

JRC

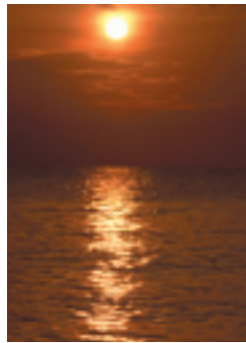
150W MF/HF RADIOTELEPHONE JSB-196GM



- Simple installation on small ship
- High expandability
- Easy operation
- Digital signal processing (DSP)



Japan Radio Co., Ltd.



The JSB-196GM MF/HF Radiotelephone is a new generation of economical marine transceiver with high functionality designed to conform to the GMDSS A2 area requirements. The JSB-196GM functions to fully meet the latest regulations for maritime MF/HF communications by connecting the NCT-196N DSC/NBDP MODEM with a built-in watchkeeping receiver.

The radiotelephone system consisting of the JSB-196GM that covers the frequency range of 1.6 to 27.5MHz and the NCT-196N DSC/NBDP MODEM with an internal DSC watchkeeping receiver conforms to the applicable regulations including the IMO performance standard and the national standard.

FEATURES

Simple installation on small ship

Each equipment is of very compact design for simple installation on small ship. The GMDSS-based system consists of the JSB-196GM MF/HF Radiotelephone, the NCT-196N DSC/NBDP MODEM Terminal and a DC-DC converter. The main unit of the JSB-196GM and the NCT-196N can be integrated as a stacked system and installed in a easy-to-operate place on the bridge.

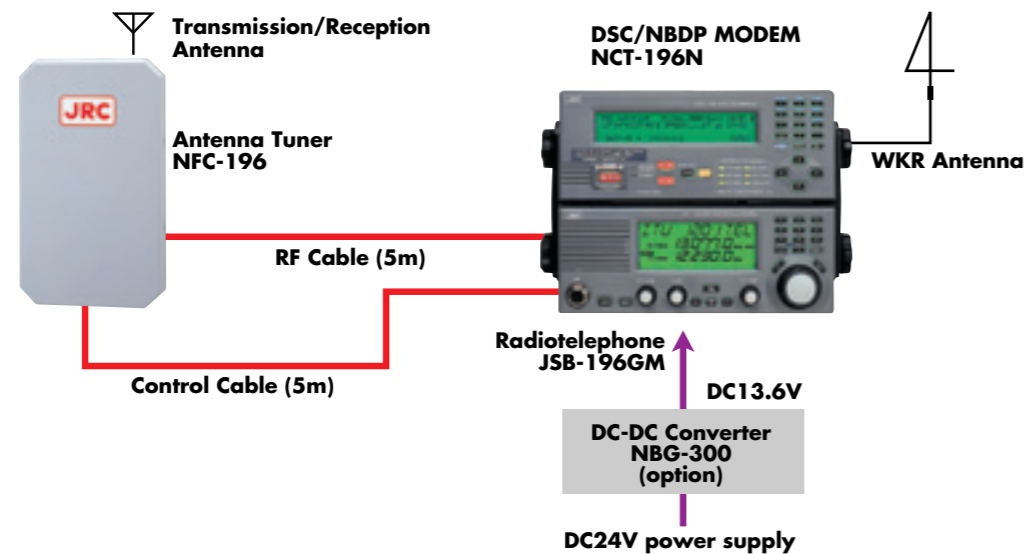
Easy operation

The JSB-196GM is designed for user-friendly operation using a single large control dial for frequency channel selection, mode setting and high/low transmit power switching. The NCT-196N integrates the DSC modem and the watchkeeping receiver in it, enabling operations to fully meet the GMDSS requirements.

Digital signal processing (DSP)

The JSB-196GM radiotelephone uses 32-bit floating point DSP for digital signal processing in and after the IF stage. The DSP technology improves a number of functions including noise reduction and various types of interference rejection, ensuring enhanced performance.

