| PRECISION 10-12, 10-15, 10-20, 10-22, 10-54 TUBE TEST DATA |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MRC (GK), (FH), 3-61, 6-1-70; 4-1-74; 2-15-75; 2-1-78 |  |  |  |  |  |  | LEVER |  |  |  | FIL.  <br> CONT. COMMENT |  |
| TUBE | SECTION | A | B | C | D | E | W | X | Y | Z |  |  |
| This supplementary chart provides settings for tubes which fall into the following classification: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Foreign Tubes |  |  |  |  |  |  |  |  |  |  |  |  |
| * - Denotes tubes with special European 8-pin miniature basing. The PRECISION No. G-118 adapter, designed especially for these tubes, is required. |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| A863 |  | 1 | 2 | 28 | 20 | 7 | --- | 4 | 3 | 11 | 2-7 |  |
| A1834 | Triode-1 | 1 | 7 | 30 | 4 | 7 | --- | --- | 5 | 4 | 7-8 |  |
| A1834 | Triode-2 | 1 | 7 | 30 | 4 | 7 | --- | --- | 2 | 1 | 7-8 |  |
| AA91E | Diode-1 | 3 | 3 | 0 | 17 | 7 | --- | --- | 7 | --- | 3-4 |  |
| AA91E | Diode-2 | 3 | 3 | 0 | 17 | 7 | --- | --- | 2 | --- | 3-4 |  |
| ABC-91 |  | 1 | 2 | 31 | 11 | 10 | --- | 4 | 3 | 5 | 2-7 |  |
| AR18 | Triode | 1 | 2 | 13 | 33 | 7 | --- | --- | 3 | 11 | 2-7 |  |
| AR18 | Diode | 3 | 2 | 0 | 27 | 7 | --- | --- | 4 | --- | 2-7 |  |
| AR18 | Diode | 3 | 2 | 0 | 27 | 7 | --- | --- | 5 | --- | 2-7 |  |
| AZ41 | Plate-1 | 2 | 7 | 0 | 8 | $5 Z$ | 5 | --- | 6 | --- | 7-8 | Set switch "E" to 5 if there is no $5 Z$ position |
| AZ41 | Plate-2 | 2 | 8 | 0 | 8 | $5 Z$ | 1 | --- | 2 | --- | 7-8 |  |
| B139 | Triode-1 | 5 | 4 | 10 | 10 | 8 | --- | --- | 9 | 6 | 4-5 | Must show short on 7-8; Cathode short test Depress 7-8 together |
| B139 | Triode-2 | 5 | 4 | 10 | 10 | 8 | --- | --- | 3 | 2 | 4-5 |  |
| DA90 |  | 3 | 1 | 0 | 27 | 2 | 2-5 | --- | 6 | --- | 1-7 | Must show short on 2-5-6; Plate short test Depress 2-6 together |
| DAC32 | Triode | 5 | 2 | 12 | 46 | 2 | --- | --- | 3 | 11 | 2-7 |  |
| DAC32 | Diode | 3 | 2 | 0 | 27 | 2 | --- | --- | 5 | --- | 2-7 |  |
| DAF91 | Pent | 1 | 1 | 26 | 35 | 2 | --- | 4 | 5 | 6 | 1-7 |  |
| DAF91 | Diode | 3 | 1 | 0 | 29 | 2 | --- | --- | 3 | --- | 1-7 |  |
| DAF92 | Pentode | 1 | 1 | 26 | 35 | 2 | --- | 3 | 2 | 6 | 1-7 |  |
| DAF92 | Diode | 3 | 1 | 0 | 29 | 2 | --- | --- | 4 | --- | 1-7 |  |
| DAF96 | Pent | 4 | 7 | 17 | 41 | 2 | --- | 4 | 5 | 6 | 1-7 |  |
| DAF96 | Diode | 3 | 7 | 0 | 28 | 2 | --- | --- | 3 | -- | 1-7 |  |
| DC90 |  | 5 | 7 | 21 | 14 | 2 | 2-5 | --- | 3 | 6 | 1-7 | Must show short on 2-3-5-6; Grid short test - Depress 5-6 together; Plate short test Depress 2-3 together |
| DC96 |  | 5 | 1 | 35 | 10 | 2 | 2-5 | --- | 3 | 6 | 1-7 | Must show short on 2-3-5-6; Plate short test - Depress 2-3 together; Grid short test Depress 5-6 together |
| DCC90 | Triode-1 | 1 | 4 | 20 | 14 | 2 | --- | --- | 2 | 3 | 1-4-7 |  |
| DCC90 | Triode-2 | 1 | 4 | 20 | 14 | 2 | --- | --- | 6 | 5 | 1-4-7 |  |
| DF11 |  | 4 | 2 | 13 | 20 | 2 | --- | 6 | 5 | 7 | 2-3 | Must show short on 8 |
| DF33 |  | 1 | 2 | 25 | 40 | 2 | --- | 4 | 3 | 11 | 2-7 |  |
| DF91 |  | 1 | 7 | 32 | 22 | 2 | 5 | 3 | 2 | 6 | 1-5-7 |  |
| DF92 |  | 1 | 7 | 27 | 29 | 2 | 5 | 3 | 2 | 6 | 1-5-7 |  |


| PRECISION 10-12, 10-15, 10-20, 10-22, 10-54 TUBE TEST DATA |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MRC (GK), (FH), 3-61, 6-1-70; 4-1-74; 2-15-75; 2-1-78 |  |  |  |  |  |  | LEVER |  |  |  | FIL. <br> CONT. |  |
| TUBE | SECTION | A | B | C | D | E | W | X | Y | Z |  |  |
| This supplementary chart provides settings for tubes which fall into the following classification: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Foreign Tubes |  |  |  |  |  |  |  |  |  |  |  |  |
| * - Denotes tubes with special European 8-pin miniature basing. The PRECISION No. G-118 adapter, designed especially for these tubes, is required. |  |  |  |  |  |  |  |  |  |  |  |  |
| DF96 |  | 5 | 7 | 6 | 37 | 2 | --- | 3 | 2 | 6 | 1-5-7 |  |
| DF97 |  | 5 | 7 | 16 | 33 | 2 | --- | 3 | 2 | 6 | 1-5-7 |  |
| DF904 |  | 1 | 7 | 27 | 32 | 2 | 5 | 3 | 2 | 6 | 1-5-7 |  |
| DK32 | Amp | 4 | 2 | 25 | 29 | 2 | --- | 4 | 3 | 11 | 2-7 |  |
| DK32 | Osc | 2 | 2 | 14 | 36 | 2 | --- | --- | 4-6 | 5 | 2-7 |  |
| DK91 | Amp | 4 | 7 | 9 | 39 | 2 | 5 | 3 | 2 | 6 | 1-5-7 |  |
| DK91 | Osc | 2 | 7 | 10 | 39 | 2 | 5 | --- | 3 | 4 | 1-5-7 |  |
| DK92 | Amp | 1 | 7 | 50 | 31 | 2 | --- | 6 | 2 | 3-4 | 1-7 |  |
| DK92 | Osc | 1 | 7 | 36 | 10 | 2 | --- | 5 | 3 | 4 | 1-7 |  |
| DK96 | Amp | 5 | 7 | 27 | 40 | 2 | --- | 6 | 2 | 3-4 | 1-7 |  |
| DK96 | Osc | 5 | 7 | 13 | 19 | 2 | --- | --- | 3 | 4 | 1-7 |  |
| DL11 |  | 4 | 2 | 13 | 10 | 2 | --- | 6 | 5 | 7 | 2-3 |  |
| DL33 |  | 1 | 8 | 26 | 12 | 2 | --- | 4 | 3 | 5 | 2-7-8 |  |
| DL35 |  | 1 | 2 | 27 | 13 | 2 | --- | 4 | 3 | 5 | 2-7 |  |
| DL41 |  | 5 | 1 | 12 | 10 | 2 | --- | 5 | 2 | 6 | 1-7-8 | May show short on 3 |
| DL92 |  | 1 | 5 | 27 | 14 | 2 | 6 | 4 | 2 | 3 | 1-5-7 | Must show short on 2-6; Plate short test Depress 2-6 together |
| DL93 |  | 1 | 5 | 26 | 12 | 2 | 6 | 3 | 2 | 4 | 1-5-7 | Must show short on 2-6 |
| DL94 |  | 1 | 5 | 27 | 15 | 2 | --- | 3 | 2 | 6 | 1-5-7 |  |
| DL95 |  | 1 | 5 | 27 | 15 | 2 | 2 | 4 | 6 | 3 | 1-5-7 |  |
| DL96 |  | 1 | 5 | 30 | 10 | 2 | --- | 3 | 2 | 6 | 1-5-7 |  |
| DL98 | \# | 5 | 2 | 6 | 10 | 2 | 6 | 1 | 7 | 3 | 2-4-5 | \# CAUTIONLever 6 must be thrown to position "W" before inserting tube and must remain in position "W" throughout all tests, including short tests |
| DM70 | Eye | 3 | 4 | 0 | 0 | 2 | --- | --- | 1-8 | --- | 4-5 | See instructions for eye test |
| DM71 | Eye | 3 | 4 | 0 | 0 | 2 | --- | --- | 1-8 | --- | 4-5 | See instructions for eye test |
| DY80 | \# |  |  |  |  |  |  |  |  |  |  | \# CAUTION - Levers 5-8 must be thrown to position "W" before inserting tube and must remain in position "W" throughout all tests, Including short tests. |
| DY80 |  | 7 | 2 | 0 | 16 | 2 | 5-8 | --- | 11 | --- | \$ | \$ Fil Cont-1-2-4-6-9; May show short on 3-7 |
| DY86 | \# |  |  |  |  |  |  |  |  |  |  | \# CAUTION - Levers 5-8 must be thrown to position "W" before inserting tube and must remain in position "W" throughout all tests, Including short tests. |


| PRECISION 10-12, 10-15, 10-20, 10-22, 10-54 TUBE TEST DATA |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MRC (GK), (FH), 3-61, 6-1-70; 4-1-74; 2-15-75; 2-1-78 |  |  |  |  |  |  | LEVER |  |  |  | FIL.  <br> CONT. COMMENT |  |
| TUBE | SECTION | A | B | C | D | E | W | X | Y | Z |  |  |
| This supplementary chart provides settings for tubes which fall into the following classification: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Foreign Tubes |  |  |  |  |  |  |  |  |  |  |  |  |
| * - Denotes tubes with special European 8-pin miniature basing. The PRECISION No. G-118 adapter, designed especially for these tubes, is required. |  |  |  |  |  |  |  |  |  |  |  |  |
| DY86 |  | 7 | 2 | 0 | 14 | 2 | 5-8 | --- | 11 | --- | \$ | \$ Fil Cont-1-2-4-6-9; May show short on 3-7 |
| DY87 | \# |  |  |  |  |  |  |  |  |  |  | \# CAUTION - Levers 5-8 must be thrown to position "W" before inserting tube and must remain in position "W" throughout all tests, Including short tests. |
