



Xerox Data Systems

MEDIUM SPEED RAD CONTROLLER
MODEL 7201
ASSEMBLY NO. 135743



XDS 902345B-1
\$13.00

ENGINEERING SUPPORT MANUAL

**MEDIUM SPEED RAD
CONTROLLER**

**MODEL 7201
ASSEMBLY NO. 135743**

March 1970

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Prepared by
Field Engineering Publications

Xerox Data Systems 701 South Aviation Blvd., El Segundo, California 90245 (213) 772-4511, 679-4511

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PREFACE

The purpose of an Engineering Support Manual (ESM) is to provide, under one cover, all of the engineering-produced documentation which is relevant to the maintenance of XDS-designed products.

ENGINEERING SUPPORT INDEX

The Engineering Support Index (ESI) begins on page i. The ESI is a table of contents for drawings in this manual and provides a cross-reference between the change level of the Top Assembly drawing and the change levels of related drawings.

UPDATING

When Engineering Orders (EO) to Top Assemblies are released, documentation is updated and distributed to appropriate installations by XDS Field Engineering. If XDS is responsible for maintaining the affected equipment, the EO and the documentation Update Package is sent to the appropriate Customer Service District Office. The Customer Engineer is then responsible for prompt EO installation and manual updating. If the XDS customer is responsible for equipment maintenance, the EO and the documentation Update Package is sent to the customer address that the customer has provided.

The Update Package typically includes a revised title page, revised Engineering Support Index page, and all pages that have been revised.

Inquiries concerning Update Packages should be addressed to XDS Product Support.

CHANGES

Changes to an ESM drawing can only be brought about by the submission of a Drawing Change Request (DCR). To effect a drawing change, field personnel should submit a Technical Action Request (TAR) per Customer Engineering Policy and Procedure, 65-03-04, and Field Reporting Operating Manual, 901714. A DCR may then be submitted by Product Support Engineering after the TAR is reviewed. Customers who wish to notify XDS of any discrepancies within the ESM may submit their comments on the Reader Survey sheet in the back of the manual to XDS Field Engineering Publications.

ENGINEERING SUPPORT INDEX

MODEL 7201 TOP ASSEMBLY 135743 LEVEL U
 NAME MEDIUM SPEED RAD CONTROLLER

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RELATED PUBLICATIONS

The following XDS publications contain information not included within this manual. These publications must be available as part of Site Documentation in order for the user of this manual to learn, install, operate, and maintain the equipment.

| <u>Publication Title</u> | <u>Document No.</u> |
|---|---------------------|
| XDS Sigma RAD Storage System, Reference Manual | 900979 |
| Power Supply, Model PT16, Technical Manual | 901080 |
| Sigma Rapid Access Data Files, Models 7201/7202/7203/7204, Technical Manual | 901081 |
| Sigma 5 and 7 Medium Speed RAD System Test, Program No. 704351, Diagnostic Program Manual | 901090 |
| Sigma 5 and 7 Medium Speed RAD File Test, Program No. 704072, Diagnostic Program Manual | 901130 |
| Sigma 2 Medium Speed RAD System Test, Program No. 704705, Diagnostic Program Manual | 901148 |
| Sigma 2 Medium Speed RAD File Test, Program No. 704027, Diagnostic Program Manual | 901167 |

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SECTION I
DESIGN AUTOMATION DATA





7201 RAD

| CODE | LINE NO. | CHG | LOGIC EQUATIONS | | | | | | | | | | | | PINS | | | | | | | | | | | | REMARKS | C7L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|----------|-----|--|----|----|----|----|----|----|----|----|----|----|----|------|----|----|----|----|----|----|----|----|----|----|----|---------|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | | | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |
| I | . | | AND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| I | * | | DIRECT INPUT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| I | CI | | CABLE INPUT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | + | | OR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | B | | BUFFER AMPLIFIER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | -BCR | | BUFFERED CABLE RECEIVER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | -BDS | | BUFFERED DELAY SENSOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | -BL | | BUFFERED LATCH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | -CLK | | WRITE CLOCKS BCA, BCB, BCC + BCD ARE INTERNALITY CONNECTED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | CO | | CABLE OUTPUT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | -DL | | DELAY LINE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | -DLD | | DELAY LINE DRIVER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | -DLS | | DELAY LINE SENSOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | FF | | STANDARD J/K FLIP-FLOP(SET) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | -FMO | | FAST ACCESS MEMORY DATA OUTPUT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | FN | | NAND FLIP-FLOP(SET) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | FR | | REPEATER FLIP-FLOP(SET) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | -GCL | | GATE CLAMP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | -GND | | GROUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | I | | INVERTING AMPLIFIER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | -IC | | INVERTING COMPARATOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | -IDS | | INVERTING DELAY SENSOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | -ISC | | INVERTING SWITCH COMPARATOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | -K | | SWITCH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | NFF | | STANDARD J/K FLIP-FLOP(RESET) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | NFN | | NAND FLIP-FLOP(RESET) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| CODE | LINE NO. | CHG | LOGIC EQUATIONS | PINS | REMARKS | C/L |
|------|-----------|-----|---|------|---------|-----|
| | 1 2345678 | 9 | 10 123456789 20 23456789 30 23456789 40 23456789 50 23456789 60 23456789 70 | | | |
| P | 0000600 | | N8V-1 = -VS | | | H |
| P | 0000600 | | 30A50,50-22A50V-15A50V | | | H |
| P | 0000700 | | N8V-2 = -VS | | | H |
| P | 0000700 | | 32C50,50-30C50V-29C50V-28C50V-26C50-09C50V | | | H |
| P | 0000750 | | -VS | | | H |
| P | 0000750 | | 32C50,50-06C50V-05C50V-04C50V-02C50V | | | H |
| * | 0000795 | | IOC=ACKNOWLEDGE INTERRUPT | | | H |
| P | 0000800 | | AIOC = B * + .AIOM.AIOR.AVIR | | | A |
| P | 0000800 | | 31C24X,\$,\$,23X,17X,11X, | | | A |
| P | 0000850 | | + .AIOC.FSD.INI.NRSTR | | | A |
| P | 0000850 | | 31C\$,24X,26X,28X,45X, | | | A |
| P | 0000900 | | NAIOC = I .AIOC | | | A |
| P | 0000900 | | 31C06,24X, | | | A |
| P | 0001000 | | AIOCP = -PET | | | H |
| P | 0001000 | | 15A21 | | | H |
| P | 0001100 | | AIOCU = -BL * + .AIOCU.GND12 | | | A |
| P | 0001100 | | 19B12,\$,\$,12,23X, | | | A |
| P | 0001133 | | + .AIOCP.CONPC | | | A |
| P | 0001133 | | 19B\$,11,18X, | | | A |
| P | 0001166 | | + .AIOC.FNTEM | | | A |
| P | 0001166 | | 19B\$,10,22X, | | | A |
| P | 0001200 | | AIOFSU = B .AIOC.FSU | | | A |
| P | 0001200 | | 22B36,44,37, | | | A |
| * | 0001250 | | AIOM= INTERRUPT REQUEST PRIORITY DETERMINANT | | | E |
| P | 0001300 | | AIOM = B * + .LIH | | | A |
| P | 0001300 | | 29C25,\$,\$,05, | | | A |
| P | 0001325 | | + .NHPIL.LIL | | | A |
| P | 0001325 | | 29C\$,01,06. | | | A |
| P | 0001350 | | NAIOM = I * + .LIH | | | A |
| P | 0001350 | | 31C04,\$,\$,01X, | | | A |
| P | 0001425 | | + .NHPIL.LIL | | | A |
| P | 0001425 | | 31C\$,12,46X, | | | A |
| * | 0001450 | | AIOR = ACKNOWLEDGE INTERRUPT FROM IOP | | | E |
| P | 0001500 | | AIOR = -BCR | | | A |
| P | 0001500 | | 28C27, | | | A |
| P | 0001600 | | NAIOR = I .AIOR | | | A |
| P | 0001600 | | 23C19X,15X, | | | A |
| P | 0001700 | | ANO = B .ANOR.DISC | | | A |
| P | 0001700 | | 25A35,43,38, | | | A |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L | | | | | | | | | |
|------|----------|-----|-------|---|------|-------------------|-----|----------|----|----------|----|----------|----|----------|----|---|
| I | 23456789 | 9 | 10 | 123456789 | 20 | 23456789 | 30 | 23456789 | 40 | 23456789 | 50 | 23456789 | 60 | 23456789 | 70 | |
| | 0001800 | | | NAN0 = B | | .NAN0R.DISC | | | | | | | | | | A |
| P | 0001800 | | | 25A36,37, | | 44, | | | | | | | | | | A |
| * | 0001850 | | | ANOR-AN3R = DISC ANGLE RECEIVED FROM STORAGE UNIT | | | | | | | | | | | | E |
| | 0001900 | | | ANOR = -BCR | | | | | | | | | | | | A |
| P | 0001900 | | | 30A36, | | | | | | | | | | | | A |
| | 0002000 | | | NANOR = I | | .ANOR. | | | | | | | | | | A |
| P | 0002000 | | | 21A45,39, | | 33X,43X, | | | | | | | | | | A |
| | 0002300 | | | ANIR = -BCR | | | | | | | | | | | | A |
| P | 0002300 | | | 30A38, | | | | | | | | | | | | A |
| | 0002400 | | | NANIR = I | | .ANIR. | | | | | | | | | | A |
| P | 0002400 | | | 21A46,40, | | 43X,44X, | | | | | | | | | | A |
| | 0002700 | | | AN2R = -BCR | | | | | | | | | | | | A |
| P | 0002700 | | | 30A40, | | | | | | | | | | | | A |
| | 0002800 | | | NAN2R = I | | .AN2R. | | | | | | | | | | A |
| P | 0002800 | | | 21A47,41, | | 10X,43X, | | | | | | | | | | A |
| | 0003100 | | | AN3R = -BCR | | | | | | | | | | | | A |
| P | 0003100 | | | 30A42, | | | | | | | | | | | | A |
| | 0003200 | | | NAN3R = I | | .AN3R. | | | | | | | | | | A |
| P | 0003200 | | | 21A50,42, | | 05X,43X, | | | | | | | | | | A |
| * | 0003250 | | | ARR1-ARR2 = FAM CLOCK CYCLE FOR IOP | | | | | | | | | | | | E |
| | 0003300 | | | ARR1 = -BL * + .ARR1. | | | | | | | | | | | | A |
| P | 0003300 | | | 19B39,\$,\$,39, | | 36X, | | | | | | | | | | A |
| | 0003325 | | | + .GND12. | | | | | | | | | | | | A |
| P | 0003325 | | | 19B\$,35, | | 37X, | | | | | | | | | | A |
| | 0003350 | | | + .RSDC. | | | | | | | | | | | | A |
| P | 0003350 | | | 19B\$,34, | | 38X, | | | | | | | | | | A |
| | 0003375 | | | I .CFI0PL.T2 | | | | | | | | | | | | A |
| P | 0003375 | | | 18B14,12X, | | 11, | | | | | | | | | | A |
| | 0003400 | | | ARR2 = B * + .J092.RSAU | | | | | | | | | | | | A |
| P | 0003400 | | | 16C20,\$,\$,21, | | 22,20-09B02T | | | | | | | | | | A |
| | 0003425 | | | + .ARSET.FSCU | | | | | | | | | | | | A |
| P | 0003425 | | | 16C\$,24, | | 23, | | | | | | | | | | A |
| | 0003450 | | | + .ARR2.DCB | | | | | | | | | | | | A |
| P | 0003450 | | | 16C\$,02, | | 01, | | | | | | | | | | A |
| | 0003475 | | | I .CFI0PL.T4 | | | | | | | | | | | | A |
| P | 0003475 | | | 18B15,12X, | | 13, | | | | | | | | | | A |
| | 0003480 | | | NARR2 = I .ARR2 | | | | | | | | | | | | C |
| P | 0003480 | | | 12B10,07, | | 09X,06X,10-10C15T | | | | | | | | | | C |
| * | 0003490 | | | ARSET = SETTING TERM FOR ARR2 | | | | | | | | | | | | E |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L |
|------|----------|-----|-------|--|------|---------|-------------|
| 1 | 2345678 | 9 | 10 | 11 | 12 | 13 | 14 |
| P | 0003500 | | | ARSET = B * + .CSL.DIS. 17A03,\$,\$,09,08,07X, | | | A H |
| P | 0003525 | | | + .ARSET.DCB-I. | | | A A |
| P | 0003525 | | | 17AS,11, 10, 12X, | | | A A |
| P | 0003550 | | | I .CUP. | | | A |
| * | 0003570 | | | 21A02,09,06X,44X, ASCB = ACKNOWLEDGE SERVICE CALL | | | A E |
| P | 0003600 | | | ASCB = B * + .ASCB.NFSC.INI.NRSTR 29C27X,\$,\$,27X,31X,40,39, | | | A A A |
| P | 0003650 | | | + .ASCM.ASCR.AVIR.FSR | | | A |
| * | 0003670 | | | 29C\$,29X,38,41,42X, ASCM = ACKNOWLEDGE SERVICE CALL PRIORITY DETERMINANT | | | A E |
| P | 0003700 | | | ASCM = B * + .LSH 29C29X,\$,\$,07, | | | A A A |
| P | 0003750 | | | + .NHPSL.LSL | | | A |
| P | 0003750 | | | 29C\$,08,09, | | | A |
| P | 0003800 | | | NASCM = I * + .LSH 23C01,\$,\$,38X, | | | A A A |
| P | 0003850 | | | + .NHPSL.LSL | | | A |
| * | 0003870 | | | 23C\$,12X,39X, ASCR = ACKNOWLEDGE SERVICE CALL FROM IOP | | | A E |
| P | 0003900 | | | ASCR = -BCR 28C34, | | | A A |
| P | 0004000 | | | NASCR = I .ASCR 23C44X,37X, | | | A E |
| * | 0004050 | | | AVIR = PRIORITY SIGNAL AVAILABLE INPUT | | | A E |
| P | 0004100 | | | AVIR = -BCR 26C08, | | | A A E |
| * | 0004150 | | | AVOD = PRIORITY SIGNAL AVAILABLE OUTPUT | | | A E |
| P | 0004200 | | | AVOD = B * + .NASCM.ASCR.AVIR.FSR 31C36X,\$,\$,05,07X,11X,15X,36-26C29C | | | A A |
| P | 0004266 | | | + .AVIR.NDCA.FSR.TTSH | | | A A A |
| P | 0004332 | | | 31C\$,11X,34X,15X,30X, + .NAIOM.ASCR.AVIR.FSR | | | A A |
| * | 0004350 | | | 31C\$,04X,07X,11X,15X, BA0-BA3 = FAM ADDRESS LINES | | | A E |
| P | 0004400 | | | BA0 = -BL * + .BA0.NT0 12C21,\$,\$,21,30X,21-09B36T-09C23C | | | A H A |
| P | 0004433 | | | + .BAXUP.UPO | | | A A A |
| P | 0004466 | | | 12C\$,13X,20, + .BAXLP.LP0 | | | A A |
| P | 0004466 | | | 12C\$,05X,19, | | | A |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L | | | | | | | | | |
|------|----------|----------|-------|--|------|----------|-----|----------|----|----------|----|----------|----|----------|----|---|
| | 1 | 23456789 | 10 | 23456789 | 20 | 23456789 | 30 | 23456789 | 40 | 23456789 | 50 | 23456789 | 60 | 23456789 | 70 | |
| P | 0004500 | | | NBA0 = I * + .BA0.NT0 | | | | | | | | | | | | A |
| | 0004500 | | | 11C29,\$,\$,22,23,29-09B37T-09C25C | | | | | | | | | | | | H |
| P | 0004533 | | | + .BAXUP.UP0 | | | | | | | | | | | | A |
| | 0004533 | | | 11C\$,20, 21, | | | | | | | | | | | | A |
| P | 0004566 | | | + .BAXLP.LP0 | | | | | | | | | | | | A |
| | 0004566 | | | 11C\$,19, 24, | | | | | | | | | | | | A |
| P | 0004600 | | | BA1 = -BL * + .BA1.NT0 | | | | | | | | | | | | A |
| | 0004600 | | | 12C46,\$,\$,46,30X,46-09B38T-09C30C | | | | | | | | | | | | H |
| P | 0004633 | | | + .BAXUP.UP1 | | | | | | | | | | | | A |
| | 0004633 | | | 12C\$,13X, 47, | | | | | | | | | | | | A |
| P | 0004666 | | | + .BAXLP.LP1 | | | | | | | | | | | | A |
| | 0004666 | | | 12C\$,05X, 50, | | | | | | | | | | | | A |
| P | 0004700 | | | BA2 = -BL * + .BA2.NT0 | | | | | | | | | | | | A |
| | 0004700 | | | 12C09,\$,\$,09,30X,09-09B39T-09C29C | | | | | | | | | | | | H |
| P | 0004733 | | | + .BAXUP.UP2 | | | | | | | | | | | | A |
| | 0004733 | | | 12C\$,13X, 08, | | | | | | | | | | | | A |
| P | 0004766 | | | + .BAXLP.LP2 | | | | | | | | | | | | A |
| | 0004766 | | | 12C\$,05X, 06, | | | | | | | | | | | | A |
| P | 0004800 | | | BA3 = -BL * + .BA3.NT0 | | | | | | | | | | | | A |
| | 0004800 | | | 12C07,\$,\$,07,30X,07-09B40T-09C18C | | | | | | | | | | | | H |
| P | 0004833 | | | + .BAXUP.UP3 | | | | | | | | | | | | A |
| | 0004833 | | | 12C\$,13X, 04, | | | | | | | | | | | | A |
| P | 0004866 | | | + .BAXLP.LP3 | | | | | | | | | | | | A |
| | 0004866 | | | 12C\$,05X, 03, | | | | | | | | | | | | A |
| * | 0004875 | | | BAXLP = FAM CLOCK CYCLE FOR DISC, LOWER POINTER DETERMINES | | | | | | | | | | | | E |
| * | 0004880 | | | FAM ADDRESS | | | | | | | | | | | | E |
| P | 0004900 | | | BAXLP = -BDS *SENSEU60 | | | | | | | | | | | | G |
| | 0004900 | | | 04C31,45, 31-37T | | | | | | | | | | | | G |
| P | 0004940 | | | * .CFDISC | | | | | | | | | | | | G |
| | 0004940 | | | 04C\$, 33,35,38 | | | | | | | | | | | | G |
| * | 0004950 | | | BAXUP = FAM CLOCK CYCLE FOR IOP, UPPER POINTER DETERMINES | | | | | | | | | | | | E |
| * | 0004970 | | | FAM ADDRESS | | | | | | | | | | | | E |
| P | 0005000 | | | BAXUP = -BDS *SENSE060 | | | | | | | | | | | | G |
| | 0005000 | | | 04C23,47, 23-36T | | | | | | | | | | | | G |
| P | 0005050 | | | * .CFIOP | | | | | | | | | | | | G |
| | 0005050 | | | 04C\$, 24,25,26 | | | | | | | | | | | | G |
| P | 0005110 | | | BCA = -CLK * + .CLK .CD0 .SC2 | | | | | | | | | | | | G |
| | 0005110 | | | 02C08,\$,\$,34X,24,25, 08-24C40T | | | | | | | | | | | | G |
| P | 0005111 | | | + .DSRZ .DCL | | | | | | | | | | | | G |
| | 0005111 | | | 02C\$,30, 31, 33 | | | | | | | | | | | | G |
| P | 0005112 | | | + .GND16 | | | | | | | | | | | | G |
| | 0005112 | | | 02C\$,26, 27,29 | | | | | | | | | | | | G |

| CODE | LINE NO. | CHG | LOGIC EQUATIONS | PINS | REMARKS | C/L |
|------|----------|-----|---|------|---------|-----|
| 1 | 2345678 | 9 | 10 123456789 20 23456789 30 23456789 40 23456789 50 23456789 60 23456789 70 | | | |
| P | 0006720 | | S/BC7 = .NBC7. | | | A |
| P | 0006720 | | 01B12, 14. | | | A |
| P | 0006740 | | M/BC7 = .GND04 | | | A |
| P | 0006740 | | 01B05. | | | A |
| P | 0006760 | | E/BC7 = .BRE | | | A |
| P | 0006760 | | 01B18X. | | | A |
| P | 0006780 | | C/BC7 = .BC8 | | | A |
| P | 0006780 | | 01B10. | | | A |
| P | 0006800 | | BC8 = FF | | | A |
| P | 0006800 | | 02B23. | | | A |
| P | 0006900 | | NBC8 = NFF | | | A |
| P | 0006900 | | 02B20. | | | A |
| P | 0006910 | | S/BC8 = .NBC8 | | | A |
| P | 0006910 | | 02B22. | | | A |
| P | 0006920 | | M/BC8 = .GND05 | | | A |
| P | 0006920 | | 02B03. | | | A |
| P | 0006930 | | E/BC8 = .BRE | | | A |
| P | 0006930 | | 02B18X. | | | A |
| P | 0006940 | | C/BC8 = .BC8CLK | | | A |
| P | 0006940 | | 02B01. | | | A |
| P | 0006950 | | BC8CLK = B . .BIT7.NBYTE361 | | | B |
| P | 0006950 | | 05B33,25, 26, 27. | | | A |
| * | 0006975 | | BFE = BUFFER EMPTY (FAM) | | | E |
| P | 0007000 | | BFE = B .NDP3.DPC0-1.NDPF | | | A |
| P | 0007000 | | 25B12,06, 05, 07. | | | A |
| P | 0007100 | | NBFE = I .BFE. | | | A |
| P | 0007100 | | 23B15,12X,13,15-21B47T | | | A |
| * | 0007150 | | BFR = BUFFER READY FOR IOP SERVICE (FAM) | | | E |
| P | 0007200 | | BFR = B * + .LT4.REDA. | | | A |
| P | 0007200 | | 17A46,\$,\$,31, 27, 41X, | | | A |
| P | 0007225 | | + .GT12.WCH. | | | A |
| P | 0007225 | | 17A\$,25, 26, 35X, | | | A |
| P | 0007226 | | B .PWC . | | | K |
| P | 0007226 | | 08B45,39, 42. | | | K |
| P | 0007250 | | BFEPWC = B .BFE.PWC | | | A |
| P | 0007250 | | 15C24,23, 22. | | | A |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L | | | |
|------|----------------------|-----|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----|---|
| | 1 2 3 4 5 6 7 8 9 10 | | 10 1 2 3 4 5 6 7 8 9 10 | 20 2 3 4 5 6 7 8 9 10 | 30 2 3 4 5 6 7 8 9 10 | 40 2 3 4 5 6 7 8 9 10 | 50 2 3 4 5 6 7 8 9 10 | 60 2 3 4 5 6 7 8 9 10 | 70 | |
| P | 0007300 | | B | .FSD | | | | | A | |
| P | 0007300 | | 27C08X, | 01X, | | | | | A | |
| P | 0007400 | | FF | | | | | | A | |
| P | 0007400 | | 02B11, 11- | 21B02T | | | | | A | |
| P | 0007500 | | NFF | | | | | | A | |
| P | 0007500 | | 02B13, | | | | | | A | |
| P | 0007520 | | .BIT7. | | | | | | A | |
| P | 0007520 | | 02B15, 19, | | | | | | A | |
| P | 0007540 | | .GND05 | | | | | | A | |
| P | 0007540 | | 02B08, | | | | | | A | |
| P | 0007560 | | .BRE | | | | | | A | |
| P | 0007560 | | 02B18X, | | | | | | A | |
| P | 0007580 | | .BCC | | | | | | A | |
| P | 0007580 | | 02B06, | | | | | | A | |
| P | 0007600 | | B | .NBTC0.NBTC1.BTC2. | | | | | A | |
| P | 0007600 | | 04B15, 30, | 18, 31, 17, | | | | | A | |
| P | 0007700 | | I | .BTC0.BTC1.PR | | | | | A | |
| P | 0007700 | | 20A12, 06, | 07, 05, | | | | | A | |
| P | 0007800 | | B | .BTC0.BTC1.BTC2 | | | | | A | |
| P | 0007800 | | 25A12, 05, | 06, 07, | | | | | A | |
| * | 0007850 | | BR0-BR7 = B REGISTER OUTPUTS (BUFFER BETWEEN CONTROLLER AND STORAGE UNIT) | | | | | | | E |
| * | 0007860 | | | | | | | | | E |
| P | 0007900 | | FF | | | | | | A | |
| P | 0007900 | | 20C29, | | | | | | A | |
| P | 0008000 | | NFF | | | | | | A | |
| P | 0008000 | | 20C31, | | | | | | A | |
| P | 0008006 | | * + | .SRBR.STRKBR0 | | | | | A | |
| P | 0008006 | | 20CS, \$, | 34X, 24, | | | | | A | |
| P | 0008012 | | + .BR0. | GND23 | | | | | A | |
| P | 0008018 | | 20CS, 28X, | 36X, | | | | | A | |
| P | 0008018 | | + .BR1. | GND23 | | | | | A | |
| P | 0008018 | | 20CS, 25X, | 38X, | | | | | A | |
| P | 0008024 | | + .BR0SET. | LOBR | | | | | A | |
| P | 0008024 | | 20CS, 26, | 40X, | | | | | A | |
| P | 0008030 | | + .DAIR. | SDBRO | | | | | A | |
| P | 0008030 | | 20CS, 22, | 23, | | | | | A | |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L | | |
|------|----------|-----|--------------------------------|-----------|------|---------|-----|----|----|
| 1 | 2345678 | 9 | 10 | 20 | 30 | 40 | 50 | 60 | 70 |
| | 0008036 | | R/BR0 = . | | | | | | A |
| P | 0008036 | | 20C42X, | | | | | | A |
| | 0008042 | | C/BR0 = .BCB | | | | | | A |
| P | 0008042 | | 20C01X, | | | | | | A |
| | 0008050 | | BROSET = -BL * + .BROSET.SBRX0 | | | | | | A |
| P | 0008050 | | 19C37,\$,\$,37, | 27X, | | | | | A |
| | 0008060 | | + .DT0.SBRXDT | | | | | | A |
| P | 0008060 | | 19C\$,45,30X, | | | | | | A |
| | 0008070 | | + .LDRM.TRK2 | | | | | | A |
| P | 0008070 | | 19C\$,31X,46, | | | | | | A |
| | 0008080 | | + .LDISC.TRK1 | | | | | | A |
| P | 0008080 | | 19C\$,29X,47, | | | | | | A |
| | 0008090 | | + .PA0SET.SBRXPA | | | | | | A |
| P | 0008090 | | 19C\$,50,28X, | | | | | | A |
| | 0008100 | | BR1 = FF | | | | | | A |
| P | 0008100 | | 20C33, | | | | | | A |
| | 0008200 | | NBR1 = NFF | | | | | | A |
| P | 0008200 | | 20C35, | | | | | | A |
| | 0008207 | | S/BR1 = * + .BR0.SRBR | | | | | | A |
| P | 0008207 | | 20C\$,,\$,28X,34X, | | | | | | A |
| | 0008214 | | + .BR1.GND23 | | | | | | A |
| P | 0008214 | | 20C\$,25X,36X, | | | | | | A |
| | 0008221 | | + .BR2.GND23 | | | | | | A |
| P | 0008221 | | 20C\$,10X,38X, | | | | | | A |
| | 0008228 | | + .BR1SET.LOBR | | | | | | A |
| P | 0008228 | | 20C\$,30,40X, | | | | | | A |
| | 0008235 | | R/BR1 = . | | | | | | A |
| P | 0008235 | | 20C42X, | | | | | | A |
| | 0008242 | | C/BR1 = .BCB | | | | | | A |
| P | 0008242 | | 20C01X, | | | | | | A |
| | 0008250 | | BR1SET = -BL * + .BR1SET.SBRX0 | | | | | | A |
| P | 0008250 | | 19C33,\$,\$,33, | 27X, | | | | | A |
| | 0008260 | | + .DT1.SBRXDT | | | | | | A |
| P | 0008260 | | 19C\$,26,30X, | | | | | | A |
| | 0008270 | | + .LDRM.TRK3 | | | | | | A |
| P | 0008270 | | 19C\$,31X,25, | | | | | | A |
| | 0008280 | | + .LDISC.TRK2 | | | | | | A |
| P | 0008280 | | 19C\$,29X,24, | | | | | | A |
| | 0008290 | | + .PA0.SBRXPA | | | | | | A |
| P | 0008290 | | 19C\$,23,28X, | | | | | | A |

| CODE | LINE NO. | CHG | LOGIC EQUATIONS | | | PINS | | | REMARKS | C/L |
|------|----------|-----|-----------------|----|--------------------------------|------|----|----|---------|-----|
| | | | 10 | 20 | 30 | 40 | 50 | 60 | | |
| P | 0008300 | | | | BR2 = FF | | | | | A |
| P | 0008300 | | | | 20C37. | | | | | A |
| P | 0008400 | | | | NBR2 = NFF | | | | | A |
| P | 0008400 | | | | 20C39. | | | | | A |
| P | 0008407 | | | | S/BR2 = * + .BR1.SRBR | | | | | A |
| P | 0008407 | | | | 20C\$.\$.25X,34X, | | | | | A |
| P | 0008414 | | | | + .BR2.GND23 | | | | | A |
| P | 0008414 | | | | 20C\$.10X,36X, | | | | | A |
| P | 0008421 | | | | + .GND23. | | | | | A |
| P | 0008421 | | | | 20C\$.38X, 45X, | | | | | A |
| P | 0008428 | | | | + .BR2SET.LDBR | | | | | A |
| P | 0008428 | | | | 20C\$.44, 40X, | | | | | A |
| P | 0008435 | | | | R/BR2 = . | | | | | A |
| P | 0008435 | | | | 20C42X, | | | | | Δ |
| P | 0008442 | | | | C/BR2 = .BCB | | | | | A |
| P | 0008442 | | | | 20C01X, | | | | | A |
| P | 0008450 | | | | BR2SET = -BL * + .BR2SET.SBRX0 | | | | | A |
| P | 0008450 | | | | 19C34,\$,\$,34, 27X, | | | | | A |
| P | 0008460 | | | | + .DT2.SBRXDT | | | | | A |
| P | 0008460 | | | | 19C\$.41, 30X, | | | | | A |
| P | 0008470 | | | | + .LDRM.TRK4 | | | | | A |
| P | 0008470 | | | | 19C\$.31X, 40, | | | | | A |
| P | 0008480 | | | | + .LDISC.TRK3 | | | | | A |
| P | 0008480 | | | | 19C\$.29X, 43, | | | | | A |
| P | 0008490 | | | | + .PA1.SBRXPA | | | | | A |
| P | 0008490 | | | | 19C\$.44, 28X, | | | | | A |
| P | 0008500 | | | | BR3 = FF | | | | | A |
| P | 0008500 | | | | 20C41, | | | | | A |
| P | 0008600 | | | | NBR3 = NFF | | | | | A |
| P | 0008600 | | | | 20C43, | | | | | A |
| P | 0008607 | | | | S/BR3 = * + .BR2.SRBR | | | | | A |
| P | 0008607 | | | | 20C\$.\$.10X,34X, | | | | | A |
| P | 0008614 | | | | + .GND23. | | | | | A |
| P | 0008614 | | | | 20C\$.36X, 45X, | | | | | A |
| P | 0008621 | | | | + .GND23. | | | | | A |
| P | 0008621 | | | | 20C\$.38X, 47, | | | | | A |
| P | 0008628 | | | | + .BR3SET.LDBR | | | | | A |
| P | 0008628 | | | | 20C\$.46, 40X, | | | | | A |
| P | 0008635 | | | | R/BR3 = . | | | | | A |
| P | 0008635 | | | | 20C42X, | | | | | Δ |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | / | PINS | / | REMARKS | C/L | | | | | | |
|------|----------|-----|-------|--------------------------------|----|----------|----|----------|-----|----------|----|----------|----|----------|----|
| 1 | 2345678 | 9 | 10 | 123456789 | 20 | 23456789 | 30 | 23456789 | 40 | 23456789 | 50 | 23456789 | 60 | 23456789 | 70 |
| P | 0008642 | | | C/BR3 = .BCB | | | | | | | | | | | A |
| P | 0008642 | | | 20C01X, | | | | | | | | | | | A |
| P | 0008650 | | | BR3SET = -BL * + .BR3SET.SBRX0 | | | | | | | | | | | A |
| P | 0008650 | | | 19C35,\$,\$,35, | | | | | | | | | | | A |
| P | 0008660 | | | + .DT3.SBRXDT | | | | | | | | | | | A |
| P | 0008660 | | | 19C\$,42,30X, | | | | | | | | | | | A |
| P | 0008670 | | | + .LDRM.TRK5 | | | | | | | | | | | A |
| P | 0008670 | | | 19C\$,31X,39, | | | | | | | | | | | A |
| P | 0008680 | | | + .LDISC.TRK4 | | | | | | | | | | | A |
| P | 0008680 | | | 19C\$,29X,36, | | | | | | | | | | | A |
| P | 0008690 | | | + .PA2.SBRXPA | | | | | | | | | | | A |
| P | 0008690 | | | 19C\$,38,28X, | | | | | | | | | | | A |
| P | 0008700 | | | BR4 = FF | | | | | | | | | | | A |
| P | 0008700 | | | 20C21X, | | | | | | | | | | | A |
| P | 0008800 | | | NBR4 = NFF | | | | | | | | | | | A |
| P | 0008800 | | | 20C27, | | | | | | | | | | | A |
| P | 0008807 | | | S/BR4 = * + .BR3.SRBR | | | | | | | | | | | A |
| P | 0008807 | | | 20C\$,,\$,18,13X, | | | | | | | | | | | A |
| P | 0008814 | | | + .BR5.WPRE | | | | | | | | | | | A |
| P | 0008814 | | | 20C\$,17X,14X, | | | | | | | | | | | A |
| P | 0008821 | | | + .BR4SET.LDBR | | | | | | | | | | | A |
| P | 0008821 | | | 20C\$,20,11X, | | | | | | | | | | | A |
| P | 0008828 | | | + .BRO.GND23 | | | | | | | | | | | A |
| P | 0008828 | | | 20C\$,28X,12X, | | | | | | | | | | | A |
| P | 0008835 | | | R/BR4 = | | | | | | | | | | | A |
| P | 0008835 | | | 20C09X, | | | | | | | | | | | A |
| P | 0008842 | | | C/BR4 = .BCB | | | | | | | | | | | A |
| P | 0008842 | | | 20C01X, | | | | | | | | | | | A |
| P | 0008850 | | | BR4SET = -BL * + .BR4SET.SBRX0 | | | | | | | | | | | A |
| P | 0008850 | | | 19C18,\$,\$,18,17X, | | | | | | | | | | | A |
| P | 0008860 | | | + .DT4.SBRXDT | | | | | | | | | | | A |
| P | 0008860 | | | 19C\$,19,30X, | | | | | | | | | | | A |
| P | 0008870 | | | + .LDRM.TRK6 | | | | | | | | | | | A |
| P | 0008870 | | | 19C\$,31X,20, | | | | | | | | | | | A |
| P | 0008880 | | | + .LDISC.TRK5 | | | | | | | | | | | A |
| P | 0008880 | | | 19C\$,29X,21, | | | | | | | | | | | A |
| P | 0008890 | | | + .PA3.SBRXPA | | | | | | | | | | | A |
| P | 0008890 | | | 19C\$,22,28X, | | | | | | | | | | | A |
| P | 0008900 | | | BR5 = FF | | | | | | | | | | | A |
| P | 0008900 | | | 20C17X, | | | | | | | | | | | A |

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| CODE | LINE NO. | CHG | LOGIC EQUATIONS | | | | | | | PINS | REMARKS | C/L | |
|------|----------|-----|-----------------|----|----|----|----|----|----|------|---------|-----|---|
| | | | 10 | 20 | 30 | 40 | 50 | 60 | 70 | | | | |
| | 0009000 | | | | | | | | | | | | A |
| P | 0009000 | | | | | | | | | | | | A |
| | 0009007 | | | | | | | | | | | | A |
| P | 0009007 | | | | | | | | | | | | A |
| | 0009014 | | | | | | | | | | | | A |
| P | 0009014 | | | | | | | | | | | | A |
| | 0009021 | | | | | | | | | | | | A |
| P | 0009021 | | | | | | | | | | | | A |
| | 0009028 | | | | | | | | | | | | A |
| P | 0009028 | | | | | | | | | | | | A |
| | 0009035 | | | | | | | | | | | | A |
| P | 0009035 | | | | | | | | | | | | A |
| | 0009042 | | | | | | | | | | | | A |
| P | 0009042 | | | | | | | | | | | | A |
| | 0009050 | | | | | | | | | | | | A |
| P | 0009050 | | | | | | | | | | | | A |
| | 0009060 | | | | | | | | | | | | A |
| P | 0009060 | | | | | | | | | | | | A |
| | 0009070 | | | | | | | | | | | | A |
| P | 0009070 | | | | | | | | | | | | A |
| | 0009080 | | | | | | | | | | | | A |
| P | 0009080 | | | | | | | | | | | | A |
| | 0009090 | | | | | | | | | | | | A |
| P | 0009090 | | | | | | | | | | | | A |
| | 0009100 | | | | | | | | | | | | A |
| P | 0009100 | | | | | | | | | | | | A |
| | 0009200 | | | | | | | | | | | | A |
| P | 0009200 | | | | | | | | | | | | A |
| | 0009207 | | | | | | | | | | | | A |
| P | 0009207 | | | | | | | | | | | | A |
| | 0009214 | | | | | | | | | | | | A |
| P | 0009214 | | | | | | | | | | | | A |
| | 0009221 | | | | | | | | | | | | A |
| P | 0009221 | | | | | | | | | | | | A |
| | 0009228 | | | | | | | | | | | | A |
| P | 0009228 | | | | | | | | | | | | A |
| | 0009235 | | | | | | | | | | | | A |
| P | 0009235 | | | | | | | | | | | | A |
| | 0009242 | | | | | | | | | | | | A |
| P | 0009242 | | | | | | | | | | | | A |

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| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L |
|------|----------|-----|---------------------------------------|-----------|------|---------|-----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | 2345678 | 9 | 10 | 11 | 12 | 13 | 14 |
| | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| | 29 | 30 | 31 | 32 | 33 | 34 | 35 |
| | 36 | 37 | 38 | 39 | 40 | 41 | 42 |
| | 43 | 44 | 45 | 46 | 47 | 48 | 49 |
| | 50 | 51 | 52 | 53 | 54 | 55 | 56 |
| | 57 | 58 | 59 | 60 | 61 | 62 | 63 |
| | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| P | 0009250 | | BR6SET = -BL * + .BR6SET.SBRX0 | | | | A |
| | 0009250 | | 19C14,\$,\$,14, | | | | A |
| P | 0009260 | | + .DT6.SBRXDT | | | | A |
| | 0009260 | | 19C\$,07, 30X, | | | | A |
| P | 0009270 | | + .LDRM.TRK8 | | | | A |
| | 0009270 | | 19C\$,31X, 08, | | | | A |
| P | 0009280 | | + .LDISC.TRK7 | | | | A |
| | 0009280 | | 19C\$,29X, 12, | | | | A |
| P | 0009290 | | + .PA5.SBRXPA | | | | A |
| | 0009290 | | 19C\$,05, 28X, | | | | A |
| P | 0009300 | | BR7 = FF | | | | A |
| | 0009300 | | 20C03X,03-32A35C | | | | A |
| P | 0009400 | | NBR7 = NFF | | | | A |
| | 0009400 | | 20C05, | | | | A |
| P | 0009407 | | S/BR7 = * + .BR6:SRBR | | | | A |
| | 0009407 | | 20C\$,,\$,07X,13X, | | | | A |
| P | 0009414 | | + .NBR7.WPRE | | | | A |
| | 0009414 | | 20C\$,06, 14X, | | | | A |
| P | 0009421 | | + .BR7SET.LOBR | | | | A |
| | 0009421 | | 20C\$,08, 11X, | | | | A |
| P | 0009428 | | + .GND23. | | | | A |
| | 0009428 | | 20C\$,12X, 45X, | | | | A |
| P | 0009435 | | R/BR7 = . | | | | A |
| | 0009435 | | 20C09X, | | | | A |
| P | 0009442 | | C/BR7 = .BCB | | | | A |
| | 0009442 | | 20C01X, | | | | A |
| P | 0009450 | | BR7SET = -BL * + .BR7SET.SBRX0 | | | | A |
| | 0009450 | | 19C15,\$,\$,15, | | | | A |
| P | 0009460 | | + .DT7.SBRXDT | | | | A |
| | 0009460 | | 19C\$,06, 30X, | | | | A |
| P | 0009470 | | + .LDRM.S0 | | | | A |
| | 0009470 | | 19C\$,31X, 10, | | | | A |
| P | 0009480 | | + .LDISC.TRK8 | | | | A |
| | 0009480 | | 19C\$,29X, 11, | | | | A |
| P | 0009490 | | + .PA6.SBRXPA | | | | A |
| | 0009490 | | 19C\$,09, 28X, | | | | A |
| * | 0009495 | | BRE = BIT AND BYTE COUNTER RESET TERM | | | | E |
| P | 0009500 | | BRE = B * + .NDCB . | | | | D |
| | 0009500 | | 08C45,\$,\$,40, 39,41X, | | | | A |
| P | 0009600 | | + .SYNC1.NSYNC2. | | | | A |
| | 0009600 | | 08C\$,37, 38, 35X, | | | | A |
| * | 0009650 | | BRR1-BRR2 = FAM CLOCK CYCLE FOR DISC | | | | E |

7201 RAD

| CODE | LINE NO. | CHG | LOGIC EQUATIONS | | | | | | | | | | PINS | REMARKS | C/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|----------|-----|----------------------------------|---|---|---|---|---|---|----|----|----|------|---------|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| P | 0009700 | | BRR1 = B * + .BIT1.J034. | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0009700 | | 16844,\$,\$.43, 42, 41X. | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0009733 | | + .BRR1.CM001. | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0009733 | | 168\$,33, 34, 35X. | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0009766 | | I .CFDISCL.T2 | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0009766 | | 16827,30X, 31, | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0009800 | | BRR2 = B * + .BTC1.J036 | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0009800 | | 11820,\$,\$.22, 21,20-09803T | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0009825 | | + .IXBR.J035 | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0009825 | | 118\$,24, 23, | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0009850 | | + .BRR2.CM001 | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0009850 | | 118\$,01, 02, | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0009875 | | I .CFDISCL.T4 | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0009875 | | 18828,30X, 29, | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0009900 | | BSYC = B * + .ASCM.ASCR.AVIR.FSR | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0009900 | | 31C21X,\$,\$.09, 07X, 11X, 15X, | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0009950 | | + .AIOM.AIOR.AVIR.FSD | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0009950 | | 31C\$,23X, 17X, 11X, 26X, | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| * | 0009975 | | BTC0-BTC2 = BIT COUNTER | | | | | | | | | | | | | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0010000 | | BTC0 = FF | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0010000 | | 02B07, | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0010100 | | NBTC0 = NFF | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0010100 | | 02B09, | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0010120 | | S/BTC0 = .NBTC0. | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0010120 | | 02B12, 14, | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0010140 | | M/BTC0 = .GND05 | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0010140 | | 02B05, | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0010160 | | E/BTC0 = .BRE | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0010160 | | 02B18X, | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0010180 | | C/BTC0 = .BTC1 | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0010180 | | 02B10, | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0010200 | | BTC1 = FF | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0010200 | | 02B27, | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0010300 | | NBTC1 = NFF | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0010300 | | 02B44, | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0010320 | | S/BTC1 = .NBTC1 | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0010320 | | 02B45, | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0010340 | | M/BTC1 = .GND05 | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0010340 | | 02B34, | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



7201 RAD

18
135746-001 K
06/18/69

| CODE | LINE NO. | CHG | LOGIC EQUATIONS | PINS | REMARKS | C/L | | | | |
|------|----------|-----|--|--------------|--------------|--------------|--------------|--------------|--------|---|
| I | 2345678 | 9 | 10, 23456789 | 20, 23456789 | 30, 23456789 | 40, 23456789 | 50, 23456789 | 60, 23456789 | 70 | |
| P | 0010360 | | E/BTC1 = .BRE 02818X, | | | | | | A A | |
| P | 0010380 | | C/BTC1 = .BTC2 02830, | | | | | | A A | |
| P | 0010400 | | BTC2 = FF 15823, | | | | | | A A | |
| P | 0010500 | | NBTC2 = NFF 15825, | | | | | | A A | |
| P | 0010516 | | S/BTC2 = .NBTC2. 15829, 28, | | | | | | A A | |
| P | 0010532 | | R/BTC2 = .NSYNC1 15826, | | | | | | A A | |
| P | 0010548 | | M/BTC2 = .GND10 15824, | | | | | | A A | |
| P | 0010564 | | E/BTC2 = .MANRST 15822X, | | | | | | A A | |
| P | 0010580 | | C/BTC2 = .BCB. 15830, 46X, | | | | | | A A | |
| * | 0010590 | | BY0-359 = READ OR WRITE DATA BYTE 0 THRU 359 | | | | | | | E |
| P | 0010600 | | BY0-359 = B * + .RWCEN.SYNC1. 03802, \$, \$, 22, 17, 07X, | | | | | | A | |
| P | 0010700 | | + .BY0-359.CM001.J016 03B\$, 24, 12X, 23, | | | | | | A A | |
| P | 0011000 | | BYCLKEN = -PET 15A20 | | | | | | H H | |
| P | 0011200 | | BYTE359 = B .BC6.BC7.BC8.CM003 08B14, 20, 21, 29, 19, | | | | | | A A | |
| * | 0011225 | | BYT10 = BYTE 10 | | | | | | | E |
| P | 0011250 | | BYT10 = B * + .NDCB. 16847, \$, \$, 29, 30, 41X, | | | | | | C A | |
| P | 0011275 | | + .BC5.BC7. 16B\$, 28, 36, 35X, | | | | | | A A | |
| P | 0011300 | | BYTE360 = B .BC5.NBC8.CM003 25A33, 25, 27, 26, | | | | | | A A | |
| * | 0011340 | | RBY1-360 = READ BYTE 1 THRU 360 | | | | | | | E |

