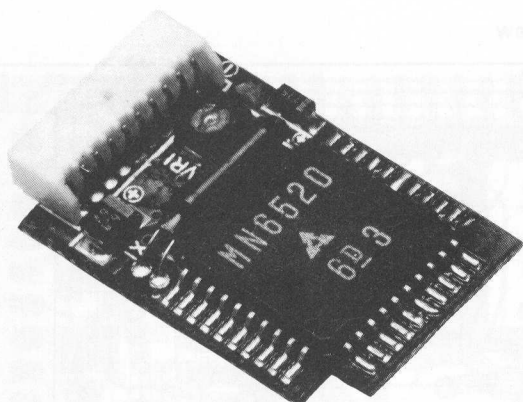


TSU-6 (CTCSS UNIT)

TSU-6 EXTERNAL VIEW



TSU-6 PARTS LIST

* : New Parts

| Ref. No. | New Parts | Parts No. | Description |
|---------------------------------|-----------|---------------|-----------------------------|
| CTCSS UNIT (X52-3100-00) | | | |
| C1 | | CK73FB1H102K | Chip C 1000pF K |
| C2 | | C92-0507-05 | Tantal 4.7μF 6.3WV |
| C3 | | C92-0520-05 | Tantal 22μF 4.0WV |
| C4, 5 | | CK73EB1E104K | Chip C 0.1μF K |
| C6 | | CK73EB1H223K | Chip C 0.022μF K |
| C7 | | CK73EB1E104K | Chip C 0.1μF K |
| C8, 9 | | CC73FCH1H150J | Chip C 15pF J |
| C10 | | CK73FB1H102K | Chip C 1000pF K |
| C11 | | CK73FB1E473K | Chip C 0.047μF K |
| C12 | | C92-0507-05 | Chip tan. 4.7μF 6.3WV |
| C13 | | C92-0534-05 | Chip tan. 33μF 4.0WV |
| CN1 | | E40-5121-05 | Pin connector (10P) |
| X1 | | L77-1313-05 | X'tal resonator 4.194304MHz |
| R1-10 | | RK73FB2A○○○J | Chip resistor |
| R12-14 | | RK73FB2A○○○J | Chip resistor |
| VR1 | | R12-3460-05 | Trimming pot. 33kΩ |
| Q1 | | DTC144TK | Digital transistor |
| Q2 | | DTA114EK | Digital transistor |
| Q3 | | 2SC2712(GR) | Chip transistor |
| IC1 | | MN6520 | IC |
| IC2 | | MN4094BS | IC |

TSU-6 REFERENCE DATA

Tone frequency and MN6520 (IC1) relationship

| Tone frequency (Hz) | MN6520 terminal | | | | | |
|---------------------|-------------------|----|----|----|----|----|
| | S6 | S5 | S4 | S3 | S2 | S1 |
| | MN4094BS terminal | | | | | |
| | Q1 | Q2 | Q3 | Q4 | Q7 | Q8 |
| 67.0 | L | H | H | H | L | H |
| 71.9 | L | H | H | H | L | L |
| 74.4 | L | H | H | L | H | H |
| 77.0 | L | H | H | L | H | L |
| 79.7 | L | H | H | L | L | H |
| 82.5 | L | H | H | L | L | L |
| 85.4 | L | H | L | H | H | H |
| 88.5 | L | H | L | H | H | L |
| 91.5 | L | H | L | H | L | H |
| 94.8 | H | H | H | L | L | H |
| 100.0 | H | H | H | L | L | L |
| 103.5 | H | H | L | H | H | H |
| 107.2 | H | H | L | H | H | L |
| 110.9 | H | H | L | H | L | H |
| 114.8 | H | H | L | H | L | L |
| 118.8 | H | H | L | L | H | H |
| 123.0 | H | H | L | L | H | L |
| 127.3 | H | H | L | L | L | H |
| 131.8 | H | H | L | L | L | L |
| 136.5 | H | L | H | H | H | H |
| 141.3 | H | L | H | H | H | L |
| 146.2 | H | L | H | H | L | H |
| 151.4 | H | L | H | H | L | L |
| 156.7 | H | L | H | L | H | H |
| 162.2 | H | L | H | L | H | L |
| 167.9 | H | L | H | L | L | H |
| 173.8 | H | L | H | L | L | L |
| 179.9 | H | L | L | H | H | H |
| 186.2 | H | L | L | H | H | L |
| 192.8 | H | L | L | H | L | H |
| 203.5 | H | L | L | H | L | L |
| 210.7 | H | L | L | L | H | H |
| 218.1 | H | L | L | L | H | L |
| 225.7 | H | L | L | L | L | H |
| 233.6 | H | L | L | L | L | L |
| 241.8 | L | H | H | H | H | H |
| 250.3 | L | H | H | H | H | L |

Table 1

TSU-6 FINE ADJUSTMENT OF TONE FREQUENCY

The tone frequency can be fine adjusted with an interval of 0.5% step over the range of 0 to +1.5%. Ground the T1 (pin 10) and T2 (pin 9) of IC1 to obtain the desired frequency.

| | T1 | T2 |
|-------|----|----|
| 0% | X | X |
| +0.5% | ○ | X |
| +1.0% | X | ○ |
| +1.5% | ○ | ○ |

○ : GND, X : OPEN

Table 2