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APPENDIX A: PRODUCT DESCRIPTION

Please see the following page

Topaz₃

MURS-22 Product Description

TruTalk

MURS-22 VHF Portable

The MURS-22 is a full-featured VHF portable programmed for the new License-free Multi User Radio Service frequencies.

FEATURES

- MURS VHF Frequencies, (no license required)
- Range – Up to 5 Miles
- 2 Watt Transmit Power
- 2 Channel Operation
- 5 Pre-programmed User Selectable Frequencies
 - 151.820 MHz
 - 151.880 MHz
 - 151.940 MHz
 - * 154.570 MHz Blue Dot, Factory Channel 1
 - * 154.600 MHz Green Dot, Factory Channel 2
- 38 Standard and 11 Non-standard CTCSS Tones
- Tri-Color LED indicators for
 - Transmit, Carrier, Carrier and Tone
- Rotary Power and Volume Switch
- Automatic Squelch
- Built to MIL STD 810F
- Locking 3.5mm Accessory Jack
- 750 mAh NiMH Battery Pack Included
- Attractive Two-Tone Cabinet
 - Deep Green and Black
- Monitor Button
- Audible and LED Low Battery Alert
- Time-Out-Timer Transmit Inhibit
- Automatic Power Save



ACCESSORIES

Battery – 750 mAh Ni-MH.

Antenna – wide band frequency range 148 - 174 MHz SMA type.

Spring steel belt clip – Screw on type.

Desk top slow charger – Single cavity.

Wall charger – Used with desk top charger 200 mAh 110V UL approved.

PACKAGING

- Dual-Language packaging in Gift Box.
- Packaging and Owners' Manual will be in English and Spanish.

RF Performance

General

Channel Spacing – **12.5 kHz**

PLL Step – **5,6.25 kHz**

Channel Frequency Spread –**2.78 MHz**

Antenna Impedance – **50 Ω**

Operating Voltage – **7.2V $\pm$ 20%**

Battery Life – **5:5:90 duty cycle 6 hours**

Operating Temperature Range - **-30° C ~ +60° C**

Frequency Stability - **$\pm$ 5 ppm (-30° C ~ +60° C)**

Physical Dimensions

Height - 125mm (4 7/8") or less

Width - 58mm (2 1/4") or less

Depth - 32mm (1 1/4") or less

Signaling Requirements

CTCSS - All 38 TIA/EIA standard tone frequencies and 11 non-standard tones.

Factory default CTCSS tone will be - NO Tone.

No.	Freq. (Hz)	No.	Freq. (Hz)	No.	Freq. (Hz)	No.	Freq. (Hz)	No.	Freq. (Hz)
01	67.0	11	97.4	21	136.5	31	192.8	41	171.3
02	71.9	12	100.0	22	141.3	32	203.5	42	177.3
03	74.4	13	103.5	23	146.2	33	210.7	43	183.5
04	77.0	14	107.2	24	151.4	34	218.1	44	189.9
05	79.7	15	110.9	25	156.7	35	225.7	45	196.6
06	82.5	16	114.8	26	162.2	36	233.6	46	199.5
07	85.4	17	118.8	27	167.9	37	241.8	47	206.5
08	88.5	18	123.0	28	173.8	38	250.3	48	229.1
09	91.5	19	127.3	29	179.9	39	69.3	49	254.1
10	94.8	20	131.8	30	186.2	40	159.8	00	Off