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| CODE | LINE NO. | CHG | LOGIC EQUATIONS / PINS / REMARKS | | | | | | | | | | | | | | C/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|----------|-----|----------------------------------|---|---|---|---|---|---|---|---|----|----|----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 |
| P | 0011350 | | RBY1-360 = B * + .J017.RBY1-360. | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011350 | | 16B46, S, S, 27, 31, 41X, | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011375 | | + .BY0-359.REOBC8. | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011375 | | 16B\$, 26, 25, 35X, | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011380 | | NRBY1-360 = I .RBY1-360 | | | | | | | | | | | | | | F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011380 | | 21A01, 06X, 33X, 11 | | | | | | | | | | | | | | F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011400 | | BYTE361 = B .BC5.BC8.CM003 | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011400 | | 08B12, 06, 07, 05, | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011450 | | NBYTE361 = I .BYTE361. | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011450 | | 27A20, 14, 10X, 17X, | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| * | 0011600 | | CCH = COMMAND CHAINING | | | | | | | | | | | | | | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011700 | | CCH = FF | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011700 | | 24A37, | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011800 | | NCCH = NFF | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011800 | | 24A42, | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011816 | | S/CCH = .CCHSET.CCHSET1 | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011816 | | 24A34, 33, | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011832 | | R/CCH = .00S | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011832 | | 24A35, | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011848 | | M/CCH = .GND03 | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011848 | | 24A31, | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011864 | | E/CCH = .RESA | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011864 | | 24A22X, | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011880 | | C/CCH = .RSDC | | | | | | | | | | | | | | C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011880 | | 24A46X, 36 | | | | | | | | | | | | | | C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011900 | | CCHSET = B .01S.T0S | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0011900 | | 29A01, 11, 10, | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0012000 | | CCHSET1 = B .DA2U.NDA3U.NUNE | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0012000 | | 29A33, 27, 25, 26, | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0012200 | | CDO = FF | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0012200 | | 14C07, | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0012300 | | NCDO = NFF | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0012300 | | 14C09, | | | | | | | | | | | | | | H | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0012320 | | S/CDO = .NCDO.NDCL | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0012320 | | 14C14, 12, | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L | | | | | | | | | |
|------|----------|-----|-----------------------------------|---------------------|---------------|----------|-----|----------|----|----------|----|----------|----|----------|----|---|
| 1 | 2345678 | 9 | 10 | 123456789 | 20 | 23456789 | 30 | 23456789 | 40 | 23456789 | 50 | 23456789 | 60 | 23456789 | 70 | |
| | 0012900 | | CDNSET = B | .DATAS.TOS | | | | | | | | | | | | A |
| P | 0012900 | | 29A36,37, | 44, | | | | | | | | | | | | A |
| * | 0012950 | | CFDISC = FAM CLOCK CYCLE FOR DISC | | | | | | | | | | | | | E |
| | 0013000 | | CFDISC = B | * + .NARR2.BRR2. | | | | | | | | | | | | C |
| P | 0013000 | | 08C46,\$,\$,27, | 31, | 41X,46-09B42T | | | | | | | | | | | A |
| | 0013050 | | | + .CFDISC.DCBNT5. | | | | | | | | | | | | A |
| P | 0013050 | | 08C\$,26, | 25, | 35X, | | | | | | | | | | | A |
| | 0013100 | | CFDISCL = -BL | * + .CFDISCL.NT0 | | | | | | | | | | | | A |
| P | 0013100 | | 07B12,\$,\$,12, | 23X, | 12-09B45T | | | | | | | | | | | A |
| | 0013133 | | | + .BAXUP.GND07 | | | | | | | | | | | | A |
| P | 0013133 | | 07B\$,18X, | 11, | | | | | | | | | | | | A |
| | 0013166 | | | + .BAXLP. | | | | | | | | | | | | A |
| P | 0013166 | | 07B\$,22X, | 10, | | | | | | | | | | | | A |
| * | 0013175 | | CFIOP = FAM CLOCK CYCLE FOR IOP | | | | | | | | | | | | | E |
| | 0013200 | | CFIOP = I | * + .CFDISC.DCBNT5. | | | | | | | | | | | | A |
| P | 0013200 | | 10C03,\$,\$,10, | 11, | 12X,03-04C06T | | | | | | | | | | | A |
| | 0013250 | | | + .NARR2.BRR2. | | | | | | | | | | | | C |
| P | 0013250 | | 10C\$,09, | 08, | 07X, | | | | | | | | | | | A |
| | 0013300 | | CFIOPL = -BL | * + .CFIOPL.NT0 | | | | | | | | | | | | A |
| P | 0013300 | | 07B14,\$,\$,14, | 23X, | 14-21B41T | | | | | | | | | | | A |
| | 0013366 | | | + .BAXUP. | | | | | | | | | | | | A |
| P | 0013366 | | 07B\$,18X, | 15, | | | | | | | | | | | | A |
| | 0013432 | | | + .BAXLP.GND07 | | | | | | | | | | | | A |
| P | 0013432 | | 07B\$,22X, | 17, | | | | | | | | | | | | A |
| * | 0013450 | | CHE =CHANNEL END | | | | | | | | | | | | | E |
| | 0013500 | | CHE = FF | | | | | | | | | | | | | A |
| P | 0013500 | | 06B07, | | | | | | | | | | | | | A |
| | 0013600 | | NCHE = NFF | | | | | | | | | | | | | A |
| P | 0013600 | | 06B09, | | | | | | | | | | | | | A |
| | 0013616 | | S/CHE = .DATAS.SEROIC | | | | | | | | | | | | | A |
| P | 0013616 | | 06B12, | 13, | | | | | | | | | | | | A |
| | 0013632 | | R/CHE = .00S | | | | | | | | | | | | | A |
| P | 0013632 | | 06B10, | | | | | | | | | | | | | A |
| | 0013648 | | M/CHE = .GND06 | | | | | | | | | | | | | A |
| P | 0013648 | | 06B08, | | | | | | | | | | | | | A |
| | 0013664 | | E/CHE = .NDCB | | | | | | | | | | | | | A |
| P | 0013664 | | 06B22X, | | | | | | | | | | | | | A |
| | 0013680 | | C/CHE = .SERVEX. | | | | | | | | | | | | | A |
| P | 0013680 | | 06B14, | 46X, | | | | | | | | | | | | A |
| * | 0013690 | | CHW = CHECK WRITE | | | | | | | | | | | | | E |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L |
|------|----------|-----|-------|---|------|---------|-----|
| 1 | 2345678 | 9 | 10 | 10 123456789 20 23456789 30 23456789 40 23456789 50 23456789 60 23456789 70 | | | |
| P | 0015400 | | | CM005 = B * + .DISC.TRK0. | | | A |
| | 0015400 | | | 17A02,\$,\$,17, 22, 07X. | | | A |
| P | 0015450 | | | + .DRM.TRK1. | | | A |
| | 0015450 | | | 17A\$,24, 23, 12X. | | | A |
| * | 0015475 | | | CNTRCL = COUNTER CLOCK TO PET | | | E |
| P | 0015500 | | | CNTRCL = B * + .TRKCLKEN.TRKCLRT. | | | A |
| | 0015500 | | | 17A45,\$,\$,39, 40, 41X,45-16A1HC | | | H |
| P | 0015600 | | | + .BYCLKEN.RSAP. | | | A |
| | 0015600 | | | 17A\$,37, 38, 35X. | | | A |
| | 0015650 | | | B .NSGLTRK. | | | E |
| P | 0015650 | | | 20B20,14, 10X,17X | | | E |
| * | 0015695 | | | CNTRST = COUNTER RESET FROM PET | | | E |
| P | 0015700 | | | CNTRST = -PET | | | A |
| | 0015700 | | | 16A15 | | | A |
| P | 0015800 | | | NCOMP = B * + .NBR7.DAIR. | | | A |
| | 0015800 | | | 16B02,\$,\$,22, 17, 07X. | | | A |
| | 0015850 | | | + .BR7.NDAIR. | | | H |
| P | 0015850 | | | 16B\$,24, 23, 12X | | | H |
| P | 0015900 | | | NCONP = -PET | | | H |
| | 0015900 | | | 15A36 | | | H |
| * | 0015975 | | | CONPA-CONPC = PET HAS CONTROL | | | E |
| P | 0016000 | | | CONPA = I .NCONP. | | | A |
| | 0016000 | | | 21A31,38, 33X,34X. | | | A |
| P | 0016100 | | | CONPAT = B .CONPC.DATAS | | | A |
| | 0016100 | | | 08B36,44, 37, | | | A |
| P | 0016200 | | | CONPB = I .NCONP. | | | A |
| | 0016200 | | | 21A30,37, 34X,44X. | | | A |
| P | 0016300 | | | CONPC = I .NCONP. | | | A |
| | 0016300 | | | 21A29,36, 10X,34X. | | | A |
| P | 0016400 | | | CONPORD = B .CONPC.005 | | | A |
| | 0016400 | | | 08B35,38, 43, | | | A |
| * | 0016600 | | | CSL = LOW PRIORITY SERVICE CALL | | | E |
| P | 0016700 | | | CSL = B .DCB.NSERVCON | | | A |
| | 0016700 | | | 25B02,09, 03, | | | A |
| P | 0016725 | | | B * + .CSL. | | | K |
| | 0016725 | | | 23A02X,\$,\$,02X, 43X | | | K |
| | 0016750 | | | + .CSLSET | | | K |
| P | 0016750 | | | 23A\$,31 37X, | | | K |
| | 0016775 | | | + .GND25 | | | K |
| P | 0016775 | | | 23A\$,33, 38X, | | | K |

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| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L | |
|------|----------|-----|---|---------------|------|---------|-----|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| P | 0016800 | | NCSL = I | .CSL. | | | A | |
| P | 0016800 | | 27A01,11, | 06X,33X, | | | A | |
| P | 0016900 | | CSLI = -DL *NFSC | | | | A | |
| P | 0016900 | | 29C23,31, | | | | A | |
| P | 0017000 | | NCSLI = I | .CSLI. | | | A | |
| P | 0017000 | | 21A28,35, | 05X,34X, | | | A | |
| P | 0017100 | | CSLSET= B * + .DATAS.J042 | | | | K | |
| P | 0017100 | | 26B20,\$,\$,22, | 21,20-21B20T | | | K | |
| P | 0017125 | | + .00S. | | | | K | |
| P | 0017125 | | 26B\$,24, 23, | | | | K | |
| P | 0017150 | | + .J041.0IS | | | | K | |
| P | 0017150 | | 26B\$,02, 01, | | | | K | |
| * | 0017200 | | CUP = CLOCK UPPER POINTER REGISTER | | | | | E |
| P | 0017300 | | CUP = B | .CFTIOPL.T2 | | | A | |
| P | 0017300 | | 05B46,40, | 41,46-21B39T | | | A | |
| * | 0017500 | | DAOD-DA7D = DATA LINES 0 THRU 7 TO LINE DRIVERS | | | | | E |
| P | 0017600 | | DAOD = -BL * + .DAOD.DARESET | | | | A | |
| P | 0017600 | | 21C18,\$,\$,18, | 17X,18-30C23C | | | A | |
| P | 0017660 | | + .DAXDT.DT0 | | | | A | |
| P | 0017660 | | 21C\$,30X, | 19, | | | A | |
| P | 0017720 | | + .SNSBYTE1.TRPR | | | | A | |
| P | 0017720 | | 21C\$,31X, | 20, | | | A | |
| P | 0017780 | | + .SNSBYTE2.TRK5 | | | | A | |
| P | 0017780 | | 21C\$,29X, | 21, | | | A | |
| P | 0017840 | | + .J031. | | | | A | |
| P | 0017840 | | 21C\$,22, | 28X, | | | A | |
| P | 0017850 | | DAOP = -PET | | | | A | |
| P | 0017850 | | 16A0B | | | | A | |
| P | 0017900 | | DAOR = -BCR | | | | A | |
| P | 0017900 | | 30C22, | | | | A | |
| P | 0018000 | | NDAOR = -IC | .DAOR | | | A | |
| P | 0018000 | | 24C07X,05X, | | | | A | |
| P | 0018100 | | DAOU = -BL * + .DAOU.GND19 | | | | A | |
| P | 0018100 | | 13C02,\$,\$,02, | 43X,02-21B05T | | | A | |
| P | 0018133 | | + .CONPC.DAOP | | | | A | |
| P | 0018133 | | 13C\$,37X, | 31, | | | A | |
| P | 0018166 | | + .NCONP.DAOR | | | | A | |
| P | 0018166 | | 13C\$,38X, | 33, | | | A | |



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| CODE | LINE NO. | LOGIC | EQUATIONS | PINS | REMARKS | C/L | | |
|------|----------|-------|-------------------------------|--------------|-------------|------------|------------|------------|
| 1 | 23456789 | 10 | 112345678920 | 212345678930 | 22345678940 | 2345678950 | 2445678960 | 2545678970 |
| P | 0018200 | | DA1D = -BL * + .DA1D.DARESET | | | A | | |
| | 0018200 | | 21C13,\$,\$,13, 17X,13-30C19C | | | A | | |
| P | 0018260 | | + .DAXDT.DT1 | | | A | | |
| | 0018260 | | 21C\$.30X, 04, ✓ | | | A | | |
| P | 0018320 | | + .GND24.SNSBYTE1 | | | A | | |
| | 0018320 | | 21C\$.03, 31X, ✓ | | | A | | |
| P | 0018380 | | + .SNSBYTE2.TRK6 | | | A | | |
| | 0018380 | | 21C\$.29X, 02, ✓ | | | A | | |
| P | 0018440 | | + .INLOIT. | | | A | | |
| | 0018440 | | 21C\$.01, 28X, ✓ | | | A | | |
| P | 0018450 | | DA1P = -PET | | | A | | |
| | 0018450 | | 16A07 | | | A | | |
| P | 0018500 | | DA1R = -BCR | | | A | | |
| | 0018500 | | 30C20, | | | A | | |
| P | 0018600 | | NDA1R = -IC .DA1R | | | A | | |
| | 0018600 | | 24C06X,08X, | | | A | | |
| P | 0018700 | | DA1U = -BL * + .DA1U.GND19 | | | A | | |
| | 0018700 | | 13C01,\$,\$,01, 43X,01-21B06T | | | A | | |
| P | 0018733 | | + .CONPC.DA1P | | | A | | |
| | 0018733 | | 13C\$.37X, 45, | | | A | | |
| P | 0018766 | | + .NCONP.DA1R | | | A | | |
| | 0018766 | | 13C\$.38X, 44, | | | A | | |
| P | 0018800 | | DA2D = -BL * + .DA2D.DARESET | | | A | | |
| | 0018800 | | 21C14,\$,\$,14, 17X,14-30C15C | | | A | | |
| P | 0018860 | | + .DAXDT.DT2 | | | A | | |
| | 0018860 | | 21C\$.30X, 07, | | | A | | |
| P | 0018920 | | + .GND24.SNSBYTE1 | | | A | | |
| | 0018920 | | 21C\$.08, 31X, | | | A | | |
| P | 0018980 | | + .SNSBYTE2.TRK7 | | | A | | |
| | 0018980 | | 21C\$.29X, 12, | | | A | | |
| P | 0019040 | | + .J032. | | | A | | |
| | 0019040 | | 21C\$.05, 28X, | | | A | | |
| P | 0019050 | | DA2P = -PET | | | A | | |
| | 0019050 | | 16A06 | | | A | | |
| P | 0019100 | | DA2R = -BCR | | | A | | |
| | 0019100 | | 30C18, | | | A | | |
| P | 0019200 | | NDA2R = -IC .DA2R | | | A | | |
| | 0019200 | | 24C24X,23X, | | | A | | |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | / | PINS | / | REMARKS | C/L |
|------|----------|------|-------------|-----------------|----------------|--------------|-------------|-------------|-----|
| I | 2345678 | 9 10 | 123456789 | 20 23456789 | 30 23456789 | 40 23456789 | 50 23456789 | 60 23456789 | 70 |
| P | 0020400 | | DA4R = -BCR | | | | | | A |
| P | 0020400 | | 30C08. | | | | | | A |
| P | 0020500 | | NDA4R = -IC | .DA4R | | | | | A |
| P | 0020500 | | 24C38X. | 41X. | | | | | A |
| P | 0020600 | | DA4U = B | * + .CONPA | .OR4P | .CONPORD | | | A |
| P | 0020600 | | 16C41. | \$. \$. 39X. | 38. | 37.41-09B14T | | | A |
| P | 0020633 | | | + .CONPAT. | .DA4P | | | | A |
| P | 0020633 | | | 16C\$. 44X. | 45. | | | | A |
| P | 0020666 | | | + .NCONP. | .DA4R | | | | A |
| P | 0020666 | | | 16C\$. 28X. | 27. | | | | A |
| P | 0020700 | | NDA4U = I | .DA4U. | | | | | A |
| P | 0020700 | | 12B17. | 24. | 20X. 21X. | 17-09B15T | | | A |
| P | 0020750 | | DA57 = B | .DA5U. | .DA7U | | | | A |
| P | 0020750 | | 25B01. | 11. | 10. | | | | A |
| P | 0020800 | | DA5D = -BL | * + .DA5D. | .DARESET | | | | A |
| P | 0020800 | | 21C33. | \$. \$. 33. | 27X. 33-30C09C | | | | A |
| P | 0020860 | | | + .DAXDT. | .DT5 | | | | A |
| P | 0020860 | | | 21C\$. 30X. | 26. | | | | A |
| P | 0020920 | | | + .SNSBYTE1. | .TRK2 | | | | A |
| P | 0020920 | | | 21C\$. 31X. | 25. | | | | A |
| P | 0020980 | | | + .S1. | .SNSBYTE2 | | | | A |
| P | 0020980 | | | 21C\$. 24. 29X. | | | | | A |
| P | 0021040 | | | + .J007. | | | | | A |
| P | 0021040 | | | 21C\$. 23. | 28X. | | | | A |
| P | 0021050 | | DA5P = -PET | | | | | | A |
| P | 0021050 | | 16A03 | | | | | | A |
| P | 0021100 | | DA5R = -BCR | | | | | | A |
| P | 0021100 | | 30C10. | | | | | | A |
| P | 0021200 | | NDA5R = -IC | .DA5R | | | | | A |
| P | 0021200 | | 24C22X. | 17X. | | | | | A |
| P | 0021300 | | DA5U = B | * + .CONPA | .USOR-5 | | | | A |
| P | 0021300 | | 16C42. | \$. \$. 39X. | 50. | 40.42-21B09T | | | A |
| P | 0021333 | | | + .CONPAT. | .DA5P | | | | A |
| P | 0021333 | | | 16C\$. 44X. | 43. | | | | A |
| P | 0021366 | | | + .NCONP. | .DA5R | | | | A |
| P | 0021366 | | | 16C\$. 28X. | 29. | | | | A |
| P | 0021400 | | NDA5U = I | .DA5U. | | | | | A |
| P | 0021400 | | 12B18. | 23. | 20X. 21X. | 18-09B17T | | | A |
| P | 0021450 | | DA63 = B | .DA3U. | .DA6U | | | | A |
| P | 0021450 | | 05B36. | 44. | 37. | | | | A |

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| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | / | PINS | / | REMARKS | C/L |
|------|----------|-----|--|------------------|---------------|------|---|---------|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| P | 0022700 | | DA7U = B | * + .CONPA | .USOR-7 | | | | A |
| | 0022700 | | 16C30,\$,\$,39X, | 34, | 33,30-22A12T | | | | A |
| P | 0022733 | | | + .CONPAT.DA7P | | | | | A |
| | 0022766 | | 16C\$,44X, | 46, | | | | | A |
| P | 0022766 | | | + .NCONP.DA7R | | | | | A |
| | 0022766 | | 16C\$,28X, | 26, | | | | | A |
| P | 0022800 | | NDA7U = I | .DA7U, | | | | | A |
| | 0022800 | | 12B25,19, | 20X,21X, | 25-09B19T | | | | A |
| * | 0022850 | | DAIR = READ DATA FROM STORAGE UNIT | | | | | | E |
| P | 0022900 | | DAIR = -BCR | | | | | | A |
| | 0022900 | | 30A13, | | | | | | A |
| P | 0022950 | | NDAIR = I | .DAIR, | | | | | A |
| | 0022950 | | 27A19,13, | 17X,44X, | | | | | A |
| * | 0022975 | | DAM = WRITE DATA AS MANCHESTER TO STORAGE UNIT | | | | | | E |
| P | 0023000 | | DAM = B | * + .BR7.CD0. | | | | | A |
| | 0023000 | | 30B04,\$,\$,06, | 05, | 07X,04-32A12C | | | | A |
| P | 0023100 | | | + .NBR7.NCD0. | | | | | A |
| | 0023100 | | 30B\$,13, | 14, | 12X, | | | | A |
| P | 0023200 | | DAPR = -BCR | | | | | | A |
| | 0023200 | | 30C27, | | | | | | A |
| * | 0023225 | | DARESET = IOP DATA LINES RESET SIGNAL | | | | | | E |
| P | 0023250 | | DARESET = I | .TOS. | | | | | A |
| | 0023250 | | 23B17,24, | 20X,21X, | 17-21B24T | | | | A |
| P | 0023266 | | | .NFSC. | | | | | A |
| | 0023266 | | 23B18,23, | 20X,21X, | | | | | A |
| P | 0023282 | | | .CFIOPL.DIS.TI | | | | | A |
| | 0023282 | | 23B46,41, | 40, | 50, | | | | A |
| * | 0023290 | | DATAS = CONTROLLER IS IN THE DATA STATE | | | | | | E |
| P | 0023300 | | DATAS = B | * + .NDORF.IORF. | | | | | A |
| | 0023300 | | 08C02,\$,\$,22, | 17, | 07X, | | | | A |
| P | 0023400 | | | + .DORF.NIORF. | | | | | A |
| | 0023400 | | 08C\$,23, | 24, | 12X, | | | | A |
| * | 0023450 | | DAXDT = TRANSFER DATA TO THE DATA LINES | | | | | | G |
| P | 0023500 | | DAXDT = -BDS | *SENSE200 | | | | | G |
| | 0023500 | | 04C22,01, | | 22-21B34T | | | | H |
| P | 0023550 | | | *.CFIOPL.REDA. | | | | | G |
| | 0023550 | | 04C\$, | 20, | 19, | 21 | | | G |
| * | 0023600 | | DCO = LAST BYTE FOR SEEK OR SENSE | | | | | | E |
| P | 0023700 | | DCO = FF | | | | | | A |
| | 0023700 | | 06B38, | | | | | | A |

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| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L | | |
|------|----------|-----------|-------|--------------------------------|-------------|-------------|-------------|-------------|-------------|
| | 1 | 2345678 9 | 10 | 123456789 20 | 23456789 30 | 23456789 40 | 23456789 50 | 23456789 60 | 23456789 70 |
| P | 0023800 | | | NDC0 = NFF | | | | | A |
| P | 0023800 | | | 06840, | | | | | A |
| P | 0023816 | | | S/DC0 = .SDC0.NTOS | | | | | A |
| P | 0023816 | | | 06844, 43, | | | | | A |
| P | 0023832 | | | R/DC0 = .NTOS | | | | | A |
| P | 0023832 | | | 06841, | | | | | A |
| P | 0023848 | | | M/DC0 = .GND06 | | | | | A |
| P | 0023848 | | | 06839, | | | | | A |
| P | 0023864 | | | E/DC0 = .NDCB | | | | | A |
| P | 0023864 | | | 06822X, | | | | | A |
| P | 0023880 | | | C/DC0 = .RSDC. | | | | | A |
| P | 0023880 | | | 06845, 46X, | | | | | A |
| P | 0023900 | | | DCA = -ISC* + .DA3R.NSWA3 | | | | | A |
| P | 0023900 | | | 24C09, \$, \$, 29X, 28, 09-13T | | | | | A |
| P | 0023911 | | | + .NDA3R.SWA3 | | | | | A |
| P | 0023911 | | | 24C\$, 33X, 43, | | | | | A |
| P | 0023922 | | | + .DA2R.NSWA2 | | | | | A |
| P | 0023922 | | | 24C\$, 23X, 21, | | | | | A |
| P | 0023933 | | | + .NDA2R.SWA2 | | | | | A |
| P | 0023933 | | | 24C\$, 24X, 02, | | | | | A |
| P | 0023944 | | | + .DA1R.NSWA1 | | | | | A |
| P | 0023944 | | | 24C\$, 08X, 04, | | | | | A |
| P | 0023955 | | | + .NDA1R.SWA1 | | | | | A |
| P | 0023955 | | | 24C\$, 06X, 01, | | | | | A |
| P | 0023966 | | | + .DA0R.NSWA0 | | | | | A |
| P | 0023966 | | | 24C\$, 05X, 11, | | | | | A |
| P | 0023977 | | | + .NDA0R.SWA0 | | | | | A |
| P | 0023977 | | | 24C\$, 07X, 10, | | | | | A |
| P | 0023988 | | | I .FSC | | | | | A |
| P | 0023988 | | | 31C10, 03, | | | | | A |
| P | 0024000 | | | NDCA = I .DCA | | | | | A |
| P | 0024000 | | | 31C34X, 18X, | | | | | A |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C7L |
|------|----------------|-----|-----------------------------|---------------------------------|-------------------------|-------------------------|-----|
| | 1 2345678 9 10 | | 10 123456789 20 23456789 30 | 20 23456789 30 23456789 40 | 23456789 50 23456789 60 | 23456789 60 23456789 70 | |
| | 0024100 | | | DCA47 = -ISC* + .DA7R.NSWA7 | | | A |
| P | 0024100 | | | 24C37, \$, \$, 44X, 47, | | | A |
| | 0024112 | | | + .NDA7R.SWA7 | | | A |
| P | 0024112 | | | 24C\$, 42X, 45, | | | A |
| | 0024124 | | | + .DA6R.NSWA6 | | | A |
| P | 0024124 | | | 24C\$, 26X, 27, | | | A |
| | 0024136 | | | + .NDA6R.SWA6 | | | A |
| P | 0024136 | | | 24C\$, 25X, 46, | | | A |
| | 0024148 | | | + .DA5R.NSWA5 | | | A |
| P | 0024148 | | | 24C\$, 17X, 19, | | | A |
| | 0024160 | | | + .NDA5R.SWA5 | | | A |
| P | 0024160 | | | 24C\$, 22X, 03, | | | A |
| | 0024172 | | | + .DA4R.NSWA4 | | | A |
| P | 0024172 | | | 24C\$, 41X, 35, | | | A |
| | 0024184 | | | + .NDA4R.SWA4 | | | A |
| P | 0024184 | | | 24C\$, 38X, 39, | | | A |
| | 0024200 | | | DCAU = B * + .DCA. | | | A |
| P | 0024200 | | | 17A01, \$, \$, 19, 07X, 18, | | | A |
| | 0024250 | | | + .CONPA. | | | A |
| P | 0024250 | | | 17A\$, 20, 12X, 21, | | | A |
| * | 0024275 | | | DCB = DEVICE CONTROLLER IS BUZY | | | E |
| | 0024300 | | | DCB = FF | | | A |
| P | 0024300 | | | 15B38, | | | A |
| | 0024350 | | | DCB-1 = B .DCB. | | | A |
| P | 0024350 | | | 20B19, 13, 17X, 44X, | | | A |
| | 0024400 | | | NDCB = NFF | | | A |
| P | 0024400 | | | 15B40, | | | A |
| | 0024408 | | | S/DCB = .SIOSET. | | | A |
| P | 0024408 | | | 15B44, 43, | | | A |
| | 0024416 | | | R/DCB = .DCBR | | | A |
| P | 0024416 | | | 15B41, | | | A |
| | 0024424 | | | M/DCB = .GND10 | | | A |
| P | 0024424 | | | 15B39, | | | A |
| | 0024432 | | | E/DCB = .MANRST | | | A |
| P | 0024432 | | | 15B22X, | | | A |
| | 0024440 | | | C/DCB = .DCBC. | | | A |
| P | 0024440 | | | 15B45, 46X, | | | A |
| | 0024450 | | | DCBR = B * + .HIORST. | | | A |
| P | 0024450 | | | 08C01, \$, \$, 19, 07X, 18, | | | A |
| | 0024475 | | | + .NCCH.SEROIS. | | | A |
| P | 0024475 | | | 08C\$, 21, 20, 12X, | | | A |

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| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | / | PINS | / | REMARKS | C/L |
|------|----------|-----|-------|---|----|------|----|---------|-----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 |
| | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 |
| | 0024500 | | | DCBC = -BL * + .DCBC.GND18 | | | | | A |
| P | 0024500 | | | 12C02,\$,\$,02, 43X, | | | | | A |
| | 0024516 | | | + .SERVEX. | | | | | A |
| P | 0024516 | | | 12C\$,31, 37X, | | | | | A |
| | 0024532 | | | + .FSD. | | | | | A |
| P | 0024532 | | | 12C\$,33, 38X, | | | | | A |
| | 0024550 | | | DCBDVO = -BL * + .DCBDVO.GND25 | | | | | A |
| P | 0024550 | | | 23A26,\$,\$,26, 23X,26-15A01C | | | | | H |
| | 0024566 | | | + .DCB-1.INDUP | | | | | A |
| P | 0024566 | | | 23A\$,25, 18X, | | | | | A |
| | 0024582 | | | + .DVOR.NINDUP | | | | | A |
| P | 0024582 | | | 23A\$,24, 22X, | | | | | A |
| | 0024600 | | | DCBNT5 = B .DCB-1.NT5 | | | | | A |
| P | 0024600 | | | 08B01,10, 11, | | | | | A |
| * | 0024900 | | | DCL = DATA STROBE IS NOW BIT CLOCK | | | | | E |
| | 0025000 | | | DCL = B * + .RENPRB. | | | | | A |
| P | 0025000 | | | 03B03,\$,\$,08, 07X,09, | | | | | A |
| | 0025050 | | | + .CM001.CM002.DCL | | | | | A |
| P | 0025050 | | | 03B\$,12X, 11, 10, | | | | | A |
| | 0025100 | | | NDCL = 1 .DCL. | | | | | A |
| P | 0025100 | | | 21A04,08, 06X,10X, | | | | | A |
| * | 0025300 | | | DIS = CONTROLLER IS IN THE DATA IN STATE | | | | | E |
| | 0025400 | | | DIS = B .NDORF.1ORF | | | | | A |
| P | 0025400 | | | 25B46,40, 41, | | | | | A |
| * | 0025425 | | | DLS = FAM DELAY LINE START (ARR2 OR BRR2) | | | | | E |
| | 0025450 | | | DLS = B * + .ARR2. | | | | | C |
| P | 0025450 | | | 07B21,\$,\$,20, 13X | | | | | C |
| | 0025455 | | | + .BRR2. | | | | | C |
| P | 0025455 | | | 07B\$,19, 05X | | | | | C |
| | 0025460 | | | + .GND07.DLS | | | | | H |
| P | 0025460 | | | 07B\$,30X,21 | | | | | C |
| * | 0025495 | | | DLUPX0 = SET FAM ADDRESSING UPPER AND LOWER POINTERS TO 0 | | | | | E |
| | 0025500 | | | DLUPX0 = B .FSCU.00S | | | | | A |
| P | 0025500 | | | 05B45,42, 39, | | | | | A |
| * | 0025590 | | | DNCOUNT = ENABLE DIFFERENCE COUNTER TO COUNT DOWN | | | | | E |
| | 0025600 | | | DNCOUNT = -BL * + .DNCOUNT.NT0 | | | | | A |
| P | 0025600 | | | 07B27,\$,\$,27, 23X,27-21B43T | | | | | A |
| | 0025666 | | | + .BAXUP.REDA | | | | | A |
| P | 0025666 | | | 07B\$,18X, 28, | | | | | A |
| | 0025732 | | | + .BAXLP.NRED | | | | | A |
| P | 0025732 | | | 07B\$,22X, 29, | | | | | A |
| * | 0025790 | | | DORD = DATA/ORDER TO IOP (CC1) | | | | | E |

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| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L | | |
|------|-----------|-----|--|---------------------|-------------|-------------|-------------|-------------|----|
| | 1 2345678 | 9 | 10 123456789 | 20 23456789 | 30 23456789 | 40 23456789 | 50 23456789 | 60 23456789 | 70 |
| P | 0025800 | | DORD = B | * + .AIOC.FSU. | | | | | A |
| P | 0025800 | | 26B41. | \$. \$.37, 38, 39X, | 41-30C37C | | | | A |
| P | 0025833 | | | + .J025. | | | | | A |
| P | 0025833 | | | 26B\$.45, | 44X, | | | | A |
| P | 0025866 | | | + .J024. | | | | | A |
| P | 0025866 | | | 26B\$.27, | 28X, | | | | A |
| * | 0025890 | | DORF = OPERATION STATE DETERMINATE | | | | | | E |
| P | 0025900 | | DORF = FF | | | | | | A |
| P | 0025900 | | 06B06, | | | | | | A |
| P | 0026000 | | NDORF = NFF | | | | | | A |
| P | 0026000 | | 06B11, | | | | | | A |
| P | 0026016 | | S/DORF = .DORFSET. | | | | | | A |
| P | 0026016 | | 06B03, | 02, | | | | | A |
| P | 0026032 | | R/DORF = .OIS | | | | | | A |
| P | 0026032 | | 06B04, | | | | | | A |
| P | 0026048 | | M/DORF = .OIC | | | | | | A |
| P | 0026048 | | 06B01, | | | | | | A |
| P | 0026064 | | E/DORF = .NDCB | | | | | | A |
| P | 0026064 | | 06B22X, | | | | | | A |
| P | 0026080 | | C/DORF = .SERVEX. | | | | | | A |
| P | 0026080 | | 06B05, | 46X, | | | | | A |
| P | 0026100 | | DORFSET = B | * + .DOS.WCHSK. | | | | | A |
| P | 0026100 | | 03B47. | \$. \$.30, 29, 41X, | | | | | A |
| P | 0026150 | | | + .NOIS.SEROIC. | | | | | A |
| * | 0026150 | | | 03B\$.28, | 36, | 35X, | | | A |
| * | 0026190 | | DOS = CONTROLLER IS IN THE DATA OUT STATE | | | | | | E |
| P | 0026200 | | DOS = B | .DORF.NIORF | | | | | A |
| P | 0026200 | | 25B45. | 39, 42, | | | | | A |
| P | 0026300 | | NDOS = I | .DORF.NIORF | | | | | A |
| P | 0026300 | | 27A25. | 27, 26, | | | | | A |
| * | 0026390 | | DPO-DP3 = DIFFERENCE POINTER OUTPUTS (AMOUNT OF DATA IN FAM) | | | | | | E |
| P | 0026400 | | DPO = FF | | | | | | A |
| P | 0026400 | | 32B15X, | | | | | | A |
| P | 0026500 | | NDPO = NFF | | | | | | A |
| P | 0026500 | | 32B08X, | | | | | | A |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L | |
|------|-------------|-----|--------------|---|-------------|-------------|-------------|-------------|
| | 1 2345678 9 | 10 | 123456789 20 | 23456789 30 | 23456789 40 | 23456789 50 | 23456789 60 | 23456789 70 |
| P | 0026514 | | | S/DP0 = * + .NDP0. 32B\$, \$.08X, .09X, | | | | A |
| P | 0026528 | | | + .GND15. 32B\$, .03X, .13, | | | | A |
| P | 0026542 | | | E/DP0 = .DLUPX0 32B02X, | | | | A |
| P | 0026556 | | | C/DP0 = * + .GND15.T3-1 32B\$, \$.03X, .01X, | | | | A |
| P | 0026570 | | | + .T3-1.(Δ000) | | | | A |
| P | 0026584 | | | 32B\$, .01X, \$ + .T3-1.(Δ002) | | | | A |
| P | 0026584 | | | 32B\$, .01X, \$ | | | | A |
| P | 0026600 | | | DP1 = FF 32B06X, | | | | A |
| P | 0026700 | | | NDP1 = NFF 32B07X, | | | | A |
| P | 0026714 | | | S/DP1 = * + .NDP1. 32B\$, \$.07X, .09X, | | | | A |
| P | 0026728 | | | + .GND15. 32B\$, .03X, .11, | | | | A |
| P | 0026742 | | | E/DP1 = .DLUPX0 32B02X, | | | | A |
| P | 0026756 | | | C/DP1 = * + .GND15.T3-1 32B\$, \$.03X, .01X, | | | | A |
| P | 0026770 | | | + .DP2.T3-1.(Δ001) | | | | A |
| P | 0026784 | | | 32B\$, .10X, .01X, \$ + .NDP2.T3-1.(Δ003) | | | | A |
| P | 0026784 | | | 32B\$, .05X, .01X, \$ | | | | A |
| P | 0026800 | | | DP2 = FF 32B10X, | | | | A |
| P | 0026900 | | | NDP2 = NFF 32B05X, | | | | A |
| P | 0026914 | | | S/DP2 = * + .NDP2. 32B\$, \$.05X, .09X, | | | | A |
| P | 0026928 | | | + .GND15. 32B\$, .03X, .04, | | | | A |
| P | 0026942 | | | E/DP2 = .DLUPX0 32B02X, | | | | A |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L |
|------|----------|-----|------------------------------------|-----------|------|---------|-----|
| I | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| P | 0026956 | | C/DP2 = * + .GND15.T3-1 | | | | A |
| | | | 32B\$.03X, 01X, | | | | A |
| P | 0026970 | | + .T3-1.(Δ001) | | | | A |
| | | | 32B\$.01X, \$ | | | | A |
| P | 0026984 | | + .T3-1.(Δ003) | | | | A |
| | | | 32B\$.01X, \$ | | | | A |
| P | 0027000 | | DP3 = FF | | | | A |
| | | | 32B35X, | | | | A |
| P | 0027100 | | NDP3 = NFF | | | | A |
| | | | 32B37X, | | | | A |
| P | 0027114 | | S/DP3 = * + .NDP3. | | | | A |
| | | | 32B\$.37X, 09X, | | | | A |
| P | 0027128 | | + .GND15. | | | | A |
| | | | 32B\$.03X, 36. | | | | A |
| P | 0027142 | | + .GND15 | | | | A |
| | | | 32B\$.42X, | | | | A |
| P | 0027156 | | + .GND15 | | | | A |
| | | | 32B\$.33X, | | | | A |
| P | 0027170 | | E/DP3 = .DLUPX0 | | | | A |
| | | | 32B02X, | | | | A |
| P | 0027184 | | C/DP3 = .T3-1 | | | | A |
| | | | 32B01X, | | | | A |
| * | 0027190 | | DPF = FAM HAS OVERFLOWED WITH DATA | | | | E |
| P | 0027200 | | DPF = FF | | | | A |
| | | | 32B17X, | | | | A |
| P | 0027300 | | NDPF = NFF | | | | A |
| | | | 32B20X, | | | | A |
| P | 0027314 | | S/DPF = * + .NDPF. | | | | A |
| | | | 32B\$.20X, 09X, | | | | A |
| P | 0027328 | | + .GND15. | | | | A |
| | | | 32B\$.03X, 22. | | | | A |
| P | 0027342 | | E/DPF = .DLUPX0 | | | | A |
| | | | 32B02X, | | | | A |
| P | 0027356 | | C/DPF = * + .GND15.T3-1 | | | | A |
| | | | 32B\$.03X, 01X, | | | | A |
| P | 0027370 | | + .DPO.T3-1.(Δ000) | | | | G |
| | | | 32B\$.15X, 01X, \$ | | | | A |
| P | 0027384 | | + .NDPO.T3-1.(Δ002) | | | | A |
| | | | 32B\$.08X, 01X, \$ | | | | A |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | / | PINS | / | REMARKS | C/L |
|------|-------------------|-----|----------------------------|------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-----|
| | 1 2 3 4 5 6 7 8 9 | 10 | 11 12 13 14 15 16 17 18 19 | 20 21 22 23 24 25 26 27 28 29 | 30 31 32 33 34 35 36 37 38 39 | 40 41 42 43 44 45 46 47 48 49 | 50 51 52 53 54 55 56 57 58 59 | 60 61 62 63 64 65 66 67 68 69 | 70 |
| P | 0027400 | | DPC0-1 = B | .NDP0.NDP1.NDP2. | | | | | A |
| P | 0027400 | | 29A34,22, | 23, 24, 28. | | | | | A |
| P | 0027500 | | DPC14-15 = B | .DP0.DP1.DP2. | | | | | A |
| P | 0027500 | | 08B15,18, | 17, 30, 31. | | | | | A |
| P | 0027700 | | DRM = B | .TYPOR.TYPIR | | | | | A |
| P | 0027700 | | 26A45,39, | 42. | | | | | A |
| P | 0027800 | | DISC = I | .DRM. | | | | | A |
| P | 0027800 | | 27A47,41, | 10X,43X, | | | | | A |
| * | 0028100 | | DSR = DATA | STROBE RECEIVED FROM STORAGE UNIT | | | | | E |
| P | 0028200 | | DSR = -BCR | | | | | | A |
| P | 0028200 | | 30A10, | | | | | | A |
| P | 0028250 | | DSRZ = -DL *DSR | | | | | | A |
| P | 0028250 | | 22A01,42, | | | | | | A |
| * | 0028290 | | DT0-DT7 = DATA | LINES OUT OF THE FAM | | | | | E |
| P | 0028300 | | DT0 = -FMO | | | | | | A |
| P | 0028300 | | 09C43,43-40T | | | | | | H |
| P | 0028400 | | DT1 = -FMO | | | | | | A |
| P | 0028400 | | 09C41,41-39T | | | | | | H |
| P | 0028500 | | DT2 = -FMO | | | | | | A |
| P | 0028500 | | 09C09,09-08T | | | | | | H |
| P | 0028600 | | DT3 = -FMO | | | | | | A |
| P | 0028600 | | 09C02,02-06T | | | | | | H |
| P | 0028700 | | DT4 = -FMO | | | | | | A |
| P | 0028700 | | 09C45,45-42T | | | | | | H |
| P | 0028800 | | DT5 = -FMO | | | | | | A |
| P | 0028800 | | 09C46,46-44T | | | | | | H |
| P | 0028900 | | DT6 = -FMO | | | | | | A |
| P | 0028900 | | 09C04,04-07T | | | | | | H |
| P | 0029000 | | DT7 = -FMO | | | | | | A |
| P | 0029000 | | 09C01,01-05T | | | | | | H |
| * | 0029290 | | DVBSY = DEVICE | IS BUZY | | | | | E |
| P | 0029300 | | DVBSY = B | .DCB-1.DVSEL | | | | | A |
| P | 0029300 | | 04B36,44, | 37. | | | | | A |
| P | 0029350 | | NDVBSY = I | .DVBSY. | | | | | A |
| P | 0029350 | | 12B28,29, | 30X,28-22A29T | | | | | A |
| * | 0029590 | | DVOR = DEVICE | IS OPERATIONAL (FROM STORAGE UNIT) | | | | | E |

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| CODE | LINE NO. | CHG | LOGIC EQUATIONS / PINS / REMARKS | | | | | | | | | | C/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|----------|-----|----------------------------------|---|---|---|---|---|---|---|---|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 70 |
| I | 2345678 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 70 |
| P | 0029600 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0029600 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| * | 0029790 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0029800 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0029814 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0029828 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0029842 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0029856 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0029870 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0029884 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| * | 0029890 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0029900 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0030000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0030100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0030120 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0030140 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0030160 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0030180 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0030200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| * | 0030290 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0030300 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0030400 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0030500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

