

Professional 2-Channel Power Amplifier

Instruction& Service Manual



MODEL 300



MODEL 600



CONTENTS

Page

L

J

| 1. | DESCRIPTION. | 3, 4 |
|-----|-----------------------------------|---------|
| 2. | SPECIFICATIONS | 5-7 |
| 3. | INPUT CONNECTIONS | 8, 9 |
| 4. | OUTPUT CONNECTIONS | 10 |
| 5. | AC POWER VOLTAGE CONVERSION | 11 |
| 6. | OPERATION | 12, 13 |
| 7. | ALIGNMENT PROCEDURES | 14 |
| 8. | SEMICONDUCTOR LEAD IDENTIFICATION | 15 |
| 9. | P.C. BOARD PARTS LAYOUT | 15, 16 |
| 10. | PARTS LIST | 17 — 26 |
| 11. | SCHEMATIC DIAGRAM | 27 |

DESCRIPTION

A truly integrated power amplifier the FOSTEX Models 600/300 incorporate 3-step Darlington circutry that is push-pull in all stages, designed with minimal surfaces it obsoletes every other power amplifier available. And, beneath its smart case there's a big damping factor, expansive power bandwidth, and some of the most fascinating technology yet developed.

This highly sophisticated, full capacity power amplifier made to the most exacting standards employs a massive toroidal mains power source transformer—Model 600/1.3KVA, Model 300/700VA. Musicians and sound engineers are assured top performance of continous high power output by an enormous heatsink output transistor—Model 600/6100cm², Model 300/3700cm².

Superior reproduction is brought about through level adjustment of both channels by use of detent volume calibrated in decibel increments.

And, to acknowledge receptivity, an LED level indicator blinks indicating peak levels. Featuring peak hold log amp IC indications are made in 10dB steps in the 0dB to 40dB range.

Two red L.E.D. overload indicators on the front panel of the Model 600/300 utilize an exclusive FOSTEX circuit. Whenever either channel of the 600/300 is driven into overload, a corresponding indicator lights and remains lit for 0.25 seconds. These indicators, which actually indicate loss of feedback, tell the operator that the amplifier is being overdriven, and can be invaluable to the engineer or audiophile who must be sure that every component in his system is producing a clean, distortion-free signal. An inadvertent short-circuited output (with signal) will cause the L.E.D. to remain on until the short is removed.

The output stages of your amplifier use the most durable type of transistors available. These large geometry, complementary power devices have large safe operating area and extended power bandwidth. Electrostatic and other highly reactive speaker systems present no difficulties for the Models 600/300.

All of the semiconductors in the output stage are in intimate contact with the heatsink. The bias circuit is also mounted on this isotherm to provide rock steady bias stability with temperature.

The especially elaborated circuit design of models 600/300 makes for an extremely low Total Harmonic Distortion up to high frequencies, a large damping factor, and a greatly broad power band width.



PROTECTION CIRCUITS

Models 600/300 have two built-in overload thermal protection for abnormal operation. One is installed with heatsink (operating temp. 90°C) and the other is installed in the power transformer (operating tem. 135°C.) These protectors are auto reset type. If either or both protectors go off, check ventilation and speaker connections.

The current limiter circuit of output transistors is especially designed for models 600/300. If any load will be connected to the output, the current limiter circuit controls the current of which do not exceed the SAFETY OPERATION AREA of output transistors in proportion to the load. This circuit activates below 2.7Ω load.

Let the latest space-age computer technology of FOSTEX protect your sound system and offer you the superb sonic qualities needed to command any recording/monitoring situation in the studio.

SPECIFICATIONS: FOSTEX MODELS 600/300

OUTPUT POWER

200/100 watts minimum sine wave continuous average power output per channel with both channels driving 8-ohm loads over a power band from 20Hz to 20kHz. The maximum Total Harmonic Distortion at any power level from 150/150 milliwatts to 200/100 watts shall be no more than 0.02/0.02%.

1kHz Power: 240/120 watts into 8-ohm per channel, both channels driven, 0.005/0.005% Total Harmonic Distortion

300/150 watts minimum sine wave continuous average power output per channel with both channels driving 4-ohm loads over a power band from 20Hz to 20kHz. The maximum Total Harmonic Distortion at any power level from 150/150 milliwatts to 300/150 watts shall be no more than 0.05/0.05%.

