

## MODEL 300-2

### TWO TRACK STEREOPHONIC MAGNETIC TAPE RECORDER

The AMPEX Model 300-2 is a two-channel, two speed console tape recorder, utilizing 1/4-inch tape, and operating at 7-1/2 and 15 inches per second tape speed. The unit has been designed for Stereophonic Recording and provides for simultaneous erase, record, and playback of two channels. This is not a standard production item, so these instructions apply to this machine only.

The specifications and operating procedures for each track of the Model 300-2 are identical to those of the Model 300.

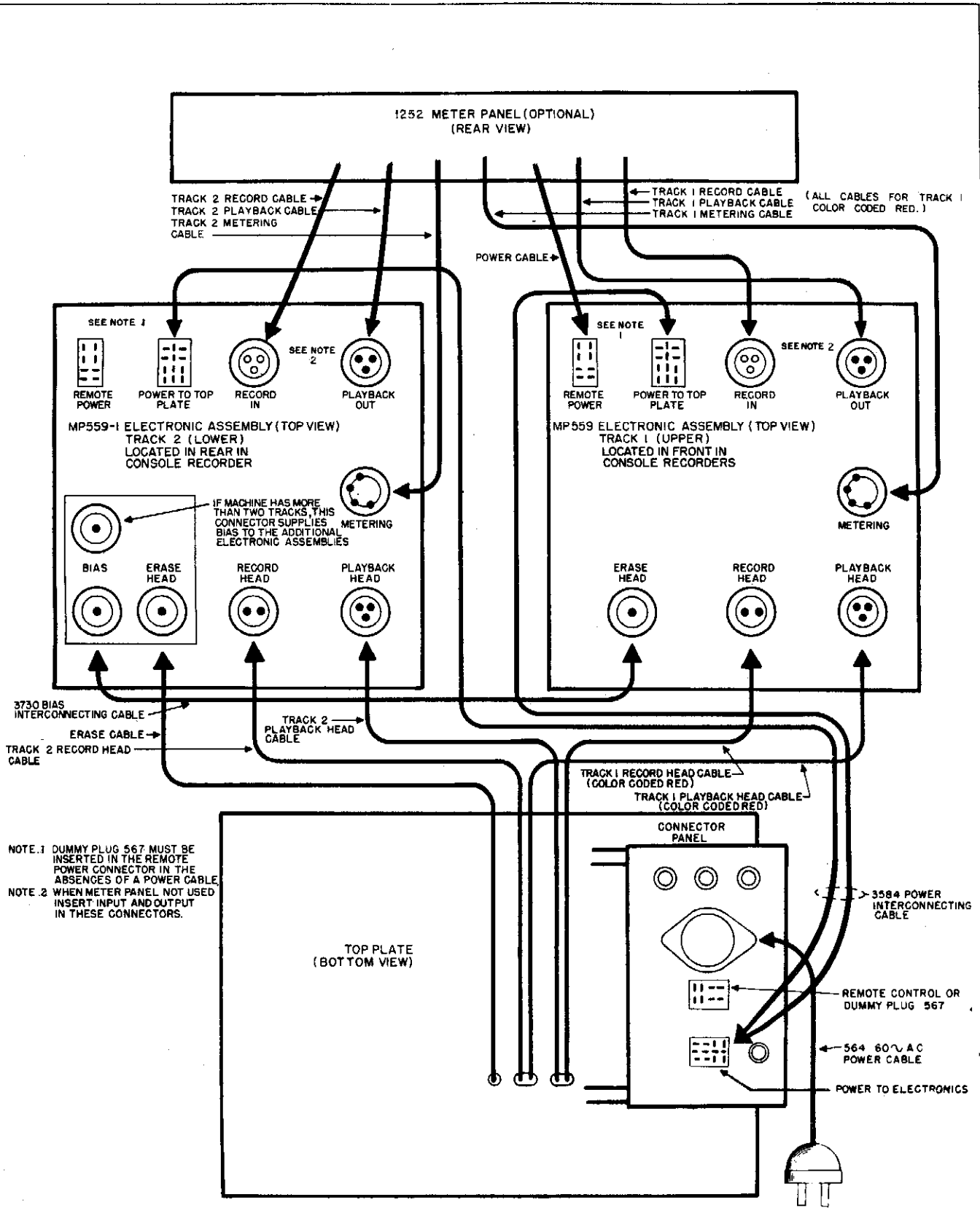
The following components are supplied:

