# TUBE CHART SUPPLEMENT

# MODEL 628-01

## TUBE TESTER

EICO ELECTRONIC INSTRUMENT COMPANY, INC.

LONG ISLAND CITY 1, NEW YORK

89731

| TYPE | SHUNT | FIL | SEL | UP | DOWN |
|---|---|---|---|---|---|
| 01A | 45 | 5 | 2 | 2,3 | 4 |
| 0A4 | 47 | 0 | 4 | 5 | 2,7 |
| 0A4 | 43 | 0 | 4 | 7 | 2,5 |
| 0Y4 | 20 | 0 | 4 | 5 | 3,7,8 |
| | May show short on 3 | | | | |
| 0Z4 | 22 | 0 | 4 | 5 | 3,8 |
| 0Z4 | 22 | 0 | 4 | 3 | 5,8 |
| 1A3 | 47 | 1.4 | 1 | 2,6 | 1,3 |
| 1A4P | 16 | 2.0 | 1 | 23,13 | 4 |
| 1A4T | 16 | 2.0 | 1 | 23,13 | 4 |
| 1A5 | 40 | 1.4 | 2 | 3,4,5 | 2 |
| 1A6 | 50 | 2.0 | 2 | 3,4 | 1 |
| 1A6 | 53 | 2.0 | 1 | 25,13 | 1 |
| 1A7 | 12 | 1.4 | 1 | 5,6 | 2 |
| 1A7 | 53 | 1.4 | 1 | 34,13 | 2 |
| 1AB4 | 13 | 1.4 | 1 | 2,3,6 | 1,5 |
| 1AB5 | 15 | 1.4 | 1 | 2,3,6 | 7,8 |
| 1AB6 | 18 | 1.4 | 1 | 2,3,4,5,6 | 7 |
| 1AE4 | 13 | 1.4 | 1 | 2,3,6 | 1,5 |
| 1AE5 | 15 | 1.4 | 1 | 1,2,4,5 | 3 |
| 1AF4 | 15 | 1.4 | 1 | 2,3,6 | 1,5 |
| 1AF5 | 100 | 1.4 | 1 | 3 | 1 |
| | (Good = 10) | | | | |
| 1AF5 | 40 | 1.4 | 1 | 4,5,6 | 1 |
| 1AH5 | 20 | 1.4 | 1 | 4,5,6 | 1 |
| 1AH5 | 37 | 1.4 | 1 | 3 | 7 |
| 1AJ4 | 16 | 1.4 | 1 | 2,3,6 | 7 |
| 1AN5 | 15 | 1.4 | 1 | 2,3,4,6 | 7 |
| 1B4P | 35 | 2 | 2 | 23,13 | 4 |
| 1B5 | 18 | 2 | 1 | 2,5 | 6 |
| 1B5 | 23 | 2 | 1 | 4 | 6 |
| 1B5 | 23 | 2 | 1 | 3 | 6 |
| 1B7 | 15 | 1.4 | 1 | 5,6 | 2 |
| 1B7 | 53 | 1.4 | 1 | 34,13 | 2 |
| 1B8 | 53 | 1.4 | 2 | 8 | 2 |
| 1B8 | 60 | 1.4 | 2 | 6,13 | 2 |
| 1B8 | 32 | 1.4 | 1 | 3,4,5 | 2 |
| 1C3 | 18 | 1.4 | 1 | 2,3,4,5,6 | 7 |
| 1C5 | 37 | 1.4 | 2 | 3,4,5 | 2 |
| 1C6 | 42 | 2 | 2 | 3,4 | 1 |
| 1C6 | 38 | 2 | 1 | 25,13 | 1 |
| 1C7 | 41 | 2 | 2 | 5,6 | 2 |
| 1C7 | 31 | 2 | 1 | 34,13 | 2 |
| 1C21 | 47 | 0 | 4 | 5 | 2,7 |
| 1D5 | 39 | 2 | 2 | 34,13 | 7 |
| 1D7 | 18 | 2 | 1 | 5,6 | 7 |
| 1D7 | 53 | 2 | 1 | 34,13 | 7 |
| 1D8 | 53 | 1.4 | 1 | 8 | 2 |
| 1D8 | 48 | 1.4 | 2 | 6,13 | 2 |
| 1D8 | 37 | 1.4 | 2 | 3,4,5 | 2 |
| 1D13 | 47 | 1.4 | 1 | 2,6 | 1,3 |
| 1DN5 | 20 | 1.4 | 1 | 236 | 1 |
| 1DN5 | 55 | 1.4 | 1 | 4 | 1 |
| 1E3 | 31 | 1.4 | 3 | 1,8 | 3,5 |
| 1E4 | 45 | 1.4 | 2 | 3,5 | 2 |
| 1E5 | 20 | 2 | 1 | 34,13 | 7 |
| 1E7 | 30 | 2 | 2 | 3,4,8 | 7 |
| 1E7 | 30 | 2 | 2 | 5,6,8 | 7 |
| 1F2 | 37 | 1.4 | 2 | 2,3,6 | 1,5 |
| 1F3 | 35 | 1.4 | 2 | 2,3,6 | 1,5 |
| 1F4 | 51 | 2 | 3 | 2,3,4 | 5 |
| 1F5 | 36 | 2 | 2 | 3,4,5 | 7 |
| 1F6 | 21 | 2 | 1 | 23,13 | 6 |
| 1F6 | 53 | 2 | 1 | 4 | 6 |
| 1F6 | 53 | 2 | 1 | 5 | 6 |
| 1F7 | 20 | 2 | 1 | 36,13 | 7 |
| 1F7 | 53 | 2 | 1 | 5 | 7 |
| 1F7 | 53 | 2 | 1 | 4 | 7 |
| 1FD9 | 23 | 1.4 | 1 | 4,5,6 | 1 |
| 1FD9 | 31 | 1.4 | 1 | 3 | 1 |
| | (Good = 30) | | | | |
| 1G4 | 17 | 1.4 | 1 | 3,5 | 2 |
| 1G5 | 39 | 2 | 2 | 3,4,5 | 7 |
| 1G6 | 20 | 1.4 | 1 | 3,4 | 2 |
| 1G6 | 20 | 1.4 | 1 | 3,6 | 2 |
| 1H4 | 41 | 2 | 2 | 3,5 | 7 |
| 1H5 | 32 | 1.4 | 1 | 5 | 2 |
| 1H5 | 19 | 1.4 | 1 | 3,13 | 2 |
| 1H6 | 17 | 2 | 1 | 3,6 | 7 |
| 1H6 | 22 | 2 | 1 | 5 | 7 |
| 1H6 | 22 | 2 | 1 | 4 | 7 |
| 1J5 | 38 | 2 | 2 | 3,4,5 | 7 |
| 1J6 | 39 | 2 | 2 | 3,4 | 7 |
| 1J6 | 39 | 2 | 2 | 5,6 | 7 |
| 1L4 | 37 | 1.4 | 2 | 2,3,6 | 1,5 |
| 1L6 | 19 | 1.4 | 1 | 3,4 | 1 |
| 1L6 | 21 | 1.4 | 1 | 2,5,6 | 1 |
| 1LA4 | 40 | 1.4 | 2 | 2,3,6 | 1 |
| 1LA6 | 17 | 1.4 | 1 | 3,4 | 1 |
| 1LA6 | 53 | 1.4 | 1 | 2,5,6 | 1 |
| 1LB4 | 40 | 1.4 | 2 | 2,3,6 | 1 |
| 1LB6 | 18 | 1.4 | 1 | 2,3,4,5,6,7 | 1 |
| 1LC5 | 18 | 1.4 | 1 | 2,3,4,6 | 5,8 |
| 1LC6 | 18 | 1.4 | 1 | 34 | 1 |
| 1LC6 | 45 | 1.4 | 1 | 2,5,6 | 1 |

| TYPE | SHUNT | FIL | SEL | UP | DOWN |
|---|---|---|---|---|---|
| 1LD5 | 18 | 1.4 | 1 | 2,3,6 | 1 |
| 1LD5 | 53 | 1.4 | 1 | 4 | 1 |
| 1LE3 | 37 | 1.4 | 2 | 2,6 | 1 |
| 1LG5 | 35 | 1.4 | 2 | 2,3,6 | 4,5,8 |
| 1LH4 | 19 | 1.4 | 1 | 2,6 | 1 |
| 1LH4 | 53 | 1.4 | 1 | 4 | 1 |
| 1LN5 | 40 | 1.4 | 2 | 2,3,4,6 | 5,8 |
| 1N5 | 16 | 1.4 | 1 | 34,13 | 2 |
| 1N6 | 38 | 1.4 | 2 | 3,4,5 | 2 |
| 1N6 | 53 | 1.4 | 1 | 6 | 2 |
| 1P5 | 18 | 1.4 | 1 | 34,13 | 2 |
| 1P10 | 28 | 1.4 | 2 | 2,3,4,6 | 1,7 |
| 1P11 | 33 | 1.4 | 2 | 2,3,6 | 1,7 |
| 1Q5 | 33 | 1.4 | 2 | 3,4,5 | 2 |
| 1R4 | 21 | 1.4 | 1 | 4 | 1,7 |
| 1R5 | 20 | 1.4 | 1 | 4 | 1,5 |
| 1R5 | 65 | 1.4 | 1 | 2,3,6 | 1,5 |
| 1S2 | 60 | 1.4 | 4 | C | 1,3,4,6,7,9 |
| 1S4 | 30 | 1.4 | 2 | 2,3,4,6 | 1,5 |
| 1S5 | 23 | 1.4 | 1 | 456 | 1 |
| 1S5 | 31 | 1.4 | 1 | 3 | 1 |
| | (Good = 30) | | | | |
| 1SA6 | 30 | 1.4 | 2 | 3,4,6,8 | 1 |
| 1SB6 | 20 | 1.4 | 1 | 3,4,8 | 2 |
| 1SB6 | 51 | 1.4 | 1 | 5 | 2 |
| 1T4 | 35 | 1.4 | 2 | 2,3,6 | 1,5 |
| 1T5 | 40 | 1.4 | 2 | 3,4,5 | 2 |
| 1U4 | 35 | 1.4 | 2 | 2,3,6 | 1,5 |
| 1U5 | 40 | 1.4 | 2 | 236 | 1 |
| 1U5 | 37 | 1.4 | 1 | 4 | 1 |
| 1V | 25 | 6.3 | 3 | 2 | 3,4 |
| 1Z2 | 51 | 1.4 | 1 | 13 | 1,3,4,6 |
| 2A3 | 29 | 2.5 | 3 | 2,3 | 4 |
| 2A4 | 26 | 2.5 | 3 | 5 | 7 |
| 2A4 | 26 | 2.5 | 3 | 3 | 5,7 |
| 2A5 | 37 | 2.5 | 3 | 2,3,4 | 5,6 |
| 2A6 | 27 | 2.5 | 3 | 2,13 | 5,6 |
| 2A6 | 22 | 2.5 | 1 | 4 | 5,6 |
| 2A6 | 22 | 2.5 | 1 | 3 | 5,6 |
| 2A7 | 32 | 2.5 | 2 | 5 | 6,7 |
| 2A7 | 64 | 2.5 | 2 | 2,3,4,13 | 6,7 |
| 2B4 | 25 | 2.5 | 3 | 2,3 | 4,5 |
| 2B6 | 95 | 2.5 | 2 | 2 | 6,7 |
| 2B6 | 52 | 2.5 | 3 | 3,4 | 5,7 |
| 2B7 | 51 | 2.5 | 3 | 2,3,13 | 6,7 |
| 2B7 | 22 | 2.5 | 1 | 5 | 6,7 |
| 2B7 | 22 | 2.5 | 1 | 4 | 6,7 |
| 2C21 | 29 | 6.3 | 2 | 3,13 | 1,2 |
| 2C21 | 29 | 6.3 | 2 | 4,5 | 1,6 |
| 2C22 | 23 | 6.3 | 3 | 9,13 | 2,8 |
| 2C26 | 36 | 6.3 | 3 | 13 | 7,8 |
| 2C51 | 23 | 6.3 | 2 | 3,4 | 1,2 |
| 2C51 | 23 | 6.3 | 2 | 6,7 | 1,8 |
| 2C52 | 26 | 12.6 | 2 | 4,5 | 6,7 |
| 2C52 | 26 | 12.6 | 2 | 1,2 | 3,7 |
| 2DX4 | 22 | 6.3 | 2 | 1,2,6,7 | 3,5 |
| 2E5 | 44 | 2.5 | 2 | 2,3 | 5,6 |
| 2E5 | 0 | 2.5 | 4 | 2,4 | 3,5,6 |
| 2E5 | 0 | 2.5 | 4 | 4 | 2,3,5,6 |
| 2E22 | 26 | 6.3 | 3 | 234,13 | 5 |
| 2E24 | 23 | 2.5 | 3 | 3,5,13 | 2,7 |
| 2E25 | 29 | 6.3 | 3 | 4,5,8,13 | 2 |
| 2E26 | 22 | 6.3 | 3 | 3,5,13 | 1,2,4,6 |
| 2E30 | 27 | 2.5 | 3 | 1,2,5,6 | 3,4 |
| 2G5 | 44 | 2.5 | 2 | 2,3 | 5,6 |
| 2G5 | 0 | 2.5 | 4 | 2,4 | 3,5,6 |
| 2G5 | 0 | 2.5 | 4 | 4 | 2,3,5,6 |
| 2S | 25 | 2.5 | 1 | 2 | 4,5 |
| 2S | 25 | 2.5 | 1 | 3 | 4,5 |
| 2V3 | 54 | 2.5 | 1 | 13 | 2 |
| | (Good = 20) | | | | |
| 2W3 | 36 | 2.5 | 2 | 4 | 2 |
| 2X2 | 46 | 2.5 | 4 | 13 | 4 |
| 2X3 | 46 | 2.5 | 3 | 4 | 8 |
| 2Y2 | 53 | 2.5 | 1 | 13 | 4 |
| 2Z2 | 61 | 2.5 | 3 | 2 | 1 |
| 3A2 | 60 | 3.3 | 4 | 13 | 1,4,6,9 |
| 3A3 | 55 | 3.3 | 1 | 13 | 2 |
| 3A4 | 26 | 1.4 | 2 | 2,3,4,6 | 17 |
| 3A5 | 30 | 1.4 | 2 | 2,3 | 1,7 |
| 3A5 | 10 | 1.4 | 1 | 5,6 | 1,7 |
| 3A8 | 20 | 1.4 | 1 | 34,13 | 2,7 |
| 3A8 | 20 | 1.4 | 1 | 5,6 | 2,7 |
| 3A8 | 25 | 1.4 | 1 | 8 | 2,7 |
| 3B2 | 100 | 3.3 | 4 | 13 | 1,3,5,7 |
| | (Good = 50) | | | | |
| 3B4 | 34 | 1.4 | 3 | 1,3,7 | 4,5 |
| 3B5 | 35 | 1.4 | 2 | 3,4,5 | 2,7 |
| 3B7 | 19 | 1.4 | 1 | 2,3 | 1,8 |
| 3B7 | 19 | 1.4 | 1 | 6,7 | 1,8 |
| 3C2 | 56 | 1.4 | 4 | 13 | 2,4,6,7,8 |
| 3C5 | 34 | 1.4 | 2 | 3,4,5 | 2,7 |
| 3C6 | 40 | 1.4 | 2 | 3,4 | 1,8 |
| 3C6 | 40 | 1.4 | 2 | 5,6 | 1,8 |
| 3D6 | 25 | 1.4 | 2 | 2,3,6 | 1,8 |

