

MSF5000 CXB with TTRC to URI Cable

Description	URI Pin	TTRC J2900	TTRC J2	TP	J900
1	PTT	12	12	TP9	
7	CTCSS DET				
8	COR DET	8	23	U810-9	
9	Mic In DC				
12	6db AOUI				
13	GND	1 and 3	19	TP7	
21	Mic In AC		2	TP3	6
22	Left Out		6	TP8	3
23	Right Out				
24	6dB Audio In				
25	6dB VDD				
	Audio Grounds		3&7&17		1&4

MOTOROLA Radio Service Software
MSF Model: 896-CONV-RPTR
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EDIT MODE INFORMATION

Use UP/DOWN Arrows to Change Field

EDIT MODE NUMBER: 01 MODE #01 OF 01
THIS MODE IS SLAVED TO CHANNEL(S): 1
RX PL/DPL CODE 411
TX PL/DPL CODE 411
PTT PRIORITY RWLMD RPTR>WLINE>LOCAL>MRTI>DATA
TIME-OUT-TIMERS
LINE 120 0 < time < 495 seconds
LOCAL 000 0 < time < 495 seconds
REPEATER 120 0 < time < 495 seconds
DATA 000 0 < time < 495 seconds
MRTI 000 0 < time < 495 seconds
RECEIVER CONTROL C PL Detect
REPEATER CONTROL
REPEATER ACTIVATE C PL Detect
REPEATER HOLDIN C PL Detect

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EDIT ADVANCED INFORMATION

NON-EDITABLE FIELD

Number Of Channels 01
STATION ALARMS:
Alarm Tone Frequency 1200 750 Hz < frequency < 1600 Hz
Alarm Tone Duration 125 0 < time < 495 msec
Alarm Tone Gap 125 0 < time < 495 msec
Alarm Word Gap 2000 0 < time < 9998 msec
ID CALLSIGN:
Auto Id Tone Frequency 0800 750 Hz < frequency < 1600 Hz
Auto ID Delay 005 0 < time < 495 seconds
Auto ID Interval 015 0 < time < 495 minutes
Auto ID Rate 20 5 WPM < rate < 40 WPM
CONSOLE PRIORITY:
Switch On LPTT ENABLED
Line 2 TX Mix ENABLED
Line 4 TX Mix ENABLED

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STATION TYPE INFORMATION

NON-EDITABLE FIELD

Frequency Range R1 Tray: 896 MHz
Synthesizer For R1 Tray: MOSAIC
Frequency Range R2 Tray: DISABLED
Synthesizer For R2 Tray: DISABLED
Repeater Operation: ENABLED
Trunking Operation: DISABLED
Spectra-TAC Operation: DISABLED
SECURE Operation: DISABLED
XL Decryption Operation: DISABLED
Duplex Operation: FULL
Simulcast Operation: DISABLED
SmartZone Operation: DISABLED
SP Number: NO SP

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STATION TYPE INFORMATION

Use UP/DOWN Arrows to Change Field
Key Not Defined. See Menu Below.

TTRC Equipped:	ENABLED
SECURE Equipped:	DISABLED
MCS Equipped:	DISABLED
SAM Equipped:	DISABLED
PASSWORD Equipped:	DISABLED

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EDIT ADVANCED INFORMATION

Use UP/DOWN Arrows to Change Field

LOCAL CONTROL:

Channel Control	STATION
Mode Control	STATION
Key Control	STATION
Memory Station	ENABLED

TRANSMITTER DELAYS:

PA Turn On Delay	031	0 < time < 495 msec
Key Up Delay	039	0 < time < 495 msec
Relay Idle Delay	031	0 < time < 495 msec
EOM Time	193	0 < time < 997 msec
LPTT Delay	0000	0 < time < 9998 msec

PL/CT DISABLE:

Disable Source	MUTE REQ	
Disable Delay	703	0 < time < 997 msec

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Use UP/DOWN Arrows to Change Field
Key Not Defined. See Menu Below.

