SERVICE MANUAL
FOR
MODEL 348-B

SPECIFICATIONS

TUNER (FM-HPX)
Usable Sensitivity (IHF) - 3% THD, Noise and Hum 1.5uv
Signal to Noise Ratio 65dB
Total Harmonic Distortion, Mono 0.8%
Frequency Deviation (Drift) less than .02%
*Frequency Response Capture Ratio 50 to 15,000 Hz ± 1 dB
Selectivity (400 kHz off channel) 1.9dB
Spurious Response Rejection (Cross modulation rejection) 45dB
19 kHz Pilot Suppression 90dB
38 kHz Sub-carrier Suppression 40dB
AM Suppression 60dB
Tuning Range 55dB
Accuracy of Calibration 87 to 109 mc
Separation 0.5%

*This is limit of FCC Stereo Broadcast specifications. All H. H. Scott tuners have far wider frequency response.

AMPLIFIER

Tape Output
Rated voltage to tape recorder 0.5 v
Recommended load resistance: greater than 200 k ohms
Recommended cable capacitance: less than 200 pf

Mag. Low - Input Impedance
Signal for rated output (switch selected) 47 k ohms
S/N Ratio 3.5, 9, 15, 65dB

Tape Head - Input Impedance
Signal for rated output 3.0 mv
S/N Ratio -52dB

High Level Inputs - Input Impedance
Signal for rated output 47 k ohms
S/N Ratio 0.5 v
Frequency response in flat position -80dB
Treble Controls: Boost at 10,000 Hz 17 to 30,000 Hz ± 1dB
Bass Controls: Boost at 50 Hz 9dB - 9dB
Loudness Compensation, maximum +6dB at 50 Hz
Rumble filter +3dB at 10,000 Hz

Music Power Rating (watts/channel) @ 0.8% harmonic distortion 84dB @ 50 Hz
@ 4 ohm 60/60 watts
@ 8 ohm 50/50 watts

Continuous Output - Single Channel @ 8 ohms 40 watts
0.6% Harmonic Distortion 30/30 watts
Continuous Output - Both Channels @ 8 ohms 0.8%
0.6% Harmonic Distortion Total Harmonic Distortion at rated output 20 to 20,000 Hz ± 1dB
Frequency Response - Power Amplifier @ 1 w 20 to 2,000 Hz
Power Bandwidth at rated distortion (IHF method) -80dB
Hum and Noise Damping Factor 20
Line Voltage and Frequency 105-125 v, 50-60 Hz
Power Consumption @ 117 volts, 60 Hz 35-175 w
EQUIPMENT NEEDED

Audio Oscillator
VTVM
Oscilloscope
VOM
Load Box
Attenuator
Distortion Analyzer
Variac or 117 Regulated line
FM Generator
Multiplexer Generator

Set Controls to the Following:

Front Panel
Input Selector
Stereo Selector
Tone Controls (Bass & Treble)
Loudness/Power
Balance Control
Muting
Rumble Filter
Noise Filter
Tape
Compensator
Remote Speaker
Main Speaker

Rear Panel
Preamp Sensitivity
Remote Speakers

Internal
Potentiometers Z-PC-D7, R6 & R106 (Balance Pot)
Potentiometers Z-PC-D7, R11 & R111 (Bias Pot)
Potentiometer Z-PC-NS-4, R1 (Squelch Adj.)
Potentiometer Z-PC-HR-14, R4 (Threshold Adj.)
Potentiometer Main Chassis, R602 (Meter Adj.)

Measure resistance to chassis in the following locations (positive side of VOM) battery to ground (chassis), (meter on 1000 scale):

Output Transistor Collector (supply side) (Q1 & Q101)
Output Transistor Collector (midpoint) (Q2 & Q102)
Main Speaker "H" Terminal
30V Source (use X10 scale)
Measure resistance across stabistors (D1 & D101) on rear panel on Rx1000 scale

1. Bias and Balance Adjustment and Voltage Checks

With no signal input and 8 ohm loads connected to Main speaker taps, turn power on keeping loudness pot at minimum setting. Watch carefully for any signs of voltage shorts or overheating.