1kHz Power: 360/180 watts into 4-ohm per channel, both channels driven, 0.05/0.05% Total Harmonic Distortion

600/300 watts minimum sine wave continuous average power output monaural driving an 8-ohm load over a power band from 20Hz to 20kHz. The maximum Total Harmonic Distortion at any power level from 250/250 milliwatts to 600/300 watts shall be no more than 0.05/0.05%.

1kHz Power: 720/360 watts into 8-ohm, 0.05/0.05% Total Harmonic Distortion

All specifications and features are subject to change without notice.

SPECIFICATIONS MODELS: 600/300

| IM Distortion | |
|----------------------------------------|-----------------------------------------------|
| | with any 2 mixed frequencies between 10 Hz |
| | and 30 kHz at 4/1 voltage ratio |
| Frequency Response at rated power | 10 Hz to 70 kHz (+ 0 dB, -0.5 dB) |
| Hum and Noise (Equivalent Input Noise) | 93 dB (Unweighted) |
| | 103 dB (IHF-A weighted) |
| Power Bandwidth (IHF THD 0.1%) | 5 Hz-50 kHz |
| Transient Response of any Square Wave | 1.5 μ seconds rise and fall time |
| Stability | unconditionaly stable with any type of load |
| | or no load including fullrange electrostatic |
| | loudspeakers |
| Damping Factor | 150 min. (8Ω 20 Hz to 20 kHz) |
| | 75 min. (4Ω 20 Hz to 20 kHz) |
| Input Sensitivity | 0.8 volts |
| | for rated output at 8Ω |
| Input Impedance | 10 KΩ |
| Semiconductor Complement | 75 Tr. 60 D. 1 IC (for model 600) |
| | 67 Tr. 60 D. 1 IC (for model 300) |
| Overload Protections | 1. Low impedance electronic-sensing circuit |
| | limits with output current below 2Q |
| | without limiting with 4Ω or higher (or |
| | reactive loads) |
| | 2. Thermal sensing of inadequate ventilation |
| Loudspeaker protections | Relay circuit protects loudspeakers from low |
| | frequency oscilations and plus or minus DC |
| | output. Five seconds turn on delay eliminates |
| | transient disturbances. |

| Shipping Weight | 18 Kg (for model 600) |
|-----------------|------------------------------------------------|
| | 13 Kg (for model 300) |
| Dimensions | 48.2(W) x 13.2(H) x 37.6(D) cm (for model 600) |
| | 48.2(W) x 8.8(H) x 37.6(D) cm (for model 300) |
| | excluding controls, handles and connections |

Dimensions of Models 600/300





...

ALTERNATE SPEAKER TERMINAL, POWER LINE CONNECTOR AND FUSEHOLDER FOR EUROPEAN VERSION (SERIAL NUMBER: 9070156 & UP).



INPUT CONNECTIONS

There are two XLR type (unbalanced) input connectors on the rear of the unit. One is "male" and the other is "female" plus two parallel phone jacks.

The internal wiring of XLR type connectors are follows.



BRIDGE MODE (MONO)

Follow the same procedure as outlined for 2-Channel (STEREO) mode, but use only one shielded cable plugged into the CHANNEL-1 input. Do not connect anything to the CHANNEL-2 input.

Note:

If you want to operate the bridge mode with making connections both CHANNEL-1 and -2 inputs, leave the Level Control of CHANNEL-2 in the fully counterclockwise ($-\infty dB$) position during the MONO operation.

c

OUTPUT CONNECTIONS - 2-CHANNEL MODE (STEREO)

Connect the left speaker to the binding posts marked OUTPUT 1 and the right speakers to the binding posts marked OUTPUT 2.

Observe the phasing of the speakers. Most connectors on speaker cabinets are either color coded or marked +, -.

Connect the black or minus (-) terminal on the speaker cabinet to the black binding post on the amplifier. Connect the other speaker terminal to the fuseholder, if required, and the fuseholder to the red binding post. Check to see that the MONO-STEREO switch on the rear of the amplifier is in the STEREO position.

Ideally, the output leads should be connected to the amplifier with standard banana plugs; however, the five way action of the binding posts permit the use of tinned wires or spade lugs. Remember, of cource, to put a fuse in series with the load.

CAUTION-HAZARDOUS ENERGY

Any high power amplifier is capable of destroying almost any loudspeaker, so that using these amplifiers, do not exceed the speaker's capability or suitable fusing must be required.

OUTPUT CONNECTIONS-BRIDGE MODE (MONO)

Follow the same procedure as outlined for 2-channel mode, but connect the single output across the two red binding posts of the OUTPUT 1 and OUTPUT 2. Do not connect anything to the OUTPUT 1 or OUTPUT 2 ground binding posts.

