POO. BOX 2
COBURG, 3058

REGISTERED OFFICE: RIGGALL STREET, BROADMEADOWS, VICTORIA FACTORY: CHARLES STREET AND WILLIAMS ROAD, NORTH COBURG, VICTORIA

Your ref.

## TRIMAX DIVISION

Our ref.
20th February, 1970.

Dear Sir,

We regret to advise that the necessity has arisen for us to increase the "Trimax" catalogue prices. This unfortunate situation has been created by several labour and material cost increases incurred throughout the past two years, the most recent of these being substantial increases in Nickel and Nickel Alloys.

Therefore, enclosed, please find our revised price lists for inclusion to your "Trimax" catalogue. These lists will effect all orders received as from the:
lIst March, 1970
and supersedes your present lists dated
1st January, 1968

Due to variations of labour and material proportions, comprising each unit, we were unable to apply a set percentage increase, therefore, each item has been treated individually, moreover, this method allows us to minimize these necessary adjustments.

We sincerely hope that future economic trends will allow us to maintain our new prices for a similar period to that of the preceding lists and assure you of our continued manufacture of the highest quality transformers and equipment.

Should you require any further clarification of this matter or technical assistance with your requirements, please do not hesitate to contact our Sales Department, alternatively, our agent situated in your State.

Yours faithfully,<br>L M ERICSSON PRY. LTD. TRIMAX DIVISION

R.C. PETERSON,

MANAGER

| AUDIO TRANSFORMERS <br> Prefix TA and MS Issued 20th February, 1970 |  | TRADE \& RETAIL PRICES Excluding Sales Tax |  | ```lst March, 1970 Supersedes Price List 1st January, 1968``` |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TYPE | TRADE | RETAIL | TYPE | TRADE | RETAIL |
| TA-3 | \$12.85 | \$16.05 | TA-914B-M1044 | \$29.45 | \$36.80 |
| TA-17 | 12.85 | 16.05 | TA-915B-M17 | 26.15 | 32.70 |
| TA-37A | 12.15 | 15.20 | TA-915B-M1044 | 29.45 | 36.80 |
| TA-47 | 12.85 | 16.05 | TA-916B-M17 | 26.15 | 32.70 |
| TA-61 | 12.85 | 16.05 | TA-916B-M1044 | 29.45 | 36.80 |
| TA-82 | 12.85 | 16.05 | TA-917B-M17 | 26.15 | 32.70 |
| TA-101 | 12.15 | 15.20 | TA-917B-M1044 | 29.45 | 36.80 |
| TA-168A | 12.15 | 15.20 | TA-931 | 11.45 | 14.30 |
| TA-406A | 12.15 | 15.20 | MS-944 | 16.25 | 20.30 |
| TA-605 | 12.85 | 16.05 | MS-945 | 16.25 | 20.30 |
| TA-636 | 12.15 | 15.20 | MS-946 | 16.25 | 20.30 |
| TA-710A | 11.45 | 14.30 | TA-947 | 12.60 | 15.75 |
| TA-731A | 12.60 | 15.75 | TA-948 | 12.60 | 15.75 |
| TA-733B | 11.45 | 14.30 | MS-977 | 17.60 | 22.00 |
| TA-763 | 12.45 | 15.55 | TA-1076 | 13.95 | 17.45 |
| TA-770 | 12.85 | 16.05 | 2.TA-1094A | 13.20 | 16.50 |
| 1.TA-793 | 13.20 | 16.50 | TA-1103C | 13.95 | 17.45 |
| TA-796A | 13.95 | 17.45 | TA-1104B | 13.60 | 17.00 |
| TA-797 | 13.95 | 17.45 | TA-1105A | 15.06 | 18.80 |
| TA-833 | 11.45 | 14.30 | TA-1147-M8 | 19.80 | 24.75 |
| TA-835 | 11.45 | 14.30 | TA-1147-M1044 | 22.75 | 28.45 |
| MS-837 | 17.00 | 21.20 | TA-1693 | 13.20 | 16.50 |
| MS-860 | 17.00 | 21.20 | TA-1774 | 13.20 | 16.50 |
| MS-866 | 16.25 | 20.30 | TELEPHONE ISOL | TING TR | MERS : |
| MS-878 | 17.00 | 21.20 | TA-1588 | 33.73 | 42.15 |
| MS-896 | 16.25 | 20.30 | TA-1704 | 41.05 | 51.31 |
| TA-909 | 13.95 | 17.45 | TA-1887 | 48.40 | 60.50 |
| TA-913B-M17 | 26.15 | 32.70 | TA-2129 | 35.20 | 44.00 |
| TA-913B-M1044 | 29.45 | 36.80 | TA-2333 | 35.20 | 44.00 |
| TA-914B-M17 | 26.15 | 32.70 | TA-2234 | 33.73 | 42.15 |
| 1.TA-793 superse | TA2252 |  | TA-2235 | 33.73 | 42.15 |
| 2.TA-1094A superseded by TA225 |  |  | TA-2305 | 85.05 | 106.30 |
|  |  |  | TA-2340 | 33.73 | 42.15 |
|  | L M ERI | PTY. LTD | TRIMAX DIVISION |  |  |




| INSTRUMENT TRANSFORMERS <br> Issued 20th February, 1970 | TRADE \& RETAIL PRICES Excluding Sales Tax | 1st March, 1970 Supersedes Price List 1st January, 1968 |
| :---: | :---: | :---: |
| TYPE | TRADE | RETAIL |
| TC-2 | \$12.10 | \$ 15.40 |
| TC-15 | 9.50 | 12.10 |
| TC-16 | 9.50 | 12.10 |
| TC-125 | 19.10 | 24.35 |
| TC-130 | 29.70 | 37.90 |
| TC-132 | 19.10 | 24.35 |
| TC-152 | 22.00 | 28.05 |
| TC-153 | 22.00 | 28.05 |
| TC-154 | 22.00 | 28.05 |
| TC-164 | 23.85 | 30.40 |
| TC-165 | 23.85 | 30.40 |
| TC-166 | 23.85 | 30.40 |
| TC-167 | 23.85 | 30.40 |
| TC-168 | 23.85 | 30.40 |
| TC-169 | 23.85 | 30.40 |
| TC-170 | 23.85 | 30.40 |
| TC-171 | 26.80 | 34.15 |
| TC-172 | 26.80 | 34.15 |
| TC-181 | 22.00 | 28.05 |

POWER TRANSFORMERS
Issued 20th February, 1970

TRADE \& RETAIL PRICES Excluding Sales Tax

1st March, 1970
Supersedes Price List lst January, 1968

| TYPE | TRADE | RETAIL | TYPE | TRADE | RETAIL |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TP-16A | \$11.00 | \$ 14.05 | TP-2821 | \$4.20 | \$5.35 |
| TP-17A | 12.10 | 15.45 | TP-2827 | 31.50 | 40.20 |
| TP-18A | 13.60 | 17.35 | TP-2985 | 59.40 | 75.75 |
| TP-69B | 16.90 | 21.50 | TP-3073B | 46.90 | 59.85 |
| TP-185A | 8.10 | 10.35 | TP-3078 | 17.60 | 22.45 |
| TP-208A | 9.20 | 11.70 | TP-3099 | 2.90 | 3.75 |
| TP-399B-M122 | 31.50 | 40.20 | TP-3100 | 12.10 | 15.40 |
| TP-399B-VBA | 15.40 | 19.65 | TP-3138 | 58.70 | 74.80 |
| TP-400A-M1 22 | 26.40 | 33.65 | TP-3146 | 3.70 | 4.70 |
| TP-400A-VBA | 10.30 | 13.10 | TP-3345 | 58-90 | 74.80 |
| TP-1454A | 11.70 | 14.95 | TP-3346 | 30.80 | 39.27 |
| TP-1633A | 13.20 | 16.85 | TP-3395 | 88.00 | 112.20 |
| TP-1724 | 11.70 | 14.95 | TP-3518 | 38.10 | 48.60 |
| TP-1780 | 9.25 | 11.75 | TP-3569A | 15.40 | 19.65 |
| TP-1798A | 13.30 | 23.40 | TP-3588 | 12.10 | 15.40 |
| TP-1803 | 34.50 | 44.00 | TP-3591 | 58.65 | 74.75 |
| TP-2069A | 7.20 | 9.20 | TP-3622 | 25.30 | 32.30 |
| TP-2077 | 18.00 | 22.95 | TP-3643 | 12.10 | 15.40 |
| TP-2171B | 8.40 | 10.75 | TP-3794 | 231.70 | 295.46 |
| TP-2259 | 16.50 | 21.05 | TP-3828 | 65.30 | 83.20 |
| TP-2263A | 33.00 | 42.10 | TP-3862 | 6.60 | 8.40 |
| TP-2264 | 33.00 | 42.10 | TP-3863 | 15.40 | 19.65 |
| TP-2420 | 7.70 | 9.85 | TP-3980 | 6.20 | 7.90 |
| TP-2496 | 38.10 | 48.60 | TP-3981 | 7.30 | 9.35 |
| TP-2499 | 31.50 | 40.20 | TP-3982 | 11.00 | 14.05 |
| TP-2500 | 15.40 | 19.65 | TP-4300 | 3.70 | 4.75 |
| TP-2501 | 29.00 | 36.95 | TP-4301 | 5.00 | 6.05 |
| TP-2502 | 4.00 | 5.10 | TP-4302 | 5.90 | 7.35 |
| TP-2580 | 38.10 | 48.60 | TP-4303 | 5.70 | 7.10 |
| TP-2656 | 9.90 | 12.65 | TP-4304 | 5.70 | 7.10 |

POWER TRANSFORMERS
Issued 20th February, 1970

TRADE \& RETAIL PRICES
Excluding Sales Tax

1st March, 1970 Supersedes Price List 1st January, 1968

| TYPE | TRADE | RETAIL | TYPE | TRADE | RETAIL |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TP-4305 | \$7. 20 | \$9.20 | TP-4335 | \$28.60 | \$36.45 |
| TP-4306 | 7.20 | 9.20 | TP-4336 | 61.60 | 78.55 |
| TP-4307 | 7.30 | 9.35 | TP-4337 | 11.40 | 14.50 |
| TP-4308 | 7.30 | 9.35 | TP-4338 | 15.40 | 19.65 |
| TP-4309 | 8.20 | 10.45 | TP-4339 | 2.90 | 3.75 |
| TP-4310 | 8.20 | 10.45 | TP-4340 | 3.50 | 4.50 |
| TP-4311 | 8.35 | 10.65 | TP-4341 | 3.50 | 4.50 |
| TP-4312 | 8.35 | 10.65 | TP-4342 | 4.20 | 5.35 |
| TP-4313 | 10.60 | 13.55 | TP-43.43 | 4.20 | 5.35 |
| TP-4314 | 10.60 | 13.55 | TP-4344 | 5.10 | 6.55 |
| TP-4315 | 12.10 | 15.40 | TP-4345 | 6.60 | 8.40 |
| TP-4316 | 12.10 | 15.40 | TP-4346 | 7.20 | 9.20 |
| TP-4317 | 10.60 | 13.55 | TP-4347 | 7.20 | 9.20 |
| TP-4318 | 11.40 | 14.50 | TP-4348 | 7.20 | 9.20 |
| TP-4319 | 11.40 | 14.50 | TP-4349 | 10.60 | 13.55 |
| TP-4320 | 12.10 | 15.40 | TP-4350 | 10.60 | 13.55 |
| . TP-4321 | 12.10 | 15.40 | TP-4351 | 12.10 | 15.40 |
| TP-4322 | 15.40 | 19.65 | TP-4352 | 24.20 | 30.85 |
| TP-4323 | 18.00 | 22.95 | TP-4353 | 8.65 | 11.00 |
| TP-4324 | 15.40 | 19.65 | TP-4354 | 10.60 | 13.55 |
| TP-4325 | 16.50 | 21.05 | TP-4355 | 6.60 | 8.40 |
| TP-4326 | 18.00 | 22.95 | TP-4356 | 63.80 | 81.35 |
| TP-4327 | 18.00 | 22.95 | TP-4358 | 33.00 | 42.10 |
| TP-4328 | 18.00 | 22.95 | TP-4407 | 10.60 | 13.55 |
| TP-4329 | 18.00 | 22.95 |  |  |  |
| TP-4330 | 18.70 | 23.90 |  |  |  |
| TP-4331 | 25.30 | 32.30 |  |  |  |
| TP-4332 | 33.00 | 42.10 |  |  |  |
| TP-4333 | 25.70 | 32.75 |  |  |  |
| TP-4334 | 25.30 | 32.30 |  |  |  |

GENERAL
Issued 20th February, 1970

TRADE \& RETAIL PRICES
Excluding Sales Tax

1st March, 1970
Supersedes Price List 1st January, 1968

TYPE
TRADE
RETAIL

## SHEETMETAL:

| M50 Chassis and Cover | $\$ 11.70$ | $\$ 14.95$ |
| :--- | ---: | ---: |
| M356 Chassis and Cover | 8.80 | 11.20 |
| M924 Equipment Trolley | 41.35 | 51.60 |
| M924A Equipment Trolley with power sockets | 48.15 | 59.90 |

Other sheetmetal products subject to quotation against customer's drawings.

## MICROPHONE STANDS:

| Table Type - Fixed | 2.90 | 3.75 |
| :--- | ---: | ---: |
| Table Type - Adjustable | 8.80 | 11.20 |
| Floor Type - Round Base | 17.50 | 22.45 |
| Floor Type - Heavy Tripod Base | 20.50 | 26.20 |

AMPLIFIERS AND EQUIPMENT:

S38 - Voltage Regulator
S40 - Voltage Regulator
S82 - Voltage Regulator
S116 - Voltage Stabiliser
G1B - Ionisation Tester
41.10
52.35
41.10
52.35
106.25
627.00
385.20

Other equipment products - prices on request.

REGISTERED OFFICE: RIGGALL STREET, BROADMEADOWS, VICTORIA
FACTORY: CHARLES STREET AND WILLIAMS ROAD, NORTH COBURG, VICTORIA
Your ref.
TRIMAX DIVISION

1st May, 1965.
Our ref.

Dear Sir,

With apologies for the delay, we have pleasure in enclosing a copy of our new "Trimax" Catalogue and price list, which is effective from this date 。

We feel sure that you will realise the impracticability of listing the thousands of designs on file, and we have, therefore, endeavoured to standardise on types in popular demand.

However, if your requirements are not met by this selection, please let us have full details so that we may prepare a special quotation.

It will also be our endeavour to keep your catalogue up to date by the issue of additional sheets from time to time, so please help us by returning the slip below.

In conclusion, we regret that we had to revise our prices - which have been unchanged since 1954 - mostly upwards, although in some cases unchanged or reduced, but increased production and efficiency were no longer able to offset the steep increase in labour and material costs which have occurred over the past few years. We are still confident, however, that, as previously, "Trimax" gives the best value for money.

