

CH 394

REVISIONS

| SYM | DESCRIPTION                                                            | DATE     | E.M.N. NO. | DRAFT | CHKD | APPD |
|-----|------------------------------------------------------------------------|----------|------------|-------|------|------|
| X   | EXP. RELEASE                                                           | 10-26-64 | X          | SRG   |      |      |
| Ø   | ORIGINAL RELEASE FOR PRODUCTION                                        | 10-28-64 | Ø          | SRG   |      |      |
| A   | RETYPE (CHART)                                                         | 1-5-65   | 13239      | SRG   | @    |      |
| B   | SPECS REVISED; MATERIAL ADDED ON PICTORIAL, (4) 3/32 DIA HOLES DELETED | 4-30-65  | 13940      | SRG   | SRG  |      |
| C   | NOTE 1 REVISED                                                         | 12-14-66 | 17477      | WFW   | SRG  |      |

TTC-1 COIL TAPS

Operating Instructions

Typical Terminal Connections

Freq.: 35' Whip: 18' Whip: 8' Whip

(mc) : pri sec: pri sec: pri sec

|                                                                                                                  |     |   |    |    |    |   |    |
|------------------------------------------------------------------------------------------------------------------|-----|---|----|----|----|---|----|
| 1. Connect coupler input to transmission line and antenna.                                                       | 2   | 4 | 12 | 2  | 12 | 4 | 12 |
| 2. Select (at transmitter) desired channel of operation.                                                         | 2.5 | 1 | 11 | 1  | 11 | 1 | 11 |
| 3. Select proper primary and secondary terminals from chart.                                                     | 3   | 1 | 10 | 1  | 10 | 1 | 10 |
| 3.5                                                                                                              | 1   | 8 | 1  | 11 | 1  | 8 |    |
| 4. Connect voltmeter to reverse (red) and common (black) jacks.                                                  | 4   | 1 | 8  | 1  | 8  | 1 | 8  |
| 5                                                                                                                | 1   | 4 | 1  | 4  | 1  | 6 |    |
| 6                                                                                                                | 4   | 6 | 1  | 4  | 1  | 3 |    |
| 5. Apply RF power.                                                                                               | 7   | 4 | 6  | 4  | 6  | 4 | 6  |
| 6. Adjust proper capacitor for a minimum indication on voltmeter.                                                | 8   | 1 | 3  | 6  | 2  | 1 | 3  |
| 9                                                                                                                | 1   | 3 | 1  | 3  | 1  | 3 |    |
| 10                                                                                                               | 1   | 3 | 1  | 5  | 4  | 6 |    |
| 7. Coupler should now be adjusted properly. If desired, compute VSWR.                                            | 11  | 4 | 9  | 4  | 9  | 4 | 9  |
| 12                                                                                                               | 4   | 9 | 1  | 3  | 4  | 9 |    |
| 13                                                                                                               | 1   | 3 | 4  | 7  | 1  | 3 |    |
| 14                                                                                                               | 8   | 7 | 4  | 7  | 2  | 3 |    |
| 1. Adjust coupler as per operating instructions above.                                                           | 15  | 2 | 3  | 6  | 3  | 6 | 3  |
| 16                                                                                                               | 4   | 5 | 6  | 3  | 6  | 3 |    |
| 2. Connect voltmeter to forward (green) and common (black) jacks. Note this voltage.                             | 17  | 6 | 3  | 6  | 3  | 6 | 3  |
| 18                                                                                                               | 6   | 3 | 6  | 3  | 6  | 5 |    |
| 19                                                                                                               | 6   | 5 | 6  | 3  | 6  | 3 |    |
| 3. Connect voltmeter to reverse (red) and common (black) jacks. Note this voltage.                               | 20  | 6 | 5  | 6  | 5  | 6 | 5  |
| 21                                                                                                               | 6   | 5 | 4  | 3  | 2  | 3 |    |
| 22                                                                                                               | 6   | 5 | 4  | 3  | 2  | 3 |    |
| 4. Compute VSWR by use of the following formulae:                                                                | 23  | 4 | 3  | 4  | 3  | 2 | 3  |
| 24                                                                                                               | 4   | 3 | 4  | 5  | 2  | 3 |    |
| 25                                                                                                               | 2   | 3 | 4  | 5  | 2  | 3 |    |
| 26                                                                                                               | 2   | 3 | 4  | 5  | 2  | 3 |    |
| 5. The computed VSWR should be no greater than 2 for a properly operating system.                                | 27  | 2 | 3  | 4  | 5  | 4 | 5  |
| 28                                                                                                               | 4   | 5 | 4  | 5  | 4  | 5 |    |
| 6. To obtain a satisfactory VSWR it may be necessary to move the pri. or sec. tap in one direction or the other. | 29  | 4 | 5  | 4  | 5  | 4 | 5  |
| 30                                                                                                               | 4   | 5 | 6  | 3  | 4  | 5 |    |
| 32                                                                                                               | 4   | 3 | 6  | 3  | 6  | 3 |    |

SPECIFICATIONS

- 1- PRESSURE SENSITIVE ADHESIVE BACKING 3M P/N, Y-9164 OR EQUIVALENT
- 2- THIS CHART WILL BE MOUNTED ON AN ENAMELED SURFACE.
- 3- REF: IN ACCORDANCE WITH MIL-P-19834

| REQ'D.                                                                                                | ITEM | PART NUMBER                                       | DESCRIPTION | SYMBOL         |
|-------------------------------------------------------------------------------------------------------|------|---------------------------------------------------|-------------|----------------|
| A. DUDDELES LIST OF MATERIAL                                                                          |      |                                                   |             |                |
| MATERIAL                                                                                              |      | .003 TO .005 THK. ALUMINUM FOIL, ANODIZED         |             |                |
| FINISH                                                                                                |      | —                                                 |             |                |
|                                                                                                       |      | THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK |             |                |
|                                                                                                       |      | CHART, COIL TAPS                                  |             |                |
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES |      | DRAWN                                             | DATE        | FINAL APPROVAL |
|                                                                                                       |      | SRG                                               | 10-26-64    | SRG            |
|                                                                                                       |      | CHECKED                                           | DATE        |                |
|                                                                                                       |      | @                                                 | 10-27-64    |                |
| DECIMALS                                                                                              |      | ELECT. DES.                                       | DATE        |                |
| .X ± .05                                                                                              |      | A. Duddles                                        |             |                |
| .XX ± .01                                                                                             |      | MECH. DES.                                        | DATE        |                |
| .XXX ± .005                                                                                           |      |                                                   |             |                |
| TOLERANCES                                                                                            |      | FRACTIONS                                         |             |                |
|                                                                                                       |      | ± 1/64                                            |             |                |
|                                                                                                       |      | ANGLES                                            |             |                |
|                                                                                                       |      | ± 0° 30'                                          |             |                |
|                                                                                                       |      | SHEET                                             |             |                |
|                                                                                                       |      | CH394                                             |             |                |
|                                                                                                       |      | REV. LTR.                                         |             |                |

|                                                                                                                                                                         |               |            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------|
| TTC-1                                                                                                                                                                   |               | ASS'Y. NO. |
| QTY./UNIT                                                                                                                                                               | MODEL USED ON |            |
| SCALE 1:1                                                                                                                                                               | CODE A        |            |
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NOTES