

*The radio... **YAESU***

***Extremely Compact & Superior Performance***  
***Superb Outdoor Amateur Radio Operation***

HF/50/144/430MHz All Mode Transceiver

**FT-818ND**



(Actual Size)



# Portability, Wide Band & Full Features HF through UHF

HF/50/144/430MHz 6W All Mode Transceiver

## FT-818ND

6W (AM:2W Carrier)

Supplied Accessories:

- Hand Microphone MH-31A8J
- 1900mAh Ni-MH Battery Pack SBR-32MH
- Battery Charger PA-48
- AA Battery case FBA-28
- Whip antenna (50/144/430MHz) YHA-63
- External DC cable E-DC-6
- Shoulder Strap



(Actual Size)

Transmit Frequency Bands	1.8MHz	3.5MHz	5.3MHz	7MHz	10.1MHz	14MHz	18MHz	21MHz	24MHz	28MHz	50MHz	144MHz	430MHz
Receiver Frequency	0.1MHz — 56MHz 76MHz — 154MHz 420MHz — 470MHz												

\* Specified performance: Amateur bands only

### 6W Transmit Power Output

The FT-818ND provides 6 Watts of TX power output (SSB/CW/FM), and selection of four TX power levels, 6W/5W/2.5W/1W on all bands (13.8VDC input), (AM 2W). When using the SBR-32MH battery pack or "AA" alkaline cells, the FT-818ND automatically sets the TX power level to 2.5 Watts, to conserve power (however the TX power may be switched to 6W or others).

### High Stability TCXO Built-In

Built-in TCXO provides  $\pm 0.5\text{ppm}$  high frequency stability ( $-10^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ ) and maintains stable high-quality communication for SSB operation in the VHF/UHF band, and CW operation within a narrow band. ( $\pm 0.5\text{ppm}$  (CW/SSB/AM),  $\pm 1\text{kHz}$   $\pm 0.5\text{ppm}$  (FM))

### 1900mAh Ni-MH Battery pack Included and Versatile Selection of Power Sources

Simple and convenient outdoor operation in any environment, the FT-818ND is ready to operate from multiple power sources:

- Supplied 1900mAh high-capacity Ni-MH battery pack (and battery charger)
- Supplied Alkaline Battery case, (8 alkaline "AA" cells not included).
- External 13.8VDC power source (External DC cable supplied)

### Ultimate Compact and Light Weight

Measures 5.31"×1.5"×6.5" (135×38×165mm), Light weight (under 2 pounds / 900g), the FT-818ND is an innovative Multi-band, Multi-mode Portable transceiver within an Ultra Compact body. Outdoor portable operation may be enjoyed with the same convenience as a handheld transceiver.



### Multi-Modes from HF to UHF bands Condensed into a Compact body

Operating on amateur radio bands from 160m to 70cm, it is capable of all modes SSB/CW/AM/FM. This wide-coverage transceiver makes a wide variety of amateur radio operations enjoyable, regardless of the band and mode, even in the Outdoors.

\*C4FM Digital mode is not supported.

### Versatile Operating Features for the Comfortable Field Operation

- Split-frequency operation in DX pileups, using VFO-A and VFO-B.
- Adjustment of SSB TX and RX carrier insertion point, for customization of audio response ( $\pm 300\text{Hz}$ )
- RF GAIN control
- AGC Selections: FAST/SLOW/AUTO/OFF
- Modulation and SWR indicators
- VOX T/R control
- $\pm 9.99\text{kHz}$  Clarifier

## Full Featured CW Operation for Portable Operations

- **CW “Semi Break-in”**: The Tx to Rx recovery delay is programmable from 10ms to 2500ms (10ms steps).
- **CW Reverse**: Provides BFO injection on LSB instead of the default USB.
- **CW Pitch Control**: Adjusts TX offset and associated side tone between 300Hz and 1000Hz in 50Hz steps; this allows precise spotting on DX stations. Side tone audio level is adjustable.
- Built-in Electronic CW Keyer, with adjustable speed 4 WPM to 60 WPM, and Weight (Dot / Dash Ratio) adjustable between 1:2.5 and 1:4.5.
- For temporary use, the Microphone [UP] / [DWN] buttons may be set-up to key the “Dot” / “Dash” on CW.

