JVC

MODEL **R-K11/R-K11L**

STEREO RECEIVER

SERVICE MANUAL

SUPPLEMENT

No. 2647B APR. 1983

This service manual provides you with information on the tuner printed circuit board, tuner alignment procedures and the main amplifier circuit board.
In addition and alteration to using the ENA-002 tuner and the ENH-003 main amplifier.
You may also refer to the R-K11/R-K11L service manual No. 2647 for servicing information.

1. Tuner P.C. Board Assembly

ENA-002 : with printed resistor board
ENA-014 : with carbon resistor board

Parts List of Carbon Resistors only

Resistors

Item No.	Parts Number	Rating		Description
R104	QRD148J-102S	1 kΩ	1/4 W	Carbon
R105	QRD148J-102S	1 kΩ	"	"
R120	QRD148J-271S	270 Ω	"	"
R121	QRD148J-101S	100 Ω	"	"
R124	QRD148J-102S	1 kΩ	"	"
R125	QRD148J-101S	100 Ω	"	"
R131	QRD148J-331S	330 Ω	"	"
R140	QRD148J-103S	10 kΩ	"	"
R149	QRD148J-123S	12 kΩ	"	"
R163	QRD148J-683S	68 kΩ	"	"
R166	QRD148J-102S	1 kΩ	"	"
R173	QRD148J-363S	36 kΩ	"	"
R174	QRD148J-363S	36 kΩ	"	"
R191	QRD148J-332S	3.3 kΩ	"	"
R192	QRD148J-332S	3.3 kΩ	"	"
R193	QRD148J-103S	10 kΩ	"	"
R194	QRD148J-103S	10 kΩ	1/4 W	Carbon
R195	QRD148J-472S	4.7 kΩ	"	"
R202	QRD148J-103S	10 kΩ	"	"
R203	QRD148J-103S	10 kΩ	"	"
R210	QRD148J-104S	100 kΩ	"	"
R211	QRD148J-152S	1.5 kΩ	"	"
R303	QRD148J-222S	2.2 kΩ	"	"
R304	QRD148J-222S	2.2 kΩ	"	"
R307	QRD148J-102S	1 kΩ	"	"
R308	QRD148J-102S	1 kΩ	"	"
R309	QRD148J-911S	910 Ω	"	"
R310	QRD148J-911S	910 Ω	"	"
R311	QRD148J-104S	100 kΩ	"	"
R312	QRD148J-104S	100 kΩ	"	"
R320	QRD148J-104S	100 kΩ	"	"

