

**ROBYN****PORTA SCAN  
MODEL 2000B**

INSTRUCTION BOOK

SCANNING MONITOR RECEIVER

*Serial # 000556***GENERAL DESCRIPTION**

Robyn's NEW VHF/FM 3/way PORTA-SCAN monitor receives four (4) fixed frequencies in the 144-174 MHz range and four (4) more frequencies in the 25-55 MHz range.

Robyn has some unique features too, which you will not find in many other scanners now being manufactured. Moreover, at your own choice, you are able to use all eight (8) frequencies in the High Band only or all eight (8) frequencies in the Low Band only.

1. Our unit is compact, easy for mobile installation and portable use, because it can operate from standard pen-light batteries. (Rechargeable 1.5 nickel cadmium are recommended.)
2. Scanning is performed either automatically or manually.
3. The Robyn 3/way PORTA-SCAN has a 1.5 second delay scanning switch.
4. The Robyn 3/way PORTA-SCAN will operate from 12 volt DC, 117 volt AC, or standard pen-light batteries. Rechargeable 1.5 volt batteries are recommended.
5. The Built-in swivel antenna will allow you to position your antenna in any direction for best results. 1/2 wave and retractable is another feature not found in many other sets. The external antenna jack will allow you to use your standard mobile antenna while using mobile.
6. The Robyn 3/way PORTA-SCAN has its own built-in speaker but if needed, you can install your own external speaker. An external speaker jack is provided at the rear of the set.
7. Switches located on the upper cabinet will allow you to skip any frequency not wanted while scanning.
8. Three (3) Integrated Circuits, Twenty-six (26) silicon transistors assure extreme sensitivity. (Completely solid state.)

## CRYSTAL INSTALLATION

Suitable Crystals must be installed before operation.

To install Crystals:

1. Remove the four Phillip Screws on the Top cover. (two each side.)
2. Remove this top cover carefully. You will see the crystal sockets in one line.
3. Install crystals in the sockets according to the channel number. Be careful, Crystal Pins and Sockets are easily damaged or bent if you handle roughly.

**IMPORTANT: CRYSTALS HAVE TO BE SELECTED CAREFULLY IN ACCORDANCE WITH THE BASIC RECEIVING FREQUENCY INDICATED ON THE BACK OF THE RECEIVER.**

**CRYSTAL FREQUENCY:**

$$\text{High Band: } \frac{\text{Receiving Freq.} - 10.7 \text{ MHz}}{3}$$

$$\text{Low Band: } \text{Receiving Freq.} + 10.7 \text{ MHz}$$

It is recommended you have your dealer install or replace Crystals.

Your Robyn 3/way PORTA-SCAN is shipped without crystals. Your dealer should have stock covering the standard frequencies for your area. If there is no dealer in your area and you wish to purchase crystal certificates covering any channel in the 144 to 174 MHz band and in the 25 to 55 MHz, please write us direct. Your cost will be US\$5.00 prepaid direct from the factory. Approximately 10 days delivery.

## INSTALLATION

### A) MOBILE STATION:

To install your Robyn 3/way PORTA-SCAN in your automobile, follow these instruction:

1. Select the best place to mount the set.
2. Install the mounting bracket as desired.
3. Attach the set to the bracket and tighten the two mounting screws on each side of the bracket.
4. To use the Car Antenna, insert the Motorola type plug into the External Antenna Jack at the back of the set.

**NOTE:** Make sure to extend the car antenna about 20" to match 150 MHz Band. Approximately 60" to match 50 MHz. See your dealer when you wish to use any other type antenna.

5. Plug in DC Cord to the set.

Connect Red (Positive) Cord with positive (+) Pole of Car Battery (12V) and Black (Negative) Cord with Negative (-) Pole. Make sure to keep correct connection. Otherwise, the set will be damaged.

## B) FIXED BASE STATION:

To use your Robyn 3/way PORTA-SCAN as a fixed base station:

1. Pull out the built-in swivel antenna to its full length.
2. Set the antenna in the best direction after trial operation according to the signal condition.
3. Connect the Jones plug to your scanner first before you plug it into the 117 volts AC outlet.

The Built-in Swivel Antenna is satisfactory to operate efficiently in the area of high signal strength. When the set is used in areas of low signal strength, use a Ground Plane Antenna or ask your dealer what type of antenna to use.

## C) PORTABLE STATION:

Your Robyn 3/way Porta-scan will operate from its own power source. (standard pen-light batteries) or Robyn's special battery pack No. 10S-150. This is a nickel cadmium rechargeable pack delivering 12 volts. Your scanner will automatically recharge this battery when plugged into the 117 volts AC circuit or while operating in your automobile. The suggested list price on this rechargeable battery is approximately \$21.95. Ask your dealer for this optional accessory.

