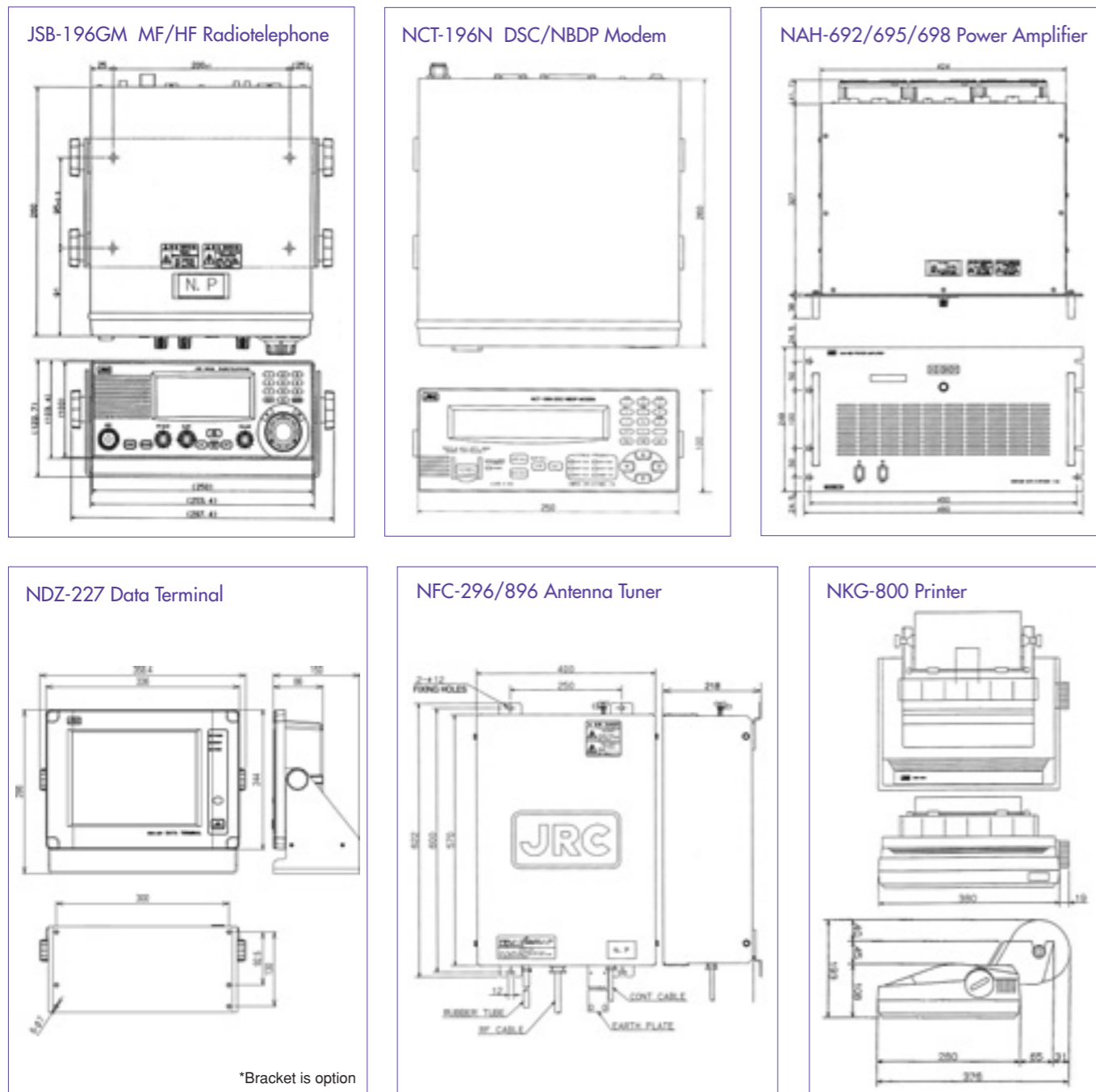


DIMENSIONS & WEIGHT (MASS)



⚠ Cautions for Safety

- Read the Instruction Manual before your use for safety in operation.
- Do not install this equipment in a place with water, wetness, vapor, dust and oily smoke. Otherwise, a fire, electric shock or failure may result.
- For the installation work for this equipment, request to JRC agents or dealers. The installation work done by any non-specialist personnel may result in an electric shock or failure.