7201 RAD

| CODE | LINE NO. | CHG | LOGIC EQUATIONS / PINS / REMARKS | | | | | | | | | | | | | | | C/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|----------|-----|---------------------------------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 |
| P | 0031000 | | NESU = B .ESU. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031000 | | 27A21.15.05X.17X. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031100 | | FAMCI = B * + .CFIOP.L.WCH. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031100 | | 08C04.\$.\$\$.05.06.07X. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031150 | | + .CFDISCL.REDA. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031150 | | 08C\$.13.14.12X. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031200 | | NFAULT = B .NRATER.NSUN.NWPV.NUNE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | J | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031200 | | 25A14.29.21.20.19. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| * | 0031290 | | FNTEN = FUNCTION SETTING ENABLE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031300 | | FNTEN = B .NCONP.NSERVCON | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031300 | | 19A45.39.42. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| * | 0031390 | | FROD-FR7D = FUNCTION RESPONSE DRIVERS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031400 | | FROD = B * + .BSYC.SWA0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031400 | | 27C07X.\$.\$\$.10X.14.07-32C23C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031433 | | + .BFSD.CIL.TSH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031433 | | 27C\$.08X.12.15X. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031466 | | + .RATER. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031466 | | 27C\$.13.09X. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031500 | | FR1D = B * + .BSYC.SWA1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031500 | | 27C06X.\$.\$\$.10X.24.06-32C19C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031533 | | + .BFSD.DVBSY.TSH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031533 | | 27C\$.08X.26.15X. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031566 | | + .GND27C16. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031566 | | 27C\$.25.09X. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031600 | | FR2D = B * + .BSYC.SWA2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031600 | | 27C44X.\$.\$\$.10X.29.44-32C15C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031633 | | + .BFSD.STSH02.TSH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031633 | | 27C\$.08X.27.15X. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031666 | | + .SUN. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031666 | | 27C\$.28.09X. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031700 | | FR3D = B * + .BSYC.SWA3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031700 | | 27C45X.\$.\$\$.10X.43.45-32C12C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031733 | | + .BFSD.TSH. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031733 | | 27C\$.08X.15X.40. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031766 | | + .WVPV. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031766 | | 27C\$.41.09X. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031800 | | FR4D = B * + .BSYC.GND27C16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031800 | | 27C04X.\$.\$\$.10X.18.04-32C03C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031833 | | + .BFSD.TSH.UNE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031833 | | 27C\$.08X.15X.20. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031866 | | + .GND27C16. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0031866 | | 27C\$.19.09X. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| CODE | LINE NO. | CHG | LOGIC EQUATIONS / PINS / REMARKS | | | | | | | | | | C7/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|----------|-----|---|---|---|---|---|---|---|----|----|----|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | |
| | 0035400 | | GND32C48 = -GND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0035400 | | 32C41,41-48G-45C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| * | 0035590 | | GT12 = GREATER THAN 12 BYTES OF DATA IN THE FAM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0035600 | | GT12 = B .NDPF. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0035600 | | 24B01,10, 11, | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0035700 | | I .DPO.DP1. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0035700 | | 18B34,35, 36, 37, | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0035750 | | HIOP = -PET | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0035750 | | 15A24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| * | 0035790 | | HIOR = HALT I/O FUNCTION INDICATOR (FROM IOP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0035800 | | HIOR = -BCR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0035800 | | 28C18, | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0035900 | | HIORST = B .DVSEL.HIOU | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0035900 | | 25A01,11, 10, | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0036100 | | HIOU = -BL * + .GND18.HIOU | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0036100 | | 12C27,\$,\$,23X, 27, | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0036133 | | + .CONPA.HIOP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0036133 | | 12C\$,18X, 28, | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0036166 | | + .FNTEN.HIOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0036166 | | 12C\$,22X, 29, | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| * | 0036190 | | HPID = HIGH PRIORITY INTERRUPT DRIVER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0036200 | | HPID = B .LIH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0036200 | | 31C35X,01X,35-26C35C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0036300 | | HPIL = I .NHPIL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0036300 | | 23C13X,09X, | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0036400 | | NHPIL = I * + .NAIOR.HPIR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0036400 | | 23C09X,\$,\$,19X, 17, | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0036450 | | + .AIOR.HPIL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0036450 | | 23C\$,15X, 13X, | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0036500 | | HPIR = -BCR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0036500 | | 26C06, | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| * | 0036590 | | HPSD = HIGH PRIORITY SERVICE DRIVER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0036600 | | HPSD = B .LSH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0036600 | | 23C36X,38X,36-26C33C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0036700 | | HPSL = I .NHPSL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0036700 | | 23C07X,12X, | | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

7201 RAD

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L | | | |
|------|-----------|-----|--------------|---------------------------------|-------------|-----------------|-------------|-------------|----|---|
| | 1 2345678 | 9 | 10 123456789 | 20 23456789 | 30 23456789 | 40 23456789 | 50 23456789 | 60 23456789 | 70 | |
| P | 0036800 | | | NHPSL = I | | * + .NASCR.HPSR | | | A | |
| P | 0036800 | | | 23C12X, | | \$. \$.44X, 06. | | | A | |
| P | 0036850 | | | | | + .ASCR.HPSL | | | A | |
| P | 0036850 | | | | | 23CS,37X, 07X, | | | A | |
| P | 0036900 | | | HPSR = -BCR | | | | | A | |
| P | 0036900 | | | 26C04, | | | | | A | |
| * | 0036990 | | | 10-17 = DATA INPUT LINES TO FAM | | | | | | E |
| P | 0037000 | | | I0 = -BL * + .I0.IX0 | | | | | A | |
| P | 0037000 | | | 13C21, | | \$. \$.21, 30X, | | | A | |
| P | 0037066 | | | | | + .BR0.IXBR | | | A | |
| P | 0037066 | | | | | 13CS,20, 13X, | | | A | |
| P | 0037132 | | | | | + .DA0U.IXDA | | | A | |
| P | 0037132 | | | | | 13CS,19, 05X, | | | A | |
| P | 0037200 | | | I1 = -BL * + .I1.IX0 | | | | | A | |
| P | 0037200 | | | 13C46, | | \$. \$.46, 30X, | | | A | |
| P | 0037233 | | | | | + .BR1.IXBR | | | A | |
| P | 0037233 | | | | | 13CS,47, 13X, | | | A | |
| P | 0037266 | | | | | + .DA1U.IXDA | | | A | |
| P | 0037266 | | | | | 13CS,50, 05X, | | | A | |
| P | 0037300 | | | I2 = -BL * + .I2.IX0 | | | | | A | |
| P | 0037300 | | | 13C09, | | \$. \$.09, 30X, | | | A | |
| P | 0037333 | | | | | + .BR2.IXBR | | | A | |
| P | 0037333 | | | | | 13CS,08, 13X, | | | A | |
| P | 0037366 | | | | | + .DA2U.IXDA | | | A | |
| P | 0037366 | | | | | 13CS,06, 05X, | | | A | |
| P | 0037400 | | | I3 = -BL * + .I3.IX0 | | | | | A | |
| P | 0037400 | | | 13C07, | | \$. \$.07, 30X, | | | A | |
| P | 0037433 | | | | | + .BR3.IXBR | | | A | |
| P | 0037433 | | | | | 13CS,04, 13X, | | | A | |
| P | 0037466 | | | | | + .DA3U.IXDA | | | A | |
| P | 0037466 | | | | | 13CS,03, 05X, | | | A | |
| P | 0037500 | | | I4 = -BL * + .I4.IX0 | | | | | A | |
| P | 0037500 | | | 13C26, | | \$. \$.26, 23X, | | | A | |
| P | 0037533 | | | | | + .BR4.IXBR | | | A | |
| P | 0037533 | | | | | 13CS,25, 18X, | | | A | |
| P | 0037566 | | | | | + .DA4U.IXDA | | | A | |
| P | 0037566 | | | | | 13CS,24, 22X, | | | A | |
| P | 0037600 | | | I5 = -BL * + .I5.IX0 | | | | | A | |
| P | 0037600 | | | 13C27, | | \$. \$.27, 23X, | | | A | |
| P | 0037633 | | | | | + .BR5.IXBR | | | A | |
| P | 0037633 | | | | | 13CS,28, 18X, | | | A | |
| P | 0037666 | | | | | + .DA5U.IXDA | | | A | |
| P | 0037666 | | | | | 13CS,29, 22X, | | | A | |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L | |
|------|-------------|-----|--|-------------|-------------|-------------|-------------|-------------|
| | 1 2345678 9 | 10 | 1 23456789 20 | 23456789 30 | 23456789 40 | 23456789 50 | 23456789 60 | 23456789 70 |
| P | 0037700 | | 16 = -BL * + .16.IX0 | | | | A | |
| P | 0037700 | | 13C12.9. \$.12.23X. | | | | A | |
| P | 0037733 | | + .BR6.IXBR | | | | A | |
| P | 0037733 | | 13C\$.11. 18X. | | | | A | |
| P | 0037766 | | + .DA6U.IXDA | | | | A | |
| P | 0037766 | | 13C\$.10. 22X. | | | | A | |
| P | 0037800 | | 17 = -BL * + .17.IX0 | | | | A | |
| P | 0037800 | | 13C14. \$. \$.14.23X. | | | | A | |
| P | 0037833 | | + .BR7.IXBR | | | | A | |
| P | 0037833 | | 13C\$.15. 18X. | | | | A | |
| P | 0037866 | | + .DA7U.IXDA | | | | A | |
| P | 0037866 | | 13C\$.17. 22X. | | | | A | |
| P | 0037900 | | IBIT0 = I .BIT0. | | | | A | |
| P | 0037900 | | 27A29.36. 10X.34X. | | | | A | |
| P | 0038000 | | ICD = B .LIL. | | | | A | |
| P | 0038000 | | 31C38X.46X.20.38-32C39C | | | | A | |
| P | 0038100 | | ICSO = I .CONPE.DRM.SGLTRK | | | | A | |
| P | 0038100 | | 28B09.05. 03.04. | | | | A | |
| * | 0038190 | | ID0-ID2 = IDENTIFICATION (ADDRESS) LINES TO STORAGE UNIT | | | | E | |
| P | 0038200 | | ID0 = B .DA5U.TTSHU | | | | C | |
| P | 0038200 | | 25A45.42. 39.45-32A37C | | | | A | |
| P | 0038300 | | ID1 = B .DA6U.TTSHU | | | | A | |
| P | 0038300 | | 25A46.41. 40.46-32A39C | | | | A | |
| P | 0038400 | | ID2 = B .DA7U.TTSHU | | | | A | |
| P | 0038400 | | 25A02.09. 03.02-32A45C | | | | A | |
| * | 0038490 | | IDS = IDENTIFICATION STROBE TO STORAGE UNIT | | | | E | |
| P | 0038500 | | IDS = B .FSU. | | | | A | |
| P | 0038500 | | 26A35.38. 43.35-32A03C | | | | A | |
| P | 0038533 | | B * + .IDS. | | | | A | |
| P | 0038533 | | 28A04. \$. \$.07. 06X. | | | | A | |
| P | 0038566 | | + .FSU.SD2.TTSHU. | | | | A | |
| P | 0038566 | | 28A\$.09. 11. 08. 10.14X. | | | | A | |
| * | 0038590 | | ILO = ILLEGAL ORDER | | | | E | |
| P | 0038600 | | ILO = I .REDA. | | | | A | |
| P | 0038600 | | 23B01.03. 05X.06X.01-21B36T | | | | A | |
| P | 0038633 | | I .WCH. | | | | A | |
| P | 0038633 | | 23B02.08. 05X.06X. | | | | A | |
| P | 0038666 | | I .SKS. | | | | A | |
| P | 0038666 | | 23B10.07. 05X.06X. | | | | A | |
| * | 0038690 | | INC = INHIBIT NEW SERVICE CALLS | | | | E | |



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| CODE | LINE NO. | CHK | LOGIC EQUATIONS | | | | PINS | REMARKS | C/L |
|---------------------------------|----------|-----|-----------------|-------|-----------|---|------|---------|-----|
| | | | 1 | 2 | 3 | 4 | | | |
| | 0038900 | | INI = | -GCL | .FR7D | | | A | |
| P | 0038900 | | 27C11X, | 46X, | 11-26C07K | | | A | |
| | 0038903 | | -GCL | .FR6D | | | | A | |
| P | 0038903 | | 27C11X, | 42X, | | | | A | |
| | 0038906 | | -GCL | .FR5D | | | | A | |
| P | 0038906 | | 27C11X, | 05X, | | | | A | |
| | 0038909 | | -GCL | .FR4D | | | | A | |
| P | 0038909 | | 27C11X, | 04X, | | | | A | |
| | 0038912 | | -GCL | .FR3D | | | | A | |
| P | 0038912 | | 27C39X, | 45X, | | | | A | |
| | 0038915 | | -GCL | .FR2D | | | | A | |
| P | 0038915 | | 27C39X, | 44X, | | | | A | |
| | 0038918 | | -GCL | .FR1D | | | | A | |
| P | 0038918 | | 27C39X, | 06X, | | | | A | |
| | 0038921 | | -GCL | .FR0D | | | | A | |
| P | 0038921 | | 27C39X, | 07X, | | | | A | |
| | 0038924 | | -GCL | .SCD | | | | A | |
| P | 0038924 | | 23C33X, | 34X, | | | | A | |
| | 0038927 | | -GCL | .HPSD | | | | A | |
| P | 0038927 | | 23C33X, | 36X, | | | | A | |
| | 0038930 | | -GCL | . | | | | A | |
| P | 0038930 | | 23C33X, | 25, | | | | Δ A | |
| | 0038933 | | -GCL | .DCA | | | | A | |
| P | 0038933 | | 23C33X, | 27, | | | | A | |
| | 0038936 | | -GCL | . | | | | A | |
| P | 0038936 | | 29C02X, | 15X, | | | | Δ A | |
| | 0038939 | | -GCL | .DORD | | | | A | |
| P | 0038939 | | 29C02X, | 14, | | | | A | |
| | 0038942 | | -GCL | .IORD | | | | A | |
| P | 0038942 | | 29C02X, | 13, | | | | A | |
| | 0038945 | | -GCL | . | | | | A | |
| P | 0038945 | | 29C02X, | 12, | | | | Δ A | |
| | 0038948 | | -GCL | .EDD | | | | A | |
| P | 0038948 | | 29C02X, | 11, | | | | A | |
| | 0038951 | | -GCL | . | | | | A | |
| P | 0038951 | | 29C10X, | 21, | | | | Δ A | |
| | 0038954 | | -GCL | .DA3D | | | | A | |
| P | 0038954 | | 29C10X, | 20, | | | | A | |
| | 0038957 | | -GCL | .DA2D | | | | A | |
| P | 0038957 | | 29C10X, | 19, | | | | A | |
| | 0038960 | | -GCL | .DA1D | | | | A | |
| P | 0038960 | | 29C10X, | 18, | | | | A | |
| | 0038963 | | -GCL | .DA0D | | | | A | |
| P | 0038963 | | 29C10X, | 17, | | | | A | |
| | 0038966 | | -GCL | .ICD | | | | A | |
| P | 0038966 | | 31C44, | 38X, | | | | A | |
| EQUATION CONTINUED ON NEXT PAGE | | | | | | | | | |

NS

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NS

NS

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | / | PINS | / | REMARKS | C/L |
|------|---------------------------------------|-----|---------------|---------------|---------------|---------------|---------------|---------------|-----|
| | 1 2345678 9 | 10 | 1 23456789 20 | 2 23456789 30 | 3 23456789 40 | 4 23456789 50 | 5 23456789 60 | 6 23456789 70 | |
| | EQUATION CONTINUED FROM PREVIOUS PAGE | | | | | | | | |
| P | 0038969 | | | | | | | | |
| | 0038969 | | | | | | | | A |
| P | 0038972 | | | | | | | | A |
| | 0038972 | | | | | | | | A |
| P | 0038975 | | | | | | | | A |
| | 0038975 | | | | | | | | A |
| P | 0038978 | | | | | | | | A |
| | 0038978 | | | | | | | | A |
| P | 0038981 | | | | | | | | A |
| | 0038981 | | | | | | | | A |
| P | 0038984 | | | | | | | | A |
| | 0038984 | | | | | | | | A |
| P | 0038987 | | | | | | | | A |
| | 0038987 | | | | | | | | A |
| P | 0038990 | | | | | | | | A |
| | 0038990 | | | | | | | | A |
| P | 0038993 | | | | | | | | A |
| | 0038993 | | | | | | | | A |
| P | 0038996 | | | | | | | | A |
| | 0038996 | | | | | | | | A |
| | 0039000 | | | | | | | | A |
| P | 0039000 | | | | | | | | A |
| * | 0039090 | | | | | | | | E |
| P | 0039100 | | | | | | | | A |
| | 0039100 | | | | | | | | A |
| P | 0039200 | | | | | | | | A |
| | 0039200 | | | | | | | | A |
| P | 0039233 | | | | | | | | A |
| | 0039233 | | | | | | | | A |
| P | 0039266 | | | | | | | | A |
| | 0039266 | | | | | | | | A |
| P | 0039299 | | | | | | | | A |
| | 0039299 | | | | | | | | A |
| P | 0039332 | | | | | | | | A |
| | 0039332 | | | | | | | | A |
| P | 0039365 | | | | | | | | C |
| | 0039365 | | | | | | | | C |

NS

NS

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L | |
|------|-------------|-----|---------------------|-------------------|---------------|-------------|-------------|-------------|
| | 1 2345678 9 | 10 | 1 23456789 20 | 23456789 30 | 23456789 40 | 23456789 50 | 23456789 60 | 23456789 70 |
| P | 0039400 | | INLM = B | * + .INLM-1. | | | A | |
| P | 0039400 | | 16C19. | \$. \$.15. | 06X,19-09B31T | | A | |
| P | 0039450 | | | + .NBFE.CDN.REDA. | | | A | |
| P | 0039450 | | 16CS,13. | 17, 12, 14X,18. | | | A | |
| P | 0039500 | | INLM-1 = B | .CDN. | | | A | |
| P | 0039500 | | 20B03,07, | 05X,06X, | | | A | |
| P | 0039550 | | B | .BFEPWC.WCPB-35B | | | A | |
| P | 0039550 | | 20B25,26, | 27, | | | A | |
| P | 0039600 | | INLOIT = B | .INL.OIT | | | A | |
| P | 0039600 | | 15C25,27, | 26, | | | A | |
| P | 0039700 | | INLSET = -BL | * + .GND08.INLSET | | | A | |
| P | 0039700 | | 10B02,\$. \$.43X, | 02, | | | A | |
| P | 0039733 | | | + .J080. | | | A | |
| P | 0039733 | | 10B\$.31, | 37X, | | | A | |
| P | 0039766 | | | + .J081. | | | A | |
| P | 0039766 | | 10B\$.33, | 38X, | | | A | |
| * | 0039790 | | IORD = INPUT/OUTPUT | TO IOP (CC2) | | | E | |
| P | 0039800 | | IORD = B | * + .FSU.J023. | | | A | |
| P | 0039800 | | 27B42,\$. \$.50, | 40, 39X,42-32C33C | | | A | |
| P | 0039833 | | | + .J057. | | | A | |
| P | 0039833 | | 27B\$.43, | 44X, | | | A | |
| P | 0039866 | | | + .FSU.J022 | | | A | |
| P | 0039866 | | 27B\$.28X,29, | | | | A | |
| * | 0039890 | | IORF = INPUT/OUTPUT | STATE DETERMINANT | | | E | |
| P | 0039900 | | IORF = FF | | | | A | |
| P | 0039900 | | 06B21, | | | | A | |
| P | 0040000 | | NIORF = NFF | | | | A | |
| P | 0040000 | | 06B27, | | | | A | |
| P | 0040016 | | S/IORF = .IORFSET. | | | | A | |
| P | 0040016 | | 06B18, | 17, | | | A | |
| P | 0040032 | | R/IORF = .OIS | | | | A | |
| P | 0040032 | | 06B19, | | | | A | |
| P | 0040048 | | M/IORF = .OIC | | | | A | |
| P | 0040048 | | 06B15, | | | | A | |
| P | 0040064 | | E/IORF = .NDCB | | | | A | |
| P | 0040064 | | 06B22X, | | | | A | |
| P | 0040080 | | C/IORF = .SERVEX. | | | | A | |
| P | 0040080 | | 06B20, | 46X, | | | A | |

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| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L | | | | | | | | | |
|------|----------|-----|----------|----------------------------|---------------|------------|-----|------------|----|------------|----|------------|----|------------|----|--|
| 1 | 2345678 | 9 | 10 | 1123456789 | 20 | 2123456789 | 30 | 3123456789 | 40 | 4123456789 | 50 | 5123456789 | 60 | 6123456789 | 70 | |
| P | 0042800 | | J023 = B | * + .AIOC.NFAULT. | | | A | | | | | | | | | |
| P | 0042800 | | | 27B41,\$,\$.37, 38, | 39X,41-21B12T | | A | | | | | | | | | |
| P | 0042833 | | | + .J021. | | | A | | | | | | | | | |
| P | 0042833 | | | 27B\$,45, 44X, | | | A | | | | | | | | | |
| P | 0042866 | | | + .FSU.SLN | | | A | | | | | | | | | |
| P | 0042866 | | | 27B\$,28X,27, | | | A | | | | | | | | | |
| P | 0042900 | | J024 = B | .FSCU.ORDER | | | A | | | | | | | | | |
| P | 0042900 | | | 24B13,04, 08, | | | A | | | | | | | | | |
| P | 0043000 | | J025 = B | .DVTR.FSD.TTSHU. | | | A | | | | | | | | | |
| P | 0043000 | | | 24B34,24, 23, 22, | 28, | | A | | | | | | | | | |
| P | 0043100 | | J026 = B | .BFE.DOS | | | A | | | | | | | | | |
| P | 0043100 | | | 25B36,37, 44, | | | A | | | | | | | | | |
| P | 0043200 | | J027 = B | .DIS.DP3.DPC14-15 | | | A | | | | | | | | | |
| P | 0043200 | | | 25B33,26, 25, 27, | | | A | | | | | | | | | |
| P | 0043400 | | J029 = B | .PRB.WRI | | | A | | | | | | | | | |
| P | 0043400 | | | 08B46,41, 40, | | | A | | | | | | | | | |
| P | 0043600 | | J031 = B | * + .AIOFSU.RATER. | | | A | | | | | | | | | |
| P | 0043600 | | | 08C47,\$,\$.29, 30, | 41X, | | A | | | | | | | | | |
| P | 0043650 | | | + .OIT.TER. | | | A | | | | | | | | | |
| P | 0043650 | | | 08C\$,36, 28, 35X, | | | A | | | | | | | | | |
| P | 0043700 | | J032 = B | .AIOFSU.SUN | | | A | | | | | | | | | |
| P | 0043700 | | | 22B35,38, 43, | | | A | | | | | | | | | |
| P | 0043800 | | J033 = B | * + .CHE.OIT. | | | A | | | | | | | | | |
| P | 0043800 | | | 08C44,\$,\$.43, 42, 41X, | | | A | | | | | | | | | |
| P | 0043850 | | | + .AIOFSU.WPV. | | | A | | | | | | | | | |
| P | 0043850 | | | 08C\$,34, 33, 35X, | | | A | | | | | | | | | |
| P | 0043900 | | J034 = B | .J085.RWCEN | | | A | | | | | | | | | |
| P | 0043900 | | | 19A13,04, 08, | | | A | | | | | | | | | |
| P | 0044000 | | J035 = B | .BRR1.RBY1-360 | | | A | | | | | | | | | |
| P | 0044000 | | | 08B02,09, 03, | | | A | | | | | | | | | |
| P | 0044100 | | J036 = B | .BRR1.NPRBBCB.WCPB-358 | | | A | | | | | | | | | |
| P | 0044100 | | | 04B33,27, 26, 25, | | | A | | | | | | | | | |
| P | 0044200 | | J037 = B | .ARR1.DATAS.FSCU.NTOS | | | A | | | | | | | | | |
| P | 0044200 | | | 08B34,28, 23, 22, 24, | | | A | | | | | | | | | |
| P | 0044300 | | J038 = I | .NDOS.EDU. | | | A | | | | | | | | | |
| P | 0044300 | | | 23B33,44, 43, 45,33-22A09T | | | A | | | | | | | | | |

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| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | / | PINS | / | REMARKS | C/L |
|------|-----------|------|------------|-------------------------------------|-------------|-------------|-------------|-------------|-----|
| | 1 2345678 | 9 10 | 1 23456789 | 20 23456789 | 30 23456789 | 40 23456789 | 50 23456789 | 60 23456789 | 70 |
| P | 0047580 | | C/LP1 = | .LP2 | | | | | A |
| P | 0047580 | | | 17C06, | | | | | A |
| P | 0047600 | | LP2 = | FF | | | | | A |
| P | 0047600 | | | 17C17, | | | | | A |
| P | 0047700 | | NLP2 = | NFF | | | | | A |
| P | 0047700 | | | 17C25, | | | | | A |
| P | 0047720 | | S/LP2 = | .NLP2 | | | | | A |
| P | 0047720 | | | 17C21, | | | | | A |
| P | 0047740 | | M/LP2 = | .GND21 | | | | | A |
| P | 0047740 | | | 17C04, | | | | | A |
| P | 0047760 | | E/LP2 = | .DLUPX0 | | | | | A |
| P | 0047760 | | | 17C18X, | | | | | A |
| P | 0047780 | | C/LP2 = | .LP3 | | | | | A |
| P | 0047780 | | | 17C02, | | | | | A |
| P | 0047800 | | LP3 = | FF | | | | | A |
| P | 0047800 | | | 17C23, | | | | | A |
| P | 0047900 | | NLP3 = | NFF | | | | | A |
| P | 0047900 | | | 17C20, | | | | | A |
| P | 0047920 | | S/LP3 = | .NLP3 | | | | | A |
| P | 0047920 | | | 17C22, | | | | | A |
| P | 0047940 | | M/LP3 = | .GND21 | | | | | A |
| P | 0047940 | | | 17C03, | | | | | A |
| P | 0047960 | | E/LP3 = | .DLUPX0 | | | | | A |
| P | 0047960 | | | 17C18X, | | | | | A |
| P | 0047980 | | C/LP3 = | .CLP | | | | | A |
| P | 0047980 | | | 17C01, | | | | | A |
| P | 0048000 | | LSB1 = | B .NDP3.SEK.T1 | | | | | A |
| P | 0048000 | | | 31B33,25, 26, 27,33-22A27T | | | | | A |
| P | 0048100 | | LSB2 = | B .DP3.SEK.T1 | | | | | A |
| P | 0048100 | | | 31B12,05, 06, 07,12-21B37T | | | | | A |
| P | 0048300 | | LSH = | B * + .NASCR.CSL.NFSC.GND23C32.INC | | | | | H |
| P | 0048300 | | | 23C38X,\$,\$,44X, 41X,42X, 40, 43X, | | | | | A |
| P | 0048350 | | | + .ASCR.NFSC.INI.LSH.NRSTR | | | | | A |
| P | 0048350 | | | 23C\$,37X, 42X, 33X,38X,45X, | | | | | A |

| CODE | LINE NO. | CHK | LOGIC | EQUATIONS | / | PINS | / | REMARKS | C/L |
|------|---------------|-----|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-----|
| 1 | 2 3 4 5 6 7 8 | 9 | 10 11 12 13 14 15 16 17 18 19 | 20 21 22 23 24 25 26 27 28 29 | 30 31 32 33 34 35 36 37 38 39 | 40 41 42 43 44 45 46 47 48 49 | 50 51 52 53 54 55 56 57 58 59 | 60 61 62 63 64 65 66 67 68 69 | 70 |
| | 0049600 | | OR7P | = | -PET | | | | H |
| P | 0049600 | | | | 15A29 | | | | H |
| * | 0049690 | | ORDER | = | CONTROLLER | IS | IN | THE ORDER STATE | E |
| | 0049700 | | ORDER | = | B | .DCB. | | | A |
| P | 0049700 | | | | 20B21,15, | 05X,17X, | | | A |
| | 0049750 | | | | I | .DATAS. | | | A |
| P | 0049750 | | | | 23B26,22, | 20X,21X, | | | A |
| | 0049800 | | ORDRST | = | I | .NDCB. | | | A |
| P | 0049800 | | | | 12B02,08, | 05X,06X,02-09B24T | | | A |
| | 0049850 | | | | I | .OTS.SERVEX. | | | A |
| P | 0049850 | | | | 12B33,43, | 44, | 45, | | A |
| | 0049900 | | OTS | = | B | .00S.RSAU.NTOS.SERVCON | | | E |
| P | 0049900 | | | | 05B34,28, | 24, | 23, | 22,34-09B23T | A |
| * | 0049990 | | PA0-PA7 | = | PARITY REGISTER | 0 | THRU | 7 | E |
| | 0050000 | | PA0 | = | FF | | | | A |
| P | 0050000 | | | | 18C24, | | | | A |
| | 0050100 | | NPA0 | = | NFF | | | | A |
| P | 0050100 | | | | 18C46, | | | | A |
| | 0050140 | | S/PA0 | = | .PA0SET | | | | A |
| P | 0050140 | | | | 18C50, | | | | A |
| | 0050180 | | M/PA0 | = | .PRE | | | | A |
| P | 0050180 | | | | 18C28, | | | | A |
| | 0050220 | | E/PA0 | = | .GND22 | | | | A |
| P | 0050220 | | | | 18C18X, | | | | A |
| | 0050260 | | C/PA0 | = | .BCA | | | | A |
| P | 0050260 | | | | 18C26, | | | | A |
| | 0050300 | | PA0SET | = | B | * + .J044.NPA7. | | | A |
| P | 0050300 | | | | 16B04,\$,\$,06, | 05, | 07X,04-21B35T | | A |
| | 0050350 | | | | + .J045.PA7. | | | | A |
| P | 0050350 | | | | 16B\$,13, | 14, | 12X, | | A |
| | 0050400 | | PA1 | = | FF | | | | A |
| P | 0050400 | | | | 18C27, | | | | A |
| | 0050500 | | NPA1 | = | NFF | | | | A |
| P | 0050500 | | | | 18C44, | | | | A |
| | 0050520 | | S/PA1 | = | .PA0 | | | | A |
| P | 0050520 | | | | 18C45, | | | | A |

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| CODE | LINE NO. | CHG | LOGIC EQUATIONS / | | | PINS / | | | REMARKS | C/L |
|------|----------|-----|-------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|---------|-----|
| | | | 1 2 3 4 5 6 7 8 9 | 10 11 12 13 14 15 16 17 18 19 | 20 21 22 23 24 25 26 27 28 29 | 30 31 32 33 34 35 36 37 38 39 | 40 41 42 43 44 45 46 47 48 49 | 50 51 52 53 54 55 56 57 58 59 | | |
| P | 0051120 | | S/PA4 = .PA3 | | | | | | | A |
| P | 0051120 | | 18C22, | | | | | | | A |
| P | 0051140 | | M/PA4 = .PRE | | | | | | | A |
| P | 0051140 | | 18C03, | | | | | | | A |
| P | 0051160 | | E/PA4 = .GND22 | | | | | | | A |
| P | 0051160 | | 18C18X, | | | | | | | A |
| P | 0051180 | | C/PA4 = .BCA | | | | | | | A |
| P | 0051180 | | 18C01, | | | | | | | A |
| P | 0051200 | | PA5 = FF | | | | | | | A |
| P | 0051200 | | 18C17, | | | | | | | A |
| P | 0051300 | | NPA5 = NFF | | | | | | | A |
| P | 0051300 | | 18C25, | | | | | | | A |
| P | 0051320 | | S/PA5 = .PA4 | | | | | | | A |
| P | 0051320 | | 18C21, | | | | | | | A |
| P | 0051340 | | M/PA5 = .PRE | | | | | | | A |
| P | 0051340 | | 18C04, | | | | | | | A |
| P | 0051360 | | E/PA5 = .GND22 | | | | | | | A |
| P | 0051360 | | 18C18X, | | | | | | | A |
| P | 0051380 | | C/PA5 = .BCA | | | | | | | A |
| P | 0051380 | | 18C02, | | | | | | | A |
| P | 0051400 | | PA6 = FF | | | | | | | A |
| P | 0051400 | | 18C11, | | | | | | | A |
| P | 0051500 | | NPA6 = NFF | | | | | | | A |
| P | 0051500 | | 18C13, | | | | | | | A |
| P | 0051520 | | S/PA6 = .PA5. | | | | | | | A |
| P | 0051520 | | 18C15,19, | | | | | | | A |
| P | 0051540 | | M/PA6 = .PRE | | | | | | | A |
| P | 0051540 | | 18C08, | | | | | | | A |
| P | 0051560 | | E/PA6 = .GND22 | | | | | | | A |
| P | 0051560 | | 18C18X, | | | | | | | A |
| P | 0051580 | | C/PA6 = .BCA | | | | | | | A |
| P | 0051580 | | 18C06, | | | | | | | A |
| P | 0051600 | | PA7 = FF | | | | | | | A |
| P | 0051600 | | 18C07, | | | | | | | A |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L | | |
|------|----------------------|-----|--|-----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|----|
| | 1 2 3 4 5 6 7 8 9 10 | | 10 1 2 3 4 5 6 7 8 9 20 | 20 2 3 4 5 6 7 8 9 30 | 30 2 3 4 5 6 7 8 9 40 | 40 2 3 4 5 6 7 8 9 50 | 50 2 3 4 5 6 7 8 9 60 | 60 2 3 4 5 6 7 8 9 70 | 70 |
| P | 0052100 | | PRB = B | .BC6.BC7.PRE. | | | A | | |
| P | 0052100 | | | 04814.21. 29. 19. 20. | | | A | | |
| P | 0052200 | | NPRBBC8 = I | .BC8.PRB. | | | A | | |
| P | 0052200 | | | 12847.38. 39. 42. 47-09829T | | | A | | |
| * | 0052290 | | PRE = PREAMBLE PHASE | | | | E | | |
| P | 0052300 | | PRE = FF | | | | A | | |
| P | 0052300 | | | 02B36. | | | A | | |
| P | 0052400 | | NPRES = NFF | | | | A | | |
| P | 0052400 | | | 02B37. | | | A | | |
| P | 0052420 | | S/PRE = .PRESET .NOOS | | | | C | | |
| P | 0052420 | | | 02B39. 40. | | | A | | |
| P | 0052440 | | M/PRE = .GND05 | | | | A | | |
| P | 0052440 | | | 02B35. | | | A | | |
| P | 0052460 | | E/PRE = .BRE | | | | A | | |
| P | 0052460 | | | 02B18X. | | | A | | |
| P | 0052480 | | C/PRE = .SYNC2 | | | | A | | |
| P | 0052480 | | | 02B33. | | | A | | |
| P | 0052500 | | PRESET = B | .RWC.SEC.NSUNSET.NUNE | | | H | | |
| P | 0052500 | | | 26A15.30. 17. 31. 18. | | | A | | |
| * | 0052640 | | NPSPM = NOT PREAMBLE SYNC PATTERN MISSED | | | | E | | |
| P | 0052650 | | NPSPM = I | .BC4.PRE. | | | A | | |
| P | 0052650 | | | 18B46.41. 40. 50. 46-21B17T | | | A | | |
| * | 0052890 | | PSPR = PREAMBLE SYNC PATTERN RECEIVED | | | | E | | |
| P | 0052900 | | PSPR = B | .NBRO.BR1.NDAIR.RENPRB | | | A | | |
| P | 0052900 | | | 26A14.20. 21. 29. 19. | | | A | | |
| P | 0053100 | | PT18S = -K | | | | A | | |
| P | 0053100 | | | 23C03.03-26C17K | | | A | | |
| * | 0053190 | | PWC = PULSE WITH CONTROL | | | | E | | |
| P | 0053200 | | PWC = -BL * + .PWC. | | | | A | | |
| P | 0053200 | | | 07B02.3. 02. 43X. 02-09B13T | | | A | | |
| P | 0053225 | | | + .NDCB. | | | A | | |
| P | 0053225 | | | 07B\$.31. 37X. | | | A | | |
| P | 0053250 | | | + .T6. | | | A | | |
| P | 0053250 | | | 07B\$.33.38X. | | | A | | |
| P | 0053275 | | | -IDS*SENSE040 | | | G | | |
| P | 0053275 | | | 06C19.21. | | | A | | |
| * | 0053290 | | RATER = RATE ERROR BETWEEN IOP AND FAM | | | | E | | |

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| CODE | LINE NO. | CHG | LOGIC EQUATIONS / | PINS / | REMARKS | C/L |
|------|----------|---------|-----------------------------------|--|--|-----|
| | 1 | 2345678 | 9 | 10 | 123456789 20 23456789 30 23456789 40 23456789 50 23456789 60 23456789 70 | |
| P | 0054450 | | REDSUN = -BL * + .GND25 .REDSUN | | | A |
| P | 0054450 | | 23A27, \$, 23X, 27, | | | A |
| P | 0054466 | | + .INDUP .RED | | | A |
| P | 0054466 | | 23A\$, 18X, 28, | | | A |
| P | 0054482 | | + .NINDUP .SUN | | | A |
| P | 0054482 | | 23A\$, 22X, 29, | | | A |
| * | 0054490 | | REN = READ ENABLE TO STORAGE UNIT | | | E |
| P | 0054500 | | REN = B .RCH .RCEN | | | A |
| P | 0054500 | | 05B01, 10, 11, 01-32A19C | | | A |
| P | 0054600 | | RENPRB = B .PRB .REN | | | A |
| P | 0054600 | | 26A01, 11, 10, | | | A |
| P | 0054800 | | RESA = -BL * + .GND14 .RESA | | | A |
| P | 0054800 | | 29B18, \$, 17X, 18, | | | A |
| P | 0054820 | | + .J004, | | | A |
| P | 0054820 | | 29B\$, 19, 30X, | | | A |
| P | 0054840 | | + .MANRST, | | | A |
| P | 0054840 | | 29B\$, 20, 31X, | | | A |
| P | 0054860 | | + .SLN, | | | A |
| P | 0054860 | | 29B\$, 21, 29X, | | | A |
| P | 0054880 | | + .J095, | | | E |
| P | 0054880 | | 29B\$, 22, 28X, | | | A |
| P | 0054900 | | NRESA = I .RESA, | | | A |
| P | 0054900 | | 18B17, 24, 20X, 21X, 17-21B46T | | | A |
| P | 0055200 | | RSAP = FF | | | A |
| P | 0055200 | | 14C38, | | | A |
| P | 0055300 | | NRSAP = NFF | | | A |
| P | 0055300 | | 14C41, | | | A |
| P | 0055305 | | S/RSAP = .CONPC .RSAPSET | | | A |
| P | 0055305 | | 14C43, 42, | | | A |
| P | 0055310 | | M/RSAP = .GND20 | | | A |
| P | 0055310 | | 14C31, | | | A |
| P | 0055315 | | E/RSAP = .MANRST | | | A |
| P | 0055315 | | 14C18X, | | | A |
| P | 0055320 | | C/RSAP = .CLKB | | | A |
| P | 0055320 | | 14C29, | | | A |
| P | 0055325 | | RSAPSET = B * + .RSDC .RUN. | | | A |
| P | 0055325 | | 03B45, \$, 39, 40, 41X, | | | A |
| P | 0055337 | | + .FSD .RUNCONT. | | | A |
| P | 0055337 | | 03B\$, 37, 38, 35X, | | | A |
| 1 | 2345678 | 9 | 10 | 123456789 20 23456789 30 23456789 40 23456789 50 23456789 60 23456789 70 | | |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | / | PINS | / | REMARKS | C/L |
|------|----------|-----|---|------------------------------|---|------|---|---------|-----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| P | 0056300 | | RSTR = -BCR | 28C06. | | | | | A |
| P | 0056300 | | | | | | | | A |
| P | 0056400 | | NRSTR = I | .RSTR | | | | | A |
| P | 0056400 | | | 23C45X, 47. | | | | | A |
| * | 0056490 | | RTR = RESET TRACK REGISTER | | | | | | E |
| P | 0056500 | | RTR = -BL * + .GND08.RTR | | | | | | A |
| P | 0056500 | | | 10B42, \$, \$, 36X, 42. | | | | | A |
| P | 0056516 | | | + .TRKRST. | | | | | A |
| P | 0056516 | | | 10B\$, 41, 37X. | | | | | A |
| P | 0056532 | | | + .RTRSET. | | | | | A |
| P | 0056532 | | | 10B\$, 40, 38X. | | | | | A |
| P | 0056550 | | RTRSET = B | .00S.SEK.SERVEX | | | | | A |
| P | 0056550 | | | 08B33, 25, 26, 27. | | | | | A |
| P | 0056600 | | RUN = I | .DATAS.SKS. | | | | | A |
| P | 0056600 | | | 23B47, 38, 39, 42, 47-09B06T | | | | | A |
| P | 0056650 | | RUNCONT = -PET | | | | | | C |
| P | 0056650 | | | 15A41 | | | | | C |
| P | 0056800 | | RWC = -BL * + .GND08.RWC | | | | | | A |
| P | 0056800 | | | 10B12, \$, \$, 23X, 12, | | | | | A |
| P | 0056833 | | | + .RED. | | | | | A |
| P | 0056833 | | | 10B\$, 11, 18X, | | | | | A |
| P | 0056866 | | | + .WCH. | | | | | A |
| P | 0056866 | | | 10B\$, 10, 22X, | | | | | A |
| * | 0056890 | | RWCEN = READ, WRITE OR CHECK WRITE ENABLE | | | | | | E |
| P | 0056900 | | RWCEN = B | * + .PRE.NWPV. | | | | | A |
| P | 0056900 | | | 03B04, \$, \$, 05, 06, 07X, | | | | | A |
| P | 0057000 | | | + .CM001.CM002.RWCEN | | | | | A |
| P | 0057000 | | | 03B\$, 12X, 13, 14, | | | | | A |
| * | 0057090 | | S0-S3 = SECTOR REGISTER | | | | | | E |
| P | 0057100 | | S0 = FF | | | | | | A |
| P | 0057100 | | | 14B38, | | | | | A |
| P | 0057200 | | NS0 = NFF | | | | | | A |
| P | 0057200 | | | 14B41, | | | | | A |
| P | 0057220 | | S/S0 = .NS0. | | | | | | A |
| P | 0057220 | | | 14B42, 43, | | | | | A |
| P | 0057240 | | M/S0 = .SOM | | | | | | A |
| P | 0057240 | | | 14B31, | | | | | A |
| P | 0057260 | | E/S0 = .RTR | | | | | | A |
| P | 0057260 | | | 14B18X, | | | | | A |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L | |
|------|-------------------|-----|-------------------------------|---|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| | 1 2 3 4 5 6 7 8 9 | 10 | 11 12 13 14 15 16 17 18 19 20 | 21 22 23 24 25 26 27 28 29 30 | 31 32 33 34 35 36 37 38 39 40 | 41 42 43 44 45 46 47 48 49 50 | 51 52 53 54 55 56 57 58 59 60 | 61 62 63 64 65 66 67 68 69 70 |
| P | 0061370 | | M/SEEKEND = | .GND09 14B35. | | | A A | |
| P | 0061380 | | E/SEEKEND = | .RTR 14B18X. | | | A A | |
| P | 0061390 | | C/SEEKEND = | .SSP 14B33. | | | A A | |
| * | 0061395 | | SEK = | SEEK | | | E | |
| P | 0061400 | | SEK = B | * + .DAGU.DA7U.OTS 11B31,\$,\$,35, 36, 39X,31-22A14T | | | A | |
| P | 0061433 | | | + .GND26. | | | A | |
| P | 0061466 | | | 11B\$,44X, 47, | | | A | |
| P | 0061466 | | | + .ORDRST.SEK | | | A | |
| * | 0061490 | | SENSE0-7 = | TIMING FOR ALL FAM OPERATIONS 11B\$,28X, 25, | | | A E | |
| P | 0061500 | | SENSE000 = | -DL * START-DL 05C46,\$ | | | G G | |
| P | 0061600 | | SENSE060 = | -DL * START-DL 05C31,\$ | | | G G | |
| P | 0061700 | | SENSE040 = | -DL * START-DL 05C47,\$ | | | G G | |
| P | 0061725 | | SENSE100 = | -DL * START-DL 05C38,\$ | | | G G | |
| P | 0061740 | | SENSE130 = | -DL * START-DL 05C23,\$ | | | G G | |
| P | 0061750 | | SENSE170 = | -DL * START-DL 05C22,\$ | | | G G | |
| P | 0061800 | | SENSE200 = | -DL * START-DL 05C25,\$ | | | G G | |
| P | 0061900 | | SENSE230 = | -DL * START-DL 05C02,\$ | | | G G | |
| P | 0062000 | | SENSE300 = | -DL * START-DL 05C11,\$ | | | G G | |
| P | 0062100 | | SENSE180 = | -DL * START-DL 05C17,\$ | | | G G | |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C7L | | | | | | | | | |
|---|----------|-----|-------|---------------------------------|--------|----------|-----|----------|----|----------|----|----------|----|----------|----|---|
| 1 | 2345678 | 9 | 10 | 123456789 | 20 | 23456789 | 30 | 23456789 | 40 | 23456789 | 50 | 23456789 | 60 | 23456789 | 70 | |
| P | 0062200 | | | SEROIC = -BL * + .GND14. | SEROIC | | | | | | | | | | | A |
| P | 0062200 | | | 29B13, \$, \$, 17X, 13, | | | | | | | | | | | | A |
| P | 0062210 | | | + .UNE. | | | | | | | | | | | | A |
| P | 0062210 | | | 29B\$, 04, 30X, | | | | | | | | | | | | A |
| P | 0062220 | | | + .ILO. | | | | | | | | | | | | A |
| P | 0062220 | | | 29B\$, 03, 31X, | | | | | | | | | | | | A |
| P | 0062230 | | | + .DCO. | | | | | | | | | | | | A |
| P | 0062230 | | | 29B\$, 02, 29X, | | | | | | | | | | | | A |
| P | 0062240 | | | + .CDN. | | | | | | | | | | | | A |
| P | 0062240 | | | 29B\$, 01, 28X, | | | | | | | | | | | | A |
| P | 0062250 | | | SEROIS = B .OIS.SERVCON. | | | | | | | | | | | | A |
| P | 0062250 | | | 05B12, 05, 06, 07, | | | | | | | | | | | | A |
| P | 0062300 | | | SERVCON = B * + .FSCU. | | | | | | | | | | | | A |
| P | 0062300 | | | 16B01, \$, \$, 18, 07X, 19, | | | | | | | | | | | | A |
| P | 0062350 | | | + .SD4.SERVCON. | | | | | | | | | | | | A |
| P | 0062350 | | | 16B\$, 20, 21, 12X, | | | | | | | | | | | | A |
| P | 0062400 | | | NSERVCON = I .SERVCON. | | | | | | | | | | | | A |
| P | 0062400 | | | 23B25, 19, 20X, 21X, 25-04C03T | | | | | | | | | | | | A |
| * | 0062490 | | | SERVEX = SERVICE EXIT CLOCK | | | | | | | | | | | | E |
| P | 0062500 | | | SERVEX = B .NCSLI.NFSC | | | | | | | | | | | | A |
| P | 0062500 | | | 31B35, 43, 38, 35-09B33T | | | | | | | | | | | | A |
| P | 0062600 | | | NSERVEX = I .SERVEX. | | | | | | | | | | | | A |
| P | 0062600 | | | 18B02, 08, 05X, 06X, 02-21B13T | | | | | | | | | | | | A |
| P | 0062700 | | | SGLTRK = -PET | | | | | | | | | | | | H |
| P | 0062700 | | | 15A19 | | | | | | | | | | | | H |
| P | 0062800 | | | NSGLTRK = I .CONPB.SGLTRK. | | | | | | | | | | | | A |
| P | 0062800 | | | 28B10, 19, 15, 18, | | | | | | | | | | | | A |
| P | 0062900 | | | SIOP = -PET | | | | | | | | | | | | H |
| P | 0062900 | | | 15A25 | | | | | | | | | | | | H |
| * | 0062990 | | | SIOR = START I/O FROM IOP | | | | | | | | | | | | E |
| P | 0063000 | | | SIOR = -BCR | | | | | | | | | | | | A |
| P | 0063000 | | | 28C13, | | | | | | | | | | | | A |
| P | 0063100 | | | SIOSET = B .NCIL.NDCB.DVTR.SIOU | | | | | | | | | | | | A |
| P | 0063100 | | | 24B15, 17, 18, 30, 31, | | | | | | | | | | | | A |
| P | 0063200 | | | SIOU = -BL * + .GND18.SIOU | | | | | | | | | | | | A |
| P | 0063200 | | | 12C26, \$, \$, 23X, 26, | | | | | | | | | | | | A |
| P | 0063233 | | | + .CONPA.SIOP | | | | | | | | | | | | A |
| P | 0063233 | | | 12C\$, 18X, 25, | | | | | | | | | | | | A |
| P | 0063266 | | | + .FNTEN.SIOR | | | | | | | | | | | | A |
| P | 0063266 | | | 12C\$, 22X, 24, | | | | | | | | | | | | A |
| 1 2345678 9 10 123456789 20 23456789 30 23456789 40 23456789 50 23456789 60 23456789 70 | | | | | | | | | | | | | | | | |