Designate the OUTPUT 1 red binding post plus (+) and the OUTPUT 2 red binding post minus (-). A fuse is required in only one load.

Check to see that the MONO-STEREO switch on the rear of the amplifier is in the MONO position.

AC POWER VOLTAGE CONVERSION

NOTICE: VOLTAGE CONVERSION SHOULD BE DONE BY A FOSTEX AUTHORIZED DISTRIBUTOR AND THEIR FRANCHAISE DEALERS.

AC power voltage is able to convert either 110-120 volts or 220-240 volts. If you want to convert the AC power voltage, please consult with your dealer.

To convert the AC power voltage, some exclusive parts are required.

POWER MAINS FUSE: 110-120V: 15A (6A) 220-240V: 6.3A (3.15A) (): for Model 300 only

OPERATION

After all connections have been made to the power amplifier, turn the level controls fully counter-clockwise ($-\infty$ dB).

Turn on the preamplifier, then turn on the power amplifier.

The red POWER L.E.D. indicator light on the front panel should light. If it does not, check to see that the amplifier is plugged in to a live power outlet.

With preamplifier level controls fully off, advance the CHANNEL 1 and CHANNEL 2 power amplifier level controls about half way clockwise (slot in knob facing upwards). There should be no audible hum; if hum is heard, check the connections between the power amplifier and preamplifier. Now advance the preamplifier level controls until the desired maximum volume is achieved. Should the preamplifier level control be in excess of the 3/4 setting, decrease it to half volume and increase the level control of the power amplifier to the desired level.

The front panel L.E.D. level indicators are calibrated when the level indicator shows 0dB, at that time, the peak output voltage should be at $40\sqrt{2}$ volts (in case of model 600) or 40 volts (in case of model 300).

If full power output is unobtainable, check to see that the preamplifier is capable of producing the required driving voltage as stated in the Specifications Section.

The amplifier incorporates a time delay network and a relay which connects the speakers only after the amplifier has stabilized thus eliminating transients.

Often, turn-on transients originate in the pre-amp or tuner.

This is especially true of tube-type units. If this situation arises, turn the amplifier on after the other units have had adequate time to stabilize.

The models 600/300 have log-linear input attenuators to complement its peak-reading meters. The input attenuators are marked in 22 dB steps, stepped for very accuracy, 1dB steps from 0dB to -20dB for convenience reference. DB calibrated input attenuators have numerous advantages. In multi-channel systems (using of two or more seperate amplifier which have different gain), they allow easy, accurate input sensitivity adjustments and let operators simultaneously adjust the level of two channels (or two programs on separate amplifiers) with precise tracking.

ALIGNMENT PROCEDURES

BIAS ADJUSTMENT

Note: Both CHANNEL 1 and CHANNEL 2 level controls should be in fully counterclockwise position ($-\infty$ db).

| Indicator | Adjustment | Remarks |
|--------------|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| DC Voltmeter | VR601a (CHANNEL 1) VR601b (CHANNEL 2) | Adjust for 5-10 mV reading on DC Voltmeter across R634a (CHANNEL 1) or R634b (CHANNEL 2) with no load. |

CALIBRATION OF L.E.D. LEVEL INDICATORS

| | input | | output | |
|---------------------|-------|-------------------|--------|-----------------|
| Signal Generator | | Models 600/300 | | AC Voltmeter |

Alignment connections

| STEP | Signal Generator Frequency set to | Output Indicator | Adjustment | Adjust for |
|------|--------------------------------------|----------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------|
| 1 | 1 kHz (Sine Wave) | AC Volt- meter con- nected to CHANNEL 1 or 2 | Signal Generator output | Adjust for 40 VRMS (Model 600), 28.3V RMS (Model 300) on AC Voltmeter with no load. |
| 2 | Same as STEP 1 | Same as STEP 1 | Same as STEP 1 | Adjust for 28.3V RMS (Model 600), 20V RMS (Model 300). This means –3 dB output level compared with STEP 1. |
| 3 | Same as STEP 1 | LED level Ind. CHANNEL 1 or 2 | VR701 or VR702 | Adjust for very weak brightness on 0 dB Indicator LED with output signal level of above STEP 2. |
| 4 | Same as STEP 1 | Same as STEP 3 | | Check up the 0 dB indicator LED brightness is the same as other LED's with output level of above STEP 1. |