## High Performance Collins® Mechanical Filters for SSB and CW (Optional)

A slot is provided inside the FT-818ND to permit installation of a 2.3kHz, 500Hz or 300Hz optional Collins® Mechanical Filter. The chosen filter will enhance receiver performance.



(SSB Filter)  
• YF-122S (2.3kHz)



(CW Filter)  
• YF-122C (500Hz)  
• YF-122CN (300Hz)

## Base Station Performance

The FT-818ND has base station class performance from a very compact transceiver.

- **IPO (Intercept Point Optimization)**: Bypasses the RX Preamp on HF and 50MHz for improved performance during strong-signal conditions.
- **ATT (Front End Attenuator)**: For more pleasant reception of very strong signals (HF/50MHz).
- **IF Noise Blanker**: For reduction of ignition and other impulse-type noise.
- **IF Shift**: For reduction of adjacent-frequency interference.

## Two Antenna Connectors to Simplify Installation and Operation

The FT-818ND is equipped two antenna connectors, a BNC-type on the front panel and an M-type on the rear panel. For portable and field operation the supplied whip antenna may be connected to the BNC connector. The Menu system allows setting which antenna connector will be selected for the operating bands.



Front Panel (BNC)



Rear Panel (M type)

## 208 Memory Channels

Memory channels can be stored with the Transmit and Receive Frequencies, and 8-character alphanumeric tags. Also, the QMB (Quick Memory Bank) feature allows calling up a pre-set memory and call with one touch, enabling efficient operation.

## Multi-Function Control Keys for Easy Feature Access

The “SELECT” knob, together with the “[A] [B] [C]” keys, provides ease of operation and quick efficient access to the many high-performance features. The convenient “Menu” mode, permits customization of the operating functions.



Select knob

Multi-Function Control Keys

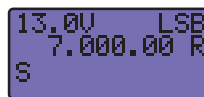
## Multi-Functional Display for Easy Operation

A wealth of information is available on the Display.

- **SSM (Spectrum Scope Monitor)**: Displays receiver activity  $\pm 5$  channels from the operating frequency.
- **Multi-color Display**: The LCD illumination may be set to Blue, Amber or Violet color using the Menu.
- **Double sized frequency display**: Improves viewing in outdoor operation.



Spectrum Scope Monitor



Multi-Color Display



Double sized frequency display

## Versatile Scan Features

Several scanning functions are supported, for handy and comfortable operation.

- VFO Scan
- Memory Scan
- Programmable Memory Scan (PMS)
- Dual Receive
- Priority Scan
- Smart Search

## Equipped with Dedicated Data Connector

Various data communication such as RTTY, PSK 31, and 1200/9600 bps packet communications are supported by the dedicated DATA connector on the back panel. Terminal equipment (TU / TNC) may be easily connect using the optional packet Interface cable (CT-39A).



DATA Connector

## Valuable Features

- Wide-band Receiver (100kHz - 470MHz)
- CAT System control interface
- CTCSS/DCS operation (FM mode)
- ARTS (FM mode)
- ARS (Automatic Repeater Shift)
- APO (Automatic Power-Off)
- TOT (TX Time-Out Timer)
- Memory / Setting data Cloning



## ■Specifications

General	
Frequency Range	1.8MHz - 50MHz bands
Transmit:	144MHz band, 430MHz band (Amateur bands only)
	5.1675MHz Alaska Emergency Frequency (Depending on the version)
Frequency Range	100kHz - 33MHz
Receive:	33MHz - 56MHz
	76MHz - 154MHz
	420MHz - 470MHz
Modes of Emission	A1A (CW), A3E (AM)
	J3E (LSB/USB), F3E (FM)
	F1D (9600bps packet)
	F2D (1200bps packet)
Channel Step (Minimum)	10Hz (CW/SSB), 100Hz (AM/FM)
Antenna Impedance	50Ω, Unbalanced (Front: Type BNC, Rear: Type M)
Operating Temperature Range	14°F to +140°F (-10°C to +60°C)
Frequency Stability	± 0.5ppm (CW/SSB/AM), ± 1kHz ± 0.5ppm (FM)
Supply voltage	Nominal: 13.8VDC ± 15%, Negative Ground Operating: 8.0 - 16.0V, Negative Ground FBA-28 (w/8 "AA" Alkaline Cells): 12.0V SBR-32MH (Ni-MH Battery Pack): 9.6V
Current Consumption	Squelched: 300mA (Approx.) Receive: 450mA Transmit: 2.4A (HF/144MHz band), 2.7A (430MHz band)

