

5 WATT 23 CHANNEL CITIZENS BAND
SYNTHESIZED TRANSCEIVER
FOR MOBILE/BASE/PORTABLE USE

MODEL **PW-5024**



OWNER'S GUIDE

Tokai
COMMUNICATION APPARATUS CORPORATION

FUNCTION OF CONTROLS

Volume control and On—Off switch :

The volume control varies the sound out put of the loud speaker.

To turn set on and to increase volume, turn on-off switch clockwise.

To turn set off or to decrease volume, turn on-off switch counterclockwise.

Channel Selector :

The center control on the front panel selects both receiver and transmitter frequencies simultaneously.

Make sure the switch is set to desired channel.

Squelch Control :

The squelch control is designed to reduce excessive noise such as highline interference, ignition noise, etc.. Turn the control fully counterclockwise and increase the volume untill noise or a signal is heard.

When only noise is present, turn the squelch control clockwise until the noise is blanked out.

GENERAL OPERATING INSTRUCTIONS

1. Check to see if proper connections have been made on power cables, antenna system, microphone.

Be sure that the transceiver is properly grounded if not mounted directly on a metal surface.

2. Select the channel you desire to operate on by rotating the channel selector switch.

3. To transmit, press the push-to-talk switch and hold it down.

The illumination lamp at the upper left side of the front visually indicates transmitting condition.

Release this switch to receive.

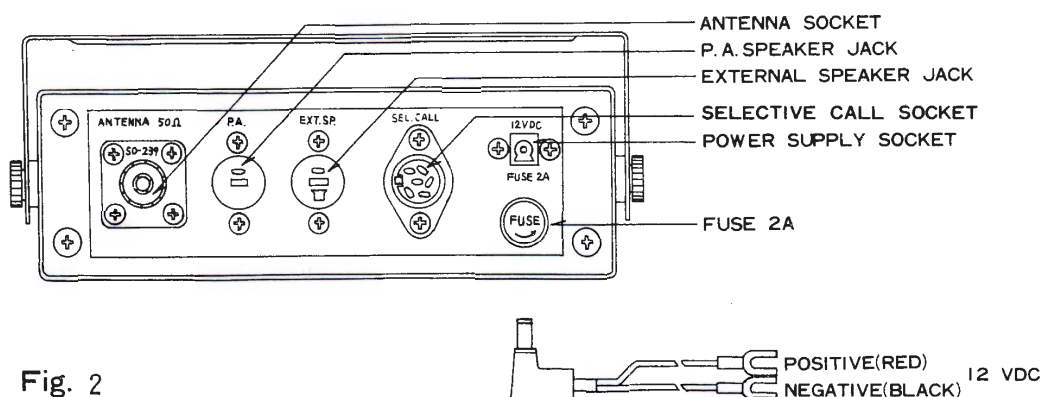
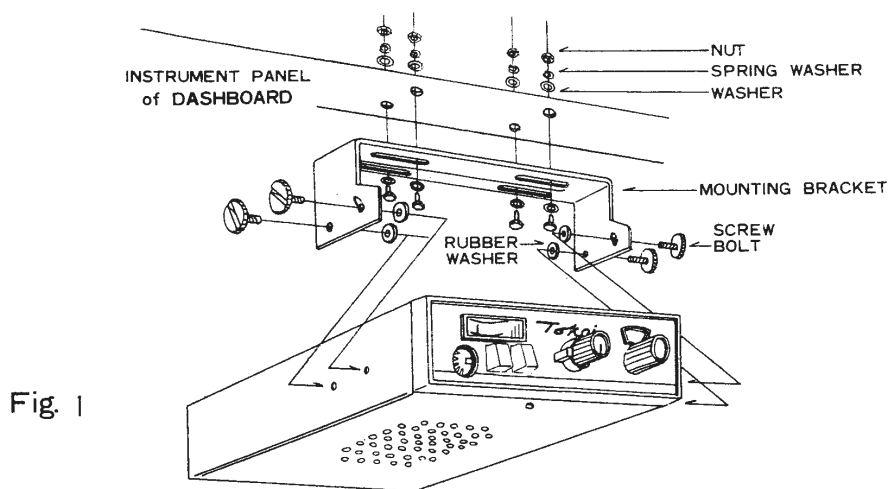
The easy-to-read combination "S"/RF meter also indicates relative RF output power.

4. Adjust receiver noise level with the "Squelch Control".

MOBILE INSTALLATION

Mounting - Select a suitable place under the dashboard and drill holes matching the ones on the Mounting Bracket. Securely fasten the Bracket with the screws and nuts and then install Unit with knob screws. Don't install near heater outlets.