| TYPE | SHUNT | FIL | SEL | UP | DOWN |
|---|---|---|---|---|---|
| 3DX4 | 22 | 2.8 | 2 | 1,2,6,7 | 3,5 |
| 3E5 | 31 | 1.4 | 2 | 2,3,6 | 1,7 |
| 3E6 | 26 | 1.4 | 2 | 2,3,4,6 | 1,8 |
| 3LE4 | 34 | 1.4 | 2 | 2,3,6 | 1,8 |
| 3LF4 | 27 | 1.4 | 2 | 2,3,6 | 1,8 |
| 3V4 | 33 | *1.4 | 2 | 2,3,6 | 1,7 |
| 4A6 | 35 | 2 | 2 | 3,4 | 2,7 |
| 4A6 | 46 | 2 | 3 | 5,6 | 2,7 |
| 4S | 25 | 2.5 | 1 | 2 | 4,5 |
| 4S | 25 | 2.5 | 1 | 3 | 4,5 |
| 5A6 | 28 | 2.5 | 3 | 1,6,7 | 3,4,5,8 |
| 5AX4 | 41 | 5.0 | 3 | 4 | 2 |
| 5AX4 | 41 | 5.0 | 3 | 6 | 2 |
| 5B8 | 25 | 5.0 | 2 | 6,8,9 | 4,7 |
| 5B8 | 30 | 5.0 | 2 | 2,3 | 1,4 |
| 5BS8 | 19 | 5 | 3 | 1,2 | 3,4 |
| 5BS8 | 19 | 5 | 3 | 6,7 | 4,8 |
| 5R4 | 35 | 5.0 | 3 | 4 | 2 |
| 5R4 | 35 | 5.0 | 3 | 6 | 2 |
| 5T4 | 24 | 5 | 3 | 4 | 2 |
| 5T4 | 24 | 5 | 3 | 6 | 2 |
| 5V3 | 28 | 5.0 | 3 | 4 | 2 |
| 5V3 | 28 | 5.0 | 3 | 6 | 2 |
| 5V4 | 26 | 5.0 | 3 | 6 | 8 |
| 5V4 | 26 | 5.0 | 3 | 4 | 8 |
| 5V6 | 24 | 5.0 | 3 | 3,4,5 | 2,8 |
| 5W4 | 41 | 5.0 | 3 | 6 | 2 |
| 5W4 | 41 | 5.0 | 3 | 4 | 2 |
| 5X3 | 46 | 5 | 3 | 2 | 1 |
| 5X3 | 46 | 5 | 3 | 3 | 1 |
| 5X4 | 26 | 5.0 | 3 | 5 | 7 |
| 5X4 | 26 | 5.0 | 3 | 3 | 7 |
| 5Y3 | 47 | 5.0 | 3 | 6 | 2 |
| 5Y3 | 47 | 5.0 | 3 | 4 | 2 |
| 5Y4 | 47 | 5.0 | 3 | 5 | 7 |
| 5Y4 | 47 | 5.0 | 3 | 3 | 7 |
| 5Z3 | 32 | 5.0 | 3 | 3 | 1 |
| 5Z3 | 32 | 5.0 | 3 | 2 | 1 |
| 5Z4 | 23 | 5.0 | 3 | 6 | 8 |
| 5Z4 | 23 | 5.0 | 3 | 4 | 8 |
| 6A3 | 26 | 6.3 | 3 | 2,3 | 1 |
| 6A4 | 38 | 6.3 | 3 | 2,3,4 | 1 |
| 6A5 | 26 | 3.3 | 2 | 3,5 | 2,7 |
| 6A6 | 30 | 6.3 | 3 | 2,3 | 1,4 |
| 6A6 | 30 | 6.3 | 3 | 5,6 | 1,4 |
| 6A7 | 30 | 6.3 | 2 | 4,5 | 1,6 |
| 6A7 | 38 | 6.3 | 2 | 2,3,C | 1,6 |
| 6A8 | 31 | 6.3 | 2 | 5,6 | 2,8 |
| 6A8 | 40 | 6.3 | 2 | 34,C | 2,8 |
| 6AB5 | 95 | 6.3 | 2 | 2,3 | 1,5 |
| 6AB5 | 0 | 6.3 | 4 | 2,4 | 1,3,5 |
| 6AB5 | 0 | 6.3 | 4 | 4 | 1,2,3,5 |
| 6AB6 | 68 | 6.3 | 3 | 4,5 | 3,7,8 |
| 6AB6 | 48 | 6.3 | 3 | 3,5 | 4,7,8 |
| 6AC6 | 30 | 6.3 | 2 | 3,5 | 7,8 |
| 6AC6 | 37 | 6.3 | 3 | 4,5 | 7,8 |
| 6AL6 | 25 | 6.3 | 3 | 45,13 | 28 |
| 6AX6 | 18 | 6.3 | 3 | 3 | 2,4 |
| 6AX6 | 18 | 6.3 | 3 | 5 | 2,8 |
| 6AY11 | 25 | 6.3 | 2 | 3 | 1,2 |
| 6AY11 | 25 | 6.3 | 2 | 56 | 1,4 |
| 6AY11 | 25 | 6.3 | 2 | 78 | 1,9 |
| 6AY11 | 25 | 6.3 | 2 | 10 | 1,11 |
| 6B4 | 25 | 6.3 | 1 | 8,9 | 5,7 |
| 6B6 | 33 | 6.3 | 3 | 3,13 | 2,8 |
| 6B6 | 22 | 6.3 | 1 | 4 | 2,8 |
| 6B6 | 22 | 6.3 | 1 | 5 | 2,8 |
| 6B7 | 51 | 6.3 | 3 | 23,13 | 1,6 |
| 6B7 | 22 | 6.3 | 1 | 4 | 1,6 |
| 6B7 | 22 | 6.3 | 1 | 5 | 1,6 |
| 6B8 | 39 | 6.3 | 3 | 36,13 | 2,8 |
| 6B8 | 32 | 6.3 | 1 | 4 | 2,8 |
| 6B8 | 32 | 6.3 | 1 | 5 | 2,8 |
| 6BD7 | 12 | 6.3 | 1 | 1,2 | 3,4 |
| 6BD7 | 29 | 6.3 | 1 | 6 | 3,4 |
| 6BD7 | 26 | 6.3 | 1 | 8 | 3,4 |
| 6BD11 | 25 | 6.3 | 2 | 34 | 1,7 |
| 6BD11 | 22 | 6.3 | 2 | 68 | 15 |
| 6BD11 | 24 | 6.3 | 2 | 210,11 | 19 |
| 6BE3 | 22 | 6.3 | 4 | 4,10 | 1,7 |
| 6BF8 | 20 | 6.3 | 2 | 1,2,3 | 4,6 |
| 6BF8 | 20 | 6.3 | 2 | 7,8,9 | 4,6 |
| 6BJ3 | 22 | 6.3 | 4 | 4,10 | 17 |
| 6BR7 | 21 | 6.3 | 1 | 2,7,8,9 | 3,4 |
| 6C5 | 30 | 6.3 | 2 | 3,5 | 2,8 |
| 6C6 | 12 | 6.3 | 1 | 23,13 | 1,4,5 |
| 6C7 | 12 | 6.3 | 1 | 2,13 | 1,6 |
| 6C7 | 22 | 6.3 | 1 | 4 | 1,6 |
| 6C7 | 22 | 6.3 | 1 | 5 | 1,6 |
| 6C8 | 27 | 6.3 | 2 | 3,13 | 2,4 |
| 6C8 | 27 | 6.3 | 2 | 5,6 | 2,8 |
| 6CX5 | 35 | 6.3 | 1 | 1,9 | 3,4,6,7 |
| 6D4 | 20 | 6.3 | 3 | 1,7 | 3,5 |
| 6D5 | 33 | 6.3 | 3 | 3,5 | 2,8 |
| 6D6 | 30 | 6.3 | 3 | 234,13 | 1,5 |

| TYPE | SHUNT | FIL | SEL | UP | DOWN |
|---|---|---|---|---|---|
| 6D7 | 28 | 6.3 | 2 | 23,13 | 1,4,6 |
| 6D8 | 30 | 6.3 | 2 | 5,6 | 2,8 |
| 6D8 | 42 | 6.3 | 2 | 34,13 | 2,8 |
| 6DX4 | 22 | 6.3 | 2 | 1,2,6,7 | 3,5 |
| 6E5 | 36 | 6.3 | 2 | 2,3 | 1,5 |
| 6E5 | 0 | 6.3 | 4 | 2,4 | 1,3,5 |
| 6E5 | 0 | 6.3 | 4 | 4 | 1,2,3,5 |
| 6E6 | 32 | 6.3 | 3 | 2,3 | 1,4 |
| 6E6 | 32 | 6.3 | 3 | 5,6 | 1,4 |
| 6E7 | 28 | 6.3 | 2 | 23,13 | 1,4,6 |
| 6EV7 | 25 | 6.3 | 2 | 1,2 | 3,5 |
| 6EV7 | 24 | 6.3 | 2 | 6,7 | 5,8 |
| 6F5 | 14 | 6.3 | 1 | 4,C | 2,8 |
| 6F7 | 46 | 6.3 | 3 | 23,13 | 1,6 |
| 6F7 | 90 | 6.3 | 3 | 4,5 | 1,6 |
| 6F8 | 24 | 6.3 | 2 | 3,13 | 2,4 |
| 6F8 | 24 | 6.3 | 2 | 5,6 | 2,8 |
| 6G5 | 0 | 6.3 | 4 | 2,4 | 1,3,5 |
| 6G5 | 0 | 6.3 | 4 | 4 | 1,2,3,5 |
| 6G6 | 28 | 6.3 | 2 | 3,4,5 | 2,8 |
| 6G7 | 38 | 6.3 | 3 | 2,13 | 3,5,7 |
| 6G7 | 14 | 6.3 | 1 | 4 | 3,7 |
| 6G7 | 14 | 6.3 | 1 | 6 | 3,7 |
| 6GS8 | 24 | 6.3 | 2 | 2,3,6,7 | 1,4 |
| 6GS8 | 24 | 6.3 | 2 | 6,7,8,9 | 1,4 |
| 6GV5 | 22 | 6.3 | 2 | 357911 | 1,410 |
| 6H4 | 15 | 6.3 | 1 | 4 | 2,8 |
| 6H5 | 36 | 6.3 | 2 | 2,3 | 1,5 |
| 6H5 | 0 | 6.3 | 4 | 2,4 | 1,3,5 |
| 6H5 | 0 | 6.3 | 4 | 4 | 1,2,3,5 |
| 6H6 | 14 | 6.3 | 1 | 3 | 2,4 |
| 6H6 | 14 | 6.3 | 1 | 5 | 2,8 |
| 6H7 | 34 | 6.3 | 3 | 2,3,4 | 6,7 |
| 6H7 | 52 | 6.3 | 2 | 5,13 | 6,7 |
| 6HB5 | 22 | 6.3 | 2 | 23711 | 1410 |
| 6HF5 | 24 | 6.3 | 2 | 3568911 C | 1,410 |
| 6J4 | 23 | 6.3 | 2 | 1,5,6,7 | 2,3 |
| 6J5 | 24 | 6.3 | 2 | 3,5 | 2,8 |
| 6J7 | 17 | 6.3 | 1 | 34,13 | 2,5,8 |
| 6J8 | 25 | 6.3 | 2 | 34,13 | 2,8 |
| 6J8 | 25 | 6.3 | 2 | 5,6 | 2,8 |
| 6K5 | 13 | 6.3 | 1 | 3,13 | 2,8 |
| 6K8 | 11 | 6.3 | 1 | 5,6 | 2,8 |
| 6K8 | 22 | 6.3 | 1 | 4,5 | 2,8 |
| 6K8 | 22 | 6.3 | 1 | 3,13 | 2,8 |
| 6L5 | 26 | 6.3 | 2 | 3,5 | 2,8 |
| 6L7 | 56 | 6.3 | 2 | 4 | 2,8 |
| 6L7 | 26 | 6.3 | 2 | 35,13 | 2,8 |
| 6M3 | 23 | 6.3 | 2 | 3,5,7 | 1,2,13 |
| 6M8 | 26 | 6.3 | 2 | 34,13 | 1,7 |
| 6M8 | 26 | 6.3 | 2 | 5,6 | 1,7 |
| 6M8 | 19 | 6.3 | 1 | 8 | 1,7 |
| 6N4 | 24 | 6.3 | 2 | 1,5,7 | 2,3,6 |
| 6N6 | 67 | 6.3 | 3 | 4,5 | 2,3,8 |
| 6N6 | 45 | 6.3 | 3 | 3,5 | 2,4,8 |
| 6N7 | 30 | 6.3 | 3 | 3,4 | 2,8 |
| 6N7 | 30 | 6.3 | 3 | 5,6 | 2,8 |
| 6P5 | 30 | 6.3 | 2 | 3,5 | 2,8 |
| 6P7 | 32 | 6.3 | 2 | 45,13 | 2,8 |
| 6P7 | 77 | 6.3 | 3 | 6,7 | 2,8 |
| 6Q5 | 20 | 6.3 | 4 | 3,5 | 2,8 |
| 6Q6 | 11 | 6.3 | 1 | 3,13 | 7,8 |
| 6Q6 | 51 | 6.3 | 1 | 5 | 7,8 |
| 6Q7 | 15 | 6.3 | 1 | 3,13 | 2,8 |
| 6Q7 | 23 | 6.3 | 1 | 4 | 2,8 |
| 6Q7 | 26 | 6.3 | 1 | 5 | 2,8 |
| 6R6 | 44 | 6.3 | 3 | 35,13 | 7,8 |
| 6R7 | 39 | 6.3 | 3 | 3,13 | 2,8 |
| 6R7 | 19 | 6.3 | 1 | 4 | 2,8 |
| 6R7 | 19 | 6.3 | 1 | 5 | 2,8 |
| 6R8 | 25 | 6.3 | 2 | 2 | 3,4 |
| 6R8 | 30 | 6.3 | 2 | 8,9 | 4,7 |
| 6R8 | 11 | 6.3 | 1 | 1 | 4,7 |
| 6R8 | 11 | 6.3 | 1 | 6 | 4,7 |
| 6S4 | 21 | 6.3 | 3 | 3,6,9 | 2,4 |
| 6S6 | 25 | 6.3 | 3 | 14,13 | 7,8 |
| 6S7 | 28 | 6.3 | 2 | 34,13 | 2,5,8 |
| 6S8 | 16 | 6.3 | 1 | 6,13 | 2,7 |
| 6S8 | 22 | 6.3 | 1 | 1 | 2,7 |
| 6S8 | 22 | 6.3 | 1 | 4 | 2,7 |
| 6S8 | 22 | 6.3 | 1 | 3 | 5,7 |
| 6SB7 | 22 | 6.3 | 2 | 4,5 | 1,2,6 |
| 6SB7 | 19 | 6.3 | 1 | 3,4,8 | 2,5,6 |
| 6SE7 | 23 | 6.3 | 2 | 4,6,8 | 2,3,5 |
| 6SS7 | 25 | 6.3 | 3 | 4,6,8 | 2,3,5 |
| 6ST7 | 28 | 6.3 | 2 | 2,6 | 3,7 |
| 6ST7 | 39 | 6.3 | 1 | 4 | 3,7 |
| 6ST7 | 39 | 6.3 | 1 | 5 | 3,7 |
| 6SV7 | 23 | 6.3 | 2 | 2,4,6 | 3,7 |
| 6SV7 | 28 | 6.3 | 2 | 5 | 3,7 |
| 6SZ7 | 12 | 6.3 | 1 | 2,6 | 3,7 |
| 6SZ7 | 28 | 6.3 | 1 | 4 | 3,7 |
| 6SZ7 | 28 | 6.3 | 1 | 5 | 3,7 |
| 6T5 | 14 | 6.3 | 1 | 2,3 | 1,5 |

