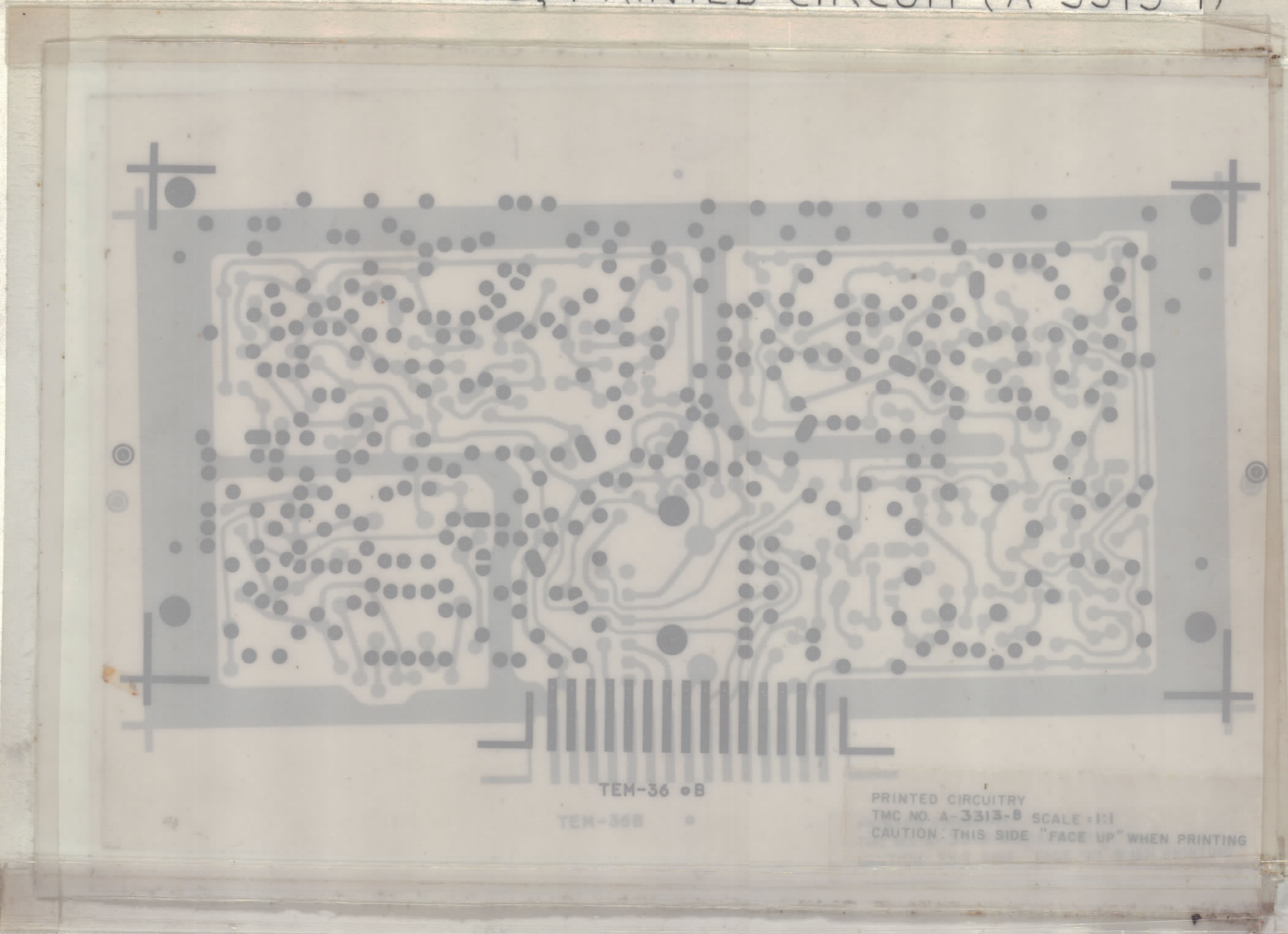


ETCHING, PRINTED CIRCUIT (A-3313-1)