Yours faithfully,<br>L M ERICSSON PTY。LTD. TRIMAX DIVISION

## R. C. PETERSON <br> MANAGER


"V.B.A." MOUNTING (Reversible Mounting)

| Lam. | Stack. | A | B | C | D) | E | F | G | Wt. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ET-12 | 1 in. | $3 \stackrel{1}{1} \mathrm{in}$. | 42 in . | 4 s in . | $2{ }_{\text {¢ }} \mathrm{in}$. | 33 in . | 23 in. | $2 t \mathrm{in}$. | 6 lb . |
| " | $1+\mathrm{in}$. | 3.1 in . | " | , | 23 in . | " | $3: 1 \mathrm{in}$. | ," | 7 lb , |
| ", | $1{ }^{1} \mathrm{im}$. | 33 in . | " | " | $2 \overline{5} \mathrm{in}$. | " | $3 \stackrel{1}{2} \mathrm{~m}$. |  | 8 lb . |
| , | 2 m. | $4{ }^{1} \mathrm{in}$. | " | " | $3 \frac{1}{3} \mathrm{in}$. | " | $3 \bar{s} \mathrm{in}$. | " | 10 lb . |
| , | $2 \frac{1}{2} \mathrm{in}$. | $4 \frac{3}{4} \mathrm{in}$. | " | , | $3{ }^{5} \mathrm{in}$. | " | $4 \frac{1}{2} \mathrm{in}$. | , | 12 lb , |
| " | 3 in. | 5.14 in . | " | ", | $4 \frac{1}{4} \mathrm{in}$. | " | $4 \frac{7}{5} \mathrm{in}$. | " | $13 \frac{1}{2} \mathrm{lb}$. |
| ET-16 | 2 in. | $4{ }_{4} \mathrm{in}$. | 5 in. | 6 s in . | 4 in. | $4 \frac{1}{4} \mathrm{in}$. | 4.1 in . | 3 in. | $16 \frac{1}{2} \mathrm{lb}$. |
| " | 3 in. | $5{ }^{3} \mathrm{in}$. | " | " | 5 in. | " | $5 . \mathrm{in}$. | " | $24 \frac{1}{2} \mathrm{lb}$. |
| " | $4 \mathrm{in}$. | 63 in. | " | " | 6 in . | " | $6 \frac{1}{4} \mathrm{in}$. |  | $32 \frac{1}{2} \mathrm{lb}$. |
| EI-18 | 2 in. | $5{ }^{\frac{1}{4} \mathrm{in} .}$ | $5{ }^{5} \mathrm{in}$. | $6 \bar{s} \mathrm{~s} \mathrm{in}$. | $4 \frac{1}{8} \mathrm{in}$. | 5 in. | 5 in. | 3 in . |  |
| " | 3 in. | $6 \frac{1}{4} \mathrm{in}$. | " | " | $5^{\frac{1}{8} \mathrm{in}}$. | " | 6 in. | " |  |
| " | 4 in. | $7 \frac{1}{4} \mathrm{in}$. | " | " | $6 \frac{1}{5} \mathrm{in}$. | " | 7 in . | " |  |
| " | 5 in. | $8 \frac{1}{1} \mathrm{in}$. | " | " | $7 \frac{1}{8} \mathrm{in}$. | " | 8 in. |  |  |

" $\mathrm{H}^{\prime}$ " MOUNTING (Horizontal Mounting)

| Lam. | Stack | A | B | C | D | E | F | Wt. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EI-8 | 4 in . | 3 in . | 21. in. | 1.2 in. | $2 \frac{1}{8} \mathrm{in}$. | $1{ }^{5} \mathrm{~s} \mathrm{in}$. | $2^{1 / 19} \mathrm{in}$. | 2 lb . |
| " | 1 in. | " | " | $1{ }_{4}^{3} \mathrm{in}$. | " | " | " | $2 \frac{1}{17 \mathrm{lb}}$. |
| " | $1 \pm \mathrm{in}$. | " | " | 2 in. | " | " | " | $2 \frac{1}{2} \mathrm{lb}$. |
| , | $1 \frac{1}{2} \mathrm{in}$. | " | " | $2 \frac{1}{4}$ in. | " | " | " | $2 \frac{3}{4} \mathrm{lb}$. |
| " | 2 in. | " | " | $2 \frac{3}{1} \mathrm{in}$. | " | " | " | 3 lb . |
| EIS-8 | ${ }_{4}^{3} \mathrm{in}$. | $3 \% \mathrm{in}$. | $3 \frac{1}{8} \mathrm{in}$. | $1 \bar{\square} \mathrm{in}$. | 23 in. | $2^{3} / 10 \mathrm{in}$. | $2^{-1} / 15$ in. | $2 \frac{3}{4} \mathrm{lb}$. |
| " | 1 in. | " | " | $1{ }^{\frac{1}{8} \mathrm{in}} \mathrm{in}$. | " | " | " | 3 年 lb . |
| , | 1tin. | " | " | $2{ }_{8}^{1} \mathrm{in}$. | " | " | " | $3 \frac{3}{4} \mathrm{lb}$. |
| " | $1 \frac{1}{2} \mathrm{in}$. | " | " | $2{ }^{3} \mathrm{in}$. | , | ," | " | $4 \frac{1}{4} \mathrm{lb}$. |
| " | 2 in. | " | " | $2 \bar{k} \mathrm{in}$. | " | " | " | $5{ }^{1} \mathrm{lb}$. |


"O.C." MOUNTING (Open Clamp Mounting)

| Lam. | Stack | A | B | C | D | E | F | Wt. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ET-8 | ${ }_{4}^{3} \mathrm{in}$. | $1{ }_{5}{ }^{\text {c in. }}$ | $2 \overline{5} \mathrm{in}$. | $3 \frac{1}{3} \mathrm{in}$. | 1s in. | $1{ }^{15} / 15 \mathrm{in}$. | $2 \frac{3}{8}$ in. | 2 lb . |
| " | 1 in . | $2 \frac{1}{8} \mathrm{in}$. | ", | , | 15 in. | ", | " | $2 \pm 1 \mathrm{l}$. |
| ," | 1.4 in . | 23 in . | ," | " | 17 m in. | " | ", | $2 \frac{1}{2} \mathrm{lb}$. |
| ," | 13 in . | 25 in. |  | " | $2{ }^{\frac{1}{8} \mathrm{in}} \mathrm{in}$. | " | " | 231 lb . |
|  | 2 in. | 38 in . |  |  | 25 in . |  |  | $3 \stackrel{1}{1} \mathrm{lb}$. |
| EIS-8 | ${ }_{1}{ }^{3} \mathrm{in}$. | 21 in . | $3^{3 / 18} \mathrm{in}$. | 31 ${ }^{\prime \prime} \mathrm{in}$. | 13 in . | $2^{-1} /{ }_{10}^{\prime \prime} \mathrm{in}$. | 23 in . | ${ }^{3} \mathrm{lb}$. |
| " | 1 in. | 23 in . | " | " | 13 in. | " | " | 34 lb . |
| " | 13 in . | $2 \overline{8} \mathrm{in}$. | ", | " | 2 in . | " | " | $3 \frac{3}{4} \mathrm{lb}$. |
| " | 12 in. | ${ }_{2}^{7} \mathrm{in}$. | ", | " | 21 in . | ", | " | $4 \frac{1}{4} \mathrm{lb}$. |
| EI'12 | 2 in . | 33 in . |  |  | ${ }_{23}{ }^{3} \mathrm{in}$. | 91" |  | 5 lb . |
| EL-12 | 1 in in. |  | 35 s | $4 \frac{5}{8} \mathrm{in}$. | 15 in 28 21 2 in. | $2^{\frac{1}{4}} \mathrm{in}$. | 2 年 in. | $\begin{array}{ll}6 \\ 8 & \mathrm{lb} .\end{array}$ |
| ", | $2 \mathrm{mm}$. | 38 in . | ", |  | 28 in . | ", |  | 10 lb. |
| ", | $2 \frac{1}{2} \mathrm{in}$. | $3{ }^{5} \mathrm{in}$. | ", | " | 31 in . | " | " | 12 lb. |
| " | 3 in . | $4 \frac{1}{5} \mathrm{in}$. | " | " | $3{ }^{5} \mathrm{in}$. | " | " | $14 \frac{1}{2} \mathrm{lb}$. |

## 


"S.C." (Strap Clamp Mounting)

| Lam. | Stack | A | B | C | D | E | F | Wt. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EI-5 | $\bar{s} \mathrm{~s}$ in. | 3 in . | 9 m in. | 1雪 in. | $2{ }^{1} \mathrm{in}$. | 2 in. | $1 \mathrm{~s}^{\mathrm{in}} \mathrm{in}$. | $\stackrel{1}{2} \mathrm{lb}$. |
| EI-6 | 3 in . | $3 \frac{1}{2} \mathrm{in}$, | $\frac{7}{5} \mathrm{in}$. | 2 in. | 25 in . | 23 in . | 13 in . | 1 lb . |
| " | 1 in. | " | 11 in in. |  | " | " | 2 in. | $1 \pm \mathrm{lb}$. |
| EI-7 | $\frac{7}{8} \mathrm{in}$. | $3 \frac{7}{8} \mathrm{in}$. | 1 in. | 21 in . | 3 m m. | 23 in. | $1{ }_{8}^{7} \mathrm{in}$. | $1 \frac{1}{51 \mathrm{lb}}$. |
| " | $1{ }^{3} / 82 \mathrm{in}$. | " | $1{ }^{3} \mathrm{in}$. |  | " | " | $22_{8}^{1} \mathrm{in}$. | 13 lb . |

## 'M 122" CASE

ortable. Waterproof construction.
ine, two or three waterproof gland nuts as outlets. imensions $5 \frac{1}{3}$ in. $\times 6 \frac{1}{4}$ in. $\times 7 \frac{1}{4}$ in. H.


## M 717" COVERS

or major dimensions refer to "OC" tounting for EIS-8 or EI-12 Lamination.


## "M 381". CASE

EIS-8 Lamination $5 \frac{1}{3}$ in, $x 3 \frac{3}{4} \mathrm{in}$. $\times 3 \frac{7}{3} \mathrm{in}$. H. EI-12 Lamination $6 \frac{1}{8} \mathrm{in}, x 4 \frac{7}{8} \mathrm{in} . x 6 \frac{1}{8} \mathrm{in}$. H.
Either type can be fitted with socket, grommets or conduit entries.


## -



## "M 53" CASE

(Reversible Steel Mounting)

| Type | Lam. | A | B | C | D | E | F | Wt. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| M53-1 | EI-8 etc. | $2{ }^{7} \mathrm{in}$. | 3 in. | $3 \overline{\mathrm{~s}} \mathrm{in}$. | $2^{5} / 16$ in. | $2^{7} /{ }_{16} \mathrm{in}$. | $1 \frac{1}{2} \mathrm{in}$. | $3 \frac{1}{2} \mathrm{lb}$. |
| M53-2 | EIS-8 | 3 in. | $3^{4} / 18 \mathrm{in}$. | $4 \frac{1}{8} \mathrm{in}$. | $2{ }^{7} / 18 \mathrm{in}$. | $2{ }^{7} \mathrm{~s}$ in. | " | $4 \frac{1}{2} \mathrm{lb}$. |
| M53-3 | , | $3^{7} / 18$ in. | $3 \frac{1}{4} \quad \mathrm{in}$. | $4 \frac{1}{5} \mathrm{in}$. | $2 \frac{7}{8} \mathrm{in}$. | $3^{3 / 15} \mathrm{in}$. | " | 5 lh . |
| M53-4 | L-6 etc. | 3 in . | $3^{7} /{ }_{16} \mathrm{in}$. | $5 \pm \mathrm{in}$. | $2^{i} / \mathrm{id} \mathrm{in}$. | $22_{8}^{7} \quad$ in. | " | $4 \frac{1}{2} \mathrm{lb}$. |

"M 294" CASE
Body size ${ }^{15} / 10$ in. $\times 2 \frac{1}{4}$ in. $\times 1 \frac{3}{7} \mathrm{in}$ Mounting centres $2^{11} / 16 \mathrm{in}$.

## "M 511" CASE

Body size $1^{5} / 32$ in, $x 2 \frac{1}{4}$ in. x $1 \frac{3}{4}$ in. Mounting centres $2^{11} / 10 \mathrm{in}$.


## "M 508" CASE

Single Hole-mounting Mu-Metal case. For Microphone or Pickup transformers

Diam. 1t in. Height $1 \frac{1}{4} \mathbf{i n}$, above chassis.


## ILLUSTEATIINS RUP PHYSIOGC. DETAILS

STANDARD CASES FOR AUDIO AND CARRIER TRANSFORMERS


## "M 91" CASE

Light steel case. Base, $2 \frac{1}{2} \mathrm{in} . x 1^{13} / 15 \mathrm{in}$. Mounting, $1^{15} / 16$ in, x $1 \frac{1}{4} \mathrm{in}$. Overall Height, $3 \frac{3}{4} \mathrm{in}$.
"M 214" CASE
Hermetically sealed, details as for "M 91".
"M 143" CASE
Light steel case, Base, 2 in. x $1 \frac{5}{8}$ in. Mounting $1 \frac{1}{2}$ in. $\times 1 \frac{1}{8}$ in. Overall Height, $3 \frac{1}{4}$ in.

"M 215" CASE


Hermetically sealed, details as for "M143".
"M 17" CASE


Drawn-steel case.
Base, $4 \frac{1}{4}$ in. $\times 2 \frac{5}{8}$ in. Mounting, $3^{3} / 16 \times 2^{3} / 18$. Overall Height, $4 \frac{5}{8}$ in.

## "M 8" CASE

Drawn-steel case.
Base, $2^{9} / 15 \times 1^{15} / 16$ in. Mounting, $2 \frac{1}{4} \mathrm{in}$. $\times 1 \frac{5}{8} \mathrm{in}$, Overall Height, $3 \frac{5}{8}$ in.
"M 455" CASE
Modified "M8" case with panel to suit Relay Set mounting P.M.G. drwg. CEb34.


[^0]
## IHLUSTRATINS GUd PHYSICAI DETAILS

## CAST IRON COVER

| I, am. | Stack | A | B | C | D | E | F | G |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BUT-1 | 2 in . | 6 in. | $8 \frac{1}{2}$ in. | $7 \frac{1}{1} \mathrm{in}$. | $5 \frac{1}{1} \mathrm{in}$. | $7{ }^{11 / 18}$ in. | 4 in. | 25 in. |
| BUT-1 | $2 \frac{1}{3} \mathrm{in}$. | $6 \frac{1}{2} \mathrm{in}$. | 82 in. | 7 l in. | 5䞨. | $7^{11 / 18} \mathrm{in}$. | 4 in. | 2 E in. |
| BUT-1 | 3 in. | 7 in . | $8 \frac{1}{2}$ in. | $7 \frac{1}{4} \mathrm{in}$. | $6{ }^{1} \mathrm{in}$. | $7^{11 / 16} \mathrm{in}$. | 4 in. | 25 in. |
| BUT-1 | 4 in. | 8 in. | 812 in. | 7.4 in. | $7 \frac{1}{4} \mathrm{in}$. | $7^{11 / 18}$ in. | 4 in. | 25 in , |
| BUT-2 | 2 in. | $7 \frac{1}{8} \mathrm{in}$. | $10^{1 / 4} \mathrm{in}$ in. | 87 in . | 6.1 in. | 9 in. | $4{ }^{7} \mathrm{in}$. | 31 in . |
| BUT-2 | 3 in . | $8 \frac{1}{8} \mathrm{in}$. | $10^{1 / 10} \mathrm{in}$. | $8{ }_{8}^{7} \mathrm{in}$. | 7年 in. | 9 in. | $4 \frac{7}{8} \mathrm{in}$. | $3 \frac{1}{8} \mathrm{in}$. |
| BUT-2 | 4 in . | 9 s in . | $10^{1 / 16} \mathrm{in}$. | $8 \frac{7}{3} \mathrm{in}$. | $8 \frac{1}{4} \mathrm{in}$. | 9 in. | 47 in. | 31 in. |
| BUT-2 | 5 in . | $10 \frac{1}{\frac{1}{5} \mathrm{in} \text {. }}$ | 101/10 in. | $8^{\frac{7}{3} \mathrm{in}}$. | $9{ }^{3} \mathrm{in}$. | 9 in. | $4 \frac{7}{8} \mathrm{in}$. | 3 s in . |

## HERMETICALLY SEALED TRANSFORMERS

For use in high humidity and special conditions, sealing in this manner gives complete reliability. For dimensions of standard cases refer to pages 9 and 10 .