SEMICONDUCTOR LEAD IDENTIFICATON



l



I

Č S

LED LEVEL INDICATOR BOARD (# 7205)



1

Note. *D701,D702 Model 300 Only

미를 07 06 미중 마중 0월 0월 0월 0월 0월 0g ₽₽ ۵y ٥_ö ۵œ ۵g PI 15 • <u>R6176</u> - assu 0140 (C620b) 06186 -++ - R615b A6010 08046 06130 R6346 ■ <u>R623</u>
■ 9010h E HIG546 + 06166 R628 <u>H- 519</u> 9649b R624b 08016 4040 - 1 4 604b --++ H613b **A638**P • (+- 061) R6306 R627b • R644 9635b -• 06225 HS28 R670 -#1 C626h H6046 **R651b** R6106 817 8633 £760Ab -++-R603h VR601b C613b 06075 D6116 (D6136 ++ A643b -+ H 86396 C618b H620h PI61607 R625b 08154 R647b 1901 R6456 C6216 R6461 R656h R657 0625 6230 កាទី RE601 미렬 F1661 R660 R662 R658a R664 1967 C621a 160 E 18158 R647a R620 R6184 -**1618a** → R6234 -R602a -602 R806a -2---8 R6430 -R611e R612a C610 R803a -CE13e C607s - +- D611a VR601. - F199 R652 R622a (%2%) **H604** 0806 -R631a R626 A671. 0822a R805a ++ R627e READ - R644 R629 R649 A636 CB01. 06164 -++ J-**1854** 8183 R637 - (** R634 - <u>R653</u> -0604a R601a 1815 B6134 A617a + R821a H R632a C620a 이를 이렇 ٥ž ರನ លដ្ឋី 02 o<u></u> ₀ 0₩ Dş

MAIN AMP BOARD (# 6076)

16

Note. *R627a,b-R630a,b Not Used in Model

300

| APACITORS | ······································ | | · · · · · · · | ····· |
|-----------|----------------------------------------|----------------|------------------|--------------|
| ef. No. | Value (F) | Voltage (V) | Tolerance (%) | Material |
| 601a,b | 1μ | 100 | ±10 | Polyester |
| 602a,b | U . | 50 | +75,-10 | Electrolytic |
| 603a,b | 180p | 500 | ±10 | Ceramic |
| 604a,b | 0.1µ | 50 | 44 | Polyester |
| 605a,b | 82p | 500 | 11 | Ceramic |
| 606a,b | 100µ | 16 | ±20 | Electrolytic |
| 607a,b | 0.1µ | 50 | ±10 | Polyester |
| 609a,b | 10p | 500 | ±10 | Ceramic |
| 610a,b | 180p | u . | U II | 11 |
| 611a,b | Ш | П | 11 | 11 |
| 612a,b | П | 11 | 61 | u |
| 613a,b | 0.1µ | 50 | п | Polyester |
| 614a,b | 180p | 500 | п | Ceramic |
| 615a,b | 1000p | 50 | u | Polyester |
| 616a,b | u | н | н | н |
| 617a,b | Not Used | | | |
| 618a,b | 1000p | 50 | ±10 | Polyester |
| 619a,b | u . | • и . | н | n |
| 620a,b | 0.047μ | 11 | | н |
| 621a,b | н | н | n | 11 |
| 622a,b | 0.1µ | 1ł | · • | u. |
| 623 | 100µ | 16 | ±20 | Electrolytic |
| 624 | 2.2µ | 50 | +75,-10 | 0 |
| 625 | 22µ | 35 | +50,-10 | u |
| 626a,b | 2200p | 50 | ±10 | Polyester |
| 627a,b | u. | н | П | n |
| 628a,b | 300p | 0 | H | Ceramic |
| 701 | 100μ | 25 | +50,-10 | Electrolytic |
| 702 | 0.47µ | 50 | +75,-10 | п |
| 703 | | D. T | н | u |
| 704 | 1μ | н | п | 11 |

| CAPACITORS | | | | |
|-------------|--------------|---------------------------------------|------------------|--------------|
| Ref. No. | Value (F) | Voltage (V) | Tolerance (%) | Material |
| C705 | 1800p | 50 | ±10 | Polyester |
| C706 | H H | н | п | н |
| C707 | 22µ | 25 | +50,-10 | Electrolytic |
| | | | | |
| C851 | 18000µ | 100(71) | +50,-10 | Electrolytic |
| <u>C852</u> | ł | · · · · · · · · · · · · · · · · · · · | п | 11 |

| COILS & TRANSFORMERS | | | | | |
|----------------------|-------------------|----------------|--|--|--|
| Ref. No. | Description | Mfr's Part No. | | | |
| L601a,b | Choke Coil 1µH | 35199006 | | | |
| | Power Transformer | 35900332 | | | |

