

MODEL 350-2

MAGNETIC TAPE RECORDER

The Ampex Model 350-2 is a dual track audio tape recorder for recording and playing back stereophonic signals in which the crosstalk between channels is not critical. The overall performance and operation are similar to a Model 350.

The Model 350-2 differs from a Model 350 in the following manner:

1. The Model 350-2 is available as a three case portable or for rack mounting. When rack mounted, it occupies 36 3/4 inches of rack space.
2. A special head assembly has been incorporated. In place of the record head, an assembly consisting of two heads of multi-channel design has been made in which one head is stacked above the other, with the two gaps in line. One of these heads covers the upper portion of the tape, the other head covers the lower portion. A similar assembly has been incorporated in place of the standard playback head. Thus it is possible to record, playback, and monitor two channels simultaneously. The standard erase head is provided.
3. A catalog number 5701 or 5701-1 Electronic Chassis (Figure 1 or 2) is supplied for Track #1 (upper track). This assembly incorporates the standard erase and bias oscillator. A catalog number 5701-2 or 5701-3 Electronic Chassis (Figure 1A or 2A) is supplied for Track #2 (lower track). This assembly is identical to the Track #1 Electronic Chassis, except the erase and bias oscillator has been replaced with a bias buffer amplifier. The input of the buffer amplifier (the connector labelled Bias J412P) receives the bias signal through a Bias Interconnecting Cable connected to the Erase Head Connector on the Track #1 Electronic Chassis. The buffer amplifier amplifies the bias signal to provide the bias current for the Track #2 record head. The Erase head is connected to the Erase Head Connector on the Track #2 Electronic Chassis.
4. The Installation and Operation Procedures for each track of the Model 350-2 are identical to that of the Model 350. Rack mount installation should be made in the following order, from top to bottom: Power Supply No. 1, Power Supply No. 2, Mechanical Assembly, Track #1 Electronic Assembly, Track #2 Electronic Assembly. The head cables for Track #1 are color-coded red. The fuse, F402 in the Track #1 Electronic Assembly has been increased to 5 amperes to accommodate the additional load of the Track #2 Electronic Assembly.