| DY87 |  | 7 | 2 | 0 | 14 | 2 | 5-8 | --- | 11 | --- | \$ | \$ Fil Cont must show short on 1-2-4-5-6 -8-9 |
| DY802 | * | 7 | 2 | 0 | 17 | 2 | 5-8 | --- | 11 | --- | ? | * CAUTION: Levers 5-8 must be thrown to "W" position before inserting tube and remain there for all tests; Must show short on 1-2-4-6-9 |
| E55L | * | 1 | 4 | 5 | 7 | 7 | --- | 3 | 1 | 8 | 4-5 | * Must use magnoval adapter; Must show short on 2-6-7-9 |
| E80CC | Triode-1 | 1 | 9 | 10 | 22 | 7 | --- | --- | 6 | 7 | 4-5-9 |  |
| E80CC | Triode-2 | 1 | 9 | 10 | 22 | 7 | --- | --- | 1 | 2 | 4-5-9 |  |
| E80F |  | 3 | 4 | 7 | 32 | 7 | 7 | 1 | 6 | 9 | 4-5 | Must show short on 2-7 |
| E80L |  | 1 | 4 | 10 | 16 | 7 | --- | 8 | 7 | 2 | 4-5 | Must show short on 1-6 |
| E81CC | Triode-1 | 1 | 9 | 32 | 10 | 7 | --- | --- | 1 | 2 | 4-5-9 |  |
| E81CC | Triode-2 | 1 | 9 | 32 | 10 | 7 | --- | --- | 6 | 7 | 4-5-9 |  |
| E81L |  | 4 | 4 | 4 | 9 | 7 | 1 | 8 | 7 | 2 | 4-5 |  |
| E82CC | Triode-1 | 1 | 9 | 27 | 10 | 7 | --- | --- | 6 | 7 | 4-5-9 |  |
| E82CC | Triode-2 | 1 | 9 | 27 | 10 | 7 | --- | --- | 1 | 2 | 4-5-9 |  |
| E83CC | Triode-1 | 1 | 9 | 12 | 32 | 7 | --- | --- | 6 | 7 | 4-5-9 |  |
| E83CC | Triode-2 | 1 | 9 | 12 | 32 | 7 | --- | --- | 1 | 2 | 4-5-9 |  |
| E83F |  | 1 | 4 | 12 | 20 | 7 | --- | 1 | 6 | 2 | 5 |  |
| E84L |  | 1 | 4 | 28 | 7 | 7 | 1 | 9 | 7 | 2 | 4-5 | Must show short on 1-2 |
| E88CC | Triode-1 | 1 | 4 | 6 | 12 | 7 | --- | --- | 6 | 7 | 4-5 |  |
| E88CC | Triode-2 | 1 | 4 | 6 | 12 | 7 | --- | --- | 1 | 2 | 4-5 |  |
| E90Z |  | 2 | 3 | 0 | 3 | 7 | --- | --- | 1 | --- | 3-4 |  |
| E90Z |  | 2 | 3 | 0 | 3 | 7 | --- | --- | 6 | --- | 3-4 |  |
| E91AA | Diode-1 | 3 | 3 | 0 | 17 | 7 | --- | --- | 7 | --- | 3-4 |  |
| E91AA | Diode-2 | 3 | 3 | 0 | 17 | 7 | --- | --- | 2 | --- | 3-4 |  |
| E91N |  | 7 | 3 | 0 | 3 | 7 | --- | --- | 6 | 1 | 3-4 | Must show short on 5-7 |
| E180F |  | 1 | 4 | 12 | 16 | 7 | --- | 9 | 7 | 2 | 4-5 |  |
| E182CC | Triode-1 | 1 | 8 | 27 | 5 | 7 | --- | --- | 9 | 7 | 4-5-8 |  |
| E182CC | Triode-2 | 1 | 8 | 27 | 5 | 7 | --- | --- | 1 | 2 | 4-5-8 |  |
| E188CC | Triode-1 | 1 | 4 | 10 | 10 | 7 | --- | --- | 6 | 7 | 4-5 |  |


| PRECISION 10-12, 10-15, 10-20, 10-22, 10-54 TUBE TEST DATA |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MRC (GK), (FH), 3-61, 6-1-70; 4-1-74; 2-15-75; 2-1-78 |  |  |  |  |  |  | LEVER |  |  |  | FIL.  <br> CONT. COMMENT |  |
| TUBE | SECTION | A | B | C | D | E | W | X | Y | Z |  |  |
| This supplementary chart provides settings for tubes which fall into the following classification: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Foreign Tubes |  |  |  |  |  |  |  |  |  |  |  |  |
| * - Denotes tubes with special European 8-pin miniature basing. The PRECISION No. G-118 adapter, designed especially for these tubes, is required. |  |  |  |  |  |  |  |  |  |  |  |  |
| E188CC | Triode-2 | 1 | 4 | 10 | 10 | 7 | --- | --- | 1 | 2 | 4-5 |  |
| E235L |  | 1 | 2 | 5 | 5 | 7 | 1 | 4 | 3 | 5 | 2-7 |  |
| E810F |  | 5 | 4 | 0 | 13 | 7 | 9 | 6 | 7 | 2 | 4-5 | Must show short on 1-3-6-9 |
| EAA11 | Diode-1 | 3 | 2 | 0 | 16 | 7 | --- | --- | 5 | --- | 2-3 |  |
| EAA11 | Diode-2 | 3 | 2 | 0 | 16 | 7 | --- | --- | 6 | --- | 2-3 |  |
| EAA91 | Diode-1 | 3 | 3 | 0 | 17 | 7 | --- | --- | 7 | --- | 3-4 |  |
| EAA91 | Diode-2 | 3 | 3 | 0 | 17 | 7 | --- | --- | 2 | --- | 3-4 |  |
| EAA901 | Diode-1 | 3 | 3 | 0 | 17 | 7 | --- | --- | 7 | --- | 3-4 |  |
| EAA901 | Diode-2 | 3 | 3 | 0 | 17 | 7 | --- | --- | 2 | --- | 3-4 |  |
| EABC80 | Triode | 4 | 4 | 14 | 10 | 7 | --- | --- | 9 | 8 | 4-5 | Correction (GK) |
| EABC80 | Diode-1 | 3 | 4 | 0 | 24 | 7 | --- | --- | 6 | --- | 4-5 | Correction (GK) |
| EABC80 | Diode-2 | 3 | 4 | 0 | 16 | 7 | --- | --- | 2 | --- | 4-5 |  |
| EABC80 | Diode-3 | 3 | 4 | 0 | 16 | 7 | --- | --- | 1 | --- | 4-5 |  |
| EAC91 | Triode | 1 | 3 | 30 | 10 | 7 | --- | --- | 7 | 6 | 3-4 |  |
| EAC91 | Diode | 3 | 3 | 0 | 16 | 7 | --- | --- | 1 | --- | 3-4 |  |
| *EAF42 | Pent | 1 | 1 | 8 | 29 | 7 | --- | 5 | 2 | 6 | 1-8 |  |
| *EAF42 | Diode | 3 | 1 | 0 | 21 | 7 | --- | --- | 3 | --- | 1-8 |  |
| EAF801 | Diode | 3 | 4 | 0 | 21 | 7 | --- | --- | 8 | --- | 4-5 |  |
| EAF801 | Pentode | 4 | 4 | 30 | 32 | 7 | - | 1 | 6 | 2 | 4-5 |  |
| EAM86 | Triode | 5 | 4 | 9 | 14 | 7 | --- | --- | 1 | 8 | 4-5 |  |
| EAM86 | Eye | 7 | 4 | 0 | 0 | 7 | --- | --- | 6-7 | -- | 4-5 | See instructions for eye test |
| EB41 | Diode-1 | 3 | 1 | 0 | 16 | 7 | -- | --- | 6 | --- | 1-8 |  |
| EB41 | Diode-2 | 3 | 1 | 0 | 16 | 7 | --- | --- | 4 | --- | 1-8 |  |
| EB91 | Diode-1 | 3 | 3 | 0 | 16 | 7 | --- | --- | 7 | --- | 3-4 |  |
| EB91 | Diode-2 | 3 | 3 | 0 | 16 | 7 | --- | --- | 2 | --- | 3-4 |  |
| EBC11 | Triode | 1 | 2 | 27 | 10 | 7 | --- | --- | 6 | 7 | 3-4 |  |
| EBC11 | Diode-1 | 3 | 2 | 0 | 20 | 7 | --- | --- | 5 | --- | 3-4 |  |
| EBC11 | Diode-2 | 3 | 2 | 0 | 20 | 7 | --- | --- | 4 | --- | 3-4 |  |
| EBC33 | Triode | 1 | 2 | 30 | 10 | 7 | --- | --- | 3 | 11 | 2-7 |  |
| EBC33 | Diode-1 | 3 | 2 | 0 | 19 | 7 | --- | --- | 5 | --- | 2-7 |  |
| EBC33 | Diode-2 | 3 | 2 | 0 | 19 | 7 | --- | --- | 4 | --- | 2-7 |  |
| EBC41 | Triode | 4 | 1 | 13 | 10 | 7 | --- | --- | 2 | 3 | 1-8 |  |
| EBC41 | Diode-1 | 3 | 1 | 0 | 22 | 7 | --- | --- | 5 | --- | 1-8 |  |
| EBC41 | Diode-2 | 3 | 1 | 0 | 22 | 7 | --- | --- | 6 | --- | 1-8 |  |
| EBC81 | Triode | 4 | 4 | 11 | 10 | 7 | --- | --- | 1 | 2 | 4-5 |  |
| EBC81 | Diode-1 | 3 | 4 | 0 | 27 | 7 | --- | --- | 8 | --- | 4-5 |  |
| EBC81 | Diode-2 | 3 | 4 | 0 | 25 | 7 | --- | --- | 6 | --- | 4-5 |  |
| EBC90 | Triode | 1 | 3 | 13 | 30 | 7 | --- | --- | 7 | 1 | 3-4 |  |


| PRECISION 10-12, 10-15, 10-20, 10-22, 10-54 TUBE TEST DATA |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MRC (GK), (FH), 3-61, 6-1-70; 4-1-74; 2-15-75; 2-1-78 |  |  |  |  |  |  | LEVER |  |  |  | FIL.  <br> CONT. COMMENT |  |
| TUBE | SECTION | A | B | C | D | E | W | X | Y | Z |  |  |
| This supplementary chart provides settings for tubes which fall into the following classification: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Foreign Tubes |  |  |  |  |  |  |  |  |  |  |  |  |
| *- Denotes tubes with special European 8-pin miniature basing. The PRECISION No. G-118 adapter, designed especially for these tubes, is required. |  |  |  |  |  |  |  |  |  |  |  |  |
| EBC90 | Diode-1 | 3 | 3 | 0 | 26 | 7 | --- | --- | 6 | --- | 3-4 |  |
| EBC90 | Diode-2 | 3 | 3 | 0 | 26 | 7 | --- | --- | 5 | --- | 3-4 |  |
| EBC91 | Triode | 1 | 3 | 12 | 32 | 7 | --- | --- | 7 | 1 | 3-4 |  |
| EBC91 | Diode-1 | 3 | 3 | 0 | 27 | 7 | --- | --- | 6 | --- | 3-4 |  |
| EBC91 | Diode-2 | 3 | 3 | 0 | 27 | 7 | --- | --- | 5 | --- | 3-4 |  |
| EBF15 | Pent | 4 | 2 | 3 | 10 | 7 | --- | 6 | 1 | 7 | 2-3 |  |
| EBF15 | Diode | 3 | 2 | 0 | 18 | 7 | --- | --- | 5 | --- | 2-3 |  |
| EBF80 | Pent | 1 | 4 | 14 | 31 | 7 | --- | 1 | 6 | 2 | 4-5 |  |
| EBF80 | Diode-1 | 3 | 4 | 0 | 23 | 7 | --- | --- | 7 | --- | 4-5 |  |
| EBF80 | Diode-2 | 3 | 4 | 0 | 23 | 7 | --- | --- | 8 | --- | 4-5 |  |
| EBF83 | Pent | 1 | 4 | 20 | 19 | 7 | --- | 1 | 6 | 2 | 4-5 |  |
| EBF83 | Diode-1 | 3 | 4 | 0 | 21 | 7 | --- | --- | 7 | --- | 4-5 |  |