SYSTEM CONFIGURATION



SPECIFICATION

General

frequency range	Transmit: 1.6 to 27.5MHz Receive: 0.1 to 29.9999MHz
Frequency increments	100Hz
Frequency tolerance	±10Hz or better
User definable channels	200ch (20ch x 10 Groups)
Emissions mode	J3E(TEL), F1B(DSC/TLX), A1A(CW), H2B, H3E(AME:reception only)
Preset ITU channels	1722ch (TEL:283, DSC:29, TLX:891, CW:519)
Scanning channel	20 user defined channels
Communication mode	Simplex and semi-duplex
Operating temperature	-15°C to +55°C
Power requirement	13.6VDC±10% (12.3VDC to 15.0VDC), negative-grounded Tx: 40 A max Rx: 2 A max (Operable between 10.2VDC and 16.2VDC)
Compass safe distance	1.5m
Dimensions and mass	250mm(W) x 100mm(H) x 260mm(D), Approx. 7.4kg

TRANSMITTER

Output power	100Wpep (1.6 to 4MHz), 150Wpep (4 to 27.5MHz)
Occupied bandwidth	J3E: 3kHz or better F1B, A1A: 0.5kHz or less
Carrier suppression	40dB or better
Spurious suppression	43dB or better
AF frequency response	350 to 2700Hz (6dB bandwidth)
Microphone input	600 Ω(-40dBm standard)
Line input	600 Ω, 0dBm (balanced)

RECEIVER

Receiving system	Triple superheterodyne
Intermediate frequencies	70.455MHz, 455kHz, 20.217kHz
Sensitivity (SINAD 20dB)	J3E: 6.3μV or better (1.6 to 4MHz) 3.5μV or better (4 to 27.5MHz) F1B: 1.8μV or better (1.6 to 4MHz) 1.0μV or better (4 to 27.5MHz)
Selectivity	J3E: 6dB bandwidth 2.4 to 3kHz, 66dB bandwidth Within±2.1kHz F1B: 6dB bandwidth 270 to 300Hz, 60dB bandwidth Within±550Hz

Spurious response	60dB or better
Clarifier range:	±200Hz in 1Hz steps
AF output	5.0W max. 1W rated
Line output:	600 Ω, 0dBm (balanced)

NFC-196 ANTENNA TUNER

Frequency range	1.6 to 30MHz
Power capability	200Wpep
SWR after tuning	2 : 1
Turning time	Automatic tuning: typical 3 sec Preset tuning: typical 0.5 sec
Operating temperature	-30°C to +60°C
Power requirement	10.2VDC to 16.2VDC, negative-grounded, 1.5A (max)
Dimensions and mass	230mm(W) x 380mm(H) x 90mm(D) Approx. 3.3kg

NCT-196N DSC/NBDP MODEM

Protocol	ITU-RM.493-7, M.541-6 and M.1082
Modulation rate	100 baud
Modulation accuracy	Within ±30ppm
Output frequency	1700Hz ±85Hz
Frequency tolerance	±0.5Hz or better
Output level	-20dBm to +10dBm
Operating temperature	-15 to +55°C
Power requirement	10.2VDC to 16.2VDC, negative-grounded, 3A max
Dimensions and mass	250mm(W) x 100mm(H) x 260mm(D) Approx. 6.3kg

WATCH KEEPING RECEIVER

Receiving system	Double superheterodyne
Receiving frequencies	2187.5kHz, 4207.5kHz, 6312.0kHz, 8414.5kHz, 12577.0kHz, 16804.5kHz
Sensitivity	Symbol error rate of 1% at receiver input voltage of 1μV
Antenna impedance	50 Ω

STANDARD COMPONENTS

Component	Model	Quantity	Remarks
MF/HF Radiotelephone	JSB-196GM	1	
Included Accessories			
Hand Set	NQW-213	1	
Power Cable	7ZCJD0043A	1	L=1m
Plug	5JWGC00004	1	
Connector	5JWGC00004	2	
Terminals	5JDAH00084	2	14-8
Spare Fuse	5ZFEX00013	4	40A
Instruction Manual	7ZPJD0124	1	English
Quick Reference	7ZPJD0141	1	English

Component	Model	Quantity	Remarks
DSC/NBDP MODEM	NCT-196N	1	
Included Accessories			
Power Cable	7ZCJD0139	1	L=3m
AF Cable	7ZCJD0071	1	L=1.5m
Control Cable	7ZCJD0072A	1	L=1.5m
Terminals	5JTCD00220	2	1.25-8
Spare Fuse	5ZFCK00001	4	7-5A
Instruction Manual	7ZPJD0156	1	English
Quick Reference	7ZPJD0157	1	English
GMDSS Operating Guide	7ZPJD0135	1	English