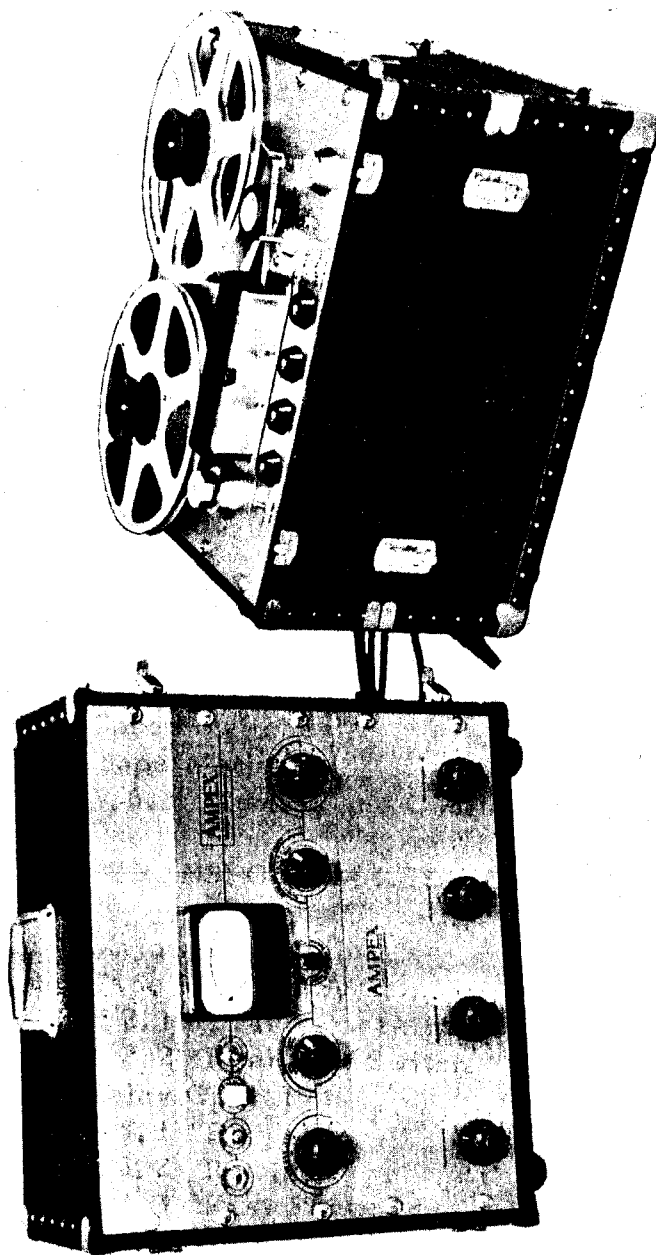
SPECIAL INSTRUCTIONS FOR MODEL 350-2

When adjusting the erase and bias on the Model 350-2, interaction between the units makes necessary a series of adjustments and readjustments until a state of balance has been attained.

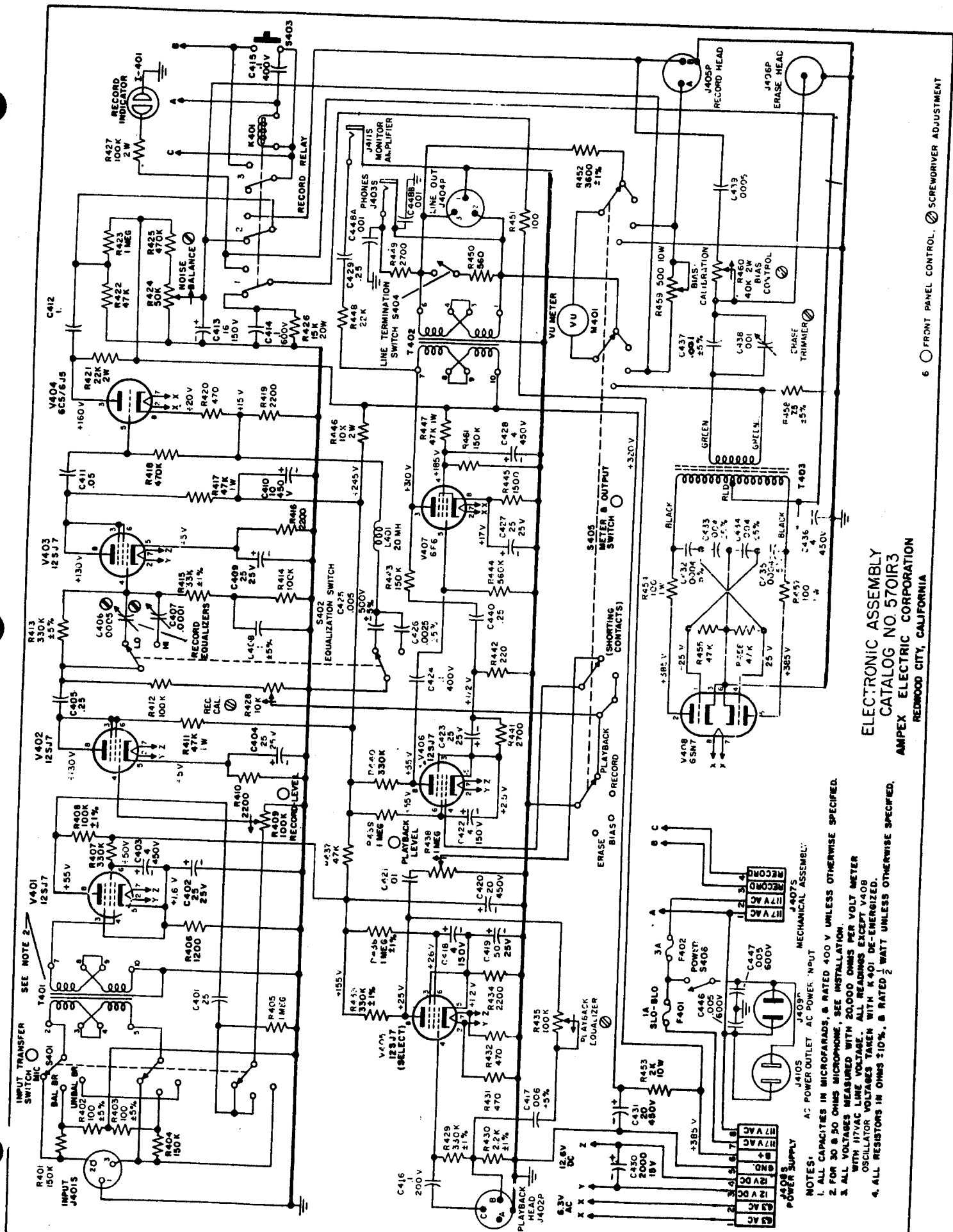
- a. Turn R460, BIAS control, on the Slave Electronic Assembly full counterclockwise.
- b. Adjust the Master Erase (C438) to approximately zero on the VU meter, as described in steps 1 and 2 which follow.
- c. Adjust the Master Bias (R460) as described in steps 3, 4, 5, and 6 which follow.
- d. Adjust the Slave Bias (R460) as described in steps 3, 4, 5, and 6 which follow.
- e. Recheck the Master erase and Master bias. If necessary, repeat the entire procedure until the proper operating levels for the erase and bias are attained.