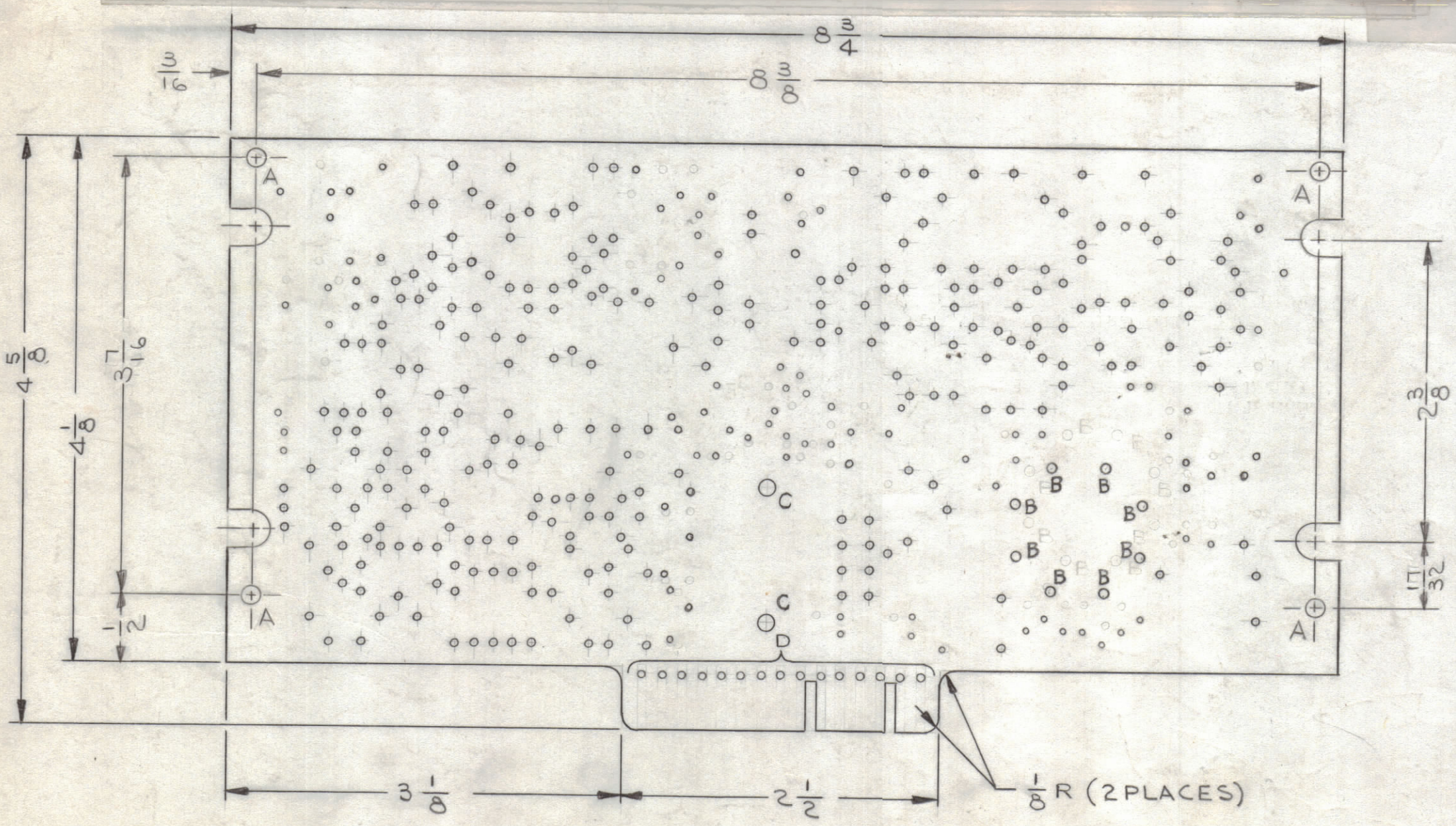
| REVISIONS | | | | | | |
|-----------|-----|--|----------|------------|-------|------|
| ZONE | SYM | DESCRIPTION | DATE | E.M.N. NO. | DRAFT | CHKD |
| | X1 | DELETED "A" HOLES | 7-1-64 | 1 | NP | |
| | X2 | ADDED "A" HOLES, MTG HOLES & SLOTS; REVISED NOTE-5 | 7/29/64 | 2 | JL | |
| | Ø | ORIGINAL RELEASE FOR PRODUCTION | 7-10-64 | | WJF | |
| - | A | SEE SHEET 2 OF 2 REV "A" | 10-29-64 | 12786 | WJF | |
| | B | HOLE CHART: UNMARKED DIA. WAS .050; A. DIA. WAS .166; SEE SHEET 2 OF 2 REV. "B". | 2-11-65 | 13224 | WJF | |