Antenna - It is most suitable to install a CB Mobile Whip Antenna, $\frac{1}{2}$ wave, 102 inches long and 50 ohm impedance. Loading Coil Antenna can also be used. Connect the Antenna coaxial plug to the Socket located at the right side of the unit.



power cord - This unit can only be used on a 12 volts negative ground car. The Red Cord is to be connected to the $\oplus$ side of the car battery and the Black Cord to the car body $\ominus$. If the indicator lamp does not glow when the power switch is "ON", check the Fuse: 2 A fuse should be used for replacement.

External speaker — A speaker jack is provided for use with an 8 ohm external speaker. Use a plug for this jack, when the plug is inserted, the built-in speaker in the set is automatically disconnected.

ected and speaker which you have connected in the plug operates. Note : The external speaker will not work if either terminal is connected to the car body or ground.

Public address system — To use your new PW-5024 as a public address system, connect any standard 8 ohm PA speaker to PA jack. Keep pressing down the P.A. switch during you speak through P.A. system.

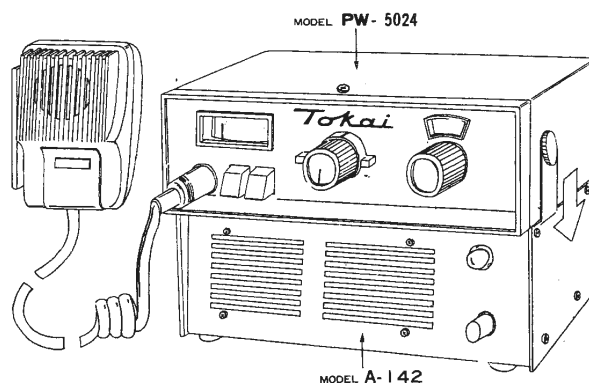
BASE INSTALLATION

Antenna — When the PW-5024 is used as a base station, any Citizen's Band beam, dipole, ground plane or vertical antenna will provide greater coverage, and since it is essentially non-directional. It is ideal in base station to mobile operation.

From base station to base station or point-to-point operation a directional beam will give greater distance even under adverse conditions.

Generally, a maximum of 26 feet of coax lead-in cable should be used due to line-losses, however, a desirable antenna location may justify the loss in extra lead in length.