## SHELL TYPE <br> LAMINATIONS

|  | A | B | C | D | E | $F$ | G | Holes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EIS-2 | 1.0 in. | .75 in. | . 23 in. | . 5 in. | $.26 \mathrm{in}$. |  |  | None |
| EI-4 | 1.5 in. | 1.25 in. | .5 in. | .75 in. | .25 in. |  |  | None |
| EI-9/16 | 1.687 in . | 1.407 in. | . 562 in. | . 843 in . | . 281 in . |  |  | None |
| EI-5 | 1.875 in . | 1.562 in . | .625 in . | . 937 in . | . 312 in . |  |  | None |
| EII-6 | 2.25 in. | 1.875 in. | $.75 \mathrm{in}$. | 1.125 in . | . 375 in . |  |  | None |
| ET-7 | 2.625 in. | 2.188 in . | . 875 in. | 1.31 in. | . 437 in . |  |  | None |
| ET-8 | 3.0 in. | 2.5 in. | 1 in. | 1.5 in. | . 5 in. | 2.125 in . |  | Y. 218 in. slot |
| EIS-8 | 3.375 in. | 3.063 in . | 1 in. | 2.063 in . | . 687 in . | 2.687 in. |  | " " " |
| EI-9 | 3.375 in . | 2.813 in . | 1.125 in . | 1.687 in. | . 562 in. | 2.25 in. | 2.813 in. | . 218 in . |
| EI-12 | 4.5 in. | 3.75 in. | 1.5 in. | 2.25 in. | . 75 in. | $\beta$ in. | 3.75 in. | X. 218 in. D |
| EI-16 | 6 in. | 5 in. | 2 in . | 3 in . | 1 in. | 4 in. | 5 in. | X. 22 in. D |
| WI-18 | 6.75 in. | 5.63 in. | 2.25 in. | 3.375 in. | 1.125 in. | 5.625 in. | 4.5 in. | X .31 in. D |
| BUT-1 | 7 in. | 7 in. | 2 in. | 5 in. | 1.5 in. |  |  | None |
| BUT-2 | 8.5 in. | 8.5 in. | 2.5 in. | 6 in. | 1.75 in . |  |  | None |
| BUT-5 | 0.5 in. | 1.75 in . | 3.5 in . | 8.25 in. | 1.75 in . |  |  | None |

CORE TYPE L.AMINATIONS


| Type | A | B | C | D | E | F | Holes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L-3 L-4 L-6 LS-6 U-8 | $\begin{array}{ll} 1.875 \mathrm{in} . \\ 2.5 & \mathrm{in} . \\ 3.75 & \mathrm{in} . \\ 3.75 & \mathrm{in} . \\ 5 & \mathrm{in} . \end{array}$ | $\begin{cases}1.125 \mathrm{in} . \\ 1.5 & \text { in. } \\ 2.25 & \text { in. } \\ 2.75 & \text { in. } \\ 3 & \text { in. }\end{cases}$ | $\begin{array}{ll} .375 \mathrm{in} . \\ .5 & \text { in. } \\ .75 & \mathrm{in} . \\ 1.25 & \mathrm{in} . \\ 1 & \text { in. } \end{array}$ | $\begin{cases}1.125 \mathrm{in} . \\ 1.5 & \text { in. } \\ 2.25 & \text { in. } \\ 2.25 & \text { in. } \\ 3 & \text { in. }\end{cases}$ | $\left\{\begin{array}{l} 2 \mathrm{in} . \\ 3 \mathrm{in} . \\ 3 \mathrm{in} . \\ 4 \mathrm{in} . \end{array}\right.$ | 1 1.5 in. 2 2 in. in. | $\begin{aligned} & \text { None } \\ & .14 \text { in. } D \\ & .22 \text { in. } D \\ & .22 \text { in. } D \\ & 22 \text { in. } D \end{aligned}$ |



Hermetically Sealed, Insert Mounted Cases. Glass or Ceramic Seals.

Standard Terminal Arrangement Transformer


| Type | Lam. Size | Max. Stack | A | B | C | D | E | Materials | Inserts |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | EI-8 | $1 \frac{1}{4} \mathrm{in}$. | $2 \frac{1}{3} \mathrm{in}$. | 23 in. | $3 \frac{3}{4} \mathrm{in}$. | $1 \frac{3}{4} \mathrm{in}$. | 2 in . | Tinplate | $5 / 32 \mathrm{in}$. W |
| B | EI-8 | 2 in. | $3 \frac{1}{3} \mathrm{in}$. | 23 in . | $3 \frac{3}{4} \mathrm{in}$. | $2 \frac{1}{3} \mathrm{in}$. | 2 in. | Tinplate | $5 / 32 \mathrm{in}$. W |
| C | EIS-8 | 13 in. | $2 \frac{3}{4} \mathrm{in}$, | 3表 in. | 41 in . | 2 in . | $2 \frac{1}{2} \mathrm{in}$. | Tinplate | $5 / 32$ in. W |
| D | EIS-8 | 2 in . | $3{ }^{3} \mathrm{in}$. | $3{ }^{1} \mathrm{in}$. | $4 \frac{1}{4} \mathrm{in}$. | 3 in. | 2交 in. | Tinplate | $5 / 32$ in. W |
| E | EI-12 | 11 in. | $3 \pm \mathrm{in}$. | 4 in. | $5 \frac{1}{4} \mathrm{in}$. | 21 in. | 3 in . | Terne 22G | $5 / 32$ in. W |
| F | ET-12 | 2 in. | 4 in. | 4 in. | $5^{\frac{3}{4} \mathrm{in}}$. | 3 in . | 3 in. | Terne 22G | $s / 3$ in. W |
| $G$ | FT-12 | 3 in , | 5.1 in . | 4 in. | $5 \frac{1}{4} \mathrm{in}$. | 41 in . | 3 in . | Terne 22G | $5 / 32 \mathrm{in}$, W |

## 



| Type | $\underset{\text { Size }}{\text { Lam, }}$ | Max. Stack | A | B | C | D | E | F | Holes | Case Material | Base Material |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| K | EI-16 | $2 \frac{1}{1} \mathrm{in}$. | $5 \frac{1}{\text { a }} \mathrm{in}$. | $5 \frac{1}{3} \mathrm{in}$. | $71 . \mathrm{in}$. | $3 \frac{1}{4} \mathrm{in}$. | 64 in . | 7 in. | 17/4 in. | 20 g MS | 18g MS |
| L | EI-16 | 4 in. | 7 in . | $5 \frac{1}{2} \mathrm{in}$. | $71 . \mathrm{in}$. | 5 in. | 61 in . | 7 in . | 17/4. in, | 20 g MS | 18g MS |
| M | BUT-1 | $3 \frac{1}{2} \mathrm{in}$. | $7 \frac{1}{2} \mathrm{in}$. | $8{ }^{\frac{3}{4} \mathrm{in}}$. | 71. in. | $5 \frac{1}{2} \mathrm{in}$. | $9 \frac{1}{2} \mathrm{in}$. | $10 \frac{1}{} \mathrm{in}$. | 17/as in. | 18g MS | 16 g MS |
| N | BUT-1 | 5 in . | 9191in. | $8 \frac{3}{4} \mathrm{in}$. | $8 \frac{1}{2}$ in. | $7 \frac{1}{2}$ in | $9 \frac{1}{2} \mathrm{in}$. | $10 \frac{1}{3} \mathrm{in}$. | 17/4 in. | 18 g MS | 16g MS |
| P | BUT-2 | $3 \frac{1}{2} \mathrm{in}$. | $8 \frac{1}{2} \mathrm{in}$. | $10 \frac{1}{4} \mathrm{in}$. | 10 in . | $6 \frac{1}{2}$ in | 11 in. | 113 l in. | ${ }^{17} / 4 \mathrm{sin}$. | 18 g MS | 16g MS |
| Q | BUT-2 | 5 in . | 10 in. | $10 \frac{1}{1}$ in | 10 in | 8 in. | 11 in. | $11^{\frac{3}{4} \mathrm{in}}$. | $11 / 38 \mathrm{in}$. | 18g MS | 16 g MS |
| R | BUT-5 | 4 in. | 9 in. | $13 \frac{1}{2} \mathrm{in}$. | 13 in | 7 in. | 15 in. | $16^{\frac{1}{2}} \mathrm{in}$. | ${ }^{13} / 32 \mathrm{in}$. | 16 g MS | 16 g MS |
| S | BUT-5 | 6 in. | 11 in. | $13 \frac{1}{3}$ in. | 13 in | 9 in . | 15 in. | $16^{\frac{1}{2}} \mathrm{in}$. | ${ }^{13} / 32 \mathrm{in}$. | 16 g MS | 16 g MS |
| T | BUT-6 | $3 \frac{1}{2}$ in | in. | 93 in . | 8 in . | 7 in . | $10 \frac{3}{3} \mathrm{in}$. | $11{ }^{3} \mathrm{in}$. | $13 / 8 \mathrm{in}$. | 18 g MS | 16g MS |
| U | BUT-6 | 5 in. | 11 in. | $9{ }^{3} \mathrm{in}$. | 8 in | 9 in. | $10 \frac{3}{\text { a }} \mathrm{in}$. | $11{ }^{\text {a }} \mathrm{in}$. | 13/32 in. | 18g MS | 16g MS |

1. In general, the types listed have been designed for a capacitor input filter. If a choke filter is used the H.T. current may be increased by approximately $25 \%$.
2. $\star$ Indicates that the design is for a choke input filter.
3. Ratings are based on a maximum ambient temperature of $40^{\circ} \mathrm{C}$. If used with a higher ambient, the loading must be reduced.
4. 240V HAS BEEN ADOPTED AS THE STANDARD SUPPLY VOLTAGE IN MOST AREAS OF AUSTRALIA, AND ALL CATALOGUE TYPE TRANSFORMERS ARE DESIGNED FOR THIS VOLTAGE. Additional primary taps can, if required, be supplied at an extra cost. In such cases it is suggested that a similar tapping arrangement to that used with "Trimax" Tap-changing Fuse Holder be used, as this gives 10 V variations from $200-250 \mathrm{~V}$ with the minimum number of taps.
5. For physical details refer to the dimension sheets.
6. Numbers underlined indicate standard transformers normally carried in stock.

| $\begin{gathered} \text { Catalogue } \\ \text { No. } \end{gathered}$ | Replaces Type | Secondaries |  |  |  | Mounting Lamination and Stack |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { High } \\ \text { Tension } \\ \text { Volts A.C. } \end{gathered}$ | M.A. D.C. | Filaments |  |  |
|  |  |  |  | 5 v | 6.3 v |  |
| TP-4300 |  | 150/150 | 15 |  | 1 a | SC-EI-6 ${ }^{\frac{3}{4}}{ }^{\prime \prime}$ |
| TP-2502 |  | 150/150 | 30 |  | 2a | SC-EI-7 ${ }^{\prime \prime}$ |
| $\overline{T P-4301}$ | TP-1788 | 150/150 | 40 |  | 2a | H-EI-81" |
| TP-4302 |  | 240/240 | 40 |  | 1.5a, 1.5a | H-EI-8 11/" |
| $\overline{\mathrm{TP}-4303}$ | TP-2240 | 285/285 | 40 |  | 2 a | H-EI-8 11. ${ }^{\prime \prime}$ |
| TP-4304 | TP-2241 | 265/265 | 50 |  | 2.5a | H-EI-8 1 $\mathbf{1}_{4}{ }^{\prime \prime}$ |
| TP-4305 | TP-1886 | 385/385 | 60 | 2 a | 2 a | H-EIS-8 14" |
| TP-4306 | TP-1623 | 265/265 | 70 |  | 2a, 2a | H-EIS-8 11/" |
| $\underline{\text { TP-4307 }}$ |  | 310/310 | 70 |  | 2a, 2a | H-EIS-8 1 ${ }^{\prime \prime}{ }^{\prime \prime}$ |
| $\overline{\mathrm{TP}-4308}$ | TP-2242 | 285/285 | 80 | 2a | 2 a | H-EIS-8 11/ |
| $\overline{\mathrm{TP}-4309}$ | TP-2488 | 285/285 | 80 | 2 a | 2a, 2a | H-EIS-8 $1 \frac{1}{2}{ }^{\prime \prime}$ |
| TP-4310 | TP-2489 | 325/325 | 80 | 2a | 2a, 2a | H-EIS-8 1 $\frac{1}{2}^{\prime \prime}$ |
| TP-4311 | TP-2490 | 385/385 | 80 | 2a | 1.5a, 1.5a | H-EIS-8 1 ${ }^{\frac{1}{2}}{ }^{\prime \prime}$ |
| TP-4312 | TP-2377 | 285/285 | 100 | 2a | $1.5 \mathrm{a}, 1.5 \mathrm{a}$ | H-EIS-8 11/" |
| $\overline{\mathrm{TP}-4313}$ | TP-2491 | 325/325 | 100 | 2 a | 2a, 2 a | VBA-EI-12 ${ }^{\prime \prime}$ |
| TP-4314 | TP-2243 | 385/385 | 100 | 2a | 2a, 2 a | VBA-EI-12 ${ }^{\prime \prime}$ |
| TP-4315 |  | 410/410 | 100 | 3 a | $3 \mathrm{a}, 3 \mathrm{a}$ | VBA-EI-12 $11^{\prime \prime}$ |
| TP-4316 |  | 285/285 | 125 | 3 a | 4a, 4a, ct | VBA-EI-12 12 ${ }^{\prime \prime}$ |
| $\underline{T P-4317}$ | TP-2244 | 300/300 | 125 | 2a | 2a, 2a | VBA-EI-12 $1^{\prime \prime}$ |
| $\overline{\mathrm{TP}-4318}$ | TP-2245 | 385/385 | 125 | 2a | 2a, 2 a | VBA-EI-12 14" |
| TP-4319 | TP-2246 | 325/325 | 150 | 2 a | 2a, 2a | VBA-EI-12 14" |
| TP-4320 | TP-2247 | 385/385 | 150 | 2a | 2a, 2a | VBA-EI-12 $11^{\prime \prime}$ |
| TP-4821 | TP-2249 | 310/310 | 175 | 2 a | 2a, 2a | VBA-EI-12 17 ${ }^{\prime \prime}$ |
| TP-4322 | TP-2256 | 400/400 | 175 | 3 a | 3a, 3a | VBA-EI-12 $2^{\prime \prime}$ |



VOLTAGE DOUBLER TRANSFORMERS

| $\mathrm{TP}-3980$ |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| $\mathrm{TP}-3981$ |  |  |  |  |
| $\mathrm{TP}-4407$ |  |  |  |  |
| $\mathrm{TP}-3982$ |  | 115,125 | 100 | 2.5 a |
| 3 a | OC-EIS-8 1" |  |  |  |

SILICON DIODE BRIDGE TRANSFORMER
For use with diodes having a P.I.V. rating not less than 400 V

| $\begin{gathered} \mathrm{TP}-4337 \\ \mathrm{TP}-4338 \end{gathered}$ | 240 240 | 200 300 | $\begin{aligned} & 3 a, 3 a \\ & 4 a, 4 a \end{aligned}$ | $\begin{aligned} & \text { VBA-EI-12 } 1_{4}^{\prime \prime} \\ & \text { VBA-EI-12 } 2^{\prime \prime} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |

