

COLLECTORS' CORNER No. 3

The SX 200 Scanning Monitor Receiver

The days of listeners confining activities to the "DC" bands are long gone as the introduction of microprocessor controlled "ears" for VHF and UHF have opened up a whole new world in listening.

The SX 200 is one of many "new breed" receivers using microprocessors, thus eliminating the old process of crystal acquisition and switching. The SX 200 is the superseded version of the original and very popular SX 100, with increased frequency coverage including switchable FM-AM operation.

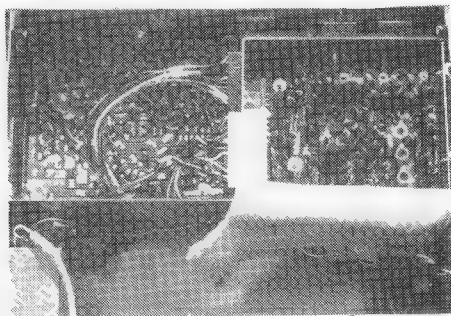


PHOTO 2

Top view of the SX 200 with oscillator/mixer section at right. Note the rectangular metal section at rear of the unit — this is a battery compartment to supply the memory unit for frequency recall when the main unit is switched off.

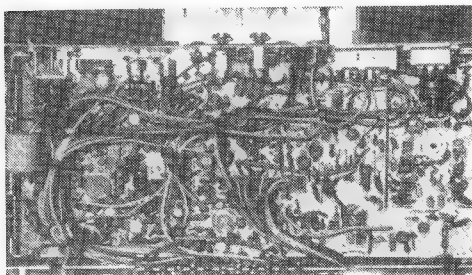


PHOTO 3

Close-up bottom shot of SX 200 showing rear portion neat wiring and lay-out.

The original SX 100 was only able to scan up in frequency. This has been changed on the SX 200 where an upper and lower limit may be programmed into the memory and listeners wishing to find stations may do so between two parameters at ease. As can be seen in the specification table, frequency range is broad and allows a listener to a wide range of services including commercial, aeronautical and amateur.



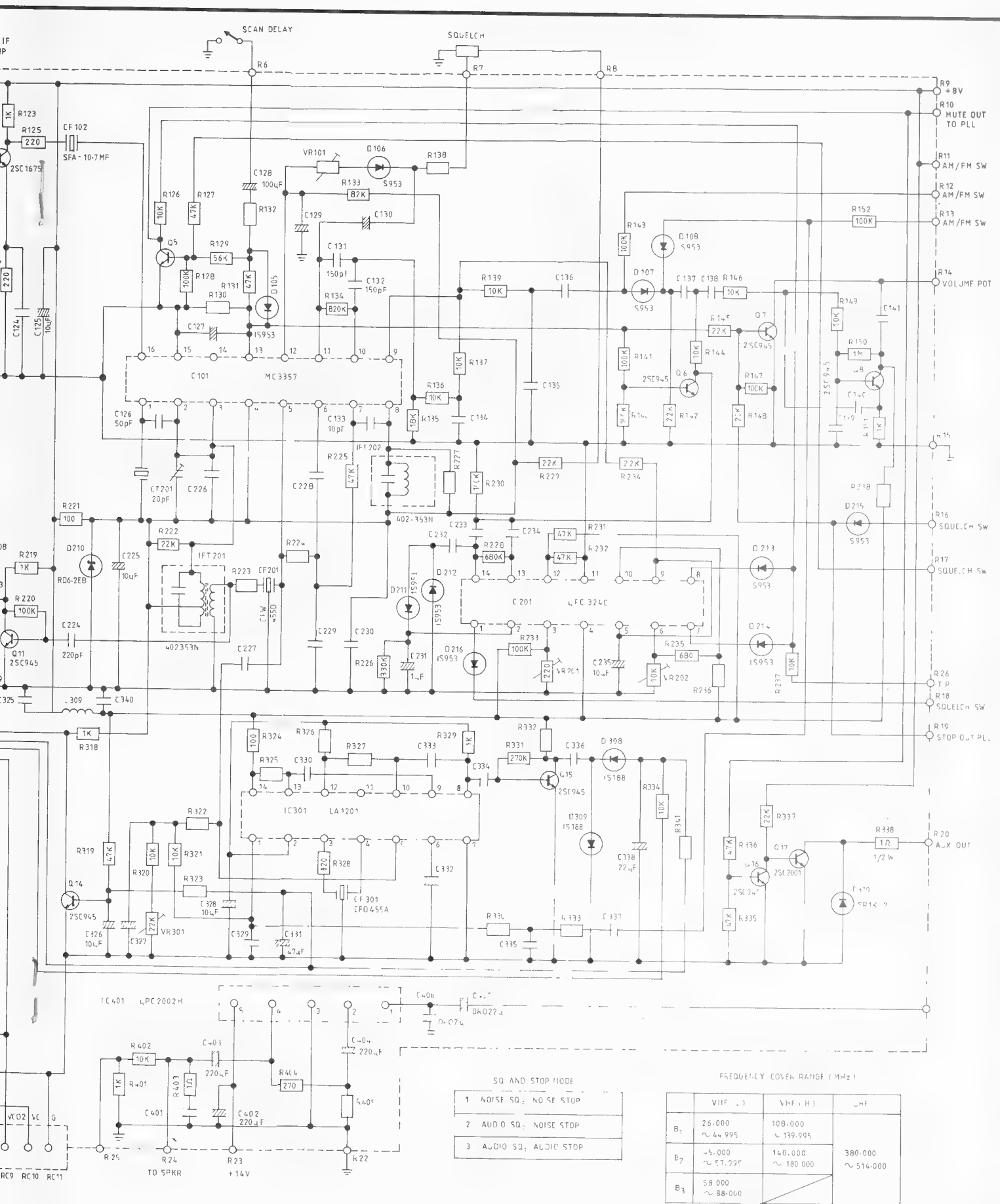
PHOTO 1: Front view of the SX 200.