For further information, contact:

JRC *Japan Radio Co., Ltd.*
 Since 1915 URL <http://www.jrc.co.jp/eng/>

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Overseas Branches : Seattle, Amsterdam, Athens, Manila
Liaison Offices : Taipei, Jakarta, Singapore, Hanoi,
 Shanghai, Hamburg, New York

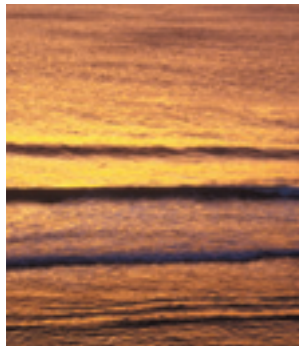
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JRC 250W / 500W / 800W MF/HF RADIO EQUIPMENT JSS-296/596/896




- Fully Complies with GMDSS Requirements
- Built-in Battery charger
- Self Diagnostic Function
- Built-in Dummy Load for ATU Selfcheck
- Outdoor Installable Antenna Tuning Unit
- High visibility Color LCD data terminal
- Easy operation with JOG dial

JRC *Japan Radio Co., Ltd.*



The JSS-296/596/896 MF/HF Radio Equipment is designed for vessels navigating A2, A3 and A4 sea areas. It consists of mainly the JSB-196GM Radiotelephone, NFC-296/896 Antenna Tuning Unit (ATU), NCT-196N DSC/NBDP MODEM, NDZ-227 Data Terminal Equipment (DTE), NDF-369 Keyboard, and NAH-692/695/698 Power Amplifier, and it provides the optimum GMDSS system for the superior performance, compact, lightweight and highly efficient design of the units, which ensures easy operation for distress and safety calling as well as general communications.

FEATURES

● Fully Complies with GMDSS Requirements

All the functions required by IMO resolutions A.804 (19) and A.806 (19) are equipped, and suitable for radio installations of vessels navigating A2, A3 and A4 sea areas.

● Built-in Battery charger

The Battery charger is built in PA unit and does not need another Battery charger.

● Self Diagnostic Function

A Built-in high grade self diagnostic function centrally controlled using JSB-196GM Radiotelephone ensures easy maintenance.

● Built-in Dummy Load for ATU Selfcheck

The dummy load for checking the NFC-296/896 Antenna Tuning Unit (ATU) is built-in and not required to connect as extra unit.

● Outdoor Installable Antenna Tuning Unit

The NFC-296 Antenna Tuning Unit can be installed outdoors such as on deck, ensuring effective emission of transmitter power.

