) .0035" (.089 mm) thick blades. CB-6 Same as CB-54 except also contains 6 (No. 266C) round ended abrasive rods. CB-7 Same as CB-5 except has 6 (No. 566B) smooth satin finished blades )



### CONTACT CLEANER (DEOXIT D5):

- **Antique electronic supply**, 6221 S. Maple Ave, Tempe, AZ 85283, Phone 800-706-6789, E-mail: [info@tubesandmore.com](mailto:info@tubesandmore.com), Part Number: S-CD5S-6, <http://www.tubesandmore.com>
- **Sherwood Engineering Inc.**, <http://www.sherweng.com/ham.html>
- **CAIG Laboratories, Inc.**, 12200 Thatcher Court, Poway, CA 92064, Part No. DN5S-6N, or the needle dispenser D100L Part No. D100L-25C Phone: 800-224-412, Email: [caig123@caig.com](mailto:caig123@caig.com), Web: <http://www.caig.com/>
- **Amazon**, Web: <http://www.amazon.com/>



### AC3, AC4, POWER SUPPLY FILTER REPLACEMENT BOARD:

1. Mike Bryce , of the "**TheHeathKitShop**" makes a universal replacement kits for the AC-4 and AC-3. The Part number is: AC4r. You can obtain just the board if desired. Web: <http://www.theheathkitshop.com>



### AC3, AC4, POWER SUPPLY FILTER REPLACEMENT BOARDS:

1. **Harbach Electronics**, Jeff Weinberg - W8CQ, Phone: 419-945-2359, email: [info@harbachelectronics.com](mailto:info@harbachelectronics.com), Web: <http://www.HARBACHELECTRONICS.COM/>
2. **Nationwide Radio & Eq. Sales LLC**, Mark Olson "President", 1490 Norfield Rd, Suamico, Wi. 54173, Email: [ke9pq@new.rr.com](mailto:ke9pq@new.rr.com) Phone: (920) 434-8097 Web: <http://www.ke9pq.com>





## **R-4C FILTER CAPACITORS:**

**Sherwood Engineering Inc**, 1268 South Ogden Street Denver, Colorado 80210 USA, Part No.: FC-4 Filter Capacitor Replacement Kit, e-mail: [robert@sherweng.com](mailto:robert@sherweng.com) Phone: 303-722-2257 FAX: 303-744-8876

**HAYSEED HAMFEST CO.** - e-mail: [sales@hayseedhamfest.com](mailto:sales@hayseedhamfest.com) Web: <http://www.hayseedhamfest.com/>

## **R-4A & R-4B FILTER CAPACITORS:**

**HAYSEED HAMFEST CO.** - e-mail: [sales@hayseedhamfest.com](mailto:sales@hayseedhamfest.com) Web: <http://www.hayseedhamfest.com/>

## **ELECTROLYTIC CAN CAPACITORS for 2B, 2C, R4 series, T4 series, TR-4 series:**

**HAYSEED HAMFEST CO.** - Fredericksburg, Iowa Hayseed Hamfest is your supplier of metal can-type and tubular electrolytic capacitors. e-mail: [sales@hayseedhamfest.com](mailto:sales@hayseedhamfest.com) Web: <http://www.hayseedhamfest.com/>



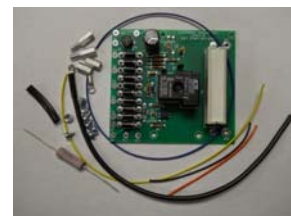
## **CRYSTAL CALIBRATOR, 2A, 2B, 2C, R-4B:**

**TheHeathKitShop** Mike Bryce, makes a universal calibrator kit that will work with any receiver, including the 2A, 2B, 2C, R4B, etc., receiver. It's a 100khz and 25 khz and you can pulse the marker on and off to find it on a busy band. Web: <http://www.theheathkitshop.com>



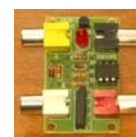
## **L4 / L4B SOFT-KEY PCB KIT:**

**Harbach Electronics**, Jeff Weinberg - W8CQ, Phone: 419-945-2359, email: [info@harbachelectronics.com](mailto:info@harbachelectronics.com), Web: <http://www.HARBACHELECTRONICS.COM>  
The ES4L4-B is a combination soft-start/soft-key/bias board for the L4-B amplifier. This all-in-one board limits inrush current during amplifier start-up by placing a small resistive load in series with the AC mains. The load resistor is switched out of the circuit by a relay approximately 2.5 seconds after power-on. It also features a opto-isolated soft-key circuit that reduces the voltage on the keying line to 12 VDC at less than 10 mA current that is also interlocked with the soft-start.