Q,

Q

| DIODES | | | |
|----------|--------------|------------------------|----------------|
| Ref. No. | Type No. | Manufacturer | Mfr's Part No. |
| D601a,b | RD24E-B | NEC | 30600781 |
| D602a,b | 1\$2473 | Toyo Electronics Corp. | 30601781 |
| D603a,b | 1\$\$82 | Hitachi Ltd. | 30601201 |
| D604a,b | u | u | u |
| D605a,b | 1\$2473 | Toyo Electronics Corp, | 30601781 |
| D606a,b | STV-2H | Sanken | 30601611 |
| D607a,b | 1\$2473 | Toyo Electronics Corp. | 30601781 |
| D608a,b | п | и | u |
| D609a,b | н | u | н |
| D610a,b | н | н | н |
| D611a,b | 1 \$ 2 4 7 1 | н | 30601771 |
| D612a,b | 11 | 51 | в |
| D613a,b | V06C | Hitachi Ltd. | 30600030 |
| D614a,b | н | n | n |
| D615a,b | 1\$2473 | Toyo Electronics Corp. | 30601781 |
| D616a,b | н | | н |
| D617a,b | u | 11 | u |
| D618a,b | 11 | 11 | u |
| D619a,b | н | | n |

| Ref. No. | Type No. | Manufacturer | Mfr's Part No. |
|----------|------------------|------------------------|--------------------|
| D620 | 1 \$2473 | Toyo Electronics Corp. | 30601781 |
| D622 | 1\$2471 | Toyo Electronics Corp. | 30601771 |
| D623a,b | 1\$2473 | н | 30601781 |
| D651a,b | STV-3H | Sanken | 30600881 |
| D701 | LED PR5535S | Stanley | 30601631 |
| D702 | 1\$2473 | Toyo Electronics Corp. | 30601781 |
| D703 | LED PG5535SX | Stanley | 30601621 |
| D704 | n | п | 11 |
| D705 | 11 | п | u |
| D706 | 4 | ił | и |
| D707 | n | в | н |
| D708 | LED PR5535S | в | 30601631 |
| D709 | V06C | Hitachi Ltd. | 30600030 |
| D710 | и | n | 14 |
| D711 | LED PG5535SX | Stanley | 30601621 |
| D712 | н | II | 11 |
| D713 | H . | n . | H |
| D714 | a a | п | П |
| D715 | н | 11 | n |
| D751 | LED BU1140 | Stanley | 30601641 |
| D851 | S25VB40(S15VB20) | Shindengen | 30601101 (30601601 |

| IC | | | | |
|----------|-----------|--------------|----------------|--|
| Ref. No. | Type No. | Manufacturer | Mfr's Part No. | |
| IC701 | TA7318P-2 | Toshiba | 30900650 | |

| RELAY | | |
|----------|-------------------|-----------------|
| Ref. No. | Description | ´Mfr's Part No. |
| RE601 | MY4-02US-SN2DC48V | 82000220 |

(): For model 300 only

19

| | ÷. | |
|-------------|-----------|-----|
| | 1. an | ÷., |
| •••• ••• | | |
| | | |

| RESISTORS | 75 (st | | | |
|-----------|---------------------------------------|----------------|------------------|----------|
| Ref. No. | Value (ohm) | Wattage (W) | Tolerance (%) | Material |
| R601a,b | 3.3k | 1/4 | ±5 | Carbon |
| R602a,b | · 13K | 1/2 | н | н |
| R603a,b | 30k | · · · · · | 0 | · 11 |
| R604a,b | 220(330) | н | u | " |
| R605a,b | 22k | 11 | u | н |
| R606a,b | 3.3k | · u | н | н |
| R607a,b | 470 | u | 11 | н |
| R608a,b | 2.2k | и | u | н |
| R609a,b | . 11 | а | и | и |
| R610a,b | 220(330) | u | u | n |
| R611a.b | 6.2k(3.9K) | 2 | п | Metal |
| R612a,b | 1.8k | 1/2 | n | Carbon |
| R613a,b | u | н | u | п |
| R614a,b | u . | н | | п |
| R615a,b | u | n | 11 | п |
| R616a,b | 100 | н | n | н |
| R617a,b | u i | н | D | 11 |
| R618a,b | 1k | u - | 11 | (1 |
| R619a,b | n i | н | 0 | u |
| R620a,b | 10 | н | 41 | u |
| R621a,b | н | н | 11 | н |
| R622a,b | 22k | н | 11 | 0 |
| R623a,b | 220 | н | н | н |
| R624a,b | 33 | н | н | |
| R625a,b | 11 | u | 0 | u |
| R626a,b | u . | н | n | u |
| R627a,b | 0.47 | 2 (3) | u | Metal |
| R628a,b | и | " (") | 11 | и |
| R629a,b | 11 | " (") | - 44 - E | н |
| R630a,b | п | " (") | н | u |
| R631a,b | 0.47(Not Used) | 11 | 17 | n |
| R632a,b | · · · · · · · · · · · · · · · · · · · | н | н | u |
| R633a,b | и (п) | 11 | u | u |
| R634a,b | | н | н | н |