TAPE RECORDER TRANSFORMER
This type has an Eddy Current Shield to reduce the external field

| TP-2171B | $270 / 270$ | 60 | $3 a$ | H-EIS-8 1荘" |
| :--- | :--- | :--- | :--- | :--- | :--- |

## PQWR TRANSEGMERS

1. Ratings are based on a maximum ambient temperature of $40^{\circ} \mathrm{C}$. If used with a higher ambient, the loading must be reduced.
2. 240V HAS BEEN ADOPTED AS THE STANDARD SUPPLY VOLTAGE IN MOST AREAS OF AUSTRALIA AND ALI, CATALOGUE TYPE TRANSFORMERS ARE DESIGNED FOR THIS VOLTAGE. On most types additional primary taps can, if required, be supplied at an extra cost. In such cases it is suggested that a similar tapping arrangement to that used with the "Trimax" Tap-changing Fuse Holder be used, as this gives 10 V variations from $200-250 \mathrm{~V}$ with the minimum number of taps.
3. For physical details refer to the dimension sheets.
4. Numbers underlined indicate standard transformers normally carried in stock.

| $\begin{gathered} \text { Catalogue } \\ \text { No. } \end{gathered}$ | Replaces Type | Secondary Volts |  |  |  | $\underset{\text { Test }}{\text { KV }}$ | Mounting <br> Lamination and and Stack |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2.5 | 5 | 6.3 | 10 |  |  |
| TP-4339 | TP-862 |  |  | 2 a |  | 1 | SC-EI-6 ${ }^{\prime \prime}$ |
| TP-4340 | TP-2653 |  | 3 a |  |  | 1.5 | SC-EI-6 1" |
| TP-4341 | TP-2334 |  |  | 3 a |  | 1 | SC-EI-6 1" |
| $\overline{\mathrm{TP}-4342}$ | TP-2655 |  |  | 52 |  | 1.5 | H-EI-8 1" |
| TP-4343 | TP-2654 |  | 6 a |  |  | 1.5 | H-EI-8 1" |
| TP-4344 | TP-1684A |  |  | 3a, 3a |  | 1. | H-EI-8 1表" |
| TP-4345 | TP-2856A | 10act |  |  |  | 5 | OC-EIS-8 1" |
| $\underline{\mathrm{TP}-4346}$ | TP-2497 |  | 3 a | 3a, 3a, |  | 3 | H-EIS-8 14" |
| TP-4347 | TP-2596 |  |  | 6a, 4a |  | 1.5 | H-EIS-8 14" |
| TP-4348 | TP-2742 |  |  |  | 6.5 act | 1.5 | OC-EIS-8 $1^{\frac{1}{4}}$ |
| TP-4349 | TP-1550B |  | 3 a | 3a, 3a, 3a, 3a ct |  | 1 | VBA-EI-12 ${ }^{\prime \prime}$ |
| TP-4350 | TP-2643 |  | $3 \mathrm{a}, 3 \mathrm{a}$, | 3a, 3a, 3a |  | 1.5 | VBA-EI-12 $1^{\prime \prime}$ |
| TP-4351 | TP-2515 |  |  | 10a, 10a |  | 2 | VBA-EI-12 12 ${ }^{\prime \prime}$ |
| TP-4352 | TP-3329A |  | 15act |  |  | 9 | M336-EI-12 14" |


| TP-435s | Prim: 240V | Secondaries: 1V, 2V, 4V, 4V, 10V, 10V <br> (Six separate windings with marked <br> polarity.) <br> All 1.8a. | OC-EIS-8 11'" |
| :--- | :--- | :--- | :--- |



1. The inductance figures given are for rated direct current, and used under conditions equivalent to a capacitor input filter. For choke input filters which have a higher ripple voltage, the inductance would increase by approximately $10 \%$.
2. These chokes may be operated safely at the maximum D.C. current shown but the inductance will decrease by approximately $25 \%$.
3. Numbers underlined indicate standard chokes normally carried in stock.

| Catalogue No. | D.C. MA |  | Inductance Henries | D.C. ResistanceOhms | Maximum D.C. <br> Working Volts | Mounting Lamination and Stack |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Rated | Maximum |  |  |  |  |
| TZ-460 | 10 | 15 | 50 | 2,200 | 300 | SC-ET-5 $\frac{5}{8}{ }^{\prime \prime}$ |
| TZ-461 | 30 | 40 | 30 | 900 | 300 | SC-EI-6 $\frac{3}{4} /{ }^{\prime \prime}$ |
| TZ-5 | 40 | 50 | 10 | 500 | 300 | SC-EI-5 ${ }^{\prime \prime}{ }^{\prime \prime}$ |
| TZ-277 | 40 | 60 | 15 | 500 | 300 | SC-EI-6 ${ }^{3 \prime}{ }^{\prime \prime}$ |
| TZ-56 | 60 | 100 | 20 | 350 | 500 | OC-EI-81" |
| TZ-462 | 60 | 100 | 30 | 600 | 500 | OC-EI-8 $1^{\prime \prime}$ |
| TZ-3 | 100 |  | 20 | 300 | 500 | OC-EIS-8 $1^{\prime \prime}$ |
| TZ-463 | 100 | 150 | 20 | 400 | 500 | OC-EI-8 14 ${ }^{\prime \prime}$ |
| TZ-844 | 100 | 120 | 0.1 | 20 | 250 | SC-EIS-2 1' $^{\prime \prime}$ |
| TZ-57 | 120 |  | 15 | 200 | 500 | OC-EIS-8 $1^{\prime \prime}$ |
| TZ-28 | 125 |  | 20 | 200 | 750 | VBA-EI-12 ${ }^{\prime \prime}$ |
| TZ-464 | 125 | 150 | 20 | 375 | 500 | OC-EIS-8 $1^{\prime \prime}$ |
| TZ-84 | 150 |  | 15 | 150 | 750 | VBA-EI-12 $1 \frac{1}{2}^{\prime \prime}$ |
| TZ-465 | 150 | 200 | 15 | 210 | 500 | OC-EIS-811 ${ }^{\prime \prime}$ |
| TZ-466 | 200 | 250 | 10 | 100 | 750 | VBA-EI-12 ${ }^{\prime \prime}$ |
| TZ-673 | 240 |  | 1 | 43 | 1,000 | SC-EI-6 ${ }_{4}^{\prime \prime}$ |
| TZ-7 | 250 |  | 7.5 | 45 | 750 | VBA-EI-12 $1^{\frac{1}{2}}{ }^{\prime \prime}$ |
| TZ-469 | 250 | 300 | 15 | 100 | 750 | VBA-EI-12 $2^{\prime \prime}$ |
| TZ-1 | 250 |  | 12 | 65 | 750 | VBA-EI-12 $2^{\prime \prime}$ |
| TZ-840 | 250 | 300 | 1 | 15 | 500 | SC-EI-7 ${ }^{\prime \prime}{ }^{\prime \prime}$ |
| TZ-843 | 250 | 300 | 0.15 | 5 | 250 | SC-EI-4 ${ }^{\frac{1}{2}}{ }^{\prime \prime}$ |
| TZ-63 | 300 | 400 | 10 | 50 | 750 | VBA-EI-12 $3^{\prime \prime}$ |
| TZ-841 | 300 |  | 1 | 35 | 500 | SC-EI-6 $\frac{3}{4 \prime \prime}^{\prime \prime}$ |
| TZ-842 | 500 |  | 0.1 | 5 | 250 | SC-EI-5 ${ }^{\prime \prime}$ |
| TZ-394 | 600 | 800 | 12 | 60 | 1,000 | VBA-EI-16 $2^{\prime \prime}$ |
| TZ-11 | 1A | 2A | 0.05 | 0.5 | 250 | SC-EI-6 ${ }^{\prime \prime}{ }^{\prime \prime}$ |
| TZ-344 | 5 A | 10A | 7 mH | 0.1 | 500 | OC-EIS-8 $1^{\frac{1}{4}}$ |

SWINGING CHOKES

|  |  | 300 | $3-15$ | 40 | 750 | OC-EIS-8 11" |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| TZ-467 | $250 / 25$ |  | $5-25$ | 40 | 750 | VBA-EI-12 1' |
| TZ-47 | $250 / 25$ |  | $5-15$ | 92 | 2,500 | VBA-EI-12 2" |
| TZ-610 | $375 / 100$ |  | $0.5-2$ | 2.25 | 750 | VBA-EI-16 4 $4^{\prime \prime}$ |
| TZ-550 | $1.5 A / 10 \mathrm{~mA}$ |  |  |  |  |  |

## 

1. Auto type power transformers offer considerable economy in physical size and price as compared with their double wound equivalents. However their use is not permitted by Electrical Supply Authorities for certain conditions of operation, and this point should be checked before selecting this type in preference to the double wound.
2. Ratings are based on a maximum ambient temperature of 40 degrees C. with a temperature rise not exceeding 50 degrees C . If used with a higher ambient, the loading must be reduced.
3. In cases where the secondary is terminated in a two pin socket the primary is connected to an approved connector box.
4. For physical details refer to the dimension sheets.
5. Numbers underlined indicate standard transformers normally carried in stock.

| $\begin{aligned} & \text { Catalogue } \\ & \text { No. } \end{aligned}$ | $\underset{\text { Primary }}{ }$ | Secondary Voltage | $\stackrel{\mathrm{VA}}{\text { Rating }}$ | Mounting Lamination and Stack |
| :---: | :---: | :---: | :---: | :---: |
| TP-185A | 240 | 11.5 | 100 | WC-EIS-8 $1^{\prime \prime}$ |
| TP-16A | 240 | 115 | 200 | VBA-EI-12 1" Sec. 2 Pin Socket |
| TP-17A | 240 | 115 | 300 | VBA-EI-12 11/" Sec. 2 Pin Socket |
| TP-18A | 240 | 115 | 400 | VBA-EI-12 $2^{\prime \prime}$ Sec. 2 Pin Socket |
| TP-69B | 240 | 115 | 600 | VBA-EI-12 3" Sec. 2 Pin Socket |
| TP-2499 | 240 | 115 | 1,000 | VBA-EI-16 3" Sec. 2 Pin Socket |
| TP-1803 | 240 | 115 | 1,500 | VBA-EI-16 $4^{\prime \prime}$ Terminal Panel |
| TP-1724 | 200 | 240 | 500 | VBA-EI-12 $11_{4}^{\prime \prime}$ Sec. 2 Pin Socket |
| TP-2259 | 200 | 240 | 1,500 | VBA-EI-12 3"Sec. 2 Pin Socket |

## ROMER TRANSFORNERS

 Step-Dawn Double Wound yypes or 50 g 00 - c/sppetation1. 'Iransformers with suffix (App.) are approved by the State Electricity Commission for use as Extra Low Voltage Transformers and are manufactured to the relevant Specification, S.A.A. No. C.126-1958 Ap.
2. Ratings are based on a maximum ambient temperature of 40 degrees C. If used with a higher ambient, the loading must be reduced.
3. For physical details refer to the dimension sheets.
4. In cases where the secondary is terminated in a two pin socket the primary is connected to an approved connector box.
5. Numbers underlined indicate standard transformers normally carried in stock.

| $\begin{gathered} \text { Catalogue } \\ \text { No. } \end{gathered}$ | Primary <br> Voltage | Secondary Voltage | VA <br> Rating | Mounting <br> Lamination and Stack |
| :---: | :---: | :---: | :---: | :---: |
| TP-4355 | 240 | 12 | 50 | OC-EIS-8 $1^{1 / 1}$ |
| TP-1454A (App.) | 240 | 12 | 100 | VBA-EI-12 $1^{\prime \prime}$ Sec. 2 Pin Socket (polarised). |
| TP-2500 (App.) | 240 | 12 | 200 | VBA-EI-12 $2^{\prime \prime}$ \& M149 Terminal Box |
| TP-1780 (App.) | 230 | 32 | 70 | M381-EIS-8 14.1 |
| TP-400A (App.) | 240 | 32 | 100 | M122-EI-12 $1^{\prime \prime}$ |
| TP-2501 (App.) | 240 | 32 ct | 200 | M122-EI-12 $2^{\prime \prime}$ |
| TP-399B (App.) | 240 | 32 ct | 300 | M122-EI-12 $3^{\prime \prime}$ |
| TP-2263A (App.) | 230 | 32 | 575 | VBA-EI-16 $3^{\prime \prime}$ \& M149 Terminal Box |
| TP-2580 | 415 | 32 | 750 | VBA-EI-16 $4^{\prime \prime}$ \& M149 Terminal Boxes |
| TP-2985 | 240 | 32 | 1,050 | BUT-1. $2^{\prime \prime}$ Shrouds and Panel |
| TP-4356 | 240 | 32 | 1,500 | BUT $13^{\prime \prime}$ Shrouds and Panel |
| TP-208A | 240 | 110 | 65 | WC-EIS-8 $1_{4}^{\frac{1}{4}}{ }^{\prime \prime}$ Sec. 2 Pin Socket |
| TP-1633A | 240 | 110 | 150 | VBA-EI-12 11/ ${ }^{\prime \prime}$ Sec. 2 Pin Socket |
| TP-1798A | 240 | 110 | 300 | VBA-EI-12 3" Sec. 2 Pin Socket |
| TP-4358 | 415 | 110 | 550 | VBA-EI-12 3" Sec. 2 Pin Socket |
| TP-3345 | 240 | 110 | 1,000 | BUT-1 $2^{\prime \prime}$ Shrouds and Panel |
| TP-3591 | 415 | 110 | 1,000 | BUT-1 $2^{\prime \prime}$ Shrouds and Panel |
| TP-2264 | 240 | 115 | 550 | VBA-EI-16 3" Sec. 2 Pin Socket |
| TP-2496 | 240 | 115 | 750 | VBA-EI-16 4" Sec. 2 Pin Socket |
| TP-3138 | 230, 240 | 115 | 1,000 | BUT-1 ${ }^{\prime \prime}$ Shrouds and Panel |
| TP-3828 | 240 | 110, 115, 120 | 1,500 | BUT-1 3" Shrouds and Panel |
| TP-3395 | 240 | 115 | 2,000 | BUT-5 21/ ${ }^{\prime \prime}$ Angle Frame and Panel |
| TP-3794 | 240 | 11.0 | 7,500 | BUT-5 71 ${ }^{\prime \prime}$ 'Angle Frame and Panel |

ISOLATION TRANSFORMERS
These types are fitted with Electrostatic shields

| TP-3569A | 240 | 240 | 200 | VBA-EI-12 $2^{\prime \prime}$ | Terminal Panel |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TP-3078 | 240 | 240 | 250 | VBA-EI-12 $3^{\prime \prime}$ | or 3 Pin |
| TP-2827 | 240 | 240 ct | 500 | VBA-EI-16 $2^{\frac{1}{2}}{ }^{\prime \prime}$ | Secondary and |
| TP-3518 | 240 | 240 | 800 | VBA-EI-16 $4^{\prime \prime}$ | Ceiling Rose on Primary. |

NOTE: WHEN ORDERING PLEASE SPECIFY TERMINATIONS REQUIRED.