## **AMPLIFIER INTERFACE UKA-2 :**

1. **HamGadgets.com**, Dale Botkin, 16624 Elm St., Omaha, NE 68130-1826 <http://www.hamgadgets.com/> Use this to key *nearly any* solid state, grid-block or even cathode keyed rig transmitter, transceiver or amplifier. This totally silent solid state relay is rated for a whopping **400V DC**, at 400 mA! Use it to key your tube amp from a solid state rig, or keep that high voltage off your straight key - no more getting zapped when you accidentally touch the wrong part of the key!
2. **TheHeathKitShop**, Mike Bryce, keying interface for the drake L4. Instead of your radio seeing 30 volts at 75 ma, with this interface, it will see 12 volt at 5 ma An optical coupler connected the radio to the amp. Two LED's for instant verification of operation. The operation is totally automatic and is transparent to the operator. NO holes are drilled. Preassembled wiring harness simply plugs into the assembled pcb. You need to solder four wires, and remount a diode (included) onto a new terminal strip (included) a heavy 1.5A relay does the labor. All parts, assembled pcb, wiring harness will be \$39. Web: <http://www.theheathkitshop.com>





### L4 / L4B PILOT LIGHTS:

1. **Allied Electronics**, 7151 Jack Newell Blvd. S., Fort Worth, Texas 76118 U.S.A., Web: <http://www.alliedelec.com/> , Allied #679-5105 = 'Red', #679-5115 = 'Amber'.
2. **Mouser Electronics**, Part No. 607-1050-C1 for the Red with 6" black leads and the Amber color is 607-1050-C3 is the 'Amber'. , Phone 800-346-6873, <http://www.mouser.com/>
3. **Nationwide Radio & Eq. Sales LLC**, Mark Olson "President", 1490 Norfield Rd, Suamico, Wi. 54173, Email: [ke9pg@new.rr.com](mailto:ke9pg@new.rr.com) Phone: (920) 434-8097 Web: <http://www.ke9pg.com>



### L4 / L7 AMPLIFIER CAPACITORS: ( 200 mfd @ 450 VDC )

Axial leads are impossible to find as direct replacements. You will need to get the snap mount variety, or screw lug type and solder appropriated leads to match installation.

1. **Harbach Electronics**, Jeff Weinberg - W8CQ, Phone: 419-945-2359, Par No.: CP-210 SET OF 8 MATCHED 210mF 450VDC COMPUTER GRADE email: [info@harbachelectronics.com](mailto:info@harbachelectronics.com), Web: <http://www.HARBACHELECTRONICS.COM/>
2. **Newark Electronics**, Part# 18F2912 (200uf) Part# 01M7652 (220uf), Part# 52R2409 (220UF), , Phone 800-346-6873, <http://www.mouser.com/>



### L75 AMPLIFIER CAPACITORS: ( 100 mfd @ 450 VDC )

1. **Radio Daze**, Part# C-EA100-450, Phone (800)-456-6494., <http://www.radiodaze.com/>
2. **Newark Electronics**, Part# 30K6603 (100uf) Part# 79K3635 (100uf), Phone 800-346-6873, <http://www.mouser.com/>
3. **Mouser Electronics**, Part# 75-TVA1718-E3 (100uf), Phone 800-346-6873, <http://www.mouser.com/>

### L4 / L7 HIGH VOLTAGE REPLACEMENT POWER SUPPLY PCB :

1. **Mike Bryce , of the "HeathKitShop"** This handheld PCB assembly will put new life into your old Drake L4 amplifier. Comes in kit form, but an assembled pcb is available.. Web: <http://www.theheathkitshop.com>
2. **Harbach Electronics**, Jeff Weinberg - W8CQ, Phone: 419-945-2359, Par No.: PM-400 L-4/B/7 POWER SUPPLY. email: [info@harbachelectronics.com](mailto:info@harbachelectronics.com), Web: <http://www.HARBACHELECTRONICS.COM/>



### L4 / L4B SOFT-START PCB KIT:

**Harbach Electronics**, Jeff Weinberg - W8CQ, Phone: 419-945-2359, email: [info@harbachelectronics.com](mailto:info@harbachelectronics.com), Web: <http://www.HARBACHELECTRONICS.COM/>  
The SS-400 limits inrush current during amplifier start-up by placing a small resistive load in series with the AC mains. The load is switched out of the circuit by the relay a few milliseconds later. The soft-start mounts on the underside of the RF deck and safely limits inrush current to protect the hard to find and costly-to-replace ON-OFF switch, tubes, filter capacitors and high voltage transformers.



