

**INSTRUCTION SUPPLEMENT  
FOR  
WJ-8716 HF RECEIVER**

**INTRODUCTION**

The WJ-8716 HF Receiver is a modified version of the WJ-8718 HF Receiver. An outline of the electrical and mechanical differences as well as supplemental parts list and schematic diagrams are included in this supplement. This manual supersedes previous supplements of the WJ-8716. All other technical information in the WJ-8718 HF Receiver Instruction Manual also pertains to the WJ-8716 HF Receiver.

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Revision I 8/79

**PURPOSE OF ADDENDUM**

The information in this addendum is provided to correct and update the WJ-8718 Series HF Receiver Instruction Manual.

Specifically, this addendum replaces a previously issued Field Bulletin, dated February 8, 1985, concerning spare parts for the WJ-871X VCO Assembly 791629. The field bulletin delineated four possible replacement parts for IC U1 (divide-by-4) on the 1st LO VCO P.W.A., depending on the board revision level and on-hand availability of the replacement part.

This addendum describes a direct replacement part for U1, Part No. SP8610A. This 14-pin chip directly fits the 1st LO VCO P.W.A., regardless of its board revision level and without the need of a transition board. This information should be incorporated in the parts list of the WJ-8718 Series HF Receiver Instruction Manual as indicated below.

1.1 Paragraph 5.6.5.1.1.1, page 5-63, Part 34750 parts list should be corrected as follows:

1. **From:** U1, Integrated Circuit, Qty 1, Part No. MC1975, Mfr. Code 04713

**To:** U1, Integrated Circuit, Qty 1, Part No. SP8610A, Mfr. Code 52648

The information in this addendum is provided to correct and update the WJ-8718 Series HF Receiver Instruction Manual.

1.1 Paragraph 5.6.8, Type 791578-1 Frequency Display parts list, page 5-90, should be corrected as follows:

**From:** U8, Integrated Circuit, Qty 1, Part No. DS8857N, Mfr. Code 27014

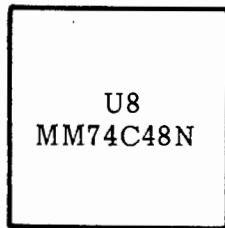
**To:** U8, Integrated Circuit, Qty 1, Part No. MM74C48N, Mfr. Code 27014

1.2 Revise Type 791578-1 Frequency Display (A8) schematic diagram, page 6-49, as shown.

**From:**



**To:**



REVISION  
WJ-8718 SERIES HF RECEIVER

TITLE: INSTRUCTION MANUAL FOR WJ-8718 SERIES RECEIVER

INSTRUCTION MANUAL  
DATE: OCTOBER 1983

REVISION DATE: AUGUST 1, 1988

APPLICABILITY: All WJ-8718 Series Receivers

CHANGE  
INFORMATION: Modification of the 3rd LO Output Level

CHANGE: Change the second sentence of step number 5 of paragraph  
4.3.5.18.1, on page 4-50 of the WJ-8718 HF Receiver  
Instruction Manual

FROM:

"The voltmeter should indicate -6 dBm +/-2 dB."

TO:

"The voltmeter should indicate -8 dBm minimum".

ERRATA: None

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**WJ-8718 SERIES HF RECEIVER  
CHANGE 1**

**TITLE:** INSTRUCTION MANUAL FOR THE WJ-8718 SERIES HF RECEIVER

**MANUAL DATE:** October 1983

**CHANGE 1  
DATE:** July 1990

**APPLICABILITY:** All units.

**CHANGES/ERRATA  
INFORMATION:** Changes refer to updates of the manual to cover design modifications. Errata refer to corrections and clarifications of information in the manual.

**CHANGE  
SUMMARY:** This change covers a correction to Section IV of the manual regarding measured signal levels in the RF Filter assembly. It also reflects minor, non-electrical modifications to schematic diagram 51198 for the Type 791629 Voltage-Controlled Oscillator, A5A1A1.