SPECIFICATIONS

- | | |
|-------------------------------|--|
| 1. Type | FM & AM |
| 2. Frequency Range | a) 26 ~ 57.995 MHz Freq. Space . . . 5 KHz
b) 58 ~ 88 MHz " " . . . 12.5 KHz
c) 108 ~ 180 MHz " " . . . 5 KHz
d) 380 ~ 514 MHz " " . . . 12.5 KHz |
| 3. Sensitivity | FM . . . a) 26 ~ 180 MHz 0.4 uV S/N 12 dB
b) 380 ~ 514 MHz 1.0 uV S/N 12 dB
AM . . . a) 26 ~ 180 MHz 1.0 uV S/N 10 dB
b) 380 ~ 514 MHz 2.0 uV S/N 10 dB |
| 4. Selectivity | FM . . . More than 60 dB at +25 KHz
AM . . . More than 60 dB at ±10 KHz |
| 5. Audio Output | 2 Watts |
| 6. External Speaker Impedance | 4 ~ 8 ohms |
| 7. Power Supply | AC 120V, 50 ~ 60 Hz or DC 12V |
| 8. Antenna Impedance | 50 ~ 75 ohms
Whip or External Antenna with LO/DX Control (20 dB ATT.) |
| 9. Frequency Stability | 26 ~ 180 MHz Within 300 Hz
380 ~ 514 MHz Within 1 KHz
(at normal temperature) |
| 10. Clock Error | Within 10 sec./month |
| 11. Memory Channel | 16 Channels |
| 12. Scan Rate | Fast 8 Channels/sec.
Slow 4 Channels/sec. |
| 13. Seek Rate | Fast 10 Channels/sec.
Slow 5 Channels/sec. |
| 14. Scan Delay Time | 0 ~ 4 sec. |

KEY TO FRONT PANEL FUNCTIONS — SX 200 (Refer Figure 2, page 28)