| EBF83 | Diode-2 | 3 | 4 | 0 | 21 | 7 | --- | --- | 8 | --- | 4-5 |  |
| EBF89 | Pent | 1 | 4 | 27 | 17 | 7 | --- | 1 | 6 | 2 | 4-5 |  |
| EBF89 | Diode-1 | 3 | 4 | 0 | 11 | 7 | --- | --- | 7 | --- | 4-5 |  |
| EBF89 | Diode-2 | 3 | 4 | 0 | 11 | 7 | --- | --- | 8 | --- | 4-5 |  |
| EC80 |  | 1 | 1 | 35 | 5 | 7 | 2-7 | --- | 3 | 8 | 1-4 | Must show short on 2-3-7-8 individually |
| EC81 |  | 1 | 4 | 11 | 11 | 7 | --- | --- | 8 | 1 | 4-5 |  |
| EC86 |  | 1 | 4 | 10 | 9 | 7 | 6-8-9 | --- | 1 | 2 | 4-5 | Must show short on 1-2-3-6-7-8-9; Cathode short test - Depress 3-7 together |
| EC88 |  | 5 | 4 | 8 | 9 | 7 | --- | --- | 8 | 9 | 4-5 | Must show short on 1-3-6-7-9 |
| EC91 |  | 4 | 3 | 5 | 5 | 7 | 1 | --- | 7 | 6 | 3-4 | Must show short on 1-2-5-6 |
| EC92 |  | 1 | 3 | 30 | 10 | 7 | --- | --- | 1 | 6 | 3-4 |  |
| EC95 |  | 1 | 3 | 17 | 10 | 7 | --- | 6 | 5 | 2 | 3-4 | Must show short on 1-7; Cathode short test Depress 1-7 together |
| EC97 |  | 1 | 3 | 13 | 10 | 7 | --- | --- | 5 | 2 | 3-4 | Must show short on 1-7; Cathode short test Depress 1-7 together |
| EC900 |  | 1 | 3 | 13 | 10 | 7 | 2 | --- | 5 | 1 | 3-4 | Must show short on 2-7; Cathode short test Depress 2-7 together |
| ECC33 | Triode-1 | 1 | 7 | 28 | 10 | 7 | --- | --- | 5 | 4 | 7-8 |  |
| ECC33 | Triode-2 | 1 | 7 | 28 | 10 | 7 | --- | --- | 2 | 1 | 7-8 |  |
| ECC34 | Triode-1 | 1 | 7 | 25 | 10 | 7 | --- | --- | 5 | 4 | 7-8 |  |
| ECC34 | Triode-2 | 1 | 7 | 25 | 10 | 7 | --- | --- | 2 | 1 | 7-8 |  |
| ECC35 | Triode-1 | 1 | 7 | 33 | 10 | 7 | --- | --- | 5 | 4 | 7-8 |  |
| ECC35 | Triode-2 | 1 | 7 | 33 | 10 | 7 | --- | --- | 2 | 1 | 7-8 |  |
| ECC40 | Triode-1 | 2 | 1 | 31 | 10 | 7 | --- | --- | 5 | 6 | 1-8 |  |


| PRECISION 10-12, 10-15, 10-20, 10-22, 10-54 TUBE TEST DATA |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MRC (GK), (FH), 3-61, 6-1-70; 4-1-74; 2-15-75; 2-1-78 |  |  |  |  |  |  | LEVER |  |  |  | FIL.  <br> CONT. COMMENT |  |
| TUBE | SECTION | A | B | C | D | E | W | X | Y | Z |  |  |
| This supplementary chart provides settings for tubes which fall into the following classification: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Foreign Tubes |  |  |  |  |  |  |  |  |  |  |  |  |
| * - Denotes tubes with special European 8-pin miniature basing. The PRECISION No. G-118 adapter, designed especially for these tubes, is required. |  |  |  |  |  |  |  |  |  |  |  |  |
| ECC40 | Triode-2 | 2 | 1 | 31 | 10 | 7 | --- | --- | 2 | 3 | 1-8 |  |
| ECC81 | Triode-1 | 1 | 9 | 32 | 9 | 7 | --- | --- | 6 | 7 | 4-5-9 |  |
| ECC81 | Triode-2 | 1 | 9 | 32 | 9 | 7 | --- | --- | 1 | 2 | 4-5-9 |  |
| ECC82 | Triode-1 | 1 | 9 | 27 | 10 | 7 | --- | --- | 1 | 2 | 4-5-9 |  |
| ECC82 | Triode-2 | 1 | 9 | 27 | 10 | 7 | --- | --- | 6 | 7 | 4-5-9 |  |
| ECC83 | Triode-1 | 1 | 9 | 8 | 38 | 7 | --- | --- | 6 | 7 | 4-5-9 |  |
| ECC83 | Triode-2 | 1 | 9 | 8 | 38 | 7 | --- | --- | 1 | 2 | 4-5-9 |  |
| ECC84 | Triode-1 | 5 | 4 | 9 | 10 | 7 | --- | --- | 9 | 6 | 4-5 | Must show short on 7-8; Cathode short test, Section 1 - Depress 7-8 together |
| ECC84 | Triode-2 | 5 | 4 | 9 | 10 | 7 | --- | --- | 3 | 2 | 4-5 |  |
| ECC85 | Triode-1 | 1 | 5 | 21 | 13 | 7 | --- | --- | 6 | 7 | 4-5 |  |
| ECC85 | Triode-2 | 1 | 5 | 21 | 13 | 7 | --- | --- | 1 | 2 | 4-5 |  |
| ECC86 | Triode-1 | 2 | 4 | 10 | 10 | 7 | --- | --- | 6 | 7 | 4-5 |  |
| ECC86 | Triode-2 | 2 | 4 | 10 | 10 | 7 | --- | --- | 1 | 2 | 4-5 |  |
| ECC86 | Diode | 3 | 2 | 0 | 18 | 7 | --- | --- | 4 | --- | 4-5 |  |
| ECC88 | Triode-1 | 1 | 4 | 6 | 12 | 7 | --- | --- | 6 | 7 | 4-5 |  |
| ECC88 | Triode-2 | 1 | 4 | 6 | 12 | 7 | --- | --- | 1 | 2 | 4-5 |  |
| ECC91 | Triode-1 | 1 | 3 | 16 | 13 | 7 | --- | --- | 2 | 5 | 3-4 |  |
| ECC91 | Triode-2 | 1 | 3 | 16 | 13 | 7 | --- | --- | 1 | 6 | 3-4 |  |
| ECC189 | Triode-1 | 2 | 4 | 12 | 10 | 7 | --- | --- | 6 | 7 | 4-5 |  |
| ECC189 | Triode-2 | 2 | 4 | 12 | 10 | 7 | --- | --- | 1 | 2 | 4-5 |  |
| ECC801S | Triode-1 | 1 | 9 | 32 | 9 | 7 | --- | --- | 6 | 7 | 4-5-9 |  |
| ECC801S | Triode-2 | 1 | 9 | 32 | 9 | 7 | --- | --- | 1 | 2 | 4-5-9 |  |
| ECC802S | Triode-1 | 1 | 9 | 27 | 10 | 7 | --- | --- | 1 | 2 | 4-5-9 |  |
| ECC802S | Triode-2` | 1 | 9 | 27 | 10 | 7 | --- | --- | 6 | 7 | 4-5-9 |  |
| ECC808 | Triode-1 | 5 | 4 | 16 | 17 | 7 | --- | --- | 7 | 9 | 4-5 |  |
| ECC808 | Triode-2 | 5 | 4 | 16 | 17 | 7 | --- | --- | 3 | 1 | 4-5 |  |
| ECF12 | Triode | 5 | 2 | 23 | 10 | 7 | --- | --- | 5 | 4 | 2-3 |  |
| ECF12 | Pent | 4 | 2 | 10 | 15 | 7 | -- | 6 | 1 | 7 | 2-3 |  |
| ECF80 | Triode | 1 | 4 | 14 | 10 | 7 | --- | --- | 1 | 9 | 4-5 |  |
| ECF80 | Pent | 1 | 4 | 23 | 16 | 7 | --- | 3 | 6 | 2 | 4-5 |  |
| ECF82 | Triode | 1 | 4 | 28 | 8 | 7 | --- | --- | 1 | 9 | 4-5 |  |
| ECF82 | Pent | 1 | 4 | 14 | 29 | 7 | --- | 3 | 6 | 2 | 4-5 |  |
| ECF83 | Triode | 3 | 4 | 15 | 17 | 7 | --- | --- | 3 | 2 | 4-5 |  |
| ECF83 | Pentode | 4 | 4 | 10 | 10 | 7 | --- | 7 | 6 | 9 | 4-5 |  |
| ECF86 | Triode | 1 | 4 | 5 | 10 | 7 | --- | --- | 7 | 6 | 4-5 | May show short on 1 -3; Cathode short test Depress 1-3 together |
| ECF86 | Pent | 1 | 4 | 7 | 25 | 7 | --- | 9 | 8 | 2 | 4-5 |  |
| PRECISION 10-12, 10-15, 10-20, 10-22, 10-54 TUBE TEST DATA |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MRC (GK), (FH), 3-61, 6-1-70; 4-1-74; 2-15-75; 2-1-78 |  |  |  |  |  |  | LEVER |  |  |  | FIL.  <br> CONT. COMMENT |  |
| TUBE | SECTION | A | B | C | D | E | W | X | Y | Z |  |  |
| This supplementary chart provides settings for tubes which fall into the following classification: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Foreign Tubes |  |  |  |  |  |  |  |  |  |  |  |  |
| * - Denotes tubes with special European 8-pin miniature basing. The PRECISION No. G-118 adapter, designed especially for these tubes, is required. |  |  |  |  |  |  |  |  |  |  |  |  |
| ECF200 | Triode | 4 | 5 | 10 | 14 | 7 | --- | --- | 9 | 11 | 5-6 |  |
| ECF200 | Pentode | 2 | 5 | 0 | 39 | 7 | --- | 8 | 7 | 3 | 5-6 |  |
| ECF201 | Triode | 5 | 5 | 9 | 10 | 7 | --- | --- | 9 | 11 | 5-6 |  |
| ECF201 | Pentode | 5 | 5 | 0 | 20 | 7 | --- | 8 | 7 | 3 | 5-6 |  |
| ECF202 | Triode | 5 | 5 | 8 | 10 | 7 | --- | --- | 9 | 11 | 5-6 |  |
| ECF202 | Pentode | 5 | 5 | 5 | 30 | 7 | --- | 8 | 7 | 3 | 5-6 |  |
| ECF801 | Triode | 5 | 4 | 7 | 8 | 7 | --- | --- | 8 | 9 | 4-5 | Must show short on 1-3; Cathode short test Depress 1-3 together |
| ECF801 | Pentode | 1 | 4 | 0 | 38 | 7 | --- | 7 | 6 | 2 | 4-5 |  |
| ECF802 | Triode | 5 | 4 | 10 | 15 | 7 | --- | --- | 1 | 9 | 4-5 |  |
| ECF802 | Pentode | 4 | 4 | 7 | 11 | 7 | --- | 3 | 6 | 2 | 4-5 |  |
| ECF805 | Triode | 5 | 4 | 7 | 10 | 7 | --- | --- | 1 | 9 | 4-5 |  |
| ECF805 | Pentode | 5 | 4 | 0 | 22 | 7 | --- | 2 | 3 | 7 | 4-5 |  |
| ECH21 | Pentode | 3 | 1 | 10 | 25 | 7 | --- | 5 | 2 | 6 | 8 |  |
| ECH21 | Triode | 3 | 1 | 5 | 29 | 7 | --- | --- | 3 | 4 | 8 |  |
| ECH35 | Triode | 1 | 2 | 30 | 10 | 7 | --- | --- | 6 | 5 | 2-7 |  |
| ECH35 | Hexode | 1 | 2 | 18 | 34 | 7 | --- | 4 | 3 | 11 | 2-7 |  |
| ECH42 | Triode | 1 | 1 | 30 | 10 | 7 | --- | --- | 3 | 4 | 1-8 |  |
| ECH42 | Hexode | 1 | 1 | 5 | 38 | 7 | --- | 5 | 2 | 6 | 1-8 |  |
| ECH81 | Amp | 1 | 4 | 14 | 31 | 7 | --- | 1 | 6 | 2 | 4-5 |  |