1. One Catalog #511 Model 300 Tape Transport. A special dual track Stereophonic Head Assembly is used. This head is designed so that the time error between the tracks does not exceed 134 microseconds. The two record heads are in one stack with number one being at the top and number two at the bottom, or nearest the top plate. The playback head has similar stacking. A standard full track Model 300 erase head is used.
2. One Catalog #559 Model 300 Master Electronic Assembly. This unit incorporates the standard erase and bias oscillator (Figure 6).
3. One Catalog #4440 Model 300 Slave Electronic Assembly. This unit is identical to the #559 electronic assembly, except the erase and bias oscillator has been replaced with a bias buffer amplifier (Figure 6A). The input of the buffer amplifier (the connector labeled BIAS) receives the bias signal through the Bias Interconnecting Cable from the Erase Head Connector on the #559 Master electronic chassis. The buffer amplifier amplifies this signal to provide bias current to the second record head.
4. One Catalog #3584-1 Power Interconnecting Cable.
5. One Catalog #3730 Bias Interconnecting Cable.
6. One Catalog #564 A. C. Power Cord.

The units are to be interconnected as indicated in Figure 11.

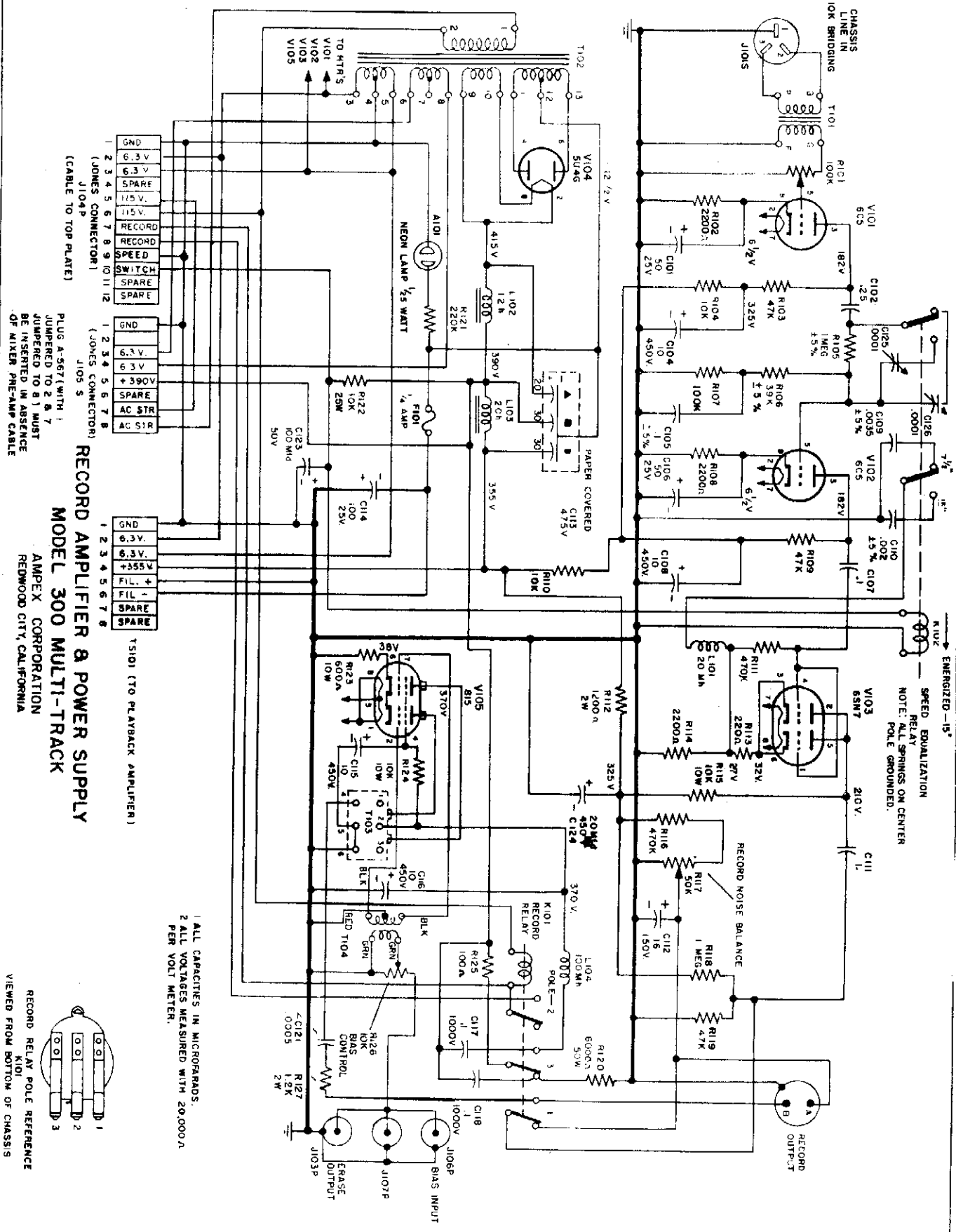
The fuse requirements for the Model 300-2 are as follows:

<u>Schematic</u> <u>Ref. No.</u>	<u>Description</u>	<u>Ampex</u> <u>Part No.</u>	<u>Fuse</u> <u>Location</u>
F801	8 Amp. 250 Volt	FU-6	Top Plate
F802	8 Amp. 250 Volt	FU-6	Top Plate
F803	5 Amp. 250 Volt	FU-5	Top Plate



INTER UNIT CONNECTION DIAGRAM  
MODEL 300 DUAL TRACK  
AMPEX ELECTRIC CORPORATION  
REDWOOD CITY, CALIFORNIA

FIG. 6A



(JONES CONNECTOR)  
 1 GND  
 2 6.3 V  
 3 6.3 V  
 4 SPARE  
 5 115 V  
 6 RECORD  
 7 RECORD  
 8 SPEED  
 9 SWITCH  
 10 SPARE  
 11 SPARE  
 12 SPARE

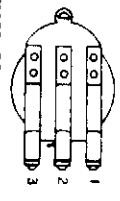
(JONES CONNECTOR)  
 1 GND  
 2 6.3 V  
 3 6.3 V  
 4 +390V  
 5 SPARE  
 6 AC STR  
 7 AC STR

**RECORD AMPLIFIER & POWER SUPPLY**  
**MODEL 300 MULTI-TRACK**

AMPEX CORPORATION  
 REDWOOD CITY, CALIFORNIA

T101 (TO PLAYBACK AMPLIFIER)

1 ALL CAPACITIES IN MICROSECONDS.  
 2 ALL VOLTAGES MEASURED WITH 20,000 Ω PER VOLT METER.



RECORD RELAY POLE REFERENCE  
 K101  
 VIEWED FROM BOTTOM OF CHASSIS

SPEED EQUALIZATION  
 RELAY  
 NOTE: ALL SPRINGS ON CENTER  
 POLE GROUNDED.

ENERGIZED -15"

C111

L

RECORD NOISE BALANCE

R116

470K

R117

50K

C112

15

150V

R118

1 MEG

R119

47K

R120

6000 Ω

55W

R121

0.005

R127

1.2K

2W

C117

1

1000V

R125

100 Ω

R126

10K

R127

1.2K

2W

C118

1000V

J103P

ERASE OUTPUT

J107P

BIAS INPUT

J106P

1000V

C118

1000V

R127

1.2K

2W

C121

0.005

R127

1.2K

2W

C117

1

1000V

R125

100 Ω

R126

10K

R127

1.2K

2W

C118

1000V

J103P

ERASE OUTPUT

J107P

BIAS INPUT

J106P

1000V

C118

1000V

R127

1.2K

2W

C121

0.005

R127

1.2K

2W

C117

1

1000V

R125

100 Ω

R126

10K

R127

1.2K

2W

C118

1000V

J103P

ERASE OUTPUT

J107P

BIAS INPUT

J106P

1000V

C118

1000V

R127

1.2K

2W

C121

0.005

R127

1.2K

2W

C117

1

1000V

R125

100 Ω

R126

10K

R127

1.2K

2W

C118

1000V

J103P

ERASE OUTPUT

J107P

BIAS INPUT

J106P

1000V

C118

1000V

R127

1.2K

2W

C121

0.005

R127

1.2K

2W

C117

1

1000V

R125

100 Ω

R126

10K

R127

1.2K

2W

C118

1000V

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ERASE OUTPUT

J107P

BIAS INPUT

J106P

1000V

C118

1000V

R127

1.2K

2W

C121

0.005

R127

1.2K

2W

C117

1

1000V

R125

100 Ω

R126

10K

R127

1.2K

2W

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C118

1000V

J103P

ERASE OUTPUT

J107P

BIAS INPUT

J106P