1. **Keyboard Frequency Selector Buttons (1—0)**
Select any frequency in any of three bands — VHF Low, VHF High, or UHF (including the T-Band).
2. **Stop Button and Dot (•) •ST**
Stops UP or DOWN Seek or Scan A or B Function. Places decimal point in selected frequency.
3. **Limit Write Button LIM**
Sets upper and lower frequencies of search range.
4. **Frequency Entry Button ENT**
Is finally pushed to enter frequency.
5. **Speed Change Button SP**
Controls speed variation for UP or DOWN Seek/Scan Functions.
6. **Frequency Display Button FR**
Interrupts constant time display to show fre-



SQ AND STOP MODE

1	NOISE SQ; NO SE STOP
2	AUDIO SQ; NOISE STOP
3	AUDIO SQ; AUDIO STOP

FREQUENCY COVER RANGE (MHz)

	VHF (L)	VHF (H)	HF
B ₁	26.000 ~ 44.995	108.000 ~ 139.995	380.000 ~ 514.000
B ₂	45.000 ~ 57.995	140.000 ~ 180.000	
B ₃	58.000 ~ 88.000		

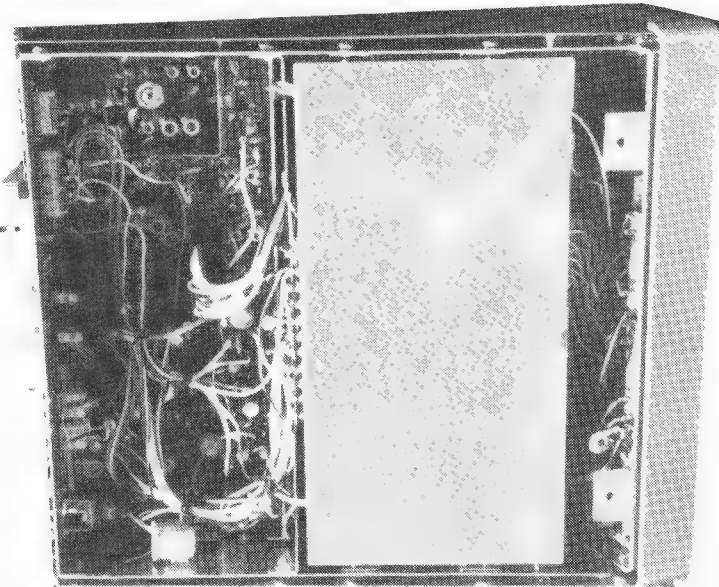


PHOTO 2: Bottom view of the SX 200 interior.

7. **Memory Read/Display Keys M1 — M16**
Programmes your own most-listened to frequencies in any of the three bands. Retrieve any frequency desired when corresponding button is depressed.
8. **Clock Display and Adjustment Button CK**
Brilliant digital LED clock — accurate to the second. Retrieve and adjust time.
9. **Up Button UP**
Starts seeking upwards, moving through frequencies in increments of 5 kHz or 12.5 kHz and stopping on a transmitting channel.
10. **Down Button DOWN**
Starts seeking downwards, moving through frequencies in decrements of 5 kHz or 12.5 kHz and stopping on a transmitting channel.
11. **SCAN-A Button**
Scans the 16 memory channels (M1 — M16) stopping on a transmitting channel.
12. **SCAN-B Button**
Scans selected priority channels within the 16 memory channels, stopping on a transmitting channel.
13. **FM-AM Switch**
Selects modulation of frequency to receive, i.e., Amplitude (AM) or Frequency (FM). If desired AM typed modulation for receiving, push this button. If FM typed required, unlock it.
14. **Power ON/OFF Switch**
15. **Volume Control**
Adjusts sound level as desired.
16. **Squelch Control**
Adjusts to block out unwanted noise.
17. **Fine Tuning**
Small frequency adjustment such kind of figures as 0.0005 MHz is made.
18. **Scan Write and Minute Adjustment Button SW•M**
Programmes priority memory channels for SCAN-B function and minute.
19. **Memory Write and Hour Adjustment Button MW•H**
Programmes desired frequencies into memory channels for SCAN-A function and hour.
20. **Digital Display Panel**
Shows 5-second readout of selected frequencies. Registers passing frequencies during SCAN or UP/DOWN SEEK modes. Shows constant time display (except during SCAN or SEEK modes). Shows time readout when CK button is depressed.