1. These transformers are selected from our files and are representative of types generally supplied.
2. Should a transformer with different voltages or currents be necessary, please check the details on Page 2 for SPECIAL ORDERS, and include this information with your order.
3. Orders should include the application as some extra-low-voltage transformers are subject to the Approval of Electricity Supply Authorities. Australian Standard Specification C.126/58 defines these transformers as follows:
"This specification prescribes safety requirements for fixed and portable single-phase transformer units rated at not more than 1 kVA , suitable for connection on the input side to low or medium voltage circuits, and intended for operating appliances or equipment rated at 32 volts or less.
The specification does not apply to the following types of transformer:
(i) Battery charging transformers.
(ii) Instrument transformers.
(iii) Transformers for use in mines.
(iv) Railway signalling transformers.
(v) Transformers for use in electronic equipment and the like.
(vi) Transformers which are incorporated in equipment in such a way that all parts of the secondary circuit are either insulated for 250 volts or protected from inadvertent contact.
(vii) Constant current transtormers."
4. Transformers listed below can only be used for applications coveved by (i) to (vii) above. For usage where approval is necessary refer to Page A6.

| $\begin{gathered} \text { Catalogue } \\ \text { No. } \end{gathered}$ | Primary <br> Voltage | Secondary Voltage | Rating | Mounting <br> Lamination and Stack |
| :---: | :---: | :---: | :---: | :---: |
| TP-3099 | 240 | 12 | 6 VA | SC-EI-6 ${ }^{3 / 4}$ |
| TP-2821 | 240 | 22 | 30 VA | SC-EI-8 $1^{\prime \prime}$ |
| TP-3146 | 230 | 30 | 20 VA | SC-EI-7 1" |
| TP-3588 | 110 | 20,22, 24 | 200 VA | VBA-EI-12 $2^{\prime \prime}$ |
| TP-3643 | 230 | 20,22,24 | 200 VA | VBA-EI-12 $2^{\prime \prime}$ |
| TP-3863 | 230,240 | 24 | 300 VA | VBA-EI-12 3" |
| TP-3622 | 230 | 20,22,24 | 350 VA | VBA-EI-16 $2^{\prime \prime}$ |
| TP-3346 | 240 | 24 | 500 VA | VBA-EI-16 3" |
| TP-2656 | 220, 240, 260 | 62 | 90 VA | VBA-EI-12 $1^{\prime \prime}$ |
| TP-3862 | 230, 240 | 110 | 50 VA | OC-EIS-8 $11^{\prime \prime}{ }^{\prime \prime}$ |
| TP-4353 | 240 | $1 \mathrm{~V}, 2 \mathrm{~V}, 4 \mathrm{~V}, 4 \mathrm{~V}, 10 \mathrm{~V}, 10 \mathrm{~V}$ (Six separate windings with marked polarity.) | All 1.8 Amp. | OC-EIS-8 $1_{4}^{1 / 1}$ |

1. These transformers are selected from our files and are representative of types generally supplied.
2. Should a transformer with different voltages or currents be necessary, please check the details on Page 2 for Special Orders, and include this information with your order.

|  | FURNACE IGNITION TRANSFORMERS |
| :--- | :--- |
| TP-3073B | $240 / 5,000-5,000 \mathrm{~V} 20 \mathrm{~mA}$ |
|  | Specially designed for Spark Ignition |
|  | Case Size $5^{\prime \prime} \times 8 \frac{1^{\prime \prime}}{} \times 5^{\prime \prime} \mathrm{H}$ |
| TP-4354 | $240 / 12 \mathrm{~V} 1.2 \mathrm{~A}, 3 \mathrm{~V} 21 \mathrm{~A}$ <br>  <br>  <br>  <br>  <br>  <br> Enecially designed for Hot Wire Ignition $1^{\prime \prime}$ Open Clamp Mounting |

## BATTERY CHARGER TRANSFORMERS <br> Using Bridge Type Selenium Rectifiers

TP-2069A<br>$240 / 6 \mathrm{~V} 6 \mathrm{~A}$ or 12 V 3 A DC<br>TP-3100<br>$240 / 6$ or 12 V 10 A DC<br>OC-EIS-8 $11^{1 / \prime}$ VBA-EI-12 $2^{\prime \prime}$

## SATURABLE REACTORS

1. These units are specials and made to order only. The two types listed are representative of types supplied and are designed for the control of $240 \mathrm{v} 50 \mathrm{c} / \mathrm{s}$ by 130 v 100 mA D.C. The designed range of control is from $76 \mathrm{v}-228 \mathrm{v}$
2. Should you require reactors with different ratings or control, please supply complete information with your enquiry.
TZ694
2 KVA
BUT-1 $1 \frac{1}{2}^{\prime \prime}$
TZ695
200 VA
BUT-5 $1 \frac{1}{2}{ }^{\prime \prime}$
3. These transformers are double wound and manufactured to Australian Standard Specification C. 45 using only the best materials. They are tested and inspected in our own test laboratory to ensure complete reliability.
4. While not normal stock items they are representative of the types available, and are listed as standards. However, if a special is unavoidable, refer to Page 2 covering Special Orders and include this information with your order.

| $\begin{gathered} \text { Catalogue } \\ \text { No. } \end{gathered}$ | Ratio in Amperes | Burden | Ratio Accuracy | Class | Mounting <br> Lamination and Stack |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TC-164 | 10/5 | 15 VA | $1 \%$ | B | M273-L6 1" |
| TC-165 | 15/5 | 15 VA | 1\% | B | M273-L6 1" |
| TC-166 | 20/5 | 15 VA | 1\% | B | M273-L6 1" |
| TC-167 | $30 / 5$ | 15 VA | 1\% | B | M273-L6 1" |
| TC-168 | $50 / 5$ | 15 VA | 1\% | B | M273-L6 1" |
| TC-169 | 75/5 | 15 VA | 1\% | B | M273-L6 1" |
| TC-170 | 100/5 | 15 VA | 1\% | B | M273-L6 1" |
| TC-130 | $300 / 5$ | 15 VA | 1\% | BM | M273-L6 11/" |
| TC-171 | $50 / 5$ | 15 VA | 0.5\% | A | M273-L6 11/4 |
| TC-172 | 100/5 | 15 VA | 0.5\% | A | M273-L6 11" |

Auto Transformers for Multi Range Meters
(Designed for inclusion in the meter case)

| TC-2 | $\begin{aligned} & 2.5,5,10,25,50,100,250,500, \mathrm{MA} \\ & 1,2.5,5,10 \mathrm{~A} / 1.11 \mathrm{~mA} \end{aligned}$ | 1,000 ohms | $1 \%$ |  | L4 $\frac{1}{2}^{\prime \prime}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Using 0-1 MA Meter 1,000 ohms/volt and Meter Rectifier |  |  |  |  |  |
| TC-15 | $1,2.5,5,10,25,50,100 \mathrm{~A} / 1 \mathrm{~A}$ | 1 VA | 1\% | B | S/C-EI-6 ${ }^{3 /}$ |
| TC-16 | 50, 100, 250, 500, mA , 1, 2.5/1A | 1 VA | 1\% | B | S/C-EI-6 ${ }^{\text {3/" }}$ |

## 

1. These transformers are double wound and manufactured to Australian Standard Specification C. 45 using only the best materials. They are tested and inspected in our own test laboratory to ensure complete reliability.
2. For the listed protection transformers, an overcurrent factor of 50 for 0.5 seconds has been selected. With 60 Volts applied to the secondary and the primary open-circuited, the exciting current does not exceed 5 Amps. This condition corresponds to 12 times the rated secondary current.
3. While not normal stock items they are representative of the types available, and are listed as standards. However, if a special is unavoidable, refer to Page 2 covering Special Orders and include this information with your order.

## Protection Current Transformers

| $\begin{gathered} \text { Catalogue } \\ \text { No. } \end{gathered}$ | Ratio | Burden | Ratio Accuracy | Class | System Volts | Mounting <br> Lamination and Stack |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TC-132 | 75/5A | 15 VA | 1\% | C | 440 | OC-EI-12 $1_{4}^{1 / 4}$ |
| TC-153 | 100/5A | 15 VA | 1\% | C | 440 | OC-EI-12 $1^{\frac{1}{2}}{ }^{\prime \prime}$ |
| TC-152 | 150/5A | 15 VA | 1\% | C | 440 | OC-EI-12 $1^{\frac{1}{2}}$ |
| TC-154 | 200/5A | 15 VA | $1 \%$ | C | 440 | OC-EI-12 $1^{\frac{1}{2}}{ }^{\prime \prime}$ |

Potential Transformers

| TC-181 | $400 / 110 \mathrm{~V}$ | 15 VA | 1\% | B | VBA-EI-12 $1_{2}{ }^{\prime \prime}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TC-125 | $110 / 240 \mathrm{~V}$ | 10 VA | 1\% | B | VBA-EI-12 $\mathbf{1 4}^{\prime \prime}{ }^{\prime \prime}$ |

## 

## Aupip ThaNspemiss

1. Frequency characteristics: Every unit is guaranteed to have a frequency variation not exceeding $\pm 1 \mathrm{db}$ from 30 to 10,000 cycles when used under correct conditions. To keep within the guaranteed variation at high frequencies, it is essential to reduce external secondary capacities to a minimum. Actual production units usually give performances far better than this. The transformers are designed for use with secondary loaded, and the frequency characteristic is, therefore, a function of power, not of voltage transfer, obtained by careful design without making use of winding resonances. For the best high-frequency response, it is desirable to keep the capacity across the secondary of high impedance input transformers to a minimum and for this reason pentodes are preferable to triodes because of the large difference in input capacity,
2. Shielding: (a) Electro-magnetic: All types listed employ an astatic hum balancing structure with primary and secondary coils each in two separate sections. Improvement of this type over ordinary shell cores is of the order of 40 to 50 db depending on the uniformity of the interfering field. An additional advantage of this construction is the great improvement in symmetry and balance of coil sections. Outer cases of mild steel or high conductivity non-ferrous metal also give additional shielding. For particularly low-level operation where freedom from hum pick-up is absolutely essential, special types are offered which, in addition to the above incorporate triple shields of high permeability nickel iron alloy. The additional improvement is approximately 40 db .
(b) Electro-static: Transformers are guarded against this type of external interference by the use of an efficient outer case. The high conductivity, non-ferrous case is best for this purpose.
(c) Longitudinal currents: The transfer of longitudinal currents from primary to secondary is attentuated to a considerable degree by the provision of high-conductivity shields between windings, These shields also improve the balance to ground of the windings.
3. Cases: The first case listed is standard and should another type be necessary, please specify by number. Where the M66 case is standard the transformers can be supplied in the special PMG relay set mounting case M455.
4. Multi shielded transformers are designated by "MS".
5. $\dagger$ indicates that these transformers have, at 1 Kc , better than 80 db of balance between the two halves of the primary.
6. Numbers underlined indicate standard transformers normally carried in stock.

## Mixing (Line to Line) Transformers

For Line, Microphone or Pickup Matching Balanced or Unbalanced

| $\begin{gathered} \text { Catalogue } \\ \text { No. } \end{gathered}$ | Case Type | Impedance in Ohms |  | Turns Ratio | Max. <br> Level <br> dbm | Frequency Variation db /Cycles | Unbal. DCmA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Primary | Secondary |  |  |  |  |
| TA-636 | M66, M91, M8 | 50 | 200 | 1-2 | +18 | $\pm 0.5 / 30-40 \mathrm{Kc}$ | 0 |
| TA-406A | M66, M91, M8 | 50 | 600 | 1-3.46 | +18 | $\pm 0.5 / 30-40 \mathrm{Kc}$ | 0 |
| TA-101 | M66, M91, M8 | 200 | 200 | 1-1 | $+18$ | $\pm 0.5 / 30-40 \mathrm{Kc}$ | 0 |
| TA-168A | M66, M91, M8 | 200 | 600 | 1-1.73 | $+18$ | $\pm 0.5 / 30-40 \mathrm{Kc}$ | 0 |
| TA-37A | M66, M91, M8 | 600 | 600 | 1-1 | +18 | $\pm 0.5 / 30-40 \mathrm{Kc}$ | 0 |
| $\overline{\text { TA-1774 }} \dagger$ | M66, M91, M8 | 150 | 600 | 1-1 | $+18$ | $\pm 1 / 30-15 \mathrm{Kc}$ | 0 |
| TA-1693 $\dagger$ | M66, M91, M8 | 600 | 600 | 1-1 | +18 | $\pm 1 / 30-15 \mathrm{Kc}$ | 0 |
| TA-793 | M17 | 600 | 600 | 1-1 | $+36$ | $\pm 1 / 20-15 \mathrm{Kc}$ | 0 |
| $\overline{\text { TA-109 }} 4 \mathrm{~A}$ | M17 | 600 | 1,200 | 1-1.41 | +36 | $\pm 1 / 20-15 \mathrm{Kc}$ | 0 |
|  |  |  | ti Shielde | Types |  |  |  |
| MS-944 | M66, M143 | 50 | 200 | 1-2 | $+10$ | $\pm 0.5 / 30-40 \mathrm{Kc}$ | 0 |
| MS-866 | M66, M143 | 50 | 600 | 1-3.46 | $+10$ | $\pm 0.5 / 30-40 \mathrm{Kc}$ | 0 |
| MS-945 | M66, M143 | 200 | 200 | 1-1 | $+10$ | $\pm 0.5 / 30-40 \mathrm{Kc}$ | 0 |
| MS-946 | M66, M143 | 200 | 600 | 1-1.73 | $+10$ | $\pm 0.5 / 30-40 \mathrm{Kc}$ | 0 |
| MS-896 | M66, M143 | 600 | 600 | 1-1 | $+10$ | $\pm 0.5 / 30-40 \mathrm{Kc}$ | 0 |

Input (Bridging) Transformers
From 50-600 ohm Lines to Single or Push-Pull Grids

| TA 17 | M66, M91, M8 | 10,000 | 100,000 | 1-3.16 | +18 | $\pm 0.5 / 30-12 \mathrm{Kc}$ | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TA-731A | M66, M143 | 12,500 | 100,000 | 1-2.83 | $+10$ | $\pm 1 / 20-20 \mathrm{Kc}$ | 0 |

## Input (Line to Grid) Transformers

Line, Microphone or Pickup to Single or Push-Pull Grids

| Catalogue <br> No. | Case Type | Impedance in Ohms |  | Turns <br> Ratio | Max. <br> Level <br> dbm | Frequency Variation <br> db $/$ Cycles | Unbal. <br> DCmA |
| :--- | :---: | ---: | ---: | :---: | :---: | :---: | :---: |
| TA-61 | M66, M91, M8 | 50 | 100,000 | $1-44.7$ | +18 | $\pm 0.5 / 30-12 \mathrm{Kc}$ | 0 |
| TA-47 | M66, M91, M8 | 200 | 100,000 | $1-22.4$ | +18 | $\pm 0.5 / 30-12 \mathrm{Kc}$ | 0 |
| TA-82 | M66, M91, M8 | 600 | 100,000 | $1-12.9$ | +18 | $\pm 0.5 / 30-12 \mathrm{Kc}$ | 0 |
| TA-1076 | M66, M91, M8 | 600 | 50,000 | $1-9.2$ | +18 | $\pm 1.0 / 20-50 \mathrm{Kc}$ | 0 |

NOTE: On TA-1076 external Secondary capacity must not exceed 30 pf .

|  | Multi Shielded Types |  |  |  |  |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | :--- |
| MS-860 |  |  |  |  |  |  |  |
| $\overline{\text { MS-837 }}$ | M66, M143 | 50 | 100,000 | $1-44.7$ | +10 | $\pm 1.0 / 30-10 \mathrm{Kc}$ | 0 |
| $\overline{\text { MS-878 }}$ | M66, M143 | 200 | 100,000 | $1-22.4$ | +10 | $\pm 1.0 / 30-10 \mathrm{Kc}$ | 0 |
| $\overline{\text { MS }}-977$ | M66, M143 | 600 | 100,000 | $1-12.9$ | +10 | $\pm 1.0 / 30-10 \mathrm{Kc}$ | 0 |
|  | M91 | 50 | 60,000 | $1-34.8$ | +18 | $\pm 1.0 / 30-15 \mathrm{Kc}$ | 0 |