| CODE | LINE NO. | CHK | LOGIC | EQUATIONS | PINS | REMARKS | C/L | | | |
|------|----------|-----|--|---------------|------------|------------|------------|------------|------------|---|
| 1 | 23456789 | 0 | 10 | 12345678920 | 2345678930 | 2345678940 | 2345678950 | 2345678960 | 2345678970 | |
| | 0063300 | | SKS = -BL * + .GND08.SKS | | | | | | | |
| P | 0063300 | | 10B27,\$,\$,23X, | 27, | | | | | A | |
| | 0063316 | | + .SEK. | | | | | | A | |
| P | 0063316 | | 10B\$,28,18X, | | | | | | A | |
| | 0063332 | | + .SNS. | | | | | | A | |
| P | 0063332 | | 10B\$,29,22X, | | | | | | A | |
| | 0063350 | | SKSU0 = -BL * + .GND25.SKSU0 | | | | | | A | |
| P | 0063350 | | 23A21,\$,\$,30X, | 21, | | | | | A | |
| | 0063400 | | + .INDUP.SKS | | | | | | A | |
| P | 0063400 | | 23A\$,13X, | 20, | | | | | A | |
| | 0063450 | | + .NINDUP.U0 | | | | | | A | |
| P | 0063450 | | 23A\$,05X, | 19, | | | | | A | |
| * | 0063470 | | SGLTRK = SINGLE TRACK OPERATION FROM PET | | | | | | | E |
| | 0063500 | | SLN = B .FSD.SIOSET | | | | | | A | |
| P | 0063500 | | 31B45,42,39,45-32A09C | | | | | | A | |
| | 0063550 | | B * + .GND12 .SLN | | | | | | C | |
| P | 0063550 | | 19B26,\$,\$,23X, | 26 | | | | | C | |
| | 0063560 | | + .CONPC .FSP-1 | | | | | | C | |
| P | 0063560 | | 19B\$,18X, | 25 | | | | | C | |
| | 0063570 | | + .FNTEN .FSR | | | | | | C | |
| P | 0063570 | | 19B\$,22X, | 24 | | | | | C | |
| * | 0063590 | | SNS = SENSE | | | | | | | E |
| | 0063600 | | SNS = B * + .ORDRST.SNS | | | | | | A | |
| P | 0063600 | | 11B19,\$,\$,06X, | 15,19-22A15T | | | | | A | |
| | 0063650 | | + .NDA4U.NDA6U.NDA7U.OTS | | | | | | A | |
| P | 0063650 | | 11B\$,18, | 17,13,12,14X, | | | | | A | |
| | 0063700 | | SNSBYTE1 = B .NDP2.NDP3.SNST2 | | | | | | A | |
| P | 0063700 | | 22B33,27,26,25,33-21B25T | | | | | | A | |
| | 0063800 | | SNSBYTE2 = B .DP3.SNST2 | | | | | | A | |
| P | 0063800 | | 22B13,08,04,13-21B26T | | | | | | A | |
| | 0063900 | | SNSD = FF | | | | | | D | |
| P | 0063900 | | 14B11 | | | | | | D | |
| | 0063910 | | NSNSD = NFF | | | | | | D | |
| P | 0063910 | | 14B13 | | | | | | D | |
| | 0063920 | | S/SNSD = .SYNC2 .SNS | | | | | | D | |
| P | 0063920 | | 14B15,19 | | | | | | D | |
| | 0063930 | | C/SNSD = .BOB | | | | | | D | |
| P | 0063930 | | 14B06 | | | | | | D | |
| | 0063940 | | F/SNSD = .GND09 | | | | | | D | |
| P | 0063940 | | 14B08 | | | | | | D | |

| CODE | LINE NO. | CHG | LOGIC EQUATIONS / PINS / REMARKS | | | | | | | | | | C/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|----------|-----|---|---|---|---|---|---|----|----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| P | 0063950 | | E/SNSD = .RTR | | | | | | | | | | | | | | | | | | | | | | | | | | | | D | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0063950 | | 14B18X | | | | | | | | | | | | | | | | | | | | | | | | | | | | D | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064000 | | SNST2 = -BDS *SENSE100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064000 | | 04C18,12, 18-21B28T | | | | | | | | | | | | | | | | | | | | | | | | | | | | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064050 | | * .SNS | | | | | | | | | | | | | | | | | | | | | | | | | | | | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064050 | | 04C\$, 14, 13, 17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | H | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| * | 0064190 | | SPR = SECTOR PULSE RECEIVED FROM STORAGE UNIT | | | | | | | | | | | | | | | | | | | | | | | | | | | | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064200 | | SPR = -BCR | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064200 | | 30A08, | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| * | 0064290 | | SRBR = SHIFT B REGISTER TO RIGHT | | | | | | | | | | | | | | | | | | | | | | | | | | | | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064300 | | SRBR = B .ISRBR.NLDBR | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064300 | | 26A46,40, 41, | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064500 | | SRWC = -BL * + .GND08.SRWC | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064500 | | 10B09,\$,\$,30X, 09, | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064516 | | + .SEK. | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064516 | | 10B\$,08, 13X, | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064532 | | + .RWC. | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064532 | | 10B\$,06, 05X, | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064550 | | SSP = B .SYNC1.SYNC2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064550 | | 08B13,04, 08, | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064575 | | START-DL = -DLD * + .DLS .PWC | | | | | | | | | | | | | | | | | | | | | | | | | | | | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064575 | | 05C\$,15,15,08, 06 | | | | | | | | | | | | | | | | | | | | | | | | | | | | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064576 | | + .TO .PWC | | | | | | | | | | | | | | | | | | | | | | | | | | | | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064576 | | 05C15,10, 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064900 | | STEP = -PET | | | | | | | | | | | | | | | | | | | | | | | | | | | | H | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0064900 | | 15A43 | | | | | | | | | | | | | | | | | | | | | | | | | | | | H | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0065000 | | NSTEP = I .STEP. | | | | | | | | | | | | | | | | | | | | | | | | | | | | H | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0065000 | | 20A45,42,39 | | | | | | | | | | | | | | | | | | | | | | | | | | | | H | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0065100 | | STOPP = -PET | | | | | | | | | | | | | | | | | | | | | | | | | | | | H | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0065100 | | 15A39 | | | | | | | | | | | | | | | | | | | | | | | | | | | | H | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0065200 | | STOPPET = B * + .STOPP. | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0065200 | | 17A47,\$,\$,30, 29,41X, | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0065220 | | + .CNTRST.NSGLTRK. | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0065220 | | 17A\$,28, 36, 35X, | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0065240 | | -BL * + .GND12.STOPP | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0065240 | | 19B09,\$,\$,30X, 09, | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0065260 | | + .CONPB.RWC | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0065260 | | 19B\$,13X, 08, | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0065280 | | + .NCONP.GND12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | 0065280 | | 19B\$,05X, 06, | | | | | | | | | | | | | | | | | | | | | | | | | | | | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

7201 RAD

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L |
|------|----------|-----|--|-----------------|------|---------|--------|
| P | 0068400 | | T6 = -BDS*SENSE300 | | | | G A |
| | 0068400 | | 06C05.25,05-09B11T | | | | |
| P | 0068500 | | T2 = -BDS*SENSE100 | | | | G A |
| | 0068500 | | 06C06.27,06-21B01T | | | | |
| P | 0068600 | | T3 = -BDS*SENSE170 | | | | G C |
| | 0068600 | | 06C17.22,17-04C08T | | | | |
| P | 0068650 | | T3-1 = -BDS*SENSE130 | | | | G A |
| | 0068650 | | 06C04.24,04-21B04T | | | | |
| P | 0068700 | | T4 = -BDS*SENSE180 | | | | G A |
| | 0068700 | | 06C07.23,07-21B03T | | | | |
| P | 0068900 | | NT5 = -IDS*SENSE230 | | | | G A |
| | 0068900 | | 06C18.20,18-09B12T | | | | |
| P | 0069000 | | (TDVR.DCA.FSD) = B | .TDVR .DCA .FSD | | | C C |
| | 0069000 | | 27C09X,03X, | 02X, 01X | | | |
| P | 0069200 | | TDVP = -PET | | | | H H |
| | 0069200 | | 15A22 | | | | |
| * | 0069290 | | TDVR = TEST DEVICE FROM IOP | | | | E |
| P | 0069300 | | TDVR = -BCR | | | | A A |
| | 0069300 | | 28C22, | | | | |
| P | 0069400 | | TDVU = -BL * + .GND18.TDVU | | | | A A |
| | 0069400 | | 12C14,\$,\$,23X, 14, | | | | |
| P | 0069433 | | + .CONPA.TDVP | | | | A A |
| | 0069433 | | 12C\$,18X, 15, | | | | |
| P | 0069466 | | + .FNTEN.TDVR | | | | A A |
| | 0069466 | | 12C\$,22X, 17, | | | | |
| * | 0069490 | | TER = TRANSMISSION ERROR | | | | E |
| P | 0069500 | | TER = I .NCHWER .NPARER .NRATER .NPSPM | | | | A A |
| | 0069500 | | 20A15,31, 18, 30, 17 | | | | |
| P | 0069550 | | TERU1 = -BL * + .GND25.TERU1 | | | | A A |
| | 0069550 | | 23A46,\$,\$,30X, 46, | | | | |
| P | 0069600 | | + .INDUP.TER | | | | A A |
| | 0069600 | | 23A\$,13X, 47, | | | | |
| P | 0069650 | | + .NINDUP.U1 | | | | A A |
| | 0069650 | | 23A\$,05X, 50, | | | | |
| P | 0069675 | | TIOP = -PET | | | | A A |
| | 0069675 | | 15A23 | | | | |
| * | 0069690 | | TIOR = TEST I/O FROM IOP | | | | E |

| CODE | LINE NO. | CHK | LOGIC | | EQUATIONS | | PINS | | REMARKS | | C/L |
|------|----------|-----|-------|----|-----------|----|------|----|---------|--|--------|
| | | | 10 | 20 | 30 | 40 | 50 | 60 | 70 | | |
| P | 0069700 | | | | | | | | | | A |
| P | 0069700 | | | | | | | | | | A |
| P | 0069800 | | | | | | | | | | A |
| P | 0069833 | | | | | | | | | | A |
| P | 0069833 | | | | | | | | | | A |
| P | 0069866 | | | | | | | | | | A |
| P | 0069866 | | | | | | | | | | A |
| * | 0069890 | | | | | | | | | | E |
| P | 0069900 | | | | | | | | | | A |
| P | 0069900 | | | | | | | | | | A |
| P | 0070000 | | | | | | | | | | A |
| P | 0070000 | | | | | | | | | | A |
| P | 0070033 | | | | | | | | | | A |
| P | 0070033 | | | | | | | | | | A |
| P | 0070066 | | | | | | | | | | A |
| P | 0070066 | | | | | | | | | | Δ A |
| P | 0070099 | | | | | | | | | | A |
| P | 0070099 | | | | | | | | | | A |
| P | 0070132 | | | | | | | | | | A |
| P | 0070132 | | | | | | | | | | A |
| P | 0070165 | | | | | | | | | | A |
| P | 0070165 | | | | | | | | | | A |
| * | 0070190 | | | | | | | | | | E |
| P | 0070200 | | | | | | | | | | A |
| P | 0070200 | | | | | | | | | | A |
| P | 0070300 | | | | | | | | | | A |
| P | 0070300 | | | | | | | | | | A |
| P | 0070320 | | | | | | | | | | A |
| P | 0070320 | | | | | | | | | | A |
| P | 0070340 | | | | | | | | | | A |
| P | 0070340 | | | | | | | | | | A |
| P | 0070360 | | | | | | | | | | A |
| P | 0070360 | | | | | | | | | | A |
| P | 0070380 | | | | | | | | | | A |
| P | 0070380 | | | | | | | | | | A |

NS

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | / | PINS | / | REMARKS | C/L |
|------|----------|-----|-----------------------|-----------|---|------|---|---------|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| P | 0072200 | | TRK5 = FF | | | | | | A |
| P | 0072200 | | 13838. | | | | | | A |
| P | 0072300 | | NTRK5 = NFF | | | | | | A |
| P | 0072300 | | 13841. | | | | | | A |
| P | 0072320 | | S/TRK5 = .NTRK5. | | | | | | A |
| P | 0072320 | | 13842. | 43. | | | | | A |
| P | 0072340 | | M/TRK5 = .TRK5M | | | | | | A |
| P | 0072340 | | 13831. | | | | | | A |
| P | 0072360 | | E/TRK5 = .RTR | | | | | | A |
| P | 0072360 | | 13818X. | | | | | | A |
| P | 0072380 | | C/TRK5 = .TRK6 | | | | | | A |
| P | 0072380 | | 13829. | | | | | | A |
| P | 0072400 | | TRK5M = B .DA0U.LSB2. | | | | | | A |
| P | 0072400 | | 15C01,11, 06X, 33X. | | | | | | A |
| P | 0072500 | | TRK5P = B .TRK5. | | | | | | A |
| P | 0072500 | | 20B30,37, 34X,44X. | | | | | | A |
| P | 0072600 | | TRK6 = FF | | | | | | A |
| P | 0072600 | | 13807. | | | | | | A |
| P | 0072700 | | NTRK6 = NFF | | | | | | A |
| P | 0072700 | | 13809. | | | | | | A |
| P | 0072720 | | S/TRK6 = .NTRK6. | | | | | | A |
| P | 0072720 | | 13812. | 14. | | | | | A |
| P | 0072740 | | M/TRK6 = .TRK6M | | | | | | A |
| P | 0072740 | | 13805. | | | | | | A |
| P | 0072760 | | E/TRK6 = .RTR | | | | | | A |
| P | 0072760 | | 13818X. | | | | | | A |
| P | 0072780 | | C/TRK6 = .TRK7 | | | | | | A |
| P | 0072780 | | 13810. | | | | | | A |
| P | 0072800 | | TRK6M = B .DA1U.LSB2. | | | | | | A |
| P | 0072800 | | 15C02,09, 06X, 44X. | | | | | | A |
| P | 0072900 | | TRK6P = B .TRK6. | | | | | | A |
| P | 0072900 | | 20B29,36, 10X,34X. | | | | | | A |
| P | 0073000 | | TRK7 = FF | | | | | | A |
| P | 0073000 | | 13811. | | | | | | A |

| CODE | LINE NO. | CHG | LOGIC EQUATIONS / | | | | | | | | | | PINS / | | | | | | | | | | REMARKS | C/L |
|------|----------|-----|-------------------|-----------|----|----------|----|----------|----|----------|----|----------|--------|----------|----|--|--|--|--------|--|--|--|---------|-----|
| 1 | 23456789 | 9 | 10 | 123456789 | 20 | 23456789 | 30 | 23456789 | 40 | 23456789 | 50 | 23456789 | 60 | 23456789 | 70 | | | | | | | | | |
| P | 0073100 | | | | | | | | | | | | | | | | | NTRK7 = NFF 13813. | A A | | | | | |
| P | 0073120 | | | | | | | | | | | | | | | | | S/TRK7 = .NTRK7. 13815. 19. | A A | | | | | |
| P | 0073140 | | | | | | | | | | | | | | | | | M/TRK7 = .TRK7M 13808. | A A | | | | | |
| P | 0073160 | | | | | | | | | | | | | | | | | E/TRK7 = .RTR 13818X. | A A | | | | | |
| P | 0073180 | | | | | | | | | | | | | | | | | C/TRK7 = .TRK8 13806. | A A | | | | | |
| P | 0073200 | | | | | | | | | | | | | | | | | TRK7M = B .DA2U.LSB2. 15C04.08. 06X. 10X. | A A | | | | | |
| P | 0073300 | | | | | | | | | | | | | | | | | TRK7P = B .TRK7. 20B28.35. 05X.34X. | A A | | | | | |
| P | 0073400 | | | | | | | | | | | | | | | | | TRK8 = FF 14817. | A A | | | | | |
| P | 0073500 | | | | | | | | | | | | | | | | | NTRK8 = NFF 14825. | A A | | | | | |
| P | 0073510 | | | | | | | | | | | | | | | | | S/TRK8 = .NTRK8 14821. | A A | | | | | |
| P | 0073520 | | | | | | | | | | | | | | | | | M/TRK8 = .TRK8M 14804. | A A | | | | | |
| P | 0073530 | | | | | | | | | | | | | | | | | E/TRK8 = .RTR 14818X. | A A | | | | | |
| P | 0073540 | | | | | | | | | | | | | | | | | C/TRK8 = .TRK8C 14802. | A A | | | | | |
| P | 0073550 | | | | | | | | | | | | | | | | | TRK8C = B .S0.NSGLTRK 24835.43.38. | A A | | | | | |
| P | 0073600 | | | | | | | | | | | | | | | | | TRK8M = B .DA3U.LSB2. 15C03.07. 06X. 05X. | A A | | | | | |
| P | 0073700 | | | | | | | | | | | | | | | | | TRK8P = B .TRK8. 20818.12. 17X.33X. | A A | | | | | |

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| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L |
|------|----------|-----|----------------------|---------------------|-------------------|---------|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 |
| 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 |
| 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 |
| 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 |
| 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 |
| P | 0073800 | | TRKCLK = B | * + .DISC.S0. | | | A |
| | 0073800 | | | 30B02,\$,\$.17, | 22.07X, | | A |
| P | 0073850 | | | + .DRM.SI. | | | A |
| | 0073850 | | | 30B\$.24, | 23.12X, | | A |
| P | 0073900 | | TRKCLKEN = I | .BYCLKEN. | | | A |
| | 0073900 | | | 18B09,04, | 05X,06X,09-22A25T | | A |
| P | 0073950 | | TRKCLRT = -BL | * + .GND12.TRKCLRT | | | A |
| | 0073950 | | | 19B01,\$,\$.43X, | 01, | | A |
| P | 0073966 | | | + .TRKCLK. | | | A |
| | 0073966 | | | 19B\$.45, | 37X, | | A |
| P | 0073982 | | | + .J096 | | | E |
| | 0073982 | | | 19B\$.44, | 38X, | | A |
| P | 0074000 | | TRKOVF = FF | | | | A |
| | 0074000 | | | 14B07, | | | A |
| P | 0074100 | | NTRKOVF = NFF | | | | A |
| | 0074100 | | | 14B09, | | | A |
| P | 0074110 | | S/TRKOVF = .NTRKOVF. | | | | A |
| | 0074110 | | | 14B12, | 14, | | A |
| P | 0074120 | | M/TRKOVF = .TRKOVFM | | | | H |
| | 0074120 | | | 14B05, | | | A |
| P | 0074130 | | E/TRKOVF = .RTR | | | | A |
| | 0074130 | | | 14B18X, | | | A |
| P | 0074140 | | C/TRKOVF = .TRK0 | | | | A |
| | 0074140 | | | 14B10, | | | A |
| P | 0074142 | | TRKOVFM = B | .LSB1.TRKOVFM1 | | | H |
| | 0074142 | | | 22B01,11, | .10 .01-09E08T | | H |
| P | 0074145 | | TRKOVFM1 = -BL | * + .GND14.TRKOVFM1 | | | H |
| | 0074145 | | | 29B34,\$,\$.27X, | 34 | | H |
| P | 0074146 | | | + .DA2U. | | | H |
| | 0074146 | | | 29B\$.41, | 30X | | H |
| P | 0074147 | | | + .DA1U. | | | H |
| | 0074147 | | | 29B\$.40, | 31X | | H |
| P | 0074148 | | | + .DA0U. | | | H |
| | 0074148 | | | 29B\$.43, | 29X | | H |
| P | 0074149 | | | + .GND14. | | | H |
| | 0074149 | | | 29B\$.44, | 28X | | H |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L | | |
|------|----------|-----------|------------------------------|----------------|-------------|----------------------|-------------|-------------|-------------|
| | 1 | 2345678 9 | 10 | 123456789 20 | 23456789 30 | 23456789 40 | 23456789 50 | 23456789 60 | 23456789 70 |
| P | 0074150 | | TRKRST = B | * + .MANRST. | | | | | A |
| P | 0074150 | | 16C04. | \$. \$.07. | | 06X,04-24C20T | | | A |
| P | 0074175 | | | + .CONPC. | | .OTS.RUNCONT.SERVEX. | | | A |
| P | 0074175 | | 16C\$.10. | | | 09, 11, 08, 14X. | | | A |
| * | 0074190 | | TRN = TRACK ADDRESS ENABLE | TOSTORAGE UNIT | | | | | E |
| P | 0074200 | | TRN = FF | | | | | | A |
| P | 0074200 | | 02B38. | 38-32A33C | | | | | A |
| P | 0074300 | | NTRN = NFF | | | | | | A |
| P | 0074300 | | 02B41. | | | | | | A |
| P | 0074320 | | S/TRN = .NBC8. | TRN | | | | | A |
| P | 0074320 | | 02B43. | 42. | | | | | A |
| P | 0074340 | | M/TRN = .SSP | | | | | | A |
| P | 0074340 | | 02B31. | | | | | | A |
| P | 0074360 | | E/TRN = .BRE | | | | | | A |
| P | 0074360 | | 02B18X. | | | | | | A |
| P | 0074380 | | C/TRN = .BTC2 | | | | | | A |
| P | 0074380 | | 02B29. | | | | | | A |
| * | 0074390 | | TRPR = TRACK WRITE PROTECTED | | | | | | E |
| P | 0074400 | | TRPR = -BCR | | | | | | A |
| P | 0074400 | | 30A18. | | | | | | A |
| P | 0074500 | | TSH = B | .DCA | | | | | A |
| P | 0074500 | | 29C22X. | 04. | | | | | A |
| P | 0074550 | | B | * + .TIOR | | | | | A |
| P | 0074550 | | 29C22X. | \$. \$.35X. | | | | | A |
| P | 0074600 | | | + .HIOR | | | | | A |
| P | 0074600 | | 29C\$.34X. | | | | | | A |
| P | 0074650 | | | + .SIOR | | | | | A |
| P | 0074650 | | 29C\$.33X. | | | | | | A |
| P | 0074700 | | TTSH = B | * + .TIOR | | | | | A |
| P | 0074700 | | 29C24. | \$. \$.35X. | | | | | A |
| P | 0074725 | | | + .HIOR | | | | | A |
| P | 0074725 | | 29C\$.34X. | | | | | | A |
| P | 0074750 | | | + .SIOR | | | | | A |
| P | 0074750 | | 29C\$.33X. | | | | | | A |
| P | 0074775 | | | + .TDVR | | | | | A |
| P | 0074775 | | 29C\$.36. | | | | | | A |

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| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L |
|------|-------------|-----|---|---|------|---------|-----|
| | 1 2345678 9 | | 10 123456789 20 23456789 30 23456789 40 23456789 50 23456789 60 23456789 70 | | | | |
| P | 0074800 | | | TTSU = B .DCAU. | | | A |
| P | 0074800 | | | 29A02.03, 09. | | | A |
| P | 0074816 | | | -BL * + .GND14.TTSU | | | A |
| P | 0074816 | | | 29B37.\$,\$.27X, 37. | | | A |
| P | 0074832 | | | + .TDVU. | | | A |
| P | 0074832 | | | 29B\$.45, 30X, | | | A |
| P | 0074848 | | | + .HIOU. | | | A |
| P | 0074848 | | | 29B\$.46, 31X, | | | A |
| P | 0074864 | | | + .SIOU. | | | A |
| P | 0074864 | | | 29B\$.47, 29X, | | | A |
| P | 0074880 | | | + .TIOU. | | | A |
| P | 0074880 | | | 29B\$.50, 28X, | | | A |
| * | 0074890 | | | TYP0-TYP1 = TYPE OF MEMORY UNIT CONNECTED | | | E |
| P | 0074900 | | | NTP0 = I .TYP0R. | | | A |
| P | 0074900 | | | 27A45.39, 33X,43X, | | | A |
| P | 0075000 | | | TYP0R = -BCR | | | A |
| P | 0075000 | | | 30A27, | | | A |
| P | 0075200 | | | NTP1 = I .TYP1R. | | | A |
| P | 0075200 | | | 27A46.40, 43X,44X, | | | A |
| P | 0075300 | | | TYP1R = -BCR | | | A |
| P | 0075300 | | | 30A34, | | | A |
| * | 0075390 | | | U0-U2 = UNIT ADDRESS (SELECTOR) | | | E |
| P | 0075400 | | | U0 = FF | | | A |
| P | 0075400 | | | 14C23, | | | A |
| P | 0075500 | | | NU0 = NFF | | | A |
| P | 0075500 | | | 14C20, | | | A |
| P | 0075520 | | | S/U0 = .DA5U | | | A |
| P | 0075520 | | | 14C22, | | | A |
| P | 0075540 | | | M/U0 = .GND20 | | | A |
| P | 0075540 | | | 14C03, | | | A |
| P | 0075560 | | | E/U0 = .MANRST | | | A |
| P | 0075560 | | | 14C18X, | | | A |
| P | 0075580 | | | C/U0 = .SLN | | | A |
| P | 0075580 | | | 14C01, | | | A |
| P | 0075600 | | | U1 = FF | | | A |
| P | 0075600 | | | 14C17, | | | A |
| P | 0075700 | | | NU1 = NFF | | | A |
| P | 0075700 | | | 14C25, | | | A |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L | | | | |
|------|----------|-----|---------|---------------------------------------|-------------------------|-------------------------|----------------------|----------------------|----------------------|----|---|
| I | 2345678 | 9 | 10 | 1,2,3,4,5,6,7,8,9,20 | 23,24,25,26,27,28,29,30 | 33,34,35,36,37,38,39,40 | 43,44,45,46,47,48,49 | 53,54,55,56,57,58,59 | 63,64,65,66,67,68,69 | 70 | |
| P | 0076180 | | C/UNE | = .RSFSC . | | | | | | | C |
| P | 0076180 | | | 15B36,46X | | | | | | | C |
| * | 0076190 | | UNE1MM | = UNUSUAL END IMMEDIATE | | | | | | | E |
| P | 0076200 | | UNE1MM | = I .DVOR.NPSPM.UNESET1. | | | | | | | A |
| P | 0076200 | | | 28B36,27, 26, 25, 28,36-21B38T | | | | | | | A |
| P | 0076300 | | UNEM | = B .DCB-1.NOOS.NSERVEX | | | | | | | A |
| P | 0076300 | | | 26A33,27, 25, 26, | | | | | | | A |
| P | 0076350 | | | I .OISSERV . | | | | | | | A |
| P | 0076350 | | | 28B17,20, 21, | | | | | | | A |
| P | 0076400 | | | I .DVOR.NPSPM.UNESET1.UNESET2.UNESET3 | | | | | | | A |
| P | 0076400 | | | 28B38,43, 42, 41, 40, 44, | | | | | | | A |
| P | 0076420 | | | I .CONPE .ERSTOP | | | | | | | E |
| P | 0076420 | | | 20A02,03, 09 | | | | | | | E |
| P | 0076450 | | UNER | = -BL * + .GND12.UNER | | | | | | | A |
| P | 0076450 | | | 19B02,\$,\$,43X, 02, | | | | | | | A |
| P | 0076466 | | | + .SIOSET. | | | | | | | A |
| P | 0076466 | | | 19B\$,31, 37X, | | | | | | | A |
| P | 0076482 | | | + .HIORST. | | | | | | | A |
| P | 0076482 | | | 19B\$,33, 38X, | | | | | | | A |
| P | 0076500 | | UNESET | = B .NOIS.TOS | | | | | | | A |
| P | 0076500 | | | 24B36,37, 44, | | | | | | | A |
| P | 0076600 | | UNESET1 | = I * + .BFEPWC.RED.SUN | | | | | | | A |
| P | 0076600 | | | 11C01,\$,\$,08, 10, 09,01-24C30T | | | | | | | A |
| P | 0076633 | | | + .SUN.WCHSK | | | | | | | H |
| P | 0076633 | | | 11C\$,07, 06, | | | | | | | A |
| P | 0076666 | | | + .ORDRST.WPV | | | | | | | A |
| P | 0076666 | | | 11C\$,11, 05, | | | | | | | A |
| P | 0076700 | | UNESET2 | = I * + .GND17. | | | | | | | A |
| P | 0076700 | | | 11C14,\$,\$,04, 12,14-21B50T | | | | | | | A |
| P | 0076733 | | | + .OIS.PARER. | | | | | | | A |
| P | 0076733 | | | 11C\$,13, 02, 03, | | | | | | | A |
| P | 0076766 | | | + .BFEPWC.PARER.REOPAR | | | | | | | A |
| P | 0076766 | | | 11C\$,17, 28, 27, | | | | | | | A |
| P | 0076800 | | UNESET3 | = I .NUNESET3. | | | | | | | A |
| P | 0076800 | | | 18B26,22, 20X,21X,26-21B15T | | | | | | | A |

| CODE | LINE NO. | CHK | LOGIC EQUATIONS | PINS | REMARKS | C/L |
|------|-----------|-----|---|------|---------|-----|
| | 1 2345678 | 9 | 10 123456789 20 23456789 30 23456789 40 23456789 50 23456789 60 23456789 70 | | | |
| P | 0076900 | | NUNES3 = -BL * + .GND14.NUNES3 | | | A |
| P | 0076900 | | 29B14,\$,\$,17X, 14, | | | A |
| P | 0076910 | | + .CHWER. | | | A |
| P | 0076910 | | 29B\$.07, 30X, | | | A |
| P | 0076920 | | + .ILO. | | | A |
| P | 0076920 | | 29B\$.08, 31X, | | | A |
| P | 0076930 | | + .RATER. | | | A |
| P | 0076930 | | 29B\$.12, 29X, | | | A |
| P | 0076940 | | + .GND14. | | | A |
| P | 0076940 | | 29B\$.05, 28X, | | | A |
| P | 0076950 | | UNESTOP = -BL * + .GND18.UNESTOP | | | A |
| P | 0076950 | | 12C42,\$,\$,36X, 42, | | | A |
| P | 0076958 | | + .STOPPET. | | | A |
| P | 0076958 | | 12C\$.41, 37X, | | | A |
| P | 0076966 | | + .UNE. | | | A |
| P | 0076966 | | 12C\$.40, 38X, | | | A |
| P | 0076975 | | UNEU2 = -BL * + .GND25.UNEU2 | | | A |
| P | 0076975 | | 23A09,\$,\$,30X, 09, | | | A |
| P | 0076983 | | + .INDUP.UNE | | | A |
| P | 0076983 | | 23A\$.13X, 08, | | | A |
| P | 0076991 | | + .NINDUP.U2 | | | A |
| P | 0076991 | | 23A\$.05X, 06, | | | A |
| * | 0076999 | | UP0-UP3 = UPPER POINTER COUNTER | | | E |
| P | 0077000 | | UP0 = FF | | | A |
| P | 0077000 | | 17C36, LOW | | | A |
| P | 0077100 | | NUP0 = NFF | | | A |
| P | 0077100 | | 17C37, | | | A |
| P | 0077120 | | S/UP0 = .NUP0. | | | A |
| P | 0077120 | | 17C40, 39, | | | A |
| P | 0077140 | | M/UP0 = .GND21 | | | A |
| P | 0077140 | | 17C35, | | | A |
| P | 0077160 | | E/UP0 = .DLUPX0 | | | A |
| P | 0077160 | | 17C18X, | | | A |
| P | 0077180 | | C/UP0 = .UPI | | | A |
| P | 0077180 | | 17C33, | | | A |
| P | 0077200 | | UPI = FF | | | A |
| P | 0077200 | | 17C38, LOW | | | A |
| P | 0077300 | | NUPI = NFF | | | A |
| P | 0077300 | | 17C41, | | | A |

| CODE | LINE NO. | CHG | LOGIC EQUATIONS | | | | | | | | | | PINS | REMARKS | C/L |
|------|----------|-----|----------------------------------|---|---|---|---|---|---|---|---|----|------|---------|-----|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | |
| P | 0077800 | | UPCOUNT = -BL * + .NT0.UPCOUNT | | | | | | | | | | | | A |
| P | 0077800 | | 07B26,\$,\$.23X,26,26-21B42T | | | | | | | | | | | | A |
| P | 0077805 | | + .BAXUP.NRED | | | | | | | | | | | | H |
| P | 0077810 | | 07B\$,18X, 25, | | | | | | | | | | | | H |
| P | 0077810 | | + .BAXLP.REDA | | | | | | | | | | | | H |
| P | 0077810 | | 07B\$,22X, 24, | | | | | | | | | | | | H |
| P | 0077815 | | US1P = -PET | | | | | | | | | | | | H |
| P | 0077815 | | 16A10 | | | | | | | | | | | | H |
| P | 0077830 | | US2P = -PET | | | | | | | | | | | | H |
| P | 0077830 | | 16A11 | | | | | | | | | | | | H |
| P | 0077845 | | US4P = -PET | | | | | | | | | | | | H |
| P | 0077845 | | 16A12 | | | | | | | | | | | | H |
| P | 0077850 | | USECP = B .DCB.SECP | | | | | | | | | | | | A |
| P | 0077850 | | 29A46,40, 41, | | | | | | | | | | | | A |
| P | 0077860 | | USOR-5 = B * + .NSERVCON .US4P . | | | | | | | | | | | | A |
| P | 0077860 | | 08C03,\$,\$.11, 10, 12X | | | | | | | | | | | | A |
| P | 0077861 | | + .OR5P .CONPORD . | | | | | | | | | | | | A |
| P | 0077861 | | 08C\$,08, 09, 07X | | | | | | | | | | | | A |
| P | 0077870 | | USOR-6 = B * + .NSERVCON .US2P . | | | | | | | | | | | | A |
| P | 0077870 | | 30B45,\$,\$.37, 38, 35X | | | | | | | | | | | | A |
| P | 0077871 | | + .OR6P .CONPORD . | | | | | | | | | | | | A |
| P | 0077871 | | 30B\$,40, 39, 41X | | | | | | | | | | | | A |
| P | 0077880 | | USOR-7 = B * + .NSERVCON .US1P . | | | | | | | | | | | | A |
| P | 0077880 | | 03B44,\$,\$.33, 34, 35X | | | | | | | | | | | | A |
| P | 0077881 | | + .OR7P .CONPORD . | | | | | | | | | | | | A |
| P | 0077881 | | 03B\$,42, 43, 41X | | | | | | | | | | | | A |
| P | 0077900 | | WCH = -BL * + .GND08.WCH | | | | | | | | | | | | A |
| P | 0077900 | | 10B26,\$,\$.23X, 26, | | | | | | | | | | | | A |
| P | 0077933 | | + .WRI. | | | | | | | | | | | | A |
| P | 0077933 | | 10B\$,25, 18X, | | | | | | | | | | | | A |
| P | 0077966 | | + .CHW. | | | | | | | | | | | | A |
| P | 0077966 | | 10B\$,24, 22X, | | | | | | | | | | | | A |
| P | 0078000 | | WCHEN = B .RWCEN.WCH | | | | | | | | | | | | A |
| P | 0078000 | | 05B13,04, 08, | | | | | | | | | | | | A |
| P | 0078100 | | WCHSK = -BL * + .GND08.WCHSK | | | | | | | | | | | | A |
| P | 0078100 | | 10B21,\$,\$.30X, 21, | | | | | | | | | | | | A |
| P | 0078166 | | + .WCH. | | | | | | | | | | | | A |
| P | 0078166 | | 10B\$,20, 13X, | | | | | | | | | | | | A |
| P | 0078232 | | + .SEK. | | | | | | | | | | | | A |
| P | 0078232 | | 10B\$,19, 05X, | | | | | | | | | | | | A |

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| CODE | LINE NO. | CHG | LOGIC EQUATIONS | | | | PINS | | | | REMARKS | C/L |
|------|----------|-----|-----------------|-------------------------------|--------------------------|----|------|----|----|---|---------|-----|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
| | | | 10 | 20 | 30 | 40 | 50 | 60 | 70 | | | |
| P | 0078300 | | | WCPB-358 = B | * + .PRB.WCHEN. | | | | | | | A |
| P | 0078300 | | | 03B01,\$,\$,19,18, | 07X, | | | | | | | A |
| P | 0078350 | | | | + .CM001.J015.WCPB-358 | | | | | | | A |
| * | 0078350 | | | 03B\$,12X, | 21, 20, | | | | | | | A |
| * | 0078390 | | | WDT = WATCH DOG TIMER | | | | | | | | E |
| P | 0078400 | | | WDT = FF | | | | | | | | A |
| P | 0078400 | | | 14C24, | | | | | | | | A |
| P | 0078500 | | | NWDT = NFF | | | | | | | | A |
| P | 0078500 | | | 14C46, | | | | | | | | A |
| P | 0078520 | | | S/WDT = .GND20 | | | | | | | | A |
| P | 0078520 | | | 14C50, | | | | | | | | A |
| P | 0078540 | | | M/WDT = .WDTM | | | | | | | | C |
| P | 0078540 | | | 14C28, | | | | | | | | A |
| P | 0078560 | | | E/WDT = .MANRST | | | | | | | | A |
| P | 0078560 | | | 14C18X, | | | | | | | | A |
| P | 0078580 | | | C/WDT = .SD4 | | | | | | | | A |
| P | 0078580 | | | 14C26, | | | | | | | | A |
| P | 0078600 | | | WDTM = I .FSU.NSERVCON.TTSHU | | | | | | | | A |
| P | 0078600 | | | 11C15,26,18, | 25,15-24C34T | | | | | | | A |
| P | 0078700 | | | WEN = B .RWCEN.WRI | | | | | | | | A |
| P | 0078700 | | | 05B02,09, | 03,02-32A15C | | | | | | | A |
| * | 0078790 | | | WPRE = WRITE PREAMBLE | | | | | | | | E |
| P | 0078800 | | | WPRE = B .BIT6PRB.PRE.WEN. | | | | | | | | A |
| P | 0078800 | | | 24B14,29, | 21, 20, 19, | | | | | | | A |
| * | 0078890 | | | WPV = WRITE PROTECT VIOLATION | | | | | | | | E |
| P | 0078900 | | | WPV = B * + .TRPR.WRIN . | | | | | | | | C |
| P | 0078900 | | | 30B01,\$,\$,19,18, | 07X, | | | | | | | A |
| P | 0078950 | | | | + .NRESA.WPV. | | | | | | | A |
| P | 0078950 | | | 30B\$,21, | 20, 12X, | | | | | | | A |
| P | 0079000 | | | NWPV = I .WPV. | | | | | | | | A |
| P | 0079000 | | | 18B25,19, | 20X,21X,25-04C04T | | | | | | | A |
| * | 0079190 | | | WRI = WRITE MODE | | | | | | | | E |
| P | 0079200 | | | WRI = B * + .ORDRST.WRI | | | | | | | | A |
| P | 0079200 | | | 11B04,\$,\$,06X, | 07,04-09B25T | | | | | | | A |
| P | 0079225 | | | | + .NDA5U.NDA6U.DA7U.OTS. | | | | | | | A |
| P | 0079225 | | | 11B\$,09, | 08, 10, 14X,11, | | | | | | | A |

| CODE | LINE NO. | CHK | LOGIC | EQUATIONS | PINS | REMARKS | C/L | | | | | | | | |
|-------------|----------|-----|-------|-------------------------------|------|----------|-----|----------|----|----------|----|----------|----|----------|----|
| I | 2345678 | 9 | 10 | 123456789 | 20 | 23456789 | 30 | 23456789 | 40 | 23456789 | 50 | 23456789 | 60 | 23456789 | 70 |
| P | 0079250 | | | WRIPV = -BL * + .GND25.WRIWPV | | | A | | | | | | | | |
| P | 0079250 | | | 23A12,\$,\$,23X, 12, | | | A | | | | | | | | |
| P | 0079266 | | | + .INDUP.WRI | | | A | | | | | | | | |
| P | 0079266 | | | 23A\$,18X, 11, | | | A | | | | | | | | |
| P | 0079282 | | | + .NINDUP.WPV | | | A | | | | | | | | |
| P | 0079282 | | | 23A\$,22X, 10, | | | A | | | | | | | | |
| P | 0079300 | | | WRIN = B .NTRN .WRI | | | C | | | | | | | | |
| P | 0079300 | | | 19A36,37, 44 | | | C | | | | | | | | |
| P | 0079400 | | | B .BC7 . | | | C | | | | | | | | |
| P | 0079400 | | | 19A35,38, 43 | | | C | | | | | | | | |
| P | 0100000 | | | (Δ000) = B .DP2.DP1.(Δ001) | | | G | | | | | | | | |
| P | 0100000 | | | 32B\$,10X,06X,\$ | | | A | | | | | | | | |
| P | 0100100 | | | (Δ001) = B * + .DP3 .UPCOUNT | | | E | | | | | | | | |
| P | 0100100 | | | 32B\$,,\$,35X,38 | | | A | | | | | | | | |
| P | 0100200 | | | + .DP3.GND15 | | | A | | | | | | | | |
| P | 0100200 | | | 32B\$,35X,42X | | | A | | | | | | | | |
| P | 0100300 | | | (Δ002) = B .NDP2.NDP1.(Δ003) | | | A | | | | | | | | |
| P | 0100300 | | | 32B\$,05X, 07X, \$ | | | A | | | | | | | | |
| P | 0100400 | | | (Δ003) = B * + .NDP3 .DNCOUNT | | | E | | | | | | | | |
| P | 0100400 | | | 32B\$,,\$,37X,40 | | | A | | | | | | | | |
| P | 0100500 | | | + .GND15 | | | A | | | | | | | | |
| P | 0100500 | | | 32B\$,33X | | | A | | | | | | | | |
| END OF LIST | | | | | | | | | | | | | | | |