Measure voltage at collector of Q1 - should measure between 68 and 75 volts. Set voltage at pin 2 of Test Point jack for left channel, and pin 1 of Test Point jack for right channel on rear panel for one-half supply voltage (approx 35 volts) using D7-R6 (left channel) and D7-R106 (right channel) balance pots.
Using VOM, set to 12 mA scale, adjust bias pots for 0.8 mA current from in 3 of Test Point jack for left channel and pin 4 of Test Point jack for right channel, D7-R11 for left channel and D7-R111 for right channel.

Recheck balance adjustment and reset balance pots if necessary.

a) Check the following voltages on Z-PC-PS-7 with respect to chassis:

Pin 1 - 11.0 -13.5 volts
Pin 3 - 27.0 -36.0 volts

b) Check Voltage at pin 10 of IF board for voltage of 11.0 to 14.0 volts.

c) Measure voltage at collector (case) of regulator transistor (Q401) - should be 55-63 volts.

2. Sensitivity Check

Connect audio oscillator through attenuator into Extra 2 input jack. Set attenuator for an output from attenuator of 0 dB on 0.3v scale of VTVM, 400 Hz. Turn loudness pot to maximum. Observe Output at speaker terminals of 0 dB on 10 volt scale ±2dB. Turn loudness to minimum. At this point recheck and readjust bias if necessary.

Note: Check that difference in channels is no greater than 1dB. Repeat for Extra 1 jack input.

3. Distortion Check

Using a 400 Hz distortion analyzer, distortion must be no greater than 0.4% at 16 volts into an 8 ohm lead (32 watts).

4. Loudness Control Check

Check tracking of left and right channels in 10dB steps to -50dB, maximum deviation 2dB.

Check loudness response in electrical flat position:

<table>
<thead>
<tr>
<th>L/V on Loudness</th>
<th>L/V in Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 kHz - 0 dB</td>
<td>Flat Response</td>
</tr>
<tr>
<td>10 kHz - +2.0 ±1dB</td>
<td></td>
</tr>
<tr>
<td>100 Hz - +7.0 ±2dB</td>
<td></td>
</tr>
</tbody>
</table>

With level control at minimum, Output should be -73dB with respect to 16 volt or 32 watt level.

5. Tone Control Check

With loudness at maximum, adjust attenuator to obtain 0dB on 3 volts scale at 1 kHz. Use attenuator to obtain Output on 3 volt scale for Bass and Treble boost measurements.

<table>
<thead>
<tr>
<th>Bass 100 Hz</th>
<th>Treble 10 kHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boost 9 ±2 dB</td>
<td>Boost 9 ±2 dB</td>
</tr>
<tr>
<td>Cut 9 ±2 dB</td>
<td>Cut 9 ±2 dB</td>
</tr>
</tbody>
</table>

6. Frequency Response Check

Set tone controls and Balance control flat ("O" position).
Attenuate oscillator to obtain 0 dB on 3 volt scale at 1 kHz when measured at speaker terminals with 8 ohm load. Sweep oscillator frequency and monitor Output. Maximum variation ±1 dB from 40 Hz to 15 kHz. 3 dB down points should be less than 17 Hz low end and between 25 - 40 kHz high end. Return to 1 kHz.

7. Crosstalk Check

Feed input into right channel. Record left channel with Stereo Selector switch in Mono position, 1 kHz signal. Switch Stereo Selector switch to Stereo. Measure -45 dB loss minimum. With Noise Filter IN, measure -16 to -25 dB loss minimum. Return oscillator to left input.

8. Stereo Selector Switch Check

<table>
<thead>
<tr>
<th>For Left Channel Input</th>
<th>Stereo Switch Position</th>
<th>For Right Channel Input</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left Output</td>
<td>Bal. Left</td>
<td>Right Output</td>
</tr>
<tr>
<td>Signal (-0.6 dB)</td>
<td>Bal. Right</td>
<td>No Signal</td>
</tr>
<tr>
<td>No Signal</td>
<td>Monaural</td>
<td>Signal (-0.6 dB)</td>
</tr>
<tr>
<td>Signal (-2 dB)</td>
<td>Stereo</td>
<td>Signal (-2 dB)</td>
</tr>
<tr>
<td>Signal (0 dB)</td>
<td>Rev. Stereo</td>
<td>Signal (0 dB)</td>
</tr>
<tr>
<td>No Signal</td>
<td>Left Input</td>
<td>No Signal</td>
</tr>
<tr>
<td>Signal (-1.5 dB)</td>
<td>Right Input</td>
<td>No Signal</td>
</tr>
<tr>
<td>No Signal</td>
<td></td>
<td>Signal (-1.5 dB)</td>
</tr>
</tbody>
</table>


Rumble In
100 Hz -5 ±2 dB

Noise In
10 kHz -11 ±2 dB

10. Balance Control Check

With oscillator in left channel input, monitor left channel output. Turn balance pot to balance left. Note no loss of signal. Turn balance pot to balance right. Note complete loss of signal.