**ERRATA:** **Paragraph 4.3.5.2.1**, step 6, correct the sentence to read as follows:

6. The RF Voltmeter should indicate a level between 0 dBm and -2.0 dBm.

**CHANGES:** Replace **Figure 6-16, Type 791629 1st LO VCO Assembly (A5A1A1)**, with the attached drawing.

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<u>Mfr. Code</u>	<u>Name and Address</u>
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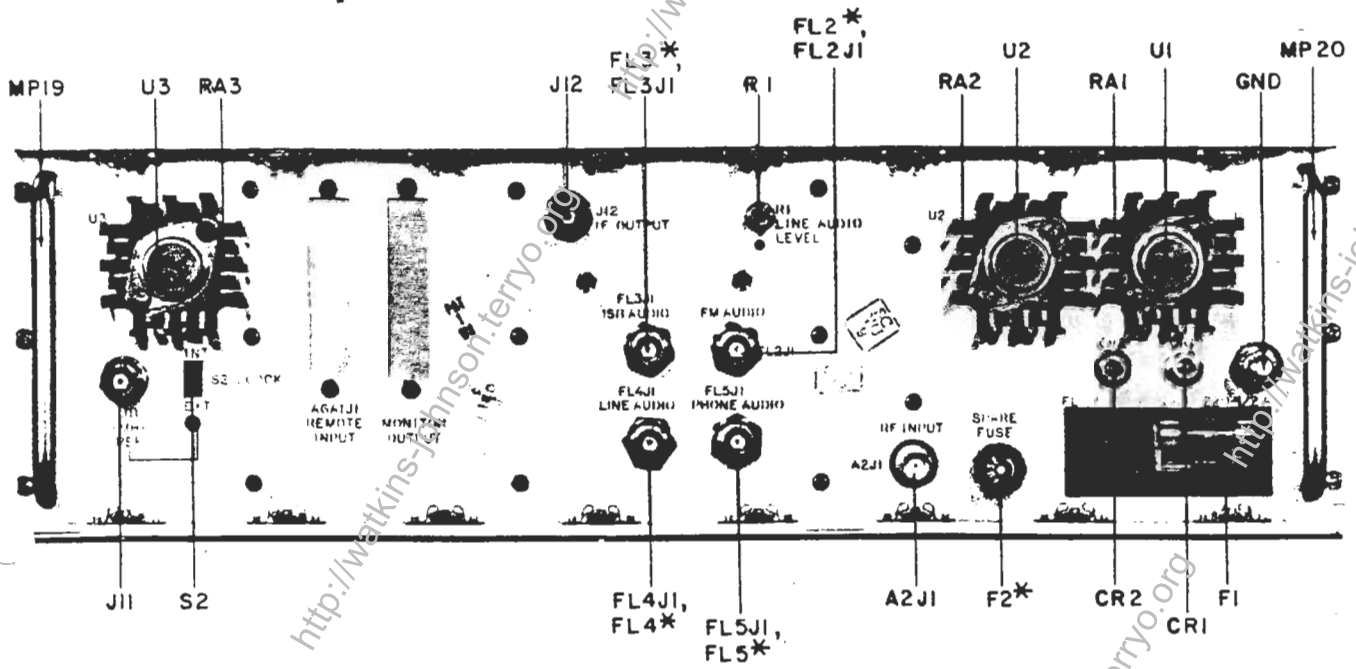
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## 7.5 TYPE WJ-8716 HF RECEIVER, MAIN CHASSIS

REF DESIG	DESCRIPTION	QTY. PER ASSY.	MANUFACTURER'S PART NO.	MFR. CODE	RECM. VENDOR
	With the exception of those items listed below, the WJ-8716 HF Receiver is electrically identical to the WJ-8718 HF Receiver.				
A2	RF Filter	1	796010	14632	
A10	Front Panel Control	1	791684-3	14632	
A11	Phone Jack Assembly	1	796011	14632	
A12	Audio Attenuator	1	280017	14632	
E5	Terminal, Feedthru	4	SFU16Y	04013	
E6	Same as E5				
E7	Same as E5				
E8	Same as E5				
FL2	Filter, LP	4	52-713-301	33095	
FL3	Same as FL2				
FL4	Same as FL2				
FL5	Same as FL2				
J13	Not Used				
P21	Faston Receptacle	6	42236-1	00779	
P25	Connector, Plug, Receptacle	4	2-350804-2	00779	
P26	Same as P21				
P27	Same as P25				
P28	Same as P21				
P29	Same as P21				
P32	Same as P21				
P49	Same as P25				
P50	Same as P21				
P51	Same as P25				
T1	Transformer	1	SCD34518	14632	
T2	Not Used				
TB1	Not Used				
TB2	Not Used				