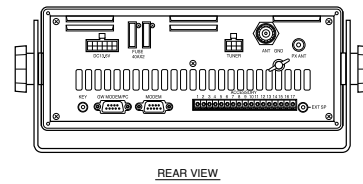
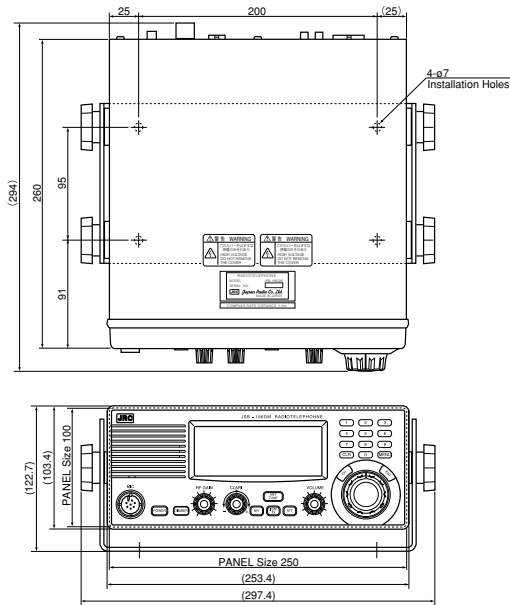
OPTION

Component	Model	Quantity	Remarks
DC-DC Converter	NBG-300	1	
Hand Microphone	NVT-133	1	Straight Cable (L=5m)
Hand Microphone	NVT-140	1	Curl Cable
Handset Holder	MPBP00127A	1	
AF Cable	7ZCJD0073	1	For NCT-196N (L=0.3m)
Control Cable	7ZCJD0074	1	For NCT-196N (L=0.3m)
Printer	NKG-800	1	For NCT-196N

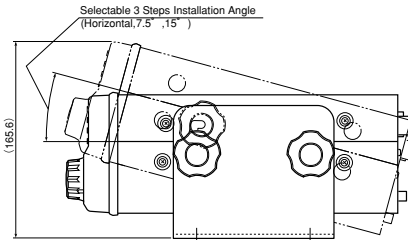
Component	Model	Quantity	Remarks
Antenna Tuner	NFC-196	1	
Included Accessories			
ATU Control Cable	7ZCJD0044A	1	L=5m
ATU RF Cable	7ZCJD0045	1	L=5m
Terminal	5JTCD00393	2	1.25-3
Terminal	5JTCD00001	2	2-3
Terminal	BRT00395	2	5.5-3
Washer	BSFW06000B	2	W6Bs

DIMENSIONS & WEIGHT (MASS)

RADIOTELEPHONE JSB-196GM

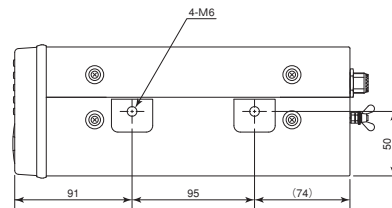
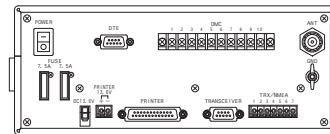
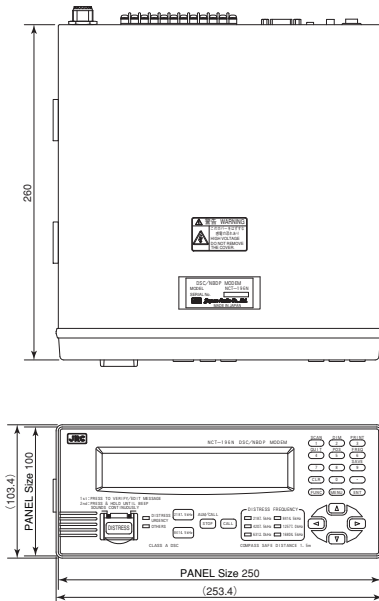


REAR VIEW



weight (Mass) : approx. 7.4kg

DSC/NBDP MODEM NCT-196N



weight (Mass) : approx. 6.3kg

• Specifications may be subject to change without notice.

For further information, contact:



Since 1915

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