TTRC FEATURES:

DC Decode	DISABLED
TRC Decode	ENABLED
TRC Tone Mix	LINE 2
GT Frequency	2175
HLGT Duration	120
Tx Source	ALC
Un ALC Source	LINE 1
Wireline Activity Source	LINE 1
Mute TX Audio	DISABLED
Full Rx Inhibit	DISABLED

AUTOMATIC ACCESS:

Decode Word	NO ACC	
ACK Word	NO ACC	
ACK Time	NO ACC	0 < time < 9998 msec

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EDIT ADVANCED INFORMATION

Enter Value in milliseconds (msec)
Valid Range Is 0 To 10553
Key Not Defined. See Menu Below.

MISCELLANEOUS:

Mute Delay	00100	0 < time < 10553 msec
Standby Failure Counter	001	1 < counter < 255
Bypass RX Notch	DISABLED	
MRTI Enable/Disable	DISABLED	
RSTAT Mode	NORMAL	
Gate Tx Always	ENABLED	
FT Mute Time	0030	0 < time < 9998 msec
LLGT Dropout Time	0150	0 < time < 9998 msec
RF Couple @ T=R Stations	DISABLED	

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EDIT ADVANCED INFORMATION

NON-EDITABLE FIELD

Key Not Defined. See Menu Below.

SECURE DELAYS:

Beep Delay	NO SECURE	0 < time < 9998 msec
Extended Buffer Delay	NO SECURE	0 < time < 9998 msec
Fail Test Delay	NO SECURE	0 < time < 9998 msec
Max Code Detect DT Delay	NO SECURE	0 < time < 9998 msec
Rx Code Detect DOD	NO SECURE	0 < time < 2720 msec
Tx Code Detect DOD	NO SECURE	0 < time < 2720 msec
Rx DC End Of Message Delay	NO SECURE	0 < time < 170 msec
Tx DC End Of Message Delay	NO SECURE	0 < time < 170 msec
Takeover EOM Delay	NO SECURE	0 < time < 9998 msec

SYSTEM CONNECTOR:

External PTT	LINE
Spare Output	NULL
Spare Output Pin Active:	LOW

Jumper Settings

SSCB Jumper Settings

Table G-1 identifies the jumper settings for the Secure Station Control Board (SSCB). Figure G-1 shows the location of the jumpers on the SSCB.

Table G-1 **SSCB 3-pin Jumper Settings**

Jumper	Description	Normal Position	Alternate Position
JU1	TTRC HSR	TTRC present	TTRC not present
JU2	Secure HSR	Secure not present	Secure present
JU3	Coded modulation audio	Secure not present	Secure present
JU4	Post-IDC TX data	data present	data not present
JU5	Trunking modulation audio	TTRC present	TTRC not present
JU6	Transmit data path	No data	TX data around splatter filter
JU7	RX2 wireline	no RX2 to wireline	RX2 to wireline
JU8	RX2 audio	RX2 not present	RX2 present
JU9	Secure alert tones	Secure not present	Secure enc/dec present
JU10	Secure RX audio	Secure not present	Secure present
JU11	RX diversity audio	no diversity	diversity
JU12	+5 Vdc	+5 Vdc on SSCB	+5 Vdc supplied on RF Tray †
JU13	RF tray +5 Vdc	no +5 V to RF tray	+5 V to RF tray
JU14	SAM TX audio	No audio out	SAM TX audio via splatter filter
JU15	Pre-IDC TX data	data not present	data present
JU16	Exp TX audio select	processed transmit audio to J800	raw transmit audio to J800
JU17	SAM line audio	SAM audio not routed to line	SAM audio routed to line
JU18	RX1 gate control	via logic section	via squelch section
JU19	MPT squelch to exp conn	fast key from J800	MPT squelch from J800
JU20 ‡	Secure coded modulation gain	high gain	low gain ††

SSCB Jumper Settings

Table G-1 SSCB 3-pin Jumper Settings (Continued)

Jumper	Description	Normal Position	Alternate Position
JU21 †	Wattmeter A-D resolution	low power stations	high power stations ‡‡
JU22 †	Wattmeter A-D resolution	low power stations	high power stations ‡‡

† For upgrading stations from analog to digital.
 †† Use for TLN3045B and earlier.
 ‡ Present on data SSCB only.
 ‡‡ High power refers to 75 Watt PAs and above (TLN3318A, TLN3319A, TLN3320A, and TLN 3342A).