| Ref. No. | Value (ohm) | Wattage (W) | Tolerance (%) | Material |
|----------|----------------|----------------|------------------|----------|
| R635a,b | lk | 1/2 | ±5 | Carbon |
| R636a,b | н | н | u u | u |
| R637a,b | н | н | u | u |
| R638a,b | u | и | 11 | u |
| R639a,b | 4.7k(6.2k) | и | u | н |
| R640a,b | 11 (11) | н | u | n |
| R643a,b | 330(220) | н | u | н |
| R644a,b | " (к) | н | н | |
| R645a,b | 20 | 3 | 0 | Meta] |
| R646a,b | u | н | 11 | 0 |
| R647a,b | 10 | 2 | н | 11 |
| R648a,b | 10k | 1/2 | н | Carbon |
| R649a,b | 30k | н | и | ш |
| R650a,b | и | н | n | 11 |
| R651a,b | 68k | н | п | 0 |
| R652a,b | 10k | н | н | n |
| R653a,b | 2.2k(1.6k) | 11 | 11 | u |
| R654a,b | "(") | н | 41 | н |
| R655a,b | " (") | 11 | 11 | 11 |
| R656a,b | 47k | 11 | u | н |
| R657 | . 68k | н | u | н |
| R658 | 11 | н | н | н |
| R659 | 10k | 11 | н | н |
| R660 | н | п | н | и |
| R661 | 330k | н | ш | н |
| R662 | 11 | н | 11 | н |
| R663 | 1.6k(820) | 2 | n n | Metal |
| R664 | 51k(68k) | 1/2 | H · · · | Carbon |
| R665 | 22k | 11 . | 11 | п |
| R666a,b | 1.5k | 11 | u - | 11 |
| R667 | 100 | u | u u | п |
| R668a,b | 220 | п | n | 11 |
| R669a,b | 1k | 1/4, 1/2 | n | 11 |
| R670a,b | 1.5k | | u | п |
| R671a,b | n | 11 | u | н |

ſ

.

0



| Ref. No. | Value (ohm) | Wattage (W) | Tolerance (%) | Material |
|----------|----------------|----------------|------------------|-----------|
| R701 | 3.3k(2.2k) | | ±5 | Metal |
| R702 | 10k | 1/4 | | Carbon |
| R703 | ц | Ш | u | " |
| R704 | 39k(30k) | u | n | |
| R705 | "(") | н | н | 14 |
| R706 | 12k | Н | u | |
| R707 | 4.7k | 24 | 11 | п |
| R708 | 3.3k | н | 11 | u |
| R709 | 1k | п | u | н |
| R710 | н | н | n | н |
| R711 | 11 | н | u | n |
| R712 | u | н | n | и |
| R713 | 41 | н | n | н |
| R714 | 4.7k | н | | 57 |
| R715 | 6.8k | и | н | 11 |
| R716 | 10k | n | u | 11 |
| R717 | п | ** | ti | •• |
| R718 | | п | n | 11 |
| R719 | 390 | н | 0 | 11 |
| R720 | 510 | н | и | e1 |
| R721 | n | н | n | Ħ |
| R722 | 560 | n | n | u |
| R723 | 100 | н | 41 | и |
| R724 | 10k | 11 | ¥4 | u |
| R725 | 3.3k | n | ¥1 | п |
| R726 | 390 | u | 11 | н |
| R727 | 510 | 11 | u | п |
| R728 | n | u | u . | Ш |
| R729 | 560 | 11 | u | Ш |
| R730 | 100 | 11 | 11 | u |
| R731 | 10k | 18 | 64 | u |
| R732 | 4.7k | n | 11 | u |
| R733 | 6.8k | н | 11 | |