| ECH81 | Osc | 1 | 4 | 25 | 10 | 7 | --- | --- | 1 | 2 | 4-5 |  |
| ECH81 | Triode | 1 | 4 | 25 | 13 | 7 | --- | --- | 8 | 9 | 4-5 |  |
| ECH83 | Amp | 1 | 4 | 17 | 29 | 7 | --- | 1 | 6 | 2 | 4-5 |  |
| ECH83 | Osc | 3 | 4 | 10 | 23 | 7 | --- | --- | 1 | 2 | 4-5 |  |
| ECH83 | Triode | 1 | 4 | 27 | 10 | 7 | --- | --- | 8 | 9 | 4-5 |  |
| ECH84 | Triode | 5 | 4 | 9 | 17 | 7 | --- | --- | 8 | 9 | 4-5 |  |
| ECH84 | Heptode | 5 | 4 | 6 | 16 | 7 | --- | 7 | 6 | 2 | 4-5 |  |
| ECH200 | Triode | 5 | 5 | 8 | 10 | 7 | --- | --- | 11 | 8 | 5-6 |  |
| ECH200 | Pentode | 5 | 5 | 5 | 21 | 7 | --- | 4 | 7 | 3 | 5-6 |  |
| ECL11 | Triode | 5 | 2 | 29 | 10 | 7 | --- | --- | 6 | 7 | 2-3 |  |
| ECL11 | Tetrode | 1 | 2 | 26 | 10 | 7 | --- | 4 | 1 | 5 | 2-3 |  |
| ECL80 | Pent | 1 | 4 | 26 | 10 | 7 | --- | 8 | 6 | 9 | 4-5 |  |
| ECL80 | Triode | 1 | 4 | 34 | 10 | 7 | --- | --- | 1 | 2 | 4-5 |  |
| ECL82 | Triode | 1 | 4 | 31 | 11 | 7 | --- | --- | 9 | 1 | 4-5 |  |
| ECL82 | Pent | 1 | 4 | 10 | 12 | 7 | --- | 7 | 6 | 3 | 4-5 |  |
| ECL84 | Triode | 1 | 4 | 31 | 10 | 7 | --- | --- | 2 | 1 | 4-5 |  |
| ECL84 | Pent | 1 | 4 | 26 | 11 | 7 | --- | 9 | 6 | 8 | 4-5 |  |
| ECL85 | Triode | 2 | 4 | 34 | 10 | 7 | --- | --- | 1 | 2 | 4-5 |  |
| PRECISION 10-12, 10-15, 10-20, 10-22, 10-54 TUBE TEST DATA |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MRC (GK), (FH), 3-61, 6-1-70; 4-1-74; 2-15-75; 2-1-78 |  |  |  |  |  |  | LEVER |  |  |  | FIL.  <br> CONT. COMMENT |  |
| TUBE | SECTION | A | B | C | D | E | W | X | Y | Z |  |  |
| This supplementary chart provides settings for tubes which fall into the following classification: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Foreign Tubes |  |  |  |  |  |  |  |  |  |  |  |  |
| * - Denotes tubes with special European 8-pin miniature basing. The PRECISION No. G-118 adapter, designed especially for these tubes, is required. |  |  |  |  |  |  |  |  |  |  |  |  |
| ECL85 | Pentode | 2 | 4 | 7 | 10 | 7 | --- | 7 | 6 | 9 | 4-5 |  |
| ECL86 | Triode | 4 | 4 | 15 | 10 | 7 | --- | --- | 9 | 1 | 4-5 |  |
| ECL86 | Pent | 1 | 4 | 19 | 10 | 7 | --- | 3 | 6 | 8 | 4-5 |  |
| ECLL800 |  | 3 | 4 | 35 | 20 | 7 | --- | --- | 1-9 | 2 | 4-5 |  |
| ECLL800 |  | 1 | 4 | 23 | 15 | 7 | --- | 9 | 3 | 2 | 4-5 |  |
| ECLL800 |  | 1 | 4 | 23 | 15 | 7 | --- | 9 | 8 | 6 | 4-5 |  |
| ED500 | * | 4 | 4 | 10 | 45 | 7 | --- | --- | 11 | 8 | 4-5 | * Must use magnoval adapter; Must show short on 1-2-3-6-7-9; OK above 30; Cap goes to top of tube |
| EF12 |  | 4 | 2 | 11 | 10 | 7 | --- | 6 | 5 | 7 | 2-3 |  |
| EF14 |  | 4 | 2 | 3 | 10 | 7 | --- | 1 | 5 | 6 | 2-3 |  |
| EF15 |  | 4 | 2 | 0 | 11 | 7 | --- | 6 | 5 | 7 | 2-3 |  |
| EF22 |  | 1 | 1 | 11 | 23 | 7 | --- | 3 | 2 | 6 | 1-8 |  |
| EF37A |  | 3 | 2 | 8 | 31 | 7 | --- | 4 | 3 | 11 | 2-7 |  |
| EF39 |  | 4 | 2 | 11 | 10 | 7 | --- | 4 | 3 | 11 | 2-7 |  |
| EF40 |  | 5 | 1 | 7 | 27 | 7 | --- | 6 | 2 | 5 | 1-8 | May show short on 3-7 |
| *EF41 |  | 1 | 1 | 8 | 32 | 7 | --- | 5 | 2 | 6 | 1-8 | May show short on 3-7 |
| EF42 |  | 4 | 1 | 10 | 10 | 7 | --- | 5 | 2 | 6 | 1-8 |  |
| EF80 |  | 1 | 4 | 8 | 29 | 7 | 3 | 8 | 7 | 2 | 4-5 | Must show short on 1-3; Cathode short test Depress 1 - 3 together |
| EF83 |  | 5 | 4 | 0 | 28 | 7 | --- | 1 | 6 | 9 | 4-5 | May show short on 2-7 |
| EF85 |  | 4 | 4 | 5 | 10 | 7 | 3 | 8 | 7 | 2 | 4-5 | Must show short on 1-3; Cathode short test Depress 1 - 3 together |
| EF86 |  | 1 | 4 | 17 | 30 | 7 | --- | 1 | 6 | 9 | 4-5 | Must show short on 2-7 |
| EF89 |  | 1 | 4 | 8 | 28 | 7 | --- | 8 | 7 | 2 | 4-5 | May show short on 1-6 |
| EF91 |  | 4 | 3 | 10 | 10 | 7 | --- | 7 | 5 | 1 | 3-4 |  |
| EF92 |  | 4 | 3 | 14 | 10 | 7 | -- | 7 | 5 | 1 | 3-4 |  |
| EF93 |  | 1 | 3 | 28 | 15 | 7 | --- | 6 | 5 | 1 | 3-4 |  |
| EF94 |  | 1 | 3 | 13 | 27 | 7 | --- | 6 | 5 | 1 | 3-4 |  |
| EF95 |  | 1 | 3 | 22 | 16 | 7 | --- | 6 | 5 | 1 | 3-4 | Must show short on 2-7; Cathode short test Depress 2-7 together |
| EF97 |  | 5 | 3 | 0 | 9 | 7 | --- | 6 | 5 | 1 | 3-4 |  |
| EF98 |  | 5 | 3 | 0 | 9 | 6 | --- | 6 | 5 | 1 | 3-4 |  |
| EF183 |  | 1 | 4 | 5 | 23 | 7 | --- | 8 | 7 | 2 | 4-5 | Must show short on 1-3; Cathode short test Depress 1-3 together |
| EF184 |  | 1 | 4 | 5 | 25 | 7 | --- | 8 | 7 | 2 | 4-5 | Must show short on 1-3; Cathode short test Depress 1-3 together |
| EF804 |  | 4 | 4 | 9 | 17 | 7 | --- | 8 | 7 | 9 | 4-5 | Must show short on 2-6 |
| PRECISION 10-12, 10-15, 10-20, 10-22, 10-54 TUBE TEST DATA |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MRC (GK), (FH), 3-61, 6-1-70; 4-1-74; 2-15-75; 2-1-78 |  |  |  |  |  |  | LEVER |  |  |  | FIL.  <br> CONT. COMMENT |  |
| TUBE | SECTION | A | B | C | D | E | W | X | Y | Z |  |  |
| This supplementary chart provides settings for tubes which fall into the following classification: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Foreign Tubes |  |  |  |  |  |  |  |  |  |  |  |  |
| * - Denotes tubes with special European 8-pin miniature basing. The PRECISION No. G-118 adapter, designed especially for these tubes, is required. |  |  |  |  |  |  |  |  |  |  |  |  |
| EF806S |  | 1 | 4 | 17 | 30 | 7 | --- | 1 | 6 | 9 | 4-5 | Must show short on 2-7 |
| EFL200 | Pent-1 | 1 | 5 | 7 | 11 | 7 | --- | 9 | 11 | 8 | 5-6 |  |
| EFL200 | Pent-2 | 1 | 5 | 15 | 16 | 7 | --- | 3 | 4 | 1 | 5-6 |  |
| EH90 | Amp | 4 | 3 | 7 | 28 | 7 | --- | 6 | 5 | 7 | 3-4 |  |
| EH90 | Osc | 1 | 3 | 22 | 10 | 7 | --- | --- | 6 | 1 | 3-4 |  |
| EH900S | Amp | 4 | 3 | 6 | 25 | 7 | --- | 6 | 5 | 7 | 3-4 |  |
| EH900S | Osc | 1 | 3 | 25 | 8 | 7 | --- | --- | 6 | 1 | 3-4 |  |
| EK11 |  | 1 | 3 | 2 | 26 | 5 | --- | --- | 7 | 4 | 1-7 |  |
| EK90 | Amp | 4 | 3 | 7 | 27 | 7 | --- | 6 | 5 | 7 | 3-4 |  |
| EK90 | Osc | 1 | 3 | 21 | 9 | 7 | --- | --- | 6 | 1 | 3-4 |  |
| EL11 |  | 1 | 2 | 18 | 10 | 7 | --- | 6 | 5 | 7 | 2-3 |  |
| EL12 |  | 1 | 2 | 18 | 7 | 7 | --- | 6 | 5 | 7 | 2-3 |  |
| EL13 |  | 1 | 2 | 25 | 10 | 7 | --- | 6 | 5 | 7 | 2-3 |  |
| EL32 |  | 1 | 2 | 29 | 10 | 7 | --- | 4 | 3 | 11 | 2-7 |  |
| EL33 |  | 1 | 2 | 22 | 10 | 7 | --- | 4 | 3 | 5 | 2-7 |  |
| EL34 |  | 1 | 2 | 15 | 7 | 7 | --- | 4 | 3 | 5 | 2-7 |  |
| EL36 |  | 2 | 2 | 1 | 7 | 7 | 1 | 4 | 12 | 5 | 2-7 | Must show short on 1-3-4-8; Use red grid cap; Cathode short test - Depress 3-8 together |
| EL37 |  | 1 | 7 | 8 | 11 | 7 | --- | 4 | 3 | 5 | 2-7 |  |
| EL38 |  | 1 | 2 | 13 | 10 | 6 | --- | 4 | 11 | 5 | 2-7 |  |
| *EL41 |  | 1 | 1 | 12 | 10 | 7 | --- | 5 | 2 | 6 | 1-8 | Must show short on 3-7; Cathode short test Depress 3-7 together |
| EL81 |  | 5 | 4 | 5 | 6 | 7 | 7 | 8 | 11 | 2 | 4-5 | Must show short on 1-6-7-8-9 |
| EL82 |  | 1 | 4 | 7 | 10 | 7 | --- | 9 | 7 | 2 | 4-5 |  |
| EL83 |  | 5 | 4 | 7 | 9 | 7 | --- | 1 | 7 | 2 | 4-5 |  |
| EL84 |  | 1 | 4 | 28 | 7 | 7 | 1 | 9 | 7 | 2 | 4-5 | Must show short on 1-2; Grid short test Depress 1-2 together |
| EL85 |  | 1 | 4 | 30 | 10 | 7 | 1 | 9 | 7 | 2 | 4-5 | Must show short on 1-2-6-8; Grid short test - Depress 1-2 together; Suppressor short test - Depress 6-8 together |
