

# SP-940

## SPEAKER

We're happy that you've chosen the Model SP-940 for your receiving needs. It has undergone stringent quality control inspection and tests prior to packing and has left our factory in perfect operating condition. Please inspect your SP-940 carefully for any signs of damage in transit. If the unit is damaged, immediately notify the sales representative from whom you purchased the unit.

### ■ GENERAL

Your SP-940 is a sophisticated external speaker designed to further enhance operation of HF Transceivers. It features precise audio response and matches the **Trio-Kenwood** HF transceiver in appearance. Its advantages are:

- \* Built-in selectable tone filters to attenuate high or low frequency response inputs;
- \* Two channel selectable input and the headphone output through the tone filters.

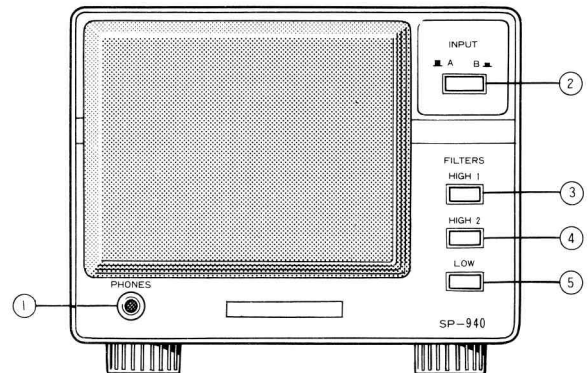
### ■ SPECIFICATIONS

<b>Speaker used:</b>	10 cm dia.
<b>Rated Input:</b>	1 Watts
<b>Impedance:</b>	8 $\Omega$
<b>Frequency response:</b>	160 Hz to 7 kHz.
<b>Filter cut-off frequency,</b>	
<b>LOW:</b>	400Hz, -3dB,
<b>HIGH 1:</b>	3.0 kHz, -3dB
<b>HIGH 2:</b>	1.2 kHz, -3dB.
<b>HIGH 1 + HIGH 2:</b>	900Hz, -3dB.
<b>Filter attenuation:</b>	-6dB/oct.
<b>Dimensions:</b>	W. 180 mm (7-1/16") H. 140 mm (5-1/2") D. 288 mm (11-1/3")
<b>Net weight:</b>	1.9 kg. (4.2 lbs.)
<b>Accessories furnished:</b>	Speaker cord, 1 pc. (E30-1711-15) 1 pin plug, 1 pc. (E14-0101-05)

### ■ PACKING

Please save the shipping cartons and packing material. They have been designed for the safe shipping of your unit. There will be considerably less chance of damage if you ship your unit in its original cartons and packing.

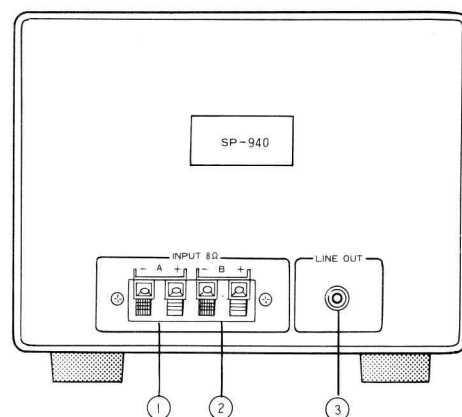
### ■ CONTROLS AND THEIR FUNCTION



#### Front Panel

- ① **PHONES connector**  
Standard headphone output, through the tone filters.
- ② **INPUT Switch**  
Selects one of two audio inputs.
- ③ **FILTERS, HIGH 1 Switch**  
This switch attenuates frequencies above 3.0 kHz; -3 dB at 3.0 kHz.
- ④ **FILTERS, HIGH 2.**  
This switch attenuates frequencies above 1.2 kHz; -3 dB at 1.2 kHz.
- ⑤ **FILTERS, LOW Switch**  
This switch attenuates frequencies below 400 Hz; -3 dB at 400 Hz.

**Note:** When this switch is used with the HIGH 1 and HIGH 2 ON, frequencies above 900 Hz; -3 dB at 900 Hz are attenuated.