| RESISTORS | RESISTORS | | | | |
|-----------|----------------|----------------|------------------|----------|--|
| Ref. No. | Value (ohm) | Wattage (W) | Tolerance (%) | Material | |
| R734 | 10k | 1/4 | ±5 | Carbon | |
| R735 | u | н | | п | |
| R736 | u | 11 | u | | |
| R737 | 1k | 11 | u | н | |
| R738 | и | н | u | 11 | |
| R739 | и | 11 | ii ii | 66 | |
| R740 | н | 11 | п | п | |
| R741 | n | 11 | | 11 | |
| R742 | п | 1/2 | 11 | н | |

 \bigcirc

(

| SWITCHES | | |
|----------|----------------------|----------------|
| Ref. No. | Description | Mfr's Part No. |
| SW-1 | Power Push ESB-9929S | 27200128 |
| SW-2 | Thermal UK-3 90°C | 30700210 |
| SW-3 | n | |
| SW-4 | Mono Slide | 27300008 |

| Ref. No. | Type No. | Manufacturer | Mfr's Part No. | Sub | stitute |
|----------|-----------|--------------|----------------|--------------------------|--------------|
| | 1946 1101 | Handraccurer | | Type No. | Manufacturer |
| TR601a,b | 2SC2259 | Mitsubishi | 30201521 | | |
| TR602a,b | 2SC945 | NEC | 30201031 | 2SC1815 | Toshiba |
| TR603a,b | 2SA949 | Toshiba | 30000691 | 2SA912 | Matsushita |
| TR604a,b | н | п | н | н | |
| TR605a,b | 2SC1953 | Matsushita | 30201221 | 2SD758 | Hitachi |
| TR606a,b | 2SA914 | п | 30000493 | 2SB718 | u |
| TR607a,b | н | н | 16 | 16.1 | |
| TR608a,b | 2SC1953 | н | 30201221 | 2SD758 | n |
| TR609a,b | 2SA1103S | Sanken | 30000721, | tre ut <u>a</u> trans | |
| TR610a,b | 2SC2578S | н | 30201531 | | |
| TR611a,b | 2SC945 | NEC | 30201031 | 2SC1815 | Toshiba |
| TR612a,b | 2SA733 | п | 30000425 | 2SA1015 | 11 |

.



| TRANSISTOR | S | | | | |
|------------|----------------------|--------------|----------------|----------|--------------|
| Ref. No. | Type No. | Manufacturer | Mfr's Part No. | Subs | stitute |
| Net. No. | Type no. | handractarer | | Туре No. | Manufacturer |
| TR613a,b | 2SA733 | NEC | 30000425 | 2SA1015 | Toshiba |
| TR614a,b | 2SC945 | 41 | 30201031 | 2SC1815 | u |
| TR615a,b | 2SA733 | 11 | 30000425 | 2SA1015 | . H |
| TR616a,b | 2SC945 | n | 30201031 | 2SC1815 | 11 |
| TR617a,b | 2SA970 | Toshiba | 30000673 | 2SA872 | Hitachi |
| TR618a,b | 2SC2240 | n | 30201483 | 2SC1775 | u |
| TR619a,b | 2SA970 | н | 30000673 | 2SA872 | 11 |
| TR620 | 2SC2240 | u | 30201483 | 2SC1775 | н |
| TR621 | n | и | U I | 11 | 11 |
| TR622 | 2SA970 | | 30000673 | 2SA872 | u |
| TR623 | 2SD438 | Sanyo | 30300251 | 2SC1509 | Matsushita |
| TR624 | 2SC2240 | Toshiba | 30201483 | 2SC1775 | Hitachi |
| TR625 | 2SD438 | Sanyo | 30300251 | 2SC1509 | Matsushita |
| TR65la,b | 2SB554 | Toshiba | 30100173 | 2SB600 | NEC |
| TR652a,b | 2SD424 | ш | 30300423 | 2SD555 | н |
| TR653a,b | 2SB554 | ŧi | 30100173 | 2SB600 | 11 |
| TR654a,b | 2SD424 | u | 30300423 | 2SD555 | u |
| TR655a,b | 2SB554 (Not Used) | 44 | 30100173 | 2SB600 | 0 |
| TR656a,b | 2SD424 (Not Used) | 11 | 30300423 | 2SD555 | 11 |
| TR657a,b | 2SB554 (Not Used) | 11 | 30100173 | 2SB600 | 11 |
| TR658a,b | 2SD424 (Not Used) | n | 30300423 | 2SD555 | |
| TR701 | 2SB642 | Matsushita | 30100131 | | |
| TR702 | 2SD637 | | 30300401 | 1 | |
| TR703 | u | 11 | н | | |
| TR704 | | н | n | | |
| TR705 | в | 39 | u | | |
| TR706 | n | н | n | | |
| TR707 | H . | ** | u | | |
| TR708 | | н | 11 | | |

