



ZONING FOR SIGNAL FLow diagram figure 5 -12 (SHeEt 1 of 2 )





ZONING FOR SCHEMATIC DIAGRAM FIGURE 5-13 (SHEET 1 of 4)

| REF |  | REF |  | REF |  | REF |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DESIG | LOC | DESIG | LOC | DESIG | LOC | DESIG | LOC |
| C201A | 14E | C237-1 | 7D | C313 | 10 C | L219 | 13C |
| C201B | 13 E | C237-2 | 6 D | C314 | 9 C | L220 | 13C |
| C202 | 14 E | C238-1 | 7D | C315 | 10 C | L221 | 13C |
| C203 | 13 E | C238-2 | 6 D | C316 | 9 B | L222 | 13B |
| C204 | 13 E | C239-1 | 8 C | C317 | 9 C | L223 | 13B |
| C205A | 14D | C239-2 | 6 C | C318 | 3 E | L224-1 | 8 E |
| C205B | 13D | C240-1 | 7 C | C320 | 9 C | L224-2 | 7 E |
| C206 | 14D | C240-2 | 6C | C321 | 6 C | L225-1 | 8D |
| C207 | 13D | C241-1 | 7 C | C322 | 6 C | L225-2 | 7D |
| C208 | 13D | C242-1 | 8 C | C323 | 6B | L226-1 | 8D |
| C209A | 14D | C242-2 | 6 C | C324 | 5D | L226-2 | 7 D |
| C209B | 13D | C243-1 | 7 C | C325 | 5D | L227-1 | 8 C |
| C210 | 14D | C243-2 | 6 C | C326 | 4D | L227-2 | 7 C |
| C211 | 13D | C244-1 | 7 C | C327 | 4D | L228-1 | 8C |
| C212 | 13D | C244-2 | 6 C | C328 | 4D | L228-2 | 7 C |
| C213A | 14 C | C245-1 | 8B | C329 | 3 D | L229-1 | 8B |
| C213B | 13 C | C245-2 | 6 B | C330-1 | 7 E | L229-2 | 7B |
| C214 | 14 C | C246-1 | 7 B | C330-2 | 6 E | L230 | 4D |
| C215 | 13 C | C246-2 | 6 B | C331-1 | 7 D | L231 | 4D |
| C216 | 13 C | C247-1 | 7 B | C331-2 | 6 D | L232-1 | 2 E |
| C217A | 14 C | C247-2 | 6 B | C334 | 3D | L232-2 | 2D |
| C217B | 13 C | C248 | 7B | E208 | 9E | L232-3 | 2 D |
| C218 | 14 C | C249 | 7B | E209 | 4 E | L236 | 10 C |
| C219 | 13 C | C250 | 7 C | E212 | 9 E | P108 | 2A, 3A |
| C220 | 13 C | C251 | 7C | E213 | 11D |  | 4A, 8A |
| C221A | 14B | C252 | 7 D | HR202 | 11C |  | 9A |
| C221B | 13B | C253 | 7D | 1103 | 15B | P205 | 15B |
| C222 | 14B | C254 | 7 E | J103 | 15B | P206 | 15C |
| C223 | 13B | C255 | 9 E | J104 | 15C | P207 | 15D |
| C224 | 13B | C256 | 11C | J105 | 15B | P221 | 4D |
| C225A | 12 B | C257 | 9 D | J106 | 15 C | R121 | 1.5B |
| C225B | 12B | C273 | 3 D | J107 | 15C | R201 | 12B |
| C226 | 12B | C274 | 5D | J208 | 2A, 3A | R202 | 9 D |
| C227 | 9 D | C275 | 2 D |  | 4A, 8A | R203 | 9D |
| C228 | 9D | C276 | 6 E |  | 9A | R204 | 9D |
| C229 | 9D | C277 | 4 E | J221 | 4D | R205 | 7B |
| C230-1 | 8 E | C278 | 6 D | K101A | 15 C | R207 | 5D |
| C230-2 | 6 E | C279 | 6 D | K101B | 15C | R208 | 4 E |
| C231-1 | 7 E | C280 | 3 E | L201 | 4D | R209 | 4 E |
| C231-2 | 6 E | C281 | 3 E | L208 | 2 C | R210 | 4D |
| C232-1 | 7 E | C282 | 3 D | L209 | 3B | R211 | 4D |
| C232-2 | 6 E | C283-1 | 2 E | L210 | 9B | R212 | 3D |
| C233-1 | 8D | C283-2 | 2D | L211 | 9 C | R220 | 11B |
| C233-2 | 6D | C283-3 | 2 D | L212 | 13 E | R221 | 10 C |
| C234-1 | 7D | C284 | 3 D | L213 | 13 E | R222 | 10B |
| C234-2 | 6D | C308 | 3 C | L214 | 13D | R223 | 9B |
| C235-1 | 7D | C309 | 10C | L215 | 13D | R224 | 10 C |
| C235-2 | 6D | C310 | 11B | L216 | 13D | R225 | 9 B |
| C236-1 | 8D | C311 | 10C | L217 | 13D | R226 | 10C |
| C236-2 | 6 D | C312 | 10C | L218 | 13C | R227 | 9 C |