Fig. 3



PORTABLE INSTALLATION

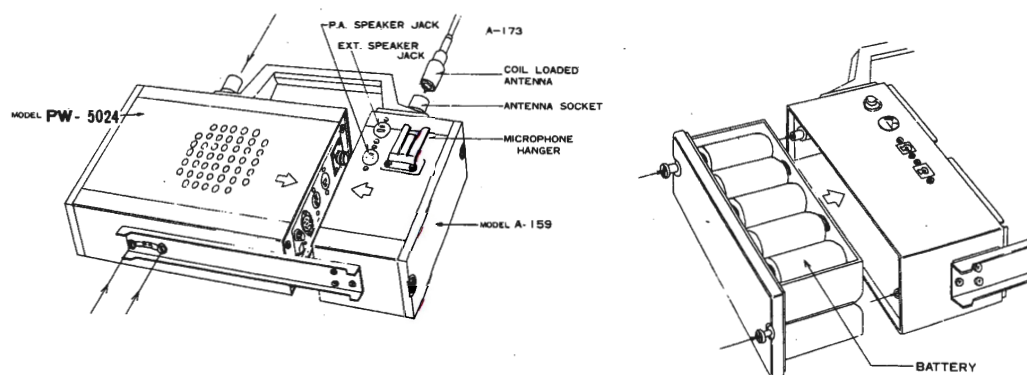
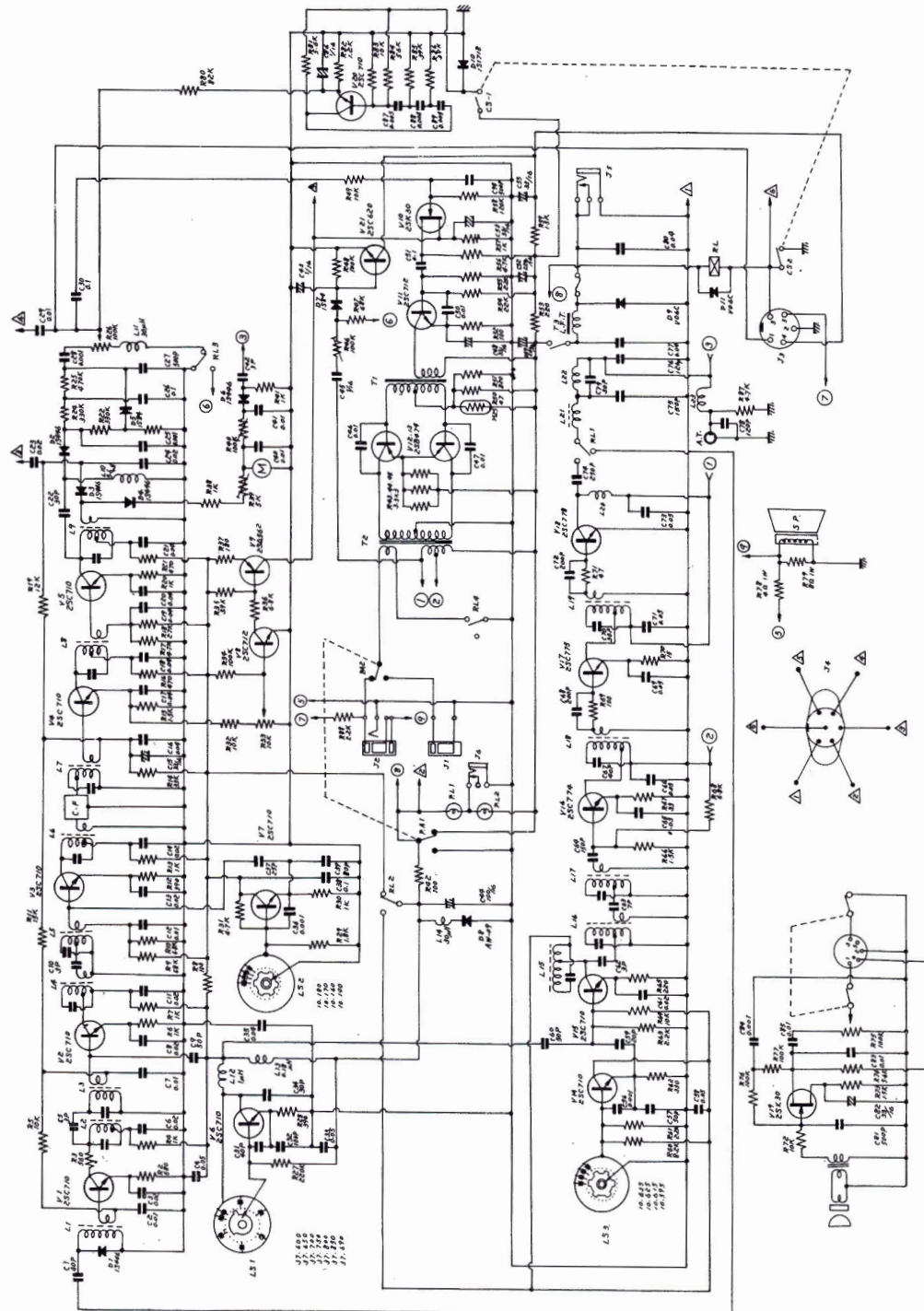


Fig . 4

1. Open back cover and insert 8 flashlight "C" cells, or 10 pcs. of 1.25 V. nickel-cadmium battery carefully observing polarities. Check to see that batteries are firmly seated.
2. Plug power supply line cord to the socket of PW-5024 and attach to Tokai PW-5024 transceiver correctly.
3. Set Tokai A-173 coil-loaded antenna.
4. Turn the "ON-OFF & VOLUME" switch to "ON" position.
5. Battery Checker Meter: pushing the battery button, it is good for to operate when the needle is in blue zone. When the needle is in red zone, the battery requires replacing or charging.

CAUTION: Use eight "C" carbon 1.5 volt cells with dummy batteries or ten 1.25 volt cells with dummy batteries removed.

PW- 5024 SCHEMATIC DIAGRAM



Printed in Japan

SPECIFICATIONS:

General ;	18 Transistor 2 FET 11 Diode 1 Thermistor	
	Synthesizer System 23 Channel All Crystal Controlled	
	Dual Conversion Super Heterodyne Receiver	
	Effective Automatic Noise Limiter with Spelch Control	
	R.F. Power and Signal Strerngth Meter	
	with PA Jack, Ext. Speaker Jack and Illumination Channel Indi -	
	cator.	
Receiver :	Sensitivity:	0.5uv at S/N 10db ratio (1000 Hz. 30% Mod.)
	Selectivity :	50 db at 10 kHz.
	Image Rejection :	28 MHz at more than 30 db 48 MHz at more than 50 db
	Audio Output power :	Reference power at 3W Max. power 4 W
	Stability Factor :	Normal condition in the situation of -10°C to +50°C and 10.5V to 16.5 V
	Current Drain :	Zero signal at 250 mA Max. power 1 A
	Sensitivity Error:	Within 3 db
Transmittiting:	Final RF Input power :	Max. 5 W
	RF Output power :	Nominal 3 W
	Current Drain :	Non modulation 1 A 100% modulation 1700 mA
	RF Output Power Tolerance:	Within 1 db
Dimention:	166Wide × 62 Deep × 208High (m/m)	