

NOTE

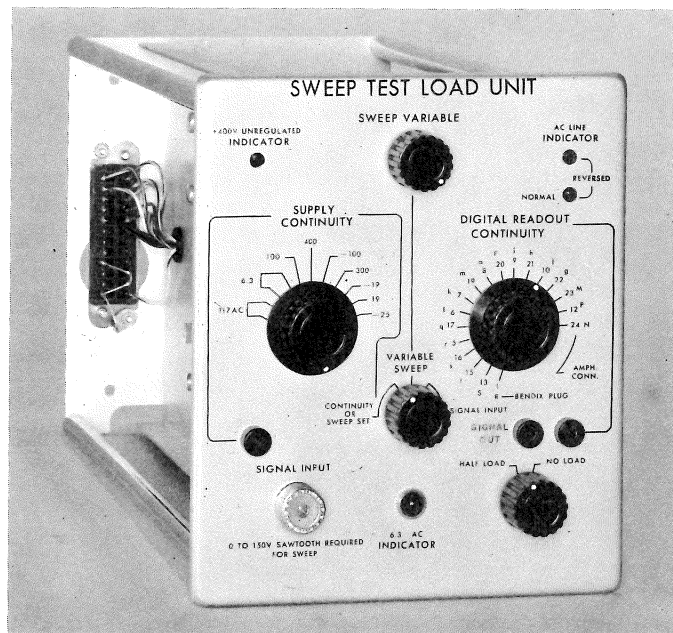
067-0066-00 Test Load Units are not required  
for calibration of 661's in the field.

John Mulvey  
Product Technical Information  
January, 1967

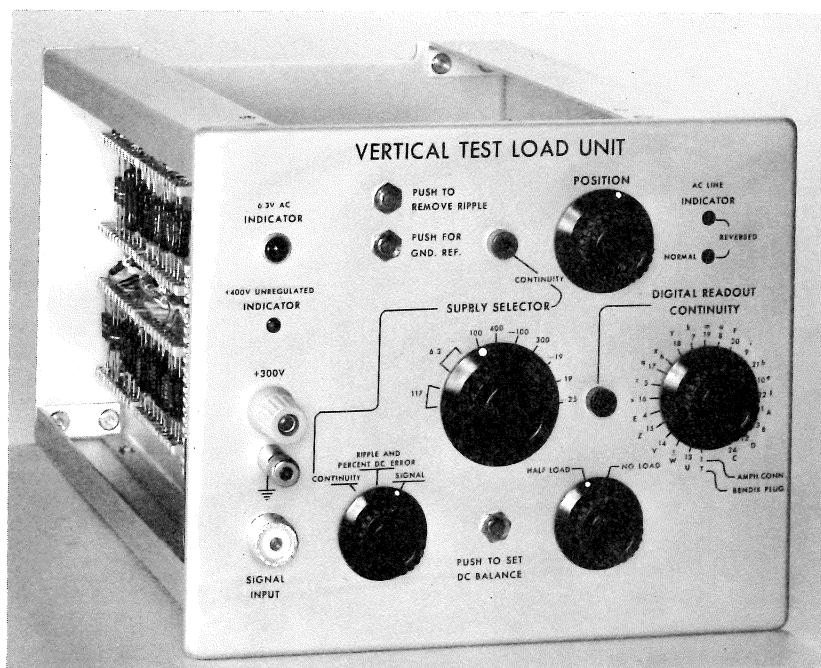
067-0066-00

# 661 TEST PLUG-IN UNITS

SUPPLIED IN PAIRS OF ONE SWEEP AND ONE VERTICAL UNIT



661 SWEEP TEST LOAD UNIT



661 VERTICAL TEST LOAD UNIT

661 TEST LOAD CALIBRATION PROCEDURE

EQUIPMENT REQUIRED

- 531A OR EQUIVALENT
- TYPE 'D' PLUG-IN UNIT
- TYPE 661 WITH VARIABLE POWER SUPPLIES
- SWEEP TEST LOAD
- VERTICAL TEST LOAD
- JOHN FLUKE DIFFERENTIAL VOLTMETER
- STANDARD SQUARE WAVE CALIBRATOR
- 25 KOHM  $\pm .1\%$  RESISTOR
- ACCURATE +100 V SOURCE