| EL86 |  | 1 | 4 | 0 | 10 | 6 | 1-6-8 | 9 | 7 | 2 | 4-5 | May show short on 1-2-6-7-8-9; Grid short test - Depress 1-2 together; Plate short test - Depress 7-8 together; Screen short test - Depress 6-9 together |
| EL90 |  | 1 | 3 | 32 | 8 | 7 | 1 | 6 | 5 | 7 | 3-4 | Must show short on 1-7; Grid short test Depress 1-7 together |
| PRECISION 10-12, 10-15, 10-20, 10-22, 10-54 TUBE TEST DATA |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MRC (GK), (FH), 3-61, 6-1-70; 4-1-74; 2-15-75; 2-1-78 |  |  |  |  |  |  | LEVER |  |  |  | FIL.  <br> CONT. COMMENT |  |
| TUBE | SECTION | A | B | C | D | E | W | X | Y | Z |  |  |
| This supplementary chart provides settings for tubes which fall into the following classification: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Foreign Tubes |  |  |  |  |  |  |  |  |  |  |  |  |
| * - Denotes tubes with special European 8-pin miniature basing. The PRECISION No. G-118 adapter, designed especially for these tubes, is required. |  |  |  |  |  |  |  |  |  |  |  |  |
| EL91 |  | 1 | 3 | 31 | 10 | 7 | --- | 7 | 5 | 1 | 3-4 |  |
| EL95 |  | 1 | 3 | 25 | 10 | 7 | 1 | 6 | 5 | 7 | 3-4 | May show short on 1-7; Grid short test Depress 1-7 together |
| EL500 | * | 3 | 4 | 2 | 16 | 7 | 2-7-8 | 6 | 12 | 1 | 4-5 | * Must use magnoval adapter; Must show short on 1-2-3-6-7-8; Cathode short test - Depress 3-8 together; Red grid cap goes to top of tube |
| EL503 | * | 1 | 4 | 5 | 6 | 7 | 7-8 | 1 | 9 | 3 | 4-5 | * Must use magnoval adapter; Must show short on 1-2-3-6-7-8 |
| EL504 | * | 3 | 4 | 2 | 16 | 7 | 2-7-8 | 6 | 12 | 1 | 4-5 | * Must use magnoval adapter; Must show short on 1-2-3-6-7-8; Cathode short test - Depress 3-8 together; Red grid cap goes to top of tube |
| EL505 | * | 1 | 4 | 8 | 26 | 7 | 1-2-3 | 7 | 11 | 8 | 4-5 | * Must use magnoval adapter; Must show short on 1-2-3-6-7-8; Black cap goes to top of tube |
| EL802 |  | 1 | 4 | 5 | 15 | 7 | 6 | 8 | 7 | 2 | 4-5 | Must show short on 3-6-8-9 |
| EL821 |  | 1 | 4 | 20 | 12 | 7 | --- | 8 | 7 | 2 | 4-5 |  |
| ELL80 | Pent-1 | 5 | 4 | 6 | 8 | 7 | --- | 1 | 3 | 2 | 4-5 |  |
| ELL80 | Pent-2 | 5 | 4 | 6 | 8 | 7 | --- | 9 | 8 | 6 | 4-5 |  |
| EM11 | Triode | 1 | 2 | 31 | 10 | 7 | --- | --- | 5 | 7 | 2-3 |  |
| EM11 | Eye | 1 | 2 | 0 | 0 | 7 | --- | --- | 5-6-1 | --- | 2-3 | See instructions for eye test |
| EM34 |  | 7 | 2 | 0 | 0 | 7 | --- | --- | 3-6-5 | --- | 2-7 | See instructions for eye test |
| EM35 | Triode | 1 | 2 | 13 | 25 | 7 | --- | --- | 3 | 4 | 2-7 |  |
| EM35 | Eye | 7 | 2 | 0 | 0 | 7 | --- | --- | 3-6-5 | --- | 2-7 | See instructions for eye test |
| EM80 | Triode | 1 | 4 | 19 | 20 | 7 | --- | --- | 7 | 1 | 4-5 | May show short on 3-6-9 |
| EM80 | Eye | 7 | 4 | 0 | 0 | 7 | 3-6 | --- | 7-9 | --- | 4-5 | See instructions for eye test |
| EM81 | Triode | 1 | 4 | 34 | 24 | 7 | --- | --- | 7 | 1 | 4-5 | Must show short on 3-8-9 |
| EM81 | Eye | 7 | 4 | 0 | 0 | 7 | 3-8 | --- | 7-9 | --- | 4-5 | See instructions for eye test |
| EM84 | Triode | 3 | 4 | 25 | 45 | 7 | --- | --- | 9 | 1 | 4-5 | Must show short on 2-6-8; Correction (GK) |
| EM84 | Eye | 4 | 4 | 0 | 0 | 7 | 2-8 | --- | 7-6 | --- | 4-5 | See instructions for eye test |
| EM87 | Triode | 5 | 4 | 15 | 20 | 7 | --- | --- | 9 | 1 | 4-5 | Must show short on 2-6-8 |
| EM87 | Eye | 7 | 4 | 0 | 0 | 7 | 2-8 | --- | 6-7 | --- | 4-5 | See instructions for eye test; Target short test - Depress 2-6-8 together |
| EN32 |  | 3 | 1 | 20 | 25 | 7 | --- | 6 | 3 | 5 | 7 |  |
| EQ80 |  | 5 | 4 | 10 | 32 | 7 | --- | 1 | 6 | 7 | 4-5 | Must show short on 3-8 |
| PRECISION 10-12, 10-15, 10-20, 10-22, 10-54 TUBE TEST DATA |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MRC (GK), (FH), 3-61, 6-1-70; 4-1-74; 2-15-75; 2-1-78 |  |  |  |  |  |  | LEVER |  |  |  | FIL.  <br> CONT. COMMENT |  |
| TUBE | SECTION | A | B | C | D | E | W | X | Y | Z |  |  |
| This supplementary chart provides settings for tubes which fall into the following classification: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Foreign Tubes |  |  |  |  |  |  |  |  |  |  |  |  |
| * - Denotes tubes with special European 8-pin miniature basing. The PRECISION No. G-118 adapter, designed especially for these tubes, is required. |  |  |  |  |  |  |  |  |  |  |  |  |
| EY51 |  | 1 | 2 | 0 | 21 | 7 | --- | --- | 11 | --- | 1-2 | Connect two bottom leads to octal sockets Pins 1 and 2. Top lead connect to grid cap |
| EY80 |  | 3 | 4 | 0 | 18 | 7 | --- | --- | 9 | --- | 4-5 |  |
| EY81 |  | 3 | 4 | 0 | 16 | 7 | 2 | --- | 9 | --- | 4-5 | May show short on all pins |
| EY82 |  | 3 | 4 | 0 | 18 | 7 | --- | --- | 9 | --- | 4-5 |  |
| EY86 | \# |  |  |  |  |  |  |  |  |  |  | \# CAUTION - Levers 5-8 must be thrown to position "W" before inserting tube and must remain in position "W" throughout all tests, Including short tests. |
| EY86 |  | 7 | 2 | 0 | 14 | 7 | 5-8 | --- | 11 | --- | \$ | \$ Fil Cont must show short on 1-2-4-6-9 |
| EY87 | \# | 7 | 2 | 0 | 14 | 7 | 5-8 | --- | 11 | --- | \$ | \# CAUTION - Levers 5-8 must be thrown to position "W" before inserting tube and must remain in position "W" throughout all tests, Including short tests. \$ Fil Cont - Must show short on 1-2-4-6-9 |
| EY88 |  | 1 | 4 | 0 | 4 | 7 | * | --- | 9 | --- | 4-5 | May show short on 1-2-3-6-7-8-9; * $\mathrm{W}=1-2-3$-6-7-8 |
| EY500 | * | 3 | 4 | 0 | 16 | 7 | 7-8 | --- | 2 | --- | 4-5 | * Must use Magnoval adapter; Must show short on 2-7-8; Cap goes to top of tube |
| EZ11 | Plate-1 | 1 | 2 | 0 | 5 | 7 | --- | --- | 6 | --- | 2-3 |  |
| EZ11 | Plate-2 | 1 | 2 | 0 | 5 | 7 | --- | --- | 5 | --- | 2-3 |  |
| EZ35 | Plate-1 | 2 | 2 | 0 | 3 | 7 | --- | --- | 3 | --- | 2-7 |  |
| EZ35 | Plate-2 | 2 | 2 | 0 | 3 | 7 | --- | --- | 5 | --- | 2-7 |  |
| EZ80 | Plate-1 | 2 | 4 | 0 | 4 | 7 | --- | --- | 1 | --- | 4-5 |  |
| EZ80 | Plate-2 | 2 | 4 | 0 | 4 | 7 | --- | --- | 7 | --- | 4-5 |  |
| EZ81 | Plate-1 | 2 | 4 | 0 | 1 | 7 | --- | --- | 1 | --- | 4-5 |  |
| EZ81 | Plate-2 | 2 | 4 | 0 | 1 | 7 | --- | --- | 7 | --- | 4-5 |  |
| EZ90 | Plate-1 | 2 | 3 | 0 | 3 | 7 | --- | --- | 1 | --- | 3-4 |  |
| EZ90 | Plate-2 | 2 | 3 | 0 | 3 | 7 | --- | --- | 6 | --- | 3-4 |  |
| GY501 | * | 7 | 4 | 0 | 17 | 4 | 2-8 | --- | 11 | --- | 4-5 | * Must use magnoval adapter; \# CAUTION: Levers 2-8 must be thrown to position "W" before inserting tube and must remain in position "W" throughout all tests, including short tests; Must show short on 1-9 |
| GZ30 | Plate-1 | 2 | 2 | 0 | 2 | 6 | --- | --- | 6 | --- | 2-8 |  |
| PRECISION 10-12, 10-15, 10-20, 10-22, 10-54 TUBE TEST DATA |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MRC (GK), (FH), 3-61, 6-1-70; 4-1-74; 2-15-75; 2-1-78 |  |  |  |  |  |  | LEVER |  |  |  | FIL.  <br> CONT. COMMENT |  |
| TUBE | SECTION | A | B | C | D | E | W | X | Y | Z |  |  |
| This supplementary chart provides settings for tubes which fall into the following classification: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Foreign Tubes |  |  |  |  |  |  |  |  |  |  |  |  |
| *- Denotes tubes with special European 8-pin miniature basing. The PRECISION No. G-118 adapter, designed especially for these tubes, is required. |  |  |  |  |  |  |  |  |  |  |  |  |
| GZ30 | Plate-2 | 2 | 2 | 0 | 2 | 6 | --- | --- | 4 | --- | 2-8 |  |