| TYPE | SHUNT | FIL | SEL | UP | DOWN |
|---|---|---|---|---|---|
| 6T5 | 0 | 6.3 | 4 | 2,4 | 1,3,5 |
| 6T5 | 0 | 6.3 | 4 | 4 | 1,2,3,5 |
| 6T6 | 22 | 6.3 | 2 | 34,13 | 7,8 |
| 6T7 | 15 | 6.3 | 1 | 3,13 | 2,8 |
| 6T7 | 23 | 6.3 | 1 | 4 | 2,8 |
| 6T7 | 26 | 6.3 | 1 | 5 | 2,8 |
| 6U3 | 17 | 6.3 | 3 | 9 | 3,4 |
| 6U4 | 19 | 6.3 | 3 | 5 | 3,7 |
| 6U5 | 36 | 6.3 | 2 | 2,3 | 1,5 |
| 6U5 | 0 | 6.3 | 4 | 2,4 | 1,3,5 |
| 6U5 | 0 | 6.3 | 4 | 4 | 1,2,3,5 |
| 6U6 | 20 | 6.3 | 3 | 3,4,5 | 2,8 |
| 6U7 | 30 | 6.3 | 2 | 34,13 | 2,5,8 |
| 6V3 | 17 | 6.3 | 3 | 2,7,9 | 4,13 |
| 6V4 | 26 | 6.3 | 3 | 1 | 3,4 |
| 6V4 | 26 | 6.3 | 3 | 7 | 3,4 |
| 6V7 | 50 | 6.3 | 3 | 3,13 | 2,8 |
| 6V7 | 28 | 6.3 | 1 | 4 | 2,8 |
| 6V7 | 28 | 6.3 | 1 | 5 | 2,8 |
| 6W7 | 11 | 6.3 | 1 | 34,13 | 2,8 |
| 6X5 | 29 | 6.3 | 3 | 3 | 2,8 |
| 6X5 | 29 | 6.3 | 3 | 5 | 2,8 |
| 6X6 | 41 | 6.3 | 2 | 5 | 7,8 |
| 6X6 | 0 | 6.3 | 4 | 3,4 | 5,7,8 |
| 6X6 | 0 | 6.3 | 4 | 4 | 3,5,7,8 |
| 6Y3G | 49 | 6.3 | 4 | 1,0 | 7 |
| 6Y5 | 29 | 6.3 | 3 | 3 | 1,4 |
| 6Y5 | 29 | 6.3 | 3 | 5 | 1,4 |
| 6Z3 | 25 | 6.3 | 3 | 2 | 1,3 |
| 6Z4 | 27 | 6.3 | 3 | 2 | 1,4 |
| 6Z4 | 27 | 6.3 | 3 | 3 | 1,4 |
| 6Z5 | 26 | 6.3 | 3 | 3 | 2,4,6 |
| 6Z5 | 26 | 6.3 | 3 | 5 | 2,4,6 |
| 7A4 | 24 | 6.3 | 2 | 2,6 | 1,7 |
| 7A5 | 18 | 6.3 | 3 | 2,3,6 | 1,7 |
| 7A6 | 16 | 6.3 | 1 | 6 | 1,7 |
| 7A6 | 16 | 6.3 | 1 | 3 | 1,2 |
| 7A7 | 29 | 6.3 | 3 | 2,3,6 | 1,4,7 |
| 7A8 | 36 | 6.3 | 2 | 2,5,6 | 1,7 |
| 7A8 | 30 | 6.3 | 2 | 3,4 | 1,7 |
| 7AB7 | 27 | 6.3 | 3 | 1,3,5 | 2,4,6,8 |
| 7AD7 | 17 | 6.3 | 3 | 2,3,4,6 | 1,5,7 |
| 7AF7 | 25 | 6.3 | 2 | 5,6 | 1,2,7 |
| 7AF7 | 25 | 6.3 | 2 | 3,4 | 1,2,7 |
| 7AG7 | 22 | 6.3 | 2 | 2,3,6 | 1,4,5,7 |
| 7AH7 | 21 | 6.3 | 2 | 2,3,4,6 | 1,7 |
| 7AJ7 | 23 | 6.3 | 2 | 2,3,6 | 1,4,7 |
| 7B4 | 12 | 6.3 | 1 | 2,6 | 1,7 |
| 7B5 | 30 | 6.3 | 3 | 2,3,6 | 1,7 |
| 7B6 | 33 | 6.3 | 1 | 6 | 1,4,7 |
| 7B6 | 33 | 6.3 | 1 | 5 | 1,4,7 |
| 7B6 | 25 | 6.3 | 2 | 2,3 | 1,4,7 |
| 7B7 | 28 | 6.3 | 2 | 2,3,6 | 1,4,7 |
| 7B8 | 34 | 6.3 | 2 | 2,5,6 | 1,7 |
| 7B8 | 28 | 6.3 | 2 | 3,4 | 1,7 |
| 7C4 | 33 | 6.3 | 2 | 4 | 1,7 |
| 7C5 | 26 | 6.3 | 3 | 2,3,6 | 1,7 |
| 7C6 | 22 | 6.3 | 1 | 6 | 1,4,7 |
| 7C6 | 22 | 6.3 | 1 | 5 | 1,4,7 |
| 7C6 | 34 | 6.3 | 3 | 2,3 | 1,4,7 |
| 7C7 | 12 | 6.3 | 1 | 2,3,6 | 1,4,7 |
| 7E5 | 26 | 6.3 | 2 | 1,3,5,7 | 2,4,6 |
| 7E6 | 25 | 6.3 | 1 | 6 | 1,4,7 |
| 7E6 | 25 | 6.3 | 1 | 5 | 1,4,7 |
| 7E6 | 27 | 6.3 | 2 | 2,3 | 1,4,7 |
| 7E7 | 26 | 6.3 | 1 | 4 | 1,7 |
| 7E7 | 22 | 6.3 | 1 | 3 | 1,7 |
| 7E7 | 32 | 6.3 | 3 | 2,5,6 | 1,7 |
| 7F7 | 15 | 6.3 | 1 | 5,6 | 1,7 |
| 7F7 | 15 | 6.3 | 1 | 3,4 | 1,2 |
| 7F8 | 22 | 6.3 | 2 | 6,8 | 2,5 |
| 7F8 | 22 | 6.3 | 2 | 1,3 | 2,4 |
| 7G7 | 24 | 6.3 | 2 | 2,3,6 | 1,4,7 |
| 7G8 | 24 | 6.3 | 2 | 3,5,7 | 1,2,4,6 |
| 7G8 | 24 | 6.3 | 2 | 2,3,4 | 1,5,6,7 |
| 7H7 | 24 | 6.3 | 2 | 2,3,6 | 1,4,7 |
| 7J7 | 30 | 6.3 | 2 | 2,5,6 | 1,7 |
| 7J7 | 30 | 6.3 | 2 | 3,4,5 | 1,7 |
| 7K7 | 22 | 6.3 | 1 | 6 | 1,7 |
| 7K7 | 22 | 6.3 | 1 | 5 | 1,7 |
| 7K7 | 11 | 6.3 | 1 | 3,4 | 1,2 |
| 7L7 | 26 | 6.3 | 2 | 2,3,6 | 1,4,7 |
| 7Q7 | 46 | 6.3 | 2 | 2,5,6 | 1,7 |
| 7Q7 | 25 | 6.3 | 2 | 3,4 | 1,7 |
| 7R7 | 28 | 6.3 | 1 | 4 | 1,7 |
| 7R7 | 28 | 6.3 | 1 | 3 | 1,7 |
| 7R7 | 22 | 6.3 | 2 | 2,5,6 | 1,7 |
| 7S7 | 23 | 6.3 | 2 | 2,5,6 | 1,7 |
| 7S7 | 33 | 6.3 | 2 | 3,4 | 1,7 |
| 7T7 | 24 | 7.5 | 2 | 2,3,6 | 1,7 |
| 7V7 | 18 | 6.3 | 3 | 2,3,6 | 1,4,7 |
| 7W7 | 24 | 6.3 | 2 | 2,3,6 | 1,4,5,7 |
| 7X6 | 21 | 6.3 | 3 | 6 | 1,7 |
| 7X6 | 21 | 6.3 | 3 | 3 | 1,2 |