\* DENOTES HIDDEN PART

Figure 7-1. WJ-8716 Main Chassis Rear Panel View  
Location of Components

## 7.5.1 TYPE 796010 RF FILTER

REF DESIG PREFIX A2

REF DESIG	DESCRIPTION	QTY. PER ASSY.	MANUFACTURER'S PART NO.	MFR. CODE	RECM. VENDOR
C1	Capacitor, Ceramic, Disc: 0.47 $\mu$ F, 20%, 100 V	2	8131M100-651-474M	72982	
C2	Same as C1				
C3	Capacitor, Mica, Dipped: 20 pF, 5%, 500 V	1	CM05ED200J03	81349	72136
C4	Capacitor, Mica, Dipped: 68 pF, 2%, 500 V	1	CM05ED680G03	81349	72136
C5	Capacitor, Mica, Dipped: 10 pF $\pm$ 0.5 pF, 500 V	2	CM05CD100D03	81349	72136
C6	Capacitor, Mica, Dipped: 180 pF, 2%, 500 V	3	CM05FD181G03	81349	72136
C7	Same as C5				
C8	Same as C6				
C9	Capacitor, Mica, Dipped: 27 pF, 2%, 500 V	1	CM05ED270G03	81349	72136
C10	Same as C6				
C11	Capacitor, Mica, Dipped: 15 pF, 5%, 500 V	2	CM05CD150J03	81349	72136
C12	Capacitor, Mica, Dipped: 200 pF, 2%, 500 V	2	CM05FD201G03	81349	72136
C13	Capacitor, Mica, Dipped: 220 pF, 2%, 500 V	1	CM05FD221G03	81349	72136
C14	Same as C11				
C15	Same as C12				
C16	Capacitor, Mica, Dipped: 120 pF, 2%, 500 V	1	CM05FD121G03	81349	72136
C17	Capacitor, Mica, Dipped: 47 pF, 2%, 500 V	2	CM05ED470G03	81349	72136
C18	Same as C17				
CR1	Diode	2	1N4449	80131	93332
CR2	Same as CR1				
E1	Terminal, Forked	1	140-1941-02-01	71279	
J1	Connector, Receptacle	1	UG1094/U	80058	74868
L1	Coil, Torroidal	2	20681-186	14632	
L2	Coil, Torroidal	1	20681-187	14632	
L3	Same as L1				
L4	Coil, Torroidal	2	20681-188	14632	
L5	Coil, Torroidal	2	20681-189	14632	
L6	Same as L5				
L7	Same as L4				
L8	Inductor	1	21209-37	14632	
L9	Coil, Torroidal	1	20681-202	14632	
P1	Connector, Plug	1	UG1466/U	80058	19505
R1	Resistor, Fixed, Composition: 10 k $\Omega$ , 5%, 1/4 W	1	RCR07G103JS	81349	01121
VR1	Diode, Zener: 6.2 V	2	1N753A	80131	04713
VR2	Same as VR1				