ZONING FOR SCHEMATIC DIAGRAM FIGURE 5-13 (SHEET 1 of 4) (Cont)

| REF | REF |  |  | REF |  | REF |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DESIG | LOC | DESIG | LOC | DESIG | LOC | DESIG | LOC |
| R228 | 9 C | S205 | 12C | V201 | 9E | Z203-1 | 7 D |
| R229 | 9B | S206 | 8D | V202 | 4 E | Z203-2 | 6 D |
| R231 | 3 E | S207 | 5D | V205A | 10B | Z204-1 | 7 C |
| R232 | 3C | S208 (front) | 2D | V205B | 9B | Z204-2 | 6 C |
| R233 | 9D | S208 (rear) | 2 E | V206 | 10B | Z205-1 | 7 C |
| R234 | 12B | T201 | 13 E | V207 | 4D | Z205-2 | 6 C |
| R235 | 11C | T202 | 13D | Y201 | 5D | Z206-1 | 7 B |
| S201 | 14D | T203 | 13D | Y203 | 11C | Z206-2 | 6 B |
| S202 | 14C | T204 | 13C | Z201-1 | 7 E | Z213-1 | 2 E |
| S203 (front) | 12B | T205 | 13C | Z201-2 | 6 E | Z213-2 | 2D |
| S203 (rear) | 12 C | T206 | 13B | Z202-1 | 7D | Z213-3 | 2D |
| S204 | 12D | T207 | 4D | Z202-2 | 6 D |  |  |

GENERAL NOTES:
A. UNLESS OTHERWISE INDICATED, ELECTRICAL VALUES ARE EXPRESSED IN PICOFARADS, MICROHENRIES, AND OHMS.
B. $\square$ INDICATES EQUIPMENT MARKING.

## SPECIFIC NOTES:

1. ANTENNA, RF, AND VARIABLE IF COILS ARE TUNED AS FOLLOWS:

CONTINUOUSLY WITH KILOCYCLE CHANGE , ALL COILS.
INTERMITTENTLY WITH MEGACYCLE CHANGE . T203 THRU T206, Z203-1 THRU Z206-1, Z203-2 THRUZ206-2, AND Z213-1 THRU Z213-3.
2. REFER TO TABLE 1-9, PRODUCTION MODIFICATIONS.
3. REFER TO TABLE 1-8, FIELD CHANGE DATA, AND FIGURE 5-15.
4. REFER TO FIGURE 5-4, VOLTAGE AND RESISTANCE DIAGRAM.
5. SCHEMATIC SHOWN WITH MEGACYCLE CHANGE SET FOR THE . 5 TO 1 MC BAND.

Figure
5-13, Sheet 2

ZONING FOR SCHEMATIC DIAGRAM FIGURE 5-13 (SHEET 2 of 4)

