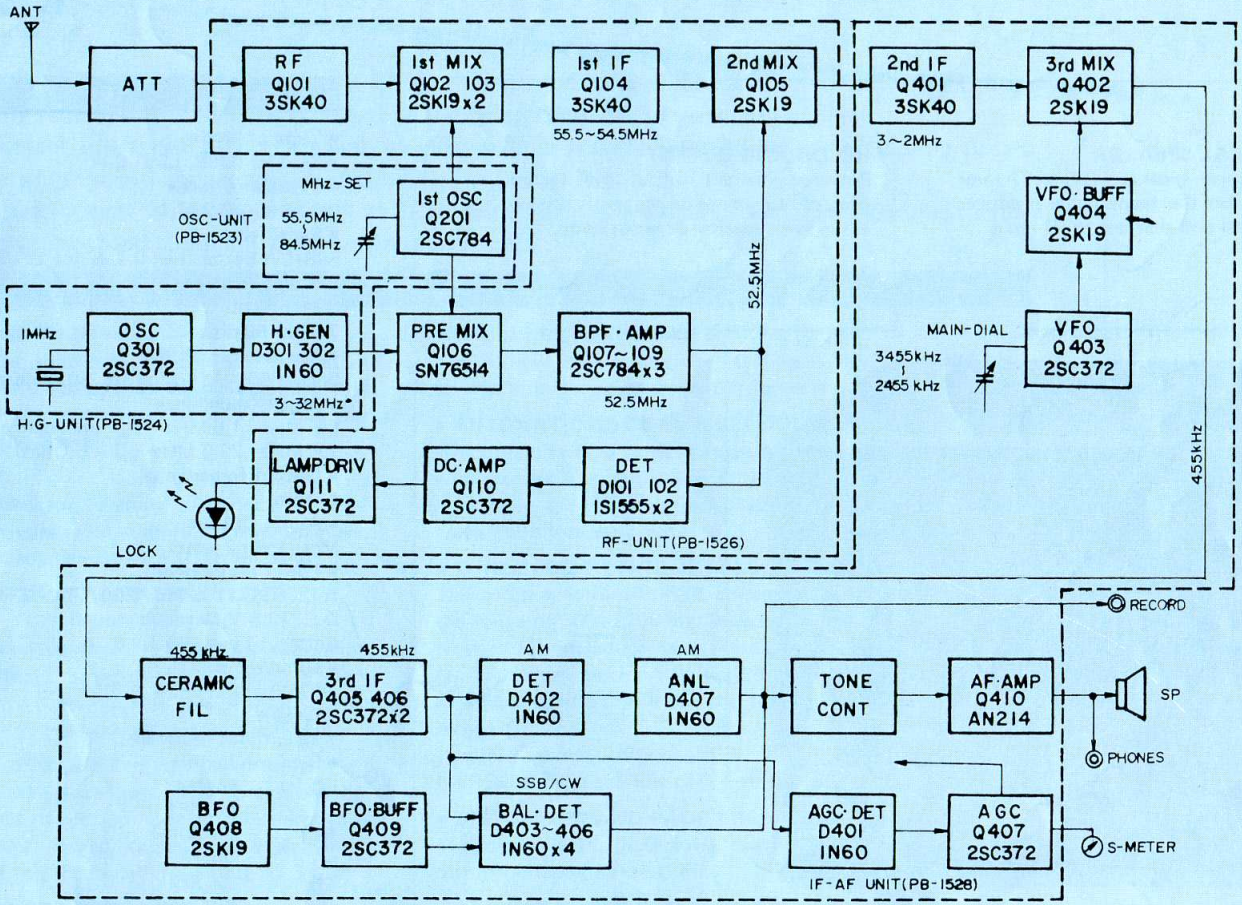
FRG-7 COMMUNICATIONS RECEIVER

YAESU

BLOCK DIAGRAM



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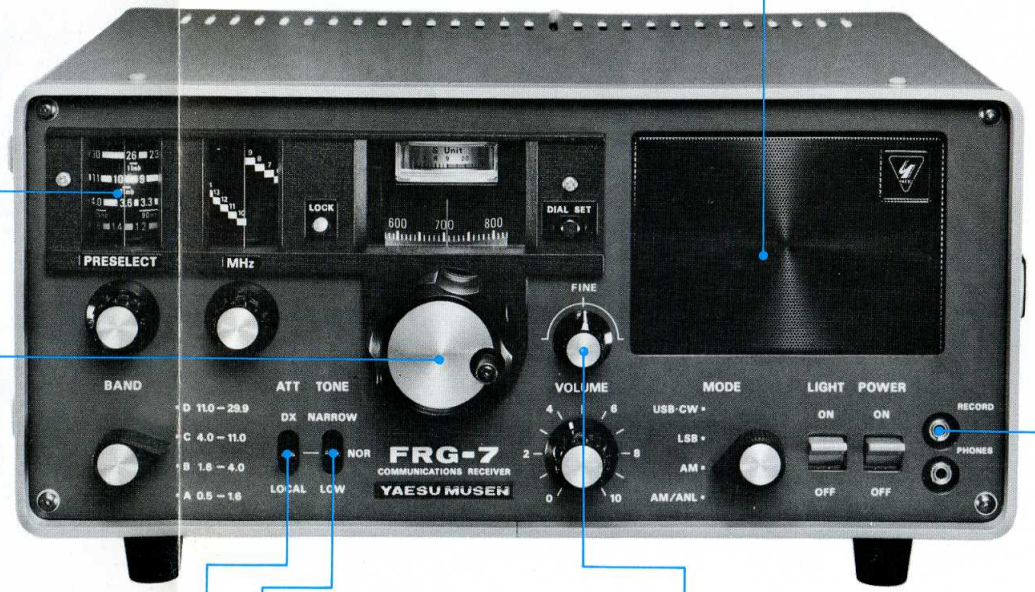
Printed in Japan

■ **PRESELECTOR**
The preselector control tunes the antenna and R.F. circuits of the receiver front-end. The scale of this dial is calibrated with the frequencies showing the correct setting for the various bands. It should be fine-tuned for best reception.