| CODE | LINE NO. | CHK | LOGIC EQUATIONS / PINS / REMARKS | | | | | | | C/L | | | | | | | | | | | | | | |
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| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | | | | | | | | | | | | |
| | 1 | 23456789 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| | 0009200 | | | NBR6 | | | | | | | | | | | | | | | | | | | | |
| | 0009207 | | | S/BR6 | | | | | | | | | | | | | | | | | | | | |
| | 0009235 | | | R/BR6 | | | | | | | | | | | | | | | | | | | | |
| | 0009242 | | | C/BR6 | | | | | | | | | | | | | | | | | | | | |
| | 0009250 | | | BR6SET | | | | | | | | | | | | | | | | | | | | |
| | 0009300 | | | BR7 | | | | | | | | | | | | | | | | | | | | |
| | 0009400 | | | NBR7 | | | | | | | | | | | | | | | | | | | | |
| | 0009407 | | | S/BR7 | | | | | | | | | | | | | | | | | | | | |
| | 0009435 | | | R/BR7 | | | | | | | | | | | | | | | | | | | | |
| | 0009442 | | | C/BR7 | | | | | | | | | | | | | | | | | | | | |
| | 0009450 | | | BR7SET | | | | | | | | | | | | | | | | | | | | |
| | 0009500 | | | BRE | | | | | | | | | | | | | | | | | | | | |
| | 0009700 | | | BRR1 | | | | | | | | | | | | | | | | | | | | |
| | 0009800 | | | BRR2 | | | | | | | | | | | | | | | | | | | | |
| | 0009900 | | | BSYC | | | | | | | | | | | | | | | | | | | | |
| | 0010000 | | | BTC0 | | | | | | | | | | | | | | | | | | | | |
| | 0010100 | | | NBTC0 | | | | | | | | | | | | | | | | | | | | |
| | 0010120 | | | S/BTC0 | | | | | | | | | | | | | | | | | | | | |
| | 0010140 | | | M/BTC0 | | | | | | | | | | | | | | | | | | | | |
| | 0010160 | | | E/BTC0 | | | | | | | | | | | | | | | | | | | | |
| | 0010180 | | | C/BTC0 | | | | | | | | | | | | | | | | | | | | |
| | 0010200 | | | BTC1 | | | | | | | | | | | | | | | | | | | | |
| | 0010300 | | | NBTC1 | | | | | | | | | | | | | | | | | | | | |
| | 0010320 | | | S/BTC1 | | | | | | | | | | | | | | | | | | | | |
| | 0010340 | | | M/BTC1 | | | | | | | | | | | | | | | | | | | | |
| | 0010360 | | | E/BTC1 | | | | | | | | | | | | | | | | | | | | |
| | 0010380 | | | C/BTC1 | | | | | | | | | | | | | | | | | | | | |
| | 0010400 | | | BTC2 | | | | | | | | | | | | | | | | | | | | |
| | 0010500 | | | NBTC2 | | | | | | | | | | | | | | | | | | | | |
| | 0010516 | | | S/BTC2 | | | | | | | | | | | | | | | | | | | | |
| | 0010532 | | | R/BTC2 | | | | | | | | | | | | | | | | | | | | |
| | 0010548 | | | M/BTC2 | | | | | | | | | | | | | | | | | | | | |
| | 0010564 | | | E/BTC2 | | | | | | | | | | | | | | | | | | | | |
| | 0010580 | | | C/BTC2 | | | | | | | | | | | | | | | | | | | | |
| | 0010600 | | | BY0-359 | | | | | | | | | | | | | | | | | | | | |
| | 0011000 | | | BYCLKEN | | | | | | | | | | | | | | | | | | | | |
| | 0011250 | | | BYT10 | | | | | | | | | | | | | | | | | | | | |
| | 0011200 | | | BYTE359 | | | | | | | | | | | | | | | | | | | | |
| | 0011300 | | | BYTE360 | | | | | | | | | | | | | | | | | | | | |
| | 0011400 | | | BYTE361 | | | | | | | | | | | | | | | | | | | | |
| | 0011450 | | | NBYTE361 | | | | | | | | | | | | | | | | | | | | |
| | 0011700 | | | CCH | | | | | | | | | | | | | | | | | | | | |
| | 0011800 | | | NCCH | | | | | | | | | | | | | | | | | | | | |
| | 0011816 | | | S/CCH | | | | | | | | | | | | | | | | | | | | |
| | 0011832 | | | R/CCH | | | | | | | | | | | | | | | | | | | | |
| | 0011848 | | | M/CCH | | | | | | | | | | | | | | | | | | | | |
| | 0011864 | | | E/CCH | | | | | | | | | | | | | | | | | | | | |
| | 0011880 | | | C/CCH | | | | | | | | | | | | | | | | | | | | |
| | 0011900 | | | CCHSET | | | | | | | | | | | | | | | | | | | | |
| | 0012000 | | | CCHSET1 | | | | | | | | | | | | | | | | | | | | |
| | 0012200 | | | CD0 | | | | | | | | | | | | | | | | | | | | |
| | 1 | 23456789 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |

| CODE | LINE NO. | CHG | LOGIC | | | EQUATIONS | | | PINS | | | REMARKS | | | C/L |
|------|----------|-----|-------|---|---|-----------|----|----|------|----|----|---------|--|--|-----|
| | | | 1 | 2 | 3 | 20 | 30 | 40 | 50 | 60 | 70 | | | | |
| | 0012300 | | | | | | | | | | | | | | |
| | 0012320 | | | | | | | | | | | | | | |
| | 0012340 | | | | | | | | | | | | | | |
| | 0012360 | | | | | | | | | | | | | | |
| | 0012380 | | | | | | | | | | | | | | |
| | 0012400 | | | | | | | | | | | | | | |
| | 0012500 | | | | | | | | | | | | | | |
| | 0012520 | | | | | | | | | | | | | | |
| | 0012540 | | | | | | | | | | | | | | |
| | 0012560 | | | | | | | | | | | | | | |
| | 0012580 | | | | | | | | | | | | | | |
| | 0012600 | | | | | | | | | | | | | | |
| | 0012700 | | | | | | | | | | | | | | |
| | 0012733 | | | | | | | | | | | | | | |
| | 0012766 | | | | | | | | | | | | | | |
| | 0012799 | | | | | | | | | | | | | | |
| | 0012832 | | | | | | | | | | | | | | |
| | 0012865 | | | | | | | | | | | | | | |
| | 0012900 | | | | | | | | | | | | | | |
| | 0013000 | | | | | | | | | | | | | | |
| | 0013100 | | | | | | | | | | | | | | |
| | 0013200 | | | | | | | | | | | | | | |
| | 0013300 | | | | | | | | | | | | | | |
| | 0013500 | | | | | | | | | | | | | | |
| | 0013600 | | | | | | | | | | | | | | |
| | 0013616 | | | | | | | | | | | | | | |
| | 0013632 | | | | | | | | | | | | | | |
| | 0013648 | | | | | | | | | | | | | | |
| | 0013664 | | | | | | | | | | | | | | |
| | 0013680 | | | | | | | | | | | | | | |
| | 0013700 | | | | | | | | | | | | | | |
| | 0013750 | | | | | | | | | | | | | | |
| | 0013800 | | | | | | | | | | | | | | |
| | 0013900 | | | | | | | | | | | | | | |
| | 0014000 | | | | | | | | | | | | | | |
| | 0014016 | | | | | | | | | | | | | | |
| | 0014032 | | | | | | | | | | | | | | |
| | 0014048 | | | | | | | | | | | | | | |
| | 0014064 | | | | | | | | | | | | | | |
| | 0014080 | | | | | | | | | | | | | | |
| | 0014100 | | | | | | | | | | | | | | |
| | 0014200 | | | | | | | | | | | | | | |
| | 0014300 | | | | | | | | | | | | | | |
| | 0014400 | | | | | | | | | | | | | | |
| | 0014416 | | | | | | | | | | | | | | |
| | 0014432 | | | | | | | | | | | | | | |
| | 0014448 | | | | | | | | | | | | | | |
| | 0014464 | | | | | | | | | | | | | | |
| | 0014480 | | | | | | | | | | | | | | |
| | 0014500 | | | | | | | | | | | | | | |
| | 0014600 | | | | | | | | | | | | | | |

| CODE | LINE NO. | CHK | LOGIC | | | EQUATIONS | | | PINS | | | REMARKS | | | C/L |
|------|----------|-----|-------|---|---|-----------|----|----|------|----|----|---------|----|----|-----|
| | | | 1 | 2 | 3 | 20 | 30 | 40 | 10 | 20 | 30 | 50 | 60 | 70 | |
| | 0014700 | | | | | | | | | | | | | | |
| | 0014800 | | | | | | | | | | | | | | |
| | 0015000 | | | | | | | | | | | | | | |
| | 0015100 | | | | | | | | | | | | | | |
| | 0015200 | | | | | | | | | | | | | | |
| | 0015300 | | | | | | | | | | | | | | |
| | 0015400 | | | | | | | | | | | | | | |
| | 0015500 | | | | | | | | | | | | | | |
| | 0015700 | | | | | | | | | | | | | | |
| | 0015800 | | | | | | | | | | | | | | |
| | 0015900 | | | | | | | | | | | | | | |
| | 0016000 | | | | | | | | | | | | | | |
| | 0016100 | | | | | | | | | | | | | | |
| | 0016200 | | | | | | | | | | | | | | |
| | 0016300 | | | | | | | | | | | | | | |
| | 0016400 | | | | | | | | | | | | | | |
| | 0016700 | | | | | | | | | | | | | | |
| | 0016800 | | | | | | | | | | | | | | |
| | 0016900 | | | | | | | | | | | | | | |
| | 0017000 | | | | | | | | | | | | | | |
| | 0017100 | | | | | | | | | | | | | | |
| | 0017300 | | | | | | | | | | | | | | |
| | 0017600 | | | | | | | | | | | | | | |
| | 0017850 | | | | | | | | | | | | | | |
| | 0017900 | | | | | | | | | | | | | | |
| | 0018000 | | | | | | | | | | | | | | |
| | 0018100 | | | | | | | | | | | | | | |
| | 0018200 | | | | | | | | | | | | | | |
| | 0018450 | | | | | | | | | | | | | | |
| | 0018500 | | | | | | | | | | | | | | |
| | 0018600 | | | | | | | | | | | | | | |
| | 0018700 | | | | | | | | | | | | | | |
| | 0018800 | | | | | | | | | | | | | | |
| | 0019050 | | | | | | | | | | | | | | |
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| | 0019200 | | | | | | | | | | | | | | |
| | 0019300 | | | | | | | | | | | | | | |
| | 0019400 | | | | | | | | | | | | | | |
| | 0019650 | | | | | | | | | | | | | | |
| | 0019700 | | | | | | | | | | | | | | |
| | 0019800 | | | | | | | | | | | | | | |
| | 0019900 | | | | | | | | | | | | | | |
| | 0020000 | | | | | | | | | | | | | | |
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| | 0020350 | | | | | | | | | | | | | | |
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| | 0020500 | | | | | | | | | | | | | | |
| | 0020600 | | | | | | | | | | | | | | |
| | 0020700 | | | | | | | | | | | | | | |
| | 0020750 | | | | | | | | | | | | | | |
| | 0020800 | | | | | | | | | | | | | | |

| CODE | LINE NO. | CHG | LOGIC EQUATIONS | | | PINS | | | REMARKS | | | C/L |
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| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
| | 0027800 | | | | | | | | | | | |
| | 0025450 | | | | | | | | | | | |
| | 0025500 | | | | | | | | | | | |
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| | 0025800 | | | | | | | | | | | |
| | 0025900 | | | | | | | | | | | |
| | 0026000 | | | | | | | | | | | |
| | 0026016 | | | | | | | | | | | |
| | 0026032 | | | | | | | | | | | |
| | 0026048 | | | | | | | | | | | |
| | 0026064 | | | | | | | | | | | |
| | 0026080 | | | | | | | | | | | |
| | 0026100 | | | | | | | | | | | |
| | 0026200 | | | | | | | | | | | |
| | 0026300 | | | | | | | | | | | |
| | 0026400 | | | | | | | | | | | |
| | 0026500 | | | | | | | | | | | |
| | 0026514 | | | | | | | | | | | |
| | 0026542 | | | | | | | | | | | |
| | 0026556 | | | | | | | | | | | |
| | 0026600 | | | | | | | | | | | |
| | 0026700 | | | | | | | | | | | |
| | 0026714 | | | | | | | | | | | |
| | 0026742 | | | | | | | | | | | |
| | 0026756 | | | | | | | | | | | |
| | 0026800 | | | | | | | | | | | |
| | 0026900 | | | | | | | | | | | |
| | 0026914 | | | | | | | | | | | |
| | 0026942 | | | | | | | | | | | |
| | 0026956 | | | | | | | | | | | |
| | 0027000 | | | | | | | | | | | |
| | 0027100 | | | | | | | | | | | |
| | 0027114 | | | | | | | | | | | |
| | 0027170 | | | | | | | | | | | |
| | 0027184 | | | | | | | | | | | |
| | 0027400 | | | | | | | | | | | |
| | 0027500 | | | | | | | | | | | |
| | 0027200 | | | | | | | | | | | |
| | 0027300 | | | | | | | | | | | |
| | 0027314 | | | | | | | | | | | |
| | 0027342 | | | | | | | | | | | |
| | 0027356 | | | | | | | | | | | |
| | 0027700 | | | | | | | | | | | |
| | 0028200 | | | | | | | | | | | |
| | 0028250 | | | | | | | | | | | |
| | 0028300 | | | | | | | | | | | |
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| CODE | LINE NO. | CHK | LOGIC | EQUATIONS | PINS | REMARKS | C/L | | | | | | | | | |
|------|----------|-----|----------|-----------|------|----------|-----|----------|----|----------|----|----------|----|----------|----|--|
| 1 | 2345678 | 9 | 10 | 123456789 | 20 | 23456789 | 30 | 23456789 | 40 | 23456789 | 50 | 23456789 | 60 | 23456789 | 70 | |
| | 0032600 | | FSCPM | | | | | | | | | | | | | |
| | 0032700 | | FSCU | | | | | | | | | | | | | |
| | 0032800 | | FSD | | | | | | | | | | | | | |
| | 0032900 | | NFSD | | | | | | | | | | | | | |
| | 0033000 | | FSLD | | | | | | | | | | | | | |
| | 0033100 | | FSP | | | | | | | | | | | | | |
| | 0033150 | | FSP-1 | | | | | | | | | | | | | |
| | 0033200 | | FSR | | | | | | | | | | | | | |
| | 0033300 | | FSRC | | | | | | | | | | | | | |
| | 0033400 | | FSU | | | | | | | | | | | | | |
| | 0033415 | | GND03 | | | | | | | | | | | | | |
| | 0033420 | | GND04 | | | | | | | | | | | | | |
| | 0033425 | | GND05 | | | | | | | | | | | | | |
| | 0033430 | | GND06 | | | | | | | | | | | | | |
| | 0033435 | | GND07 | | | | | | | | | | | | | |
| | 0033440 | | GND08 | | | | | | | | | | | | | |
| | 0033445 | | GND09 | | | | | | | | | | | | | |
| | 0033450 | | GND10 | | | | | | | | | | | | | |
| | 0033460 | | GND12 | | | | | | | | | | | | | |
| | 0033465 | | GND13 | | | | | | | | | | | | | |
| | 0033470 | | GND14 | | | | | | | | | | | | | |
| | 0033475 | | GND15 | | | | | | | | | | | | | |
| | 0033480 | | GND16 | | | | | | | | | | | | | |
| | 0033485 | | GND17 | | | | | | | | | | | | | |
| | 0033490 | | GND18 | | | | | | | | | | | | | |
| | 0033495 | | GND19 | | | | | | | | | | | | | |
| | 0033500 | | GND20 | | | | | | | | | | | | | |
| | 0033505 | | GND21 | | | | | | | | | | | | | |
| | 0033510 | | GND22 | | | | | | | | | | | | | |
| | 0033515 | | GND23 | | | | | | | | | | | | | |
| | 0033600 | | GND23C32 | | | | | | | | | | | | | |
| | 0033520 | | GND24 | | | | | | | | | | | | | |
| | 0033525 | | GND25 | | | | | | | | | | | | | |
| | 0033528 | | GND26 | | | | | | | | | | | | | |
| | 0033700 | | GND26C00 | | | | | | | | | | | | | |
| | 0033800 | | GND26C16 | | | | | | | | | | | | | |
| | 0033900 | | GND26C32 | | | | | | | | | | | | | |
| | 0034000 | | GND26C48 | | | | | | | | | | | | | |
| | 0034100 | | GND27C16 | | | | | | | | | | | | | |
| | 0034200 | | GND27C32 | | | | | | | | | | | | | |
| | 0034300 | | GND28C00 | | | | | | | | | | | | | |
| | 0034400 | | GND28C16 | | | | | | | | | | | | | |
| | 0034500 | | GND28C48 | | | | | | | | | | | | | |
| | 0034600 | | GND30C00 | | | | | | | | | | | | | |
| | 0034700 | | GND30C16 | | | | | | | | | | | | | |
| | 0034800 | | GND30C32 | | | | | | | | | | | | | |
| | 0034900 | | GND30C48 | | | | | | | | | | | | | |
| | 0035000 | | GND31C48 | | | | | | | | | | | | | |
| | 0035100 | | GND32C00 | | | | | | | | | | | | | |
| | 0035200 | | GND32C16 | | | | | | | | | | | | | |
| | 0035300 | | GND32C32 | | | | | | | | | | | | | |

| CODE | LINE NO. | C/L | LOGIC | | | | EQUATIONS | | | | PINS | | | | REMARKS | C/L | |
|------|----------|-----|-------|---|---|---|-----------|---|---|---|------|----|----|----|---------|-----|----|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | | 13 |
| | 0040032 | | | | | | | | | | | | | | | | |
| | 0040048 | | | | | | | | | | | | | | | | |
| | 0040064 | | | | | | | | | | | | | | | | |
| | 0040080 | | | | | | | | | | | | | | | | |
| | 0040100 | | | | | | | | | | | | | | | | |
| | 0040300 | | | | | | | | | | | | | | | | |
| | 0040500 | | | | | | | | | | | | | | | | |
| | 0040550 | | | | | | | | | | | | | | | | |
| | 0040600 | | | | | | | | | | | | | | | | |
| | 0040525 | | | | | | | | | | | | | | | | |
| | 0040700 | | | | | | | | | | | | | | | | |
| | 0040800 | | | | | | | | | | | | | | | | |
| | 0040900 | | | | | | | | | | | | | | | | |
| | 0041000 | | | | | | | | | | | | | | | | |
| | 0041100 | | | | | | | | | | | | | | | | |
| | 0041200 | | | | | | | | | | | | | | | | |
| | 0041300 | | | | | | | | | | | | | | | | |
| | 0041400 | | | | | | | | | | | | | | | | |
| | 0041500 | | | | | | | | | | | | | | | | |
| | 0041600 | | | | | | | | | | | | | | | | |
| | 0041700 | | | | | | | | | | | | | | | | |
| | 0041800 | | | | | | | | | | | | | | | | |
| | 0041850 | | | | | | | | | | | | | | | | |
| | 0041900 | | | | | | | | | | | | | | | | |
| | 0042000 | | | | | | | | | | | | | | | | |
| | 0042100 | | | | | | | | | | | | | | | | |
| | 0042200 | | | | | | | | | | | | | | | | |
| | 0042600 | | | | | | | | | | | | | | | | |
| | 0042700 | | | | | | | | | | | | | | | | |
| | 0042800 | | | | | | | | | | | | | | | | |
| | 0042900 | | | | | | | | | | | | | | | | |
| | 0043000 | | | | | | | | | | | | | | | | |
| | 0043100 | | | | | | | | | | | | | | | | |
| | 0043200 | | | | | | | | | | | | | | | | |
| | 0043400 | | | | | | | | | | | | | | | | |
| | 0043600 | | | | | | | | | | | | | | | | |
| | 0043700 | | | | | | | | | | | | | | | | |
| | 0043800 | | | | | | | | | | | | | | | | |
| | 0043900 | | | | | | | | | | | | | | | | |
| | 0044000 | | | | | | | | | | | | | | | | |
| | 0044100 | | | | | | | | | | | | | | | | |
| | 0044200 | | | | | | | | | | | | | | | | |
| | 0044300 | | | | | | | | | | | | | | | | |
| | 0044400 | | | | | | | | | | | | | | | | |
| | 0044600 | | | | | | | | | | | | | | | | |
| | 0044700 | | | | | | | | | | | | | | | | |
| | 0044900 | | | | | | | | | | | | | | | | |
| | 0045000 | | | | | | | | | | | | | | | | |
| | 0045300 | | | | | | | | | | | | | | | | |
| | 0045400 | | | | | | | | | | | | | | | | |
| | 0045500 | | | | | | | | | | | | | | | | |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L | | | | | | | | |
|------|----------|-----|---------|-----------|------|----------|-----|----------|----|----------|----|----------|----|----------|----|
| 1 | 2345678 | 9 | 10 | 123456789 | 20 | 23456789 | 30 | 23456789 | 40 | 23456789 | 50 | 23456789 | 60 | 23456789 | 70 |
| | 0055310 | | M/RSAP | | | | | | | | | | | | |
| | 0055315 | | E/RSAP | | | | | | | | | | | | |
| | 0055320 | | C/RSAP | | | | | | | | | | | | |
| | 0055350 | | RSAP1 | | | | | | | | | | | | |
| | 0055375 | | NRSAP1 | | | | | | | | | | | | |
| | 0055325 | | RSAPSET | | | | | | | | | | | | |
| | 0055500 | | RSAR | | | | | | | | | | | | |
| | 0055600 | | RSARC | | | | | | | | | | | | |
| | 0055700 | | RSAU | | | | | | | | | | | | |
| | 0055800 | | RSAUZ | | | | | | | | | | | | |
| | 0056000 | | RSD | | | | | | | | | | | | |
| | 0056100 | | RSDC | | | | | | | | | | | | |
| | 0056200 | | RSFSC | | | | | | | | | | | | |
| | 0056300 | | RSTR | | | | | | | | | | | | |
| | 0056400 | | NRSTR | | | | | | | | | | | | |
| | 0056500 | | RTR | | | | | | | | | | | | |
| | 0056550 | | RTRSET | | | | | | | | | | | | |
| | 0056600 | | RUN | | | | | | | | | | | | |
| | 0056650 | | RUNCONT | | | | | | | | | | | | |
| | 0056800 | | RWC | | | | | | | | | | | | |
| | 0056900 | | RWCEN | | | | | | | | | | | | |
| | 0057100 | | S0 | | | | | | | | | | | | |
| | 0057200 | | NS0 | | | | | | | | | | | | |
| | 0057220 | | S/S0 | | | | | | | | | | | | |
| | 0057240 | | M/S0 | | | | | | | | | | | | |
| | 0057260 | | E/S0 | | | | | | | | | | | | |
| | 0057280 | | C/S0 | | | | | | | | | | | | |
| | 0057350 | | S0CLK | | | | | | | | | | | | |
| | 0057300 | | S0M | | | | | | | | | | | | |
| | 0057400 | | S1 | | | | | | | | | | | | |
| | 0057500 | | NS1 | | | | | | | | | | | | |
| | 0057520 | | S/S1 | | | | | | | | | | | | |
| | 0057540 | | M/S1 | | | | | | | | | | | | |
| | 0057560 | | E/S1 | | | | | | | | | | | | |
| | 0057580 | | C/S1 | | | | | | | | | | | | |
| | 0057600 | | S1M | | | | | | | | | | | | |
| | 0057700 | | S2 | | | | | | | | | | | | |
| | 0057800 | | NS2 | | | | | | | | | | | | |
| | 0057820 | | S/S2 | | | | | | | | | | | | |
| | 0057840 | | M/S2 | | | | | | | | | | | | |
| | 0057860 | | E/S2 | | | | | | | | | | | | |
| | 0057880 | | C/S2 | | | | | | | | | | | | |
| | 0057900 | | S2M | | | | | | | | | | | | |
| | 0058000 | | S3 | | | | | | | | | | | | |
| | 0058100 | | NS3 | | | | | | | | | | | | |
| | 0058120 | | S/S3 | | | | | | | | | | | | |
| | 0058140 | | M/S3 | | | | | | | | | | | | |
| | 0058160 | | E/S3 | | | | | | | | | | | | |
| | 0058180 | | C/S3 | | | | | | | | | | | | |
| | 0058190 | | S3CLK | | | | | | | | | | | | |
| | 0058200 | | S3M | | | | | | | | | | | | |



7201 RAD

20
135746-100 K
06/18/69

| CODE | LINE NO. | CHK | LOGIC EQUATIONS / | | | | PINS / | | | | REMARKS | C/L | |
|------|----------|-----|-------------------|---|---|---|--------|---|---|---|---------|-----|--|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | |
| | 0070900 | | | | | | | | | | | | |
| | 0071000 | | | | | | | | | | | | |
| | 0071100 | | | | | | | | | | | | |
| | 0071120 | | | | | | | | | | | | |
| | 0071140 | | | | | | | | | | | | |
| | 0071160 | | | | | | | | | | | | |
| | 0071180 | | | | | | | | | | | | |
| | 0071200 | | | | | | | | | | | | |
| | 0071300 | | | | | | | | | | | | |
| | 0071400 | | | | | | | | | | | | |
| | 0071500 | | | | | | | | | | | | |
| | 0071520 | | | | | | | | | | | | |
| | 0071540 | | | | | | | | | | | | |
| | 0071560 | | | | | | | | | | | | |
| | 0071580 | | | | | | | | | | | | |
| | 0071600 | | | | | | | | | | | | |
| | 0071700 | | | | | | | | | | | | |
| | 0071800 | | | | | | | | | | | | |
| | 0071900 | | | | | | | | | | | | |
| | 0071920 | | | | | | | | | | | | |
| | 0071940 | | | | | | | | | | | | |
| | 0071960 | | | | | | | | | | | | |
| | 0071980 | | | | | | | | | | | | |
| | 0072000 | | | | | | | | | | | | |
| | 0072100 | | | | | | | | | | | | |
| | 0072200 | | | | | | | | | | | | |
| | 0072300 | | | | | | | | | | | | |
| | 0072320 | | | | | | | | | | | | |
| | 0072340 | | | | | | | | | | | | |
| | 0072360 | | | | | | | | | | | | |
| | 0072380 | | | | | | | | | | | | |
| | 0072400 | | | | | | | | | | | | |
| | 0072500 | | | | | | | | | | | | |
| | 0072600 | | | | | | | | | | | | |
| | 0072700 | | | | | | | | | | | | |
| | 0072720 | | | | | | | | | | | | |
| | 0072740 | | | | | | | | | | | | |
| | 0072760 | | | | | | | | | | | | |
| | 0072780 | | | | | | | | | | | | |
| | 0072800 | | | | | | | | | | | | |
| | 0072900 | | | | | | | | | | | | |
| | 0073000 | | | | | | | | | | | | |
| | 0073100 | | | | | | | | | | | | |
| | 0073120 | | | | | | | | | | | | |
| | 0073140 | | | | | | | | | | | | |
| | 0073160 | | | | | | | | | | | | |
| | 0073180 | | | | | | | | | | | | |
| | 0073200 | | | | | | | | | | | | |
| | 0073300 | | | | | | | | | | | | |
| | 0073400 | | | | | | | | | | | | |
| | 0073500 | | | | | | | | | | | | |

| CODE | LINE NO. | CHG | LOGIC | EQUATIONS | PINS | REMARKS | C/L | |
|---------|-----------|------|-------------|-------------|-------------|-------------|-------------|----|
| | 1 2345678 | 9 10 | 20 23456789 | 30 23456789 | 40 23456789 | 50 23456789 | 60 23456789 | 70 |
| 0073510 | S/ TRK8 | | | | | | | |
| 0073520 | M/ TRK8 | | | | | | | |
| 0073530 | E/ TRK8 | | | | | | | |
| 0073540 | C/ TRK8 | | | | | | | |
| 0073550 | TRK8C | | | | | | | |
| 0073600 | TRK8M | | | | | | | |
| 0073700 | TRK8P | | | | | | | |
| 0073800 | TRKCLK | | | | | | | |
| 0073900 | TRKCLKEN | | | | | | | |
| 0073950 | TRKCLRT | | | | | | | |
| 0074000 | TRKOVF | | | | | | | |
| 0074100 | NTRKOVF | | | | | | | |
| 0074110 | S/ TRKOVF | | | | | | | |
| 0074120 | M/ TRKOVF | | | | | | | |
| 0074130 | E/ TRKOVF | | | | | | | |
| 0074140 | C/ TRKOVF | | | | | | | |
| 0074142 | TRKOVFM | | | | | | | |
| 0074145 | TRKOVFM1 | | | | | | | |
| 0074150 | TRKRST | | | | | | | |
| 0074200 | TRN | | | | | | | |
| 0074300 | NTRN | | | | | | | |
| 0074320 | S/ TRN | | | | | | | |
| 0074340 | M/ TRN | | | | | | | |
| 0074360 | E/ TRN | | | | | | | |
| 0074380 | C/ TRN | | | | | | | |
| 0074400 | TRPR | | | | | | | |
| 0074500 | TSH | | | | | | | |
| 0074700 | TTSH | | | | | | | |
| 0074800 | TTSHU | | | | | | | |
| 0074900 | NTYPO | | | | | | | |
| 0075000 | TYP0R | | | | | | | |
| 0075200 | NTYP1 | | | | | | | |
| 0075300 | TYP1R | | | | | | | |
| 0075400 | U0 | | | | | | | |
| 0075500 | NU0 | | | | | | | |
| 0075520 | S/U0 | | | | | | | |
| 0075540 | M/U0 | | | | | | | |
| 0075560 | E/U0 | | | | | | | |
| 0075580 | C/U0 | | | | | | | |
| 0075600 | U1 | | | | | | | |
| 0075700 | NU1 | | | | | | | |
| 0075720 | S/U1 | | | | | | | |
| 0075740 | M/U1 | | | | | | | |
| 0075760 | E/U1 | | | | | | | |
| 0075780 | C/U1 | | | | | | | |
| 0075800 | U2 | | | | | | | |
| 0075900 | NU2 | | | | | | | |
| 0075920 | S/U2 | | | | | | | |
| 0075940 | M/U2 | | | | | | | |
| 0075960 | E/U2 | | | | | | | |
| 0075980 | C/U2 | | | | | | | |



| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|------------------|---------|--------|------|-----|-----------------|--------------|--------------|-----|----------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| NBV-1 | | | | | | | | | |
| 600 | 30A50 | 4.0 | 010 | | | | | | C |
| | 22A50 | 3.5 | 020 | | | | | | C |
| | 15A50 | 7.5T | 025 | | | | | | C |
| NBV-2 | | | | | | | | | |
| 700 | 32C50 | 1.0 | 010 | | | | | | C |
| | 30C50 | .5 | 020 | | | | | | C |
| | 29C50 | .5 | 030 | | | | | | C |
| | 28C50 | 1.0 | 040 | | | | | | C |
| | 26C50 | 8.5 | 050 | | | | | | C |
| | 09C50 | 1.5 | 060 | | | | | | C |
| | 06C50 | .5 | 070 | | | | | | C |
| | 05C50 | .5 | 080 | | | | | | C |
| | 04C50 | 1.0 | 090 | | | | | | C |
| | 02C50 | 15.0T | 095 | | | | | | C |
| AIOC | | | | | | | | | |
| 800 | 07B41 | 8.0 | 010 | | | | | | A |
| | 19B10 | 4.0 | 020 | | | | | | A |
| | 22B44 | 2.8 | 030 | | | | | | A |
| | 26B37 | .5 | 040 | | | | | | A |
| | 27B37 | 6.1 | 050 | | | | | | A |
| | 31C24 | 21.4T | 055 | S | | | | | A |
| NAIOC | | | | | | | | | |
| 900 | 31C06 | .0T | 005 | S | | | | | A I |
| AIOCP | | | | | | | | | |
| 1000 | 15A21 | 6.5 | 010 | S | | | | | A |
| | 19B11 | 6.5T | 015 | | | | | | A |
| AIOCU | | | | | | | | | |
| 1100 | 19B12 | 10.4 | 010 | S | | | | | A |
| | 12C34 | 10.4T | 015 | | | | | | A |
| AIOFSU | | | | | | | | | |
| 1200 | 22B36 | .1 | 010 | S | | | | | A |
| | 22B38 | 11.3 | 020 | | | | | | A |
| | 08C29 | .6 | 030 | | | | | | A |
| | 08C34 | 12.0T | 035 | | | | | | A |
| AIOM | | | | | | | | | |
| 1300 | 29C25 | 1.1 | 010 | S | | | | | A |
| | 31C23 | 1.1T | 015 | L | | | | | A |
| NAIOM | | | | | | | | | |
| 1350 | 31C04 | .0T | 005 | S | | | | | A I |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| AIOR | | | | | | | | | |
| 1500 | 23C15 | 3.4 | 010 | L | | | | A | |
| | 28C27 | 2.2 | 020 | S | | | | A | |
| | 31C17 | 5.6T | 025 | L | | | | A | |
| NAIOR | | | | | | | | | |
| 1600 | 23C19 | 5.6 | 010 | S | | | | A | |
| | 31C41 | 5.6T | 015 | L | | | | A | |
| AND | | | | | | | | | |
| 1700 | 10C27 | 17.4 | 010 | | | | | A | |
| | 25A35 | 17.4T | 015 | S | | | | A | |
| NAND | | | | | | | | | |
| 1800 | 10C25 | 16.9 | 010 | | | | | A | |
| | 25A36 | 16.9T | 015 | S | | | | A | |
| ANOR | | | | | | | | | |
| 1900 | 21A39 | 2.3 | 010 | | | | | A | |
| | 25A43 | 2.7 | 020 | | | | | A | |
| | 30A36 | 3.3 | 030 | S | | | | A | |
| | 30B10 | 8.3T | 035 | | | | | A | |
| NANOR | | | | | | | | | |
| 2000 | 25A37 | 2.6 | 010 | | | | | A | |
| | 21A45 | 2.6T | 015 | S | | | | A | |
| AN1R | | | | | | | | | |
| 2300 | 30A38 | 4.6 | 010 | S | | | | A | |
| | 21A40 | 14.9 | 020 | | | | | A | |
| | 10C29 | 8.3 | 030 | | | | | A | |
| | 05B21 | 27.8T | 035 | | | | | A | |
| NAN1R | | | | | | | | | |
| 2400 | 21A46 | 15.2 | 010 | S | | | | A | |
| | 10C36 | 15.2T | 015 | | | | | A | |
| AN2R | | | | | | | | | |
| 2700 | 30A40 | 4.3 | 010 | S | | | | A | |
| | 21A41 | 16.1 | 020 | | | | | A | |
| | 10C43 | 8.6 | 030 | | | | | A | |
| | 05B31 | 29.0T | 035 | | | | | A | |
| NAN2R | | | | | | | | | |
| 2800 | 21A47 | 14.9 | 010 | S | | | | A | |
| | 10C33 | 14.9T | 015 | | | | | A | |
| AN3R | | | | | | | | | |
| 3100 | 30A42 | 4.5 | 010 | S | | | | A | |
| | 21A42 | 4.2 | 020 | | | | | A | |
| | 22B22 | 12.2 | 030 | | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| 4000 | 23C44 | .0T | 005 | S | | | | A | I |
| AVIR | | | | | | | | | |
| 4100 | 29C41 | 3.2 | 010 | L | | | | A | |
| | 31C11 | 2.8 | 020 | L | | | | A | |
| | 26C08 | 6.0T | 025 | L | | | | A | |
| AVOD | | | | | | | | | |
| 4200 | 31C36 | 2.9 | 010 | S | | | | A | |
| | 26C29 | 2.9T | 015 | L | | | | A | |
| BA0 | | | | | | | | | |
| 4400 | 09B36 | 4.4 | 010 | R | | | | A | |
| | 09C23 | .8 | 020 | | | | | A | |
| | 11C22 | .8 | 030 | | | | | A | |
| | 12C21 | 6.0T | 035 | S | | | | A | |
| NBA0 | | | | | | | | | |
| 4500 | 09B37 | 4.3 | 010 | R | | | | A | |
| | 09C25 | 1.3 | 020 | | | | | A | |
| | 11C29 | 5.6T | 025 | S | | | | A | |
| BA1 | | | | | | | | | |
| 4600 | 09B38 | 4.6 | 010 | R | | | | A | |
| | 09C30 | 2.7 | 020 | | | | | A | |
| | 12C46 | 7.3T | 025 | S | | | | A | |
| BA2 | | | | | | | | | |
| 4700 | 09B39 | 4.5 | 010 | R | | | | A | |
| | 09C29 | 3.0 | 020 | | | | | A | |
| | 12C09 | 7.5T | 025 | S | | | | A | |
| BA3 | | | | | | | | | |
| 4800 | 09B40 | 3.6 | 010 | R | | | | A | |
| | 09C18 | 2.6 | 020 | | | | | A | |
| | 12C07 | 6.2T | 025 | S | | | | A | |
| BAXLP | | | | | | | | | |
| 4900 | 04C37 | .4 | 010 | R | | | | A | |
| | 04C31 | 7.1 | 020 | S | | | | A | |
| | 07B22 | 7.1 | 030 | | | | | A | |
| | 11C19 | 1.5 | 040 | | | | | A | |
| | 12C05 | 17.1 | 050 | | | | | A | |
| | 28A23 | 1.6 | 060 | | | | | A | |
| | 28A01 | 34.8T | 065 | | | | | A | |
| BAXUP | | | | | | | | | |
| 5000 | 04C36 | 1.2 | 010 | R | | | | A | |
| | 04C23 | 6.8 | 020 | S | | | | A | |
| | 07B18 | 7.4 | 030 | | | | | A | |
| | 11C20 | 1.3 | 040 | | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|-------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | | 12C13 | 12.3 | 045 | | | | A | |
| | | 26B08 | 29.0T | 055 | | | | F | |
| BCA | 5110 | 02C08 | 8.8 | 010 | S | | | A | |
| | | 18C01 | .3 | 020 | | | | A | |
| | | 18C02 | .3 | 030 | | | | A | |
| | | 18C06 | .3 | 040 | | | | A | |
| | | 18C10 | 1.2 | 050 | | | | A | |
| | | 18C26 | .3 | 060 | | | | A | |
| | | 18C29 | .3 | 070 | | | | A | |
| | | 18C30 | .3 | 080 | | | | A | |
| | | 18C33 | 3.4 | 090 | | | | A | |
| | | 24C40 | 15.2T | 095 | R | | | A | |
| BCB | 5120 | 02C09 | 7.8 | 010 | S | | | A | |
| | | 14C33 | 7.4 | 020 | | | | A | |
| | | 14B06 | 2.3 | 025 | | | | D | |
| | | 15B30 | 5.7 | 030 | | | | A | |
| | | 20C01 | 23.2T | 035 | | | | A | |
| BCC | 5130 | 02C10 | 5.5 | 010 | S | | | A | |
| | | 02B06 | 5.9 | 020 | | | | A | |
| | | 04C02 | 11.4T | 035 | R | | | A | |
| BCD | 5140 | 02C11 | 21.9 | 010 | S | | | A | |
| | | 24A05 | 3.0 | 020 | | | | A | |
| | | 24A45 | 2.5 | 040 | | | | A | |
| | | 22A26 | 27.4T | 045 | R | | | A | |
| BC0 | 5200 | 01B38 | 2.2 | 010 | S | | | A | |
| | | 04B28 | 2.2T | 015 | | | | A | |
| NBC0 | 5300 | 01B42 | .3 | 010 | | | | A | |
| | | 01B41 | .3T | 015 | S | | | A | |
| BC1 | 5400 | 01B29 | .8 | 010 | | | | A | |
| | | 01B36 | .8T | 015 | S | | | A | |
| NBC1 | 5500 | 01B39 | .1 | 010 | | | | A | |
| | | 01B37 | .1T | 015 | S | | | A | |
| BC2 | 5600 | 01B33 | .4 | 010 | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|-------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | | 01B27 | 1.6 | 020 | S | | | | A |
| | | 04B22 | 2.0T | 025 | | | | | A |
| NBC2 | 5700 | 01B44 | .2 | 010 | S | | | | A |
| | | 01B45 | .2T | 015 | | | | | A |
| BC3 | 5800 | 01B30 | .4 | 010 | | | | | A |
| | | 01B24 | 1.5 | 020 | S | | | | A |
| | | 04B24 | 1.9T | 025 | | | | | A |
| NBC3 | 5900 | 01B50 | .3 | 010 | | | | | A |
| | | 01B46 | .3T | 015 | S | | | | A |
| BC4 | 6000 | 01B23 | .5 | 010 | S | | | | A |
| | | 01B26 | 9.7 | 020 | | | | | A |
| | | 18B41 | 10.2T | 025 | | | | | A |
| NBC4 | 6100 | 01B22 | .1 | 010 | | | | | A |
| | | 01B20 | .1T | 015 | S | | | | A |
| BC5 | 6200 | 01B17 | 1.2 | 010 | S | | | | A |
| | | 01B01 | 3.7 | 020 | | | | | A |
| | | 08B06 | 5.6 | 030 | | | | | A |
| | | 16B28 | 7.9 | 040 | | | | | A |
| | | 28B02 | 4.2 | 050 | | | | | A |
| | | 27A22 | .9 | 060 | | | | | A |
| | | 25A25 | 23.5T | 065 | | | | | A |
| NBC5 | 6300 | 01B21 | .3 | 010 | | | | | A |
| | | 01B25 | .3T | 015 | S | | | | A |
| BC6 | 6400 | 01B02 | .8 | 010 | | | | | A |
| | | 01B11 | 2.2 | 020 | S | | | | A |
| | | 04B21 | 1.8 | 030 | | | | | A |
| | | 08B20 | 10.6 | 040 | | | | | A |
| | | 28B12 | 15.4T | 045 | | | | | A |
| NBC6 | 6500 | 01B13 | .1 | 010 | S | | | | A |
| | | 01B15 | .1T | 015 | | | | | A |
| BC7 | 6600 | 01B06 | .2 | 010 | | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|------------------|---------|--------|------|-----|-----------------|--------------|--------------|-----|----------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | 01B07 | 3.1 | 020 | S | | | | A | |
| | 04B29 | 2.6 | 030 | | | | | A | |
| | 08B21 | 5.0 | 040 | | | | | A | |
| | 16B36 | 6.6 | 050 | | | | | A | |
| | 19A38 | 8.0 | 052 | | | | | C | |
| | 28B13 | 25.5T | 055 | | | | | A | |
| NBC7 | | | | | | | | | |
| 6700 | 01B12 | .5 | 010 | | | | | A | |
| | 01B09 | .5T | 015 | S | | | | A | |
| BC8 | | | | | | | | | |
| 6800 | 08B07 | 4.0 | 010 | | | | | A | |
| | 01B10 | 1.6 | 020 | | | | | A | |
| | 02B23 | 2.3 | 030 | S | | | | A | |
| | 04B41 | 2.9 | 040 | | | | | A | |
| | 08B29 | 2.5 | 050 | | | | | A | |
| | 12B38 | 13.3T | 055 | | | | | A | |
| NBC8 | | | | | | | | | |
| 6900 | 25A27 | 16.5 | 010 | | | | | A | |
| | 02B20 | .1 | 020 | S | | | | A | |
| | 02B22 | 1.7 | 030 | | | | | A | |
| | 02B43 | 18.3T | 035 | | | | | A | |
| BC8CLK | | | | | | | | | |
| 6950 | 05B33 | 3.9 | 010 | S | | | | A | |
| | 02B01 | 3.9T | 015 | | | | | A | |
| BFE | | | | | | | | | |
| 7000 | 26B34 | .4 | 010 | | | | | A | |
| | 25B37 | 2.0 | 020 | | | | | A | |
| | 25B12 | 1.0 | 030 | S | | | | A | |
| | 23B12 | 9.8 | 040 | | | | | A | |
| | 15C23 | 13.2T | 045 | | | | | A | |
| NBFE | | | | | | | | | |
| 7100 | 23B15 | 1.2 | 010 | S | | | | A | |
| | 25B20 | 3.7 | 020 | | | | | A | |
| | 21B47 | 5.2 | 030 | R | | | | A | |
| | 16C13 | 10.1T | 035 | | | | | A | |
| BFR | | | | | | | | | |
| 7200 | 08B45 | 9.7 | 005 | | | | | K | |
| | 26B35 | 9.0 | 010 | | | | | A | |
| | 17A46 | 18.7T | 015 | S | | | | K | |
| BFEPWC | | | | | | | | | |
| 7250 | 11C08 | .8 | 010 | | | | | A | |
| | 11C17 | 2.4 | 020 | | | | | A | |
| | 15C24 | 7.6 | 030 | S | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|-------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | | 20B26 | 10.8T | 035 | | | | A | |
| BFSO | 7300 | 27C08 | .0T | 005 | S | | | A | I |
| BITO | 7400 | 02B11 | 10.4 | 010 | S | | | A | |
| | | 22B18 | 6.4 | 020 | | | | A | |
| | | 27A36 | 5.7 | 030 | | | | A | |
| | | 21B02 | 22.5T | 035 | R | | | A | |
| NBITO | 7500 | 02B13 | .0T | 005 | S | | | A | I |
| BIT1 | 7600 | 04B15 | 5.7 | 010 | S | | | A | |
| | | 12B40 | 2.3 | 020 | | | | A | |
| | | 16B43 | 8.0T | 025 | | | | A | |
| BIT6PRB | 7700 | 24B29 | 8.6 | 010 | | | | A | |
| | | 20A12 | 8.6T | 015 | S | | | A | |
| BIT7 | 7800 | 28A33 | 3.2 | 010 | | | | A | |
| | | 25A12 | 10.5 | 020 | S | | | A | |
| | | 31B41 | 14.2 | 030 | | | | A | |
| | | 05B26 | 2.2 | 040 | | | | A | |
| | | 02B15 | 11.5 | 050 | | | | A | |
| | | 11C39 | .6 | 060 | | | | A | |
| | | 11C44 | .2 | 070 | | | | A | |
| | | 11C45 | 42.4T | 075 | | | | A | |
| BR0 | 7900 | 13C20 | 4.1 | 010 | | | | A | |
| | | 20C28 | .2 | 020 | | | | A | |
| | | 20C29 | 4.3T | 025 | S | | | A | |
| NBR0 | 8000 | 20C31 | 14.0 | 010 | S | | | A | |
| | | 26A20 | 14.0T | 015 | | | | A | |
| BROSET | 8050 | 19C37 | 1.0 | 010 | S | | | A | |
| | | 20C26 | 1.0T | 015 | | | | A | |
| BR1 | 8100 | 26A21 | 13.8 | 010 | | | | A | |
| | | 20C25 | .6 | 020 | | | | A | |
| | | 20C33 | 4.5 | 030 | S | | | A | |
| | | 13C47 | 18.9T | 035 | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|-------------------------|--------------------------------|-----|--------------|-----------|-----------|-------------|-------------|
| 1 | 8 15 | | 21 | 28 | 33 | 37 | 41 | 77 | |
| NBR1 | 8200 | 20C35 | .0T 005 | S | | | | A | I |
| BR1SET | 8250 | 19C33 20C30 | .4 010 .4T 015 | S | | | | A A | |
| BR2 | 8300 | 13C08 20C10 20C37 | 3.6 010 2.1 020 5.7T 025 | S | | | | A A A | |
| NBR2 | 8400 | 20C39 | .0T 005 | S | | | | A | I |
| BR2SET | 8450 | 19C34 20C44 | 1.2 010 1.2T 015 | S | | | | A A | |
| BR3 | 8500 | 13C04 20C18 20C41 | 4.5 010 1.8 020 6.3T 025 | S | | | | A A A | |
| NBR3 | 8600 | 20C43 | .0T 005 | S | | | | A | I |
| BR3SET | 8650 | 19C35 20C46 | 1.2 010 1.2T 015 | S | | | | A A | |
| BR4 | 8700 | 20C21 13C25 | 3.8 010 3.8T 015 | S | | | | A A | |
| NBR4 | 8800 | 20C27 | .0T 005 | S | | | | A | I |
| BR4SET | 8850 | 19C18 20C20 | .6 010 .6T 015 | S | | | | A A | |
| BR5 | 8900 | 20C17 13C28 | 4.6 010 4.6T 015 | S | | | | A A | |
| NBR5 | 9000 | 20C19 | .0T 005 | S | | | | A | I |
| BR5SET | 9050 | 19C13 | 1.0 010 | S | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|-------|-------|--------------|-----------|-----------|-------|-------------|
| ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | | 20C02 | 1.0T | 015 | | | | | A |
| BR6 | 9100 | 20C07 | 3.8 | 010 | S | | | | A |
| | | 13C11 | 3.8T | 015 | | | | | A |
| NBR6 | 9200 | 20C15 | .0T | 005 | S | | | | A I |
| BR6SET | 9250 | 19C14 | 1.2 | 010 | S | | | | A |
| | | 20C04 | 1.2T | 015 | | | | | A |
| BR7 | 9300 | 32A35 | 4.3 | 010 | | | | | A |
| | | 30B06 | 7.1 | 020 | | | | | A |
| | | 16B08 | 1.2 | 030 | | | | | A |
| | | 16B24 | 5.8 | 040 | | | | | A |
| | | 13C15 | 4.4 | 050 | | | | | A |
| | | 20C03 | 22.8T | 055 | S | | | | A |
| NBR7 | 9400 | 30B13 | 7.9 | 010 | | | | | A |
| | | 16B22 | 6.1 | 020 | | | | | A |
| | | 20C05 | .3 | 030 | S | | | | A |
| | | 20C06 | 14.3T | 035 | | | | | A |
| BR7SET | 9450 | 19C15 | .7 | 010 | S | | | | A |
| | | 20C08 | .7T | 015 | | | | | A |
| BRE | 9500 | 01B18 | .5 | 010 | | | | | A |
| | | 02B18 | 10.4 | 020 | | | | | A |
| | | 08C45 | 10.9T | 025 | S | | | | A |
| BRR1 | 9700 | 04B27 | 3.3 | 010 | | | | | A |
| | | 08B09 | 5.8 | 020 | | | | | A |
| | | 16B33 | 1.4 | 030 | | | | | A |
| | | 18B27 | 2.5 | 040 | S | | | | A |
| | | 16B44 | 13.0T | 045 | S | | | | A |
| BRR2 | 9800 | 28B14 | 6.0 | 010 | | | | | A |
| | | 18B28 | 4.1 | 020 | S | | | | A |
| | | 11B20 | 1.7 | 030 | S | | | | A |
| | | 11B01 | 6.5 | 040 | | | | | A |
| | | 10C08 | 2.4 | 050 | | | | | A |
| | | 08C31 | 6.6 | 060 | | | | | A |
| | | 07B19 | 2.2 | 070 | | | | | C |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | 09B03 | 29.5T | 075 | R | | | | A | |
| BSYC | 9900 | 31C21 | 2.9 | 010 | S | | | A | |
| | 27C10 | 2.9T | 015 | | | | | A | |
| BTC0 | 10000 | 02B07 | 13.0 | 010 | S | | | A | |
| | 21A26 | 2.0 | 020 | | | | | A | |
| | 20A06 | 2.8 | 030 | | | | | A | |
| | 25A05 | 17.8T | 035 | | | | | A | |
| NBTC0 | 10100 | 02B09 | .5 | 010 | S | | | A | |
| | 02B12 | 2.3 | 020 | | | | | A | |
| | 04B30 | 2.8T | 025 | | | | | A | |
| BTC1 | 10200 | 25A06 | 2.3 | 010 | | | | A | |
| | 20A07 | 11.1 | 020 | | | | | A | |
| | 11B22 | 4.6 | 030 | | | | | A | |
| | 02B27 | 1.4 | 040 | S | | | | A | |
| | 02B10 | 19.4T | 045 | | | | | A | |
| NBTC1 | 10300 | 02B44 | .2 | 010 | S | | | A | |
| | 02B45 | 2.7 | 020 | | | | | A | |
| | 04B18 | 2.9T | 025 | | | | | A | |
| BTC2 | 10400 | 02B30 | .3 | 010 | | | | A | |
| | 02B29 | 1.1 | 020 | | | | | A | |
| | 04B31 | 6.1 | 030 | | | | | A | |
| | 15B23 | 7.5 | 040 | S | | | | A | |
| | 28B06 | 6.5 | 050 | | | | | A | |
| | 25A07 | 21.5T | 055 | | | | | A | |
| NBTC2 | 10500 | 15B25 | .3 | 010 | S | | | A | |
| | 15B29 | .3T | 015 | | | | | A | |
| BY0-359 | 10600 | 03B02 | 1.6 | 010 | S | | | A | |
| | 03B24 | 6.6 | 020 | | | | | A | |
| | 16B26 | 5.0 | 030 | | | | | A | |
| | 25B31 | 13.2T | 035 | | | | | A | |
| BYCLKEN | 11000 | 15A20 | 2.4 | 010 | S | | | A | |
| | 17A37 | 3.1 | 020 | | | | | A | |
| | 18B04 | 5.5T | 025 | | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|--------------------|----------------------------------|-----------------------------|--------------------------|-----|--------------|-----------|-----------|------------------|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| BYTE359 11200 | 08B14 31B40 | 13.4 13.4T | 010 015 | | S | | | A A | |
| BYT10 11250 | 16B47 15B10 | 3.4 3.4T | 010 015 | | S | | | A A | |
| BYTE360 11300 | 25A33 19A11 | 4.6 4.6T | 010 015 | | S | | | A A | |
| RBY1-360 11350 | 08B03 16B31 16B46 21A11 | 6.1 1.4 10.6 18.1T | 010 020 025 035 | | S | | | A A A F | |
| NRBY1-360 11380 | 21A01 25B29 | 9.3 9.3T | 010 020 | | S | | | H H | |
| BYTE361 11400 | 08B12 27A14 21A27 | 14.6 3.7 18.3T | 010 030 035 | | S | | | A A A | |
| NBYTE361 11450 | 05B27 27A20 | 16.5 16.5T | 010 015 | | S | | | A A | |
| CCH 11700 | 24A37 | .0T | 005 | | S | | | A | I |
| NCCH 11800 | 08C21 24A42 | 16.6 16.6T | 010 015 | | S | | | A A | |
| CCHSET 11900 | 29A01 24A34 | 5.2 5.2T | 010 015 | | S | | | A A | |
| CCHSET1 12000 | 29A33 24A33 | 2.5 2.5T | 010 015 | | S | | | A A | |
| CD0 12200 | 02C24 14C07 30B05 | 7.5 13.4 20.9T | 010 020 025 | | S | | | A A A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| NCD0 | | | | | | | | | |
| 12300 | 14C14 | .6 | 010 | | | | | | A |
| | 14C09 | 12.6 | 020 | S | | | | | A |
| | 30B14 | .9 | 030 | | | | | | A |
| | 31B08 | 14.1T | 035 | | | | | | A |
| CDI | | | | | | | | | |
| 12400 | 16B39 | 5.3 | 010 | | | | | | A |
| | 14C27 | 5.3T | 015 | S | | | | | A |
| NCD1 | | | | | | | | | |
| 12500 | 14C45 | .2 | 010 | | | | | | A |
| | 14C44 | .2T | 015 | S | | | | | A |
| CDN | | | | | | | | | |
| 12600 | 24A07 | 4.0 | 010 | S | | | | | A |
| | 19A27 | 11.2 | 020 | | | | | | A |
| | 16C17 | 8.0 | 030 | | | | | | A |
| | 20B07 | 4.9 | 040 | | | | | | A |
| | 29B01 | 28.1T | 045 | | | | | | A |
| NCDN | | | | | | | | | |
| 12700 | 19A07 | 2.6 | 010 | | | | | | A |
| | 24A09 | 2.6T | 015 | S | | | | | A |
| CDNSET | | | | | | | | | |
| 12900 | 24A13 | 4.1 | 010 | | | | | | A |
| | 29A36 | 4.1T | 015 | S | | | | | A |
| CFDISC | | | | | | | | | |
| 13000 | 08C46 | 2.8 | 010 | S | | | | | A |
| | 04C33 | 2.2 | 020 | | | | | | A |
| | 08C26 | 2.2 | 030 | | | | | | A |
| | 10C10 | 3.3 | 040 | | | | | | A |
| | 09B42 | 10.5T | 045 | R | | | | | A |
| CFDISCL | | | | | | | | | |
| 13100 | 09B45 | 5.3 | 010 | R | | | | | A |
| | 18B30 | 6.8 | 020 | | | | | | A |
| | 07B12 | 5.9 | 030 | S | | | | | A |
| | 08C13 | 5.0 | 040 | | | | | | A |
| | 05B38 | 5.0 | 050 | | | | | | A |
| | 04C28 | 28.0T | 055 | | | | | | A |
| CFIOP | | | | | | | | | |
| 13200 | 04C06 | 1.3 | 010 | | | | | | A |
| | 04C24 | 4.8 | 020 | | | | | | A |
| | 10C03 | 6.1T | 025 | S | | | | | A |
| CFIOPL | | | | | | | | | |
| 13300 | 04C20 | 4.2 | 010 | | | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|-------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | | 05B40 | 4.2 | 020 | | | | A | |
| | | 08C05 | 5.2 | 030 | | | | A | |
| | | 07B14 | 5.6 | 040 | S | | | A | |
| | | 18B12 | 4.8 | 050 | | | | A | |
| | | 23B41 | 1.0 | 060 | | | | A | |
| | | 21B41 | 25.0T | 065 | R | | | A | |
| CHE | | | | | | | | | |
| 13500 | 08C43 | 8.9 | 010 | | | | | A | |
| | 06B07 | 8.9T | 015 | S | | | | A | |
| NCHE | | | | | | | | | |
| 13600 | 06B09 | .0T | 005 | S | | | | A | I |
| CHW | | | | | | | | | |
| 13700 | 09B21 | 3.6 | 010 | R | | | | A | |
| | 04B08 | 4.2 | 020 | | | | | A | |
| | 10B24 | 1.9 | 030 | | | | | A | |
| | 10B50 | 2.5 | 040 | | | | | A | |
| | 11B27 | 8.5 | 050 | | | | | A | |
| | 20A40 | 3.6 | 060 | | | | | A | |
| | 23A15 | 5.3 | 070 | | | | | A | |
| | 24B09 | 1.1 | 080 | | | | | A | |
| | 25B17 | 8.8 | 090 | | | | | A | |
| | 11B41 | 39.5T | 095 | S | | | | A | |
| CHWCIL | | | | | | | | | |
| 13750 | 23A14 | 4.7 | 010 | S | | | | A | |
| | 15A04 | 4.7T | 015 | | | | | A | |
| CHWEN | | | | | | | | | |
| 13800 | 04B13 | 10.4 | 010 | S | | | | A | |
| | 11C35 | .1 | 020 | | | | | A | |
| | 11C37 | 10.5T | 025 | | | | | A | |
| CHWER | | | | | | | | | |
| 13900 | 24A06 | 7.9 | 010 | S | | | | A | |
| | 29B07 | 7.9T | 015 | | | | | A | |
| NCHWER | | | | | | | | | |
| 14000 | 24A11 | 3.5 | 010 | S | | | | A | |
| | 20A31 | 3.5T | 015 | | | | | A | |
| CHWERM | | | | | | | | | |
| 14100 | 24B02 | 5.6 | 010 | S | | | | A | |
| | 24A01 | 5.6T | 015 | | | | | A | |
| CHWERSET | | | | | | | | | |
| 14200 | 25B15 | 6.6 | 010 | S | | | | A | |
| | 24A03 | 6.6T | 015 | | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| CIL | | | | | | | | | |
| 14300 | 23A17 | 8.7 | 010 | | | | | A | |
| | 15B06 | 11.7 | 020 | S | | | | A | |
| | 27C12 | 3.7 | 030 | | | | | A | |
| | 31C33 | 24.1T | 035 | L | | | | A | |
| NCIL | | | | | | | | | |
| 14400 | 20A28 | 6.2 | 010 | | | | | A | |
| | 15B11 | 4.9 | 020 | S | | | | A | |
| | 24B17 | 11.1T | 025 | | | | | A | |
| CILR | | | | | | | | | |
| 14500 | 15B04 | 9.1 | 010 | | | | | A | |
| | 12C39 | 9.1T | 015 | S | | | | A | |
| CLIR | | | | | | | | | |
| 14600 | 28C04 | .0T | 005 | S | | | | A | I |
| CLK | | | | | | | | | |
| 14700 | 29A38 | 11.7 | 010 | | | | | A | |
| | 16B38 | 11.9 | 020 | | | | | A | |
| | 02C34 | 23.6T | 025 | S | | | | A | |
| CLKB | | | | | | | | | |
| 14800 | 29A35 | 17.5 | 010 | S | | | | A | |
| | 14C29 | .3 | 020 | | | | | A | |
| | 14C30 | 3.5 | 030 | | | | | A | |
| | 10C50 | 14.0 | 040 | R | | | | A | |
| | 24B26 | 35.3T | 045 | | | | | A | |
| CLP | | | | | | | | | |
| 15000 | 05B35 | 8.7 | 010 | S | | | | A | |
| | 17C01 | 4.0 | 020 | | | | | A | |
| | 21B40 | 12.7T | 025 | R | | | | A | |
| CM001 | | | | | | | | | |
| 15100 | 03B12 | 1.2 | 010 | | | | | A | |
| | 04B02 | 3.5 | 020 | S | | | | A | |
| | 11B02 | 4.9 | 030 | | | | | A | |
| | 16B34 | 3.0 | 040 | | | | | A | |
| | 16C03 | 12.6T | 045 | | | | | A | |
| CM002 | | | | | | | | | |
| 15200 | 21A25 | 13.2 | 010 | S | | | | A | |
| | 03B11 | .1 | 020 | | | | | A | |
| | 03B13 | 13.3T | 025 | | | | | A | |
| CM003 | | | | | | | | | |
| 15300 | 04B34 | 3.4 | 010 | S | | | | A | |
| | 08B19 | 1.0 | 020 | | | | | A | |
| | 08B05 | 10.4 | 030 | | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|-------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | | 28B11 | .7 | 040 | | | | | A |
| | | 28B01 | 4.1 | 050 | | | | | A |
| | | 27A23 | 1.5 | 060 | | | | | A |
| | | 25A26 | 21.1T | 065 | | | | | A |
| CM005 | | | | | | | | | |
| 15400 | 20B23 | 8.4 | 010 | | | | | | A |
| | 17A02 | 8.4T | 015 | S | | | | | A |
| CNTRCL | | | | | | | | | |
| 15500 | 16A14 | 2.9 | 010 | | | | | | A |
| | 17A45 | 4.7 | 015 | S | | | | | A |
| | 20B20 | 7.6T | 025 | | | | | | E |
| CNTRST | | | | | | | | | |
| 15700 | 16A15 | 1.3 | 010 | S | | | | | H |
| | 17A28 | 1.3T | 020 | | | | | | H |
| NCOMP | | | | | | | | | |
| 15800 | 25B18 | 5.7 | 010 | | | | | | A |
| | 16B02 | 5.7T | 015 | S | | | | | A |
| NCONP | | | | | | | | | |
| 15900 | 19A03 | 4.7 | 010 | | | | | | A |
| | 15A36 | 1.4 | 020 | S | | | | | A |
| | 17A42 | 1.5 | 030 | | | | | | A |
| | 19A39 | 1.6 | 040 | | | | | | A |
| | 20A20 | 1.7 | 050 | | | | | | A |
| | 21A36 | .2 | 060 | | | | | | A |
| | 21A37 | .3 | 070 | | | | | | A |
| | 21A38 | 3.5 | 080 | | | | | | A |
| | 19B05 | 5.1 | 090 | | | | | | A |
| | 27B22 | 11.2 | 100 | | | | | | A |
| | 16C28 | 2.2 | 110 | | | | | | A |
| | 13C38 | 33.4T | 115 | | | | | | A |
| CONPA | | | | | | | | | |
| 16000 | 16C39 | 3.7 | 010 | | | | | | A |
| | 12C18 | 12.8 | 020 | | | | | | A |
| | 17A20 | 2.9 | 030 | | | | | | A |
| | 21A31 | 5.9 | 040 | S | | | | | A |
| | 27B02 | 1.7 | 050 | | | | | | A |
| | 27B23 | 27.0T | 055 | | | | | | A |
| CONPAT | | | | | | | | | |
| 16100 | 08B36 | 9.8 | 010 | S | | | | | A |
| | 16C44 | 9.8T | 015 | | | | | | A |
| CONPB | | | | | | | | | |
| 16200 | 19A24 | 2.3 | 004 | | | | | | E |
| | 20A03 | 6.5 | 008 | | | | | | E |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| 17300 | 21A09 | 7.5 | 010 | | | | | A | |
| | 21B39 | 6.5 | 020 | R | | | | A | |
| | 17C26 | 9.7 | 030 | | | | | A | |
| | 05B46 | 23.7T | 035 | S | | | | A | |
| DA0D | | | | | | | | | |
| 17600 | 21C18 | 4.3 | 010 | S | | | | A | |
| | 29C17 | .9 | 020 | L | | | | A | |
| | 30C23 | 5.2T | 025 | L | | | | A | |
| DA0P | | | | | | | | | |
| 17800 | 16A08 | 13.4 | 010 | S | | | | A | |
| | 13C31 | 13.4T | 015 | | | | | A | |
| DA0R | | | | | | | | | |
| 17900 | 13C33 | 7.6 | 010 | | | | | A | |
| | 24C05 | 4.1 | 020 | L | | | | A | |
| | 30C22 | 11.7T | 025 | S | | | | A | |
| NDA0R | | | | | | | | | |
| 18000 | 24C07 | .0T | 005 | S | | | | A | I |
| DA0U | | | | | | | | | |
| 18100 | 29B43 | 6.8 | 005 | | | | | H | |
| | 21B05 | 3.3 | 010 | R | | | | A | |
| | 15B02 | 6.0 | 020 | | | | | A | |
| | 15C11 | 1.6 | 030 | | | | | A | |
| | 13C19 | 1.4 | 040 | | | | | A | |
| | 13C02 | 19.1T | 045 | S | | | | A | |
| DA1D | | | | | | | | | |
| 18200 | 21C13 | 4.2 | 010 | S | | | | A | |
| | 29C18 | .7 | 020 | L | | | | A | |
| | 30C19 | 4.9T | 025 | L | | | | A | |
| DA1P | | | | | | | | | |
| 18400 | 16A07 | 14.8 | 010 | S | | | | A | |
| | 13C45 | 14.8T | 015 | | | | | A | |
| DA1R | | | | | | | | | |
| 18500 | 30C20 | 3.9 | 010 | S | | | | A | |
| | 24C08 | 8.2 | 020 | | | | | A | |
| | 13C44 | 12.1T | 025 | | | | | A | |
| NDA1R | | | | | | | | | |
| 18600 | 24C06 | .0T | 005 | S | | | | A | I |
| DA1U | | | | | | | | | |
| 18700 | 29B40 | 6.5 | 005 | | | | | H | |
| | 21B06 | 6.3 | 010 | R | | | | A | |
| | 24A12 | 14.5 | 020 | | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|-------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | | 15C09 | 4.3 | 030 | | | | A | |
| | | 13C50 | 3.9 | 040 | | | | A | |
| | | 13C01 | 35.5T | 045 | S | | | A | |
| DA2D | | | | | | | | | |
| 18800 | 21C14 | 4.5 | 010 | S | | | | A | |
| | 29C19 | .8 | 020 | L | | | | A | |
| | 30C15 | 5.3T | 025 | L | | | | A | |
| DA2P | | | | | | | | | |
| 19000 | 16A06 | 13.9 | 010 | S | | | | A | |
| | 13C35 | 13.9T | 015 | | | | | A | |
| DA2R | | | | | | | | | |
| 19100 | 13C34 | 6.6 | 010 | | | | | A | |
| | 24C23 | 3.1 | 020 | L | | | | A | |
| | 30C18 | 9.7T | 025 | S | | | | A | |
| NDA2R | | | | | | | | | |
| 19200 | 24C24 | .0T | 005 | S | | | | A | I |
| DA2U | | | | | | | | | |
| 19300 | 21B07 | 6.5 | 010 | R | | | | A | |
| | 29B41 | 6.3 | 015 | | | | | H | |
| | 29A27 | 16.3 | 020 | | | | | A | |
| | 15C08 | 1.1 | 030 | | | | | A | |
| | 13C06 | 2.6 | 040 | | | | | A | |
| | 13C39 | 32.8T | 045 | S | | | | A | |
| DA3D | | | | | | | | | |
| 19400 | 21C15 | 4.2 | 010 | S | | | | A | |
| | 29C20 | 1.1 | 020 | L | | | | A | |
| | 30C12 | 5.3T | 025 | L | | | | A | |
| DA3P | | | | | | | | | |
| 19600 | 16A05 | 14.7 | 010 | S | | | | A | |
| | 13C41 | 14.7T | 015 | | | | | A | |
| DA3R | | | | | | | | | |
| 19700 | 13C40 | 6.6 | 010 | | | | | A | |
| | 24C29 | 4.2 | 020 | L | | | | A | |
| | 30C13 | 10.8T | 025 | S | | | | A | |
| NDA3R | | | | | | | | | |
| 19800 | 24C33 | .0T | 005 | S | | | | A | I |
| DA3U | | | | | | | | | |
| 19900 | 21B08 | 8.2 | 010 | R | | | | A | |
| | 27A08 | 7.4 | 020 | | | | | A | |
| | 31B10 | 9.4 | 030 | | | | | A | |
| | 15B33 | 3.3 | 040 | | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|----------------|--|---|--|-----|--------------------|-----------|-----------|-----|----------------------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | | 15C07 | 1.3 | 050 | | | | | A |
| | | 13C03 | 6.3 | 060 | | | | | A |
| | | 05B44 | 9.1 | 070 | | | | | A |
| | | 13C42 | 45.0T | 075 | S | | | | A |
| NDA3U 20000 | 29A25 27A04 | 2.7 2.7T | 010 015 | | | | | | A A |
| DA4D 20100 | 21C37 31C29 30C03 | 5.6 2.4 8.0T | 010 020 025 | | S L L | | | | A A A |
| DA4P 20300 | 16A04 16C45 | 13.7 13.7T | 010 015 | | S | | | | A A |
| DA4R 20400 | 30C08 24C41 16C27 | 5.2 5.0 10.2T | 010 020 025 | | S L L | | | | A A A |
| NDA4R 20500 | 24C38 | .0T | 005 | | S | | | | A I |
| DA4U 20600 | 09B14 12B24 13C24 15C12 15C42 16C41 | 2.2 5.7 1.9 2.2 .8 12.8T | 010 020 030 040 050 055 | | R S | | | | A A A A A A |
| NDA4U 20700 | 12B17 11B18 09B15 | .8 1.1 1.9T | 010 020 025 | | S R | | | | A A A |
| DA57 20750 | 11B38 25B01 | 10.0 10.0T | 010 015 | | S | | | | A A |
| DA5D 20800 | 21C33 30C09 31C31 | 6.3 2.1 8.4T | 010 020 025 | | S L L | | | | A A A |
| DA5P 21000 | 16A03 16C43 | 13.5 13.5T | 010 015 | | S | | | | A A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|----------------|---|--|---|-----|--------------|-----------|-----------|-----|---|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| DA5R 21100 | 16C29 24C17 30C10 | 4.9 3.2 8.1T | 010 020 025 | | | | | | A A A |
| NDA5R 21200 | 24C22 | .0T | 005 | S | | | | | A I |
| DA5U 21300 | 21B09 25A42 25B11 12B23 11B17 10C18 13C29 14C22 15C13 15C41 16C42 | 4.5 3.0 7.4 .9 6.1 2.4 .7 1.4 2.1 .4 28.9T | 010 020 030 040 050 060 070 080 090 100 105 | | R | | | | A A A A A A A A A A A |
| NDA5U 21400 | 09B17 11B09 10C20 12B18 | 1.6 6.8 6.4 14.8T | 010 020 030 035 | | R | | | | A A A A |
| DA63 21450 | 05B36 11B33 | 3.5 3.5T | 010 015 | | S | | | | A A |
| DA6D 21500 | 21C34 31C47 30C01 | 6.1 3.9 10.0T | 010 020 025 | | S | L L | | | A A A |
| DA6P 21700 | 16A02 16C47 | 14.0 14.0T | 010 015 | | S | | | | A A |
| DA6R 21800 | 16C25 24C26 30C04 | 3.9 4.6 8.5T | 010 020 025 | | | L S | | | A A A |
| NDA6R 21900 | 24C25 | .0T | 005 | S | | | | | A I |
| DA6U 22000 | 21B10 25A41 | 5.2 10.6 | 010 020 | | R | | | | A A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 2J | 28 | 33 | 37 | 41 | 77 | |
| 22800 | 12B25 | 1.6 | 010 | S | | | | A | |
| | 11B12 | 1.6 | 020 | | | | | A | |
| | 11B34 | .4 | 030 | | | | | A | |
| | 11B40 | 3.4 | 040 | | | | | A | |
| | 10C13 | 5.3 | 050 | | | | | A | |
| | 09B19 | 12.3T | 055 | R | | | | A | |
| DAIR | | | | | | | | | |
| 22900 | 30A13 | 1.5 | 010 | S | | | | A | |
| | 27A13 | 10.6 | 020 | | | | | A | |
| | 16B11 | .4 | 030 | | | | | A | |
| | 16B17 | 7.5 | 040 | | | | | A | |
| | 20C22 | 20.0T | 045 | | | | | A | |
| NDAIR | | | | | | | | | |
| 22950 | 27A19 | 1.2 | 010 | S | | | | A | |
| | 26A29 | 9.8 | 020 | | | | | A | |
| | 16B23 | 11.0T | 025 | | | | | A | |
| DAM | | | | | | | | | |
| 23000 | 32A12 | 5.6 | 010 | | | | | A | |
| | 30B04 | 5.6T | 015 | S | | | | A | |
| DAPR | | | | | | | | | |
| 23200 | 30C27 | .0T | 005 | S | | | | A | I |
| DARESET | | | | | | | | | |
| 23250 | 23B17 | .3 | 010 | S | | | | A | |
| | 23B18 | 2.1 | 020 | S | | | | A | |
| | 23B46 | 3.8 | 030 | S | | | | A | |
| | 21C17 | .7 | 040 | | | | | A | |
| | 21C27 | 5.6 | 050 | | | | | A | |
| | 21B24 | 12.5T | 055 | R | | | | A | |
| DATAS | | | | | | | | | |
| 23300 | 28A12 | .9 | 010 | | | | | A | |
| | 29A18 | 1.5 | 020 | | | | | A | |
| | 29A37 | .8 | 030 | | | | | A | |
| | 28A38 | 5.4 | 035 | | | | | F | |
| | 31B20 | 3.6 | 040 | | | | | A | |
| | 26B03 | .5 | 045 | | | | | D | |
| | 26B06 | 1.2 | 050 | | | | | A | |
| | 26B22 | 1.5 | 060 | | | | | A | |
| | 23B22 | 1.2 | 070 | | | | | A | |
| | 23B38 | 7.4 | 080 | | | | | A | |
| | 08B37 | 1.0 | 090 | | | | | A | |
| | 08B23 | 1.9 | 100 | | | | | A | |
| | 06B12 | 1.7 | 110 | | | | | A | |
| | 06B33 | 3.8 | 120 | | | | | A | |
| | 08C02 | 32.4T | 125 | S | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|----------------|---|---|---|-----|-----------------------|-----------|-----------|---|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| DAXDT 23500 | 04C22 21C30 21B34 | 9.1 4.9 14.0T | 010 020 025 | S | | | | A A A | |
| DC0 23700 | 06B38 29B02 19A05 | 14.2 9.9 24.1T | 010 020 025 | S | | | | A A A | |
| NDC0 23800 | 06B40 19A25 | 13.1 13.1T | 010 015 | S | | | | A A | |
| DCA 23900 | 17A19 20A26 23C27 24C13 24C09 27C02 29C04 31C10 31C18 | 1.9 12.2 1.5 .3 1.7 1.1 1.4 .6 20.7T | 010 015 020 030 040 050 060 070 075 | | T S L L L | | | A C A A A A A A A | |
| NDCA 24000 | 31C34 | .0T | 005 | S | | | | A | I |
| DCA47 24100 | 24C37 | .0T | 005 | S | | | | A | I |
| DCAU 24200 | 04B38 24B07 29A03 17A01 | 12.6 8.0 6.1 26.7T | 010 020 030 035 | | | S | | A A A A | |
| DCB 24300 | 20B13 15B38 16C01 20B15 25B09 25B23 27C21 27C34 29A40 | 4.6 3.1 .6.2 2.9 1.0 6.1 1.2 11.0 36.1T | 010 020 030 040 050 060 070 080 085 | | S | | | A A A A A A A A A | |
| DCB-1 24350 | 26A27 23A25 | 1.6 4.2 | 010 020 | | | | | A A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|-------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | | 17A10 | 7.5 | 030 | | | | | A |
| | | 20B19 | 6.8 | 040 | S | | | | A |
| | | 08B10 | 1.9 | 050 | | | | | A |
| | | 04B09 | 2.9 | 060 | | | | | A |
| | | 04B44 | 24.9T | 065 | | | | | A |
| NDCB | | | | | | | | | |
| 24400 | 20A24 | 8.0 | 010 | | | | | | A |
| | 27B13 | 2.1 | 020 | | | | | | A |
| | 24B18 | 4.5 | 030 | | | | | | A |
| | 16B29 | 1.6 | 040 | | | | | | A |
| | 15B40 | 3.9 | 050 | S | | | | | A |
| | 12B08 | 3.9 | 060 | | | | | | A |
| | 07B31 | 1.3 | 070 | | | | | | A |
| | 06B22 | 7.6 | 080 | | | | | | A |
| | 08C40 | 32.9T | 085 | | | | | | A |
| DCBR | | | | | | | | | |
| 24450 | 08C01 | 5.7 | 010 | S | | | | | A |
| | 15B41 | 5.7T | 015 | | | | | | A |
| DCBC | | | | | | | | | |
| 24500 | 15B45 | 3.8 | 010 | | | | | | A |
| | 12C02 | 3.8T | 015 | S | | | | | A |
| DCBDVO | | | | | | | | | |
| 24550 | 15A01 | 5.7 | 010 | | | | | | A |
| | 23A26 | 5.7T | 015 | S | | | | | A |
| DCBNT5 | | | | | | | | | |
| 24600 | 08B01 | 7.0 | 010 | S | | | | | A |
| | 10C11 | 2.0 | 020 | | | | | | A |
| | 08C25 | 9.0T | 025 | | | | | | A |
| DCL | | | | | | | | | |
| 25000 | 25A04 | 2.3 | 010 | | | | | | A |
| | 21A08 | 13.6 | 020 | | | | | | A |
| | 03B03 | .8 | 030 | S | | | | | A |
| | 03B10 | 7.0 | 040 | | | | | | A |
| | 02C31 | 23.7T | 045 | | | | | | A |
| NDCL | | | | | | | | | |
| 25100 | 14C12 | 14.6 | 010 | | | | | | A |
| | 21A04 | 14.6T | 015 | S | | | | | A |
| DIS | | | | | | | | | |
| 25400 | 17A08 | 10.6 | 010 | | | | | | A |
| | 25B26 | 1.5 | 020 | | | | | | A |
| | 25B46 | 1.4 | 030 | S | | | | | A |
| | 23B40 | 13.5T | 035 | | | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|----------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| DLS | | | | | | | | | |
| 25450 | 07B21 | 5.5 | 010 | | S | | | | C |
| | 05C08 | 5.5T | 025 | | | | | | C |
| DLUPX0 | | | | | | | | | |
| 25500 | 32B02 | 13.9 | 010 | | | | | | A |
| | 17C18 | 9.1 | 020 | | | | | | A |
| | 05B45 | 23.0T | 025 | | S | | | | A |
| DNCOUNT | | | | | | | | | |
| 25600 | 21B43 | 5.4 | 010 | | R | | | | A |
| | 32B40 | 13.3 | 020 | | | | | | A |
| | 07B27 | 18.7T | 025 | | S | | | | A |
| DORD | | | | | | | | | |
| 25800 | 26B41 | 4.6 | 010 | | S | | | | A |
| | 29C14 | 2.3 | 020 | | L | | | | A |
| | 30C37 | 6.9T | 025 | | L | | | | A |
| DORF | | | | | | | | | |
| 25900 | 27A27 | 7.1 | 010 | | | | | | A |
| | 25B39 | .2 | 020 | | | | | | A |
| | 25B38 | 6.4 | 030 | | | | | | A |
| | 12B37 | 5.4 | 040 | | | | | | A |
| | 06B06 | 7.6 | 050 | | S | | | | A |
| | 08C23 | 26.7T | 055 | | | | | | A |
| NDORF | | | | | | | | | |
| 26000 | 25B40 | .9 | 010 | | | | | | A |
| | 25B28 | 7.6 | 020 | | | | | | A |
| | 12B11 | 3.0 | 030 | | | | | | A |
| | 06B11 | 6.9 | 040 | | S | | | | A |
| | 08C22 | 18.4T | 045 | | | | | | A |
| DORFSET | | | | | | | | | |
| 26100 | 06B03 | 4.8 | 010 | | | | | | A |
| | 03B47 | 4.8T | 015 | | S | | | | A |
| DOS | | | | | | | | | |
| 26200 | 25B44 | .2 | 010 | | | | | | A |
| | 25B45 | .2T | 015 | | S | | | | A |
| NDOS | | | | | | | | | |
| 26300 | 23B44 | 8.9 | 010 | | | | | | A |
| | 27A25 | 8.9T | 015 | | S | | | | A |
| DPO | | | | | | | | | |
| 26400 | 08B18 | 6.4 | 010 | | | | | | A |
| | 18B35 | 8.5 | 020 | | | | | | A |
| | 32B15 | 14.9T | 025 | | S | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| NDP0 | | | | | | | | | |
| 26500 | 18844 | 9.7 | 010 | | | | | A | |
| | 32808 | 5.7 | 020 | S | | | | A | |
| | 29A22 | 15.4T | 025 | | | | | A | |
| DP1 | | | | | | | | | |
| 26500 | 08917 | 6.3 | 010 | | | | | A | |
| | 18835 | 9.2 | 020 | | | | | A | |
| | 32806 | 15.5T | 025 | S | | | | A | |
| NDP1 | | | | | | | | | |
| 26700 | 18843 | 9.7 | 010 | | | | | A | |
| | 32807 | 5.5 | 020 | S | | | | A | |
| | 29A23 | 15.2T | 025 | | | | | A | |
| DP2 | | | | | | | | | |
| 26800 | 05818 | .1 | 010 | | | | | A | |
| | 05820 | 2.2 | 020 | | | | | A | |
| | 08830 | 7.8 | 030 | | | | | A | |
| | 22823 | 3.3 | 040 | | | | | A | |
| | 27808 | 2.6 | 050 | | | | | A | |
| | 32810 | 6.6 | 060 | S | | | | A | |
| | 28A17 | 1.9 | 070 | | | | | A | |
| | 26A05 | 24.5T | 075 | | | | | A | |
| NDP2 | | | | | | | | | |
| 26900 | 22827 | 6.6 | 010 | | | | | A | |
| | 32805 | 5.4 | 020 | S | | | | A | |
| | 29A24 | 12.0T | 025 | | | | | A | |
| DP3 | | | | | | | | | |
| 27000 | 28A18 | .8 | 010 | | | | | A | |
| | 29A17 | 5.3 | 020 | | | | | A | |
| | 31805 | 2.7 | 030 | | | | | A | |
| | 32835 | 4.9 | 040 | S | | | | A | |
| | 26809 | 1.7 | 050 | | | | | A | |
| | 25825 | 2.9 | 060 | | | | | A | |
| | 22808 | 18.3T | 065 | | | | | A | |
| NDP3 | | | | | | | | | |
| 27100 | 22826 | 3.0 | 010 | | | | | A | |
| | 25806 | 1.1 | 020 | | | | | A | |
| | 26813 | 3.4 | 030 | | | | | A | |
| | 31825 | 1.4 | 040 | | | | | A | |
| | 32837 | 8.9T | 045 | S | | | | A | |
| DPF | | | | | | | | | |
| 27200 | 32817 | .0T | 005 | S | | | | A | I |
| NDPF | | | | | | | | | |
| 27300 | 24810 | 1.0 | 010 | | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | | 25B07 | 4.3 | 020 | | | | | A |
| | | 32B20 | 5.3T | 025 | S | | | | A |
| DPC0-1 | | | | | | | | | |
| 27400 | 29A34 | 4.8 | 010 | S | | | | | A |
| | 25B05 | .7 | 020 | | | | | | A |
| | 26B10 | 5.5T | 025 | | | | | | A |
| DPC14-15 | | | | | | | | | |
| 27500 | 08B15 | 9.1 | 010 | S | | | | | A |
| | 26B18 | .9 | 020 | | | | | | A |
| | 25B27 | 10.0T | 025 | | | | | | A |
| DRM | | | | | | | | | |
| 27700 | 16B40 | 3.2 | 010 | | | | | | A |
| | 22B41 | 5.0 | 020 | | | | | | A |
| | 30B24 | 1.4 | 030 | | | | | | A |
| | 30B09 | 1.4 | 040 | | | | | | A |
| | 28B03 | 2.9 | 050 | | | | | | A |
| | 27A41 | .8 | 060 | | | | | | A |
| | 26A45 | 6.2 | 070 | S | | | | | A |
| | 17A24 | 20.9T | 075 | | | | | | A |
| DISC | | | | | | | | | |
| 27800 | 17A17 | 5.4 | 010 | | | | | | A |
| | 25A38 | .4 | 020 | | | | | | A |
| | 25A44 | 1.3 | 030 | | | | | | A |
| | 27A47 | 4.0 | 040 | S | | | | | A |
| | 30B11 | .4 | 050 | | | | | | A |
| | 30B17 | 4.1 | 060 | | | | | | A |
| | 22B19 | 4.3 | 070 | | | | | | A |
| | 16B37 | 19.9T | 075 | | | | | | A |
| DSR | | | | | | | | | |
| 28200 | 30A10 | 6.4 | 010 | S | | | | | A |
| | 22A42 | 3.5 | 020 | | | | | | A |
| | 22B17 | 9.9T | 025 | | | | | | A |
| DSRZ | | | | | | | | | |
| 28250 | 22A01 | 22.9 | 010 | S | | | | | A |
| | 02C30 | 22.9T | 015 | | | | | | A |
| DT0 | | | | | | | | | |
| 28300 | 09C43 | 5.1 | 010 | S | | | | | A |
| | 19C45 | 2.9 | 020 | | | | | | A |
| | 21C19 | 7.8 | 030 | | | | | | A |
| | 09C40 | 15.8T | 035 | R | | | | | A |
| DT1 | | | | | | | | | |
| 28400 | 09C41 | 5.8 | 010 | S | | | | | A |
| | 19C26 | 2.6 | 020 | | | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| 31300 | 19A45 | 3.8 | 010 | S | | | | | A |
| | 19B22 | 8.7 | 020 | | | | | | A |
| | 12C22 | 12.5T | 025 | | | | | | A |
| FR0D | | | | | | | | | |
| 31400 | 27C07 | 3.7 | 010 | S | | | | | A |
| | 32C23 | 3.7T | 015 | L | | | | | A |
| FR1D | | | | | | | | | |
| 31500 | 27C06 | 3.6 | 010 | S | | | | | A |
| | 32C19 | 3.6T | 015 | L | | | | | A |
| FR2D | | | | | | | | | |
| 31600 | 27C44 | 4.9 | 010 | S | | | | | A |
| | 32C15 | 4.9T | 015 | L | | | | | A |
| FR3D | | | | | | | | | |
| 31700 | 27C45 | 4.7 | 010 | S | | | | | A |
| | 32C12 | 4.7T | 015 | L | | | | | A |
| FR4D | | | | | | | | | |
| 31800 | 27C04 | 2.8 | 010 | S | | | | | A |
| | 32C03 | 2.8T | 015 | L | | | | | A |
| FR5D | | | | | | | | | |
| 31900 | 27C05 | 2.8 | 010 | S | | | | | A |
| | 32C09 | 2.8T | 015 | L | | | | | A |
| FR6D | | | | | | | | | |
| 32000 | 27C42 | 5.8 | 010 | S | | | | | A |
| | 32C01 | 5.8T | 015 | L | | | | | A |
| FR7D | | | | | | | | | |
| 32100 | 27C46 | 5.8 | 010 | S | | | | | A |
| | 32C02 | 5.8T | 015 | L | | | | | A |
| FSC | | | | | | | | | |
| 32200 | 31B03 | 4.6 | 010 | | | | | | A |
| | 22B05 | 5.1 | 020 | | | | | | A |
| | 19B50 | 5.1 | 030 | | | | | | A |
| | 23C22 | 3.4 | 040 | | | | | | A |
| | 29C28 | 3.1 | 050 | S | | | | | A |
| | 31C03 | 21.3T | 055 | | | | | | A |
| NFSC | | | | | | | | | |
| 32300 | 26A36 | 5.5 | 010 | S | | | | | A |
| | 23B23 | 5.0 | 020 | | | | | | A |
| | 31B38 | 5.4 | 030 | | | | | | A |
| | 29C31 | 4.1 | 040 | S | | | | | A |
| | 23C42 | 20.0T | 045 | L | | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| FSCP | | | | | | | | | |
| 32400 | 06823 | 8.3 | 010 | | S | | | | A |
| | 19347 | 8.3T | 015 | | | | | | A |
| NFSCP | | | | | | | | | |
| 32500 | 26A44 | 13.5 | 010 | | | | | | A |
| | 06825 | 13.5T | 015 | | S | | | | A |
| FSCPM | | | | | | | | | |
| 32600 | 06824 | 7.0 | 010 | | | | | | A |
| | 19821 | 9.2 | 015 | | S | | | | A |
| | 27A18 | 16.2T | 025 | | S | | | | E |
| FSCU | | | | | | | | | |
| 32700 | 05842 | 3.0 | 010 | | | | | | A |
| | 08822 | 4.3 | 020 | | | | | | A |
| | 16918 | 5.7 | 030 | | | | | | A |
| | 16C23 | 4.7 | 040 | | | | | | A |
| | 19346 | 3.5 | 050 | | | | | | A |
| | 20809 | 2.1 | 060 | | | | | | A |
| | 24804 | 2.7 | 070 | | | | | | A |
| | 24840 | 3.8 | 080 | | | | | | A |
| | 30833 | .6 | 090 | | | | | | A |
| | 30825 | 30.4T | 095 | | | | | | A |
| FSD | | | | | | | | | |
| 32800 | 03837 | 2.2 | 010 | | | | | | A |
| | 07842 | 5.0 | 020 | | S | | | | A |
| | 11805 | 7.8 | 030 | | S | | | | A |
| | 12C33 | 1.1 | 040 | | | | | | A |
| | 12C44 | 11.6 | 050 | | | | | | A |
| | 18803 | 4.5 | 060 | | | | | | A |
| | 24823 | 8.9 | 070 | | | | | | A |
| | 29A07 | 8.7 | 080 | | | | | | A |
| | 31B42 | 3.9 | 090 | | | | | | A |
| | 27C01 | 3.7 | 100 | | L | | | | A |
| | 31C26 | 57.4T | 105 | | L | | | | A |
| NFSD | | | | | | | | | |
| 32900 | 09847 | 12.0 | 010 | | R | | | | A |
| | 31830 | 8.5 | 020 | | | | | | A |
| | 18801 | 20.5T | 025 | | S | | | | A |
| FSLD | | | | | | | | | |
| 33000 | 31C22 | 1.6 | 010 | | S | | | | A |
| | 32C35 | 1.6T | 015 | | L | | | | A |
| FSP | | | | | | | | | |
| 33100 | 15A40 | 9.5 | 010 | | S | | | | A |
| | 27B15 | 9.5T | 015 | | | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|----------------|--|--|--|-------------------------------|--------------|-----------|-----------|--|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| FSP-1 33150 | 27B19 19B25 19B28 24C14 | 4.4 .5 6.7 11.6T | 010 015 020 025 | S R | | | | A C A A | |
| FSR 33200 | 19B24 19B29 27C38 28C36 29C42 31C15 | .5 9.8 .6 .9 3.3 15.1T | 005 010 020 030 040 045 | L S L L | | | | C A A A A A | |
| FSRC 33300 | 23C23 27C47 | 3.8 3.8T | 010 015 | S | | | | A A | |
| FSU 33400 | 26A38 28A09 31B31 27B28 27B50 26B38 22B37 19B27 11B03 11C26 | 3.4 8.4 2.3 1.6 1.4 1.9 2.2 5.8 7.2 34.2T | 010 020 030 040 050 060 070 080 090 095 | S | | | | A A A A A A A A A A | |
| GND01 33405 | 15A32 15A37 | .5 .5T | 010 015 | S | | | | A A | |
| GND02 33410 | 16A16 16A17 16A42 | .2 2.1 2.3T | 010 020 025 | S | | | | A A A | |
| GND03 33415 | 24A04 24A16 24A19 24A24 24A31 24A39 24A41 | .9 .3 .6 .6 .6 .1 3.1T | 010 030 040 050 060 070 075 | S | | | | A A A A A A A | |
| GND04 33420 | 01B00 01B03 | .3 .3 | 010 020 | S | | | | A A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | | 01B04 | .2 | 030 | | | | | A |
| | | 01B05 | .5 | 040 | | | | | A |
| | | 01B08 | 1.5 | 050 | | | | | A |
| | | 01B28 | .3 | 060 | | | | | A |
| | | 01B31 | .5 | 070 | | | | | A |
| | | 01B34 | .2 | 080 | | | | | A |
| | | 01B35 | 3.8T | 085 | | | | | A |
| GND05 | 33425 | 02B00 | .3 | 010 | S | | | | A |
| | | 02B03 | .1 | 020 | | | | | A |
| | | 02B05 | .5 | 030 | | | | | A |
| | | 02B08 | 1.9 | 040 | | | | | A |
| | | 02B34 | .2 | 050 | | | | | A |
| | | 02B35 | 3.0T | 055 | | | | | A |
| GND06 | 33430 | 06B08 | 1.7 | 010 | | | | | A |
| | | 06B29 | .5 | 020 | | | | | A |
| | | 06B32 | .6 | 030 | S | | | | A |
| | | 06B39 | 2.8T | 035 | | | | | A |
| GND07 | 33435 | 07B11 | .4 | 010 | | | | | A |
| | | 07B17 | 1.2 | 020 | | | | | A |
| | | 07B30 | .1 | 030 | | | | | A |
| | | 07B32 | .1 | 040 | S | | | | A |
| | | 07B34 | .7 | 045 | | | | | A |
| | | 07B44 | 2.5T | 055 | | | | | E |
| GND08 | 33440 | 10B23 | .8 | 010 | | | | | A |
| | | 10B30 | .1 | 020 | | | | | A |
| | | 10B32 | .3 | 030 | S | | | | A |
| | | 10B36 | .6 | 040 | | | | | A |
| | | 10B43 | 1.8T | 045 | | | | | A |
| GND09 | 33445 | 14B08 | .6 | 015 | | | | | D |
| | | 14B16 | 1.5 | 020 | S | | | | A |
| | | 14B35 | 2.1T | 025 | | | | | A |
| GND10 | 33450 | 15B01 | .8 | 010 | | | | | A |
| | | 15B08 | .6 | 020 | | | | | A |
| | | 15B16 | .6 | 040 | S | | | | A |
| | | 15B24 | 1.2 | 050 | | | | | A |
| | | 15B39 | 3.2T | 055 | | | | | A |
| GND12 | 33460 | 19B06 | .7 | 010 | | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | | 19816 | .3 | 020 | S | | | | A |
| | | 19819 | .3 | 030 | | | | | A |
| | | 19823 | .8 | 040 | | | | | A |
| | | 19830 | .5 | 050 | | | | | A |
| | | 19835 | .6 | 060 | | | | | A |
| | | 19843 | 3.2T | 065 | | | | | A |
| GND13 | | | | | | | | | |
| 33465 | 26807 | 2.1 | 005 | | | | | F | |
| | 26832 | 2.1T | 015 | S | | | | | A |
| GND14 | | | | | | | | | |
| 33470 | 29805 | 1.1 | 010 | | | | | | A |
| | 29816 | .2 | 020 | S | | | | | A |
| | 29817 | .4 | 030 | | | | | | A |
| | 29823 | .5 | 050 | | | | | | A |
| | 29826 | .2 | 060 | | | | | | A |
| | 29827 | 1.5 | 065 | | | | | | A |
| | 29844 | 3.9T | 075 | | | | | | H |
| GND15 | | | | | | | | | |
| 33475 | 32803 | 2.4 | 010 | | | | | | A |
| | 32832 | .2 | 020 | S | | | | | A |
| | 32833 | .9 | 030 | | | | | | A |
| | 32842 | 3.5T | 035 | | | | | | A |
| GND16 | | | | | | | | | |
| 33480 | 02C26 | .4 | 010 | S | | | | | A |
| | 02C32 | .4T | 015 | | | | | | A |
| GND17 | | | | | | | | | |
| 33485 | 11C00 | .3 | 010 | S | | | | | A |
| | 11C04 | .3T | 015 | | | | | | A |
| GND18 | | | | | | | | | |
| 33490 | 12C23 | .9 | 010 | | | | | | A |
| | 12C32 | .3 | 020 | S | | | | | A |
| | 12C36 | .6 | 030 | | | | | | A |
| | 12C43 | 1.8T | 035 | | | | | | A |
| GND19 | | | | | | | | | |
| 33495 | 13C32 | .3 | 010 | S | | | | | A |
| | 13C36 | .6 | 020 | | | | | | A |
| | 13C43 | .9T | 025 | | | | | | A |
| GND20 | | | | | | | | | |
| 33500 | 14C03 | .3 | 010 | | | | | | A |
| | 14C04 | .2 | 020 | | | | | | A |
| | 14C05 | .5 | 030 | | | | | | A |
| | 14C08 | 1.8 | 040 | | | | | | A |
| | 14C31 | .3 | 050 | | | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|-------------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | | 14C32 | .3 | 060 | S | | | | A |
| | | 14C35 | .2 | 070 | | | | | A |
| | | 14C34 | 1.2 | 080 | | | | | A |
| | | 14C50 | 4.8T | 085 | | | | | A |
| GND21 33505 | | 17C03 | .3 | 010 | | | | | A |
| | | 17C04 | .2 | 020 | | | | | A |
| | | 17C05 | .5 | 030 | | | | | A |
| | | 17C08 | 1.5 | 040 | | | | | A |
| | | 17C28 | .3 | 050 | | | | | A |
| | | 17C31 | .3 | 060 | | | | | A |
| | | 17C32 | .1 | 070 | S | | | | A |
| | | 17C34 | .2 | 080 | | | | | A |
| | | 17C35 | 3.4T | 085 | | | | | A |
| GND22 33510 | | 18C16 | .1 | 010 | S | | | | A |
| | | 18C18 | .1T | 015 | | | | | A |
| GND23 33515 | | 20C12 | 1.5 | 010 | | | | | A |
| | | 20C32 | .3 | 020 | S | | | | A |
| | | 20C36 | .1 | 030 | | | | | A |
| | | 20C38 | 1.9T | 035 | | | | | A |
| GND24 33520 | | 21C03 | .6 | 010 | | | | | A |
| | | 21C08 | .6 | 020 | | | | | A |
| | | 21C16 | 1.2T | 025 | S | | | | A |
| GND25 33525 | | 23A23 | .8 | 010 | | | | | A |
| | | 23A30 | .1 | 020 | | | | | A |
| | | 23A32 | .2 | 025 | S | | | | A |
| | | 23A33 | 1.1T | 030 | | | | | K |
| GND26 33528 | | 11B44 | .3 | 010 | | | | | A |
| | | 11B48 | .3T | 015 | S | | | | A |
| GND23C32 33600 | | 23C40 | .6 | 010 | L | | | | A |
| | | 23C32 | .6T | 015 | S | | | | A |
| GND26C00 33700 | | 26C00 | .5 | 010 | S | | | | A |
| | | 26C05 | .5T | 015 | | | | | A |
| GND26C16 33800 | | 26C16 | .6 | 010 | S | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|-------------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | | 26C24 | .6T | 015 | | | | A | |
| GND26C32 33900 | 26C31 | .3 | 010 | L | | | | A | |
| | 26C32 | .3T | 015 | S | | | | A | |
| GND26C48 34000 | 26C41 | .8 | 010 | | | | | A | |
| | 26C48 | .8T | 015 | S | | | | A | |
| GND27C16 34100 | 27C16 | .1 | 010 | S | | | | A | |
| | 27C18 | .2 | 020 | | | | | A | |
| | 27C19 | .4 | 030 | | | | | A | |
| | 27C25 | .7T | 035 | | | | | A | |
| GND27C32 34200 | 27C22 | .7 | 010 | | | | | A | |
| | 27C32 | .2 | 020 | S | | | | A | |
| | 27C33 | .1 | 030 | | | | | A | |
| | 27C35 | .1 | 040 | | | | | A | |
| | 27C37 | 1.1T | 045 | | | | | A | |
| GND28C00 34300 | 28C05 | .5 | 010 | | | | | A | |
| | 28C00 | .5T | 015 | S | | | | A | |
| GND28C16 34400 | 28C16 | .6 | 010 | S | | | | A | |
| | 28C24 | .6T | 015 | | | | | A | |
| GND28C48 34500 | 28C41 | .8 | 010 | | | | | A | |
| | 28C48 | .8T | 015 | S | | | | A | |
| GND30C00 34600 | 30C00 | .5 | 010 | | | | | A | |
| | 30C05 | .5T | 015 | | | | | A | |
| GND30C16 34700 | 30C16 | .6 | 010 | | | | | A | |
| | 30C24 | .2 | 020 | | | | | A | |
| | 30C25 | .8T | 025 | L | | | | A | |
| GND30C32 34800 | 30C32 | .3 | 010 | | | | | A | |
| | 30C35 | .4 | 020 | L | | | | A | |
| | 30C41 | .7T | 025 | | | | | A | |
| GND30C48 34900 | 30C45 | .5 | 010 | L | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---|--|---|-----|--------------|-----------|-----------|-----|---------------------------------|
| 1 | 8 15 | | 21 | 28 | 33 | 37 | 41 | 77 | |
| 37600 | 09C28 13C27 | 2.3 2.3T | 010 015 | | | | | | A A |
| 16 | | | | | | | | | |
| 37700 | 09C17 13C12 | 2.1 2.1T | 010 015 | | | | | | A A |
| 17 | | | | | | | | | |
| 37800 | 09C11 13C14 | 2.1 2.1T | 010 015 | | | | | | A A |
| IBITO | | | | | | | | | |
| 37900 | 04B17 27A29 | 15.8 15.8T | 010 015 | | | | | | A A |
| ICD | | | | | | | | | |
| 38000 | 31C38 32C39 | .7 .7T | 010 015 | | S L | | | | A A |
| ICS0 | | | | | | | | | |
| 38100 | 28B09 29A04 | 5.8 5.8T | 010 015 | | S | | | | A A |
| ID0 | | | | | | | | | |
| 38200 | 32A37 25A45 | 4.1 4.1T | 010 015 | | | | | | A A |
| ID1 | | | | | | | | | |
| 38300 | 32A39 25A46 | 4.3 4.3T | 010 015 | | S | | | | A A |
| ID2 | | | | | | | | | |
| 38400 | 32A45 25A02 | 6.8 6.8T | 010 015 | | | | | | A A |
| IDS | | | | | | | | | |
| 38500 | 20A44 26A35 28A04 28A07 32A03 | 3.9 3.0 .3 2.3 9.5T | 010 020 030 040 045 | | S S | | | | A A A A A |
| ILO | | | | | | | | | |
| 38600 | 21B36 26B43 29B08 29B03 23B01 23B02 23B10 | 3.1 3.8 .6 3.1 .3 .6 11.5T | 010 020 030 040 050 060 065 | | R S S | | | | A A A A A A A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|-----------------|---|---|---|---|--------------|-----------|-----------|---|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| INC 38700 | 26C11 23C43 31C42 | 3.9 3.8 7.7T | 010 020 025 | S L L | | | | A A A | |
| NINC 38800 | 26C09 | .0T | 005 | S | | | | A | I |
| INDUP 38850 | 15A18 23A18 23A13 27A07 | 4.0 .6 2.4 7.0T | 010 020 030 035 | S | | | | A A A A | |
| NINDUP 38875 | 27A03 23A05 23A22 | 2.1 1.5 3.6T | 010 020 025 | S | | | | A A A | |
| INI 38900 | 20A04 23C33 27C39 27C11 26C07 29C02 29C10 29C40 31C50 31C44 31C28 | 14.3 2.4 2.1 .8 1.6 .6 2.2 1.7 .4 1.2 27.3T | 010 020 030 040 050 060 070 080 090 100 105 | S L L L S L L L L L L | | | | A A A A A A A A A A A | |
| NINI 39000 | 26C15 29C46 | 3.7 3.7T | 010 015 | S L | | | | A A | |
| INL 39100 | 15C27 06B37 | 9.0 9.0T | 010 015 | S | | | | A A | |
| NINL 39200 | 06B42 | .0T | 005 | S | | | | A | I |
| INLM 39400 | 09B31 06B31 16C19 | 1.5 9.3 10.8T | 010 020 025 | R S | | | | A A A | |
| INLM-1 39500 | 16C15 20B25 | 6.5 1.6 | 010 020 | S | | | | A A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|-------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | | 13C13 | .6 | 020 | | | | | A |
| | | 13C18 | 5.8 | 030 | | | | | A |
| | | 11B24 | 2.1 | 040 | | | | | A |
| | | 09B07 | 18.1T | 045 | R | | | | A |
| IXDA | | | | | | | | | |
| 40600 | 30B47 | 10.6 | 010 | S | | | | | A |
| | 13C05 | 1.5 | 020 | | | | | | A |
| | 13C22 | 6.8 | 030 | | | | | | A |
| | 09B28 | 18.9T | 035 | R | | | | | A |
| J001 | | | | | | | | | |
| 40700 | 28A45 | 3.6 | 010 | | | | | | A |
| | 26A12 | 3.6T | 015 | S | | | | | A |
| J002 | | | | | | | | | |
| 40800 | 26B04 | 6.0 | 010 | S | | | | | A |
| | 15B15 | 4.0 | 020 | | | | | | F |
| | 09B01 | 10.0T | 025 | R | | | | | A |
| J003 | | | | | | | | | |
| 40900 | 26B19 | 5.6 | 010 | S | | | | | A |
| | 28A27 | 13.3 | 020 | | | | | | A |
| | 09B04 | 18.9T | 025 | R | | | | | A |
| J004 | | | | | | | | | |
| 41000 | 29B19 | 5.9 | 010 | | | | | | A |
| | 29A12 | 5.9T | 015 | S | | | | | A |
| J005 | | | | | | | | | |
| 41100 | 27B11 | 2.1 | 010 | | | | | | A |
| | 30B03 | 2.1T | 015 | S | | | | | A |
| J006 | | | | | | | | | |
| 41200 | 21B29 | 7.1 | 010 | R | | | | | A |
| | 21C50 | 11.7 | 020 | | | | | | A |
| | 27B04 | 18.8T | 025 | S | | | | | A |
| J007 | | | | | | | | | |
| 41300 | 21B30 | 4.8 | 010 | R | | | | | A |
| | 21C23 | 14.0 | 020 | | | | | | A |
| | 05B14 | 18.8T | 025 | S | | | | | A |
| J008 | | | | | | | | | |
| 41400 | 21B31 | 6.5 | 010 | R | | | | | A |
| | 21C44 | 15.3 | 020 | | | | | | A |
| | 05B15 | 21.8T | 025 | S | | | | | A |
| J009 | | | | | | | | | |
| 41500 | 26A02 | 7.3 | 010 | S | | | | | A |
| | 29B10 | 7.3T | 015 | | | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| J010 | | | | | | | | | |
| 41600 | 26A13 | 6.6 | 010 | S | | | | A | |
| | 29B11 | 6.6T | 015 | | | | | A | |
| J011 | | | | | | | | | |
| 41700 | 26A34 | 5.0 | 010 | S | | | | A | |
| | 29B09 | 5.0T | 015 | | | | | A | |
| J012 | | | | | | | | | |
| 41800 | 21B33 | 5.9 | 010 | R | | | | A | |
| | 21C38 | 6.0 | 020 | | | | | A | |
| | 22B34 | 11.9T | 025 | S | | | | A | |
| J013 | | | | | | | | | |
| 41850 | 22B02 | 3.0 | 010 | S | | | | A | |
| | 27B07 | 3.0T | 015 | | | | | A | |
| J014 | | | | | | | | | |
| 41900 | 25A08 | 5.3 | 010 | | | | | A | |
| | 20A46 | 5.3T | 015 | S | | | | A | |
| J015 | | | | | | | | | |
| 42000 | 03B21 | 13.2 | 010 | | | | | A | |
| | 28B08 | 13.2T | 015 | S | | | | A | |
| J016 | | | | | | | | | |
| 42100 | 27A24 | 16.9 | 010 | S | | | | A | |
| | 03B23 | 16.9T | 015 | | | | | A | |
| J017 | | | | | | | | | |
| 42200 | 28B07 | 7.5 | 010 | S | | | | A | |
| | 16B27 | 3.6 | 020 | | | | | A | |
| | 16C05 | 11.1T | 025 | S | | | | A | |
| J021 | | | | | | | | | |
| 42600 | 24B12 | 4.1 | 010 | S | | | | A | |
| | 27B45 | 4.1T | 015 | | | | | A | |
| J022 | | | | | | | | | |
| 42700 | 23B27 | 2.1 | 010 | S | | | | A | |
| | 27B29 | 4.3 | 020 | | | | | A | |
| | 21B11 | 6.4T | 025 | R | | | | A | |
| J023 | | | | | | | | | |
| 42800 | 27B41 | .2 | 010 | S | | | | A | |
| | 27B40 | 5.1 | 020 | | | | | A | |
| | 21B12 | 5.3T | 025 | R | | | | A | |
| J024 | | | | | | | | | |
| 42900 | 24B13 | 2.0 | 010 | S | | | | A | |
| | 26B27 | 2.0T | 015 | | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|-------------------------|---------------------|-------------------|------------|--------------|-----------|-----------|-------------|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| J025 43000 | 24834 26845 | 1.9 1.9T | 010 015 | S | | | | A A | |
| J026 43100 | 25836 28A24 | 7.6 7.6T | 010 015 | S | | | | A A | |
| J027 43200 | 25833 28A02 | 8.8 8.8T | 010 015 | S | | | | A A | |
| J029 43400 | 08B46 28A34 | 16.1 16.1T | 010 015 | S | | | | A A | |
| J031 43600 | 21C22 08C47 | 8.1 8.1T | 010 015 | S | | | | A A | |
| J032 43700 | 21C05 22B35 | 3.5 3.5T | 010 015 | S | | | | A A | |
| J033 43800 | 21C09 08C44 | 9.4 9.4T | 010 015 | S | | | | A A | |
| J034 43900 | 16B42 19A13 | 9.2 9.2T | 010 015 | S | | | | A A | |
| J035 44000 | 11B23 08B02 | 3.2 3.2T | 010 015 | S | | | | A A | |
| J036 44100 | 04B33 11B21 | 4.4 4.4T | 010 015 | S | | | | A A | |
| J037 44200 | 08B34 29A39 | 15.6 15.6T | 010 015 | S | | | | A A | |
| J038 44300 | 23B33 29A42 22A09 | 7.3 5.8 13.1T | 010 020 025 | S R | | | | A A A | |
| J039 44400 | 26B42 | 6.4 | 010 | S | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| 46400 | 26A41 | 5.8 | 010 | | | | | | A |
| | 28B35 | 14.6 | 020 | S | | | | | A |
| | 11C47 | 20.4T | 025 | S | | | | | A |
| LDRM | | | | | | | | | |
| 46500 | 19C31 | 5.3 | 010 | | | | | | A |
| | 22B46 | 5.3T | 015 | S | | | | | A |
| LIH | | | | | | | | | |
| 46800 | 31C01 | 1.3 | 010 | S | | | | | A |
| | 29C05 | 1.3T | 015 | L | | | | | A |
| LIL | | | | | | | | | |
| 46900 | 31C46 | 4.0 | 010 | S | | | | | A |
| | 29C06 | 4.0T | 015 | L | | | | | A |
| LDISC | | | | | | | | | |
| 47000 | 19C29 | 7.6 | 010 | | | | | | A |
| | 22B14 | 7.6T | 015 | S | | | | | A |
| LP0 | | | | | | | | | |
| 47200 | 11C24 | 1.1 | 010 | | | | | | A |
| | 12C19 | 3.4 | 020 | | | | | | A |
| | 17C07 | 4.5T | 025 | S | | | | | A |
| NLP0 | | | | | | | | | |
| 47300 | 17C14 | .6 | 010 | | | | | | A |
| | 17C09 | .6T | 015 | S | | | | | A |
| LPI | | | | | | | | | |
| 47400 | 12C50 | 5.5 | 010 | | | | | | A |
| | 17C10 | .2 | 020 | | | | | | A |
| | 17C11 | 5.7T | 025 | S | | | | | A |
| NLP1 | | | | | | | | | |
| 47500 | 17C19 | .4 | 010 | | | | | | A |
| | 17C13 | .4T | 015 | S | | | | | A |
| LP2 | | | | | | | | | |
| 47600 | 12C06 | 2.5 | 010 | | | | | | A |
| | 17C06 | .9 | 020 | | | | | | A |
| | 17C17 | 3.4T | 025 | S | | | | | A |
| NLP2 | | | | | | | | | |
| 47700 | 17C21 | .3 | 010 | | | | | | A |
| | 17C25 | .3T | 015 | S | | | | | A |
| LP3 | | | | | | | | | |
| 47800 | 17C23 | 1.7 | 010 | S | | | | | A |
| | 17C02 | 2.3 | 020 | | | | | | A |
| | 12C03 | 4.0T | 025 | | | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|-----------------|---|--|---|-----|---------------------------|-----------|-----------|-----|---------------------------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| NLP3 47900 | 17C22 17C20 | .1 .1T | 010 015 | | | | | | A A |
| LSB1 48000 | 22A27 15C17 22B11 31B11 31B33 | 13.2 9.2 4.5 1.6 28.5T | 010 020 025 030 035 | | R S | | | | A A H A A |
| LSB2 48100 | 31B12 15C06 15C43 21B37 | 12.8 2.9 8.7 24.4T | 010 020 030 035 | | S R | | | | A A A A |
| LSH 48300 | 23C38 29C07 | 5.6 5.6T | 010 015 | | S L | | | | A A |
| LSL 48400 | 23C39 29C09 | 5.2 5.2T | 010 015 | | S L | | | | A A |
| LT4 48500 | 18B33 17A31 21B14 | 5.9 5.8 11.7T | 010 020 025 | | S R | | | | A A A |
| MANRST 48600 | 19A02 20A13 29B20 15B22 16C07 14C18 | 1.4 10.1 7.1 4.7 2.1 25.4T | 010 020 030 040 050 055 | | S S | | | | A A A A A A |
| OIC 48700 | 06B01 06B15 31B14 | 1.0 12.3 13.3T | 010 020 025 | | S | | | | A A A |
| OIS 48800 | 29A11 26B01 30B26 25B35 22B06 14B40 06B04 | 6.0 3.7 2.9 3.8 6.5 6.7 .3 | 010 020 030 040 060 070 080 | | S | | | | A A A A A A A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 15 | | 21 | 28 | 33 | 37 | 41 | 77 | |
| 49400 | 15A27 | 12.8 | 010 | | S | | | A | |
| | 08C08 | 12.8T | 015 | | | | | A | |
| OR6P | | | | | | | | | |
| 49500 | 30B40 | 13.6 | 010 | | | | | A | |
| | 15A28 | 13.6T | 015 | | S | | | A | |
| OR7P | | | | | | | | | |
| 49600 | 15A29 | 12.5 | 010 | | S | | | A | |
| | 03B42 | 12.5T | 015 | | | | | A | |
| ORDER | | | | | | | | | |
| 49700 | 20B21 | 1.7 | 010 | | S | | | A | |
| | 23B26 | 1.4 | 020 | | S | | | A | |
| | 23B11 | .4 | 030 | | | | | A | |
| | 24B08 | 3.9 | 040 | | | | | A | |
| | 29B25 | 7.4T | 045 | | | | | A | |
| ORDRST | | | | | | | | | |
| 49800 | 12B02 | 2.4 | 010 | | S | | | A | |
| | 12B33 | 2.6 | 020 | | S | | | A | |
| | 11B06 | 1.6 | 030 | | | | | A | |
| | 11B28 | 4.1 | 040 | | | | | A | |
| | 11C11 | 5.4 | 050 | | | | | A | |
| | 09B24 | 16.1T | 055 | | R | | | A | |
| OTS | | | | | | | | | |
| 49900 | 05B34 | 4.5 | 010 | | S | | | A | |
| | 11B14 | 2.0 | 020 | | | | | A | |
| | 11B39 | 2.2 | 030 | | | | | A | |
| | 09B23 | 8.7T | 035 | | R | | | A | |
| PA0 | | | | | | | | | |
| 50000 | 18C45 | 1.7 | 010 | | | | | A | |
| | 18C24 | .8 | 020 | | S | | | A | |
| | 19C23 | 2.5T | 025 | | | | | A | |
| NPA0 | | | | | | | | | |
| 50100 | 18C46 | .0T | 005 | | S | | | A | I |
| PA0SET | | | | | | | | | |
| 50300 | 16B04 | 6.6 | 010 | | S | | | A | |
| | 24A43 | 14.3 | 020 | | | | | A | |
| | 18C50 | .5 | 030 | | | | | A | |
| | 19C50 | 7.6 | 040 | | | | | A | |
| | 21B35 | 29.0T | 045 | | R | | | A | |
| PA1 | | | | | | | | | |
| 50400 | 18C27 | 1.4 | 010 | | S | | | A | |
| | 18C42 | .6 | 020 | | | | | A | |
| | 19C44 | 2.0T | 025 | | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| NPA1 50500 | 18C44 | .0T | 005 | S | | | | A | I |
| PA2 50600 | 18C38 | .2 | 010 | S | | | | A | |
| | 18C39 | .3 | 020 | | | | | A | |
| | 19C38 | .5T | 025 | | | | | A | |
| NPA2 50700 | 18C41 | .0T | 005 | S | | | | A | I |
| PA3 50800 | 18C36 | 1.0 | 010 | S | | | | A | |
| | 18C22 | .5 | 020 | | | | | A | |
| | 19C22 | 1.5T | 025 | | | | | A | |
| NPA3 50900 | 18C37 | .0T | 005 | S | | | | A | I |
| PA4 51000 | 18C23 | .1 | 010 | S | | | | A | |
| | 18C21 | 2.0 | 020 | | | | | A | |
| | 19C01 | 2.1T | 025 | | | | | A | |
| NPA4 51100 | 18C20 | .0T | 005 | S | | | | A | I |
| PA5 51200 | 18C17 | .1 | 010 | S | | | | A | |
| | 18C15 | 1.2 | 020 | | | | | A | |
| | 19C05 | 1.3T | 025 | | | | | A | |
| NPA5 51300 | 18C25 | .0T | 005 | S | | | | A | I |
| PA6 51400 | 18C12 | .3 | 010 | | | | | A | |
| | 18C11 | .6 | 020 | S | | | | A | |
| | 19C09 | .9T | 025 | | | | | A | |
| NPA6 51500 | 18C13 | .0T | 005 | S | | | | A | I |
| PA7 51600 | 18C07 | 5.8 | 010 | S | | | | A | |
| | 16B14 | 5.8T | 015 | | | | | A | |
| NPA7 51700 | 18C09 | 6.5 | 010 | S | | | | A | |
| | 16B05 | 6.5T | 015 | | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|-------------------|--|--|--|-----|--------------|-----------|-----------|-----|--|
| 1 | 8 15 | | 21 | 28 | 33 | 37 | 41 | 77 | |
| PARER 51800 | 24A38 24B03 11C02 11C28 | 2.7 11.9 1.9 16.5T | 010 020 030 035 | | S | | | | A A A A |
| NPARER 51900 | 24A40 20A18 | 3.6 3.6T | 010 015 | | S | | | | A A |
| PARERSET 52000 | 19A01 24A44 | 5.6 5.6T | 010 015 | | S | | | | A A |
| PERSTP 52050 | 04B12 07B01 10B04 | 2.6 1.6 4.2T | 010 012 015 | | S | | | | C E C |
| PRB 52100 | 26A11 20A05 12B39 08B41 03B19 04B14 | 3.4 11.8 2.1 4.1 .6 22.0T | 010 020 030 040 050 055 | | | S | | | A A A A A A |
| NPRBBC8 52200 | 09B29 04B26 12B50 12B47 | 2.8 5.8 .5 9.1T | 010 020 030 035 | | R | | | | A A A A |
| PRE 52300 | 02B36 03B05 04B19 24B21 18B39 18B40 18C35 18C34 18C31 18C28 18C08 18C05 18C04 18C03 | 3.1 1.5 10.1 4.3 .3 5.0 .2 .5 .3 1.5 .5 .2 .3 27.8T | 010 020 030 040 050 060 070 080 090 100 110 120 130 135 | | S | | | | A A A A A A A A A A A A A A |
| NPRE 52400 | 20A41 | 13.9 | 010 | | | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|-------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | | 02B37 | 9.7 | 020 | S | | | A | |
| | | 11C38 | 23.6T | 025 | | | | A | |
| PRESET | | | | | | | | | |
| 52500 | 02B39 | 19.0 | 010 | | | | | A | |
| | 26A15 | 19.0T | 015 | S | | | | A | |
| NPSM | | | | | | | | | |
| 52650 | 21B17 | 5.7 | 010 | R | | | | A | |
| | 20A17 | 9.8 | 020 | | | | | A | |
| | 28B26 | 1.2 | 030 | | | | | A | |
| | 28B42 | 5.3 | 040 | | | | | A | |
| | 18B46 | 22.0T | 045 | S | | | | A | |
| PSPR | | | | | | | | | |
| 52900 | 28A46 | 3.4 | 010 | | | | | A | |
| | 26A14 | 19.1 | 020 | S | | | | A | |
| | 11C33 | 22.5T | 025 | | | | | A | |
| PT18S | | | | | | | | | |
| 53100 | 23C03 | 2.5 | 010 | | | | | A | |
| | 26C17 | 2.5T | 015 | | | | | A | |
| PWC | | | | | | | | | |
| 53200 | 08B39 | 3.4 | 008 | | | | | K | |
| | 07B02 | 6.7 | 010 | S | | | | A | |
| | 06C19 | 4.6 | 020 | S | | | | A | |
| | 15C22 | 6.2 | 030 | | | | | A | |
| | 05C06 | .4 | 040 | | | | | A | |
| | 05C12 | 7.4 | 050 | | | | | A | |
| | 09B13 | 28.7T | 055 | R | | | | A | |
| RATER | | | | | | | | | |
| 53300 | 08C30 | 11.0 | 010 | | | | | A | |
| | 27C13 | 6.0 | 020 | | | | | A | |
| | 29B12 | 5.1 | 030 | | | | | A | |
| | 28A20 | .2 | 040 | S | | | | A | |
| | 28A21 | 11.9 | 050 | | | | | A | |
| | 12B03 | 3.5 | 060 | | | | | A | |
| | 09B26 | 37.7T | 065 | R | | | | A | |
| NRATER | | | | | | | | | |
| 53400 | 22A17 | 2.4 | 010 | R | | | | A | |
| | 25A29 | 2.8 | 020 | | | | | A | |
| | 20A30 | 6.8 | 030 | | | | | A | |
| | 12B01 | 12.0T | 035 | S | | | | A | |
| RCH | | | | | | | | | |
| 53600 | 19A10 | 6.7 | 010 | | | | | A | |
| | 16B10 | 5.5 | 020 | | | | | A | |
| | 05B10 | 5.2 | 030 | | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| 54450 | 15A02 | 6.0 | 010 | | | | | A | |
| | 23A27 | 6.0T | 015 | S | | | | A | |
| REN | | | | | | | | | |
| 54500 | 32A19 | 3.8 | 010 | | | | | A | |
| | 26A10 | 14.8 | 020 | | | | | A | |
| | 05B01 | 18.6T | 025 | S | | | | A | |
| RENPR8 | | | | | | | | | |
| 54600 | 26A01 | 1.3 | 010 | S | | | | A | |
| | 26A19 | 16.2 | 020 | | | | | A | |
| | 03B08 | 17.5T | 025 | | | | | A | |
| RESA | | | | | | | | | |
| 54800 | 24A22 | 7.4 | 010 | | | | | A | |
| | 29B18 | 5.9 | 020 | S | | | | A | |
| | 18B24 | 13.3T | 025 | | | | | A | |
| NRESA | | | | | | | | | |
| 54900 | 18B17 | 3.5 | 010 | S | | | | A | |
| | 21B46 | 6.6 | 020 | R | | | | A | |
| | 30B21 | 6.3 | 030 | | | | | A | |
| | 28A22 | 16.4T | 035 | | | | | A | |
| RSAP | | | | | | | | | |
| 55200 | 14C38 | 12.0 | 010 | S | | | | A | |
| | 17A38 | 7.9 | 020 | | | | | A | |
| | 24B25 | 19.9T | 025 | | | | | A | |
| NRSAP | | | | | | | | | |
| 55300 | 14C41 | .0T | 005 | S | | | | A | I |
| RSAPSET | | | | | | | | | |
| 55325 | 03B45 | 10.4 | 010 | S | | | | A | |
| | 14C42 | 10.4T | 015 | | | | | A | |
| RSAP1 | | | | | | | | | |
| 55350 | 23C30 | 5.8 | 010 | | | | | A | |
| | 24B33 | 1.9 | 020 | S | | | | A | |
| | 27B24 | 7.7T | 025 | | | | | A | |
| NRSAP1 | | | | | | | | | |
| 55375 | 27B17 | 8.2 | 010 | | | | | A | |
| | 23C26 | 8.2T | 015 | S | | | | A | |
| RSAR | | | | | | | | | |
| 55500 | 28C08 | 2.8 | 010 | S | | | | A | |
| | 29C37 | 2.8T | 015 | L | | | | A | |
| RSARC | | | | | | | | | |
| 55600 | 20B01 | 5.0 | 010 | S | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|-------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | | 27B21 | 6.5 | 020 | | | | | A |
| | | 29C26 | 11.5T | 025 | S | | | | A |
| RSAU | | | | | | | | | |
| 55700 | 30B36 | 2.7 | 010 | | | | | | A |
| | 27B20 | 6.0 | 020 | S | | | | | A |
| | 24A30 | 1.7 | 030 | | | | | | A |
| | 22A43 | 12.2 | 040 | | | | | | A |
| | 16C22 | 4.6 | 050 | | | | | | A |
| | 11C50 | 10.2 | 060 | | | | | | A |
| | 05B24 | 3.7 | 070 | | | | | | A |
| | 09B05 | 41.1T | 075 | R | | | | | A |
| RSAUZ | | | | | | | | | |
| 55800 | 27A12 | 3.0 | 005 | | | | | | E |
| | 22A03 | 8.7 | 010 | S | | | | | A |
| | 18B23 | 6.4 | 020 | | | | | | A |
| | 30B30 | 18.1T | 025 | | | | | | A |
| RSD | | | | | | | | | |
| 56000 | 20B04 | 12.7 | 010 | S | | | | | A |
| | 29C44 | 1.8 | 020 | L | | | | | A |
| | 31C37 | 1.4 | 030 | L | | | | | A |
| | 32C25 | 15.9T | 035 | L | | | | | A |
| RSDC | | | | | | | | | |
| 56100 | 24A14 | 1.6 | 010 | | | | | | A |
| | 24A36 | 8.7 | 020 | | | | | | A |
| | 30B42 | 7.5 | 030 | | | | | | A |
| | 20B08 | .4 | 040 | | | | | | A |
| | 20B02 | 2.9 | 050 | | | | | | A |
| | 19B34 | 1.7 | 060 | | | | | | A |
| | 18B18 | 1.6 | 070 | | | | | | A |
| | 15B20 | 1.7 | 080 | | | | | | A |
| | 12B27 | 3.4 | 090 | S | | | | | A |
| | 07B39 | 1.3 | 100 | | | | | | A |
| | 06B30 | 1.2 | 110 | | | | | | A |
| | 06B45 | 1.9 | 120 | | | | | | A |
| | 03B39 | 10.2 | 130 | | | | | | A |
| | 12C45 | 44.1T | 135 | | | | | | A |
| RSFSC | | | | | | | | | |
| 56200 | 21B18 | 3.8 | 010 | R | | | | | A |
| | 15B05 | 2.6 | 020 | | | | | | A |
| | 15B36 | 3.8 | 030 | | | | | | A |
| | 12C01 | 10.2T | 035 | S | | | | | A |
| RSTR | | | | | | | | | |
| 56300 | 28C06 | 3.5 | 010 | S | | | | | A |
| | 29C45 | 3.1 | 020 | L | | | | | A |
| | 23C47 | 6.6T | 025 | L | | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|------------------|--|--|--|-----|--------------|-----------|-----------|-----|--|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| NRSTR 56400 | 20A08 23C45 29C39 31C45 | 14.9 3.4 1.4 19.7T | 010 020 030 035 | | | | | | A A A A |
| RTR 56500 | 10B42 13B18 14B18 | 3.3 .5 3.8T | 010 020 025 | | S | | | | A A A |
| RTRSET 56550 | 08B33 10B40 | 1.4 1.4T | 010 015 | | S | | | | A A |
| RUN 56600 | 03B40 09B06 23B47 | 5.5 10.2 15.7T | 010 020 025 | | | R S | | | A A A |
| RUNCONT 56650 | 03B38 15A41 27B12 25B04 16C11 | 11.3 8.9 1.6 10.0 31.8T | 010 020 030 033 035 | | | S | | | A A A E A |
| RWC 56800 | 26A30 26B50 19B08 10B06 10B12 | 6.7 6.6 4.6 .4 18.3T | 010 020 040 050 055 | | | S | | | A A A A A |
| RWCEN 56900 | 03B22 03B14 03B04 04B04 04B23 05B04 05B09 05B11 10B03 19A08 26B36 27A42 | .6 .7 .5 1.5 1.6 .5 .1 3.1 9.1 10.8 5.3 33.8T | 010 020 030 040 050 060 070 080 090 100 110 115 | | | S | | | A A A A A A A A C A A A |
| S0 57100 | 30B08 30B22 | 1.0 4.3 | 010 020 | | | | | | A A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| 60850 | 27A50 | 4.2 | 010 | S | | | | A | |
| | 26B30 | .3 | 020 | S | | | | A | |
| | 26B29 | 4.5T | 025 | | | | | A | |
| SECP | | | | | | | | | |
| 60900 | 29A41 | 1.3 | 010 | | | | | A | |
| | 27A37 | 2.9 | 020 | | | | | A | |
| | 24A20 | 4.5 | 021 | | | | | C | |
| | 23B04 | 7.9 | 022 | | | | | C | |
| | 07B07 | 16.6T | 025 | S | | | | A | |
| NSECP | | | | | | | | | |
| 61000 | 04B03 | 14.4 | 010 | | | | | A | |
| | 27A30 | 14.4T | 015 | S | | | | A | |
| SEEKCHE | | | | | | | | | |
| 61200 | 28A50 | 13.3 | 010 | | | | | A | |
| | 04B01 | 13.3T | 015 | S | | | | A | |
| SEEKEND | | | | | | | | | |
| 61300 | 04B10 | 6.9 | 010 | | | | | A | |
| | 14B36 | 6.9T | 015 | S | | | | A | |
| NSEEKEND | | | | | | | | | |
| 61350 | 14B37 | .0T | 005 | S | | | | A | I |
| SEK | | | | | | | | | |
| 61400 | 22A14 | 4.7 | 010 | R | | | | A | |
| | 29A30 | 1.2 | 020 | | | | | A | |
| | 28A40 | .6 | 030 | | | | | A | |
| | 28A47 | .7 | 035 | | | | | D | |
| | 28A37 | 4.3 | 040 | | | | | F | |
| | 31B06 | 1.5 | 050 | | | | | A | |
| | 31B26 | 9.9 | 060 | | | | | A | |
| | 11B25 | .9 | 070 | | | | | A | |
| | 10B19 | .9 | 080 | | | | | A | |
| | 10B08 | 1.5 | 090 | | | | | A | |
| | 10B28 | 1.1 | 100 | | | | | A | |
| | 08B26 | 2.0 | 110 | | | | | A | |
| | 11B31 | 2.1 | 120 | S | | | | A | |
| | 14B39 | 31.4T | 125 | | | | | A | |
| SENSE000 | | | | | | | | | |
| 61500 | 05C46 | .5 | 010 | S | | | | A | |
| | 06C46 | .3 | 015 | | | | | A | |
| | 06C45 | .8T | 025 | | | | | C | |
| SENSE060 | | | | | | | | | |
| 61600 | 04C45 | .1 | 010 | | | | | A | |
| | 04C47 | 1.7 | 020 | | | | | A | |
| | 05C31 | 1.7 | 030 | S | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|-------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | | 06C47 | 3.5T | 035 | | | | | A |
| SENSE040 | | 06C21 | 2.4 | 010 | | | | | A |
| 61700 | | 05C47 | 2.4T | 015 | S | | | | A |
| SENSE100 | | 04C12 | 2.4 | 010 | | | | | A |
| 61725 | | 05C38 | 1.6 | 020 | S | | | | A |
| | | 06C27 | 4.0T | 025 | | | | | A |
| SENSE130 | | 05C23 | .4 | 010 | S | | | | A |
| 61740 | | 06C24 | .4T | 015 | | | | | A |
| SENSE170 | | 05C22 | .5 | 010 | S | | | | A |
| 61750 | | 06C22 | .5T | 015 | | | | | A |
| SENSE200 | | 04C46 | 2.3 | 010 | | | | | A |
| 61800 | | 05C25 | 2.3 | 020 | S | | | | A |
| | | 04C01 | 4.6T | 025 | | | | | A |
| SENSE230 | | 05C02 | 1.8 | 010 | S | | | | A |
| 61900 | | 06C20 | 1.8T | 015 | | | | | A |
| SENSE300 | | 06C25 | 1.5 | 010 | | | | | A |
| 62000 | | 05C11 | 1.5T | 015 | S | | | | A |
| SENSE180 | | 06C23 | .9 | 010 | | | | | A |
| 62100 | | 05C17 | .9T | 015 | S | | | | A |
| SEROIC | | 03B36 | 1.1 | 010 | | | | | A |
| 62200 | | 03B25 | 2.4 | 020 | | | | | A |
| | | 06B13 | 11.5 | 030 | | | | | A |
| | | 29B13 | 15.0T | 035 | S | | | | A |
| SEROIS | | 05B12 | 7.3 | 010 | S | | | | A |
| 62250 | | 08C20 | 7.3T | 015 | | | | | A |
| SERVCON | | 05B22 | 1.2 | 005 | | | | | E |
| 62300 | | 05B06 | 6.1 | 010 | | | | | A |
| | | 16B01 | 1.5 | 020 | S | | | | A |
| | | 16B21 | 3.6 | 030 | | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | ELEMENT TAG TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|-------------------|---------|--------|------|---------------------|--------------|--------------|-----|----------------|
| 1 | 8 | 15 | 21 | 28 33 | 37 | 41 | 77 | |
| | 23B19 | 12.4T | 035 | | | | | A |
| NSERVCON 62400 | 31B29 | 1.1 | 010 | | | | | A |
| | 30B37 | 4.4 | 020 | | | | | A |
| | 23B25 | 2.6 | 030 | S | | | | A |
| | 25B03 | 5.4 | 040 | | | | | A |
| | 19A42 | 12.3 | 050 | | | | | A |
| | 03B33 | 8.0 | 060 | | | | | A |
| | 11C18 | 1.9 | 070 | | | | | A |
| | 08C11 | 2.6 | 080 | | | | | A |
| | 04C03 | 38.3T | 085 | T | | | | A |
| SERVEX 62500 | 31B35 | 8.6 | 010 | S | | | | A |
| | 18B08 | 6.1 | 020 | | | | | A |
| | 06B05 | .9 | 030 | | | | | A |
| | 06B14 | .4 | 040 | | | | | A |
| | 06B20 | 1.2 | 050 | | | | | A |
| | 06B36 | 1.9 | 060 | | | | | A |
| | 08B27 | 3.1 | 070 | | | | | A |
| | 12B44 | 4.4 | 080 | | | | | A |
| | 12C31 | 3.4 | 090 | | | | | A |
| | 16C08 | 6.7 | 100 | | | | | A |
| | 09B33 | 36.7T | 105 | R | | | | A |
| NSERVEX 62600 | 26A26 | 7.4 | 010 | | | | | A |
| | 18B02 | 2.4 | 020 | S | | | | A |
| | 21B13 | 9.8T | 025 | T | | | | A |
| SGLTRK 62700 | 15A19 | 10.5 | 010 | S | | | | A |
| | 28B04 | .9 | 020 | | | | | A |
| | 28B15 | 11.4T | 025 | | | | | A |
| NSGLTRK 62800 | 20B14 | 4.3 | 005 | | | | | E |
| | 28B10 | 4.1 | 010 | S | | | | A |
| | 24B38 | 8.9 | 020 | | | | | A |
| | 17A36 | 17.3T | 025 | | | | | A |
| SIOP 62900 | 15A25 | 12.0 | 010 | S | | | | A |
| | 12C25 | 12.0T | 015 | | | | | A |
| SIOR 63000 | 12C24 | 9.1 | 010 | | | | | A |
| | 28C13 | 2.0 | 020 | S | | | | A |
| | 29C33 | 11.1T | 025 | L | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|--------------------------|---------|--------|------|-----|-----------------|--------------|--------------|-----|----------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| SIOSET 63100 | 15B44 | 3.2 | 010 | | | | | | A |
| | 19B31 | 3.7 | 020 | | | | | | A |
| | 24B15 | 5.3 | 030 | S | | | | | A |
| | 31B39 | 12.2T | 035 | | | | | | A |
| SIOU 63200 | 29B47 | 3.7 | 010 | | | | | | A |
| | 24B31 | 11.1 | 020 | | | | | | A |
| | 12C26 | 14.8T | 025 | S | | | | | A |
| SKS 63300 | 10B27 | 7.4 | 010 | S | | | | | A |
| | 23B39 | 2.4 | 030 | | | | | | A |
| | 23B07 | 4.4 | 040 | | | | | | A |
| | 23A20 | 2.4 | 050 | | | | | | A |
| | 19A26 | 1.5 | 060 | | | | | | A |
| | 19A06 | 18.1T | 065 | | | | | | A |
| SKSU0 63350 | 15A05 | 5.2 | 010 | | | | | | A |
| | 23A21 | 5.2T | 015 | S | | | | | A |
| SLN 63500 | 32A09 | 8.4 | 010 | | | | | | A |
| | 31B45 | 2.8 | 020 | S | | | | | A |
| | 29B21 | 1.4 | 030 | | | | | | A |
| | 27B27 | 4.2 | 040 | | | | | | A |
| | 19B26 | 5.6 | 045 | | | | | | C |
| | 14C01 | .3 | 050 | | | | | | A |
| | 14C02 | .3 | 060 | | | | | | A |
| | 14C06 | 23.0T | 065 | | | | | | A |
| SNS 63600 | 22A15 | 2.7 | 010 | R | | | | | A |
| | 26A05 | 1.6 | 020 | | | | | | A |
| | 28A13 | 1.2 | 030 | | | | | | A |
| | 28A29 | 11.5 | 040 | | | | | | A |
| | 14B19 | 2.7 | 045 | | | | | | D |
| | 10B29 | .9 | 050 | | | | | | A |
| | 10B17 | .6 | 060 | | | | | | A |
| | 11B15 | .3 | 070 | | | | | | A |
| | 11B19 | 8.6 | 080 | S | | | | | A |
| | 04C14 | 30.1T | 085 | | | | | | A |
| SNSD 63650 | 14B11 | 10.1 | 010 | S | | | | | D |
| | 28A36 | 10.1T | 015 | | | | | | D |
| SNSBYTE1 63700 | 21B25 | 1.5 | 010 | R | | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| 65100 | 15A39 | 1.4 | 010 | S | | | | A | |
| | 17A30 | 1.4T | 015 | | | | | A | |
| STOPPET | | | | | | | | | |
| 65200 | 24A08 | 6.1 | 010 | | | | | A | |
| | 17A47 | 3.4 | 020 | | | | | A | |
| | 19B09 | 11.1 | 030 | S | | | | A | |
| | 12C41 | 20.6T | 035 | | | | | A | |
| STRKBRO | | | | | | | | | |
| 65300 | 20C24 | 5.2 | 010 | | | | | A | |
| | 20B24 | 5.2T | 015 | S | | | | A | |
| STSH02 | | | | | | | | | |
| 65500 | 27C27 | 13.9 | 010 | | | | | A | |
| | 07B46 | 13.9T | 015 | S | | | | A | |
| SUN | | | | | | | | | |
| 65600 | 24A21 | 1.1 | 010 | S | | | | A | |
| | 23A29 | 6.8 | 020 | | | | | A | |
| | 22B43 | 6.5 | 030 | | | | | A | |
| | 27C28 | 9.3 | 040 | | | | | A | |
| | 11C09 | .1 | 050 | | | | | A | |
| | 11C07 | 23.8T | 055 | | | | | A | |
| NSUN | | | | | | | | | |
| 65700 | 24A27 | .9 | 010 | S | | | | A | |
| | 25A21 | .9T | 020 | | | | | A | |
| SUNM | | | | | | | | | |
| 65875 | 22B45 | 8.5 | 010 | S | | | | H | |
| | 24A15 | 8.5T | 020 | | | | | H | |
| SUNSET | | | | | | | | | |
| 65900 | 24A18 | 7.6 | 010 | | | | | A | |
| | 29B15 | 5.8 | 030 | S | | | | A | |
| | 22B42 | 2.9 | 032 | | | | | H | |
| | 23C04 | .3 | 035 | S | | | | C | |
| | 23C08 | 16.6T | 040 | | | | | H | |
| SWAO | | | | | | | | | |
| 66000 | 24C10 | 1.8 | 010 | S | | | | A | |
| | 27C14 | 1.8T | 015 | L | | | | A | |
| NSWAO | | | | | | | | | |
| 66100 | 24C11 | .0T | 005 | | | | | A | I |
| SWA1 | | | | | | | | | |
| 66200 | 24C01 | 3.1 | 010 | S | | | | A | |
| | 27C24 | 3.1T | 015 | L | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|------------------|---|-----------------------------------|---------------------------------|--------|--------------|-----------|-----------|-----------------------|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| NSWA1 66300 | 24C04 | .0T | 005 | | | | | A | I |
| SWA2 66400 | 24C02 27C29 | 3.6 3.6T | 010 015 | S L | | | | A A | |
| NSWA2 66500 | 24C21 | .0T | 005 | | | | | A | I |
| NSUNSET 66550 | 23C02 26A31 | 10.1 10.1T | 010 020 | S | | | | H H | |
| SWA3 66600 | 24C43 27C43 | 1.5 1.5T | 010 015 | S L | | | | A A | |
| NSWA3 66700 | 24C28 | .0T | 005 | | | | | A | I |
| SWA4 66800 | 24C39 | .0T | 005 | S | | | | A | I |
| NSWA4 66900 | 24C35 | .0T | 005 | | | | | A | I |
| SWA5 67000 | 24C03 | .0T | 005 | S | | | | A | I |
| NSWA5 67100 | 24C19 | .0T | 005 | | | | | A | I |
| SWA6 67200 | 24C46 | .0T | 005 | S | | | | A | I |
| NSWA6 67300 | 24C27 | .0T | 005 | | | | | A | I |
| SWA7 67400 | 24C45 | .0T | 005 | S | | | | A | I |
| NSWA7 67500 | 24C47 | .0T | 005 | | | | | A | I |
| SYNC1 67600 | 03B17 08B04 08C37 14C36 15B12 | 3.2 7.8 2.8 7.5 21.3T | 010 020 030 040 045 | S | | | | A A A A A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|-------------------|--|---|--|-----|------------------------|-----------|-----------|-----|----------------------------|
| I | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| NSYNC1 67700 | 14C37 15B26 | 6.3 6.3T | 010 015 | | S | | | | A A |
| SYNC1SET 67800 | 09B46 14C39 28A30 | 7.3 17.9 25.2T | 010 020 025 | | R S | | | | A A A |
| SYNC2 67900 | 02B33 08B08 14B15 15B07 | 4.6 3.6 1.1 9.3T | 010 020 022 025 | | S | | | | A A D A |
| NSYNC2 68000 | 14C40 15B09 08C38 | 8.3 11.2 19.5T | 010 020 025 | | S | | | | A A A |
| T0 68100 | 06C28 05C10 04C39 | 1.8 2.4 4.2T | 010 020 025 | | S T | | | | C C C |
| NT0 68200 | 07B23 06C03 11C23 12C30 09B10 | 4.2 4.0 .9 8.2 17.3T | 010 020 030 040 045 | | S R | | | | A A A A A |
| T1 68300 | 22A11 31B07 31B27 23B50 06C29 | 9.4 1.5 6.0 11.9 28.8T | 010 020 030 040 045 | | R S | | | | A A A A A |
| T6 68400 | 09B11 07B33 06C05 | 2.6 3.6 6.2T | 010 020 025 | | R S | | | | A A A |
| T2 68500 | 21B01 18B11 18B31 05B41 05B43 06C06 | 2.2 1.5 7.2 .1 2.8 13.8T | 010 020 030 040 050 055 | | R S | | | | A A A A A A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|----------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 15 | | 21 | 28 | 33 | 37 | 41 | 77 | |
| T3 | | | | | | | | | |
| 68600 | 04C08 | 3.0 | 005 | T | | | | | C |
| | 09C13 | .3 | 010 | | | | | | A |
| | 09C14 | 1.4 | 020 | R | | | | | A |
| | 06C17 | 4.7T | 025 | S | | | | | A |
| T3-1 | | | | | | | | | |
| 68650 | 06C04 | 18.7 | 010 | S | | | | | A |
| | 32B01 | 6.0 | 020 | | | | | | A |
| | 21B04 | 24.7T | 025 | R | | | | | A |
| T4 | | | | | | | | | |
| 68700 | 21B03 | 2.2 | 010 | R | | | | | A |
| | 18B13 | 1.2 | 020 | | | | | | A |
| | 18B29 | 9.6 | 030 | | | | | | A |
| | 06C07 | 13.0T | 035 | S | | | | | A |
| NT5 | | | | | | | | | |
| 68900 | 06C18 | 7.0 | 010 | S | | | | | A |
| | 08B11 | .4 | 020 | | | | | | A |
| | 09B12 | 7.4T | 025 | R | | | | | A |
| (TDVR.DCA.FSD) | | | | | | | | | |
| 69000 | 27C09 | .0T | 010 | S | | | | | H I |
| TDVP | | | | | | | | | |
| 69200 | 15A22 | 11.2 | 010 | S | | | | | A |
| | 12C15 | 11.2T | 015 | | | | | | A |
| TDVR | | | | | | | | | |
| 69300 | 12C17 | 8.5 | 010 | | | | | | A |
| | 27C03 | 1.8 | 020 | L | | | | | A |
| | 28C22 | 1.5 | 030 | S | | | | | A |
| | 29C36 | 11.8T | 035 | L | | | | | A |
| TDVU | | | | | | | | | |
| 69400 | 24B06 | 5.5 | 010 | | | | | | A |
| | 29B45 | 11.7 | 020 | | | | | | A |
| | 12C14 | 17.2T | 025 | S | | | | | A |
| TER | | | | | | | | | |
| 69500 | 08C28 | 4.3 | 010 | | | | | | A |
| | 07B45 | 14.0 | 015 | | | | | | E |
| | 20A15 | 3.9 | 020 | S | | | | | A |
| | 23A47 | 22.2T | 025 | | | | | | A |
| TERU1 | | | | | | | | | |
| 69550 | 15A06 | 7.0 | 010 | | | | | | A |
| | 23A46 | 7.0T | 015 | S | | | | | A |
| TIOP | | | | | | | | | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| 69600 | 15A23 | 11.1 | 010 | S | | | | | A |
| | 12C11 | 11.1T | 015 | | | | | | A |
| TIOR | | | | | | | | | |
| 69700 | 12C10 | 8.7 | 010 | | | | | | A |
| | 28C20 | 1.7 | 020 | S | | | | | A |
| | 29C35 | 10.4T | 025 | L | | | | | A |
| TIOU | | | | | | | | | |
| 69800 | 20A22 | 11.8 | 010 | | | | | | A |
| | 29B50 | 10.9 | 020 | | | | | | A |
| | 12C12 | 22.7T | 025 | S | | | | | A |
| TOS | | | | | | | | | |
| 69900 | 29A44 | 2.5 | 010 | | | | | | A |
| | 29A10 | 3.2 | 020 | | | | | | A |
| | 24A23 | 7.1 | 030 | S | | | | | A |
| | 24B44 | 2.0 | 040 | | | | | | A |
| | 23B24 | 5.4 | 050 | | | | | | A |
| | 15B03 | 20.2T | 055 | | | | | | A |
| NTOS | | | | | | | | | |
| 70000 | 28A03 | 3.6 | 010 | | | | | | A |
| | 24A25 | 4.9 | 020 | S | | | | | A |
| | 22B07 | 4.4 | 030 | | | | | | A |
| | 15B19 | 4.1 | 040 | | | | | | A |
| | 08B24 | 1.4 | 050 | | | | | | A |
| | 05B23 | 1.8 | 060 | | | | | | A |
| | 06B41 | .1 | 070 | | | | | | A |
| | 06B43 | 20.3T | 075 | | | | | | A |
| TRK0 | | | | | | | | | |
| 70200 | 26A09 | .2 | 010 | | | | | | A |
| | 26A08 | 5.5 | 020 | | | | | | A |
| | 17A22 | 5.8 | 030 | | | | | | A |
| | 14B10 | .7 | 040 | | | | | | A |
| | 13B17 | 5.1 | 050 | S | | | | | A |
| | 20B39 | 3.4 | 060 | | | | | | A |
| | 21C10 | 20.7T | 065 | | | | | | A |
| NTRK0 | | | | | | | | | |
| 70300 | 13B21 | .3 | 010 | | | | | | A |
| | 13B25 | .3T | 015 | S | | | | | A |
| TRKOM | | | | | | | | | |
| 70400 | 09B35 | 4.0 | 010 | R | | | | | A |
| | 13B04 | 9.5 | 020 | | | | | | A |
| | 31B01 | 13.5T | 025 | S | | | | | A |
| TRKOP | | | | | | | | | |
| 70500 | 20B45 | 10.6 | 010 | S | | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | ELEMENT TAG TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|------------------|---------|--------|------|---------------------|--------------|--------------|-----|----------------|
| 1 | 8 | 15 | 21 | 28 33 | 37 | 41 | 77 | |
| | 15A08 | 10.6T | 015 | | | | A | |
| TRK1 70600 | 26A24 | 4.4 | 010 | | | | A | |
| | 17A23 | 5.9 | 020 | | | | A | |
| | 13B02 | 1.7 | 030 | | | | A | |
| | 13B23 | 4.6 | 040 | S | | | A | |
| | 20B40 | 6.0 | 050 | | | | A | |
| | 19C47 | .8 | 060 | | | | A | |
| | 21C46 | 23.4T | 065 | | | | A | |
| NTRK1 70700 | 13B22 | .1 | 010 | | | | A | |
| | 13B20 | .1T | 015 | S | | | A | |
| TRK1M 70800 | 13B03 | 7.2 | 010 | | | | A | |
| | 15C18 | 7.2T | 015 | S | | | A | |
| TRK1P 70900 | 20B46 | 10.4 | 010 | S | | | A | |
| | 15A09 | 10.4T | 015 | | | | A | |
| TRK2 71000 | 13B01 | 1.9 | 010 | | | | A | |
| | 13B27 | 4.5 | 020 | S | | | A | |
| | 20B41 | 4.5 | 030 | | | | A | |
| | 21C25 | 1.2 | 040 | | | | A | |
| | 19C24 | 1.6 | 050 | | | | A | |
| | 19C46 | 13.7T | 055 | | | | A | |
| NTRK2 71100 | 13B45 | .2 | 010 | | | | A | |
| | 13B44 | .2T | 015 | S | | | A | |
| TRK2M 71200 | 13B34 | 5.2 | 010 | | | | A | |
| | 15C19 | 5.2T | 015 | S | | | A | |
| TRK2P 71300 | 20B47 | 10.6 | 010 | S | | | A | |
| | 15A10 | 10.6T | 015 | | | | A | |
| TRK3 71400 | 13B24 | .4 | 010 | S | | | A | |
| | 13B30 | 4.4 | 020 | | | | A | |
| | 20B42 | 4.2 | 030 | | | | A | |
| | 19C25 | 1.3 | 040 | | | | A | |
| | 19C43 | .9 | 050 | | | | A | |
| | 21C40 | 11.2T | 055 | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| NTRK3 | | | | | | | | | |
| 71500 | 13850 | .3 | 010 | | | | | | A |
| | 13846 | .3T | 015 | S | | | | | A |
| TRK3M | | | | | | | | | |
| 71600 | 13828 | 5.6 | 010 | | | | | | A |
| | 15C20 | 5.6T | 015 | S | | | | | A |
| TRK3P | | | | | | | | | |
| 71700 | 20850 | 10.5 | 010 | S | | | | | A |
| | 15A11 | 10.5T | 015 | | | | | | A |
| TRK4 | | | | | | | | | |
| 71800 | 13826 | .7 | 010 | | | | | | A |
| | 13836 | 3.6 | 020 | S | | | | | A |
| | 20838 | 5.9 | 030 | | | | | | A |
| | 19C40 | .3 | 040 | | | | | | A |
| | 19C36 | 1.3 | 050 | | | | | | A |
| | 21C39 | 11.8T | 055 | | | | | | A |
| NTRK4 | | | | | | | | | |
| 71900 | 13839 | .1 | 010 | | | | | | A |
| | 13837 | .1T | 015 | S | | | | | A |
| TRK4M | | | | | | | | | |
| 72000 | 13835 | 5.2 | 010 | | | | | | A |
| | 15C21 | 5.2T | 015 | S | | | | | A |
| TRK4P | | | | | | | | | |
| 72100 | 20831 | 9.3 | 010 | S | | | | | A |
| | 15A12 | 9.3T | 015 | | | | | | A |
| TRK5 | | | | | | | | | |
| 72200 | 13838 | .6 | 010 | S | | | | | A |
| | 13833 | 3.8 | 020 | | | | | | A |
| | 20837 | 4.5 | 030 | | | | | | A |
| | 21C21 | 1.0 | 040 | | | | | | A |
| | 19C21 | 1.3 | 050 | | | | | | A |
| | 19C39 | 11.2T | 055 | | | | | | A |
| NTRK5 | | | | | | | | | |
| 72300 | 13842 | .3 | 010 | | | | | | A |
| | 13841 | .3T | 015 | S | | | | | A |
| TRK5M | | | | | | | | | |
| 72400 | 13831 | 4.0 | 010 | | | | | | A |
| | 15C01 | 4.0T | 015 | S | | | | | A |
| TRK5P | | | | | | | | | |
| 72500 | 20830 | 8.9 | 010 | S | | | | | A |
| | 15A13 | 8.9T | 015 | | | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| TRK6 | | | | | | | | | |
| 72600 | 13807 | 1.6 | 010 | S | | | | | A |
| | 13829 | 3.9 | 020 | | | | | | A |
| | 20836 | 3.2 | 030 | | | | | | A |
| | 21C02 | 1.0 | 040 | | | | | | A |
| | 19C02 | 1.3 | 050 | | | | | | A |
| | 19C20 | 11.0T | 055 | | | | | | A |
| NTRK6 | | | | | | | | | |
| 72700 | 13809 | .5 | 010 | S | | | | | A |
| | 13812 | .5T | 015 | | | | | | A |
| TRK6M | | | | | | | | | |
| 72800 | 13805 | 5.9 | 010 | | | | | | A |
| | 15C02 | 5.9T | 015 | S | | | | | A |
| TRK6P | | | | | | | | | |
| 72900 | 20829 | 9.0 | 010 | S | | | | | A |
| | 15A14 | 9.0T | 015 | | | | | | A |
| TRK7 | | | | | | | | | |
| 73000 | 13810 | .2 | 010 | | | | | | A |
| | 13811 | 5.3 | 020 | S | | | | | A |
| | 20835 | 3.3 | 030 | | | | | | A |
| | 19C03 | .9 | 040 | | | | | | A |
| | 19C12 | 1.0 | 050 | | | | | | A |
| | 21C12 | 10.7T | 055 | | | | | | A |
| NTRK7 | | | | | | | | | |
| 73100 | 13815 | .1 | 010 | | | | | | A |
| | 13813 | .1T | 015 | S | | | | | A |
| TRK7M | | | | | | | | | |
| 73200 | 13808 | 5.9 | 010 | | | | | | A |
| | 15C04 | 5.9T | 015 | S | | | | | A |
| TRK7P | | | | | | | | | |
| 73300 | 20828 | 8.6 | 010 | S | | | | | A |
| | 15A15 | 8.6T | 015 | | | | | | A |
| TRK8 | | | | | | | | | |
| 73400 | 13806 | 1.4 | 010 | | | | | | A |
| | 14B17 | 3.1 | 020 | S | | | | | A |
| | 20812 | 5.4 | 030 | | | | | | A |
| | 19C08 | .3 | 040 | | | | | | A |
| | 19C11 | 1.0 | 050 | | | | | | A |
| | 21C11 | 11.2T | 055 | | | | | | A |
| NTRK8 | | | | | | | | | |
| 73500 | 14B21 | .3 | 010 | | | | | | A |
| | 14B25 | .3T | 015 | S | | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|-------------------|----------------------------------|----------------------------|--------------------------|-----|--------------|-----------|-----------|-----|------------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| TRKBC 73550 | 14802 24835 | 7.6 7.6T | 010 015 | | | | | | A A |
| TRK8M 73600 | 14804 15C03 | 5.8 5.8T | 010 015 | | | | | | A A |
| TRK8P 73700 | 20B18 15A17 | 7.7 7.7T | 010 015 | | | | | | A A |
| TRKCLK 73800 | 30B02 19B45 | 8.4 8.4T | 010 015 | | | | | | A A |
| TRKCLKEN 73900 | 18B09 17A39 22A25 | 3.5 3.5 7.0T | 010 020 025 | | | | | | A A A |
| TRKCLRT 73950 | 19B01 17A40 | 3.4 3.4T | 010 015 | | | | | | A A |
| TRKOVF 74000 | 14B07 29B06 | 7.3 7.3T | 010 015 | | | | | | A A |
| NTRKOVF 74100 | 14B12 14B09 | .5 .5T | 010 015 | | | | | | A A |
| TRKOVFM 74142 | 22B01 14B05 09B08 | 4.3 3.0 7.3T | 010 020 030 | | | | | | H H H |
| TRKOVFM1 74145 | 29B34 22B10 | 5.3 5.3T | 010 020 | | | | | | H H |
| TRKRST 74150 | 10B41 16C04 25B08 24C20 | 5.3 9.4 6.6 21.3T | 010 020 030 035 | | | | | | A A E A |
| TRN 74200 | 32A33 20B22 | 10.7 10.2 | 010 020 | | | | | | A A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|-------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | | 02B38 | .3 | 030 | S | | | A | |
| | | 02B42 | 21.2T | 035 | | | | A | |
| NTRN | | | | | | | | | |
| 74300 | 28A35 | 4.6 | 005 | | | | | D | |
| | 19A37 | 10.8 | 010 | | | | | A | |
| | 04B11 | 3.2 | 020 | | | | | A | |
| | 02B41 | 18.6T | 025 | S | | | | A | |
| TRPR | | | | | | | | | |
| 74400 | 30A18 | 5.4 | 010 | S | | | | A | |
| | 30B19 | 10.1 | 020 | | | | | A | |
| | 21C20 | 15.5T | 025 | | | | | A | |
| TSH | | | | | | | | | |
| 74500 | 27C15 | 1.4 | 010 | L | | | | A | |
| | 29C22 | 1.4T | 015 | S | | | | A | |
| TTSH | | | | | | | | | |
| 74700 | 29C24 | 1.4 | 010 | S | | | | A | |
| | 31C30 | 1.4T | 015 | L | | | | A | |
| TTSHU | | | | | | | | | |
| 74800 | 25A03 | 2.7 | 010 | | | | | A | |
| | 25A39 | .3 | 020 | | | | | E | |
| | 25A40 | 3.9 | 030 | | | | | A | |
| | 28A08 | .9 | 040 | | | | | A | |
| | 29A02 | 7.5 | 050 | S | | | | A | |
| | 31B17 | 2.5 | 060 | | | | | A | |
| | 29B37 | 3.7 | 070 | S | | | | A | |
| | 24B22 | 11.7 | 080 | | | | | A | |
| | 11C25 | 33.2T | 085 | | | | | A | |
| NTYP0 | | | | | | | | | |
| 74900 | 27A45 | 3.7 | 010 | S | | | | A | |
| | 26A04 | 1.8 | 020 | | | | | A | |
| | 26A28 | 5.5T | 025 | | | | | A | |
| TYP0R | | | | | | | | | |
| 75000 | 26A39 | .5 | 010 | | | | | A | |
| | 27A39 | 2.4 | 020 | | | | | A | |
| | 30A27 | 2.9T | 025 | S | | | | A | |
| NTYP1 | | | | | | | | | |
| 75200 | 27A46 | 2.1 | 010 | S | | | | A | |
| | 26A23 | 2.1T | 015 | | | | | A | |
| TYP1R | | | | | | | | | |
| 75300 | 26A03 | 3.2 | 010 | | | | | A | |
| | 26A42 | .6 | 020 | | | | | A | |
| | 27A40 | 1.9 | 030 | | | | | A | |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|-----------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 15 | | 21 | 28 | 33 | 37 | 41 | 77 | |
| | 30A34 | 5.7T | 035 | S | | | | | A |
| U0 | 75400 | 10C21 | 2.1 010 | | | | | | A |
| | | 14C23 | 6.5 020 | S | | | | | A |
| | | 27C23 | 12.8 030 | | | | | | A |
| | | 23A19 | 21.4T 035 | | | | | | A |
| NU0 | 75500 | 10C19 | 1.9 010 | | | | | | A |
| | | 14C20 | 1.9T 015 | S | | | | | A |
| U1 | 75600 | 10C24 | 2.8 010 | | | | | | A |
| | | 14C17 | 7.5 020 | S | | | | | A |
| | | 27C31 | 11.2 030 | | | | | | A |
| | | 23A50 | 21.5T 035 | | | | | | A |
| NU1 | 75700 | 10C22 | 2.3 010 | | | | | | A |
| | | 14C25 | 2.3T 015 | S | | | | | A |
| U2 | 75800 | 10C14 | 2.5 010 | | | | | | A |
| | | 14C11 | 8.2 020 | S | | | | | A |
| | | 27C36 | 14.7 030 | | | | | | A |
| | | 23A06 | 25.4T 035 | | | | | | A |
| NU2 | 75900 | 10C05 | 2.6 010 | | | | | | A |
| | | 14C13 | 2.6T 015 | S | | | | | A |
| UNE | 76000 | 23A08 | 7.9 010 | | | | | | A |
| | | 29B04 | 7.4 020 | | | | | | A |
| | | 27C20 | 9.0 030 | | | | | | A |
| | | 12C40 | 7.2 040 | | | | | | A |
| | | 15B37 | 6.0 050 | S | | | | | A |
| | | 22B03 | 3.6 055 | | | | | | A |
| | | 26B26 | 41.1T 065 | | | | | | G |
| NUNE | 76100 | 15B42 | 12.2 010 | S | | | | | A |
| | | 25A19 | .3 011 | | | | | | J |
| | | 26A18 | 2.1 012 | | | | | | C |
| | | 29A26 | 14.6T 015 | | | | | | A |
| UNEIMM | 76200 | 21B38 | 2.6 010 | R | | | | | A |
| | | 26B40 | 1.3 020 | | | | | | A |
| | | 28B36 | 3.9T 025 | S | | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|------------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| UNEM 76300 | 15B31 | 6.9 | 010 | | | | | | A |
| | 28B38 | 1.8 | 020 | S | | | | | A |
| | 28B17 | 5.0 | 030 | S | | | | | A |
| | 26A33 | 5.4 | 035 | S | | | | | A |
| | 20A02 | 19.1T | 045 | | | | | | E |
| UNER 76450 | 15B35 | 4.2 | 010 | | | | | | A |
| | 19B02 | 4.2T | 015 | S | | | | | A |
| UNES1 76500 | 15B34 | 4.6 | 010 | | | | | | A |
| | 24B36 | 4.6T | 015 | S | | | | | A |
| UNES1 76600 | 24C30 | 7.9 | 010 | T | | | | | A |
| | 28B25 | 1.2 | 020 | | | | | | A |
| | 28B41 | 10.7 | 030 | | | | | | A |
| | 11C01 | 19.8T | 035 | S | | | | | A |
| UNES2 76700 | 21B50 | 4.2 | 010 | T | | | | | A |
| | 28B40 | 11.8 | 020 | | | | | | A |
| | 11C14 | 16.0T | 025 | S | | | | | A |
| UNES3 76800 | 18B26 | 6.3 | 010 | S | | | | | A |
| | 28B44 | 5.5 | 020 | | | | | | A |
| | 21B15 | 11.8T | 025 | T | | | | | A |
| NUNES3 76900 | 18B22 | 6.1 | 010 | | | | | | A |
| | 29B14 | 6.1T | 015 | S | | | | | A |
| UNESTOP 76950 | 12C42 | 14.5 | 010 | S | | | | | A |
| | 26B15 | 2.8 | 020 | | | | | | A |
| | 31B19 | 17.3T | 025 | | | | | | A |
| UNEU2 76975 | 15A07 | 4.1 | 010 | | | | | | A |
| | 23A09 | 4.1T | 015 | S | | | | | A |
| UP0 77000 | 11C21 | .3 | 010 | | | | | | A |
| | 12C20 | 3.7 | 020 | | | | | | A |
| | 17C36 | 4.0T | 025 | S | | | | | A |
| NUPO 77100 | 17C40 | .5 | 010 | | | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 15 | | 21 | 28 | 33 | 37 | 41 | 77 | |
| | 17C37 | .5T | 015 | S | | | | | A |
| UP1 | 77200 | 12C47 | 2.9 | 010 | | | | | A |
| | 17C38 | .6 | 020 | S | | | | | A |
| | 17C33 | 3.5T | 025 | | | | | | A |
| NUP1 | 77300 | 17C41 | .1 | 010 | S | | | | A |
| | 17C43 | .1T | 015 | | | | | | A |
| UP2 | 77400 | 12C08 | 4.0 | 010 | | | | | A |
| | 17C27 | .1 | 020 | S | | | | | A |
| | 17C29 | 4.1T | 025 | | | | | | A |
| NUP2 | 77500 | 17C44 | .2 | 010 | S | | | | A |
| | 17C45 | .2T | 015 | | | | | | A |
| UP3 | 77600 | 12C04 | 4.0 | 010 | | | | | A |
| | 17C24 | .4 | 020 | S | | | | | A |
| | 17C30 | 4.4T | 025 | | | | | | A |
| NUP3 | 77700 | 17C46 | .3 | 010 | S | | | | A |
| | 17C50 | .3T | 015 | | | | | | A |
| UPCOUNT | 77800 | 21B42 | 5.8 | 010 | R | | | | A |
| | 32B38 | 13.4 | 020 | | | | | | A |
| | 07B26 | 19.2T | 025 | S | | | | | A |
| US1P | 77815 | 16A10 | 13.5 | 010 | S | | | | A |
| | 03B34 | 13.5T | 015 | | | | | | A |
| US2P | 77830 | 16A11 | 14.1 | 010 | S | | | | A |
| | 30B38 | 14.1T | 015 | | | | | | A |
| US4P | 77845 | 16A12 | 14.3 | 010 | S | | | | A |
| | 08C10 | 14.3T | 015 | | | | | | A |
| USECP | 77850 | 29A46 | 2.0 | 010 | S | | | | A |
| | 28A26 | 10.5 | 020 | | | | | | A |
| | 15B13 | 12.5T | 025 | | | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|-------------------|---|--|---|-----|-----------------|--------------|--------------|-----|--|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| USOR-5 77865 | 08C03 16C50 | 7.4 7.4T | 010 015 | S | | | | | A A |
| USOR-6 77880 | 30B45 16C35 | 11.5 11.5T | 010 015 | S | | | | | A A |
| USOR-7 77895 | 03B44 16C34 | 11.0 11.0T | 010 015 | S | | | | | A A |
| WCH 77900 | 30B29 30B28 26B33 26B12 23B08 17A26 05B08 10B10 10B20 10B26 11C41 08C06 04C29 | .2 2.1 1.7 1.8 6.9 9.9 2.6 .7 .4 7.0 4.2 3.4 40.9T | 010 020 030 040 050 060 070 080 090 100 110 130 135 | | | | | | A A A A A A A A A A A A A A |
| WCHEN 78000 | 05B13 03B18 | 1.6 1.6T | 010 015 | S | | | | | A A |
| WCHSK 78100 | 11C06 10B21 03B29 | 4.5 4.1 8.6T | 005 010 015 | | S | | | | C A A |
| WCPB-358 78300 | 03B01 03B20 04B25 20B27 | 1.7 1.0 8.1 10.8T | 010 020 030 035 | S | | | | | A A A A |
| WDT 78400 | 14C24 | .0T | 005 | S | | | | | A I |
| NWDT 78500 | 14C46 20A11 | 16.4 16.4T | 010 015 | S | | | | | A A |
| WDTM 78600 | 11C15 | 2.3 | 010 | S | | | | | A |