**It might be noted that type AA nickel cadmium penlight batteries are 1.25 volts which will only give 10 volts when replacing standard penlight cells which are 1.5 volts. — We do not recommend the 1.25 volt battery because of this reason. For proper performance 12 volts should be applied.**

# OPERATION

## A) PREPARATION

1. Confirm correct connection of Power Supply Cord (DC or AC).
2. Check External Speaker connection when this speaker is to be used.

## B) AUTOMATIC SCANNING

1. Set the Slide Switch on the position "SCAN" or "DELAY" according to the type of scanning desired. This switch should be in the Delay position only when both stations are on the same frequency. With the Delay you are able to receive the answering station, otherwise your scanner will immediately start scanning or searching for another station. This is fine if the answering station is on another frequency, then the Delay would not be needed.
2. Turn the "SQUELCH" knob fully counter clock-wise.
3. Turn the "VOLUME" knob clock-wise to turn the set "ON".  
Turn the "VOLUME" knob further until you get adequate sound volume.
4. Turn the "SQUELCH" knob clock-wise gradually until the sound fades off. Do not increase squelch control any farther than necessary or the sensitivity will decrease and scanner will not stop on weak stations. The lamps will start to wink showing scanning commencement.

## C) MANUAL SCANNING

1. Set the Slide Switch on the position of "MAN".
2. Repeat the process of B. -2. 3. and 4.
3. Push "CHAN. SEL." Switch each time to change channels.

#### D) BAND SELECTION

Your Robyn 3/way PORTA-SCAN allows you to choose any one of the three type of scanning that you wish. You can fix the selected band setting position of the lever of 3-position slide switch behind the crystal bank.

##### 1) Combination of High & Low Band

Set the lever of 3-position slide switch inside the top cover, at the center position. Channels 1 to 4 receive HIGH BAND and channels 5 to 8 receive LOW BAND. (Keep correct frequency for each band when you have crystals installed.)

##### 2) High Band

Set the inside lever switch Right as viewed from the Front Panel side. In this case, all the channels from ch.1 to ch.8 receive HIGH BAND.

##### 3) Low Band

Set the inside lever switch Left as viewed from the Front Panel side. In this case, all the channels from ch.1 to ch.8 receive LOW BAND.

#### E) SKIPPING

To skip unnecessary channels, pull individual switches towards you, which is located on the upper portion of the cabinet face.

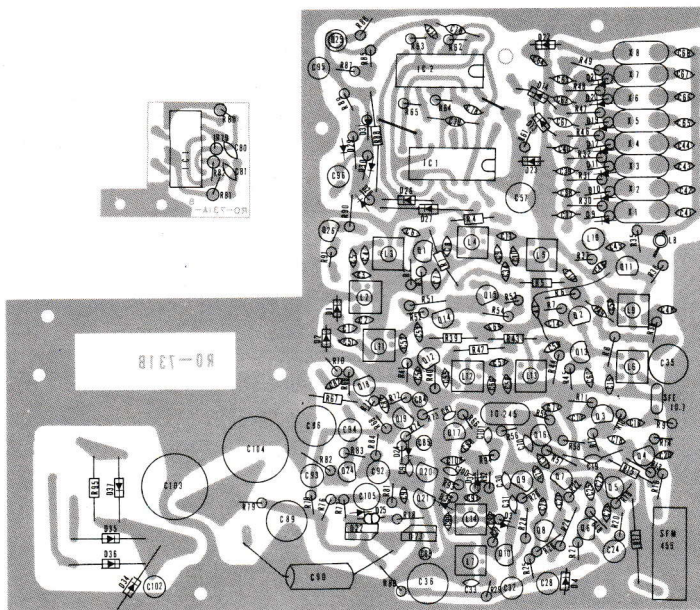
#### F) DELAY SWITCH

A 1.5 second Delay Switch will allow you to hear both sides of the conversation when both stations are on the same frequency.