KEY TO REAR FUNCTIONS OF SX 200 SCANNER

1. **Local/Distance Switch** allows for optimum reception in both strong and weak signals. Normally set in Distance (DX) pos. for max. sensitivity. In strong signal areas, stations may interfere with each other. To minimize interferences, move switch to LO for Local position.
2. **Connection for External Antenna.**
3. **Scan Delay Control** delays resumption during pause in transmission. Moving the slide switch to ON varies holding time on a freq. 0-4 secs.
4. **Clock Switch.** For only Clock (Time) display, slide switch ON, thus Power switch is off, time always displays.
5. **Dimmer Control Switch** changes light and darkness (ON) of display.
6. **Connection for Power Cord.**
7. **Output for External Speaker (Optional).**
8. **Recording Output REC.** Connect the input of open reel type or cassette tape deck to record.
9. **AUX Control Output AUX.**
10. **Ground Connection GND.**
11. **SQ 1. 2. 3.**

For further information on the SX 200 contact the Australian distributors, GFS Electronics, 15 McKeon Road, Mitcham, Victoria 3132.

Collectors' Corner is aimed at giving you, the reader, a better understanding of the types of equipment available for various applications in Amateur Radio. Your suggestions and comments regarding content in this section would be appreciated to ensure widespread reader appeal.

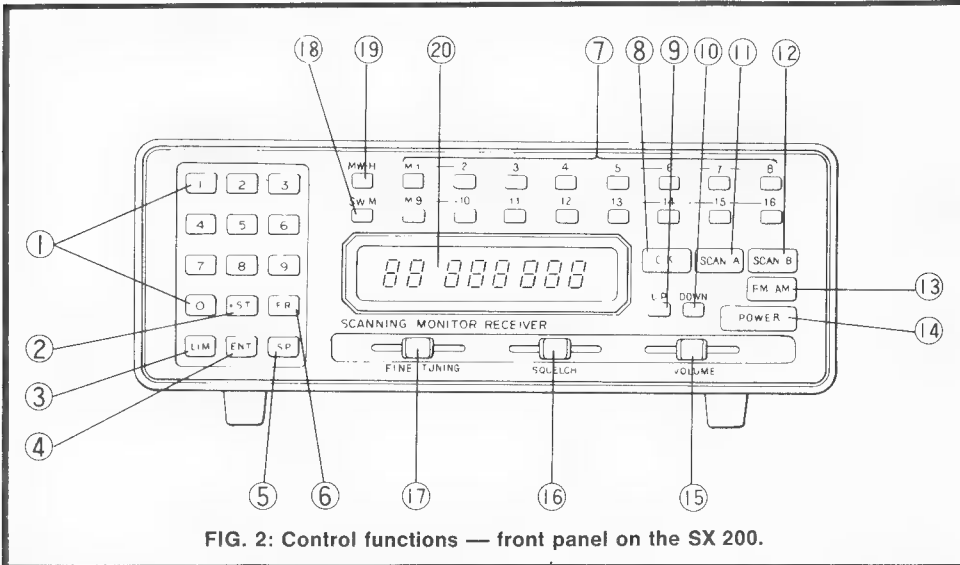


FIG. 2: Control functions — front panel on the SX 200.