| TYPE | SHUNT | FIL | SEL | UP | DOWN |
|---|---|---|---|---|---|
| 7X7 | 12 | 6.3 | 1 | 6 | 1,4,7 |
| 7X7 | 11 | 6.3 | 1 | 5 | 1,4,7 |
| 7X7 | 12 | 6.3 | 1 | 2,3 | 1,4,7 |
| 7Y4 | 24 | 6.3 | 3 | 3 | 1,7 |
| 7Y4 | 24 | 6.3 | 3 | 6 | 1,7 |
| 7Z4 | 24 | 6.3 | 4 | 6 | 1,7 |
| 7Z4 | 24 | 6.3 | 4 | 3 | 1,7 |
| 9A8 | 25 | 7.5 | 2 | 1,9 | 4,8 |
| 9A8 | 25 | 7.5 | 2 | 2,3,6 | 4,7 |
| 9AK8 | 11 | 7.5 | 1 | 1 | 4,7 |
| 9AK8 | 23 | 7.5 | 1 | 6 | 4,7 |
| 9AK8 | 12 | 7.5 | 1 | 8,9 | 4,7 |
| 9AK8 | 11 | 7.5 | 1 | 2 | 3,4 |
| 9AQ8 | 24 | 7.5 | 2 | 1,2 | 3,4 |
| 9AQ8 | 24 | 7.5 | 2 | 6,7 | 4,8 |
| 10 | 61 | 7.5 | 3 | 2,3 | 4 |
| 10Y | 43 | 7.5 | 3 | 2,3 | 4 |
| 12A | 26 | 5 | 2 | 2,3 | 4 |
| 12A5* | 33 | *6.3 | 3 | 2,3,4 | 1,5,7 |
| 12A6 | 33 | 12.6 | 3 | 3,4,5 | 2,8 |
| 12A7 | 29 | 12.6 | 2 | 23,13 | 6,7 |
| 12A7 | 11 | 12.6 | 1 | 5 | 4,7 |
| 12A8 | 36 | 12.6 | 2 | 5,6 | 2,8 |
| 12A8 | 28 | 12.6 | 2 | 34,13 | 2,8 |
| 12AH8 | 20 | 6.3 | 2 | 1,2,6,7 | 3,4,5 |
| 12AH8 | 23 | 6.3 | 2 | 7,8 | 3,4,5 |
| 12B4 | 24 | 6.3 | 2 | 2,7,9 | 1,4,5 |
| 12B6 | 32 | 12.6 | 3 | 3,13 | 7,8 |
| 12B6 | 33 | 12.6 | 1 | 4 | 7,8 |
| 12B6 | 33 | 12.6 | 1 | 5 | 7,8 |
| 12B7 | 30 | 12.6 | 2 | 2,3,4,6 | 1,7 |
| 12C5 | 18 | 12.6 | 3 | 2,5,6,7 | 1,3 |
| 12C8 | 44 | 12.6 | 3 | 36,13 | 2,8 |
| 12C8 | 21 | 12.6 | 1 | 4 | 2,8 |
| 12C8 | 21 | 12.6 | 1 | 5 | 2,8 |
| 12D4 | 20 | 12.6 | 3 | 5 | 3,7 |
| 12E5 | 31 | 12.6 | 3 | 3,5 | 2,8 |
| 12F5 | 13 | 12.6 | 1 | 4,13 | 2,8 |
| 12F8 | 16 | 12.6 | 1 | 238 | 479 |
| 12F8 | 37 | 12.6 | 1 | 6 | 47 |
| 12F8 | 37 | 12.6 | 1 | 1 | 47 |
| 12G4 | 30 | 12.6 | 2 | 1,5,6 | 3,7 |
| 12G8 | 16 | 6.3 | 1 | 6,8 | 4,5,7 |
| 12G8 | 16 | 6.3 | 1 | 1,3 | 2,4,5 |
| 12H4 | 26 | 6.3 | 2 | 1,6 | 3,4,7 |
| 12H4 | 26 | 6.3 | 2 | 5,6 | 3,4,7 |
| 12J8 | 16 | 12.6 | 3 | 1,3,6 | 2,4 |
| 12J8 | 26 | 12.6 | 2 | 8 | 7,4 |
| 12J8 | 26 | 12.6 | 2 | 9 | 7,4 |
| 12K5 | 16 | 12.6 | 1 | 2,5,6,7 | 1,3 |
| 12K7 | 40 | 12.6 | 1 | 34,C | 2 |
| 12K8 | 52 | 12.6 | 3 | 34,13 | 2,8 |
| 12K8 | 13 | 12.6 | 1 | 5,6 | 2,8 |
| 12L6 | 18 | 12.6 | 3 | 3,4,5 | 2,8 |
| 12L8 | 21 | 12.6 | 3 | 3,4,5 | 2,7 |
| 12L8 | 23 | 12.6 | 3 | 1,5,9 | 2,7 |
| 12Q7 | 15 | 12.6 | 1 | 3,13 | 7,8 |
| 12Q7 | 25 | 12.6 | 1 | 4 | 7,8 |
| 12Q7 | 26 | 12.6 | 1 | 5 | 7,8 |
| 12R5 | 20 | 12.6 | 3 | 2,5,7,6 | 1,3 |
| 12S8 | 16 | 12.6 | 1 | 6,13 | 2,7 |
| 12S8 | 21 | 12.6 | 1 | 1 | 2,7 |
| 12S8 | 19 | 12.6 | 1 | 4 | 2,7 |
| 12S8 | 22 | 12.6 | 1 | 3 | 5,7 |
| 12SA7 | 29 | 12.6 | 2 | 4,5 | 2,6 |
| 12SA7 | 42 | 12.6 | 2 | 3,8 | 2,6 |
| 12SC7 | 13 | 12.6 | 1 | 2,3 | 6,7 |
| 12SC7 | 13 | 12.6 | 1 | 4,5 | 6,7 |
| 12SF5 | 14 | 12.6 | 1 | 3,5 | 2,7 |
| 12SF7 | 31 | 12.6 | 3 | 2,4,6 | 3,7 |
| 12SF7 | 22 | 12.6 | 1 | 5 | 3,7 |
| 12SG7 | 19 | 12.6 | 3 | 4,6,8 | 2,3,5 |
| 12SH7 | 19 | 12.6 | 3 | 4,6,8 | 2,3,5 |
| 12SJ7 | 11 | 12.6 | 1 | 4,6,8 | 2,3,5 |
| 12SK7 | 29 | 12.6 | 3 | 3,4,6,8 | 2,5 |
| 12SL7 | 29 | 12.6 | 3 | 1,2 | 3,7 |
| 12SL7 | 29 | 12.6 | 3 | 4,5 | 6,7 |
| 12SN7 | 29 | 12.6 | 2 | 1,2 | 3,7 |
| 12SN7 | 29 | 12.6 | 2 | 4,5 | 6,7 |
| 12SQ7 | 15 | 12.6 | 1 | 26 | 3,7 |
| 12SQ7 | 30 | 12.6 | 1 | 4 | 3,7 |
| 12SQ7 | 35 | 12.6 | 1 | 5 | 3,7 |
| 12SR7 | 40 | 12.6 | 3 | 2,6 | 3,7 |
| 12SR7 | 19 | 12.6 | 1 | 4 | 3,7 |
| 12SR7 | 19 | 12.6 | 1 | 5 | 3,7 |
| 12SW7 | 26 | 12.6 | 2 | 2,6 | 3,7 |
| 12SW7 | 27 | 12.6 | 1 | 4 | 3,7 |
| 12SW7 | 27 | 12.6 | 1 | 5 | 3,7 |
| 12SX7 | 25 | 12.6 | 2 | 4,5 | 6,7 |
| 12SX7 | 25 | 12.6 | 2 | 1,2 | 3,7 |
| 12SY7 | 32 | 12.6 | 2 | 1,3,8 | 2,6 |
| 12SY7 | 26 | 12.6 | 2 | 4,5 | 2,6 |
| 12U7* | 28 | *6.3 | 2 | 1,2 | 3,9 |
| 12U7* | 28 | *6.3 | 2 | 6,7 | 8,9 |
| 12Z3 | 26 | 12.6 | 3 | 2 | 3,4 |

| TYPE | SHUNT | FIL | SEL | UP | DOWN |
|---|---|---|---|---|---|
| 12Z5 | 26 | 6.3 | 3 | 3 | 2,4,6 |
| 12Z5 | 26 | 6.3 | 3 | 5 | 2,4,6 |
| 14 | 30 | 12.6 | 2 | 23,13 | 4,5 |
| 14A4 | 26 | 12.6 | 2 | 2,6 | 1,7 |
| 14A5 | 28 | 12.6 | 3 | 2,3,6 | 1,7 |
| 14A7 | 30 | 12.6 | 2 | 2,3,4,6 | 17 |
| 14AF7 | 26 | 12.6 | 3 | 5,6 | 1,2,3,4,7 |
| 14AF7 | 26 | 12.6 | 3 | 3,4 | 1,2,5,6,7 |
| 14B6 | 22 | 12.6 | 1 | 6 | 1,4,7 |
| 14B6 | 22 | 12.6 | 1 | 5 | 1,4,7 |
| 14B6 | 11 | 12.6 | 1 | 2,3 | 1,4,7 |
| 14B8 | 28 | 12.6 | 2 | 2,4,5 | 6,7,8 |
| 14B8 | 28 | 12.6 | 2 | 3,4,5 | 6,7,8 |
| 14C5 | 26 | 12.6 | 3 | 2,3,6 | 1,7 |
| 14C7 | 28 | 12.6 | 2 | 2,3,6 | 1,4,7 |
| 14E6 | 37 | 12.6 | 1 | 6 | 1,4,7 |
| 14E6 | 37 | 12.6 | 1 | 5 | 1,4,7 |
| 14E6 | 32 | 12.6 | 3 | 2,3 | 1,4,7 |
| 14E7 | 33 | 12.6 | 1 | 4 | 1,7 |
| 14E7 | 33 | 12.6 | 1 | 3 | 1,7 |
| 14E7 | 28 | 12.6 | 2 | 2,5,6 | 1,7 |
| 14F7 | 11 | 12.6 | 1 | 5,6 | 1,7 |
| 14F7 | 11 | 12.6 | 1 | 3,4 | 1,2 |
| 14F8 | 22 | 12.6 | 3 | 6,8 | 2,5 |
| 14F8 | 22 | 12.6 | 3 | 1,3 | 2,4 |
| 14H7 | 22 | 12.6 | 2 | 2,3,6 | 1,4,7 |
| 14J7 | 23 | 12.6 | 3 | 2,5,6 | 1,7 |
| 14J7 | 20 | 12.6 | 1 | 2,3,5 | 1,6,7 |
| 14N7 | 26 | 12.6 | 2 | 5,6 | 1,7 |
| 14N7 | 26 | 12.6 | 2 | 3,4 | 1,2 |
| 14R7 | 28 | 12.6 | 1 | 4 | 1,7 |
| 14R7 | 28 | 12.6 | 1 | 3 | 1,7 |
| 14R7 | 16 | 12.6 | 1 | 2,5,6 | 1,7 |
| 14S7 | 24 | 12.6 | 2 | 2,3,6 | 1,7 |
| 14S7 | 28 | 12.6 | 2 | 3,4 | 1,7 |
| 14V7 | 19 | 12.6 | 3 | 2,3,6 | 1,4,7 |
| 14W7 | 22 | 12.6 | 2 | 2,3,6 | 1,4,5,7 |
| 14X7 | 27 | 12.6 | 3 | 2,3 | 4,8 |
| 14X7 | 25 | 12.6 | 2 | 5 | 4,8 |
| 14X7 | 40 | 12.6 | 2 | 6 | 4,8 |
| 14Y4 | 29 | 12.6 | 3 | 3 | 1,7 |
| 14Y4 | 29 | 12.6 | 3 | 6 | 1,7 |
| 14Z3 | 26 | 12.6 | 3 | 2 | 1,3 |
| 15 | 36 | 2 | 2 | 23,13 | 4,5 |
| 15A6 | 11 | 12.6 | 1 | 1,2,6,7 | 3,5 |
| 15A8 | 20 | 12.6 | 3 | 45,13 | 2,6 |
| 15A8 | 30 | 12.6 | 3 | 3,8 | 1,2 |
| 16A5 | 19 | 12.6 | 3 | 2,7,9 | 3,4 |
| 17 | 41 | 12.6 | 3 | 2,3 | 4,7 |
| 17C5 | 20 | 12.6 | 3 | 2,5,6,7 | 1,3 |
| 17L6 | 21 | 12.6 | 3 | 3,4,5 | 2,8 |
| 17R5 | 20 | 12.6 | 3 | 2,5,6,7 | 1,3 |
| 17W6 | 24 | 12.6 | 3 | 3,4,5 | 2,8 |
| 18 | 32 | 12.6 | 3 | 2,3,4 | 1,5 |
| 18A5 | 20 | 12.6 | 3 | 1,5,8 | 2,3 |
| 19 | 39 | 2 | 3 | 2,3 | 6 |
| 19 | 42 | 2 | 3 | 4,5 | 6 |
| 19J6 | 24 | 12.6 | 2 | 1,6 | 3,7 |
| 19J6 | 24 | 12.6 | 2 | 2,5 | 3,7 |
| 19KG8 | 16 | 19 | 3 | 1,2 | 3,4 |
| 19KG8 | 16 | 19 | 3 | 6,7,9 | 4,8 |
| 19V8 | 27 | 25 | 2 | 1,6 | 3,4 |
| 19V8 | 21 | 25 | 2 | 7 | 4,8 |
| 19V8 | 12 | 25 | 1 | 2 | 3,4 |
| 19V8 | 22 | 25 | 1 | 9 | 3,4 |
| 19X3 | 19 | 25 | 3 | 9 | 3,4 |
| 19X8 | 21 | 25 | 2 | 1,7,8,9 | 4,6 |
| 19X8 | 22 | 25 | 2 | 2,3 | 4,6 |
| 20 | 48 | 6.3 | 2 | 2,3 | 4 |
| 20EQ7 | 25 | 25 | 2 | 1,2,6,7 | 35 |
| 20EQ7 | 35 | 25 | 1 | 8 | 3,5 |
| 20J8 | 13 | 12.6 | 1 | 5,6 | 2,8 |
| 20J8 | 11 | 12.6 | 1 | 34,13 | 2,8 |
| 21EX6 | 25 | 12.6 | 2 | 5,8,C | 3,7 |
| 22 | 32 | 2.5 | 1 | 23,13 | 4 |
| 24A | 32 | 2.5 | 2 | 23,13 | 4,5 |
| 25A6 | 25 | 25 | 3 | 3,4,5 | 2,8 |
| 25A7 | 28 | 25 | 3 | 3,4,5 | 7,8 |
| 25A7 | 21 | 25 | 3 | 6 | 7,8 |
| 25B5 | 39 | 25 | 3 | 3,4 | 1,2,5 |
| 25B5 | 50 | 25 | 3 | 3,4 | 1,2,5 |
| 25B6 | 23 | 25 | 3 | 3,4,5 | 2,8 |
| 25B8 | 26 | 25 | 2 | 34,13 | 1,2 |
| 25B8 | 26 | 25 | 2 | 5,8 | 2,6 |
| 25C5 | 20 | 25 | 3 | 2,5,6,7 | 1,3 |
| 25C6 | 26 | 25 | 3 | 3,4,5 | 2,8 |
| 25D8 | 26 | 25 | 2 | 5,6 | 1,2 |
| 25D8 | 26 | 25 | 2 | 3,4,13 | 1,2 |
| 25D8 | 13 | 25 | 1 | 8 | 1,7 |
| 25E5 | 20 | 25 | 3 | 145,13 | 2,3,8 |
| 25N6 | 30 | 25 | 2 | 3,4,5 | 2,8 |
| 25S | 18 | 2.0 | 1 | 2,5 | 6 |
| 25S | 23 | 2.0 | 1 | 4 | 6 |
| 25S | 23 | 2.0 | 1 | 3 | 6 |
| 25X6 | 28 | 25 | 3 | 3 | 2,4 |