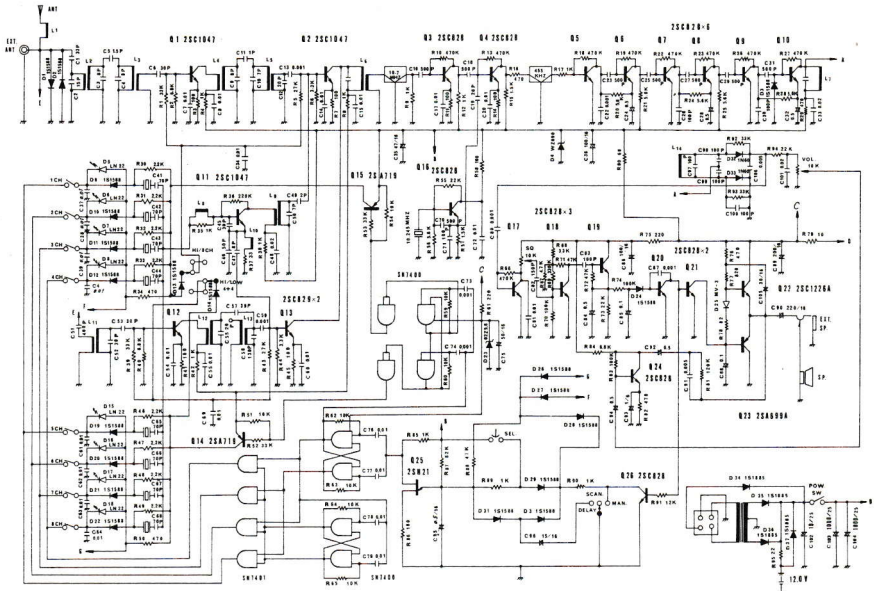
#### G) EXTERNAL SPEAKER SWITCH

Your Robyn 3/way PORTA-SCAN affords you convenience in use of External Speaker. The built-in speaker operates and the External Speaker is kept "OFF" when the External Speaker Switch, located on the upper position of the cabinet cover, is positioned "OFF" even when the External Speaker is connected. Push the Switch to the "ON" side when you wish to operate the External Speaker.

## TOP VIEW



# SCHEMATIC DIAGRAM



# SPECIFICATION

Frequency Range	
Low Band	25–55 MHz
High Band	144–174 MHz
Frequency Separation	
Low Band	25 KHz
High Band	25 KHz
Sensitivity	
Low Band	(20 dB NQ) 0.7 $\mu$ V
High Band	(20 dB NQ) 0.5 $\mu$ V
Squelch Sensitivity (Threshold)	
Low Band	0.5 $\mu$ V
High Band	0.5 $\mu$ V
Selectivity	6dB $\pm$ 7 KHz 50dB $\pm$ 20 KHz
Frequency Deviation	$\pm$ 5 KHz
I.F. Frequency	1st 10.7 MHz 2nd 455 KHz
AF Output Power	(10% dist.) 0.5 Watts (maximum) 0.8 Watts
Antenna	Built-in Swivell Antenna 50 ohm external Antenna
Semiconductor	3 IC, 26 Transistors, 30 Diodes, 8 LED
Power Supply	DC 13.5V, AC 117V
Dimension	W 140mm H 45mm D 180mm
Weight	Approx. 1.6 kgs
High Band Tuned (Center Frequency)	155 MHz
Low Band Tuned (Center Frequency)	40 MHz
Band Width	10 MHz ( $\pm$ 5 MHz)

# ROBYN'S PORTA-SCAN MODEL 2000B (144-174MHz / 25-55MHz)

## WARNING

IT SHOULD BE NOTED THAT THIS SCANNER WILL OPERATE AS ADVERTISED WITH STANDARD PENLIGHT OR ALKALINE BATTERIES. HOWEVER, THESE BATTERIES SHOULD BE USED FOR EMERGENCY USE ONLY, AND THEN REMOVED FROM THE SCANNER AFTER INITIAL DISCHARGE. BATTERY LIFE IS BETWEEN 5 AND 20 HOURS DEPENDING ON QUALITY AND TYPE OF BATTERIES USED. THEY WILL NOT RECHARGE AFTER ONCE BEING RUN DOWN. LEAVING THE BATTERIES IN THE SET IN A RUN DOWN CONDITION WILL OR CAN CAUSE LEAKAGE DUE TO EXCESSIVE CURRENT DRAIN WHILE USING THE SET ON AC OR FROM YOUR MOBILE 12 VOLTS. THESE BATTERIES WILL ACTUALLY HEAT UP DUE TO THIS EXCESSIVE CURRENT DRAIN CAUSED BY THE RUN DOWN CHEMICAL CHANGE IN THE BATTERIES.

THE ROBYN RECHARGEABLE NI-CAD BATTERY NO. 10-S150 WILL NOT CAUSE ANY PROBLEMS AND CAN BE LEFT IN THE SET AT ALL TIMES. REFER TO YOUR OPERATING MANUAL IF MORE INFORMATION IS NEEDED.

Do not attempt any adjustments without proper equipment and knowledge. The Q factor of these coils is extremely high so only a  $\pm$  of 5 MHz tolerance will give greatest sensitivity.

NOTE: Mobile reception of a POLICE frequency by UNAUTHORIZED personnel is ILLEGAL in some areas. It is the responsibility of the person making the installation to be sure that the user of this receiver is authorized or cleared through the local police department. Under no conditions can Robyn International Inc., the manufacturer of this set, be held responsible for its unauthorized installation or use.

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