### L4 / L4B / L7 HV SAFETY RESISTOR:

**Harbach Electronics**, Jeff Weinberg - W8CQ, Phone: 419-945-2359, email: [info@harbachelectronics.com](mailto:info@harbachelectronics.com), Web: <http://www.HARBACHELECTRONICS.COM/> The RES-400 is a direct replacement for the original IRC SPH-style safety resistors used in the L-4/L-4B/L-7 remote power supply. These resistors are designed to open under conditions of high plate current draw from the power supply (tube arch or power supply short) to protect expense tubes and power supply components.



### **REMOTE CABLE STRAIN RELIEF:**

**Harbach Electronics**, Jeff Weinberg - W8CQ, Phone: 419-945-2359, email: [info@harbachelectronics.com](mailto:info@harbachelectronics.com), Web: <http://www.HARBACHELECTRONICS.COM/>

The **SRB-400** is a direct replacement for the original strain relief bushing for the Drake L-4/L-4B/L-7 power supply AC cord (flat). The **SRB-401** is a direct replacement for the Drake L-4/L-4B/L-7 power supply remote RF deck multi-conductor cable (round).



### **L4 / L4B / L7 REPLACEMENT 50k 50 W BIAS RESISTOR:**

**Harbach Electronics**, Jeff Weinberg - W8CQ, Phone: 419-945-2359, email: [info@harbachelectronics.com](mailto:info@harbachelectronics.com), Web: <http://www.HARBACHELECTRONICS.COM/>

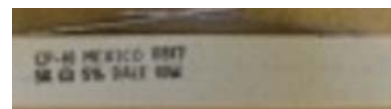
The RES-402 is a direct replacement for the 50KOhm 50 W bias resistor used in the Drake L-4/L-4B/L-7 remote power supply.



### **L4 / L4B / L7 REPLACEMENT 5K 10W RESISTOR:**

**Harbach Electronics**, Jeff Weinberg - W8CQ, Phone: 419-945-2359, email: [info@harbachelectronics.com](mailto:info@harbachelectronics.com), Web: <http://www.HARBACHELECTRONICS.COM/>

The RES-407 is a replacement for the 5KΩ 7W resistor in the power supply. The new resistor is rated at 10W instead of the original 7W.



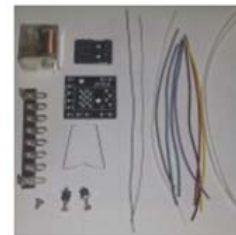
### **L4 / L4B / L7 T/R RELAY:**

**Harbach Electronics**, Jeff Weinberg - W8CQ, Phone: 419-945-2359, email: [info@harbachelectronics.com](mailto:info@harbachelectronics.com), Web: <http://www.HARBACHELECTRONICS.COM/> The RY-L4B is a direct replacement T/R relay for the Drake L-4/L-4B. It is a 3PDT relay with a 24VDC coil.



### **T4X/B PLUG-IN RELAY ADAPTER KIT:**

**Harbach Electronics**, Jeff Weinberg - W8CQ, Phone: 419-945-2359, email: [info@harbachelectronics.com](mailto:info@harbachelectronics.com), Web: <http://www.HARBACHELECTRONICS.COM/> The RA-T4X/B is a plug-in relay adapter kit for the Drake **T-4X and T-4XB transmitter**. The kit allows you to replace the original chassis-mounted relay (no longer available) with a new plug-in style relay. The kit consists of an adapter PC board, relay socket, new plug-in relay, relay clip, hardware, terminal strip, hookup wire, spaghetti tubing and a complete set of step-by-step instructions.