NOTE: MS-977 is used with Secondary unterminated
Interstage Transformers
Single or Push-Pull 10,000 ohm Plates to Push-Pull Grids

| TA-3 | M66, M91, M8 | 40,000 | 160,000 | $1-2$ | Whole <br> Sec. <br> 120 V f | $\pm 1.0 / 30-10 \mathrm{Kc}$ | 0 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## Output (Plate to Line) Transformers

Single 7,000-10,000 ohm Plates to Line

| TA-835 | M66, M91, M8 | 20,000 | 50 | 20-1 | $+24$ | $\pm 1.0 / 30-12 \mathrm{Kc}$ | 6.5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TA-833 | M66, M91, M8 | 20,000 | 200 | 10-1 | +24 | $\pm 1.0 / 30-12 \mathrm{Kc}$ | 6.5 |
| TA-733B | M66, M91, M8 | 20,000 | 600 | 5.8-1 | $+24$ | $\pm 1.0 / 30-12 \mathrm{Kc}$ | 6.5 |
| Push-Pull 7,000-10,000 ohm Plates to Line |  |  |  |  |  |  |  |
| TA-931 | M66, M91, M8 | 20,000 | 600 | Ratio Corrected | $+24$ | $\pm 1.0 / 20-15 \mathrm{Kc}$ | 1.0 |
| TA-947 | M66, M91, M8 | 30,000 | 50 | 24.5-1 | $+27$ | $\pm 1.0 / 30-12 \mathrm{Kc}$ | 1.0 |
| TA-948 | M66, M91, M8 | 30,000 | 200 | 12.3-1 | $+27$ | $\pm 1.0 / 30-12 \mathrm{Kc}$ | 1.0 |
| TA-710A | M66, M91, M8 | 30,000 | 600 | 7.1-1 | $+27$ | $\pm 1.0 / 30-12 \mathrm{Kc}$ | 1.0 |

NOTE:

1. The above transformers are designed for use with the secondary winding terminated unless otherwise stated. For use unterminated the low frequency variation would increase by approximately 1 to 2 db .
2. Both primary and secondary windings are in two sections. Impedances shown are for the series connection in which a centre tap is ayailable. If coils are connected in parallel, impedances are equal to $25 \%$ of those shown, and no centre tap is available.
3. Most of the above transformers are usable in circuits with impedances differing $\pm 25 \%$ of the values shown, without exceeding the guaranteed response. (Both primary and secondary impedances would be altered in the same ratio).
4. If either the primary or secondary is terminated in the rated impedance, the impedance measured on the other side will be higher than the value shown, due to the de resistance of the transformer windings. This increase is negligible in all types with the exception of output transformers and line transformers, type TA793.
5. dbm equals decibels referred to 1 milli-watt,
6. If transformers specified with an unbalanced dc of zero, in actual use, have unbalanced de present, lowfrequency response will drop. On removal of the unbalance the response will revert to normal.
7. Type TA793 and TA1094A transformers have extremely accurate balance of coil sections and are suitable for phantom working. The transformers will also handle 17 cycles ringing current in telephone circuits. An electrostaticushield between windings is not provided in these types.

## SPEMIIT PURPOSG AUDIO AND QARRIER

 -TIIQUENCYTRANSEBMEXS1. These transformers are selected from the wide range of special purpose types available.
2. Types differing from the following are included in our range, and enquiries for special types will receive our full co-operation.
3. A full statement of requirements must be included when seeking transformers of these or similar characteristics.
4. Numbers underlined indicate standard transformers normally carried in stock.

| Catalogue No. | Case | Application | Impedance Ratio |  | Frequency <br> Response $\pm 1 \mathrm{db}$ | $\begin{aligned} & \text { Level } \\ & \mathrm{dbm} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Primary | Secondary |  |  |
| TA-770 | M8-M66 | Line to grid | 600 bal . | 200,000 ct | $50 \mathrm{c} / \mathrm{s}-8 \mathrm{Kc}$ | $+10$ |
| TA-605 | M8, M66 | Line matching balance of secondary better than 60 db | 600 bal . | $1,200 \mathrm{bal}$. | 20c/s-40Kc | +18 |
| TA-763 | M8, M66 | Carrier line matching | 600/150 | 600/150 | $50 \mathrm{c} / \mathrm{s}-150 \mathrm{Kc}$ | $+18$ |
| $\overline{\text { TA-796A }}$ | M8, M66 | Carrier line to grid | 600 bal . | 60,000 | $300 \mathrm{c} / \mathrm{s}-30 \mathrm{Kc}$ | +18 |
| TA-797 | M8, M66 | Carrier plate to line (no D.C.) | 6,000 | 600 bal. | $1 \mathrm{Kc}-30 \mathrm{Kc}$ | $+18$ |
| TA-909 | M8, M66 | Carrier bridging ( 300 ohms) | $30,000 \mathrm{bal}$. | 30,000 | $30 \mathrm{c} / \mathrm{s}-50 \mathrm{Kc}$ | +18 |
| TA-1103C | M8 | Carrier line to grid | 600 bal. | 20,000 | $3 \mathrm{Kc}-150 \mathrm{Ke}$ | $+18$ |
| TA-1104B | M8 | Carrier plate to line | 6,000 | 600 bal . | $3 \mathrm{Kc}-150 \mathrm{Kc}$ | +27 |
| TA-1105A | M8 | Carrier line matching Note: Bal. of windings better than 60 db up to 200 Kc and better than 40 db to 1 MC | $600 / 150$ | 600/150 | $3 \mathrm{Kc}-500 \mathrm{Kc}$ | +18 |
| TA-1147 | M8, M51 | Carrier line matching auto <br> Note: When supplied in M51 case includes 4uF condensers for D.C. isolation | 600 | $130 / 150$ | 100c/s-45Kc | $+18$ |
| TA-913B | M17, M51 | Wide band line matching auto | 600 | 115/120 | $20 \mathrm{c} / \mathrm{s}-300 \mathrm{Kc}$ |  |
| TA-914B | M17, M51 | Wide band line matching auto | 600 | 125/130 | 20c/s-300Kc |  |
| TA-915B | M17, M51 | Wide band line matching auto | 600 | 135/140 | 20c/s-300Kc |  |
| TA-916B | M17, M51 | Wide band line matching auto | 600 | 145/150 | 20c/s-300Kc |  |
| TA-917B | M17, M51 | Wide band line matching auto | 600 | 155/160 | 20/cs-300Kc |  |

One method of protecting a telephone from high voltages appearing on the line is the use of an Isolation Transformer.

The two types listed are representative of the units we manufacture and are for use in portable equipment or in permanent locations.
Special construction and resin potting are combined to give an adequate margin of safety and also to give complete dependability under the severest climatic conditions.

## TA-1588 (Resin Cast)

| Dimensions | Approximately $4^{\prime \prime} \times 2 \frac{1}{2}^{\prime \prime} \times 4^{\prime \prime} \mathrm{H}$ |
| :--- | :--- |
| Ratio | 200 ohm ct line $/ 600$ ct equipment |
| Insertion loss | Not greater than $1.2 \mathrm{db} 400-4,000 \mathrm{c} / \mathrm{s}$ |
| Balance | Line winding greater than 60 db |
| Test Voltage | 15 KV RMS line to equipment |

This transformer has electrostatic shields and is astatically wound to reduce the possibility of cross talk to a minimum.
It is used for voice frequencies and VF signalling.

|  | 'TA-1704 (Resin Cast) |
| :---: | :---: |
| Dimensions | Approximately $5^{\prime \prime} \times 2 \frac{1}{4}^{\prime \prime} \times 3 \frac{1}{2}^{\prime \prime} \mathrm{H}$ |
| Ratio | 600 ohm ct line $/ 600 \mathrm{ohm} \mathrm{ct} \mathrm{equipment}$ |
| Insertion loss | 1 db at $1,000 \mathrm{c} / \mathrm{s}$ and not more than 2.8 db at 3 Kc |
| Test Voltage | 20 Kv RMS line to equipment |

This transformer has been designed to handle $17 \mathrm{c} / \mathrm{s}$ ringing current and is astatically wound with electrostatic shields.

## Neutralising Transformers

Another recent development is a neutralising transformer which is used to protect one or more exchange lines from high voltages developed during an earth fault at a power station. This method preserves the D.C. continuity in the lines without any serious effect on the transmission quantities. Because of the application of these transformers they are not listed but full information is available on request.

## AMPLIFRERTP AS4B

## GENERAL:

The "Trimax" Amplifier Type A54B is a high quality amplifier designed to drive a wide range monitor loudspeaker, or to act as a distribution amplifier for a large number of lines. Two output impedances are available - 12 ohm or 3 ohm . The input is suitable for bridging a terminated 600 ohm line. The type A54B differs from the old type A54, in the use of silicon diodes in place of the thermionic rectifier, to reduce heat and improve reliability.

## PHYSICAL DESCRIP'TION:

The unit is designed for standard rack mounting, and occupies three rack units ( $5 \frac{1}{4 \prime \prime}$ ). Input, output, and power connections are by means of plugs and sockets.

## SPECIFICATION

Gain .. .. .. .. 42 db continuously variable by means of input potentiometer.
Frequency Response . $\pm .5 \mathrm{db}$ from 20 cycles to 20 K.c.
$\pm 1 \mathrm{db}$ from 15 cycles to 30 Kc .
Stability .. .. .. The frequency response does not vary by more than 1.5 db outside the limits stated above when the output termination is varied from open circuit to 600 ohms resistance, or 50 ohms in parallel with 0.2 mfd ., and the amplifier is free from oscillations under these conditions.

| Source Impedance | 300 |
| :---: | :---: |
| Input Impedance | Greater than 25,000 ohms. |
| Load Impedance | 12 ohms or 3 ohms , changeable by output plug wiring. |
| Output Impedance | Less than 1.5 ohms and .4 ohms respectively. |
| Noise | Equivalent noise input to the amplifier is less than -80 dbm with the gain control in its maximum position. |
| Power Output | Nominally 12 watts at less than $.25 \%$ distortion at 1 Kc. A power output of approximately 20 watts is obtainable for $1 \%$ distortion. |
| Power Input | $200-250$ volts, $40-100$ cycles, selected by fuse position. Primary current approximately . 5 amp . |
| Cathode Metering | Metering jacks are provided for each tube giving approximately $\frac{1}{2}$ scale reading on a $1 \mathrm{~mA} 1,000$ ohms per volt meter. |
| Output Tubes Balan | A potentiometer is provided for balancing the D.C. current of the output tubes. |



These units are for standard $19^{\prime \prime}$ rack mounting and occupy $5 \frac{1^{\prime \prime}}{}$ of panel space. The G4 mains operated unit is completely self contained as illustrated and the G2 requires only the D.C. power given in the specification.

There are many applications where widely varying dynamic levels are required to be measured on programme lines. The "Trimax" Extended Range Volume indicators, employing a high stability feedback amplifier in conjunction with a VU meter, have been specially designed for this purpose. Control of the Amplifier gain is by two stepped attenuators giving coarse and fine adjustment. At zero position on these attenuators the meter shows a deflection of zero VU when a voltage of 0.7746 RMS is impressed on a 600 ohm line.

## SPECIFICATION

G2 Battery Operated<br>Power Requirement .. .. .. .. 130 V. 5 mA D.C. 24 V. 0.3 A D.C.<br>G4 Mains Operated<br>Power Requirement .. .. .. .. $200-250$ V. $50 \mathrm{c} / \mathrm{s}$ Mains.<br>Indicator Range . . . . . . . . -40 dbm to +33 dbm .<br>Level Control .. .. .. .. .. In 2 db steps.<br>Frequency Range .. .. .. .. $\pm 0.5 \mathrm{db} 20 \mathrm{c} / \mathrm{s}-60 \mathrm{Kc}$.<br>Attenuator Accuracy . . . . . $\pm 0.1 \mathrm{db}$ at 1 Kc.<br>Source Impedance . . . . . . 300 ohms (bridging 600 ohms line).<br>Input Impedance . . . . . . 30,000 ohms.<br>Level Indication .. .. . . .. . . $4^{\prime \prime}$ Square meter.

## GENERAL:

These "Trimax" regulators are ideal for use with electronic equipment and apparatus operated from $50 \mathrm{c} / \mathrm{s} 230-240 \mathrm{~V}$ A.C. mains. The effect of varying supply voltage is virtually eliminated and although the D.C. output of rectifiers is reduced because of the harmonic content and higher source impedance, it remains stable. The D.C. variation of up to $10 \%$ is seldom important when weighed against the advantages of a stable supply.

| Range of Con | For an input variation from $190-260 \mathrm{~V} 50 \mathrm{c} / \mathrm{s}$ the output remains $\pm 1 \%$. |
| :---: | :---: |
| Output Voltage | The output is nominally between 230 and 240 V R.M.S. <br> Specially selected units are available to specific voltages within this range. |
| Frequency | Because of the tuned saturable reactor circuit sed, the regulator is sensitive to frequency. |

TYPES S38 AND S40
Power Output: 60VA max.
Connections:
S38:
Input 3-pin plug. Output 3-pin socket.

## S40:

Input and output conduit entries.
Case:

Weight:
Sheet metal case $10 \frac{1}{2} \mathrm{in} . \times 4 \frac{1}{2} \mathrm{in} . \times 4 \frac{1}{2} \mathrm{in}$. $H$. with mounting flange at each end. Special dimples are formed on the base for normal bench use. 13 lbs .

TYPE S82
Power Output: 250VA max.
Connections: Input 3-pin plug. Output 3-pin socket.
Other methods can be provided.
Case: Sheet metal case 19 in. x $5 \frac{1}{4}$ in. $\mathrm{x} 6 \frac{1}{2} \mathrm{in}$. H. with mounting flange at each end. The unit is suitable for standard 19 in. rack mounting or normal bench use.
Weight: 30 lbs .


## GENERAL

These A.C. testers have been clesigned to cover the normal production line testing of electrical appliances and components. Being portable they can be used in any suitable location where $240 \mathrm{~V} 50 \mathrm{c} / \mathrm{s}$ is available.

Any insulation breakdown in the unit under test is indicated by the glow from a neon tube which is mounted in the tip of the probe. Faults are therefore shown at the test point which ensures fast and reliable testing. Since the short circuit current is limited to less than 6 mA the unit is non lethal and accidental applications to equipment are not likely to cause damage.