| GZ32 | Plate-1 | 2 | 2 | 0 | 2 | 6 | --- | --- | 4 | --- | 2-8 |  |
| GZ32 | Plate-2 | 2 | 2 | 0 | 2 | 6 | --- | --- | 6 | --- | 2-8 |  |
| GZ34 | Plate-1 | 1 | 2 | 0 | 4 | 6 | --- | --- | 4 | --- | 2-8 |  |
| GZ34 | Plate-2 | 1 | 2 | 0 | 4 | 6 | --- | --- | 6 | --- | 2-8 |  |
| HBC90 | Triode | 1 | 3 | 13 | 30 | 10 | --- | --- | 7 | 1 | 3-4 |  |
| HBC90 | Diode-1 | 3 | 3 | 0 | 26 | 10 | --- | --- | 5 | --- | 3-4 |  |
| HBC90 | Diode-2 | 3 | 3 | 0 | 26 | 10 | --- | --- | 6 | --- | 3-4 |  |
| HBC91 | Triode | 1 | 3 | 12 | 32 | 10 | --- | --- | 7 | 1 | 3-4 |  |
| HBC91 | Diode-1 | 3 | 3 | 0 | 27 | 10 | --- | --- | 6 | --- | 3-4 |  |
| HBC91 | Diode-2 | 3 | 3 | 0 | 27 | 10 | 000 | 000 | 5 | --- | 3-4 |  |
| HCC85 | Triode-1 | 1 | 5 | 21 | 13 | 11 | --- | --- | 6 | 7 | 4-5 |  |
| HCC85 | Triode-2 | 1 | 5 | 21 | 13 | 11 | --- | --- | 1 | 2 | 4-5 |  |
| HCH81 | Triode | 5 | 4 | 11 | 12 | 10 | --- | --- | 8 | 9 | 4-5 |  |
| HCH81 | Pentode | 5 | 4 | 9 | 15 | 10 | --- | 1 | 6 | 2 | 4-5 |  |
| HF93 |  | 1 | 3 | 28 | 15 | 10 | --- | 6 | 5 | 1 | 3-4 |  |
| HK90 | Amp | 4 | 3 | 7 | 27 | 10 | --- | 6 | 5 | 7 | 3-4 |  |
| HK90 | Osc | 1 | 3 | 21 | 9 | 10 | --- | --- | 6 | 1 | 3-4 |  |
| HL92 |  | 1 | 3 | 8 | 8 | 14 | 2 | 6 | 7 | 5 | 3-4 | Must show short on 2-5; Grid short test Depress 2-5 together; Fil Cont - Set control "E" at 12 |
| HL94 |  | 1 | 3 | 5 | 6 | 12 | 2 | --- | 5 | 1 | 3-4 | Must show short on 2-5 |
| HY90 | Amp | 2 | 3 | 0 | 1 | 13 | 6 | --- | 5 | --- | 3-4-6 |  |
| KT66 |  | 1 | 2 | 14 | 9 | 7 | --- | 4 | 3 | 5 | 2-7 |  |
| KT88 |  | 1 | 2 | 0 | 10 | 7 | --- | 4 | 3 | 5 | 2-7 | Correction (GK) |
| LC900 |  | 1 | 3 | 13 | 10 | 4 | 2 | --- | 5 | 1 | 3-4 | Must show short on 2-7; Cathode short test Depress 2-7 together |
| LCF80 | Triode | 1 | 4 | 14 | 10 | 7 | --- | --- | 1 | 9 | 4-5 |  |
| LCF80 | Pentode | 1 | 4 | 23 | 16 | 7 | --- | 3 | 6 | 2 | 4-5 |  |
| LCF200 | Triode | 4 | 5 | 10 | 14 | 7 | --- | --- | 9 | 11 | 5-6 |  |
| LCF200 | Pentode | 2 | 5 | 0 | 39 | 7 | --- | 8 | 7 | 3 | 5-6 |  |
| LCF201 | Triode | 2 | 5 | 9 | 10 | 7 | --- | --- | 9 | 11 | 5-6 |  |
| LCF201 | Pentode | 2 | 5 | 0 | 20 | 7 | --- | 8 | 7 | 3 | 5-6 |  |
| LCF801 | Triode | 5 | 4 | 7 | 8 | 6 | --- | --- | 8 | 9 | 4-5 | Must show short on 1-3; Cathode short test Depress 1-3 together |
| LCF801 | Pentode | 1 | 4 | 0 | 38 | 6 | --- | 7 | 6 | 2 | 4-5 |  |
| LCF802 | Triode | 1 | 4 | 11 | 16 | 7 | --- | --- | 1 | 9 | 4-5 |  |
| LCF802 | Pentode | 5 | 4 | 5 | 18 | 7 | --- | 3 | 6 | 2 | 4-5 |  |
| PRECISION 10-12, 10-15, 10-20, 10-22, 10-54 TUBE TEST DATA |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MRC (GK), (FH), 3-61, 6-1-70; 4-1-74; 2-15-75; 2-1-78 |  |  |  |  |  |  | LEVER |  |  |  | FIL.  <br> CONT. COMMENT |  |
| TUBE | SECTION | A | B | C | D | E | W | X | Y | Z |  |  |
| This supplementary chart provides settings for tubes which fall into the following classification: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Foreign Tubes |  |  |  |  |  |  |  |  |  |  |  |  |
| * - Denotes tubes with special European 8-pin miniature basing. The PRECISION No. G-118 adapter, designed especially for these tubes, is required. |  |  |  |  |  |  |  |  |  |  |  |  |
| LCH200 | Triode | 5 | 5 | 8 | 10 | 6 | --- | --- | 11 | 8 | 5-6 |  |
| LCH200 | Pentode | 5 | 5 | 5 | 21 | 6 | --- | 4 | 7 | 3 | 5-6 |  |
| LCL80 | Triode | 1 | 4 | 14 | 18 | 6 | --- | --- | 1 | 2 | 4-5 |  |
| LCL80 | Pentode | 1 | 4 | 14 | 17 | 6 | --- | 8 | 6 | 9 | 4-5 |  |
| LCL84 | Triode | 1 | 4 | 31 | 10 | 9 | --- | --- | 2 | 1 | 4-5 |  |
| LCL84 | Pentode | 1 | 4 | 26 | 11 | 9 | --- | 9 | 6 | 8 | 4-5 |  |
| LCL85 | Triode | 2 | 4 | 34 | 10 | 8 | --- | --- | 1 | 2 | 4-5 |  |
| LCL85 | Pentode | 2 | 4 | 7 | 10 | 8 | --- | 7 | 6 | 9 | 4-5 |  |
| LF183 |  | 1 | 4 | 5 | 23 | 6 | --- | 8 | 7 | 2 | 4-5 | Must show short on 1 - 3; Cathode short test Depress 1-3 together |
| LF184 |  | 1 | 4 | 5 | 25 | 6 | --- | 8 | 7 | 2 | 4-5 | Must show short on 1-3; Cathode short test Depress 1-3 together |
| LFL200 | Pent-1 | 1 | 5 | 7 | 11 | 9 | --- | 9 | 11 | 8 | 5-6 |  |
| LFL200 | Pent-2 | 1 | 5 | 15 | 16 | 9 | -- | 3 | 4 | 1 | 5-6 |  |
| LL86 |  | 1 | 4 | 0 | 10 | 9 | 1-6-8 | 9 | 7 | 2 | 4-5 | May show short on 1-2-6-7-8-9 |
| LL505 | * | 1 | 4 | 8 | 26 | 12 | 1-2-3 | 7 | 11 | 8 | 4-5 | * Must use magnoval adapter; Must show short on 1-2-3-6-7-8; Cap goes to top of tube |
| LL509 | * | 1 | 4 | 8 | 26 | 12 | 1-2-3 | 7 | 11 | 8 | 4-5 | * Must use magnoval adapter; Must show short on 1-2-3-6-7-8; Black cap goes to top of tube |
| LL521 | * | 5 | 4 | 0 | 5 | 11 | 6-8 | 3 | 11 | 1 | 4-5 | * Must use magnoval adapter; Must show short on 1-2-3-6-7-8; Cap goes to top of tube |
| LL802 |  | 1 | 4 | 5 | 15 | 9 | 6 | 8 | 7 | 2 | 4-5 | Must show short on 3-6-8-9 |
| LY81 |  | 3 | 4 | 0 | 16 | 9 | 2 | -- | 9 | --- | 4-5 | May show short on all pins |
| LY88 |  | 3 | 4 | 0 | 15 | 12 | \# | --- | 9 | -- | 4-5 | \# Levers 1-2-3-6-7-8 must be thrown to "W"; May show short on 1-2-3-6-8-9 |
| M8096 |  | 1 | 4 | 27 | 10 | 7 | 8 | 6 | 1 | 9 | 4-5 | Must show short on 8-9; Grid short test Depress 8-9 together |
| N22LL | * | 5 | 4 | 0 | 5 | 11 | 1 | 6 | 9 | 7 | 4-5 | * Must use magnoval adapter; Must show short on 1-7 |
| PABC80 | Triode | 4 | 4 | 10 | 10 | 9 | --- | --- | 9 | 8 | 4-5 |  |
| PABC80 | Diode-1 | 3 | 4 | 0 | 23 | 9 | --- | --- | 6 | --- | 4-5 |  |
| PABC80 | Diode-2 | 3 | 4 | 0 | 16 | 9 | --- | --- | 2 | --- | 4-5 |  |
| PABC80 | Diode-3 | 3 | 4 | 0 | 16 | 9 | --- | --- | 1 | --- | 4-5 |  |
| PRECISION 10-12, 10-15, 10-20, 10-22, 10-54 TUBE TEST DATA |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MRC (GK), (FH), 3-61, 6-1-70; 4-1-74; 2-15-75; 2-1-78 |  |  |  |  |  |  | LEVER |  |  |  |  |  |
| TUBE | SECTION | A | B | C | D | E | W | X | Y | Z | $\begin{gathered} \text { FIL. } \\ \text { CONT. } \end{gathered}$ | COMMENT |
| This supplementary chart provides settings for tubes which fall into the following classification: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Foreign Tubes |  |  |  |  |  |  |  |  |  |  |  |  |
| * - Denotes tubes with special European 8-pin miniature basing. The PRECISION No. G-118 adapter, designed especially for these tubes, is required. |  |  |  |  |  |  |  |  |  |  |  |  |
| PC86 |  | 2 | 4 | 19 | 10 | 5 | 1-2-6 | --- | 9 | 8 | 4-5 | Must show short on 1-2-3-6-7-8-9; <br> Plate short test - Depress 1-9 together; Grid <br> short test - Depress 2-6-8 together; <br> Cathode short test - Depress 3-7 together |
| PC88 |  | 5 | 4 | 6 | 11 | 5 | 1-3-6 | --- | 8 | 7-9 | 4-5 | Must show short on 1-3-6-7-9 |
| PC95 |  | 5 | 3 | 5 | 15 | 5 | --- | --- | 5 | 2 | 3-4 | Must show short on 1-7 |
| PC900 |  | 1 | 3 | 13 | 10 | 5 | 2 | --- | 5 | 1 | 3-4 | Must show short on 2-7; Cathode short test Depress 2-7 together |
| PCC84 | Triode-1 | 5 | 4 | 10 | 10 | 8 | --- | --- | 9 | 6 | 4-5 | Must show short on 7-8; Cathode short test, Section 1-Depress 7-8 together |
| PCC84 | Triode-2 | 5 | 4 | 10 | 10 | 8 | --- | --- | 3 | 3 | 4-5 |  |
| PCC85 | Triode-1 | 1 | 4 | 25 | 11 | 9 | --- | --- | 6 | 7 | 4-5 | Correction 6-1-70 |