### **TR 3/4 PLUG-IN RELAY ADAPTER KIT:**

**Harbach Electronics**, Jeff Weinberg - W8CQ, Phone: 419-945-2359, email: [info@harbachelectronics.com](mailto:info@harbachelectronics.com), Web: <http://www.HARBACHELECTRONICS.COM/> The RA-160 is a plug-in relay adapter kit for the Drake TR-3 and TR-4 transceivers. The kit allows you to replace the original chassis-mounted relay (no longer available) with a new plug-in style relay. The kit consists of an adapter PC board, relay socket, new plug-in relay, relay clip, hookup wire, spaghetti tubing and a complete set of step-by-step instructions.



### **L4/L4B/L7/L75 POWER & CW/SSB ROCKER SWITCH REBUILD KIT:**

When the Drake L-4/L-4B/L-7/L-75 power or SSB/CW rocker switch becomes defective there are very few repair options except to replace it with one from a parts amplifier. The original switch is no longer available from any supplier. This kit includes the back half body of the switch housing containing stationary spade lug contacts, two rocker arm contacts, tension springs & pistons, and crimp-on connectors; everything you need to completely rebuild the L-4/L-4B/L-7/L-75 power and/or SSB/CW rocker switch.

**Harbach Electronics**, Jeff Weinberg - W8CQ, Phone: 419-945-2359, email: [info@harbachelectronics.com](mailto:info@harbachelectronics.com), Web: <http://www.HARBACHELECTRONICS.COM/>



#### **L4 - 3-500z GLASS CHIMNEYS & CHIMNEY CLIPS:**

- **RF Parts**, 435 So. Pacific Street , San Marcos, CA 92069 Part No. 5X406, and Part # 275-CLIP, (800) 737-2787, Technical Help: (760) 744-0750, Web: <http://www.rfparts.com/>
- **Colman**, You can also use Colman's lantern globes for their propane gas lanterns, part number R214D046C. If shopping at your local sports store, the box has a UPC number of 20071213 and on the globe itself is No. 277C043 3009. Web: [http://www.coleman.com/coleman/parts/Productimage2.asp?product\\_id=globe](http://www.coleman.com/coleman/parts/Productimage2.asp?product_id=globe) Phone: 800-835-3278, Email: [consumerservice@coleman.com](mailto:consumerservice@coleman.com).

#### **CRYSTALS:**

1. **International Crystal Manufacturing Co. Inc.**, Phone: 1-800-322-9426, Web: <http://www.icmfg.com>, <http://www.icmfg.com/hamradio-manufacturers.html> , email: [info@icmfg.com](mailto:info@icmfg.com)
2. **JAN Crystals**, 2341 Crystal Drive, P.O. Box 60017, Fort Myers, Fl. 33906-6017, Phone: 800-526-9825, Fax: 941-936-3750, Email: [sales@jancrystals.com](mailto:sales@jancrystals.com) Web: <http://www.jancrystals.com/> .
3. **Sherwood Engineering Inc.**, 1268 South Ogden Street Denver, Colorado 80210 USA e-mail: [robert@sherweng.com](mailto:robert@sherweng.com) Phone: 303-722-2257 FAX: 303-744-8876. <http://www.sherweng.com/ham.html> Sells crystals for the R4 series only.
4. **M&H Electronics**, 9569 9th Street, Rancho Cucamonga, CA 91730 (800) 643-9825, Fax (909) 945-4971 Web: <http://www.mhelectronics.com/>
5. **QuartSLab**, Email: [sales2@quartslab.com](mailto:sales2@quartslab.com) , Web Site: <http://www.quartslab.com/>
6. **Kens Electronics**, 2825 Lake Street Kalamazoo, MI 49048, Phone: (269) 345-4609 <https://www.kenselectronics.com/lists/cbxtal.htm>
7. AF4K, 117 STERLING PINE ST, SANFORD, FL 32773, Phone: (321)262-5471, <http://www.af4k.com/crystals.htm>

#### **TRANSFORMER REWIINDING:**

Newly manufactured and rebuilt transformers for many radios and audio equipment. Custom transformers and rewinding - including power, plate, bias, filament, modulation, output and audio transformers, power supply chokes. Rewinds are warranted for one year for manufacturing defects.