| TYPE | SHUNT | FIL | SEL | UP | DOWN |
|---|---|---|---|---|---|
| 25X6 | 28 | 25 | 3 | 5 | 2,8 |
| 25Y4 | 26 | 25 | 3 | 5 | 2,8 |
| 25Z5 | 30 | 25 | 3 | 2 | 1,3 |
| 25Z5 | 30 | 25 | 3 | 5 | 1,4 |
| 26 | 36 | 1.4 | 2 | 2,3 | 4 |
| 26A6 | 22 | 25 | 2 | 1,2,5,6 | 3,7 |
| 26A7 | 20 | 25 | 2 | 3,4,5 | 26 |
| 26A7 | 20 | 25 | 2 | 1,5,8 | 2,6 |
| 26C6 | 31 | 25 | 3 | 1,7 | 2,3,5,6 |
| 26C6 | 20 | 25 | 1 | 5 | 1,2,3,6,7 |
| 26C6 | 20 | 25 | 1 | 6 | 1,2,3,5,7 |
| 26E6 | 25 | 25 | 2 | 3,4,5 | 2,8 |
| 27 | 32 | 2.5 | 2 | 2,3 | 4,5 |
| 28D7 | 22 | 25 | 2 | 2,3,4 | 1,6 |
| 28D7 | 22 | 25 | 2 | 3,5,7 | 1,6 |
| 28Z5 | 40 | 12.6 | 3 | 3 | 1,6,7 |
| 28Z5 | 40 | 12.6 | 3 | 6 | 1,3,7 |
| 29 | 36 | 25 | 2 | 2,3 | 4,5,6 |
| 30 | 35 | 2 | 2 | 2,3 | 4 |
| 30A5 | 25 | 25 | 2 | 2,5,6,7 | 1,3 |
| 31 | 40 | 2 | 2 | 2,3 | 4 |
| 32 | 42 | 2 | 2 | 23,13 | 4 |
| 32ET5 | 25 | 32 | 2 | 2,5,6,7 | 1,3 |
| 32L7 | 21 | 32 | 3 | 3,5,4 | 2,8 |
| 32L7 | 17 | 32 | 3 | 6 | 1,2 |
| 33 | 40 | 2 | 3 | 2,3,4 | 5 |
| 34 | 40 | 2 | 2 | 23,13 | 4 |
| 34GD5 | 21 | 32 | 3 | 2,5,6,7 | 1,4 |
| 35 | 30 | 2.5 | 2 | 23,13 | 4,5 |
| 35A5 | 16 | 32 | 3 | 2,3,6 | 1,7 |
| 35C5 | 21 | 32 | 3 | 2,5,6,7 | 1,3 |
| 35Z6 | 20 | 32 | 3 | 3 | 2,4 |
| 35Z6 | 20 | 32 | 3 | 5 | 2,8 |
| 36 | 32 | 6.3 | 2 | 23,13 | 1,4 |
| 36AM3 | 20 | 32 | 3 | 5 | 3,7 |
| 37 | 39 | 6.3 | 3 | 2,3 | 1,4 |
| 38 | 38 | 6.3 | 3 | 23,13 | 1,4 |
| 39 | 30 | 6.3 | 2 | 23,13 | 1,4 |
| 40 | 16 | 5 | 1 | 2,3 | 4 |
| 40Z5 | 20 | 32 | 3 | 5 | 2,3,8 |
| 41 | 33 | 6.3 | 3 | 2,3,4 | 1,5 |
| 42 | 27 | 6.3 | 3 | 2,3,4 | 1,5 |
| 43 | 32 | 25 | 3 | 2,3,4 | 1,5 |
| 44 | 30 | 6.3 | 2 | 23,13 | 1,4 |
| 45 | 33 | 2.5 | 3 | 2,3 | 4 |
| 45Z3 | 25 | 50 | 3 | 2,6 | 1,4 |
| 45Z5 | 18 | 32 | 3 | 5 | 2,3,8 |
| 46 | 37 | 2.5 | 3 | 2,3,4 | 5 |
| 47 | 44 | 2.5 | 3 | 2,3,4 | 5 |
| 48 | 26 | 32 | 3 | 2,3,4 | 1,5 |
| 49 | 38 | 2 | 2 | 2,3,4 | 5 |
| 50 | 45 | 7.5 | 3 | 2,3 | 4 |
| 50A5 | 18 | 50 | 3 | 2,3,6 | 1,7 |
| 50B5 | 20 | 50 | 3 | 1,5,6,7 | 2,3 |
| 50Y6 | 22 | 50 | 3 | 3 | 2,4 |
| 50Y6 | 22 | 50 | 3 | 5 | 2,8 |
| 50Y7 | 21 | 50 | 3 | 3 | 4,6,7 |
| 50Y7 | 21 | 50 | 3 | 5 | 6,7,8 |
| 50Z6 | 21 | 50 | 3 | 5 | 2,8 |
| 50Z6 | 21 | 50 | 3 | 3 | 2,4 |
| 50Z7 | 26 | 25 | 3 | 3 | 2,4,7 |
| 50Z7 | 26 | 25 | 3 | 5 | 2,7,8 |
| 51 | 30 | 25 | 2 | 23,13 | 4,5 |
| 52 | 31 | 6.3 | 3 | 2,3,4 | 1 |
| 53 | 33 | 2.5 | 3 | 2,3 | 4,7 |
| 53 | 33 | 2.5 | 3 | 5,6 | 4,7 |
| 55 | 32 | 2.5 | 1 | 2,13 | 5,6 |
| 55 | 22 | 2.5 | 1 | 3 | 5,6 |
| 55 | 22 | 2.5 | 1 | 4 | 5,6 |
| 56 | 30 | 2.5 | 2 | 2,3 | 4,5 |
| 57 | 30 | 2.5 | 2 | 23,13 | 4,5,6 |
| 58 | 37 | 2.5 | 3 | 23,13 | 4,5,6 |
| 59 | 30 | 2.5 | 3 | 2,3,4,5 | 6,7 |
| 60FX5 | 17 | 50 | 3 | 2,5,6,7 | 1,4 |
| 67 | 38 | 6.3 | 3 | 2,3 | 4,5 |
| 70L7 | 18 | 70 | 3 | 3 | 1,7 |
| 70L7 | 20 | 70 | 3 | 3,4,5 | 6,7 |
| 71A | 48 | 5 | 3 | 2,3 | 4 |
| 75 | 15 | 6.3 | 1 | 2,13 | 1,5 |
| 75 | 25 | 6.3 | 1 | 3 | 1,5 |
| 75 | 25 | 6.3 | 1 | 4 | 1,5 |
| 76 | 33 | 6.3 | 2 | 2,3 | 1,4 |
| 77 | 30 | 6.3 | 2 | 23,13 | 1,4,5 |
| 78 | 29 | 6.3 | 3 | 2,3,13 | 1,4,5 |
| 79 | 30 | 6.3 | 3 | 1,2 | 3,6 |
| 79 | 30 | 6.3 | 3 | 5,13 | 4,6 |
| 80 | 55 | 5 | 3 | 2 | 1 |
| 80 | 55 | 5 | 3 | 3 | 1 |
| 81 | 75 | 7.5 | 3 | 2 | 4 |
| 82 | 25 | 2.5 | 3 | 2 | 4 |
| 82 | 25 | 2.5 | 3 | 2 | 4 |
| 83 | 22 | 5.0 | 3 | 2 | 4 |
| 83 | 20 | 5.0 | 3 | 3 | 4 |
| 83V | 26 | 5 | 3 | 2 | 4 |
| 83V | 26 | 5 | 3 | 3 | 4 |

| TYPE | SHUNT | FIL | SEL | UP | DOWN |
|---|---|---|---|---|---|
| 84 | 27 | 6.3 | 3 | 2 | 1,4 |
| 84 | 27 | 6.3 | 3 | 3 | 1,4 |
| 85 | 47 | 6.3 | 3 | 2,13 | 1,5 |
| 85 | 26 | 6.3 | 1 | 3 | 1,5 |
| 85 | 26 | 6.3 | 1 | 4 | 2,5 |
| 85A2 | 25 | 0 | 4 | 1,3,5 | 2,4,7 |
| | (Good = 10 Disregard short) | | | | |
| 89 | 33 | 6.3 | 3 | 23,13 | 5,6 |
| 108C1 | 100 | 0 | 4 | 1,5 | 2,4,7 |
| 117L7 | 26 | 110 | 3 | 3,4,5 | 2,8 |
| 117L7 | 21 | 110 | 3 | 6 | 1,2 |
| 117M7 | 26 | 110 | 3 | 3,4,5 | 2,8 |
| 117M7 | 21 | 110 | 3 | 6 | 1,2 |
| 117N7 | 19 | 110 | 3 | 3,4,5 | 6,7,8 |
| 117N7 | 15 | 110 | 3 | | 7,8 |
| 117P7 | 20 | 110 | 3 | 3,4,5 | 6,7,8 |
| 117P7 | 15 | 110 | 3 | None | 7,8 |
| 117Z6 | 18 | 110 | 3 | 3 | 4,7 |
| 117Z6 | 18 | 110 | 3 | 5 | 7,8 |
| 150C2 | 41 | 0 | 4 | 1,5 | 2,4,7 |
| | (Good = 10) | | | | |
| 150C3 | 31 | 0 | 4 | 5 | 2,3,7 |
| 182B | 39 | 5 | 3 | 2,3 | 4 |
| 183B | 43 | 5 | 3 | 2,3 | 4 |
| 407A | 17 | 12.6 | 1 | 3,4 | 1,2,9 |
| 407A | 16 | 12.6 | 1 | 6,7 | 1,8,9 |
| 408A | 15 | 12.6 | 1 | 1,5,6 | 2,3,7 |
| 482B | 39 | 5.0 | 3 | 2,3 | 4 |
| 483 | 43 | 5 | 3 | 2,3 | 4 |
| 484 | 33 | 2.5 | 3 | 2,3 | 4,5 |
| 485 | 33 | 2.5 | 3 | 2,3 | 4,5 |
| 502X | 20 | 1.4 | 1 | 3,4,5 | 7 |
| 802 | 30 | 6.3 | 3 | 34,13 | 5,6,7 |
| 807 | 27 | 6.3 | 3 | 23,13 | 1,4 |
| 809 | 28 | 6.3 | 3 | 3,13 | 4 |
| 816 | 20 | 2.5 | 4 | 1,6 | 4 |
| 864 | 31 | 1.4 | 1 | 2,3 | 4 |
| 866 | 26 | 2.5 | 3 | 13 | 4 |
| 879 | 46 | 2.5 | 4 | 13 | 4 |
| 884 | 20 | 6.3 | 4 | 3,5 | 2,8 |
| 950 | 47 | 2 | 3 | 2,3,4 | 5 |
| 1201 | 26 | 6.3 | 2 | 1,3,5,7 | 2,4,6 |
| 1203 | 33 | 6.3 | 2 | 4 | 1,7 |
| 1229 | 14 | 2 | 1 | 23,13 | 4 |
| 1267 | 31 | 175 | 4 | 5 | 2,7 |
| 1273 | 27 | 12.6 | 3 | 2,3,6 | 1,4,7 |
| 1280 | 27 | 12.6 | 3 | 2,3,6 | 1,4,7 |
| 1291* | 19 | 1.4 | 1 | 2,3 | 1,8 |
| 1291* | 19 | 1.4 | 1 | 6,7 | 1,8 |
| 1293 | 32 | 1.4 | 2 | 2,6 | 8 |
| 1603 | 13 | 6.3 | 1 | 23,13 | 1,4,5 |
| 1609 | 32 | 1.4 | 2 | 2,3,4 | 1 |
| 1612 | 26 | 6.3 | 3 | 4,1,6 | 2,8 |
| 1614 | 25 | 6.3 | 3 | 3,4,5 | 2,8 |
| 1619 | 30 | 2.5 | 3 | 3,4,5 | 2,8 |
| 1620 | 13 | 6.3 | 1 | 34,13 | 2,8 |
| 1621 | 43 | 6.3 | 3 | 3,4,5 | 2,8 |
| 1629 | 36 | 12.6 | 2 | 3,5 | 2,8 |
| 1629 | 0 | 12.6 | 4 | 3,4 | 2,5,8 |
| 1629 | 0 | 12.6 | 4 | 4 | 2,3,5,8 |
| 1642 | 29 | 6.3 | 2 | 3,13 | 1,2 |
| 1642 | 29 | 6.3 | 2 | 4,5 | 1,6 |
| 1852 | 16 | 6.3 | 3 | 4,6,8 | 2,3,5 |
| 1853 | 17 | 6.3 | 3 | 4,6,8 | 2,3,5 |
| 2050 | 17 | 6.3 | 3 | 3,5,6 | 2,8 |
| 5516 | 26 | 2.5 | 3 | 35,13 | 2,7 |
| 5610 | 22 | 6.3 | 2 | 1,5,6 | 2,4 |
| 5670 | 23 | 6.3 | 2 | 3,4 | 1,2 |
| 5670 | 23 | 6.3 | 2 | 6,7 | 1,8 |
| 5686 | 25 | 6.3 | 3 | 2,6,7,9 | 1,3,4,8 |
| 5691 | 29 | 6.3 | 3 | 1,2 | 3,7 |
| 5691 | 29 | 6.3 | 3 | 4,5 | 6,7 |
| 5692 | 26 | 6.3 | 2 | 1,2 | 3,7 |
| 5692 | 26 | 6.3 | 2 | 4,5 | 6,7 |
| 5693 | 27 | 6.3 | 2 | 3,4,6,8 | 2,5 |
| 5696 | 31 | 6.3 | 2 | 1,6 | 2,4,5,7 |
| 5725 | 25 | 6.3 | 2 | 1,5,6,7 | 2,3 |
| 5726 | 13 | 6.3 | 1 | 7 | 1,3 |
| 5726 | 13 | 6.3 | 1 | 2 | 3,5 |
| 5727 | 24 | 6.3 | 2 | 1,5,6,7 | 2,3 |
| 5749 | 23 | 6.3 | 2 | 1,2,5,6 | 3,7 |
| 5750 | 22 | 6.3 | 2 | 1 | 2,3 |
| 5750 | 22 | 6.3 | 2 | 5,6,7 | 2,3 |
| 5751 | 11 | 6.3 | 1 | 1,2 | 3,4,5 |
| 5751 | 11 | 6.3 | 1 | 6,7 | 4,5,8 |
| 5814 | 26 | 12.6 | 2 | 1,2 | 3,4,5 |
| 5814 | 26 | 12.6 | 2 | 6,7 | 4,5,8 |
| 5845 | 48 | 2.5 | 1 | 5 | 1,3,4 |
| 5845 | 48 | 2.5 | 1 | 1 | 3,4,5 |
| 5881 | 21 | 6.3 | 3 | 3,4,5 | 2,8 |
| 5910 | 15 | 1.4 | 1 | 2,3,6 | 1,5 |
| 5915 | 25 | 6.3 | 2 | 1,5,6,7 | 2,3 |
| 5930 | 29 | 2.5 | 3 | 2,3 | 4 |
| 5931 | 31 | 5.0 | 3 | 6 | 2 |
| 5932 | 18 | 6.3 | 3 | 3,4,5 | 2,8 |