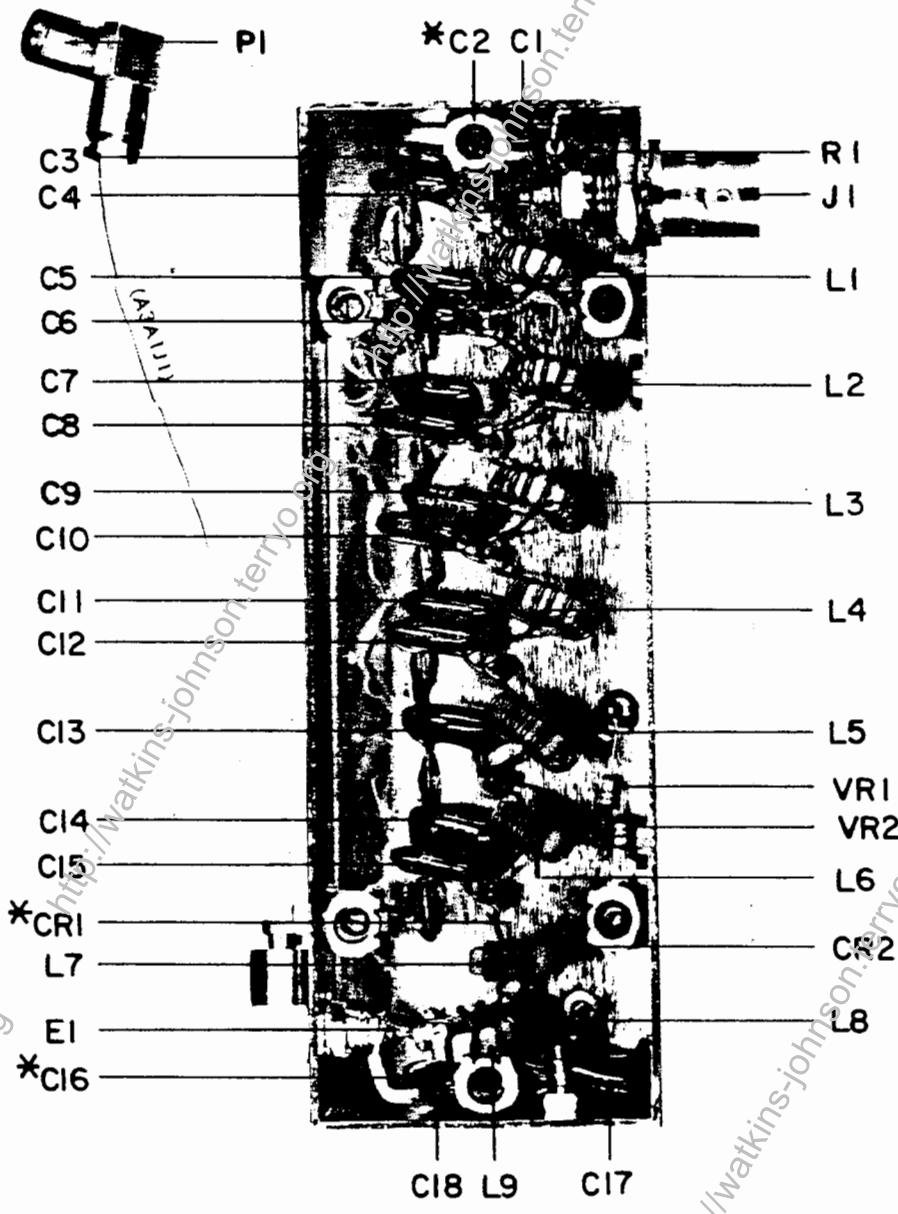


Figure 7-2. Type 796010 RF Filter, Location of Components

## 7.5.2 TYPE 791684-3 FRONT PANEL CONTROL

REF DESIG PREFIX A10

REF DESIG	DESCRIPTION	QTY. PER ASSY.	MANUFACTURER'S PART NO.	MFR. CODE	RECM. VENDOR
A2	With the exception of the item listed below, type number 791684-3 is electrically identical to type number 791684-2 designated as A10 in the WJ-8718 HF Receiver.  Lower Panel Control	1	791826-2	14632	

7.5.2.1 Type 791826-2 Lower Panel Control

REF DESIG PREFIX A10A2

REF DESIG	DESCRIPTION	QTY. PER ASSY.	MANUFACTURER'S PART NO.	MFR. CODE	RECM. VENDOR
	With the exception of those items listed below, type number 791826-2 is electrically identical to type number 791826-1 designated as A10A2 in the WJ-8718 HF Receiver.				
R3	Resistor, Fixed, Composition: 620 $\Omega$ , 5%, 1/4 W	2	RCR07G621JS	81349	01121
R4	Same as R3				
R5	Resistor, Fixed, Composition: 10 k $\Omega$ , 5%, 1/4 W	2	RCR07G103JS	81349	01121
R7	Same as R5				

## 7.5.3 TYPE 796011 PHONE JACK ASSEMBLY

REF DESIG PREFIX A11

REF DESIG	DESCRIPTION	QTY. PER ASSY.	MANUFACTURER'S PART NO.	MFR. CODE	RECM. VENDOR
CR1	Diode (Not Shown)	4	1N4449	80131	93332
CR2	Same as CR1 (Not Shown)				
CR3	Same as CR1 (Not Shown)				
CR4	Same as CR1 (Not Shown)				
E1	Terminal, Standoff: Ground	1	160-2380-01-05-00	71279	
FL1	Filter, EMI	2	51-353-314	33095	
FL2	Same as FL1				
J1	Connector, Phone Jack	1	L12B	82389	