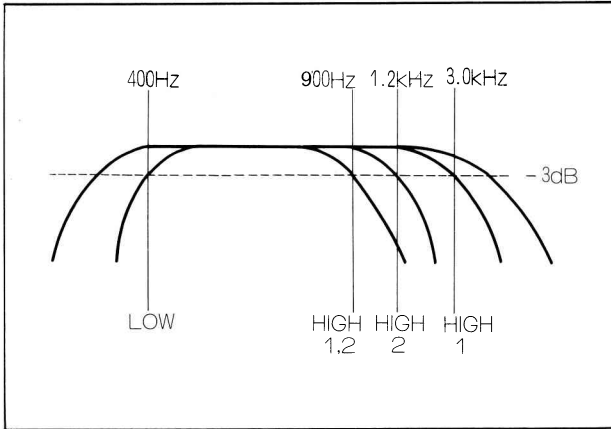


#### REAR PANEL

- ① ② **INPUT connectors**  
Accepts audio output from two sources.
- ③ **LINE OUT connector**  
Standard line output through the filters for RTTY, SSTV, or similar use.

## USING COMBINED FILTERS

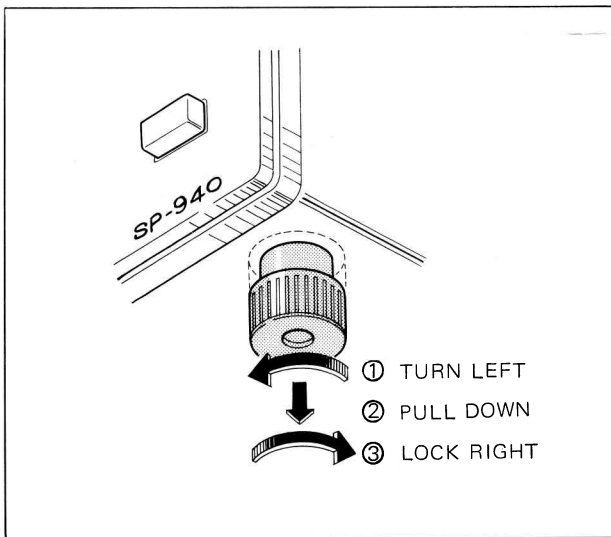
1. When both HIGH 1 and LOW filters are engaged, the pass bandwidth ranges from 400 Hz to 3.0 kHz.
2. When both HIGH 2 and LOW filters are engaged, bandwidth is 400 Hz to 1.2 kHz.
3. HIGH 1, HIGH 2 and LOW filters are engaged, bandwidth is 400 Hz to 900 Hz.



## FRONT FEET

The front panel can be elevated for operating convenience by extending the front feet.

Turn the front feet left and pull down.  
Then turn right to lock.

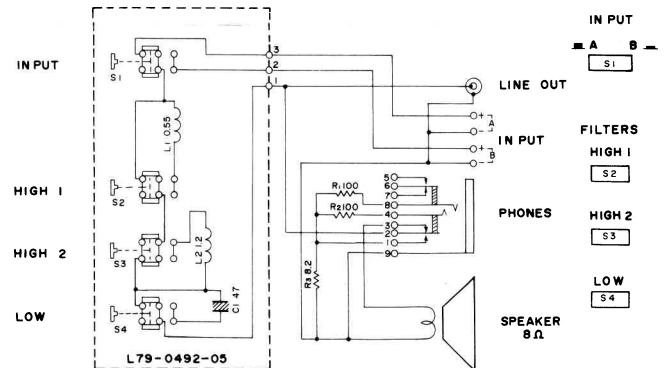


## USE OF FILTERS

In general, it is desired that a CW, AM, or similar transmission be received clearly within the usual communication audio bandwidth, 300 Hz ~ 3 kHz. However, QRM, QRN or RFI may lower the overall signal-to-noise ratio at the receiver, resulting in degraded reception. In theory, as the pass-band width of the IF stages is narrowed, the equivalent noise bandwidth will also narrow, thus improving the signal-to-noise ratio. Alternately, the bandwidth of the AF stage can be narrowed to attenuate the noise component, enhancing reception.

Proper filter selection depends on transmission mode and type of noise encountered.

1. SSB: use the HIGH 1 and LOW filters, or the HIGH 2 and LOW filters. In more severe cases, use both HIGH 1 + HIGH 2, and LOW filters.
2. CW: use the HIGH 1 and HIGH 2 filters or HIGH 1 + HIGH 2 and LOW in combination.



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