Repeat for opposite effect when feeding and monitoring right channel.

11. (a) Speaker Switch Check

Feed signal to left input. Monitoring left channel main speaker output, set input for output of 0 dB on 3V scale. Switch monaural output. Note no signal. Push remote speaker switch ON. Note output of approximately -2 dB on 3V scale. Push main speaker switch OFF. Note return of output to 0 dB. Push remote speaker switch OFF. Note loss of output. Monitor main speaker output. Note no output. Push main speaker switch ON. Note output of 0 dB on 3V scale.

11. (b) Remote Speaker Mono-Stereo Switch Check

Connect 8 ohm load to left remote speaker output. Push remote speaker switch ON, Main speaker switch OFF. Set input for output of 0 dB on 3V scale. Switch remote speaker switch on rear chassis from Stereo to Mono, note drop of 12 dB ±2 dB. Switch back to Stereo and note return to 0 dB. Return load to Main speaker output and switch off Remote speaker pushbutton and switch on Main Speaker pushbutton.
12. **Regulation Check**

With signal output of 1 kHz, 0 dB on 3V scale, remove 8 ohm load. Note 0.5 dB maximum rise in output.

13. **Phone Jack (Front Panel) Check: Input L Channel, Selectro-Stereo**

With signal output of 1 kHz 0 dB on 3V scale at speaker terminals, remove VTVM from 8 ohm load and connect output from phono jack to VTVM. Tip of phono jack is right channel. Phono jack output should be -5 dB with respect to speaker terminal output.

14. **Tape Monitor Switch Check**

Before removing or inserting inputs turn loudness control to minimum. With signal output of 1 kHz, 0 dB on 3V scale at speaker terminals, Extra 2 input, switch Tape Monitor switch to IN position. Note complete loss of signal. Remove signal input from Extra 2 jack and plug into Tape In Jack. Note signal restore as before. Switch Tape Monitor to OUT position; again note signal lost. Remove signal from Tape In Jack and insert in Tape Out Jack. Note signal restored.

15. **Preamp Gain Check**

Return signal input to Extra input and adjust level for output at 1 kHz of 0 dB on 3V scale with Loudness control at maximum. Turn Loudness control to minimum. Turn input selector to Phono. Attenuate -45 dB and plug input into Phono input. Turn Loudness control to maximum. Output should be 1 ±1 dB on 3V scale. Switch preamp sensitivity from Max. position to other positions and observe the following gain change with respect to the Max. position:

<table>
<thead>
<tr>
<th>Position</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Med.</td>
<td>-5 ±1 dB</td>
</tr>
<tr>
<td>Min.</td>
<td>-10 ±1 dB</td>
</tr>
</tbody>
</table>

Return preamp sensitivity switch to Max. position. Turn Loudness control to min. Turn input selector to MIC. Remove input from phono input and place in MIC input (front panel). Turn Loudness control to Max. Note output of -1 ±1 dB on 3V scale. Repeat sensitivity check for MIC position. Note same gain changes as in phono position.

16. **Phono and Microphone Frequency Response Check**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Phono</th>
<th>Mic</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 kHz</td>
<td>0 dB</td>
<td>Flat Response</td>
</tr>
<tr>
<td>100 kHz</td>
<td>16 dB</td>
<td>13 dB</td>
</tr>
</tbody>
</table>

17. **Hum and Noise Checks**

<table>
<thead>
<tr>
<th>Selector Switch Position</th>
<th>Loudness Max.</th>
<th>Loudness Min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTRA 1 and 2</td>
<td>5.0 mV</td>
<td>3.0 mV</td>
</tr>
<tr>
<td>PHONO (shorted inputs)</td>
<td>20.0 mV</td>
<td>3.0 mV</td>
</tr>
<tr>
<td>MIC (shorted inputs)</td>
<td>10.0 mV</td>
<td>3.0 mV</td>
</tr>
</tbody>
</table>