2. Specified Numbers in ENA-002/ENA-014 for Designated Areas

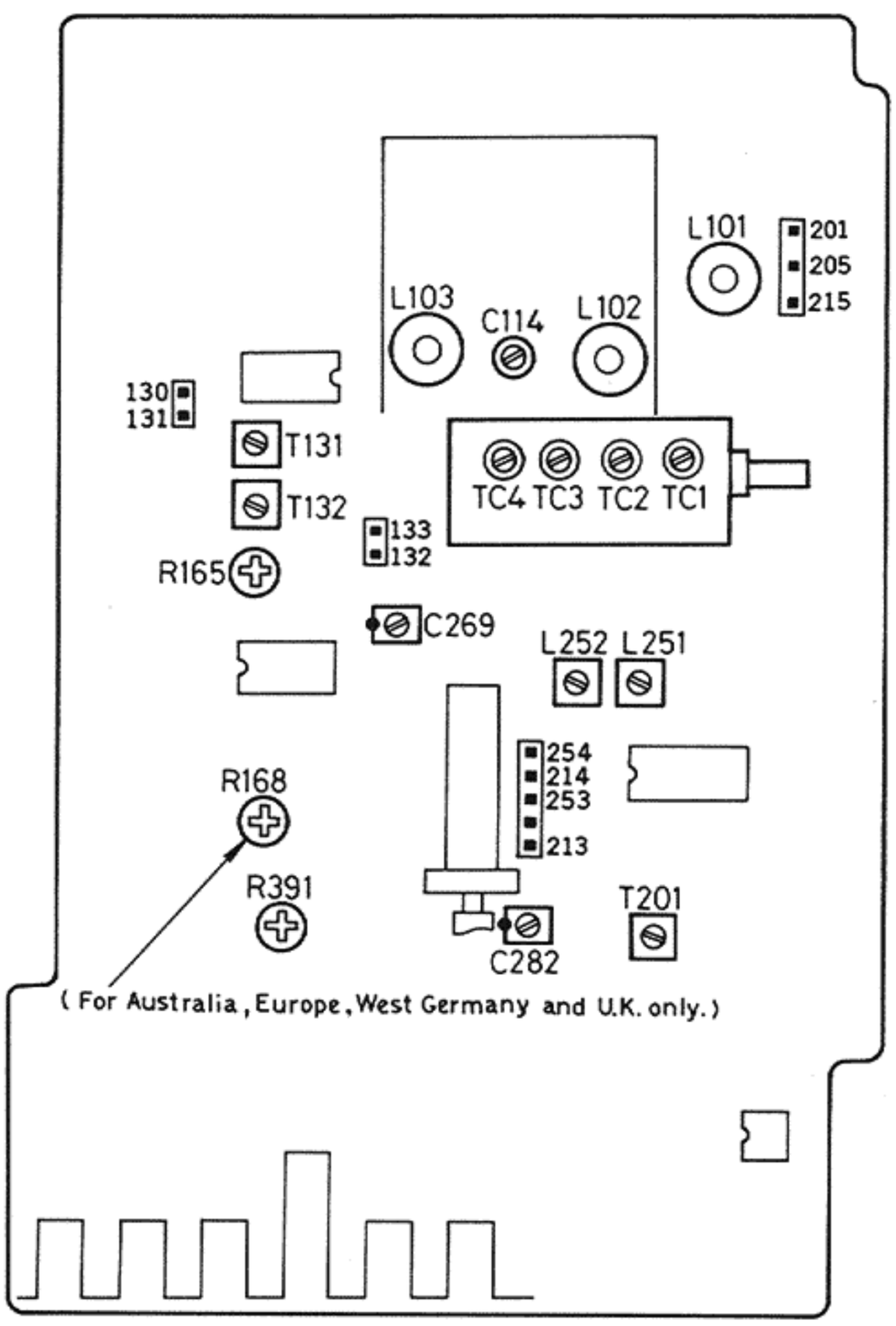
Item No.	Description	U.S.A. & Canada [A]	Australia & Europe [B]	West Germany [C]	U.K. & Europe (with LW) [D]	Republic of South Africa [E]	U.S. Military Market & Other Countries [A]
L101	RF Coil	EQR2306-013	EQR2306-013	EQR2306-017	EQR2306-013	EQR2306-013	EQR2306-013
L103	RF Coil	EQR2406-001	EQR2406-001	EQR2406-001	EQR2406-001	EQR2406-005	EQR2406-001
R168	Resistor	QRD148J-364S	EVP314-7-B55	EVP314-7-B55	EVP314-7-B55	QRD148J-364S	QRD148J-364S
R234	Resistor	QRD149J-101S	QRZ0052-680	QRZ0052-680	QRZ0052-680	QRD149J-101S	QRD141J-101S

Note: QRD148J-364S Carbon Resistor 360 kΩ 1/4 W
EVP314-7-B55 Semi-Fixed Resistor 500 kΩ

3. FM/MW (LW) Tuner Alignment Procedures

3-(1) FM Section

Alignment Location on ENA-002/ENA-014 Tuner P.C. Board Assembly



Discriminator, Center Meter, Distortion and Signal Gain

1. Set to FM.
2. Connect an RF generator, 1 kHz modulation and 75 kHz deviation, to the antenna terminals on the rear panel through a dummy antenna.
3. Connect an Oscilloscope, Distortion Meter and VTVM to the Rec. Out jacks on the rear panel.
4. Tune to a frequency where there is no broadcasting.
5. Connect a DC VTVM between TP130 and 131.
6. Adjust the core of T131 for DC VTVM reading of 0 (zero) mV.
7. Set the RF generator to 98 MHz.
8. Set the dial pointer to 98 MHz.
9. Adjust the core of T132 so that the distortion is minimized at a value less than 0.4%.

Tracking and Sensitivity

Precaution: No adjustment is necessary. The tracking and sensitivity have been adjusted properly and completely at the factory. If any special reason occasioned, take the following procedures carefully.