| TRANSISTORS | | | | | | |
|-------------|----------|--------------|-----------------------------|----------|--------------|--|
| Ref. No. | Type No. | Manufacturer | Manufacturer Mfr's Part No. | | stitute | |
| | | nunuruccurer | nir state io. | Type No. | Manufacturer | |
| TR709 | 2SD637 | Matsushita | 30300401 | | | |
| TR710 | 11 | н | н | | | |
| TR711 | н | 11 | u | | | |
| TR712 | 11 | u - | н | | | |
| TR713 | u | | n | | | |
| TR714 | н | | u | | ļ | |
| TR715 | п | Ð | u | | | |

| VARIABLE RES | ISTORS | | · · · · |
|--------------|--------------------------------|------|----------------|
| Ref. No. | Description | | Mfr's Part No. |
| VR601a,b | Power TR Idling Current Adjust | 220Ω | 28107221 |
| VR651a,b | Input Level Control | 10k | 28000178 |
| VR701 | CH 1 LED Indicator Cal. | 4.7k | 28108472 |
| VR702 | CH 2 LED Indicator Cal. | 4.7k | |

 \bigcirc

| Description | Model 600 Mfr's Part No. | Model 300 Mfr's Part No |
|------------------------------|-----------------------------|----------------------------|
| Heat Sink No.39 | 15101001 | Same as Model 600 |
| Heat Sink IC-2435-ST | 15122001 | П |
| Connector Plug 18Pin | 87218026 | u |
| Connector Plug 3Pin | 87203026 | П |
| Connector WBP-1020013L | 87213020 | п |
| Rear Panel | 11312001 | 11311C01 |
| Cord Stopper SR-5L-1 | 74129001 | Same as Model 600 |
| XLR Type Connector HA16PR-3S | 33032100 | п |
| XLR Type Connector HA16R-3S | 33032200 | п |
| 5 Way Terminal | 53022710 | а II |
| Dual Phone Jack | 33031400 | a |
| Fuse Holder FH033 | 34065001 | П |
| AC Cord | 62010012 | н |
| PCB Fit Metal | 63441001 | n |

25

...



| Description | Model 600 Mfr's Part No. | Model 300 Mfr's Part No. |
|-----------------------------|-----------------------------|-----------------------------|
| Cushion Sponge | 74186001 | Same as Model 600 |
| Terminal 3P | 53032610 | " |
| Resin Foot | 74038001 | |
| Wire Connector 3.5-R4 | 19111001 | н |
| Lug M3 | 51036001 | н |
| Handle | 19103001 | 19102001 |
| Top Plate | 70036001 | Same as Model 600 |
| Bottom Plate | 05061001 | " |
| Push Knob | 29370001 | IF. |
| VR Knob | 29366001 | н |
| TR Socket M1609 | 34059001 | н |
| Side Angle L A | 63444001 | н |
| Side Angle L B | 63445001 | n |
| Side Angle R A | 63442001 | н |
| Side Angle R B | 63443001 | и |
| Fuse 250V 6.3A | 38444263 | Not Used |
| Fuse 250V 3.15A | Not Used | 38440231 |
| Main Chassis | 01109001 | 01108001 |
| Heat Sink C | 15121001 | Not Used |
| Front Panel | 10312C01 | 10311C01 |
| Heat Sink A L | 15116001 | 15118001 |
| Heat Sink B L | 15115001 | 15120001 |
| Heat Sink A R | 15113001 | 15117001 |
| Heat Sink B R | 15114001 | 15119001 |
| TR Cover | 70035001 | 70034001 |
| AC Connector Socket 3P | 34091001 | Same as Model 600 |
| AC Cord with Connector Plug | 62010015 | 11 |

SCHEMATIC DIAGRAM



FOSTEX CORPORATION TOKYO, JAPAN

۰

en de la p

Authorized Distributor