18. **Repeat Step 2 through 17 for Right Channel.**

19. **Using Test Bulb, Check AC Outlets, Black is Switched.**
348-B TUNER SECTION

EQUIPMENT NEEDED
Audio Oscillator
VTRM
Oscilloscope
VOM
Load Box

Attenuator
Distortion Analyzer
Variac or 117 Regulated Line
FM Generator
Factory Dielectric Test Set

Set Controls to the following:

Front Panel
Input Selector       FM
Stereo Selector      MONO
Tone Controls        FLAT
Loudness/Power       AC OFF
Balance              "0"
Muting               OFF

Rumble and Noise Filters OUT
Tape Monitor         OUT
Compensator          LOUDNESS OFF
Speaker Main         OFF
Speaker Remote       OFF

Internal
Potentiometer Z-PC-NS-4, R1 (Squelch Adj) Max. CCW
Potentiometer Z-PC-MX-14, R4 (Threshold Adj) Max. CW
Potentiometer Main Chassis, R (Meter Adj) Turn CCW for a zero reading of the tuning meter with no signal input.

Check continuity of 50 mH chokes used at 19 kV filters located on top side of main chassis.

1. Mono Alignment and Sensitivity Checks

Front End and IF Alignment
a) With about 10 uV or less generator output, align and peak front end for max. output. (balance output within ±1 dB at 92 and 106 MHz).
b) With 3 uV or less input, align IF’s for max. audio.
c) With 1k uV input, align detector for minimum distortion.

Sensitivity and Distortion

d) Using ant and mixer coils at 92 MHz and trimmers at 106 MHz, peak front end for maximum sensitivity. Must obtain 30 dB quieting at 2 uV input at 92 and 106 MHz.
Note: Unit must have bottom cover on and front end clip attached to bottom cover for final measurement.
e) Recheck distortion, 1k uV input 400 Hz max. distortion 0.6%.

FM Hum Check

f) Tune to 91.5 MHz, 1k uV input (modulation off), measure minimum of 55 dB drop from reference. Plug may be reversed if necessary.

De-emphasis Check

g) Tune to 90 MHz. Change modulation from 400 Hz to 8.2 kHz. Note decrease in output of 12±2 dB in output from 400 Hz reference.
67 kHz Trap Adjustment

b) With 67 kHz generator modulation and low capacity scope probe at terminal 5 on MX-14 board, adjust L-4 (LV.015 PC) for minimum indication on scope.

Calibration Check

i) Check calibration against stations, max. tolerance ±0.2 MHz.

Muting Threshold Adjust

j) With unit tuned to 88 MHz, push muting switch on. Adjust threshold adj. pot (R-1) of Z-PC-NS-4 until hash just disappears.

Audio Hum Check

k) With unit tuned to 88 MHz and muting ON, max hum each channel 2.0 mW (Tape output jack).

2. Multiplex Alignment - Using HHS pipeline (can also be adjusted with multiplex generator modulating FM Signal Generator)

Switch stereo selector switch to STEREO. Tune unit to 100 MHz (Left channel modulated, Right channel unmodulated). 1k uV input, stereo signal modulation.

Pilot Adjustment

a) Attach positive lead of VOM or VTVM to 12V supply side of R-13 (2.2k) and negative side to junction of R-13 and R-14 (10k) on MX-14 board. Align L2 (TRV.015T-PC) and L3 (TRV.015T-PC) for max. dc voltage (approx. 3.0 to 4.0 volts).

3.8 kHz Amp Adjustment

b) With VOM leads to same points, adjust T-1 (TRV.038TT-PC) for a null in the dc voltage reading.

c) Monitoring the Left channel tape output jack, adjust T-1 (038TT-PC) for proper phasing. With unit still tuned to 100 MHz, monitor the right Tape Output Jack. Adjust R-18 for minimum output. Tune unit to 94 MHz (Right channel modulated, Left Channel unmodulated) and adjust R19 for minimum output from the Left channel Tape Output jack. Repeat Left and Right channel separation adjustments until no further improvements are observed.

d) Final separation measurements are to be made in each channel.

400 Hz modulation

35 dB separation minimum

If separation specifications are not met, recheck IF's for proper alignment.

Also recheck steps a) through c) of the Multiplex Alignment procedure.

Stereo Threshold Adjustment

e) With unit tuned to 100 MHz 5 uV input, adjust threshold pot (R-4) of Z-PC-MK-14 until switches to MONO and stereo light goes out.