| SOURCE SIGNAL | PIN NO. | LENGTH | SEQ. | TAG | ELEMENT TYPE | WIRE TYPE | LOAD LINE | C/L | ERROR FLAGS |
|---------------|---------|--------|------|-----|--------------|-----------|-----------|-----|-------------|
| 1 | 8 | 15 | 21 | 28 | 33 | 37 | 41 | 77 | |
| | | 14C28 | 5.4 | 020 | | | | | A |
| | | 24C34 | 7.7T | 025 | | | | | A |
| WEN | | | | | | | | | |
| 78700 | 32A15 | 7.4 | 010 | | | | | | A |
| | 31B37 | 4.9 | 015 | | | | | | D |
| | 24B20 | 4.3 | 020 | | | | | | A |
| | 18B38 | 8.4 | 030 | | | | | | A |
| | 11C34 | 10.6 | 040 | | | | | | A |
| | 05B02 | 35.6T | 045 | S | | | | | A |
| WPRE | | | | | | | | | |
| 78800 | 20C14 | 7.2 | 010 | | | | | | A |
| | 24B14 | 7.2T | 015 | S | | | | | A |
| WPV | | | | | | | | | |
| 78900 | 23A10 | 8.2 | 010 | | | | | | A |
| | 30B01 | 1.7 | 020 | S | | | | | A |
| | 30B20 | 5.9 | 030 | | | | | | A |
| | 18B19 | 11.3 | 040 | | | | | | A |
| | 08C33 | 3.6 | 050 | | | | | | A |
| | 11C05 | 10.7 | 060 | | | | | | A |
| | 27C41 | 41.4T | 065 | | | | | | A |
| NWPV | | | | | | | | | |
| 79000 | 04C04 | 5.6 | 010 | R | | | | | A |
| | 03B06 | 9.0 | 020 | | | | | | A |
| | 18B25 | 8.8 | 030 | S | | | | | A |
| | 25A20 | 23.4T | 035 | | | | | | A |
| WRI | | | | | | | | | |
| 79200 | 11B04 | 11.0 | 010 | S | | | | | A |
| | 23A11 | 4.7 | 020 | | | | | | A |
| | 19A44 | 3.8 | 030 | | | | | | A |
| | 16B09 | 2.6 | 040 | | | | | | A |
| | 11B07 | 1.8 | 050 | | | | | | A |
| | 10B25 | 2.4 | 060 | | | | | | A |
| | 08B40 | 4.1 | 070 | | | | | | A |
| | 05B03 | 3.6 | 080 | | | | | | A |
| | 09B25 | 34.0T | 085 | R | | | | | A |
| WRIPV | | | | | | | | | |
| 79250 | 15A03 | 4.5 | 010 | | | | | | A |
| | 23A12 | 4.5T | 015 | S | | | | | A |
| WRINTRN | | | | | | | | | |
| 79300 | 19A35 | .3 | 005 | S | | | | | C |
| | 19A36 | 9.4 | 010 | S | | | | | A |
| | 30B18 | 9.7T | 015 | | | | | | A |