ORIGINAL ARTWORK TO BE REMOVED FROM PROTECTIVE POCKETS WHEN PHOTOGRAPHING. (NOTE DOUBLE POCKETS)

| HOLE & PAD SPECIFICATION | | | |
|--------------------------|--------------|-----------------|-------|
| HOLE | DIA | PAD DIA | REQ'D |
| UNMARKED | .040 | .130 | 366 |
| A | .161 TO .164 | .250 | 4 |
| B | .062 | .150 | 8 |
| C | .140 | .250 | 2 |
| D | .040 | CONTACT FINGERS | 15 |

NOTES:

- MATERIAL - G-10 EPOXY GLASS LAMINATE 3/32 THICK, 2 OUNCE COPPER CLAD BOTH SIDES.
- ALL BOARDS WILL BE DOUBLE-SIDED. WHENEVER A PAD APPEARS ON THE PRINTED CIRCUIT SIDE, A SIMILAR SIZE AND SHAPE SHALL APPEAR ON THE COMPONENT SIDE IN EXACT REGISTER. (EXCEPT WHERE AN EXCEPTION IS NOTED.)
- FINGER CONTACTS SHALL ALSO APPEAR ON THE COMPONENT SIDE OF BOARD AND SHALL BE CONNECTED WITH A .040 DIA. PLATED-THRU HOLE LOCATED IN THE CENTER OF EACH FINGER CONTACT .050" AWAY FROM THE MAIN BODY OF BOARD.
- THE PRINTED CIRCUIT BOARDS SHALL BE KEYED WITH SLOTS .070" WIDE & .400" HIGH LOCATED BETWEEN FINGER CONTACTS 9 & 10, 13 & 14 AS VIEWED FROM COMPONENT SIDE OF BOARD.
- (A) ALL HOLES ARE TO BE PLATED-THRU WITH MINIMUM COPPER PLATING THICKNESS OF .001.
(B) PLATE .0003 TO .0005 NICKEL & 25 MILLIONTHS MINIMUM OF GOLD ALL ETCHED SURFACES AND PLATED-THRU HOLES.



THE ORIGINAL ARTWORK TO BE SUPPLIED BY TMC FOR PHOTOGRAPHING. (SCALE 1:1)

MACHINING (A-3313-2)

DO NOT SCALE, WORK TO DIMENSIONS

REF: CK 707

| Q'TY./UNIT | MODEL USED ON | ASS'Y. NO. |
|------------|---------------|------------|
| 1 | LFS A-1 | AX-475 |
| SCALE | CODE | |
| 1:1 | A | |