The following units have been selected as standards and cover test voltages up to $3,000 \mathrm{~V}$. Other voltages can be supplied to order.

| Type | Case Dimensions | Output Voltage |
| :---: | :---: | :---: |
| S47 | $5 \frac{1}{2}$ in. x 5 in. $\mathrm{x} 4 \frac{1}{2} \mathrm{in} . \mathrm{H}$. | 1,000V RMS |
| S57 | $5 \frac{1}{2}$ in. x 5 in. $\mathrm{x} 4 \frac{1}{2} \mathrm{in}$. H . | 1,000/1,250V |
| S70 | $5 \frac{1}{2} \mathrm{in}, \mathrm{x} 5 \mathrm{in} . \mathrm{x} 4 \frac{1}{2} \mathrm{in} . \mathrm{H}$. | 1,500 or $2,000 \mathrm{~V}$ RMS selected by switch |
| S56 | $16 \mathrm{in} . \mathrm{x} 8 \frac{1}{2} \mathrm{in} . \mathrm{x} 11 \frac{1}{2} \mathrm{in} . \mathrm{H}$. | 500-2,500 in 500 Volt Steps. <br> This unit also includes a meter for accurately setting the voltage. |
| S60 | $16 \mathrm{in} . \times 8 \frac{1}{2}$ in. $\times 11 \frac{1}{2}$ in. H. | $500-3,000 \mathrm{~V}$ in 500 Volt Steps. <br> Identical to S56 except for higher voltage. |

THE IDEAL METHOD OF TESTING TELEVISION and other high voltage components


Ionisation Testers provide the most convenient way of determining that the life of an electrical component is not shortened by ionisation currents occurring at or below the working voltage. These instruments enable the quality of insulating materials to be determined non-destructively and provide an excellent means of testing components for faulty impregnation and dampness.

## SPECIFICATION

| Output Voltage | $\ldots$ | $\ldots$ | $\ldots$ | $50-1000$ volts (on 1 kV terminal) |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  | $500-10,000 \mathrm{volts}$ (on 10 kV terminal) |

The "Trimax" Ionisation Tester Type G1B has been designed for use as either a field production or laboratory test instrument, and has been constructed in portable form rather than for mounting in a standard rack. It is non lethal in normal use but large capacities being tested can hold lethal charges. These must be treated with cation.

## general description and circuit principles

Among the many uses of this instrument is the detection of ionisation and the measurement of insulation resistance of components and equipment whether they are connected to earth or isolated. Electric motors or transformers, for instance, can be tested on site. For accurate leakage current measurements a guard terminal is provided to eliminate unwanted currents. This is particularly useful when measuring the insulation resistance between two conductors in a screened cable.

## EHT UNIT :

The variable D.C. output is obtained by controlling the screen voltage of an RF oscillator operating at approximately 100 Kc . The output of this oscillator is fed to a special RF transformer, then rectified, filtered and applied to a voltage divider. Ten per cent of the output is connected to the 1000 V terminal and the full voltage to the 10,000 volt terminal. Both voltages are direct reading on the meter.


## VOLTMETER CIRCUIT :

The vacuum tube Voltmeter circuit uses two triodes with $100 \%$ degenerative feedback ensuring a high degree of linearity. The effect of variations in tube characteristics is kept to a minimum and the zero and sensitivity are unaffected by changes in the line voltage. Leakage currents through the sample are determined by measuring, by means of the vacuum tube voltmeter. the voltage drop across selected accurately calibrated series resistors.

## AUDIO AMPLIFIER :

This is a three stage high gain amplifier using three pentode stages. The input valve is a special low noise type and the restricted frequency range of 500 cycles to 7 Kc reduces the hum frequency components by as much as 40 db . The hissing or rushing noise which shows the onset of ionisation is easily detected, but for noisy locations headphones can be used. The impedance of the headphones is not critical and when they are plugged in, the speaker is muted.

## POWER SUPPLY :

Supply voltages from $200-250$ Volts A.C. 40-60 cycles can be used and the correct transformer tap is selected by adjusting the tap changing fuse holder which projects into the storage compartment.

The storage compartment is built into the bottom of the case and holds the input lead and the instruction booklet.

## ATTENLTTORSNAND FADERS



The "Trimax" Model G45 Fader is a new design evolved from experience gained over twenty years of this type of manufacture, and features:

- Solid non-staining silver alloy contacts.
- Floating rotor with three contact pressure points.

- Optimum, permanently maintained contact pressure.
- Rigid four pillar construction.
- Porous bronze main bearing.
- Stainless steel spindle.
- High quality phenolic resin stud plates with acetal resin rotor bosses.
- Diamond lapped contact surfaces.
- Positive knob stop in addition to individual rotor stop.
- High stability resistors.

It can be supplied in batanced or unbalanced forms of Potentiometer and Ladder, or as Bridged-T.

## ELECTRICAL SPECIFICATION:

Attenuation Range: 31 positions. The first 27 steps are 1.66 db each giving a total of 45 db . The last three steps taper to infinity.
Attenuation Setting: Indicated by dial, calibrated in 5 db increments (every 3 steps) with intermediate divisions.
Accuracy of Calibration: $\pm 0.5 \mathrm{db}$ in any 5 db section. Within 1 db of nominal in any position. Frequency Characteristics: Dependant on attenuator form and impedance, e.g., within 0.5 db from D.C. to 100 Kc . for a 600 ohm ladder in any position.
[mpedance: Our standard designs cover the impedances listed below and other values are subject to special order.
[nput and Output Impedance Tolerance: Within $10 \%$ of nominal except on last three steps.
Off-normal Contacts: These are changeover contacts, i.e., S.P.D.T. operating on the last 2 steps of the control and can be fitted to any type.
If required add letter " X " to Catalogue No.
[nsertion Loss: Ladder types 6 db . Potentiometers and bridged " T " types $0 . \mathrm{db}$.

## PHYSICAL SPECIFICATION:

Cover size: $23 / 32^{"}$ square plus terminal pin projections.
Dial diameter: $2 \frac{1}{2}^{\prime \prime}$.
Escutcheon: Oval 2 $\frac{1}{2}^{\prime \prime} \times 3^{\prime \prime}$.
Overall depth behind panel: Single unit $21 / 16^{\prime \prime}$; Double unit $33 / 16^{\prime \prime}$,
Mounting: $2 \times 5 / 32^{\prime \prime}$ holes $11_{2}^{\prime \prime}$ centre distance with $\frac{1}{2} "$ dia, centre hole.

## [NSTALLATION:

1. Remove knob and dial assembly, and escutcheon plate.
2. Attach to panel with the two holding screws which also hold the escutcheon plate.
3. Rotate the spindle by fingers either clockwise or anti-clockwise until the rotor stops engage.
4. Fit knob and dial assembly to spindle with approximately $1 / 32^{\prime \prime}$ clearance between dial skirt and escutcheon and rotate in same direction as in 3 until the knob firmly engages the knob stop. Tighten knob grub screws.
Note: (a) The plastic covered holding screw which also functions as the fixed part of the knob stop is normally positioned on the left-hand side of the spindle.
(b) The fader may be mounted with the terminal lugs in either a horizontal or vertical plane by correctly positioning the two holding screw holes. Faders are normally assembled for vertical plane mounting, and, if the horizontal plane is preferred, it is necessary only to loosen the dial skirt plate retainer screws on the knob, rotate the dial to the correct position, and re-tighten the screws.

## MAINTENANCE:

1. Sufficient lubrication is applied to the spindle bearings during manufacture to function indefinitely, but if it appears desirable to re-lubricate, apply one small drop to each bearing, applied preferably by a piece of $1 / 16^{\prime \prime}$ dia. wire, which has been dipped in a light machine oil.
2. Contacts: These may be "dry" or lubricated. If the preference is for lubrication, use only pure lanoline or "Electrolube". If electrical noise develops, which is unlikely, clean contact surfaces with a small brush dipped in Chlorothene NU, or other high quality solvent. Abrasive cleaning should not be attempted as this would destroy the high surface finish resulting from diamond lapping.

STANDARD TYPES

| Potentiometers | Unbalanced Ladder | Balanced Ladder | Bridged "T" |
| :---: | :---: | :---: | :---: |
| A7P 10K ohms | *A1L 600 ohms | "A1M 600 ohms | A2T 600 ohms |
| A6P 100K ohms | A2L 200 ohms | A2M 200 ohms | A3T 200 ohms |
| A4P 500 K ohms | A3L 50 ohms |  |  |

[^1]
## ELEOTRTCA GONNECWRS

Essential requirements in comectors for use in electronic circuits are perfect conlact, full shielding, reliability, and speedy usage. These are fully met by "Trimax" electrical comnectors.

Materials used in their manufacture are the best obtainable and comply with all the relevant British Standard Specifications. Careful inspection at every stage of production ensures rejection of any faulty parts.

- All contact surfaces are silver plated, and pins are end drilled for ease of connection to cable wires.
- Average voltage drop across a single contact with a current flow of 15 amperes does not exceed 6 millivolts.
- Shells and bodies are die cast in zinc base alloy.
- Contact insulation is moulded bakelite.
- Springs are made in spring temper Phosphor Bronze.
- Easy release latch lock fittings are incorporated to prevent accidental parting of connectors.
- All castings are Cadmium plated.
- All cord grip fittings will take a cable with maximum diameter of $\frac{1}{3} \mathrm{in}$. A 2 in . length of rubber tube with inside diameter of $9 / 32 \mathrm{in}$. is supplied for use use with cables of smaller diameter.
- Contact insulation is checked at 1,500 volts R M S.
- Wall Mounting Plates are finished in florentine bronze.



## $90^{\circ}$ MALE CORD GRIP PLUG <br>  <br> Cat. No. <br> P3MA <br> P4MA <br> P6MA

## SOCKET MOUNTING PLATES

$4 \frac{1}{2}$ in. x 2 a in.
S3F1 One socket on plate S4F1 One socket on plate S6F1 One socket on plate S3M1 One socket on plate S4M1 One socket on plate S6MI1 One socket on plate
$4 \frac{1}{2} \mathrm{in}, x 65 \mathrm{in}$.
S3F3 Three sockets on plate S4F3 Three sockets on plate S6F3 Three sockets on plate S3M3 Three sockets on plate S4M3 Three sockets on plate S6M3 Three sockets on plate






## PILOT LAMP HOLDERS



Both lamp holders are designed for lamps with a maximum dissipation of 2 watts.

## INSTRUMENT TERMINALS AND PANEL

"M 57" A nickel plated brass terminal with knurled top, and end drilled $\overline{3} / 3 \mathrm{in}$. diameter to take a standard "banana" plug. Shank length $\frac{3}{4}$ in. M57/2 - Shank length 19 in.
"M 176" Identical to the M57 but with an insulated top. Available in standard colours of Red and Black. Shank length $\frac{3}{4}$ in. M176/2 Shank length $1 \frac{1}{2}$ in.
"M 62" Terminal panel suitable for mounting these terminals at ${ }^{\frac{3}{3}} \mathrm{in}$, centres on panels of a minimum thickness of .040 in .


TWO PIN PLUG

"M 682" An instrument or equipment plug with standard $\frac{8}{4} \mathrm{in}$, spacing between pins. The pins are each drilled to take "banana" plugs or another M682 either end in or crossways. Captive knurled nuts are available for loose lead connections.
"M 1058" Similar to M682 but with insulated top terminals.


The Trimax Tap-changing fuse holder is suitable for fuses up to 5 amp . capacity, and because of the alternative fuse positions, is a convenient means of tap-changing. All contact surfaces are silver plated, and the springs do not carry current. When the top cap is removed for adjustment or replacement of fuses, the line connections are broken, thus eliminating danger of shock.


## VERNIER DRIVE-"M 48"

A vernier drive with a ratio of approximately $10-1$, of the friction type, using hardened steel balls and a drive spindle of silver steel. The driving spindle diameter is $\frac{1}{4} \mathrm{in}$., and the unit is for fitting to a $\frac{3}{3} \mathrm{in}$. shaft. Its overall length is 23 in., and overall diameter 1 in .

## JACK MOUNTING BLOCK-"M $11^{\prime \prime}$



A handy insulating block for mounting of telephone jacks with an outside barrel diameter of . 450 in , and a length of .580 in . Using these blocks it is possible to mount a single row of jacks at $\overline{\overline{8}} \mathrm{in}$. centres. The block is provided with holes of suitable diameter to take number 4 self-tapping screws.



ROUND BASE TABLE STAND, FIXED OR ADJUSTABLE TYPES
Base Diameter 6 in.
HEIGHT: Fixed Type 14 in .
HEIGHT: Adjustable Type $14 \mathrm{in} .-21 \mathrm{in}$.


## ROUND BASE FLOOR STAND

Base Diameter 12 in.
HEIGHT; Adjustable $3 \mathrm{ft} .6 \mathrm{in} .-6 \mathrm{ft} .6 \mathrm{in}$. WEIGHT OF BASE: 13 lbs.

HEAVY DUTY TRIPOD BASE FLOOR STAND
HEIGHT: Adjustable $4 \mathrm{ft} .6 \mathrm{in},-7 \mathrm{ft}$. or 3 ft. 6 in. -6 ft .6 in. As Ordered.
WEIGHT OF BASE: 22 lbs .


In the early stages of "Trimax" development it was decided to make the organisation as self contained as possible. To assist in this, a comparatively elaborate sheet metal section was established to manufacture the many types of covers, cases, chassis and cabinets used with our products.
The excellent workmanship and finish, as well as competitive pricing, has led to an expanding market in Industry and with Government Departments. To keep pace with this expansion, new machines have been installed, and company policy is to replace these machines with improved types as they become available. The working area now exceeds $10,000 \mathrm{sq}$. ft.
Facilities are available for fabrications in all standard rolled or extruded sections as well as panels, cabinets and cubicles up to $8^{\prime}$ by 10 gauge steel, or brass and aluminium up to $\frac{1_{4}^{\prime \prime}}{}{ }^{\prime \prime}$.
A large degreasing bath has been installed to insure completely clean surfaces for the application of primers and the finished product is normally stoved in a temperature controlled oven. Spray finishes in all standard materials are applied in a closed spray room which has a filtered air supply.


This special rack cabinet is typical of types used in Public Address and Communication Equipment. Similar cabinets can be made to special order: and our staff of highly skilled personnel are always ready to assist you.

RACK CABINEIS for standard $19^{\prime \prime}$ panels are another standard line, and can be made for any panel space, usually in multiples of 13", which is the basic unit for this type.



## AMPLIFIER CHASSIS:

These are standard chassis, bases and covers for Public Address equipment and amplifiers, and are normally stock items in two sizes.
M50 Chassis. Has a detachable cover and base. Size of Base: 15 in. $x 8 \frac{1}{3} \mathrm{in} . \mathrm{x} 3 \mathrm{in}$. high.
Height of Cover: $5 \frac{1}{2} \mathrm{in}$.
Overall Height of Base and Cover: 81 $\frac{1}{2}$ in.
M356 Chassis. Has a detachable cover and base. Size of Base: 11 in. x $8 \frac{1}{2} \mathrm{in} . \times 2 \frac{1}{2} \mathrm{in}$. high. Height of Cover: $5 \frac{1}{2} \mathrm{in}$.
Overall Height of Base and Cover: 8 in.

## TERMINAL BOXES:

Many types of heavy gauge terminal boxes are made and supplied to specification. The one illustrated is of 12 gauge steel finished in stoving enamel. The construction is virtually watertight being drip and splash proof.


MU-METAL SHIELDS:
The Mu-Metal shield shown is one of many shields manufactured for Cathode Ray tubes. It is annealed in a Trimax designed and built controlled atmosphere furnace to obtain the highest performance figures. Government Departments and Industry are major users of these shields.

## CASES:

All types of portable cases are made. The one shown being approximately $16^{\prime \prime} \times 8 \frac{1}{2}$ " $\times 11 \frac{1^{\prime \prime}}{}$. high. This unit can be supplied with a blank chassis and panel so that special equipment can be mounted, or the case only is available. Other special cases can be supplied to order and your enquiries are wetcome.



L M ERICSSON PTY. LTD. TRIMAX DIVISION
Cnr. CHARLES \& WILLIAM STS.
COBURG, N. 13
VICTORIA

## GENERAL:

This trolley is particularly suitable as a means of mounting heavy laboratory test equipment.