● High visibility Color LCD data terminal

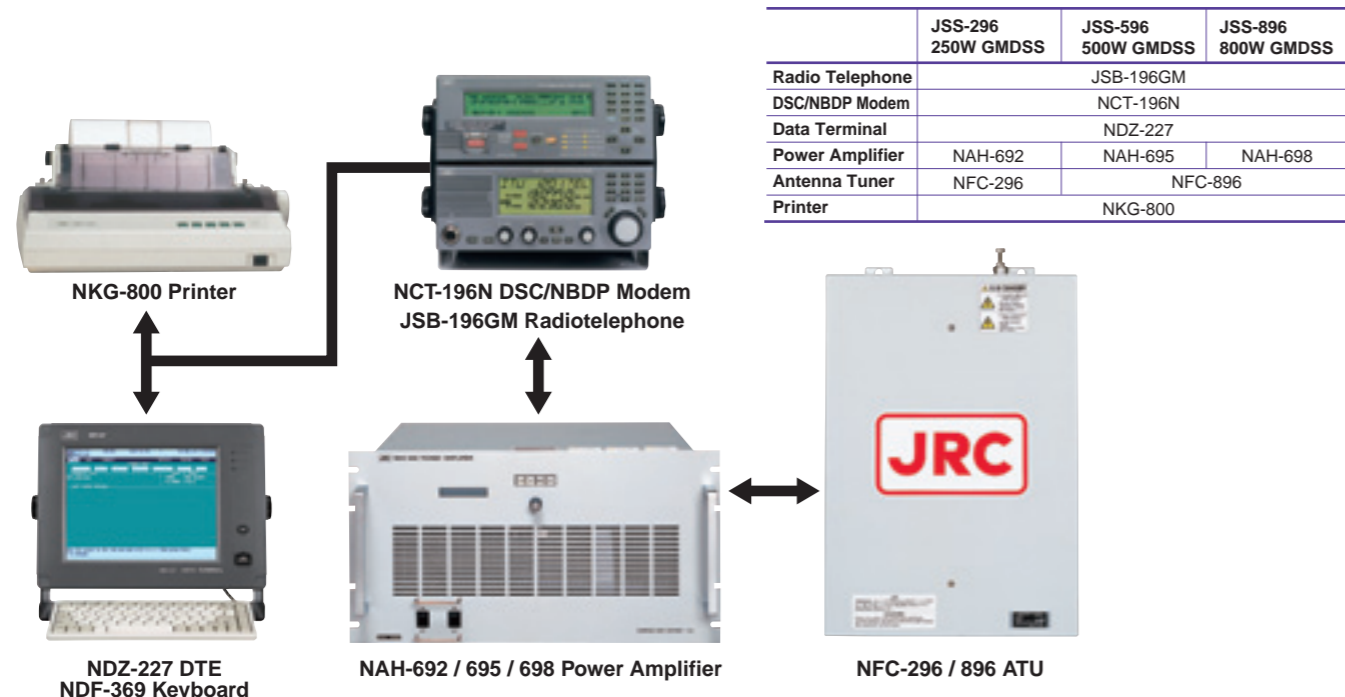
The data terminal adopts a 10.4-inch high-visibility color LCD display and preset color patterns of our marine navigation equipment.

● Easy operation with JOG dial

Single large control dial makes it easy to change settings and operating frequency.



SYSTEM CONFIGURATION



SPECIFICATION

GENERAL

Frequency range	Transmit: 1.6 to 27.5MHz (100Hz steps) Receive: 0.1 to 29.9999MHz (100Hz steps)
Frequency tolerance	±10Hz or better
Emission mode	J3E (TEL), F1B (DSC/TLX), A1A (CW), H2B, H3E (AME: reception only) 200ch (20ch X 10 Groups) 1722ch [TEL:283, DSC:29, TLX:891, CW:519]
User definable channels	20 user defined channels
Preset ITU channels	20 user defined channels
Scanning channel	Simplex and semi-duplex
Communication mode	50 ohms
Antenna impedance	-15 to +55°C
Operating temperature	296 : 90~132V/180~264V AC, Single-phase, 50/60Hz
Power requirement	596/896: 180~264V AC, Single-phase, 50/60Hz 296 : Tx:2.0kVA max, Rx:0.5kVA max 596 : Tx:3.0kVA max, Rx:0.5kVA max 896 : Tx:3.5kVA max, Rx:0.5kVA max 21.6~31.2V DC Tx: 30A max, Rx:7A max
Compass safe distance	1.5m

TRANSMITTER

Output power (*)	AC power source: 296: 200Wpx(1.6 to 4MHz), 250Wpx(4 to 27.5MHz) 596: 400Wpx(1.6 to 4MHz), 500Wpx(4 to 27.5MHz) 896: 400Wpx(1.6 to 4MHz), 800Wpx(4 to 27.5MHz) DC power source: 100Wpx (1.6 to 4MHz) , 150Wpx (4 to 27.5MHz)
Occupied bandwidth	J3E (TEL) 3kHz or better F1B (DSC/TLX), A1A (CW) 0.5kHz or better