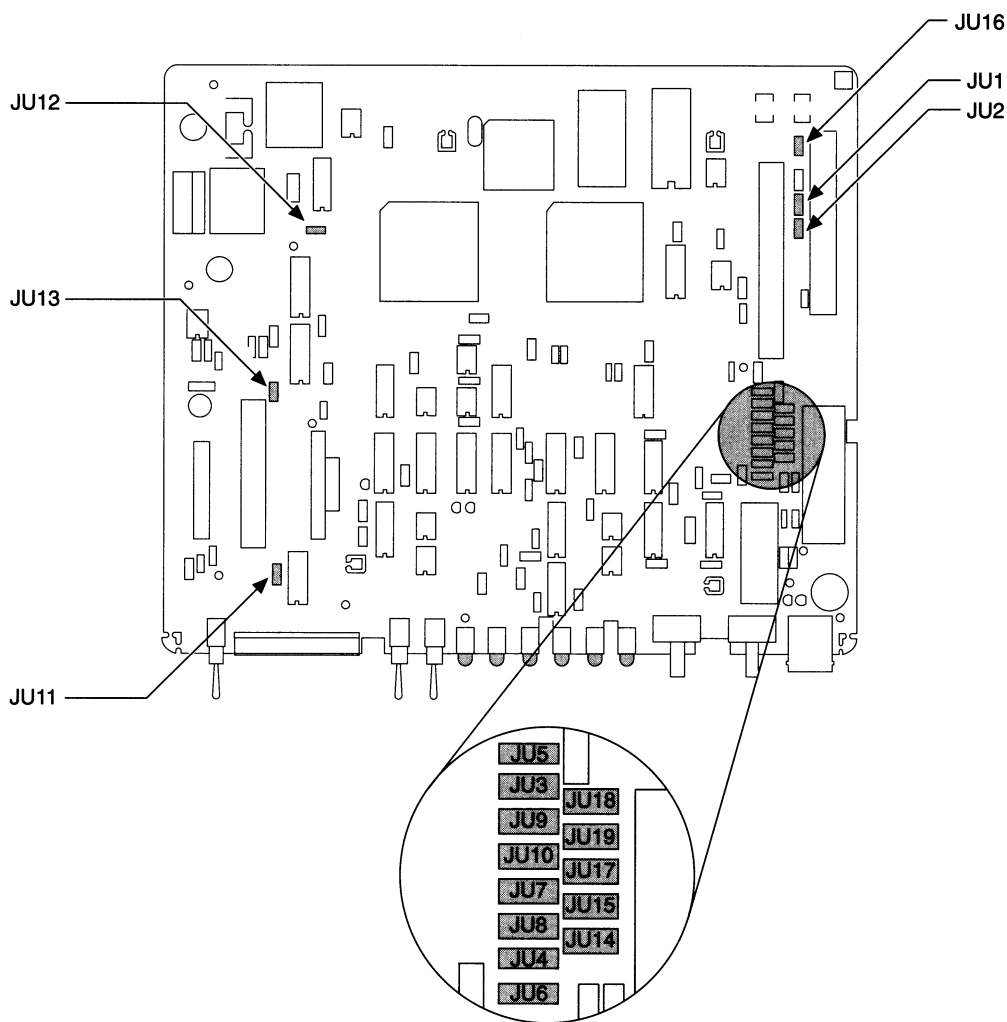


Figure G-1 SSCB Jumper Locations

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021494JNM

TTRC Jumper Settings

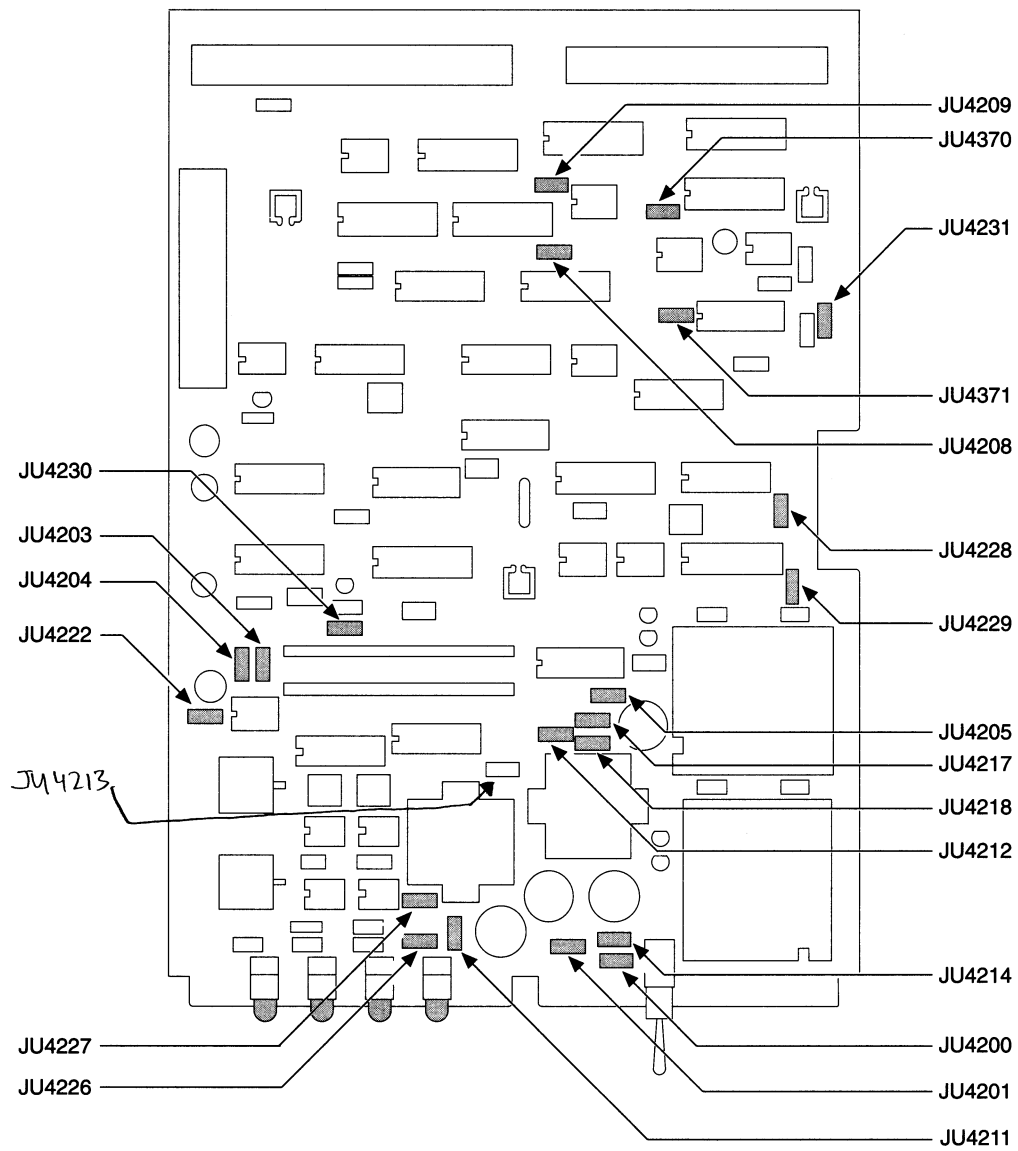
The TTRC jumper settings are configured on the TTRC Audio board. All jumper settings are described in Table G-2. Figure G-2 shows the jumper locations for TTRC Audio board.