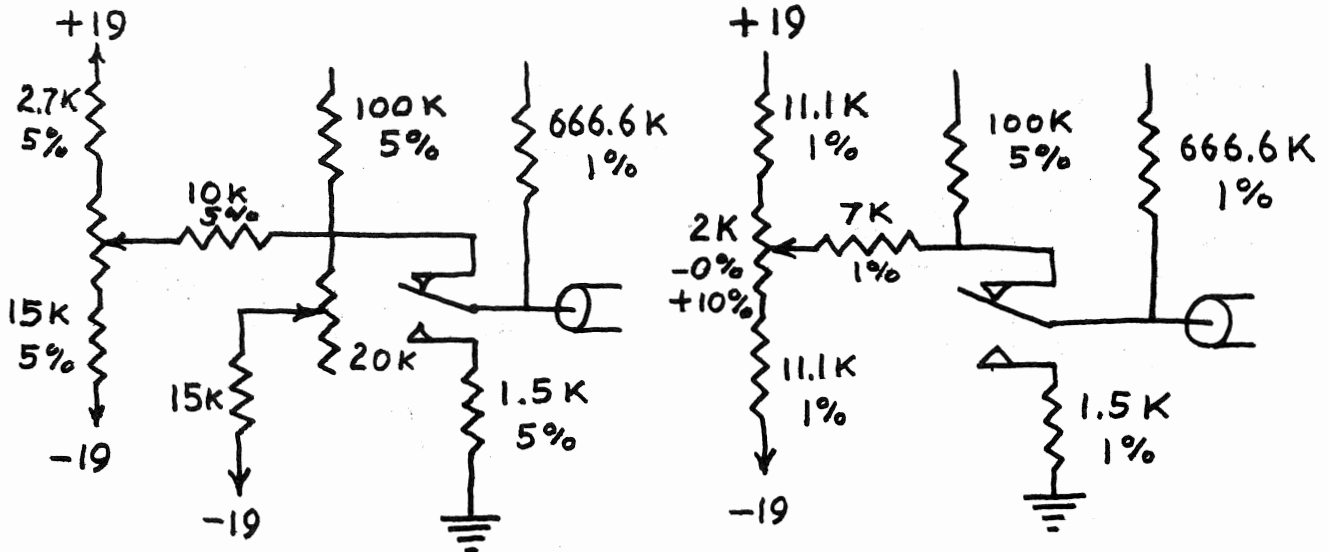
SUGGESTED MODIFICATIONS

VERTICAL:

1. CHANGE PUSH TO REMOVE RIPPLE SWITCH TO A TOGGLE SWITCH 260-0307-00.
2. CHANGE VERTICAL POSITION CIRCUIT.

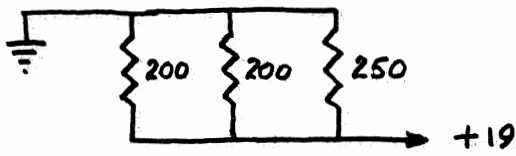
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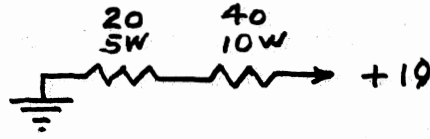


VERTICAL AND HORIZONTAL -  
CHANGE +19 LOAD RESISTORS

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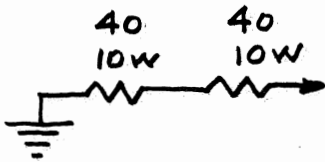


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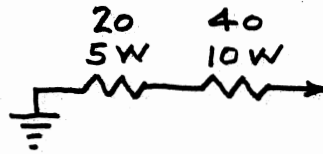


CHANGE -19 LOAD RESISTORS

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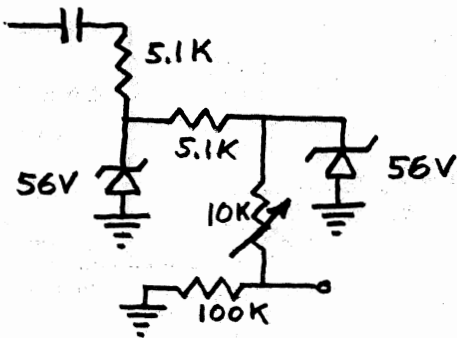