| TYPE | SHUNT | FIL | SEL | UP | DOWN |
|---|---|---|---|---|---|
| 5933 | 27 | 6.3 | 3 | 23,13 | 1,4 |
| 5965 | 24 | 6.3 | 2 | 1,2 | 3,9 |
| 5965 | 30 | 6.3 | 2 | 6,7 | 8,9 |
| 6005 | 26 | 6.3 | 3 | 1,5,6,7 | 2,3 |
| 6012 | 17 | 6.3 | 3 | 3,5,8 | 1,7 |
| 6028 | 15 | 12.6 | 1 | 1,5,6 | 2,3,7 |
| 6072 | 13 | 6.3 | 1 | 1,2 | 3,4,5 |
| 6073 | 41 | 0 | 4 | 1,5 | 2,4,7 |
| | (Good = 10) | | | | |
| 6074 | 100 | 0 | 4 | 1,5 | 2,4,7 |
| | (Good = 10) | | | | |
| 6087 | 40 | 5 | 3 | 6 | 8 |
| 6087 | 40 | 5 | 3 | 4 | 8 |
| 6096 | 22 | 6.3 | 2 | 1,5,6 | 2,3,7 |
| 6097 | 13 | 6.3 | 1 | 7 | 1,3 |
| 6098 | 20 | 6.3 | 3 | 3,5,7 | 1,6 |
| 6106 | 40 | 5.0 | 3 | 4 | 8 |
| 6106 | 40 | 5.0 | 3 | 6 | 8 |
| 6134 | 16 | 6.3 | 3 | 4,6,8 | 2,3,5 |
| 6135 | 25 | 6.3 | 2 | 1,5,6 | 3,7 |
| 6136 | 26 | 6.3 | 2 | 1,2,5,6 | 3,7 |
| 6137 | 28 | 6.3 | 3 | 4,6,8 | 2,3,5 |
| 6164 | 21 | 6.3 | 3 | 4,6,8 | 3,5,7 |
| 6186 | 19 | 6.3 | 3 | 1,5,6 | 2,3,7 |
| 6188 | 25 | 6.3 | 2 | 1,2 | 3,4,5,6,7 |
| 6188 | 25 | 6.3 | 2 | 4,5 | 1,2,3,6,7 |
| 6189 | 25 | *6.3 | 2 | 1,2 | 3,4,5 |
| 6189 | 25 | *6.3 | 2 | 6,7 | 4,5,8 |
| 6201 | 24 | 6.3 | 2 | 1,2 | 3,4,5 |
| 6202 | 26 | 6.3 | 3 | 1 | 3,7 |
| 6202 | 26 | 6.3 | 3 | 6 | 3,7 |
| 6265 | 22 | 6.3 | 2 | 1,5,6,7 | 2,3 |
| 6368 | 23 | 6.3 | 2 | 3,4 | 1,2 |
| 6368 | 23 | 6.3 | 2 | 6,7 | 1,8 |
| 6626 | 41 | 0 | 4 | 1,5 | 2,4,7 |
| | (Good = 10) | | | | |
| 6627 | 100 | 0 | 4 | 1,5 | 2,4,7 |
| | (Good = 10) | | | | |
| 6660 | 23 | 6.3 | 2 | 1,2,5,6 | 3,7 |
| 6661 | 22 | 6.3 | 2 | 1,5,6,7 | 2,3 |
| 6662 | 22 | 6.3 | 2 | 1,5,6,7 | 2,3 |
| 6663 | 13 | 6.3 | 1 | 7 | 1,3 |
| 6663 | 13 | 6.3 | 1 | 2 | 3,5 |
| 6669 | 22 | 6.3 | 3 | 1,5,6,7 | 2,3 |
| 6676 | 18 | 6.3 | 3 | 1,5,6,7 | 2,3 |
| | No open element test on lever 5 | | | | |
| 6677 | 17 | 6.3 | 3 | 236789 | 1,4 |
| 6678 | 22 | 6.3 | 2 | 1,9 | 4,8 |
| 6678 | 22 | 6.3 | 2 | 2,3,6 | 4,7 |
| 6679 | 24 | *6.3 | 2 | 1,2 | 3,4,5 |
| 6679 | 24 | *6.3 | 2 | 6,7 | 4,5,8 |
| 6679 | 24 | 6.3 | 2 | 1,2 | 3,4,5 |
| 6679 | 24 | 6.3 | 2 | 6,7 | 4,5,8 |
| 6680* | 25 | *6.3 | 2 | 1,2 | 3,4,5 |
| 6680* | 25 | *6.3 | 2 | 6,7 | 4,5,8 |
| 6681 | 11 | 6.3 | 1 | 1,2 | 3,4,5 |
| 6681 | 11 | 6.3 | 1 | 6,7 | 4,5,8 |
| *6829 | 24 | *6.3 | 2 | 1,2 | 3,9 |
| 7025 | 11 | *6.3 | 1 | 1,2 | 3,4,5 |
| 7025 | 11 | *6.3 | 1 | 6,7 | 4,5,8 |
| 7036 | 25 | 6.3 | 2 | 1,5,6,7 | 2,3 |
| 7193 | 23 | 6.3 | 3 | 9,13 | 2,8 |
| 7196 | 23 | 6.3 | 3 | 9,13 | 2,8 |
| 7233 | 17 | 6.3 | 3 | 123679 | 5,8 |
| 7247 | 15 | 6.3 | 1 | 1,2 | 3,9 |
| 7247 | 26 | 6.3 | 2 | 6,7 | 8,9 |
| 7700 | 11 | 6.3 | 1 | 2,3,13 | 1,4,5 |
| 7724 | 25 | 12.6 | 2 | 2 | 3,5 |
| 7724 | 26 | 12.6 | 2 | 6 | 1,5 |
| 7724 | 30 | 12.6 | 2 | 8,9 | 5,7 |
| 7984 | 22 | 6.3 | 2 | 345710,11 | 1,2689 |
| 8016 | 75 | 1.4 | 4 | 13 | 2 |
| 9006 | 19 | 6.3 | 1 | 1,5 | 2,4,7 |
| AF | 25 | 2.5 | 3 | 2 | 4 |
| AF | 25 | 2.5 | 3 | 3 | 4 |
| AG | 27 | 5 | 3 | 2 | 4 |
| AG | 27 | 5 | 3 | 3 | 4 |
| B36 | 29 | 12.6 | 2 | 1,2 | 3,7 |
| B36 | 29 | 12.6 | 2 | 4,5 | 6,7 |
| B65 | 26 | 6.3 | 2 | 1,2 | 3,7 |
| B65 | 26 | 6.3 | 2 | 4,5 | 6,7 |
| *B152 | 24 | *6.3 | 2 | 1,2 | 3,4,5 |
| *B152 | 24 | *6.3 | 2 | 6,7 | 4,5,8 |
| *B309 | 24 | *6.3 | 2 | 1,2 | 3,4,5 |
| *B309 | 24 | *6.3 | 2 | 6,7 | 4,5,8 |
| D63 | 14 | 6.3 | 1 | 3 | 2,4 |
| D63 | 14 | 6.3 | 1 | 5 | 2,8 |
| D77 | 13 | 6.3 | 1 | 7 | 1,3 |
| D77 | 13 | 6.3 | 1 | 2 | 3,5 |
| D152 | 13 | 6.3 | 1 | 7 | 1,3 |
| D152 | 13 | 6.3 | 1 | 2 | 3,5 |
| DA90 | 47 | 1.4 | 1 | 2,6 | 1,3 |
| DAC32 | 32 | 1.4 | 1 | 5 | 2 |
| DAC32 | 19 | 1.4 | 1 | 3,13 | 2 |

| TYPE | SHUNT | FIL | SEL | UP | DOWN |
|---|---|---|---|---|---|
| DAF91 | 23 | 1.4 | 1 | 4,5,6 | 1 |
| DAF91 | 31 | 1.4 | 1 | 3 | 1 |
| | (Good = 30) | | | | |
| DAF92 | 40 | 1.4 | 2 | 2,3,6 | 1 |
| DAF92 | 37 | 1.4 | 1 | 4 | 1 |
| DAF96 | 20 | 1.4 | 1 | 4,5,6 | 1 |
| DAF96 | 37 | 1.4 | 1 | 3 | 7 |
| DCC90 | 30 | 1.4 | 2 | 2,3 | 1,7 |
| DCC90 | 16 | 1.4 | 1 | 5,6 | 1,7 |
| DD6 | 13 | 6.3 | 1 | 7 | 1,3 |
| DD6 | 13 | 6.3 | 1 | 2 | 3,5 |
| DF91 | 35 | 1.4 | 2 | 2,3,6 | 1,5 |
| DF92 | 37 | 1.4 | 2 | 2,3,6 | 1,5 |
| DF96 | 13 | 1.4 | 1 | 2,3,6 | 1,5 |
| DF97 | 15 | 1.4 | 1 | 2,3,4,6 | 7 |
| DH63 | 15 | 6.3 | 1 | 3,13 | 2,8 |
| DH63 | 23 | 6.3 | 1 | 4 | 2,8 |
| DH63 | 26 | 6.3 | 1 | 5 | 2,8 |
| DH77 | 15 | 6.3 | 1 | 1,7 | 2,3 |
| DH77 | 20 | 6.3 | 1 | 5 | 2,3 |
| DH77 | 20 | 6.3 | 1 | 6 | 2,3 |
| DK91 | 20 | 1.4 | 1 | 4 | 1,5 |
| DK91 | 65 | 1.4 | 1 | 2,3,6 | 1,5 |
| DK96 | 18 | 1.4 | 1 | 2,3,4,5,6 | 7 |
| DL35 | 37 | 1.4 | 2 | 3,4,5 | 2 |
| *DL92 | 28 | *1.4 | 2 | 2,3,4,6 | 1,7 |
| *DL93 | 26 | *1.4 | 2 | 2,3,4,6 | 1,7 |
| *DL94 | 33 | *1.4 | 2 | 2,3,6 | 1,7 |
| *DL95 | 30 | *1.4 | 2 | 2,3,4,6 | 1,7 |
| DL96 | 17 | 1.4 | 1 | 2,3,6 | 5 |
| *DL98 | 34 | 1.4 | 3 | 1,3,7 | 4,5 |
| DP61 | 22 | 6.3 | 2 | 1,5,6 | 2,3,7 |
| DY86 | 60 | 1.4 | 4 | 13 | 1,3,4,6,7,9 |
| DY87 | 60 | 1.4 | 4 | 13 | 1,3,4,6,7,9 |
| E88CC | 25 | 6.3 | 2 | 1,2 | 3,4 |
| E88CC | 25 | 6.3 | 2 | 6,7 | 4,8 |
| E80CF | 23 | 6.3 | 2 | 2,3,6 | 5,7 |
| E80CF | 23 | 6.3 | 2 | 1,9 | 5,8 |
| E180F | 22 | 6.3 | 2 | 2,7,8,9 | 1,3,4 |
| EAA91 | 13 | 6.3 | 1 | 7 | 1,3 |
| EAA91 | 13 | 6.3 | 1 | 2 | 3,5 |
| EABC80 | 25 | 6.3 | 3 | 8,9 | 4,7 |
| EABC80 | 25 | 6.3 | 1 | 6 | 4,7 |
| EABC80 | 15 | 6.3 | 1 | 1 | 4,7 |
| EABC80 | 15 | 6.3 | 1 | 2 | 3,4 |
| EB91 | 13 | 6.3 | 1 | 7 | 1,3 |
| EB91 | 13 | 6.3 | 1 | 2 | 3,5 |
| EBC41 | 12 | 6.3 | 1 | 2,3 | 7,8 |
| EBC41 | 25 | 6.3 | 1 | 5 | 7,8 |
| EBC41 | 25 | 6.3 | 1 | 6 | 7,8 |
| EBC90 | 15 | 6.3 | 1 | 1,7 | 2,3 |
| EBC90 | 20 | 6.3 | 1 | 5 | 2,3 |
| EBC90 | 20 | 6.3 | 1 | 6 | 2,3 |
| EBC91 | 15 | 6.3 | 1 | 1,7 | 2,3 |
| EBC91 | 26 | 6.3 | 1 | 5 | 2,3 |
| EBC91 | 26 | 6.3 | 1 | 6 | 2,3 |
| EBF80 | 23 | 6.3 | 1 | 1,2,6 | 3,4 |
| EBF80 | 46 | 6.3 | 1 | 7 | 3,4 |
| EBF80 | 46 | 6.3 | 1 | 8 | 3,4 |
| EBF89 | 25 | 6.3 | 2 | 1,2,6,9 | 3,4 |
| EBF89 | 17 | 6.3 | 1 | 7 | 3,4 |
| EBF89 | 17 | 6.3 | 1 | 8 | 3,4 |
| EC80 | 21 | 6.3 | 2 | 1,2,7,8,9 | 3,4 |
| EC81 | 21 | 6.3 | 3 | 1,8 | 3,4 |
| EC90 | 25 | 6.3 | 2 | 1,5,6 | 3,7 |
| EC92 | 22 | 6.3 | 2 | 1,6 | 4,7 |
| EC97 | 23 | 6.3 | 2 | 2,5 | 1,4,7 |
| ECC81 | 24 | 6.3 | 2 | 1,2 | 3,4,5 |
| ECC81 | 24 | 6.3 | 2 | 6,7 | 4,58 |
| ECC82 | 25 | 6.3 | 2 | 1,2 | 3,4,5 |
| ECC82 | 25 | 6.3 | 2 | 6,7 | 4,5,8 |
| ECC83 | 11 | 6.3 | 1 | 1,2 | 3,4,5 |
| ECC83 | 11 | 6.3 | 1 | 6,7 | 4,5,8 |
| ECC85 | 21 | 6.3 | 2 | 1,2 | 3,4 |
| ECC85 | 21 | 6.3 | 2 | 6,7 | 4,8 |
| ECC88 | 17 | 6.3 | 3 | 1,2 | 3,5 |
| ECC88 | 17 | 6.3 | 3 | 6,7 | 5,8 |
| ECC91 | 14 | 6.3 | 1 | 1,6 | 3,7 |
| ECC91 | 14 | 6.3 | 1 | 2,5 | 3,7 |
| ECC189 | 16 | 6.3 | 3 | 1,2 | 3,5 |
| ECC189 | 16 | 6.3 | 3 | 6,7 | 5,8 |
| ECF80 | 15 | 6.3 | 1 | 2,3,6 | 4,7 |
| ECF80 | 19 | 6.3 | 1 | 1,9 | 4,8 |
| ECF82 | 22 | 6.3 | 2 | 1,9 | 4,8 |
| ECF82 | 22 | 6.3 | 2 | 2,3,6 | 4,7 |
| ECF86 | 25 | 6.3 | 2 | 2,8,9 | 1,3,4 |
| ECF86 | 30 | 6.3 | 2 | 6,7 | 1,3,4 |
| ECH81 | 25 | 6.3 | 2 | 1,2,6,7 | 3,5 |
| ECH81 | 27 | 6.3 | 2 | 8,9 | 3,5 |
| ECH83 | 15 | 6.3 | 1 | 1,2,6,7 | 3,4 |
| ECH83 | 15 | 6.3 | 1 | 8,9 | 3,4 |
| ECL80 | 32 | 6.3 | 2 | 1,2 | 3,4 |
| ECL80 | 27 | 6.3 | 2 | 6,7,8,9 | 3,4 |
| ECL82 | 27 | 6.3 | 3 | 1,9 | 4,8 |