Case Size (W×H×D)	5.31" × 1.5" × 6.50" (135 × 38 × 165mm)
Weight (Approx.)	1.98lbs (900g) without battery, antenna and Microphone

Transmitter	
Output Power	6W (SSB/CW/FM), 2W (AM Carrier) @13.8VDC
Modulation Types	SSB Balanced Modulator AM Low Level (Early Stage) FM Variable Reactance
FM Maximum Deviation	FM: ±5kHz FM-N: ±2.5kHz
Spurious Radiation	-50dB (1.8 - 28MHz bands) -60dB (50/144/430MHz bands)
Carrier Suppression	at least 40dB
Opp. Sideband Suppression	at least 50dB
Bandwidth	J3E(SSB) less than 3kHz A1A(CW) less than 500Hz A3E(AM) less than 6kHz F3E(FM) less than 16kHz
SSB Frequency Response	400Hz - 2600Hz (-6dB)
Microphone Impedance	200 - 10kΩ (Nominal: 600Ω)

Receiver			
Circuit	SSB/CW/AM/FM	Double-Conversion Superheterodyne	
Type	WFM	Single-Conversion Superheterodyne	
Intermediate Frequencies	SSB/CW/AM/FM	(1st) 68.33MHz / (2nd) 455kHz	
	WFM	(1st) 10.7MHz	
Sensitivity	100kHz - 500kHz	—	—
	500kHz - 1.8MHz	—	32μV
	1.8MHz - 28MHz	0.25μV	2μV
	28MHz - 30MHz	0.25μV	0.5μV
	50MHz - 54MHz	0.2μV	0.32μV
	144/430MHz bands	0.125μV	0.2μV
	(IPO, ATT off, SSB/CW/AM = 10dB S/N, FM = 12dB SINAD)		
Selectivity	(Mode)	(-6dB)	(-60dB)
	SSB/CW	2.2kHz	4.5kHz
	AM	6kHz	20kHz
	FM	15kHz	30kHz
	FM-N	9kHz	25kHz
	SSB	2.3kHz	4.7kHz (-66dB) *1
	CW	500Hz	2.0kHz *2
	CW	300Hz	1.0kHz *3
IF Rejection	60dB		
Image Rejection	70dB (HF/50MHz Amateur bands) 60dB (144/430MHz Amateur bands)		
AF Output	1.0W (8Ω, 10% THD or less)		
AF Output Impedance	4 - 16Ω		
Conducted Radiation	less than 4nW		

\*1 optional YF-122S installed \*2 optional YF-122C installed  
\*3 optional YF-122CN installed

## ■Options



MH-36E8J  
DTMF Microphone



MH-31A8J\*1  
Hand Microphone



M-1  
Reference Microphone



M-100  
Dual-Element Microphone



MD-200A8X  
Ultra High fidelity  
Desktop Microphone



MD-100A8X  
Desktop Microphone



YH-77STA  
Lightweight Stereo Headphone



YF-122S(2.3kHz)  
Collins® Mechanical Filter



YF-122C(500Hz)  
YF-122CN(300Hz)  
Collins® Mechanical Filter



SCU-17  
USB Interface Unit (Requires CT-62)



ATAS-25  
Active-Tuning Antenna  
(Manual Type)



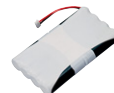
CT-39A  
Packet Interface Cable



CT-62  
CAT Computer Interface  
Cable



CSC-83  
Soft Case



SBR-32MH\*1  
Ni-MH Battery Pack  
(9.6V 1900mAh)



PA-48\*1  
Battery Charger

\*1 The same as the supplied Accessory

About this brochure: We have made this brochure as comprehensive and factual as possible. We reserve the right, however, to make changes at any time in equipment, optional accessories, specifications, model numbers, and availability. Precise frequency range may be different in some countries. Some accessories shown herein may not be available in some countries. Some information may have been updated since the time of printing; please check with your Authorized Yaesu Dealer for complete details.

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