| PCC85 | Triode-2 | 1 | 4 | 25 | 11 | 8 | --- | --- | 1 | 2 | 4-5 | Correction 6-1-70 |
| PCC88 | Triode-1 | 2 | 4 | 12 | 10 | 7 | --- | --- | 6 | 7 | 4-5 |  |
| PCC88 | Triode-2 | 2 | 4 | 12 | 10 | 7 | --- | --- | 1 | 2 | 4-5 |  |
| PCC189 | Triode-1 | 2 | 4 | 12 | 10 | 8 | --- | --- | 6 | 7 | 4-5 |  |
| PCC189 | Triode-2 | 2 | 4 | 13 | 10 | 8 | --- | --- | 1 | 2 | 4-5 |  |
| PCF80 | Triode | 5 | 4 | 12 | 10 | 8 | --- | --- | 1 | 9 | 4-5 |  |
| PCF80 | Pent | 1 | 4 | 18 | 19 | 8 | --- | 3 | 6 | 2 | 4-5 |  |
| PCF82 | Triode | 1 | 4 | 28 | 8 | 9 | --- | --- | 1 | 9 | 4-5 |  |
| PCF82 | Pent | 1 | 4 | 14 | 29 | 9 | --- | 3 | 6 | 2 | 4-5 |  |
| PCF86 | Triode | 1 | 4 | 5 | 10 | 8 | --- | --- | 7 | 6 | 4-5 | May show short on 1 - 3; Cathode short test Depress $1-3$ together |
| PCF86 | Pentode | 1 | 4 | 7 | 25 | 8 | --- | 9 | 8 | 2 | 4-5 |  |
| PCF200 | Triode | 4 | 5 | 10 | 14 | 8 | --- | --- | 9 | 11 | 5-6 |  |
| PCF200 | Pentode | 2 | 5 | 0 | 39 | 8 | --- | 8 | 7 | 3 | 5-6 |  |
| PCF201 | Triode | 2 | 5 | 9 | 10 | 8 | --- | --- | 9 | 11 | 5-6 |  |
| PCF201 | Pentode | 2 | 5 | 0 | 20 | 8 | --- | 8 | 7 | 3 | 5-6 |  |
| PCF801 | Triode | 5 | 4 | 7 | 8 | 8 | --- | --- | 8 | 9 | 4-5 | Must show short on 1-3; Cathode short test Depress 1-3 together |
| PCF801 | Pentode | 1 | 4 | 0 | 38 | 8 | --- | 7 | 6 | 2 | 4-5 |  |
| PCF802 | Triode | 5 | 4 | 10 | 15 | 9 | --- | --- | 1 | 9 | 4-5 |  |
| PCF802 | Pentode | 4 | 4 | 7 | 10 | 9 | --- | 3 | 6 | 2 | 4-5 |  |
| PCF805 | Triode | 5 | 4 | 7 | 10 | 8 | --- | --- | 1 |  | 4-5 | Must show short on 6-8; Cathode short test Depress 6-8 together |
| PCF805 | Pentode | 5 | 4 | 0 | 22 | 8 | --- | 2 | 3 | 7 | 4-5 |  |
| PCH200 | Triode | 5 | 5 | 8 | 10 | 9 | --- | --- | 11 | 8 | 5-6 |  |
| PRECISION 10-12, 10-15, 10-20, 10-22, 10-54 TUBE TEST DATA |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MRC (GK), (FH), 3-61, 6-1-70; 4-1-74; 2-15-75; 2-1-78 |  |  |  |  |  |  | LEVER |  |  |  | FIL.    <br> CONT. COMMENT   |  |
| TUBE | SECTION | A | B | C | D | E | W | X | Y | Z |  |  |
| This supplementary chart provides settings for tubes which fall into the following classification: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Foreign Tubes |  |  |  |  |  |  |  |  |  |  |  |  |
| * - Denotes tubes with special European 8-pin miniature basing. The PRECISION No. G-118 adapter, designed especially for these tubes, is required. |  |  |  |  |  |  |  |  |  |  |  |  |
| PCH200 | Pentode | 5 | 5 | 5 | 21 | 9 | --- | 7 | 6 | 3 | 5-6 |  |
| PCL81 | Triode | 1 | 4 | 30 | 10 | 10 | --- | --- | 7 | 1 | 4-5 | Must show short on 3-8; Cathode short test Depress 3-8 together |
| PCL81 | Pent | 1 | 4 | 14 | 10 | 10 | --- | 2 | 6 | 9 | 4-5 |  |
| PCL82 | Triode | 1 | 4 | 12 | 27 | 10 | -- | --- | 9 | 1 | 4-5 |  |
| PCL82 | Pentode | 1 | 4 | 10 | 9 | 10 | --- | 7 | 6 | 3 | 4-5 |  |
| PCL84 | Triode | 1 | 4 | 26 | 10 | 10 | -- | --- | 2 | 1 | 4-5 |  |
| PCL84 | Pent | 1 | 4 | 15 | 13 | 10 | --- | 9 | 6 | 8 | 4-5 |  |
| PCL85 | Triode | 2 | 4 | 34 | 10 | 11 | --- | --- | 1 | 2 | 4-5 |  |
| PCL85 | Pentode | 2 | 4 | 7 | 10 | 11 | --- | 7 | 6 | 9 | 4-5 |  |
| PCL86 | Triode | 4 | 4 | 15 | 10 | 10 | --- | --- | 9 | 1 | 4-5 |  |
| PCL86 | Pentode | 1 | 4 | 19 | 10 | 10 | --- | 3 | 6 | 8 | 4-5 |  |
| PD500 | * | 4 | 4 | 10 | 45 | 8 | --- | --- | 11 | 8 | 4-5 | * Must use magnoval adapter; Must show short on 1-2-3-6-7-9; OK above 30; Cap goes to top of tube |
| PF86 |  | 4 | 4 | 7 | 20 | $5 z$ | --- | 1 | 6 | 9 | 4-5 | Set switch "E" to 6 if there is no $5 Z$ position; Must show short on 2-7 |
| PFL200 | Pent-1 | 1 | 5 | 7 | 11 | 11 | --- | 9 | 11 | 8 | 5-6 |  |
| PFL200 | Pent-2 | 1 | 5 | 15 | 16 | 11 | --- | 3 | 4 | 1 | 5-6 |  |
| PL36 |  | 2 | 2 | 0 | 5 | 12 | 1-3 | 4 | 11 | 5 | 2-7 | Must show short on 1-3-4-8; Cathode short test - Depress 1-8 together; Screen short test - Depress 3-4 together |
| PL81 |  | 5 | 4 | 0 | 6 | 11 | 7 | 8 | 10 | 2 | 4-5 | Must show short on 1-6-7-8-9 |
| PL82 |  | 1 | 4 | 7 | 7 | 11 | --- | 9 | 7 | 2 | 4-5 |  |
| PL83 |  | 4 | 4 | 3 | 10 | 10 | --- | 1 | 7 | 2 | 4-5 |  |
| PL84 |  | 1 | 4 | 2 | 10 | 10 | 1-6-8 | 9 | 7 | 2 | 4-5 | May show short on 1-2-6-7-8-9 |
| PL500 | * | 3 | 4 | 2 | 16 | 12 | 2-7-8 | 6 | 12 | 1 | 4-5 | * Must use magnoval adapter; Must show short on 1-2-3-6-7-8; Cathode short test - Depress 3-8 together; Use Red grid cap |
| PL504 | * | 3 | 4 | 2 | 16 | 12 | 2-7-8 | 6 | 12 | 1 | 4-5 | * Must use magnoval adapter; Must show short on 1-2-3-6-7-8; Cathode short test - Depress 3-8 together; Red grid cap goes to top of tube |
| PL505 | * | 1 | 4 | 8 | 26 | 13 | 1-2-3 | 7 | 11 | 8 | 4-5 | * Must use magnoval adapter; Must show short on 1-2-3-6-7-8; Black cap goes to top of tube |
| PRECISION 10-12, 10-15, 10-20, 10-22, 10-54 TUBE TEST DATA |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MRC (GK), (FH), 3-61, 6-1-70; 4-1-74; 2-15-75; 2-1-78 |  |  |  |  |  |  | LEVER |  |  |  | FIL.  <br> CONT. COMMENT |  |
| TUBE | SECTION | A | B | C | D | E | W | X | Y | Z |  |  |
| This supplementary chart provides settings for tubes which fall into the following classification: |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| * - Denotes tubes with special European 8-pin miniature basing. The PRECISION No. G-118 adapter, designed especially for these tubes, is required. |  |  |  |  |  |  |  |  |  |  |  |  |
| PL521 | * | 5 | 4 | 0 | 5 | 11 | 6-8 | 3 | 11 | 1 | 4-5 | * Must use magnoval adapter; Must show short on 1-2-3-6-7-8; Cap goes to top of tube |
| PM84 | Triode | 4 | 4 | 10 | 34 | 5 | --- | --- | 9 | 1 | 4-5 | Must show short on 2-6-8 |
| PM84 | Eye | 7 | 4 | 0 | 0 | 5 | 2-8 | --- | 6-7 | --- | 4-5 | See instructions for eye test |
| PY80 |  | 1 | 4 | 0 | 4 | 10 | --- | --- | 9 | --- | 4-5 |  |
| PY81 |  | 7 | 4 | 0 | 4 | 10 | 2 | --- | 9 | --- | 4-5 | Must show short on 2-9; Plate short test Depress 2-9 together |
| PY82 |  | 7 | 4 | 0 | 3 | 10 | --- | --- | 9 | --- | 4-5 |  |
| PY83 |  | 7 | 4 | 0 | 3 | 11 | --- | --- | 9 | --- | 4-5 |  |
| PY88 |  | 1 | 4 | 0 | 4 | 12 | \# | --- | 9 | --- | 4-5 | \#"W" = 1-2-3-6-7-8; May show short on 1-2-3-6-7-8-9 |
| PY500 | * | 3 | 4 | 0 | 16 | 13 | 7-8 | --- | 2 | --- | 4-5 | * Must use Magnoval adapter; Must show short on 2-7-8; Cap goes to top of tube |
| UAA91 | Diode-1 | 3 | 3 | 0 | 16 | 11 | --- | --- | 7 | --- | 3-4 |  |
| UAA91 | Diode-2 | 3 | 3 | 0 | 16 | 11 | --- | --- | 2 | --- | 3-4 |  |
| UABC80 | Triode | 1 | 4 | 35 | 12 | 12 | --- | --- | 9 | 8 | 4-5 |  |
| UABC80 | Diode-1 | 3 | 4 | 0 | 25 | 12 | --- | --- | 6 | --- | 4-5 |  |
| UABC80 | Diode-2 | 3 | 4 | 0 | 17 | 12 | --- | --- | 2 | --- | 4-5 |  |
| UABC80 | Diode-3 | 3 | 4 | 0 | 17 | 12 | --- | --- | 1 | --- | 4-5 |  |
| *UBC41 | Triode | 4 | 1 | 15 | 10 | 10 | --- | --- | 2 | 3 | 1-8 |  |
| *UBC41 | Diode-1 | 3 | 1 | 0 | 27 | 10 | --- | --- | 6 | - | 1-8 |  |
| *UBC41 | Diode-2 | 3 | 1 | 0 | 27 | 10 | --- | --- | 5 | --- | 1-8 |  |
| UBC81 | Triode | 1 | 4 | 34 | 10 | 10 | --- | --- | 1 | 2 | 4-5 |  |
| UBC81 | Diode-1 | 3 | 4 | 0 | 25 | 10 | --- | --- | 8 | - | 4-5 |  |
| UBC81 | Diode-2 | 3 | 4 | 0 | 25 | 10 | --- | --- | 6 | --- | 4-5 |  |