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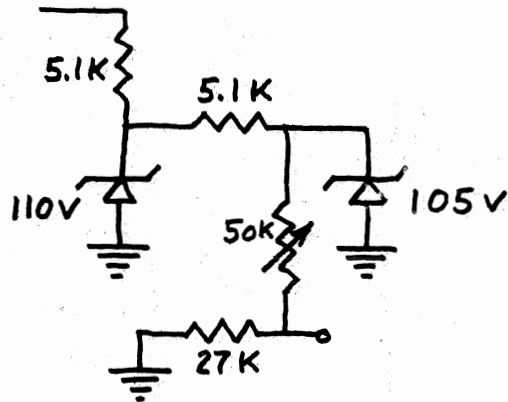


HORIZONTAL MODIFICATION

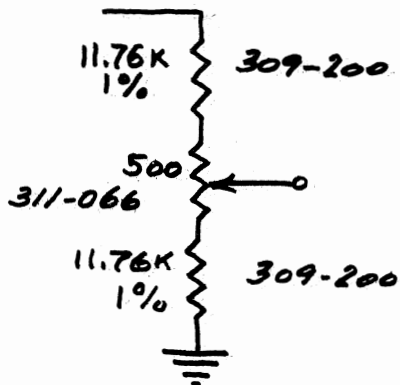
FROM:



OR



TO:



## CALIBRATION PROCEDURE

VERTICAL

INSTALL SWEEP TEST LOAD AND VERTICAL TEST LOAD IN 661.

SET LOAD SWITCH ON VERTICAL AND SWEEP TEST LOADS TO HALF LOAD. APPLY POWER (SET TO 117 V AC) AND ALLOW EQUIPMENT TO WARM UP FOR 15 MIN.

1. ADJUST POWER SUPPLIES IN 661 USING THE JOHN FLUKE VOLTMETER.
2. CONNECT THE OUTPUT OF THE STANDARD SQUARE-WAVE CALIBRATOR TO THE INPUT OF THE 'D' UNIT (D UNIT SET TO 1 MV/CM AC).
3. CONNECT THE UNK-IN OF THE STANDARD SQUARE-WAVE CALIBRATOR TO THE SIGNAL INPUT OF THE VERT. TEST LOAD.
4. SET THE SWITCHES ON THE STANDARD SQUARE-WAVE CALIBRATOR TO STD.; OFF; MIXED.
5. SET VERTICAL TEST LOAD UNIT FUNCTION SWITCH TO RIPPLE AND PERCENT D.C. ERROR.
6. SET RIPPLE SWITCH TO REMOVE RIPPLE.
7. SET 531A CONTROLS: TIME/CM 5 MILLISEC, + LINE, AUTO.
8. ADJ ZERO SET (IN THE VERTICAL TEST LOAD UNIT) OF EACH SUPPLY FOR NULL INDICATION ON TEST SCOPE.
9. REMOVE TEST LOAD FROM SCOPE.
10. CHECK GAIN DETERMINING RESISTOR (666.6 KOHM  $\pm$  1%) WITH AN ACCURATE RESISTANCE BRIDGE.
11. CHECK POWER SUPPLY LOAD RESISTORS WITH AN ACCURATE OHM METER.

HORIZONTAL

1. CONNECT A 25 KOHM  $\pm$  .1% RESISTOR FROM PIN 24 OF THE SUPPLY AMPHENOL CONNECTOR TO GROUND.
2. SET SWEEP FUNCTION SWITCH TO CONTINUITY OR SWEEP SET.
3. CONNECT AN ACCURATE +100 V DC TO THE SIGNAL INPUT CONNECTOR OF THE TEST LOAD UNIT.
4. MEASURE THE VOLTAGE FROM PIN 24 OF THE SUPPLY AMPHENOL CONNECTOR TO GROUND (USE FLUKE METER).
5. ADJUST SWP. CAL. IN TEST LOAD UNIT FOR EXACTLY +40 VOLTS INDICATION ON FLUKE METER.
6. MEASURE THE POWER SUPPLY LOAD RESISTORS IN TEST LOAD UNIT WITH AN ACCURATE OHM METER.