| TYPE | SHUNT | FIL | SEL | UP | DOWN |
|---|---|---|---|---|---|
| ECL82 | 27 | 6.3 | 2 | 3,6 | 2,4 |
| ECL84 | 17 | 6.3 | 3 | 1,2 | 3,5,6,7,8,9 |
| ECL84 | 15 | 6.3 | 3 | 6,8,9 | 1,2,3,5,7 |
| EF39 | 30 | 6.3 | 2 | 346,13 | 2,8 |
| EF80 | 24 | 6.3 | 2 | 2,7,8,9 | 1,3,4 |
| EF85 | 18 | 6.3 | 2 | 2,7,8 | 1,3,4 |
| | Do not move down levers 1 or 3 | | | | |
| EF86 | 23 | 6.3 | 3 | 1,2,6,7,9 | 3,4 |
| EF89 | 16 | 6.3 | 2 | 2,7,8 | 3,4,9 |
| EF91 | 26 | 6.3 | 2 | 1,5,6,7 | 2,3 |
| EF92 | 26 | 6.3 | 2 | 1,5,6,7 | 2,3 |
| EF93 | 23 | 6.3 | 2 | 1,2,5,6 | 3,7 |
| EF94 | 22 | 6.3 | 2 | 1,2,5,6 | 3,7 |
| EF95 | 22 | 6.3 | 2 | 1,5,6 | 2,3,7 |
| EF183 | 20 | 6.3 | 2 | 2,7,8,9 | 1,3,5 |
| EF184 | 20 | 6.3 | 2 | 2,7,8,9 | 1,3,5 |
| EF804 | 60 | 6.3 | 4 | 7,8 | 1,2,3,5,6 |
| EH90 | 25 | 6.3 | 2 | 1,3 | 4,9 |
| EH90 | 28 | 6.3 | 2 | 6,7 | 4,8 |
| EK90 | 22 | 6.3 | 2 | 1 | 2,3 |
| EK90 | 22 | 6.3 | 2 | 5,6,7 | 2,3 |
| EL34 | 20 | 6.3 | 3 | 1,3,4,5 | 2,8 |
| EL36 | 18 | 6.3 | 3 | 145,13 | 2,3,8 |
| EL37 | 19 | 6.3 | 3 | 3,4,5 | 2,8 |
| EL38 | 21 | 6.3 | 3 | 45,13 | 1,2,8 |
| EL81 | 17 | 6.3 | 3 | 1,26789,13 | 3,5 |
| EL84 | 19 | 6.3 | 3 | 1,2,7,9 | 3,4 |
| EL85 | 26 | 6.3 | 2 | 1,26789 | 3,4 |
| EL86 | 19 | 6.3 | 3 | 1,26789 | 3,4 |
| EL90 | 22 | 6.3 | 3 | 1,5,6,7 | 2,3 |
| EL95 | 21 | 6.3 | 3 | 1,5,6,7 | 2,3 |
| EM35 | 28 | 6.3 | 2 | 3,4,5,6 | 2,8 |
| EM35 | 0 | 6.3 | 4 | 3,5,6 | 2,4,8 |
| EM35 | 0 | 6.3 | 4 | 5 | 2,3,4,5,6,8 |
| EM80 | 30 | 6.3 | 2 | 136789 | 2,4 |
| EM80 | 0 | 6.3 | 4 | 36789 | 1,2,4 |
| EM80 | 0 | 6.3 | 4 | 3689 | 1,2,4,7 |
| EM81 | 0 | 6.3 | 4 | 3,6,9 | 1,2,4,7 |
| | Open | | | | |
| EM81 | 0 | 6.3 | 4 | 3,6,7,9 | 1,2,4 |
| | Closed | | | | |
| EM81 | 26 | 6.3 | 2 | 1,7 | 2,4 |
| | Good | | | | |
| EM84 | 100 | 6.3 | 4 | 2,6,7,8,9 | 1,3,4 |
| | Closed Test Only Good = ±100 | | | | |
| EN91 | 24 | 6.3 | 2 | 1,5,6,7 | 2,3 |
| EQ80 | 11 | 6.3 | 1 | 1,2,6,7,9 | 3,4,8 |
| EQ80 | 17 | 6.3 | 1 | 6,9 | 3,4,8 |
| | No open element test on lever 6 | | | | |
| EY81 | 21 | 6.3 | 3 | 2,9 | 4,13 |
| EY82 | 19 | 6.3 | 3 | 9 | 3,4 |
| EY86 | 56 | 6.3 | 4 | 13 | 1,4,6,9 |
| EZ80 | 26 | 6.3 | 3 | 1 | 3,4 |
| EZ80 | 26 | 6.3 | 3 | 7 | 3,4 |
| EZ81 | 20 | 6.3 | 3 | 1 | 3,4 |
| EZ81 | 20 | 6.3 | 3 | 7 | 3,4 |
| FM1000 | 11 | 6.3 | 1 | 2,5 | 1,3,7 |
| G4 | 25 | 2.5 | 1 | 3 | 4,5 |
| G4 | 25 | 2.5 | 1 | 2 | 4,5 |
| G84 | 61 | 2.5 | 3 | 2 | 1 |
| GA | 33 | 5 | 3 | 2,3,4 | 5 |
| GZ30 | 23 | 5.0 | 3 | 6 | 8 |
| GZ30 | 23 | 5.0 | 3 | 4 | 8 |
| GZ32 | 26 | 5.0 | 3 | 6 | 8 |
| GZ32 | 26 | 5.0 | 3 | 4 | 8 |
| GZ33 | 17 | 5.0 | 3 | 4 | 8 |
| GZ33 | 17 | 5.0 | 3 | 6 | 8 |
| GZ34 | 20 | 5.0 | 3 | 4 | 8 |
| GZ34 | 20 | 5.0 | 3 | 6 | 8 |
| H63 | 14 | 6.3 | 1 | 4,13 | 2,8 |
| HBC90 | 27 | 12.6 | 3 | 1,7 | 2,3 |
| HBC90 | 20 | 12.6 | 1 | 5 | 2,3 |
| HBC90 | 20 | 12.6 | 1 | 6 | 2,3 |
| HBC91 | 25 | 12.6 | 3 | 1,7 | 2,3 |
| HBC91 | 25 | 12.6 | 1 | 5 | 2,3 |
| HBC91 | 25 | 12.6 | 1 | 6 | 2,3 |
| HCC85 | 23 | 12.6 | 2 | 1,2 | 3,5 |
| HCC85 | 23 | 12.6 | 2 | 6,7 | 5,8 |
| HD14 | 32 | 1.4 | 1 | 5 | 2 |
| HD14 | 19 | 1.4 | 1 | 3,13 | 2 |
| HF93 | 22 | 12.6 | 2 | 1,2,5,6 | 3,7 |
| HF94 | 22 | 12.6 | 2 | 1,2,5,6 | 3,7 |
| HK90 | 24 | 12.6 | 2 | 1 | 2,3 |
| HK90 | 24 | 12.6 | 2 | 5,6,7 | 2,3 |
| HL92 | 18 | 50 | 3 | 2,5,6,7 | 1,3 |
| HL94 | 25 | 25 | 2 | 2,5,6,7 | 1,3 |
| HM04 | 22 | 6.3 | 2 | 1 | 2,3 |
| HM04 | 22 | 6.3 | 2 | 5,6,7 | 2,3 |
| HY90 | 20 | 32 | 3 | 5 | 4,6,7 |
| KR1 | 25 | 6.3 | 3 | 2 | 3,4 |
| KR25 | 37 | 2.5 | 3 | 2,3,4 | 5,6 |
| KR98 | 27 | 6.3 | 3 | 2 | 1,4 |
| KR98 | 27 | 6.3 | 3 | 3 | 1,4 |
| KT32 | 17 | 2.5 | 3 | 3,4,5 | 2,8 |

| TYPE | SHUNT | FIL | SEL | UP | DOWN |
|---|---|---|---|---|---|
| L63 | 24 | 6.3 | 2 | 3,5 | 2,8 |
| LA | 38 | 6.3 | 3 | 2,3,4 | 1 |
| N14 | 18 | 1.4 | 1 | 2,3,4,5,6 | 7 |
| N17 | 28 | *1.4 | 2 | 2,3,4,6 | 1,7 |
| N18 | 30 | *1.4 | 2 | 2,3,4,6 | 1,7 |
| N727 | 22 | 6.3 | 3 | 1,5,6,7 | 2,3 |
| PABC80 | 22 | 7.5 | 1 | 9 | 4,7 |
| PABC80 | 15 | 7.5 | 1 | 1 | 4,7 |
| PABC80 | 42 | 7.5 | 1 | 6 | 4,7 |
| PABC80 | 15 | 7.5 | 1 | 2 | 3,4 |
| PCC84 | 26 | 6.3 | 2 | 2,3 | 1,4 |
| PCC84 | 26 | 6.3 | 2 | 6,9 | 4,7,8 |
| PCC85 | 24 | 7.5 | 2 | 1,2 | 3,4 |

| TYPE | SHUNT | FIL | SEL | UP | DOWN |
|---|---|---|---|---|---|
| PCC85 | 24 | 7.5 | 2 | 6,7 | 4,8 |
| PCF80 | 25 | 7.5 | 2 | 1,9 | 4,8 |
| PCF80 | 25 | 7.5 | 2 | 2,3,6 | 4,7 |
| PL36 | 20 | 25 | 3 | 145,13 | 2,3,8 |
| PL81 | 23 | 25 | 2 | 1,26789,13 | 3,4 |
| PL1267 | 47 | 0 | 4 | 5 | 2,7 |
| PL1267 | 43 | 0 | 4 | 7 | 2,5 |
| PM04 | 23 | 6.3 | 2 | 1,2,5,6 | 3,7 |
| PM05 | 22 | 6.3 | 2 | 1,5,6 | 2,3,7 |
| PY81 | 20 | 12.6 | 4 | 2,9 | 4,13 |
| PZ | 44 | 2.5 | 3 | 2,3,4 | 5 |
| PZH | 38 | 2.5 | 3 | 2,3,4 | 5,6 |
| QE06140 | 27 | 6.3 | 3 | 23,13 | 1,4 |

| TYPE | SHUNT | FIL | SEL | UP | DOWN |
|---|---|---|---|---|---|
| R30 | 37 | 2 | 2 | 2,3 | 4 |
| R100 | 46 | 7.5 | 3 | 9,13 | 4 |
| RK33 | 28 | 6.3 | 3 | 4,5 | 6,7 |
| RK33 | 28 | 6.3 | 3 | 3,13 | 2,7 |
| RK34 | 28 | 6.3 | 3 | 5,9 | 4,7 |
| RK34 | 28 | 6.3 | 3 | 3,13 | 4,7 |
| UCH81 | 25 | 12.6 | 2 | 1,2,6,7 | 3,4 |
| UCH81 | 28 | 12.6 | 2 | 8,9 | 3,4 |
| UCL82 | 22 | 50 | 2 | 3,6,7 | 2,4 |
| UCL82 | 24 | 50 | 2 | 1,9 | 4,8 |
| VR150 | 31 | 0 | 4 | 5 | 2,3,7 |
| VZM70 | 24 | 6.3 | 4 | 1 | 3,7 |
| VZM70 | 24 | 6.3 | 4 | 6 | 3,7 |

# INTER-CHANGEABILITY CHART

| TUBE | EQUIVALENT |
|---|---|
| 0A2 | 6073/150C2/6676/6626 |
| 0A3 | VR-75 |
| 0A4 | PL1267/1267 |
| 0B2 | 6074/108C1/6627 |
| 0B3 | VR-90 |
| 0C3 | VR105 |
| 0D3 | VR-150/150C3 |
| 0G3 | 5TV85-10/85A2 |
| 1A3 | DA90/1D13 |
| 1AB6 | DK96 |
| 1AC6 | DK92 |
| 1AH5 | DAF96 |
| 1B3-GT | 8016 |
| 1B4P | 951 |
| 1B5 | 25S |
| 1C1 | X17/DK91/1R5 |
| 1C5 | DL35/N14 |
| 1D13 | DA90/1A3 |
| 1F2 | 1L4/DF92 |
| 1F3 | DF91/1T4/W17 |
| 1FD9 | ZD17/DAF91/1S5 |
| 1H5 | HD14/DAC32 |
| 1J3 | 1K3 |
| 1K3 | 1J3 |
| 1L4 | DF92/1F2 |
| 1P10 | DL92/3S4/N17 |
| 1P11 | DL94/3V4 |
| 1R4 | 1294 |
| 1R5 | DK91/X17/1C1 |
| 1S2-A | DY87/DY86 |
| 1S5 | DAF91/ZD17/1FD9 |
| 1T4 | DF91/W17/1F3 |
| 1U5 | DAF92 |
| 1V | KR-1 |
| 2A3 | 5930 |
| 2A5 | KR-25 |
| 2C21 | 1642 |
| 2C22 | 7196 |
| 2C51 | 5670 |
| 2D21 | 5727/EN91 |
| 2S | 4S/G-2 |
| 2X2-A | 879 |
| 2Z2 | G84/684 |
| 3A4 | DL93 |
| 3A5 | DCC90 |
| 3B4 | DL98 |
| 3B7 | 1291 |
| 3DG4 | Z-2669 |
| 3Q4 | DL95/N18 |
| 3S4 | DL92/N17/1P10 |
| 3V4 | DL94/1P11 |
| 4S | 2S/G2 |
| 5AR4 | GZ34 |
| 5TV85-10 | OG3/85A2 |
| 5U4 | 5931 |
| 5V4 | GZ32 |
| 5Y3 | 6087/6106 |
| 5Z4 | GZ30 |
| 6A4 | LA |
| 6AB4 | EC92 |
| 6AB5 | 6N5 |
| 6AB7 | 1853 |
| 6AB8 | ECL80 |
| 6AC7 | 1852/6134 |
| 6AG5 | 6186 |
| 6AJ8 | ECH81 |
| 6AK5 | 5654/EF95/DP61/PM05 |
| 6AK8 | EABC80/6T8 |
| 6AL5 | 5726/6663/EB91/DD6/D77/D152/EAA91 |
| 6AM5 | EL91 |
| 6AM6 | EF91 |
| 6AQ4 | EC91 |
| 6AQ5 | 6669/6005/EL90/N727 |
| 6QA8 | ECC85 |
| 6AR6 | 6098 |
| 6AS6 | 5725 |
| 6AT6 | EBC90/DH77 |