3. Audio Output Levels - Stereo Signal, Both Channels Modulated

RF input to 1k uV input with 400 Hz modulation ±75 kHz deviation. Note output of 1.4 to 2.3 volts with unit in MONO. Turn selector switch to STEREO. Note loss of output of 3 dB +1 dB.
1. Connect RF generator to the antenna terminals with the following adaptations:

2. Set RF generator and FM tuning dial to 92 mHz. Generator output should be about 6 uv. Peak L205, L204 and L201 for maximum audio output.

3. Set generator and FM tuning dial to 106 mHz. Peak RF trimmer and mixer trimmer.

4. With about 3 uv from FM generator, repeat procedure until no further output is obtained. Signal should look like this:

5. The only time that the oscillator mixer and trimmer should be touched is if the calibration is out of specification.
VOLTAGE CHECKS (WA703)

Pin 1: D+ 12 Volts
Set VOM on 3 volt scale; positive lead of meter on pin 1, negative lead on pin 2 and/or pin 6. If voltage is apparent, then that particular stage of IC is operating normally.

No output or distortion
Meter operates okay       check diodes D303 and D304 for defect

Meter pegging either direction  defective D301 or D302
For units with this multiplex circuit it may be necessary to incorporate the changes outlined on Page 17.
The two most common symptoms of trouble in the MX-14 are:
1. sluggish switching in and out of stereo.
2. Failure to switch to stereo.

Sluggish switching is caused by low gain of transistor Q4, which is a 2N3567. The minimum gain of this device has been respecified from 40 to 80. All that is necessary is a replacement of Q4 with a new transistor.

Failure to switch to stereo can come from a number of causes. It is recommended that the service man proceed in the following order until the problem is corrected:
1. Check the setting of the threshold pot and readjust per page 9 of the MX-14 booklet.
2. Check alignment of the MX-14 in the following manner:
   Connect a VOM of at least 20,000 ohms per volt across R13 and apply a stereo signal to the tuner from a stereo signal generator. Adjust L2 and L3 for maximum reading on the voltmeter. Then adjust T1 for a dip in voltage. After this the voltage should read approx. 3 volts.
3. If upon realignment of the MX-14 it is not possible to get sufficient pilot and all other voltages in the MX appear normal, the problem could be caused by a low output from the ratio detector. In this event, replace the ratio detector diodes with a 1N542, which is a matched pair of 1N541 germanium point contact diodes.
4. Unfortunately some FM broadcast stations are not conforming to the FCC standard which requires a minimum of 10% modulation for the pilot signal. If the MX will switch to stereo on some stations and not on others that are known to be broadcasting in stereo and signal strength is adequate, this could be the cause of the problem. If this is the case and if it is absolutely necessary for your customer to have stereo on these stations, an additional stage of pilot amplification may be added to the MX-14. The schematic diagram for the extra stage is shown in Figure 11. It will be necessary to cut one of the conductors on the PC board with a sharp knife and wire the extra parts on, using a terminal strip mounted adjacent to the MX board. Additional wiring is shown as heavy lines, and wiring to be deleted has dotted lines. Parts whose values are changed are shown with the old and new values.

**FIG. 11 ADDITIONAL PILOT AMPLIFYING STAGE**
Q1, Q2 - 2N2925 or 2N3711 (QA-15)

INTERSTATION Z-PC-NS-4

NOISE MUTING

MUTING OFF-ON SW

NOTES:
1. UNLESS OTHERWISE SPECIFIED:
   RESISTANCE IN OHMS 100K
   CAPACITANCE IN MFD 5
   RESISTORS % WATT
2. ARROW ON POTENTIOMETER INDICATES CW ROTATION
3. FOR USE WITH EXTERNAL MUTING CONTROL WHEN
   R1 IS NOT ON BOARD.