Low Frequency

1. Connect an RF generator to the antenna terminals on the rear panel through a dummy antenna.
2. Set the RF generator to 88 MHz, a modulation of 1 kHz and a deviation of 75 kHz to provide an input of 2 μV.
3. Connect a VTVM and an Oscilloscope to the Rec. Out jacks on the rear panel.
4. Set the dial pointer to 88 MHz.
5. Adjust the three coils L103, L102 and L101 in the tuning gang to maximize the output.

High Frequency

6. Set the RF generator to 108 MHz, a modulation of 1 kHz and a deviation of 75 kHz, to provide an input of 2 μV.
7. Set the dial pointer to 108 MHz.
8. Adjust the FM trimmers C114, TC1 and TC3 in the tuning gang to maximize the output.
9. Repeat these high and low frequency adjustments alternately until maximum sensitivity is obtained.

Note: After adjustment, confirm that the band cover is as follows: (for West Germany only)
FM: Lower 87.5 MHz –300 kHz, Higher 108.0 MHz +500 kHz

Multiplex, QSC (quieting slope control) and Separation Multiplex

1. Set the Stereo signal generator as follows: 400 Hz modulation frequency, 7.5 kHz deviation pilot, 67.5 kHz main and sub carriers. Connect its output to an RF generator.
2. Connect an RF generator to the antenna terminals through a dummy antenna.
3. Connect a VTVM, an Oscilloscope and a Distortion Meter to the Rec. Out jacks on the rear panel.
4. Set the RF generator to 98 MHz and output of 1 mV.
5. Set the dial pointer to 98 MHz.
6. Connect the Frequency Counter to 19 kHz Test Point (TP132 and TP133).
7. Switch off the pilot signal of Stereo Modulator.
8. Adjust R165 so that the frequency counter indicates 19 kHz (0 ~ –50 Hz).

QSC

9. Provide an input of 28 μV.
10. Adjust R391 so that the separation is obtained.

Separation (for Australia, Europe, West Germany and U.K. only)

11. Adjust R168 so that the separation is maximized.

Muting Level

Note: No adjustment is necessary. However, if the check-up is required, take the following steps.

1. Release the FM MONO/MUTE OFF pushbutton during this adjustment procedures.
2. Connect a VTVM and an Oscilloscope to the Rec. Out jacks on the rear panel.
3. Set the RF generator to 108 MHz, a modulation of 1 kHz and a deviation of 75 kHz, to check the muting to be released by increasing the input level to the antenna terminals.

6-(2) MW (LW) Section

Note: ( ) shows LW Alignment Procedures.

Tracking and Sensitivity

Low Frequency

1. Connect the RF generator to the antenna terminals on the rear panel, set this to 600 kHz (160 kHz) with 30 % modulation at 400 Hz.
2. Connect an AC VTVM and an oscilloscope to the Rec. out jacks on the rear panel.
3. Adjust OSC coil L251 (L252) and the ferrite bar antenna core to maximize the output signal. Left ferrite bar is for MW (right ferrite bar is for LW).

High Frequency

5. Set the RF genrator to 1400 kHz (350 kHz) with 30 % modulation at 400 Hz.
6. Set the dial pointer to 1400 kHz (350 kHz).
7. Adjust the trimmers TC4 (C269) and TC2 (C282) in the tuning gang so that the output signal is maximized.
8. Repeat these high and low frequency adjustment procedures alternately until maximum sensitivity is obtained.

4. Main Amplifier P.C. Board Assembly

Item No.	Description	U.S.A. [A] & Canada [B]	Europe & Australia [D]	West Germany [G]	Europe (with LW) [E]	U.K. [F B S]	U.S. Military Market & Other Countries [C]
Q725	Transistor	—	Elimination	Elimination	Elimination	Elimination	—
Q726	Transistor	—	Elimination	Elimination	Elimination	Elimination	—
R773	Thermistor	—	SDT250	SDT250	SDT250	SDT250	—
R774	Thermistor	—	SDT250	SDT250	SDT250	SDT250	—
R915	Resistor	QRG017J-471S	QRG022J-391AM	QRG022J-391AM	QRG022J-391AM	QRG022J-391AM	QRG017J-471S
R922	Resistor	QRD148J-330S	QRD148J-121S	QRD148J-121S	QRD148J-121S	QRD148J-121S	QRD148J-330S

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