| UBF15 | Pent | 1 | 2 | 13 | 18 | 12 | --- | 6 | 1 | 7 | 2-3 |  |
| UBF15 | Diode-1 | 3 | 2 | 0 | 19 | 12 | --- | --- | 5 | --- | 2-3 |  |
| UBF15 | Diode-2 | 3 | 2 | 0 | 19 | 12 | --- | --- | 4 | --- | 2-3 |  |
| UBF80 | Pent | 4 | 4 | 12 | 10 | 11 | --- | 1 | 6 | 2 | 4-5 |  |
| UBF80 | Diode-1 | 3 | 4 | 0 | 23 | 11 | --- | --- | 8 | --- | 4-5 |  |
| UBF80 | Diode-2 | 3 | 4 | 0 | 23 | 11 | --- | --- | 7 | --- | 4-5 |  |
| UBF89 | Pent | 1 | 4 | 21 | 17 | 11 | --- | 1 | 6 | 2 | 4-5 |  |
| UBF89 | Diode-1 | 3 | 4 | 0 | 20 | 11 | --- | --- | 7 | --- | 4-5 |  |
| UBF89 | Diode-2 | 3 | 4 | 0 | 20 | 11 | --- | --- | 8 | --- | 4-5 |  |
| UC92 |  | 1 | 3 | 30 | 10 | 9 | --- | --- | 1 | 6 | 3-4 |  |
| UCC85 | Triode-1 | 1 | 4 | 25 | 11 | 12 | --- | --- | 6 | 7 | 4-5 |  |
| UCC85 | Triode-2 | 1 | 4 | 25 | 11 | 12 | --- | --- | 1 | 2 | 4-5 |  |
| PRECISION 10-12, 10-15, 10-20, 10-22, 10-54 TUBE TEST DATA |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MRC (GK), (FH), 3-61, 6-1-70; 4-1-74; 2-15-75; 2-1-78 |  |  |  |  |  |  | LEVER |  |  |  | FIL.  <br> CONT. COMMENT |  |
| TUBE | SECTION | A | B | C | D | E | W | X | Y | Z |  |  |
| This supplementary chart provides settings for tubes which fall into the following classification: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Foreign Tubes |  |  |  |  |  |  |  |  |  |  |  |  |
| * - Denotes tubes with special European 8-pin miniature basing. The PRECISION No. G-118 adapter, designed especially for these tubes, is required. |  |  |  |  |  |  |  |  |  |  |  |  |
| UCF12 | Triode | 1 | 2 | 27 | 10 | 11 | --- | --- | 5 | 4 | 2-3 |  |
| UCF12 | Pentode | 4 | 2 | 13 | 14 | 11 | --- | 6 | 1 | 7 | 2-3 |  |
| UCH42 | Triode | 5 | 1 | 25 | 10 | 10 | --- | --- | 3 | 4 | 1-8 |  |
| UCH42 | Hexode | 4 | 1 | 16 | 10 | 10 | --- | 5 | 2 | 6 | 1-8 |  |
| UCH81 | Heptode | 1 | 4 | 26 | 32 | 11 | --- | 1 | 6 | 2 | 4-5 |  |
| UCH81 | Triode | 1 | 4 | 26 | 11 | 11 | --- | --- | 8 | 9 | 4-5 |  |
| UCL81 | Triode | 4 | 4 | 10 | 10 | 13 | --- | --- | 7 | 1 | 4-5 | Must show short on 3-8; Cathode short test Depress 3-8 together |
| UCL81 | Pent | 1 | 4 | 15 | 10 | 13 | --- | 2 | 6 | 9 | 4-5 |  |
| UCL82 | Triode | 2 | 4 | 32 | 10 | 14 | --- | --- | 9 | 1 | 4-5 |  |
| UCL82 | Pentode | 2 | 4 | 9 | 10 | 14 | --- | 7 | 6 | 3 | 4-5 |  |
| UF11 |  | 4 | 2 | 8 | 10 | 10 | --- | 6 | 5 | 7 | 2-3 |  |
| UF15 |  | 4 | 2 | 3 | 10 | 12 | --- | 6 | 5 | 7 | 2-3 |  |
| UF41 |  | 1 | 1 | 20 | 20 | 10 | --- | 5 | 2 | 6 | 1-8 |  |
| UF80 |  | 1 | 4 | 8 | 28 | 11 | --- | 8 | 7 | 2 | 4-5 | Must show short on 1-3; Cathode short test Depress 1-3 together |
| UF85 |  | 4 | 4 | 3 | 10 | 11 | --- | 8 | 7 | 2 | 4-5 | Must show short on 1-3; Cathode short test Depress 1 - 3 together |
| UF89 |  | 1 | 4 | 20 | 25 | 10 | --- | 8 | 7 | 2 | 4-5 | Must show short on 1-6 |
| UL41 |  | 1 | 1 | 4 | 10 | 14 | --- | 5 | 2 | 6 | 1-8 | Must show short on 3-7; Cathode short test Depress 3-7 together; Fil Cont - Set Control "E" at 12 |
| UL84 |  | 1 | 4 | 5 | 9 | 13 | 1-6-8 | 9 | 7 | 2 | 4-5 | Fil Cont - Set Control "E" at 12; May show short on 1-2-6-8-9; Grid short test - <br> Depress 1-2 together; Screen short test Depress 6-8-9 together; Correction (GK) |
| UM11 | Triode | 5 | 2 | 23 | 10 | 10 | --- | --- | 5 | 7 | 2-3 |  |
| UM11 | Eye | 4 | 2 | 0 | 0 | 10 | --- | --- | 5-6-1 | --- | 2-3 | See instructions for eye test |
| UM35 | Triode | 4 | 1 | 4 | 10 | 10 | --- | --- | 6 | 5 | 1-8 |  |
| UM35 | Eye | 7 | 1 | 0 | 0 | 10 | --- | --- | 3-6-4 | --- | 1-8 | See instructions for eye test |
| UM80 | Triode | 2 | 4 | 35 | 10 | 11 | --- | --- | 7 | 1 | 4-5 | Must show short on 3-6-9 |
| UM80 | Eye | 1 | 4 | 0 | 0 | 11 | --- | --- | 7-3-6-9 | --- | 4-5 | See instructions for eye test |
| UY11 |  | 1 | 2 | 0 | 4 | 14 | --- | --- | 5 | --- | 2-3 | Fil Cont - Set Control "E" at 12 |
| UY41 | \# | 2 | 1 | 0 | 3 | 13 | 6 | --- | 2 | --- | 1-8 | \# Fil Cont - Set control "E" at 12; Fil Cont Set Control "E" at 12 |
| UY85 |  | 3 | 4 | 0 | 16 | 13 | 1-6 | --- | 9 | --- | 4-5 |  |
| PRECISION 10-12, 10-15, 10-20, 10-22, 10-54 TUBE TEST DATA |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MRC (GK), (FH), 3-61, 6-1-70; 4-1-74; 2-15-75; 2-1-78 |  |  |  |  |  |  | LEVER |  |  |  | FIL.  <br> CONT. COMMENT |  |
| TUBE | SECTION | A | B | C | D | E | W | X | Y | Z |  |  |
| This supplementary chart provides settings for tubes which fall into the following classification: |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Foreign Tubes |  |  |  |  |  |  |  |  |  |  |  |  |
| * - Denotes tubes with special European 8-pin miniature basing. The PRECISION No. G-118 adapter, designed especially for these tubes, is required. |  |  |  |  |  |  |  |  |  |  |  |  |
| XC95 |  | 1 | 3 | 17 | 10 | 4 | --- | 6 | 5 | 2 | 3-4 | Must show short on 1-7; Cathode short test Depress 1-7 together |
| XC97 |  | 1 | 3 | 13 | 10 | 4 | --- | --- | 5 | 2 | 3-4 | Must show short on 1-7; Cathode short test Depress 1-7 together |
| XC900 |  | 1 | 3 | 13 | 10 | 2 | 2 | --- | 5 | 1 | 3-4 | Musat show short on 2-7; Cathode short test - Depress 2-7 together |
| XCC189 | Triode-1 | 2 | 4 | 12 | 10 | 6 | --- | --- | 6 | 7 | 4-5 |  |
| XCC189 | Triode-2 | 2 | 4 | 13 | 10 | 6 | --- | --- | 1 | 2 | 4-5 |  |
| XCF80 | Triode | 1 | 4 | 14 | 10 | 6 | --- | --- | 1 | 9 | 4-5 |  |
| XCF80 | Pentode | 1 | 4 | 23 | 16 | 6 | --- | 3 | 6 | 2 | 4-5 |  |
| XCF801 | Triode | 5 | 4 | 7 | 8 | 5 | --- | --- | 8 | 9 | 4-5 | Must show short on 1-3; Cathode short test Depress 1-3 together |
| XCF801 | Pentode | 1 | 4 | 0 | 38 | 5 | --- | 7 | 6 | 2 | 4-5 |  |
| XCL82 | Triode | 1 | 4 | 32 | 10 | 8 | --- | --- | 9 | 1 | 4-5 |  |
| XCL82 | Pentode | 1 | 4 | 15 | 10 | 8 | --- | 7 | 6 | 3 | 4-5 |  |
| XCL84 | Triode | 1 | 4 | 31 | 10 | 8 | --- | --- | 2 | 1 | 4-5 |  |
| XCL84 | Pentode | 1 | 4 | 26 | 11 | 8 | --- | 9 | 6 | 8 | 4-5 |  |
| XCL85 | Triode | 2 | 4 | 34 | 10 | 8 | --- | --- | 1 | 2 | 4-5 |  |
| XCL85 | Pentode | 2 | 4 | 7 | 10 | 8 | --- | 7 | 6 | 9 | 4-5 |  |
| XF86 |  | 4 | 4 | 7 | 20 | 4 | --- | 1 | 6 | 9 | 4-5 | May show short on 2-7 |
| XF183 |  | 1 | 4 | 5 | 23 | 5 | --- | 8 | 7 | 2 | 4-5 | Must show short on 1-3; Cathode short test Depress 1-3 together |
| XF184 |  | 1 | 4 | 5 | 25 | 5 | --- | 8 | 7 | 2 | 4-5 | Must show short on 1-3; Cathode short test Depress 1-3 together |
| XL36 |  | 2 | 2 | 1 | 7 | 10 | 1 | 4 | 12 | 5 | 2-7 | Must show short on 1-3-4-8; Use red grid cap; Cathode short test - Depress 1-4 together |
| XL84 |  | 1 | 4 | 28 | 7 | 8 | 1 | 9 | 7 | 2 | 4-5 | Must show short on 1-2 |
| XL86 |  | 1 | 4 | 0 | 10 | 8 | 1-6-8 | 9 | 7 | 2 | 4-5 | May show short on 1-2-6-7-8-9 |
| XL500 | * | 3 | 4 | 2 | 16 | 10 | 2-7-8 | 6 | 12 | 1 | 4-5 | * Must use magnoval adapter; Must show short on 1-2-3-6-7-8; Cathode short test - Depress 3-8 together; Red grid cap goes to top of tube |
| XL504 | * | 3 | 4 | 2 | 16 | 10 | 2-7-8 | 6 | 12 | 1 | 4-5 | * Must use magnoval adapter; Must show short on 1-2-3-6-7-8; Red grid cap goes to top of tube |
| XY88 |  | 1 | 4 | 0 | 4 | 11 | \# | --- | 9 | --- | 4-5 | \# "W" = 1-2-3-6-7-8; May show short on 1-2-3-6-7-8-9 |