CAUTION

C444 in the Slave Electronic Assembly, in conjunction with one winding of T403, provides a second harmonic trap. The adjustment of this circuit has been made at the factory, and the setting of C444 should not be changed. If any change were made, it is possible that the circuit would resonate at the fundamental frequency (90 KC). This would result in insufficient voltage to properly bias the record head.



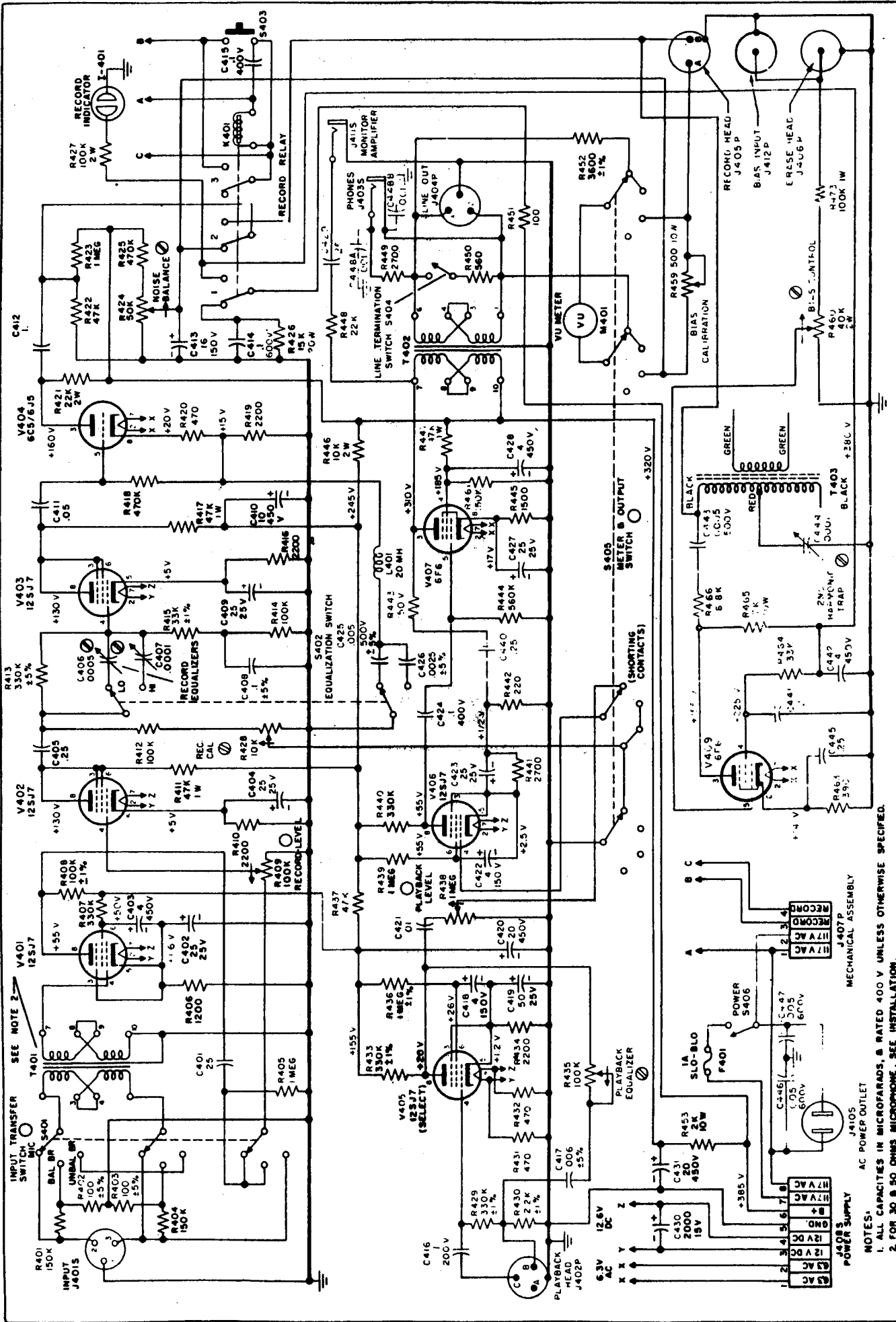
MODEL 350 TWO CASE PORTABLE
(WITH FOUR CHANNEL MIXER)
AMPEX ELECTRIC CORPORATION
REDWOOD CITY, CALIFORNIA



ELECTRONIC ASSEMBLY
 CATALOG NO 570IR3
 AMPEX ELECTRIC CORPORATION
 REDWOOD CITY, CALIFORNIA

- NOTES:
1. ALL CAPACITIES IN MICROFARADS, & RATED 400 V UNLESS OTHERWISE SPECIFIED.
 2. FOR 30 & 50 OHMS MICROPHONES, SEE INSTALLATION.
 3. ALL VOLTS ARE MEASURED WITH 20,000 OHMS PER VOLT METER WITH 117VAC LINE VOLTAGE. ALL READINGS EXCEPT V408 OSCILLATOR VOLTAGES TAKEN WITH K401 DE-ENERGIZED.
 4. ALL RESISTORS IN OHMS ±10%, & RATED 1/2 WATT UNLESS OTHERWISE SPECIFIED.

FIG. 1



ELECTRONIC ASSEMBLY WITH BIAS BUFFER AMPLIFIER
CAT. NO. 5701R3-2
AMPEX ELECTRIC CORPORATION
REDWOOD CITY, CALIFORNIA

- NOTES:
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 2. FOR 30 & 50 OHMS MICROPHONE, SEE INSTALLATION.
 3. ALL VOLTAGES MEASURED WITH 20,000 OHMS PER VOLT METER WITH 117VAC LINE VOLTAGE. ALL READINGS EXCEPT V409 AMPLIFIER VOLTAGES TAKEN WITH K401 DE-ENERGIZED.
 4. ALL RESISTORS IN OHMS ±10%, & RATED 1/2 WATT UNLESS OTHERWISE SPECIFIED.

FIG. 1A