- **TRS Transformer Rewinding Service**, 478 Forest ave., Orono, Maine 04473 Phone: 207-942-5745, Email: [xfrmrs@roadrunner.com](mailto:xfrmrs@roadrunner.com) Web Page: [http://members.tripod.com/tubes\\_tubes\\_tubes/transformerrewindingservice/](http://members.tripod.com/tubes_tubes_tubes/transformerrewindingservice/)
- **HEYBOAR TRANSFORMERS** – Michigan, 17382 Hayes St., Grand Haven, Michigan 49417, Phone: 616 - 842-5830 Web: <http://heyboertransformers.com/>
- **Quality Transformer and Electronics** – Northern California, 963 Ames Avenue, Milpitas, CA 95035 Phone: 408 – 263-8444 Web: [www.qte.com/](http://www.qte.com/)
- **Peter Dahl Transformer** - Phone:716-630-7030, Web: <http://www.pwdahl.com/PWDnews.html>
- **Heyboar Transformer**, Transformer Rewind Service (Gary) – Maine, 478 Forest Ave., Orono, ME 04473 Phone: 207 – 942-5745 , Email: [xfrmrs@roadrunner.com](mailto:xfrmrs@roadrunner.com) Web: [http://members.tripod.com/tubes\\_tubes\\_tubes/transformerrewindingservice/index.html](http://members.tripod.com/tubes_tubes_tubes/transformerrewindingservice/index.html)

#### **DRAKE 9.000mhz CRYSTAL SPECIFICATIONS:**

+/- 0.003% Freq. tol., Parallel Resonant, 20pf load cap., HC-32/U wire leads, Hermetic seal

## **R4B CRYSTAL CALIBRATOR:**

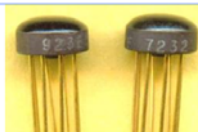
*Semi Conductor Museum* <http://www.transistormuseum.com> sells the IC1 and IC2 UL923 IC's that are used on the Crystal Calibrator pcb.

Email, [transistormuseum@aol.com](mailto:transistormuseum@aol.com) to determine payments options (Paypal or Check)

[http://semiconductormuseum.com/MuseumStore/MuseumStore\\_Fairchild\\_923\\_Index.htm](http://semiconductormuseum.com/MuseumStore/MuseumStore_Fairchild_923_Index.htm)

FAIRCHILD uLogic® 923

RTL Integrated Circuit  
JK Flip-Flop  
Vintage 1960s -70s  
Use: Computers/Logic Circuits



## **METER REPAIR:**

Meters for Drake equipment are no longer available. The following sources will repair meters.

### **Standard Meter Labs**

Phone: (925) 449-0220  
236 Rickenbacker Circle  
Livermore CA 94550

### **Charles Jobs**

Phone: (828) 891-4355  
125 Denmar Lane  
Hendersonville NC 28791

### **Eldad Benary**

Phone: (845) 246-2466  
129 George Sickel Rd  
Saugerties, NY 12477

### **Industrial Instrument Works**

Phone: 800-435-2254  
5745 Salmen Ave.  
New Orleans, LA 70123

### **Larson Metercraft, Inc.**

9328A Wheatlands Road  
Santee CA 92071  
Phone: 619-258-8990  
<http://www.larsonmetercraft.com>

## **W4 WATTMETER CONVERSION TO A PEAK READING METER:**

1. **HI-RES Communications** offers the famous PDC-1 kit to convert ANY Average Reading wattmeter to true Peak Reading! Other kits will join the PDC-1 in our kit line soon! HI-RES Communications, Inc., 8232 Woodview Dr., Clarkston, MI 48348-4058 USA , E-mail orders: [orders@hi-rescom.com](mailto:orders@hi-rescom.com) , Phone: (248) 391-6660 Web: <http://hi-rescom.com/html/pdc-1.html>
2. **K4DPK**, PEP Adapter:: Phil Chambley, Sr., 28 East Camelia Rd. NE Rome, GA 30161 Email: [k4dpk@comcast.net](mailto:k4dpk@comcast.net), Web: <http://home.comcast.net/~k4dpk/>

## **TR-7 ANTENNA RELAY :**

1. **Mouser Electronics**, Part Number 655-R10-E1Y4-V18S, Phone 800-346-6873, <http://www.mouser.com/>
2. **DIGI-KEY CORP.** 701 Brooks Ave. South, Thief River Falls, MN 56701-0677, Phone Number: 800-344-4539, Digi-Key P/N :PB121-ND. Web:<http://www.digi-key.com>