The shelves can be fixed in a horizontal position or at an angle ideal for cathode-ray oscilloscopes, they can also be reversed to become trays with reasonably high sides and they are adjustable to a number of different heights in any of the above forms of mounting.

Provision is made for fitting three mains sockets in parallel, which means that three mains-operated instruments can be supplied with power, when on the trolley, by the use of one extension lead.

## CASTORS:

Rubber tyred castors are fitted to give silent, shock-proof and easy mobility.

FINISH:
The stock trolleys are grey hammertone but other colours can be obtained by special order.

## DESPATCH \& PACKING:

In order to keep the freight to a minimum and for ease of handling and storage, the trolleys are despatched in kit form complete with nuts, bolts and castors for assembly on arrival.

The electrical fittings can be supplied, as an extra, to special order.

POWER TRANSFORMERS－TRADE \＆RETAIL PRICES
Date 1st May， 1965 Excluding Sales Tax

| TYPE | TRADE | RETAIL | TYPE | TRADE | RETAIL |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TP－16A | £4．13． | £5．19． 0 | TP－2821 | £1．12． 9 | £2．1． 9 |
| TP－17A | 5． 4 。 | 6．13． 6 | TP－2827 | 12．16． 9 | 16．7． 3 |
| TP－18A | 5.16 。 | 7．8． 9 | TP－2985 | 25．13． 3 | 32．14． 6 |
| TP－69B | 7．3． | 9． 2.9 | TP－3073B | 20．13． 3 | 26．7． 0 |
| TP－185A | 3．10． | 4．9． 3 | TP－3078 | 7．16． 9 | 9．19， 9 |
| TP－208A | 4． 0 。 | 5．2． 0 | TP－3099 | 1．3． 3 | 1．9． 9 |
| TP－399B－M122 | 13．13． | 17．8． 6 | TP－3100 | 5． 0 。 0 | 6．7． 6 |
| TP－399B－VBA | 6.10 ． | 8．5． 9 | TP－3138 | 25．3． 3 | 32．1． 9 |
| TP－400A－M122 | 11． 0. | 14． 0.6 | TP－3146 | 1．10． 0 | 1．18． 3 |
| TP－400A－VBA | 3.16. | 4．17． 9 | TP－3345 | 25． 0.0 | 31．17． 6 |
| TP－1454A | 4.16 ． | 6．3． 3 | TP－3346 | 13．6． 9 | 17．0． 0 |
| TP－1633A | 5.13. | 7．4． 6 | TP－3395 | 38． 0 。 0 | 48．9． 0 |
| TP－1724 | 5． 0 。 | 6．7． 6 | TP－3518 | 16．16． 9 | 21．9． 3 |
| TP－1780 | 4.3 。 | 5．6． 3 | TP－3569A | 6．6． 9 | 8．1． 6 |
| TP－1798A | 7．16． | 9．19． 9 | TP－3588 | 5．0． 0 | 6． 7 。 6 |
| TP－1803 | 15．6． | 19．11． 0 | TP－3591 | 25．0． 0 | 31．17． 6 |
| TP2069A | 2．16． | 3．12． 3 | TP－3622 | 11． 0 。 0 | 14． 0.6 |
| TP－2077 | 7.10. | 9．11． 3 | TP－3643 | 5．0． 0 | 6．7． 6 |
| TP－2171B | 3.6. | 4．5． 0 | TP－3794 | 96．13． 3 | 123．5． 0 |
| TP－2259 | 7． 0 。 | 8．18． 6 | TP－3828 | 29．3． 3 | 37．3． 9 |
| TP－2263A | 14． 6. | 18．5． 6 | TP－3862 | 2．13． 3 | 3．8． 0 |
| TP－2264 | 13．13． | 17．8． 6 | TP－3863 | 6．10． 0 | 8．5． 9 |
| TP－2420 | 3.6. | 4．5． 0 | TP－3980 | 2．10． 0 | 3． 3.9 |
| TP－2496 | 16． 6. | 20．16． 6 | TP－3981 | 3.3 ． 3 | 4． 0 。 9 |
| TP－2499 | 13． 0 ， | 16．11． 6 | TP－3982 | 4．11． 3 | 5．16． 6 |
| TP－2500 | 6.16. | 8．14． 3 | TP－4300 | 1．8． 0 | 1．15． 9 |
| TP－2501 | 12． 6. | 15．14． 6 | TP－4301 | 1．16． 9 | 2． 6.9 |
| $\Rightarrow$ TP－2502 | 1.11. | 2． 0.0 | TP－4302 | 2．6． 0 | 2．18． 9 |
| TP－2580 | 17． 0 。 | 21．13． 6 | TP－4303 | 2． 3 。 3 | 2．15． 3 |
| TP－2656 | 3．16． | 4．17． 9 | TP－4304 | 2． 3.3 | 2．15．3 |
| L M ERICSSON PTY．LTD． |  |  | TRIMAX DIVISION |  |  |


| TYPE | TRADE | RETAIL | TYPE | TRADE | RETAIL |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TP－4305 | £2，16． 9 | £3．12． 3 | TP－4335 | £12．6． 9 | £15．14．6 |
| TP－4306 | 2．16． 9 | 3．12． 3 | TP－4336 | 26． 0.0 | 33．3． 0 |
| TP－4307 | 2．18． 0 | 3．14． 0 | TP－4337 | 4．3． 3 | 5．6． 3 |
| TP－4308 | 2．18． 0 | 3．14． 0 | TP－4338 | 5．8． 9 | 6．18． 6 |
| TP－4309 | 3．8． 9 | 4．7． 6 | TP－4339 | 1． 3 。 3 | 1． 9.9 |
| TP－4310 | 3．10． 0 | 4．9． 3 | TP－4340 | 1．8． 9 | 1．16． 6 |
| TP－4311 | 3.11 .3 | 4．11． 0 | TP－4341 | 1． 8 ． 9 | 1．16． 6 |
| TP－4312 | 3．9。3 | 4．8． 6 | TP－4342 | 1．12． 9 | 2．1． 9 |
| TP－4313 | 4． 3 。 3 | 5．6． 3 | TP－4343 | 1．12． 9 | 2． 1.9 |
| TP－4314 | 4．4． 9 | 5．8． 0 | TP－4344 | 1．19． 3 | 2．10． 3 |
| TP－4315 | 4．16． 9 | 6.3 .3 | TP－4345 | 2．10． 0 | 3．3． 9 |
| TP－4316 | 4．16． 9 | 6．3． 3 | TP－4346 | 2．13． 3 | 3．8． 0 |
| TP－4317 | 4．3． 3 | 5．6． 3 | TP－4347 | 2．10． 0 | 3． 3.9 |
| TP－4318 | 4．11． 3 | 5．16． 6 | TP－4348 | 2．11． 3 | 3．5． 6 |
| TP－4319 | 4．10． 9 | 5．15．6 | TP－4349 | 3．16． 9 | 4．17． 9 |
| TP－4320 | 4．16． 9 | 6．3． 3 | TP－4350 | 3．16． 9 | 4．17． 9 |
| TP－4321 | 4．16． 0 | 6． 2 。 6 | TP－4351 | 4．10． 0 | 5．14． 9 |
| TP－4322 | 6．3． 3 | 7．17． 3 | TP－4352 | 10． 0 。 0 | 12．15． 0 |
| TP－4323 | 7．10． 0 | 9．11． 3 | TP－4353 | 3．10． 0 | 4．9。3 |
| TP－4324 | 6． 3 。 3 | 7．17． 3 | TP－4354 | 3．16． 9 | 4．17． 9 |
| TP－4325 | 6．16． 9 | 8．14． 3 | TP－4355 | 2.10 ． 0 | 3．3． 9 |
| TP－4326 | 7．10． 0 | 9．11． 3 | TP－4356 | 29．0． 0 | 36．19． 6 |
| TP－4327 | 7．10． 0 | 9．11． 3 | TP－4358 | 13．13． 3 | 17． 8 。 6 |
| TP－4328 | 7．16． 9 | 9．19． 9 | TP－4407 | 3．16． 9 | 4．17． 9 |
| TP－4329 | 7．10． 0 | 9．11． 3 |  |  |  |
| TP－4330 | 8．6． 9 | 10．12． 6 |  |  |  |
| TP－4331 | 10．16． 9 | 13．16． 3 |  |  |  |
| TP－4332 | 13．10． 0 | 17．4． 3 |  |  |  |
| TP－4333 | 11．0． 0 | 14． 0.6 |  |  |  |
| TP－4334 | 11． 0 。 0 | 14． 0.6 |  |  |  |

TYPE TRADE RETAIL TYPE TRADE RETAIL

TZ－7 3．13。3 4．13。6
TZ－11－．19。3 1．4。 9
TZ－28 3．10。 0 4．9。 3
TZ－47 3．6． 9 4．5． 0
TZ－56 1。6。 0 1．13。3

TZ－57 2．3． 3 2．15。3
$\begin{array}{ccc}\mathrm{TZ}-63 & \text { 5．} 3.3 & 6.11 .9\end{array}$

| －84 | 3．16． 9 | 4．17． 9 |
| :---: | :---: | :---: |

TZ－277 1． 0 。 9 1。 6。 3

| TZ | 2． 344 | 6.19 2． 6 |
| :---: | :---: | :---: | :---: |

TZ－394 10。0。0 12．15． 0
$\mathrm{TZ}-460 \quad=$ 。19。 $3 \quad 1$ ．4． 9

| TZ－461 1． 0.9 | 1．6． 3 |
| :---: | :---: | :---: |

TZ－462
1．8． 9 1．16． 6
TZ－463 1．13． $3 \quad 2$ 2． 6
TZ－464 2．6． 0 2．18． 9
$\begin{array}{cll}\mathrm{TZ} & 4.65 & 2.10 \text { 。 } 0\end{array}$ 3．3． 9
TZ－466
3。6。 9
4．5． 0
TZ－467
2．11． 3
3．5． 6
TZ－469
4．3． 3
5．6． 3
TZ－550
13．13． 3
17．8． 6
TZ－610
4．16。 9
6． 3 。 3
TZ－673
1． 0 ． 9
1． 6 。 3
TZ－694

| $\mathrm{TZ}-840$ | 1． 3.3 | 1．9。 9 |
| :--- | :--- | :--- | :--- |
| $\mathrm{TZ}-841$ | - －19． 3 | 1．4． 9 |

TC-2
E5. 0. 0
4. 6 。 9
4. 6. 9
8.13. 3
13.10. 0
8.13. 3
10. 0.0
10. 0.0
10. 0.0
10.16. 9
10.16. 9
10.16. 9
10.16. 9
10.16. 9
10.16. 9
10.16. 9
12. 3.3
12. 3. 3
10. 0.0
£6. 7. 6
5.10. 6
5.10. 6
11. 1. 0
17. 4. 3
11. 1. 0
12.15. 0
12.15. 0
12.15. 0
13.16. 3
13.16. 3
13.16. 3
13.16. 3
13.16. 3
13.16. 3
13.16. 3
15. 10. 3
15.10. 3
12.15. 0

TYPE
TRADE RETAIL
TYPE
TRADE RETAIL

TA－3
TA－17
TA－37A
TA－47
TA． 61
TA－82
TA－101
TA－168A
TA－406A
TA－605
TA－636
TA－710A
TA－731A
TA－733B
TA－763
TA－770
TA－793
TA－796A．
TA－797
TA－833
TA－835
MS－837
MS－860
MS－866
MS－878
MS－896
TA－909
TA－913B－M17
10．16． 9
11． 0.0
14． 0.6
TA－914B－M17 10．16． 9 13．16． 3
£5．0． 0 £6．7。 6
6．7． 6
6．3． 3
6．7． 6
6．7． 6
6．7． 6
ถ．3． 3
6．3． 3
6．3． 3
6．7． 6
6．3． 3
5．19． 0
TA－947
TA．－948
MS－977
TA－1076
TA－1094A
TA－11．03C
TA－11．04B
TA－1105A
TA－1147－M8
TA－1147－M51
TA－1588
TA－1693
TA－1704
TA－1774
£11．0． 0 £ 14.0 ． 6 10．16． 9 13．16． 3

11． 0.0 14．0． 6
10．16． 9 13．16． 3
11． 0.0 14．0． 6
10．16．9．13．16． 3
11．0． 0 14． 0.6
4．13． 3 5．19． 0
6．8． 0 8．3． 3
6．8． 0 8．3． 3
6．8． 0 8．3． 3
4．13． 3 5．19． 0
4．13． 3 5．19． 0
6．16． 9 8．14． 3
5．10。 0 7． 0.3
5．13． 3 7。 4． 6
5．10． 0 7。 0 。 3
5．10． 0 7． 0 ． 3
5．10． $0 \quad 7.0$ ． 3
7。6。 9 9。 7。 0
8．13． 3 11．1． 0
PRICE ON REQUEST
4．16． 96 6．3． 3

PRICE ON REQUEST
4．16． 9 6．3． 3

| TYPE | TRADE | RETAIL | TYPE | TRADE RETAIL |
| :---: | :---: | :---: | :---: | :---: |
| P3MS | £-.15. 0 | £-.19. 3 | M62 | £-1. 0 £ ${ }^{-1 .} 6$ |
| P4MS | -. 15. 9 | 1. 0 . 0 | M176 | -. 6. 3 -. 8. 0 |
| P6MS | -.17. 0 | 1. 1. 9 | M682 |  |
| P3MA | -. 19. 3 | 1. 4.9 | M1058 |  |
| P4MA | 1. 0.0 | 1. 5. 6 | M10 | 1. 0. 0 1. 5. 6 |
| P6MA | 1. 1.3 | 1. 7. 3 | M48 | Price on Application |
| P3FS | 1. 5. 9 | 1.12. 9 | M11 | -. -. 8 -. -. 10 |
| P4FS | 1. 7. 3 | 1.14. 9 |  |  |
| P6FS | 1.10. 9 | 1.19. 0 |  |  |
| S3F | 1. 4.3 | 1.11. 0 |  |  |
| S4F | 1. 6.0 | 1.13. 3 |  |  |
| S6F | 1. 9.3 | 1.17. 9 |  |  |
| S3M | -.12. 0 | -.15. 3 |  |  |
| S4M | -.12. 9 | -. 16. 3 |  |  |
| S6M | -. 14. 0 | -.17. 9 |  |  |
| S3F1 | 1.15. 3 | 2. 5. 0 |  |  |
| S4F1 | 1.17. 0 | 2. 7. 3 |  |  |
| S6F1 | 2. 0.3 | 2.11. 6 |  |  |
| S3M1 | 1. 2.3 | 1. 8. 6 |  |  |
| S4M1 | 1. 3 . 0 | 1. 9. 3 |  |  |
| S6M1 | 1. 4.3 | 1.11. 0 |  |  |
| S3F3 | 4.15. 0 | 6. 1,3 |  |  |
| S4F3 | 5. 0 . 0 | 6. 7. 6 |  |  |
| S6F3 | 5.10. 0 | 7. 0.3 |  |  |
| S3M3 | 2.13. 0 | 3. 7. 6 |  |  |
| S4M3 | 2.15. 0 | 3.10. 3 |  |  |
| S6M3 | 2.19. 0 | 3.15. 3 |  |  |
| M156R | -. 7. 3 | -. 9. 3 |  |  |
| M156T | -. 6. 9 | -. 8. 6 |  |  |
| M57 | -. 4.9 | -. 6. 0 |  |  |
| L M ERICSSON PTY. LTD. |  |  | TRIMA | DIVISION |


[^0]:    

[^1]:    * Stock types.