| $\begin{gathered} \text { REF } \\ \text { DESIG } \end{gathered}$ | LOC | $\begin{aligned} & \text { REF } \\ & \text { DESIG } \end{aligned}$ | LOC | REF <br> DESIG | LOC | $\begin{aligned} & \text { REF } \\ & \text { DESIG } \end{aligned}$ | LOC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C102 | 4D | C710 | 13B | L204 | 8D | R619 | 6 C |
| C104 | 11 C | C711 | 14B | L205 | 8D | R701 | 13 C |
| C105 | 10C | C712 | 5D | L206 | 9D | R702 | 12B |
| C106 | 11 C | C713 | 6 D | L207 | 9D | R703 | 12B |
| C107 | 10 C | C714 | 12B | L233-1 | 13 E | R704 | 12C |
| C285 | 9D | CR102 | 5D | L233-2 | 13D | RT510 | 7 E |
| C286 | 15D | CR801 | 9 B | L233-3 | 13D | S102 | 10B |
| C287 | 14D | CR802 | 9B | L234 | 12D | S103 | 8B |
| C288 | 14D | E210 | 14D | L235 | 12D | S106 | 5D |
| C289 | 14 E | E211 | 13D | L402 | 6 D | S401 | 3 C |
| C290 | 14D | E607 | 5 C | L505 | 13B | S403 | 2 C |
| C291-1 | 13 E | F101 | 10B |  | 14B | S701 | 13B |
| C291-2 | 13D | F102 | 8B | L601 | 7 C | T208 | 12 D |
| C291-3 | 13D | F103 | 5B | L602 | 6 C | T701 | 12C |
| C292-1 | 13 E | FL101 | 10B | L603 | 6 C | T801 | 9B, 9C, 9D |
| C292-2 | 13D |  | 10C, 11B | L701 | 14C | TB103 | 8B |
| C292-3 | 13D |  | 11 C | L702 | 14B | TB801 | 9 C |
| C297 | 14D | HR401 | 1 C |  | 14C |  | 9 D |
| C298 | 13D |  | 1D, 2 C | L706 | 5D | V201 | 8 D |
| C299 | 12D |  | 2D | P108-B | 8D | V202 | 8D |
| C300 | 8D | HR701 | 13B, 13C |  | 14A | V203 | 9 D |
| C301 | 8D |  | 14B, 14C | P109 | 5D |  | 14D |
| C302 | 9D | 1101 | 7 C |  | 12A, 13A | V204 | 9D, 12D |
| C303 | 9D | I102 | 7 C |  | 14 A | V205 | 9 E |
| C304 | 9 D | J110-B | 6 D | P110 | $4 \mathrm{~B}, 4 \mathrm{C}$ | V206 | 9D |
| C305 | 9 D | J208 | 8D |  | 6 D | V207 | 9D |
| C307 | 12 C |  | 14A | P111 | 8B, 8C | V401 | 6 D |
| C319 | 15D | J217 | 12 C |  | 10C, 10D | V501 | 7 D |
| C 402 | 2 C | J410 | 4 C | P112 | 6E, 7D | V502 | 7D |
| C 403 | 2 D |  | 4B |  | 7 E | V503 | 7 D |
| C404 | 1D | J416 | 2 C | P119 | $5 \mathrm{~B}, 5 \mathrm{C}$ | V504 | 7D |
| C406 | 1C | J417 | 2B |  | 5D, 7B | V505 | 7 E |
| C407 | 4B | J512 | 6 E |  | 7 C | V506 | 7 D |
| C414 | 6 D |  | 7D, 7E | P416 | 2 C | V507 | 7D |
| C415 | 6 D | J119-1 | 7B | P417 | 2B | V508 | 7 D |
| C538 | 7 D | J619 | 5B | P717 | 12C | V509 | 7 D |
| C603-C | 6 C |  | $5 \mathrm{C}, 5 \mathrm{D}$ | R124 | 8 C | V601 | 7C |
| C606-A | 6 B |  | 7B, 7C | R206 | 14D | V602 | 7 C |
| C606-B | 6 B | J709 | 5 D | R213 | 15D | V603 | 7 C |
| C611 | 5 C |  | 12A, 13A | R214 | 14D | V604 | 7 C |
| C701 | 14 C |  | 14A | R215 | 14D | V605 | 5 C |
| C702 | 13 C | J811 | 8B, 8C | R216 | 14D | V701 | 6 D |
| C703 | 13C |  | 10C, 10D | R217 | 14 C |  | 13 C |
| C704 | 13 C | K601 | 6 C | R218 | 12D | V801 | 9 B |
| C705 | 13 B |  | 7 C | R219 | 12 C | V802 | 9 C |
| C706 | 12 C | L101 | 10 C | R230 | 13D | Y401 | 2 C |
| C707 | 12B | L102 | 10 C | R536 | 7 D | Y402 | 1C |
| C708 | 12 C | L202 | 8D | R617 | 6 C | Y403 | 1D |
| C709 | 12 C | L203 | 8D | R618 | 6 C | Y404 | 1C |



ZONING FOR SCHEMATIC DIAGRAM FIGURE 5-13 (SHEET 2 of 4) (Cont)

| REF | REF | REF |  | REF |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DESIG | LOC | DESIG | LOC | DESIG | LOC | DESIG | LOC |
|  |  |  |  |  |  |  | Z216-2 | 13D, 14D

GENERAL NOTES:
A. UNLESS OTHERWISE INDICATED, ELECTRICAL VALUES ARE EXPRESSED IN PICOFARADS, MICROHENRIES, AND OHMS.
B. $\square$ INDICATES EQUIPMENT MARKING.