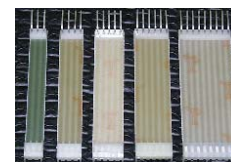


## **TR-7 PIN DIODES (MPN3404 & (UM9401 OR MA4P 1200 ):**

1. **RF Parts**, 435 So. Pacific St., San Marcos, CA 92069, <http://www.rfparts.com/index.html>  
Phone: 888-737-2787.
2. **Down East Microwave Inc.**, 954 Route 519 Frenchtown, NJ 08825,  
<http://www.downeastmicrowave.com/> Phone: 908-996-3584

## **TR-7 SERVICE KIT EXTENDER CARDS:**

Service Kit for the DRAKE TR-7 series. The kits includes the 13 board extenders cards and a DIGITAL JUMPER card required to do any real service work on these fine radios. [Bob W7AVK](http://www.pweb.amerion.com/~w7avk/) by phone at [509] 766-7277 or check out <http://pweb.amerion.com/~w7avk/> for additional details.





## **TUBES:**

1. **ESRC Vacuum Tubes**, 6424 Pinecastle Blvd. Suite B, Orlando, FL 32809 Phone: 407-826-5808, Email: [CustomerService@ESRCVacuumTubes.com](mailto:CustomerService@ESRCVacuumTubes.com) Web: <http://esrcvacuumtubes.com/>
2. **Vacuum Tubes, Inc.**, Phone: (407)481-9994 Web: <http://www.vacuumtubesinc.com/> email, [jim@vacuumtubesinc.com](mailto:jim@vacuumtubesinc.com)
3. **W9TEW Tube Sales**, Bob Bieker, 9528 Farmer Dr., Highland, IN 46322 Phone: 219-924-0945, Email: [www.hamtubes.com](http://www.hamtubes.com) ,
4. **John Walker JR.**, 13406 W. 128TH Terr., Overland Park, KS. 66213, PH: 913-782-6455 (Home Evenings) PH: 913-568-7057 (Cell), Email: [JWALKER83@KC.RR.COM](mailto:JWALKER83@KC.RR.COM)
5. **TTC The Tube Center**, Orlando, Fl 32809 Phone: 407-826-9172, Email: [customerservice@thetubecenter.com](mailto:customerservice@thetubecenter.com) Web: <http://www.thetubecenter.com/index.html>
6. **Radio Electric Supply**, 3500 N.W. 97<sup>th</sup> BLVD. Suite R, Gainesville, FL 32606, Phone: 352-332-8881, Email: [tubes@mindspring.com](mailto:tubes@mindspring.com) Web: <http://www.vacuumtubes.net/>
7. **SND Tube Sales**, Phone 636-939-9190, Fax 636-922-0601, E-mail: [sndtubes@vacuumtubes.com](mailto:sndtubes@vacuumtubes.com) Web: <http://www.vacuumtubes.com/>
8. **The Tubestore.com**, Phone: 1-877-570-0979, Web: <http://www.thetubestore.com/thetubestore/index.html>
9. **Antique electronic supply**, Phone 800-706-6789, E-mail: [info@tubesandmore.com](mailto:info@tubesandmore.com), Web: <http://www.tubesandmore.com>
10. **VACUUMTUBES.BIZ**, KE7NTD – Roger Gould - Washington 16953 Tye Drive, Entiat, WA 98822 Web: <http://www.vacuumtubes.biz/index.html>
11. **RF Parts** – San Marcos, California, Email: [Terry@rfparts.com](mailto:Terry@rfparts.com) , 435 South Pacific Street, San Marcos, California 92078, Phone: (800) 737-2787, 760 – 744-0700 Web: <http://www.rfparts.com/?gclid=CJPr0Jf04cECFYdzMgod9woAgg>
12. **Nationwide Radio & Eq. Sales LLC**, Email: [ke9pq@new.rr.com](mailto:ke9pq@new.rr.com) Phone: (920) 434-8097 Web: <http://www.ke9pq.com>

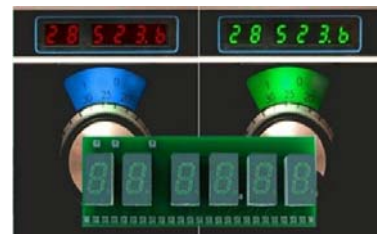
## **TR-7 RF TRANSISTORS :**

RF transmitter power transistors 2SC2879 or 2SC2879A TR7 final transistors. , from: **RF Parts**, 435 South Pacific Street, San Marcos, CA 92069, Phone: 800-737-2787, web: [www.rfparts.com](http://www.rfparts.com)

**Communication Concepts, Inc.**, 508 Millstone Dr., Beavercreek, Oh., 45434-5840 Telephone: 937-426-8600, Fax: 937-429-3811 web: <http://www.communication-concepts.com/default.htm>  
**MRF421MP** TR7(A) final output transistors, the MP on the end of the part number means "Match Pair".  
**MRF455MP** TR5 final transistors  
**2SC2879 or 2SC2879A** TR7(A) final transistors.  
**MRF475MP** TR7(A) amplifier driver transistors.