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| REQ'D. | ITEM | PART NUMBER | DESCRIPTION | SYMBOL |
|--------------------------|------|--|-------------|----------------|
| GELLMAN LIST OF MATERIAL | | | | |
| MATERIAL | | SEE NOTE #1 | | |
| FINISH | | SEE NOTE #1 | | |
| | | THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK | | |
| | | TITLE PRINTED CIRCUIT BOARD ASSEMBLY (PHASE DETECTOR MODULE) | | |
| DRAWN | | DATE | | FINAL APPROVAL |
| J. LESHINSKI | | 11/19/63 | | |
| CHECKED | | DATE | | |
| WJF | | 7-10-64 | | |
| ELECT. DES. | | DATE | | |
| MECH. DES. | | DATE | | |
| | | A 3313 | | B |
| | | SHEET 1 OF 2 | | REV. LTR. |

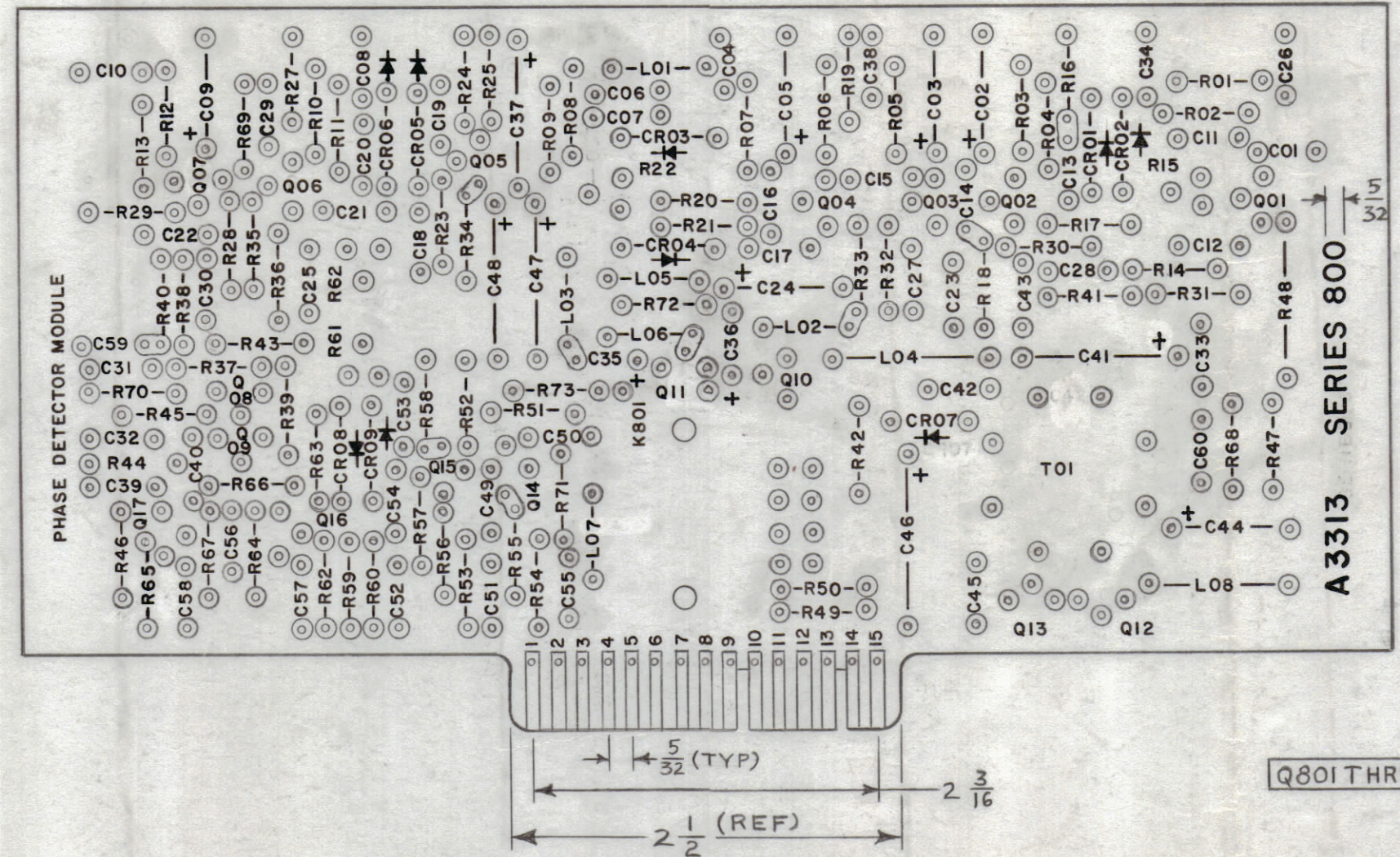
NOTES

A 3313 B

-UNLESS OTHERWISE SPECIFIED-

- 1- ALL LETTERING TO BE 5/64 HIGH BLACK GOTHIC, .010 STROKE LOCATED APPROX AS SHOWN.
- 2- MARKING PROCESS AS PER TMC SPEC S-727.

| REVISIONS | | | | | | |
|-----------|-----|--|----------|------------|-------|------|
| ZONE | SYM | DESCRIPTION | DATE | E.M.N. NO. | DRAFT | CHKD |
| | X1 | CHG ON SHT 1 | 7-1-64 | 1 | N.P. | |
| | X2 | SEE SHEET 1 OF 2 | 7-29-64 | 2 | JL | |
| | Ø | ORIGINAL RELEASE FOR PRODUCTION | 7-10-64 | | WB | |
| F2 | A | IT.45 WAS NTH04BNG, IT.49 WAS CC112 R474 | 10-29-64 | 12786 | WB | |
| | B | IT. 38 WAS 2N1637. SEE SHEET # 1, REV. B | 2-11-65 | 13224 | SL | |