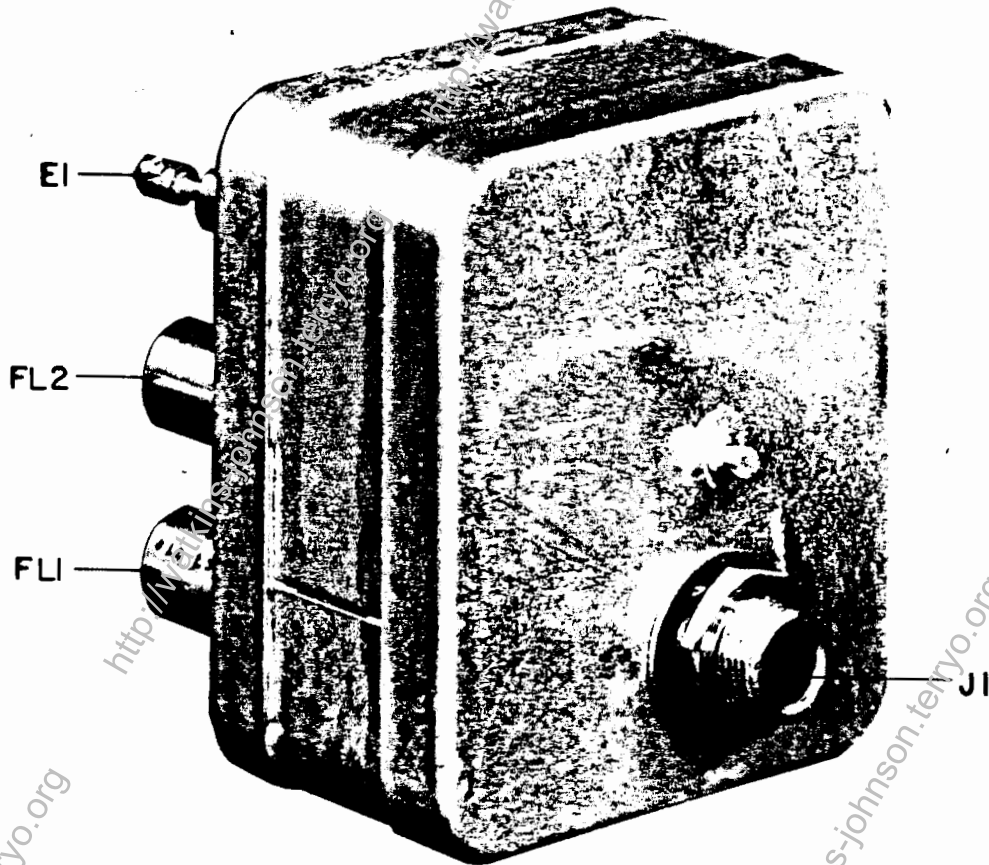


Figure 7-3. Phone Jack Assembly,  
Location of Components

7.5.4 TYPE 280017 AUDIO ATTENUATOR

REF DESIG PREFIX A12

REF DESIG	DESCRIPTION	QTY. PER ASSY.	MANUFACTURER'S PART NO.	MFR. CODE	RECM. VENDOR
C1	Capacitor, Electrolytic, Tantalum: 4.7 $\mu$ F, 10%, 35 V	1	CS13BF475K	81349	56289
E1	Terminal	10	140-1941-02-01	71279	
E2 Thru E10	Same as E1				
R1	Resistor, Fixed, Composition: 750 $\Omega$ , 5%, 1/4 W	6	RCR07G751JS	81349	01121
R2	Resistor, Fixed, Composition: 560 $\Omega$ , 5%, 1/4 W	3	RCR07G561JS	81349	01121
R3	Same as R1				
R4	Same as R1				
R5	Same as R2				
R6	Same as R1				
R7	Same as R1				
R8	Same as R2				
R9	Same as R1				
R10	Resistor, Fixed, Composition: 10 k $\Omega$ , 5%, 1/4 W	1	RCR07G103JS	81349	01121

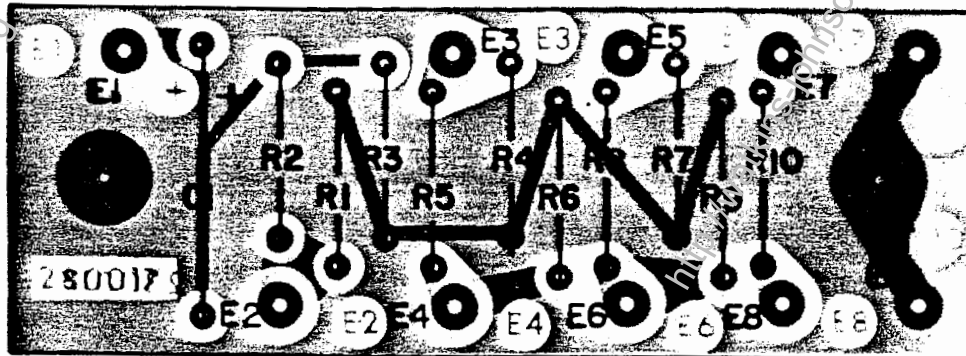


Figure 7-4. Type 280017 Audio Attenuator, Location of Components