## **TR7 / R-7 REPLACEMENT DISPLAY:**

For orders in the US and Canada contact,  
Jim Pruitt - WA7DUY, 1916 Tolman Rd , Ellensburg, WA 98926., USA.  
E-mail: [wa7duy@charter.net](mailto:wa7duy@charter.net) to: <http://www.df4nw.de>, Willi Rass,  
Richard-Strauss-Str. 56, D-91315 Hoechstadt, Germany. Phone: +49-9193-1826, E-mail: [willibald.rass@t-online.de](mailto:willibald.rass@t-online.de)



## **TR-7, SP-7, L-7 PLASTIC END CAPS:**

These are direct replacements for the plastic end caps that are located on both the right and left side of the front panels. Michael March, K4QU, 242 Clay Hill Dr., Winchester, VA 22602, [mikek4qu@gmail.com](mailto:mikek4qu@gmail.com) , Phone: 540-662-4279



## **TR7 VFO Stabilizer:**

The free running VFO's in old or vintage rigs are subject to frequency drift due to temperature variations. Whilst the Drake TR-7 Permeability Tuned Oscillator (PTO) is generally very stable for an LC circuit, it still drifts several hundred hertz during a two hour net. To cure this drift, you might want to consider a VFO Stabilizer. Instructions:

[http://www.wb4hfn.com/DRAKE/DrakeArticles/TR7-Installing-XLock/TR7\\_Improvements.htm](http://www.wb4hfn.com/DRAKE/DrakeArticles/TR7-Installing-XLock/TR7_Improvements.htm) Web Page: <http://www.cumbriadesigns.co.uk/>

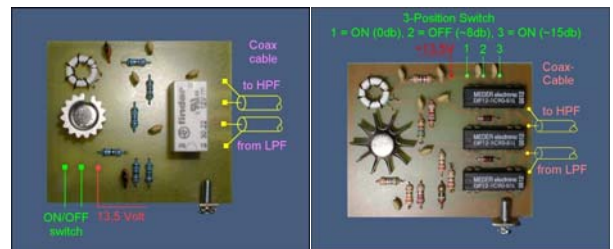


## **TR7 Pre-Amplifier:**

<http://www.df4nw.de/44.html>

A simple Pre-Amplifier for the TR-7 to improve receiver sensitivity on the higher short wave bands. Gain: ~ 15 db, Frequency range: 1 to 30 MHz, Size (HWL): 14x48x58 mm

For orders in the US and Canada contact, Jim Pruitt - WA7DUY, 1916 Tolman Rd , Ellensburg, WA 98926., USA.E-mail: [wa7duy@charter.net](mailto:wa7duy@charter.net) to: <http://www.df4nw.de>, Willi Rass, Richard-Strauss-Str. 56, D-91315 Hoechstadt, Germany. Phone: +49-9193-1826, E-mail: [willibald.rass@t-online.de](mailto:willibald.rass@t-online.de)



## **TR7 VFO Stabilizer:**

The free running VFO's in old or vintage rigs are subject to frequency drift due to temperature variations. Whilst the Drake TR-7 Permeability Tuned Oscillator (PTO) is generally very stable for an LC circuit, it still drifts several hundred hertz during a two hour net. To cure this drift, you might want to consider a VFO Stabilizer. Instructions:

[http://www.wb4hfn.com/DRAKE/DrakeArticles/TR7-Installing-XLock/TR7\\_Improvements.htm](http://www.wb4hfn.com/DRAKE/DrakeArticles/TR7-Installing-XLock/TR7_Improvements.htm) Web Page: <http://www.cumbriadesigns.co.uk/>



## **Radio Repairs:**

Jeff Covelli, WA8SAJ, Phone: 1-440-951-6406, Email: [wa8saj@ncweb.com](mailto:wa8saj@ncweb.com)  
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