| TUBE | EQUIVALENT |
|---|---|
| 6AU6 | 6136/EF94 |
| 6AV6 | EBC91 |
| 6BA6 | 5749/6660/EF93/PM04 |
| 6BC5 | 6CE5 |
| 6BE6 | 5750/EK90/HM04 |
| 6BE7 | EQ80 |
| 6BH6 | 6661/6265 |
| 6BJ6 | 6662 |
| 6BL8 | ECF80 |
| 6BM8 | ECL82 |
| 6BN5 | EL85 |
| 6BQ5 | EL84/6267/EF86/Z729 |
| 6BQ6 | 6CU6 |
| 6BR5 | EM80 |
| 6BT4 | EZ40 |
| 6BY4 | 7077 |
| 6BY6 | 5915/7036 |
| 6BY7 | EF85 |
| 6BX6 | EF80 |
| 6C4 | 6135/EC90 |
| 6CA4 | EZ81 |
| 6CA7 | EL34 |
| 6CE5 | 6BC5 |
| 6CJ5 | EF41 |
| 6CJ6 | EL81 |
| 6CK5 | EL41 |
| 6CL6 | 6677 |
| 6CM5 | EL36 |
| 6CN6 | EL38 |
| 6CQ6 | EF92 |
| 6CS6 | EH90 |
| 6CT7 | EAF42 |
| 6CU6 | 6BQ6 |
| 6CU7 | ECH42 |
| 6CV7 | EBC41 |
| 6CW5 | EL86 |
| 6DA5 | EM81 |
| 6DA6 | EF89 |
| 6DC8 | EBF89 |
| 6DJ8 | ECC88 |
| 6DL5 | EL95 |
| 6DS8 | ECH83 |
| 6F5 | H63 |
| 6FG6 | EM84 |
| 6G5 | 6U5 |
| 6H6 | D63 |
| 6J5 | L63 |
| 6J6 | ECC91 |
| 6J7 | Z63 |
| 6L6 | 5881/5932/EL37 |
| 6N3 | EY82 |
| 6N5 | 6AB5 |
| 6N8 | EBF80 |
| 6Q4 | EC80 |
| 6Q5 | 884 |
| 6Q7 | DH63/6T7 |
| 6R3 | EY81 |
| 6R4 | EC81 |
| 6S2 | EY86 |
| 6SJ7 | 5693 |
| 6SK7 | 6137 |
| 6SL7 | 5691 |
| 6SN7 | 5692/ECC33/B65/65W7 |
| 6SU7 | 6188 |
| 6T7 | 6Q7/DH63 |
| 6T8 | 6AK8/EABC80 |
| 6U5 | 6G5 |
| 6U8 | 6678/ECF82 |
| 6V4 | EZ80 |
| 6X2 | EY51 |
| 6X4 | 6202/EZ90/U78/V2M70 |
| 6Z4 | 84 |
| 7AN7 | PCC84 |
| 7C4 | 1203A |
| 7E5 | 1201 |
| 7G7 | 1232 |
| 9A8 | PCF80 |
| 9AK8 | PABC80 |

| TUBE | EQUIVALENT |
|---|---|
| 9AQ8 | PCC85 |
| 12AC5 | UF41 |
| 12AJ7 | HCH81 |
| 12AT6 | HBC90 |
| 12AT7 | 6679/6201/ECC81/B152/B309 |
| 12AU6 | HF94 |
| 12AU7 | 6680/5814/ECC82/6189 |
| 12AV6 | HBC91 |
| 12AV7 | 5965/6829 |
| 12AX7 | 5751/6681/ECC83/7025 12DT7 |
| 12AY7 | 6072 |
| 12B7 | 14A7 |
| 12BA6 | HF93 |
| 12BE6 | HK90 |
| 12BQ6 | 12CU6 |
| 12C5 | 12CU5 |
| 12CU5 | 12C5 |
| 12CU6 | 12BQ6 |
| 12DT7 | 7025/12AX7/5751/6681/ECC83 |
| 12DW7 | 7247 |
| 12S7 | UAF42 |
| 12SN7 | B36 |
| 14A7 | 12B7 |
| 14AF7 | XXD |
| 1723 | PY81 |
| 19D8 | UCH81 |
| 21A6 | PL81 |
| 25E5 | PL36 |
| 25L6 | KT32 |
| 25S | 1B5 |
| 30A5 | HL94 |
| 35 | 51 |
| 35W4 | HY90 |
| 39 | 44 |
| 44 | 39 |
| 50C5 | HL92 |
| 51 | 35 |
| 84 | 6Z4 |
| 85A2 | OG3/5TV85-10 |
| 108C1 | OB2/6074/6627 |
| 113HY | 123HY |
| 115HY | 145HY |
| 117L7 | M7 |
| 123HY | 113HY |
| 128A | 2523 |
| 145HY | 115HY |
| 150C2 | OA2/6073/6676/6626 |
| 150C3 | OD3/VR150 |
| 182B | 482B |
| 183B | 483 |
| 408A | 6028 |
| 482B | 182B |
| 483 | 183B |
| 484 | RIT |
| 485 | RIR |
| 684 | 2Z2 |
| 807 | 5933/QE06140 |
| 866 | 866A |
| 879 | 2X2A |
| 884 | 6Q5 |
| 951 | 1B4P |
| 1201 | 7E5 |
| 1203A | 7C4 |
| 1232 | 7G7 |
| 2050 | 2051 |
| 2051 | 2050 |
| 2523 | 128A |
| 5654 | 6AK5/EF95/DP61 PM05 |
| 5670 | 2C51 |
| 5691 | 6SL7 |
| 5692 | 6SN7/ECC33/B65 |
| 5693 | 6SJ7 |
| 5725 | 6AS6 |
| 5726 | 6AL5/6663/EB91/EAA91 |

| TUBE | EQUIVALENT |
|---|---|
| 5727 | 2D21/EN91 |
| 5749 | 6BA6/6660/EF93/PM04 |
| 5750 | 6BE6/EK90/HM04 |
| 5751 | 12AX7/6681/ECC83/12DT7/7025 |
| 5814 | 12AU7/6189/6680/ECC82 |
| 5881 | 6L6-G/5932/EL37 |
| 5915 | 6BY6/7036 |
| 5930 | 2A3 |
| 5931 | 5U4 |
| 5932 | 6L6/5881/EL37 |
| 5933 | 807/QE06140 |
| 5965 | 12AV7/6829 |
| 6005 | 6AQ5/6669/EL90/N727 |
| 6028 | 408A |
| 6072 | 12AY7 |
| 6073 | OA2/150C2/6676/6626 |
| 6074 | OB2/108C1/6627 |
| 6087 | 5Y3/6106 |
| 6098 | 6AR6 |
| 6106 | 5Y3/6087 |
| 6134 | 6AC7/1852 |
| 6135 | 6C4/EC90 |
| 6136 | 6AU6/EF94 |
| 6137 | 6SK7 |
| 6186 | 6AG5 |
| 6188 | 6SU7 |
| 6189 | 12AU7/ECC82/6680/5814 |
| 6201 | 12AT7/6679/ECC81/B152/B309 |
| 6202 | 6X4/EZ90/U78/V2M70 |
| 6265 | 6BH6/6661 |
| 6267 | EL84/6BQ5 |
| 6281 | CK574 |
| 6626 | OA2/150C2/6073/6676 |
| 6627 | OB2/108C2/6074 |
| 6660 | 6BA6/5749/EF93/PM04 |
| 6661 | 6BH6/6265 |
| 6662 | 6BJ6 |
| 6663 | 6AL5/5726/EB91/EAA91 |
| 6669 | 6AQ5/6005/EL90/N727 |
| 6676 | OA2/150C2/6073/6626 |
| 6677 | 6CL6 |
| 6678 | 6U8/ECF82 |
| 6679 | 12AT7/ECC81/6201/B152/B309 |
| 6680 | 12AU7/6189/5814/ECC82 |
| 6681 | 12AX7/5751/12DT7/7025/ECC83 |
| 6688 | E180F |
| 6829 | 5965/12AV7 |
| 6922 | E88CC |
| 7025 | 12AX7/12DT7/5751/6681/ECC83 |
| 1267 | OA4/PL1267 |
| 1291 | 3B7 |
| 1294 | 1R4 |
| 1642 | 2C21 |
| 1852 | 6AC7/6134 |
| 1853 | 6AB7 |
| 7036 | 6BY6/5915 |
| 7077 | 6BY4 |
| 7196 | 2C22 |
| 7247 | 12DW7 |
| 8016 | 1B3 |
| B36 | 12SN7 |
| B65 | 6SN7/ECC33 |
| B152 | ECC81/12AT7/B309/6679/6201 |
| B309 | ECC81/12AT7/6679/6201/B152 |
| CK574 | 6281 |
| D63 | 6H6 |
| D77 | DD6/6AL5/EB91/D152/6663/5726 |

| TUBE | EQUIVALENT |
|---|---|
| D152 | 6AL5/D77/DD6/EB91/6663/5726 |
| DA90 | 1A3/ID13 |
| DAC32 | HD14/1H5 |
| DAF91 | 1S5/ZD17/IFD9 |
| DAF92 | 1U5 |
| DAF96 | 1AH5 |
| DCC90 | 3A5 |
| DD6 | 6AL5/D77/D152/5726/6663/EB91/EAA91 |
| DF62 | 1AD4 |
| DF91 | 1T4/W17/IF3 |
| DF92 | 1L4/1F2 |
| DH63 | 6Q7/6T7 |
| DH77 | 6AT6/EBC90 |
| DK91 | 1R5/X17/1C1 |
| DK92 | 1AC6 |
| DK96 | 1AB6 |
| DL35 | N14/1C5 |
| DL92 | 3S4/N17/IP10 |
| DL93 | 3A4 |
| DL94 | 3V4/1P11 |
| DL95 | 3Q4/N18 |
| DL98 | 3B4 |
| DP61 | EF95/6AK5/PM05/5654 |
| DY86 | DY87/1S2A |
| DY87 | 1S2/DY86 |
| E88CC | 6922 |
| E180F | 6688 |
| EAA91 | 6AL5/5726/EB91/6663 |
| EABC80 | 6AK8/6T8 |
| EAF42 | 6CT7 |
| EB91 | 6AL5/DD6/D77/D152/5727/6663/EAA91 |
| EBC41 | 6CV7 |
| EBC90 | 6AT6/DH77 |
| EBC91 | 6AV6 |
| EBF80 | 6N8 |
| EC80 | 6Q4 |
| EC81 | 6R4 |
| EC90 | 6C4/6135 |
| EC91 | 6AQ4 |
| ED92 | 6AB4 |
| ECC33 | 65W7/65N7/B65 |
| ECC81 | 12AT7/B152/B309/6679/6201 |
| ECC82 | 12AU7/6680/5814/6189 |
| ECC83 | 12AX7/5751/6681/12DT7 |
| ECC85 | 6AQ8 |
| ECC88 | 6DJ8 |
| ECC91 | 6J6 |
| ECF80 | 6BL8 |
| ECF82 | 6U8/6678 |
| ECH42 | 6CU7 |
| ECH81 | 6AJ8 |
| ECH83 | 6DS8 |
| ECL80 | 6AB8 |
| ECL83 | 6BM8 |
| EF41 | 6CJ5 |
| EF80 | 6BX6 |
| EF85 | 6BY7 |
| EF86 | Z729/6267/EL84/6BQ5 |
| EF89 | 6DA6 |
| EF91 | 6AM6 |
| EF92 | 6CQ6 |
| EF93 | 6BA6/PM04/5749/6660 |
| EF94 | 6AU6/6136 |
| EF95 | 6AK5/5654/DP61/PM05 |
| EH90 | 6CS7 |
| EK90 | 6BE6/HM04/5750 |
| EL34 | 6CA7 |
| EL36 | 6CM5 |
| EL37 | 5881/6L6/5932 |
| EL38 | 6CN6 |
| EL41 | 6CK5 |

| TUBE | EQUIVALENT |
|---|---|
| EL81 | 6CJ6 |
| EL84 | 6BQ5/6267/EF86/Z729 |
| EL85 | 6BN5 |
| EL86 | 6CW5 |
| EL90 | 6AQ5/N727/6669/6005 |
| EL91 | 6AM5 |
| EL95 | 6DL5 |
| EM80 | 6BR5 |
| EM81 | 6DA5 |
| EM84 | 6FG6 |
| EN91 | 2D21/5727 |
| EQ80 | 6BE7 |
| EY51 | 6X2 |
| EY81 | 6R3 |
| EY82 | 6N3 |
| EY86 | 6S2 |
| EZ35 | U147 |
| EZ40 | 6BT4 |
| EZ80 | 6V4 |
| EZ81 | 6CA4 |
| EZ90 | 6X4/U78/6202/V2M70 |
| G2 | 4S/2S |
| G84 | 2Z2/684 |
| GZ30 | 5Z4 |
| GZ32 | 5V4 |
| GZ34 | 5AR4 |
| H63 | 6F5 |
| HBC90 | 12AT6 |
| HBC91 | 12AV6 |
| HCH81 | 12AJ7 |
| HD14 | DAC32/1H5 |
| HF93 | 12BA6 |
| HF94 | 12AU6 |
| HK90 | 12BE6 |
| HL92 | 50C5 |
| HL94 | 30A5 |
| HM04 | EK90/6BE6/5750 |
| HY90 | 35W4 |
| KR-1 | 1V |
| KR-25 | 2A5 |
| KT32 | 25L6 |
| LA | 6A4 |
| L63 | 6J5 |
| M7 | 117L7 |
| N14 | DL35/1C5 |
| N17 | DL92/3S4/IP10 |
| N18 | 3Q4/DL95 |
| N727 | 6AQ5/EL90/6669/6005 |
| PABC80 | 9AK8 |
| PCC84 | 7AN7 |
| PCC85 | 9AQ8 |
| PCF80 | 9A8 |
| PL36 | 25E5 |
| PL81 | 21A6 |
| PL1267 | OA4/1267 |
| PM04 | 6BA6/EF93/5749/6660 |
| PM05 | DP61/EF95/6AK5/5654 |
| PY81 | 17Z3 |
| QE06140 | 5933/807 |
| U78 | 6X4/EZ90/6202/V2M70 |
| U147 | EZ35 |
| UAF42 | 12S7 |
| UCH81 | 19D8 |
| UF41 | 12AC5 |
| V2M70 | 6X4/EZ90/6202/U78 |
| VR-75 | OA3 |
| VR90 | OB3 |
| VR105 | OC3 |
| VR150 | OD3/150C3 |
| W17 | DF91/IT4/IF3 |
| X17 | DK91/1R5/1C1 |
| XXD | 14AF7 |
| Z63 | 6J7 |
| Z729 | EL84/6BQ5/EF86/6267 |
| Z2669 | 3DG4 |
| ZD17 | DAF91/1S5/IFD9 |

6AQ5A ?
8FQ7 ?-G