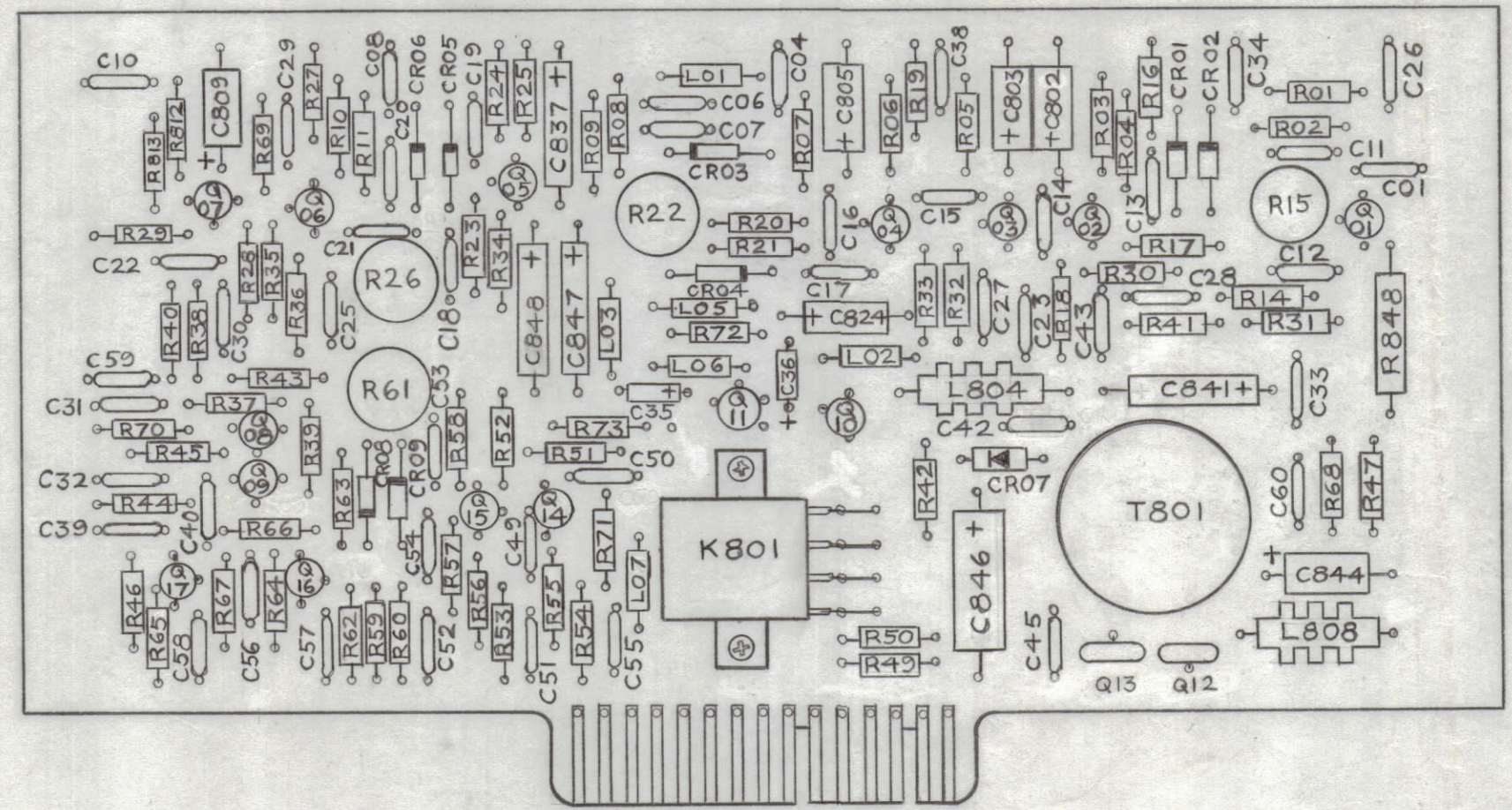


C 801, 804
806, 807, 819, 820
808, 810, 818, 823
817, 816, 815, 814
813, 812, 811, 826
827, 828, 838, 825
822, 831, 832, 840
839, 829, 830, 834
842, 843, 850, 851
852, 854, 855, 857
858, 856, 849, 833
821, 853, 859, 860

SEE NOTE →

- L 802, 803, 806
- L 801, 807
- L 808, L 804
- Q 801 THRU 809, Q 814 THRU 817
- Q 811, 812, 813
- CR 801, 802, 805, 806, 808, 809
- C 802, 803, 805, 809, 824
- C 837, 841, 847, 848
- C 844
- C 845
- C 835, 836
- C 846
- CR 803, 804
- R 815, 822, 826, 861
- R 848
- R 849
- R 873
- R 850, 872
- R 851
- R 870
- R 847
- R 839, 864
- R 830, 805
- R 801, 803, 868, 806, 808, 846, 867
- R 814, 817, 824, 812, 856
- R 818, 871, 823
- R 819, 832, 843, 828, 859, 860
- R 834, 855, R 831, 802, 833, 807
- R 858, 857, 852, 854, 844
- R 810, 811, 835
- R 804, 827, 866, 863, 869, 853
- R 816, 821, 820, 825, 845
- R 841, 836, 829, 865