SPECIFIC NOTES:

1. ANTENNA, RF, AND VARIABLE IF COILS ARE TUNED AS FOLLOWS: CONTINUOUSLY WITH KILOCYCLE CHANGE , ALL COILS.

INTERMITTENTLY WITH MEGACYCLE CHANGE , T203 THRU T206, Z203-1 THRU Z206-1, Z203-2 THRU Z206-2, AND Z213-1 THRU Z213-3.
2. REFER TO TABLE 2-3 FOR FUSE VALUES.
3. REFER TO TABLE 1-8, FIELD CHANGE DATA.
4. REFER TO FIGURES 5-4, 5-5, 5-7, 5-8, AND 5-9 VOLTAGE AND RESISTANCE DIAGRAMS.
5. SCHEMATIC SHOWN WITH MEGACYCLE CHANGE SET FOR THE . 5 TO 1 MC BAND.

ZONING FOR SCHEMATIC DIAGRAM FIGURE 5-13 (SHEET 3 of 4)

| REF |  | REF |  | REF |  | REF |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DESIG | LOC | DESIG | LOC | DESIG | LOC | DESIG | LOC |
| C101 | 3B | C506 | 11 C | 3410 | 18B | R519 | 7 C |
| C401 | 19 C | C507 | 10D |  | 19 B | R520 | 7C |
| C408 | 20 C | C508 | 10D | J415 | 18B | R521 | 8 C |
| C409 | 19C | C509 | 10 D | J512 | $2 \mathrm{C}, 3 \mathrm{~B}$ | R522 | 5 D |
| C410 | 19 C | C510 | 10 C |  | $3 \mathrm{C}, 4 \mathrm{~B}$ | R523 | 5 C |
| C411 | 18C | C511 | 11C | J513 | 13D | R524 | 5 C |
| C412 | 18 C | C512 | 9 C | J518 | 13 E | R525 | 4 C |
| C413 | 18 C | C513 | 10 C | L401 | 19 C | R526 | 3 D |
| C417 | 17C | C 514 | 10D | L403 | $17 \mathrm{C}, 17 \mathrm{D}$ | R527 | 3 C |
| C 418 | 17C | C515 | 10D | L404 | $17 \mathrm{C}, 17 \mathrm{D}$ | R528 | $4 \mathrm{~B}, 5 \mathrm{C}$ |
| C419 | 17C | C 516 | 10 D | L501 | 11 C | R529 | 4 B |
| C420 | 17 C | C517 | 9 C | L502 | 4 C | R530 | 3B |
| C421 | 17B | C518 | 9 C | L503 | 12D | R531 | 4 B |
| C422 | 17B | C519 | 7 C | L505 | 11D | R532 | 2 D |
| C423 | 17 B | C520 | 12 D | L506 | 8 D | R533 | 2D |
| C424 | 14 C | C521 | 7 D | L507 | 8D | R534 | 2 C |
| C425 | 14 C | C522 | 7 C | L508 | 6B | R.535 | 3 C |
| C426 | 14 C | C523 | 6 C | L509 | 6 B | R537 | 5 C |
| C427 | 14 C | C524 | 12D | L510 | 6 D | R550 | 7 C |
| C428 | 14 C | C525 | 5D | L511 | 6 D | R551 | 6 C |
| C429-A | 16 C | C526 | 5B | L512 | 4D | R553 | 6 D |
| C429-B | 16 C | C527 | 5B | L513 | 4D | R554 | 6 D |
| C 429 - C | 15 C | C528 | 5 C | P110 | 18B, 19B | R559 | 6 D |
| C429-D | 16B | C529 | 4 C | P112 | $2 \mathrm{~B}, 3 \mathrm{~B}$ | R560 | 6 D |
| C429-E | 15 C | C530 | 4 C |  | $3 \mathrm{C}, 4 \mathrm{~B}$ | S108 | 2 B |
| C429-F | 14 C | C531 | 3 D | P213 | 13D | S402 | 16 C |
| C429-G | 15 C | C532 | 3D | P215 | 18B | S501 | 12 E |
| $\mathrm{C} 429-\mathrm{H}$ | 14 C | C533 | 4 B | P218 | 13 E | S502 (front) | 11 E |
| C430-A | 16B | C534 | 4 B | R119 | 2B | 5502 (rear) | 10 E |
| C430-B | 16 C | C535 | 3D | R120 | 2B | 5503 (front) | 10 E |
| C430-C | 15 C | C536 | 3D | R404 | 20 C | S503 (rear) | 9 E |
| C430-D | 15 C | C537 | 2D | R405 | 19C | T401 | 17C, 17D |
| C430-E | 15 C | C549 | 2D | R406 | 18 C | T501 | 8 D |
| $\mathrm{C} 430-\mathrm{F}$ | 14 C | C552 | 8 C | R407 | 18 C | T502 | 6 D |
| C430-G | 1.5D | C553 | 6D, 11D | R501 | 12 C | T503 | 4D, 5D |
| $\mathrm{C} 430-\mathrm{H}$ | 14C | C554 | 5B, 6D | R502 | 12 C | V401 | 19 C |
| C431-A | 16B | C555 | 5B | R503 | 12D | V501 | 11D |
| C431-B | 16 B | C556 | 5 B | R504 | 11D | V502 | 9D |
| C431-D | 15C | C557 | 8D | R505 | 11D | V503 | 7 D |
| C43e-D | 15C | C558 | 8D | R506 | 11 C | V504 | 5 D |
| C431-E | 15C | C559 | 6 D | R507 | 10 C | V505 | 4B |
| C431-F | 14C | C560 | 6 D | R508 | 11C | V506B | 3 D |
| C431-G | 15D | C561 | 4D | R511 | 8D | V507 | 2D, 3D |
| C431-H | 14D | C562 | 4D | R512 | 7 D | Y501 | 12D |
| C501 | 12D | E402 | 20 C | R513 | 9 C | Z501 | 12C, 12D |
| C502 | 12 C | FL502 | 10 C | R514 | 9 D | Z702 | $5 \mathrm{~B}, 6 \mathrm{~B}$ |
| C503 | 12C | FL503 | 10D | R515 | 9 C |  |  |
| C504 | 11C | FL504 | 10D | R516 | 8 C |  |  |
| C505 | 11D | FL505 | 10 D | R518 | 7 D |  |  |