■ **ELLIPTICAL SPEAKER**
The elliptical speaker (125 x 77 mm) mounted on the front panel produces the clearest and sharpest tonal range.

■ **RECORDING OUTPUT**
Provides constant output level regardless of the volume control setting, either with speaker or headphone.



■ **MAIN TUNING**
The main tuning dial determines the receiving frequency. The stable VFO combined with precision dial mechanism permits 5 kHz direct dial readout. Presetting the dial on the desired frequency allows you to stand-by for anticipated stations to come in.

■ **TONE SELECTOR**
Proper selection of the switch position will reduce noise level and increase readability.

■ **R.F. ATTENUATOR**
It is effective in reception of local or high powered stations.

■ **FINE TUNING**
The FINE TUNING control is used for precise tuning of the received signal. The main tuning dial is calibrated to the frequency with the fine control at centre.

SPECIFICATIONS

- **Type of Mode:**

A.M. SSB (USB, LSB) C.W.

- **Frequency range**

0.5 MHz–29.9 MHz

- **Sensitivity**

SSB/CW better than 0.7μV for 10 db S/N at 30% modulation

- **Selectivity**

3 kHz–6 db
7 kHz–50 db

- **Frequency stability**

Within 500 Hz during any 30 minute period after warm-up.

- **Input Impedance**

0.5 MHz–1.6 MHz High impedance
1.6 MHz–29.9 MHz 50–75 Ohm unbalanced

- **Output Impedance**

4 Ohms

- **Audio Output**

More than 2 watts

- **Power requirement**

A.C. 100/110/117/200/220/234 V 50/60 Hz
D.C. 13.5 V Negative ground
Battery: Type UM-1 x 8

- **Dimensions**

340(W) x 153 (H) x 285(D) mm

- **Weight**

7 kg without batteries

- **Semiconductors**

I.C.	AN214	1
	SN76514N	1
FET	3SK40M	3
	2SK19GR	6
TR	2SC372Y	8
	2SC784R	4
	2SD313	1
Ge diode	1N60AM	9
SI diode	1S1555	2
	V06B	3
Zener	WZ110	1
	BZ091	1

The model FRG-7 is a precision built high performance communication receiver designed to cover the band from 0.5 MHz–29.9 MHz. Its state of the art technology offers an unprecedented level of versatility.
The Wadley Loop System (drift cancellation circuit) coupled with a triple conversion super heterodyne system guarantees an extremely high sensitivity and excellent stability.
It provides complete satisfaction to amateurs as well as BCL's with superb performance and many features such as RF attenuator, selectable tone, and automatic noise suppression circuit.

FEATURES

■ GENERAL COVERAGE

The model FRG-7 is a solid-state AC-DC communication receiver designed to cover the band from 0.5 MHz to 29.9 MHz with extremely high performance. It can be used as a stand-by receiver by Amateur Radio Operators.

■ WIDE VERSATILITY

The receiver can be used for listening to various types of communications, commercial radio stations on medium wave, international short wave, amateur bands and citizen band.

■ EXCEPTIONAL SENSITIVITY AND EXCELLENT STABILITY

The Wadley Loop System coupled with a triple conversion super heterodyne system guarantees an extremely high sensitivity and excellent stability. The dial indicator with 1 MHz VFO range will enable you to enjoy simplified tuning.

■ 5 KHZ DIRECT DIAL READOUT

The extremely stable VFO equipped with precision dial mechanism permits 5 kHz direct dial readout, thus permitting presetting of dial for your desired station even when not on the air with assurance of "on the target" reception.

■ ACCEPTS ALL TYPES OF MODES

It features receiving modes of SSB (USB LSB) for two way communications, C.W. for Morse Code communication and A.M. for general broadcasting stations.

■ R.F. ATTENUATOR

The selectable three position RF attenuator is effective when tuning local or high powered stations. Tuning for a weak desired station adjacent to an strong unwanted signal, proper selection of DX or LOCAL position will help reduce the interference considerably.

■ EXCELLENT SELECTIVITY

The ceramic filters guarantee sufficient bandwidth and high selectivity by rejecting unwanted signals and interferences.

■ AUTOMATIC NOISE SUPPRESSION CIRCUIT

When impulse type noise is experienced the AM/ANL position will activate the automatic noise suppression circuit which effectively eliminates all pulse type noise, permitting you to enjoy noise free reception.

■ THREE POSITION TONE SELECTOR

The audio spectrum in SSB communication is limited within the range of 300–2700 Hz. Broadening the bandwidth of the receiver will introduce more noise or interference unnecessarily. The tone selector will limit the audio spectrum and its selectable positions will increase readability of the signal being received.
It offers three position: LOW (high cut), NORMAL, and NARROW (high and low cut)

■ DISTORTION AND FADE FREE RECEPTION

The active AGC (automatic gain control) circuit assures a distortion fade free reception.

■ ACCEPTS THREE DIFFERENT TYPE OF POWER SOURCE

The receiver can be operated on A.C., D.C., or internal battery supply. When more than two power supplies are connected, it automatically selects the most economical source. The light switch will conserve energy when operated on batteries. The line cord retainer comes in handy in portable operation.