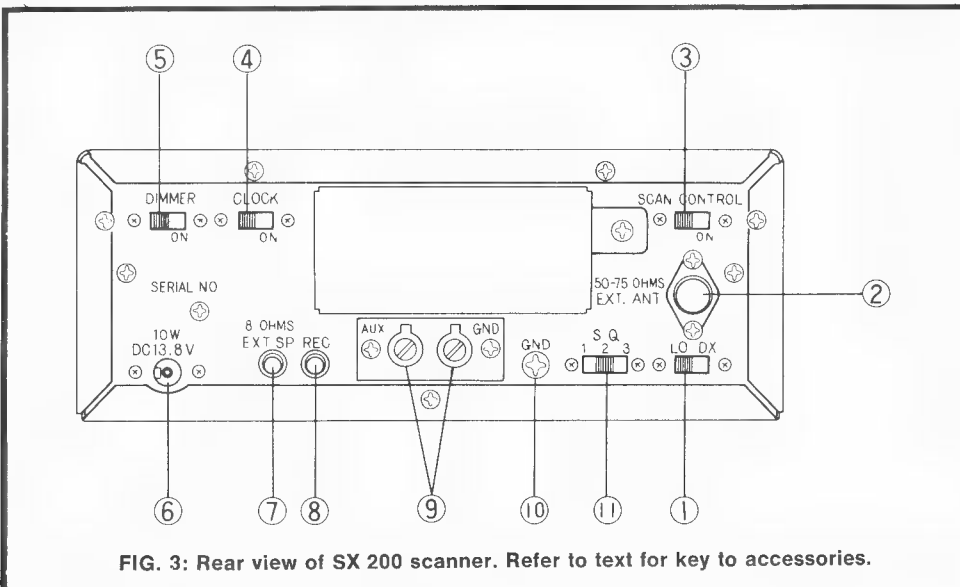


FIG. 3: Rear view of SX 200 scanner. Refer to text for key to accessories.

NEW J.I.L. SX-200

NOW A PROGRAMMABLE
SCANNER THAT DOES IT ALL.
26 - 180MHz, 380 - 514MHz.
AIRBAND, AUSTRALIAN LOW
BAND PLUS ALL THE
OTHERS.



FEATURING:
• Airband
• Australian low-band



The new SX-200 represents the latest STATE-OF-THE-ART technology in the development of Scanning Monitor Receivers. It has many features that previous have not been available on receivers of its type.

For example the tremendous frequency coverage, which encompasses all of the following bands:— HF & UHF CB, 27 & 155MHz MARINE, Australian LOW BAND, AIRCRAFT band, VHF SATELLITE band, 10Mx, 6Mx, 2Mx and 70CMx AMATEUR, VHF HIGH BAND and UHF TWO-WAY band. Other features include Automatic detection of AM or FM on all bands, Squelch Circuitry that can be used to LOCK OUT carrier only and spurious signals, Fine Tuning control for off channel stations, 240 VAC plus 12VDC operation, Squelch Operated Output that may be used to trigger a tape recorder or channel occupancy counter and accurate Quartz Clock.

SPECIFICATIONS

- Type: FM & AM
- Frequency Range: a) 26-57.995 MHz Space...5 kHz
b) 58-88 MHz Space...12.5 kHz
c) 108-180 MHz Space...5 kHz
d) 380-514 MHz Space...12.5 kHz
- Sensitivity: FM...a) 26-180 MHz 0.4µV S/N 12 dB
b) 380-514 MHz 1.0µV S/N 12 dB
AM...a) 26-180 MHz 1.0µV S/N 12 dB
b) 380-514 MHz 2.0µV S/N 12 dB
- Selectivity: FM.....More than 60 dB at —25 kHz
AM.....More than 60 dB at —25 kHz
- Audio Output: 2 Watts
- Ant Impedance: 50-75 ohms
Whip or External Antenna with LO/DX Control (20 dB ATT.)
- Freq. Stability: 26-180 MHz ... Within 300 Hz
380-514 MHz ... Within 1 KHz
- Dimensions: 210 (W) x 75 (H) x 235 (D) mm
8-1/4 (W) x 3-1/4 (H) x 9-1/8 (D) in.
- Weight: 2.8 Kgs.
- Clock Error: Within 10 sec./month
- Memory Channel: 16 Channels
- Scan Rate: Fast8 Channels/sec.
Slow4 Channels/sec.
- Seek Rate: Fast10 Channels/sec.
Slow 5 Channels/sec.
- Scan Delay Time: 0 or 4 sec.

GET YOUR NEW SX-200 NOW!!



\$479

NOW MONITOR AIRCRAFT, POLICE,
AMBULANCE, 10, 6, 2 & 0.7m AMATEUR BANDS,
HF & UHF CB, PLUS HUNDRED MORE.
INCLUDING SERVICES IN THE
AUSTRALIAN LOW BAND



J.I.L.

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