HIGHEST SERIES NUMBERS
C2
R6
Q2

INTERSTATION NOISE MUTING Z-PC-NS-4
<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
<th>Customer Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-DC-16</td>
<td>Dial Cord</td>
<td>1.75</td>
</tr>
<tr>
<td>A-FW-B</td>
<td>Flywheel Assembly</td>
<td>4.80</td>
</tr>
<tr>
<td>CEC-1000/75</td>
<td>Electrolytic Capacitor</td>
<td>4.32</td>
</tr>
<tr>
<td>CEC-2000/65</td>
<td>Electrolytic Capacitor</td>
<td>4.74</td>
</tr>
<tr>
<td>CET-50/75</td>
<td>Electrolytic Capacitor</td>
<td>1.12</td>
</tr>
<tr>
<td>D-GM-3</td>
<td>Diode (Germanium)</td>
<td>0.33</td>
</tr>
<tr>
<td>D-ST-1</td>
<td>Diode (Stabistor)</td>
<td>1.47</td>
</tr>
<tr>
<td>F-AGX-2 1/2</td>
<td>Speaker Fuse</td>
<td>0.24</td>
</tr>
<tr>
<td>F-SB-2</td>
<td>Power Fuse</td>
<td>1.19</td>
</tr>
<tr>
<td>J-3-ST-5</td>
<td>Phone Jack</td>
<td>0.98</td>
</tr>
<tr>
<td>J-3-ST-7</td>
<td>Shorting Jack</td>
<td>0.98</td>
</tr>
<tr>
<td>M-SS-6</td>
<td>Meter</td>
<td>9.00</td>
</tr>
<tr>
<td>N-348-B-1</td>
<td>Panel</td>
<td>14.40</td>
</tr>
<tr>
<td>N-D-FM-24</td>
<td>Dial Glass</td>
<td>8.10</td>
</tr>
<tr>
<td>QE-8</td>
<td>Power Transistors</td>
<td>6.00</td>
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<tr>
<td>RCV-10K-PH</td>
<td>Potentiometer</td>
<td>1.00</td>
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<tr>
<td>RCV-50KST-3B</td>
<td>Potentiometer</td>
<td>1.35</td>
</tr>
<tr>
<td>RCV-100KST-5W-3B</td>
<td>Potentiometer</td>
<td>4.20</td>
</tr>
<tr>
<td>RW-5-60</td>
<td>Wire Wound Resistor</td>
<td>0.30</td>
</tr>
<tr>
<td>RW-5-82</td>
<td>Wire Wound Resistor</td>
<td>0.20</td>
</tr>
<tr>
<td>RW-15-4 (2X2)</td>
<td>Stand-Up Resistor</td>
<td>1.47</td>
</tr>
<tr>
<td>RW-15-32</td>
<td>Stand-Up Resistor</td>
<td>1.89</td>
</tr>
<tr>
<td>SR-2-50</td>
<td>Silicon Rectifier</td>
<td>0.80</td>
</tr>
<tr>
<td>SRW-37-2-1</td>
<td>Rotary Switch</td>
<td>2.59</td>
</tr>
<tr>
<td>SRW-125-2</td>
<td>Rotary Switch</td>
<td>6.54</td>
</tr>
<tr>
<td>TR-12-18</td>
<td>Power Transformer</td>
<td>23.60</td>
</tr>
<tr>
<td>VPL-1819</td>
<td>Bulb</td>
<td>0.91</td>
</tr>
<tr>
<td>VPL-1847</td>
<td>Bulb</td>
<td>0.40</td>
</tr>
<tr>
<td>Z-AF-224</td>
<td>Dipole Antenna</td>
<td>1.75</td>
</tr>
<tr>
<td>Z-PC-D7</td>
<td>Dual Driver Board</td>
<td>32.28</td>
</tr>
<tr>
<td>Z-PC-E2</td>
<td>Emitter Board</td>
<td>3.48</td>
</tr>
<tr>
<td>Z-PC-IF-6</td>
<td>IF Strip</td>
<td>26.05</td>
</tr>
<tr>
<td>Z-PC-MX-14</td>
<td>Multiplex Board</td>
<td>26.56</td>
</tr>
<tr>
<td>Z-PC-NS-4</td>
<td>Squelch Board</td>
<td>7.74</td>
</tr>
<tr>
<td>Z-PM-16</td>
<td>FM Front End</td>
<td>48.16</td>
</tr>
<tr>
<td>Z-PC-0-5</td>
<td>Output Preload Board</td>
<td>7.38</td>
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<tr>
<td>Z-PC-P-10</td>
<td>Dual Preamp</td>
<td>17.90</td>
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<tr>
<td>Z-PC-PS-7</td>
<td>Power Supply Board</td>
<td>12.70</td>
</tr>
<tr>
<td>Z-PC-T-2</td>
<td>Dual Tone Control Board</td>
<td>24.85</td>
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