Original

## general notes

A. UNLESS OTHERwise indicated, electrical values are expressed in picofarads,
B. $\square$ indicates equipment marking.

## SPECIFIC NOTES:

1. RESISTORS R502 AND R503 SELECTED FOR OPTIMUM BANDPASS.

R502 SELECTED WITHiN RANGE OF 33K TO 68K.
R503 SELECTED WITHIN RANGE OF 560 TO 2700
2. REFER TO table 1-9, production modifications, and figure 3-6.
3. Refer to figures $5-5$ and $5-6$, voltage and resistance diagrams.
4. SChematic shown with MEGACYCLE ChANGE SEt for the . 5 TO 1 MC band.






Figure 5-14. Filament and Oven Circuits



FIELD CHANGE NO. 7
CONERSION OF RTO2 AND R2IO


FIELD CHANGE NO. 8
PROVIDES ELAPSEO TIME INOICATOR


## GENERAL NOTE:

A. PARTS AND SECTIONS WITH 200 SERIES REFERENCE SYMBOLS ARE LOCATED IN THE RF SUBCHASSIS.

## SPECIFIC NOTES:

1. THE 2-SECTION ANTENNA TRIMMER CAPACITOR C225 IS SWITCHED BY S203 AS FOLLOWS:

BANDS 1 AND 2 - SECTIONS A AND B
BANDS 3 AND 4 - SECTION B
BANDS 5 AND 6 - SECTION A
2. 1ST VARIABLE IF (V202 AND V207) USED ONLY FROM 0.5 TO 8MHZ (BAND 1 THROUGH 4). OUTPUT OF V201 AND 8 TO 32 MHZ RF COILS FED DIRECTLY INTO V203 WHEN OPERATING FROM 8 TO 32 MHZ.
3. DOES NOT APPLY TO 0.5 TO 1 MHZ BAND. ON 0.5 TO 1 MHZ BAND FREQUENCY RANGE IS 2.5 TO 2 MHZ .
4. FC 5 MODIFIES ANTENNA CONNECTION FOR SHIPBOARD INSTALLATIONS. SEE FIGURE 5-14.
notes:
the dotted lines and parentheses refer only to recervers bearing order no. 14-Phli




