

AC and pwr supply  
safety issues  
AC grounds  
house wiring  
power line noise  
GFI outlets  
ground loops

#### ANTENNAS

UNBAL vs BAL input  
modifications to UNBAL jack  
specific book and articles  
optimal SWL antenna  
types in use  
the active antenna  
Fort Deven's Training Manual  
wire and feedline options  
computer RFI  
role of antenna tuners  
antenna relay and its repair  
break-in issues  
multicouplers and diversity reception  
grounding the tower and safety issues  
physics of ground rods  
lightning strikes and sequelae  
CAD welding

#### AUDIO DECK

diode load usage and connections  
squelch circuitry  
limiter circuitry and problems  
refurbishing the audio deck module  
tantalum C609 electrolytic replacement  
the 6AQ5 output  
the Kleronomos 6922/6360 circuit  
600 to 8 ohm transformers  
use of a 70.7 volt line transformer  
LS-166 and other speaker options

#### BALLAST TUBE

rationale for its use  
physics behind 3TF7 and its cousins  
substitutes for the 3FTF7  
replacement SS circuits

#### CAPACITORS

important caps to replace first  
problem capacitors in the R390A

Vitamin Q caps  
Orange drop caps: pros and cons  
minimal vs wholesale replacement practices  
how to test a paper capacitor for leakage  
polyester vs polypropylene  
molded mica, silver mica, and ceramic cap experiences  
C275 mis-value  
cap removal and replacement practical tips

DEAD UNITS  
common causes  
work sequences

HISTORY  
active duty experiences  
Ft Devens R390 classes  
serial numbers  
SWL targets  
EAC and Fowler units  
depot \*dawgs\*  
MWO's  
R-648  
R-1247  
Racal RA 17

IF DECK  
noise  
stuck IF slug  
coax shorts  
trimmer repair  
AGC theory and repair  
Rippel on alignment  
stagger-tuned IF strip  
Q-spoiling resistors  
Z-503 repair  
E20-E211 test points  
bandwidth switch repair  
BFO microdial  
BFO neutralization  
Xtal deck issues  
R-725 decks  
R-390 deck conversion to 390A chassis  
synchronous AM detector  
DSP IF

IF DECK FILTERS  
alignment of the mechanical filters  
testing a mechanical filter  
rebuilding a mechanical filter

Clevite ceramic filters  
Dave Curry filters  
question of a notch filter  
trim capacitors

misc R390 & R391  
some specific articles

MODS AND FC'S  
Production mods  
misc users modifications  
OT: batteries

PAINTING AND KNOBS  
chassis disassembly  
metal prep  
cleaning chemicals  
silk-screening and engraving  
paint options and formulae  
Bristol wrenches  
alodine  
powder coating  
ID plates

PANADAPTORS  
Heath SB-620  
BC-1031A

PANEL METERS  
specifications  
calibration  
disassembly  
repair  
substitutes  
carrier pot  
radioactivity  
back-light

PTO  
manufacturers  
lubrication  
adjusting end-points  
adjusting linearity  
mechanical alignment  
setting over-travel  
Oldham coupler alignment  
coil modification  
failure modes  
rebuilding

effects of FC 7  
dessicants  
Conversion of 390A PTO to a 390  
R392 PTO  
R388 PTO  
R389 PTO

Pwr\_Spuuply\_C603\_C606  
F101 line filter  
solid state rectifiers  
inrush current considerations  
CR801 selenium rectifier  
microswitch repair  
rebuilding C603/6  
C603/6 replacements  
ovens  
fuse holders  
use of STDBY  
low heater voltages  
use of bucking transformers and Variacs  
R390/URR voltage regulator  
fuses  
12BW4 as substitute for 26Z5  
physics behind the OA2

R392 & R648 misc notes

## RACKS AND CASES

sources  
rails  
nuts

## RESISTORS

carbon vs metal film in the 390A  
failure modes  
pot cleaning

## RESTORATION\_GENERAL

buying a R390A  
overhaul tips  
a hamfest shopping list  
reference and parts resources  
manufacturers listing  
specialty R390A models  
the \*Blue-Striper\*  
restoration sequence  
restoration techniques  
special tools needed

dial lamps: OEM and LED  
manual listing  
expert restoration resources  
mini-BNC connectors and coax  
contact cleaners  
how to clean chassis and coils  
soldering  
hardware employed  
module swaps  
cabinets  
clutch and the zero adjust  
tube extenders  
rack mounting  
solid-state the R390A  
crystal ovens

RF DECK\_ELECTRICAL  
deck testing: noise and gain  
HR-202 issues  
S206 bandswitch tips  
sync the bandswitch  
ant trimmer tips  
RF deck slugs and coil problems  
100KC calibrator function  
missing components C-252  
using the Xtal calibrator  
dead below 8MC  
low Xtal osc output  
the Green Gear  
effects of FC 7  
break-in function  
reception below 500KC  
digital frequency readouts  
R391 and autotunes  
Nuvistaplug possibilities  
function of C227  
17MC Xtals  
roofing filters  
digital readouts

RF DECK\_MECHANICAL  
cleaning the RF deck and gear train  
band switch  
how to remove this deck  
gear train  
gear clamp repairs  
stuck RF slug  
busted RF slug  
RF slug coding

lubrication  
the Oldham coupler  
the Green Gear in R390's  
zero adjust  
autotune in R390's  
Veeder-Root

SENSITIVITY\_ALIGNMENT  
tutorials  
"octave" tuning methodology  
Rippel on alignment articles  
sensitivity measurements  
preselectors  
MDS measurements  
SINPO explained  
sweep gen alignment  
aligning the BAL input  
generator leakage  
using the GR1001A

SSB CONVERSION  
Capt Lee article using a 6BE6  
Lankford diode method  
CV-157 and CV-591A  
other outboard add-ones  
6U8 addition  
Sherwood SE-3

STORAGE\_SHIPPING  
packing heavy gear  
commercial carriers  
horror stories  
storing stuff at home

TEST GEAR  
scopes and their probes  
TS 505 and its relatives  
Simpson 260's  
HP-410 family  
DMM's  
HP 600 and 8600 family  
repairing moving vanes in meters  
URM-25D and URM-25F and others  
testing Xtals with sig gens  
meggers  
tube testers  
impedance matching  
capacitor \*analyzer\*  
spectrum analyzers

## TUBES

characteristics

equivalent substitutes

gas and Zippo

IERC shields

in situ performance tests

cleaning a tube socket

tube organizing

gettering old tubes

## TUBE SHIELDS AND HEATING

IERC heat issues

effect of cabinets on heat buildup

fans