(*) at 10Ω+250pF Artificial antenna for 1.6~4MHz
at 50Ω Artificial antenna for 4~27.5MHz

RECEIVER

Receiving system	Triple superheterodyne
Intermediate frequencies	70.455MHz, 455kHz, 20.217kHz
Sensitivity (SINAD 20dB)	J3E (TEL) 6.3uV or better (1.6 to 4MHz) 3.5uV or better (4 to 27.5MHz) F1B (DSC/TLX) 1.8uV or better (1.6 to 4MHz) 1.0uV or better (4 to 27.5MHz)
Selectivity	J3E (TEL) 6dB bandwidth 2.4 to 3kHz, 66dB bandwidth Within ±2.1kHz F1B (DSC/TLX) 6dB bandwidth 270 to 300Hz, 60dB bandwidth Within ±550Hz
Clarifier range	±200Hz in 1Hz steps

STANDARD COMPONENTS

Component	Model	Q'ty	Remark
MF/HF Radiotelephone	JSB-196GM	1	
Included Accessories			
Hand Set	NQW-213	1	L=1m
Power Cable	7ZCJD0043A	1	
Plug	5JCAS00029	1	
Connector	5JJAJ00034	2	14-8
Terminals	5JDAH00084	2	40A
Spare Fuse	5ZFEX00013	4	
Instruction Manual	7ZPJD0124	1	English
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	7ZPJD0156A	1	English
Quick Reference	7ZPJD0157	1	English
GMDSS Operation Guide	7ZPJD0135	1	English
Data Terminal	NDZ-227	1	
Keyboard	NDF-369	1	
Antenna Tuner	NFC-296/896	1	
Power Amplifier	NAH-692/695/698	1	Built-in Battery Charger 692: 250W, 695: 500W, 698: 800W



DSC WATCHKEEPING RECEIVER

Receiving frequencies	2187.5kHz, 4207.5kHz, 6312kHz, 8414.5kHz, 12577kHz, 16804.5kHz
Receiving system	Double superheterodyne
Intermediate frequencies	40.455MHz, 455kHz
Reception mode	F1B
Sensitivity	Symbol error rate of 1% or better at 1 micro-volt input
Frequency stability	Within +/- 10Hz after 1-minute warm-up

DSC/NBDP TERMINAL

DSC MODEM	
Communications protocol	In conformity with ITU-RM.493 and M.541
Emission	F1B 100 baud
Memory capacity	Received Distress messages: 20 Received Other messages: 20 Transmitted message: 11
NBDP MODEM	
Communications protocol	In conformity with ITU-RM.476, M.490, M.491, M.492, M.625 and ITU-T Rec. F130
Emission	F1B 100 baud

ANTENNA TUNER

Frequency range	1.6 to 30MHz
Power capability	NFC-296:250Wpx(1.6~4MHz), 300Wpx(4~27.5MHz) NFC-896:500Wpx(1.6~4MHz), 1000Wpx(4~27.5MHz)
Tuning method	Automatic tuning and preset tuning
Operating temperature	-25 to +55°C

BATTERY CHARGER

Charging current	20A (Ordinary charge) 10A (Equalizing charge)
Alarm function	Charge /Low voltage/ High voltage alarm

DATA TERMINAL

Controlled item	NBDP function (Control the DSC/NBDP Terminal)
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OPTION

Component	Model	Q'ty	Remark
GMDSS Console	NCU-331E/F/G	1	Standard console for JSS-296/596/896 and inmarsat-C
GMDSS Console	NCU-324E/F/G	1	Desk top console for JSS-296/596/896 and inmarsat-C
GMDSS Console	NCU-1960	1	Desk top console for JSS-296/596/896
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	7ZCJD0074A	1	For NCT-196N(L=0.3m)
Printer	NKG-800	1	For NCT-196N
DTE Mounting Bracket	MPBP31721	1	For NDZ-227 Desk Top mounting
Instruction Manual	7ZPJD0162A	1	English for JSS-296/596/896



NCU- 331E
**GMDSS RADIO
CONSOLE (OPTION)**