| | | | | | | |
|----|----|--------------|--------------------------------|--|--|-------|
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| 50 | | | | | | |
| 46 | 49 | CC112 R474 M | CAPACITOR, FIXED, RF | | | |
| 1 | 48 | CL275-471 | COIL, FIXED, RF | | | L805 |
| 1 | 47 | RC20GFXXXJ | RESISTOR, FIXED, COMPOSITION | | | R842 |
| 1 | 46 | TR184 | TRANSFORMER, FIXED, RF | | | T801 |
| 2 | 45 | NTH0440BNG | NUT, PLAIN, HEX | | | |
| 2 | 44 | LWE 04 MRN | WASHER, LOCK, EXTERNAL | | | |
| 2 | 43 | SCBP0440BN4 | SCREW, MACHINE | | | |
| 3 | 42 | CL275-473 | COIL, FIXED, RF | | | |
| 2 | 41 | CL275-101 | COIL, FIXED, RF | | | |
| 1 | 40 | RL 143-3 | RELAY | | | K801 |
| 2 | 39 | CL226-1 | COIL, FIXED, RF | | | |
| 13 | 38 | TX105 | TRANSISTOR | | | |
| 1 | 37 | IN2484 | DIODE | | | CR807 |
| 3 | 36 | 2N214 | TRANSISTOR | | | |
| 1 | 35 | 2N396A | TRANSISTOR | | | Q 810 |
| 6 | 34 | IN294 | DIODE | | | |
| 5 | 33 | CE105-10-15 | CAPACITOR, FIXED, ELECTROLYTIC | | | |
| 4 | 32 | CE107-1 | ELECTROLYTIC | | | |
| 1 | 31 | CE105-50-15 | ELECTROLYTIC | | | |
| 1 | 30 | CC100-31 | CERAMIC | | | |
| 2 | 29 | CE106 | CERAMIC | | | |
| 1 | 28 | CN112 A105K2 | CAPACITOR, FIXED, MYLAR | | | |
| 2 | 27 | IN34A | DIODE | | | |
| 4 | 26 | RVIIIU102A | RESISTOR, VARIABLE | | | |
| 1 | 25 | RW107-15 | RESISTOR, FIXED, WIRE WOUND | | | |
| 1 | 24 | RC20GF 224J | RESISTOR, FIXED, COMPOSITION | | | |
| 1 | 23 | 105J | | | | |
| 2 | 22 | 473J | | | | |
| 1 | 21 | 393J | | | | |
| 1 | 20 | 273J | | | | |
| 1 | 19 | 470J | | | | |
| 2 | 18 | 153J | | | | |
| 2 | 17 | 123J | | | | |
| 7 | 16 | 103J | | | | |
| 5 | 15 | 822J | | | | |
| 3 | 14 | 682J | | | | |
| 1 | 13 | 562J | | | | R837 |
| 8 | 12 | 472J | | | | |
| 4 | 11 | 392J | | | | |
| 5 | 10 | 332J | | | | |
| 3 | 9 | 272J | | | | |
| 6 | 8 | 222J | | | | |
| 5 | 7 | 122J | | | | |
| 1 | 6 | 102J | | | | R840 |
| 1 | 5 | 331J | | | | R862 |
| 4 | 4 | 471J | | | | |
| 1 | 3 | 151J | | | | R838 |
| 1 | 2 | 101J | | | | R813 |
| 1 | 1 | RC20GF100J | RESISTOR, FIXED, COMPOSITION | | | R809 |



ELECTRICAL ASSY (A3313-4)

ITEM 47 R842 NOMINAL VALUE IS 8.2K
SUBJECT TO CHANGE IN TEST

NOTES

| Q'TY./UNIT | MODEL USED ON | ASS'Y. NO. |
|------------|---------------|------------|
| 1 | LFSA-1 | AX475 |
| SCALE | CODE | |
| 1:1 | A | |

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| M. GELLMAN | | LIST OF MATERIAL | |
|---|------------------------------------|--|------------------|
| MATERIAL | SEE NOTE #1 | THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK | |
| FINISH | SEE NOTE #1 | TITLE PRINTED CIRCUIT BOARD ASSEMBLY PHASE DETECTOR MODULE | |
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES | DRAWN <i>M. Peters</i> DATE 7/6/64 | FINAL APPROVAL <i>REV</i> DATE | |
| DECIMALS .X ± .05 .XX ± .01 .XXX ± .005 | TOLERANCES | CHECKED <i>Q</i> DATE 7-15-64 | ELECT. DES. DATE |
| FRACTIONS ± 1/64 ANGLES ± 0° 30' | | MECH. DES. DATE | |
| | | A3313 B | |
| | | SHEET 2 OF 2 | |
| | | REV. LTR. | |