Table G-2 TTRC Jumper Settings

Jumper	Description	"A"	"B"
		Normal Position	Alternate Position
JU4200	Line 3 termination	600 Ω	900 Ω
JU4201	Line 1 termination	600 Ω	900 Ω
JU4203	TX audio notch filter	enabled	disabled
JU4204	Wireline TX audio notch filter	enabled	disabled
JU4205	Line 2 TX cancellation circuit	2-wire audio	4-wire audio
JU4208	Trunked modulation audio	TX data	Gen TX audio
JU4209	RDM/WBM simulcast	RDM	WBM
JU4211	Line 1 DC blocking cap	DC control	Secure present
JU4212	Line 2 DC blocking cap	DC control	Secure present
JU4213	Line 3 DC blocking cap	DC control	Secure present
JU4214	Line 4 DC blocking cap	DC control	Secure present
JU4217	Line 2 termination	600 Ω	900 Ω
JU4218	Line 4 termination	600 Ω	900 Ω
JU4222	Line 2 interrupt circuit	2-wire audio	4-wire audio
JU4226	DC control (+) input	2-wire audio	4-wire audio
JU4227	DC control (-) input	2-wire audio	4-wire audio
JU4228	Line 2 output level	0 dBm	-10 dBm
JU4229	Line 4 output level	0 dBm	-10 dBm
JU4230	ALC bypass circuit	ALC active	fixed gain †
JU4231	2175 Hz status tone noise filter	2175 Hz status tone	Not 2175 Hz status tone
JU4370	Gen TX data input	non-simulcast	simulcast
JU4371	Gen TX data input	non-simulcast	simulcast
R4381	For SP simulcast (0 Ω)	not present	present for simulcast (SP)

† Using this jumper position requires a fixed level of HLGT (12.5, ± 2.5 dBm) for proper operation.

TTRC Jumper Settings



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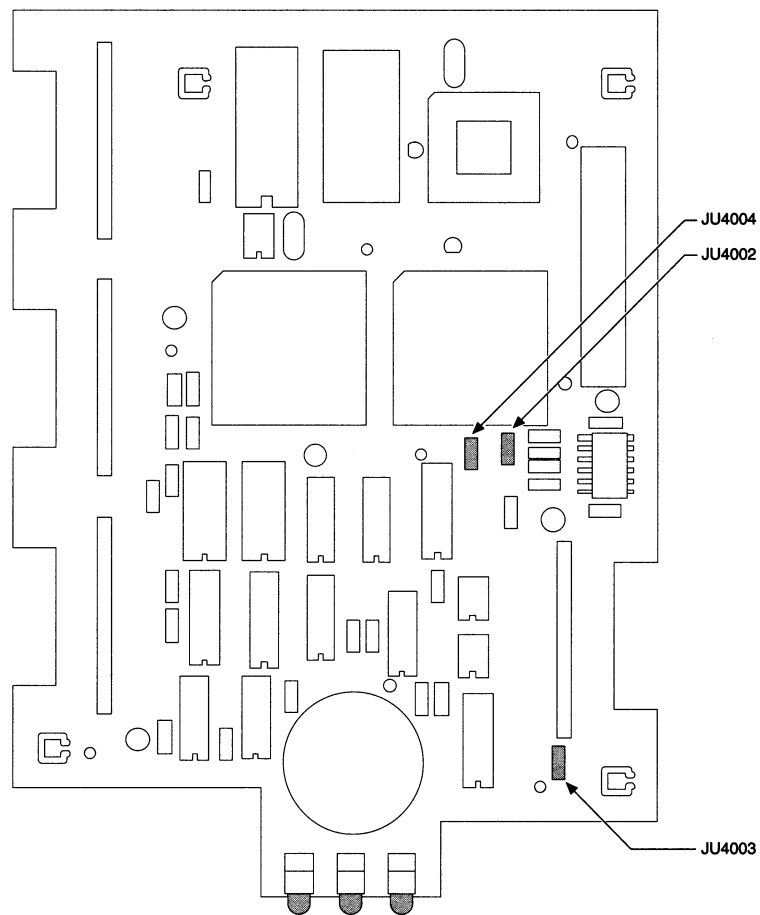
Figure G-2 TTRC Audio Board Jumper Locations

Secure Board Jumper Settings

Table G-3 identifies the 3-pin jumper settings for configuring the encryption capability of the Secure board. Figure G-3 shows the jumper locations for the Secure board.

Table G-3 *Secure Board 3-pin Jumper Settings*

Jumper	Description	Normal Position	Alternate Position
JU4002	Remote key reset	disabled	enabled
JU4003	MRTI audio encryption input	no MRTI audio	MRTI audio
JU4004	Receive audio equalizer, filter, and limiter	filter present	filter not present



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Figure G-3 *Secure Board Jumper Locations*