STATISTICAL SUMMARY

PINS-2624
LINE NO.S-784
LINKS-1840

ERROR FLAG DICTIONARY

TABLE OF CONTENTS

I = NO INTERCONNECTION
P = ILLEGAL PIN FIELD

| | | | | |
|-----|-----------|------|----|------|
| 54 | LINE NO.S | HAVE | 1 | PINS |
| 312 | LINE NO.S | HAVE | 2 | PINS |
| 182 | LINE NO.S | HAVE | 3 | PINS |
| 87 | LINE NO.S | HAVE | 4 | PINS |
| 45 | LINE NO.S | HAVE | 5 | PINS |
| 41 | LINE NO.S | HAVE | 6 | PINS |
| 20 | LINE NO.S | HAVE | 7 | PINS |
| 10 | LINE NO.S | HAVE | 8 | PINS |
| 10 | LINE NO.S | HAVE | 9 | PINS |
| 6 | LINE NO.S | HAVE | 10 | PINS |
| 5 | LINE NO.S | HAVE | 11 | PINS |
| 5 | LINE NO.S | HAVE | 12 | PINS |
| 3 | LINE NO.S | HAVE | 13 | PINS |
| 3 | LINE NO.S | HAVE | 14 | PINS |
| 1 | LINE NO.S | HAVE | 15 | PINS |



| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| | 01(1) | 23A26 | 0024550 | | DCBDVO | |
| | 02(1) | 23A27 | 0054450 | | REDSUN | |
| | 03(1) | 23A12 | 0079250 | | WRIPV | |
| 23A14 | 04(1) | | 0013750 | | CHWCIL | |
| | 05(1) | 23A21 | 0063350 | | SKSU0 | |
| | 06(1) | 23A46 | 0069550 | | TERU1 | |
| | 07(1) | 23A09 | 0076975 | | UNEU2 | |
| 20B45 | 08(1) | | 0070500 | | TRK0P | |
| 20B46 | 09(1) | | 0070900 | | TRK1P | |
| 20B47 | 10(1) | | 0071300 | | TRK2P | |
| 20B50 | 11(1) | | 0071700 | | TRK3P | |
| 20B31 | 12(1) | | 0072100 | | TRK4P | |
| 20B30 | 13(1) | | 0072500 | | TRK5P | |
| 20B29 | 14(1) | | 0072900 | | TRK6P | |
| 20B28 | 15(1) | | 0073300 | | TRK7P | |
| | 16(0) | | | | | |
| 20B18 | 17(1) | | 0073700 | | TRK8P | |
| | 18(1) | 23A18 | 0038850 | | INDUP | |
| | 19(1) | 28B04 | 0062700 | | SGLTRK | |
| | 20(1) | 17A37 | 0011000 | | BYCLKEN | |
| | 21(1) | 19B11 | 0001000 | | AIOCP | |
| | 22(1) | 12C15 | 0069200 | | TDVP | |
| | 23(1) | 12C11 | 0069600 | | TIOP | |
| | 24(1) | 12C28 | 0035700 | | HIOP | |
| | 25(1) | 12C25 | 0062900 | | SIOP | |
| | 26(1) | 16C38 | 0049300 | | OR4P | |
| | 27(1) | 08C08 | 0049400 | | OR5P | |
| 30B40 | 28(1) | | 0049500 | | OR6P | |
| | 29(1) | 03B42 | 0049600 | | OR7P | |
| | 30(0) | | | | | |
| | 31(0) | | | | | |
| | 32(1) | 15A37 | 0033405 | | GND01 | |
| | 33(0) | | | | | |
| | 34(0) | | | | | |
| | 35(0) | | | | | |
| 19A03 | 36(2) | 17A42 | 0015900 | | NCONP | |
| 15A32 | 37(1) | | 0033405 | | GND01 | |
| | 38(0) | | | | | |
| | 39(1) | 17A30 | 0065100 | | STOPP | |
| | 40(1) | 27B15 | 0033100 | | FSP | |
| 03B38 | 41(2) | 27B12 | 0056650 | | RUNCONT | |
| 20A09 | 42(2) | 04B05 | 0030750 | | ERSTOP | |
| | 43(1) | 19A41 | 0064900 | | STEP | |
| | 44(0) | | | | | |
| | 45(0) | | | | | |
| | 46(0) | | | | | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 22A50 | 50(1) | | 0000600 | | NBV-1 | |
| | 51(0) | | | | | |



XEROX DATA SYSTEMS

DRAWING NO.- 135745-903 K
PROG-PNIND
TYPE-PIN INDEX

XDS 902345| 2
MODULE-16A
TYPE-P182

06/18/69

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| | 01(1) | 16C46 | 0022400 | | DA7P | |
| | 02(1) | 16C47 | 0021700 | | DA6P | |
| | 03(1) | 16C43 | 0021000 | | DA5P | |
| | 04(1) | 16C45 | 0020300 | | DA4P | |
| | 05(1) | 13C41 | 0019600 | | DA3P | |
| | 06(1) | 13C35 | 0019000 | | DA2P | |
| | 07(1) | 13C45 | 0018400 | | DA1P | |
| | 08(1) | 13C31 | 0017800 | | DA0P | |
| | 09(0) | | | | | |
| | 10(1) | 03B34 | 0077815 | | US1P | |
| | 11(1) | 30B38 | 0077830 | | US2P | |
| | 12(1) | 08C10 | 0077845 | | US4P | |
| | 13(0) | | | | | |
| | 14(1) | 17A45 | 0015500 | | CNTRCL | |
| | 15(1) | 17A28 | 0015700 | | CNTRST | |
| | 16(1) | 16A17 | 0033410 | | GND02 | |
| 16A16 | 17(2) | 16A42 | 0033410 | | GND02 | |
| | 18(0) | | | | | |
| | 19(0) | | | | | |
| | 20(0) | | | | | |
| | 21(0) | | | | | |
| | 22(0) | | | | | |
| | 23(0) | | | | | |
| | 24(0) | | | | | |
| | 25(0) | | | | | |
| | 26(0) | | | | | |
| | 27(0) | | | | | |
| | 28(0) | | | | | |
| | 29(0) | | | | | |
| | 30(0) | | | | | |
| | 31(0) | | | | | |
| | 32(0) | | | | | |
| | 33(0) | | | | | |
| | 34(0) | | | | | |
| | 35(0) | | | | | |
| | 36(0) | | | | | |
| | 37(0) | | | | | |
| | 38(0) | | | | | |
| | 39(0) | | | | | |
| | 40(0) | | | | | |
| 16A17 | 41(0) | | | | | |
| | 42(1) | | 0033410 | | GND02 | |
| | 43(0) | | | | | |
| | 44(0) | | | | | |
| | 45(0) | | | | | |
| | 46(0) | | | | | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 29A03 | 01(1) | | 0024200 | DCAU | | |
| 20B23 | 02(1) | | 0015400 | CM005 | | |
| 16C24 | 03(2) | 17A11 | 0003500 | ARSET | | |
| | 04(1) | 22A08 | 0060000 | SD0 | | |
| | 05(1) | 31B15 | 0045300 | J048 | | |
| | 06(1) | 21A20 | 0060500 | NSD4 | | |
| | 07(0) | | | | | |
| | 08(1) | 25B26 | 0025400 | DIS | | |
| 25B02 | 09(2) | 23A02 | 0016700 | CSL | | |
| 23A25 | 10(2) | 20B19 | 0024350 | DCB-1 | | |
| 17A03 | 11(2) | 21A02 | 0003500 | ARSET | | |
| | 12(0) | | | | | |
| | 13(1) | 21A28 | 0017000 | NCSLI | | |
| | 14(0) | | | | | |
| | 15(0) | | | | | |
| | 16(0) | | | | | |
| | 17(1) | 25A38 | 0027800 | DISC | | |
| | 18(0) | | | | | |
| | 19(1) | 20A26 | 0023900 | DCA | | |
| 12C18 | 20(2) | 21A31 | 0016000 | CONPA | | |
| | 21(0) | | | | | |
| 26A08 | 22(2) | 14B10 | 0070200 | TRK0 | | |
| 26A24 | 23(2) | 13B02 | 0070600 | TRK1 | | |
| 26A45 | 24(1) | | 0027700 | DRM | | |
| | 25(1) | 18B34 | 0035600 | GT12 | | |
| 23B08 | 26(2) | 05B08 | 0077900 | WCH | | |
| 07B24 | 27(2) | 22B30 | 0054050 | REDA | | |
| 16A15 | 28(1) | | 0015700 | CNTRST | | |
| | 29(0) | | | | | |
| 15A39 | 30(1) | | 0065100 | STOPP | | |
| 18B33 | 31(2) | 21B14 | 0048500 | LT4 | | |
| | 32(0) | | | | | |
| 21A29 | 33(2) | 19B18 | 0016300 | CONPC | | |
| | 34(1) | 19B04 | 0030100 | EDC | | |
| | 35(0) | | | | | |
| 24B38 | 36(1) | | 0062800 | NSGLTRK | | |
| 15A20 | 37(2) | 18B04 | 0011000 | BYCLKEN | | |
| 14C38 | 38(2) | 24B25 | 0055200 | RSAP | | |
| 18B09 | 39(2) | 22A25 | 0073900 | TRKCLKEN. | | |
| 19B01 | 40(1) | | 0073950 | TRKCLRT | | |
| | 41(0) | | | | | |
| 15A36 | 42(2) | 19A39 | 0015900 | NCONP | | |
| 30C34 | 43(2) | 20A21 | 0030300 | EDR | | |
| | 44(1) | 24A28 | 0030700 | EDU | | |
| 16A14 | 45(2) | 20B20 | 0015500 | CNTRCL | | |
| 26B35 | 46(1) | | 0007200 | BFR | | |
| 24A08 | 47(2) | 19B09 | 0065200 | STOPPET | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| | 01(1) | 24A44 | 0052000 | | PARERSET | |
| | 02(1) | 20A13 | 0048600 | | MANRST | |
| | 03(1) | 15A36 | 0015900 | | NCONP | |
| 23B14 | 04(2) | 22A10 | 0046200 | | J085 | |
| 29B02 | 05(1) | | 0023700 | | DC0 | |
| 19A26 | 06(1) | | 0063300 | | SKS | |
| | 07(1) | 24A09 | 0012700 | | NCDN | |
| 10B03 | 08(2) | 26B36 | 0056900 | | RWCEN | |
| | 09(0) | | | | | |
| | 10(1) | 16B10 | 0053600 | | RCH | |
| 25A33 | 11(1) | | 0011300 | | BYTE360 | |
| | 12(1) | 10B33 | 0046100 | | J081 | |
| 16B42 | 13(1) | | 0043900 | | J034 | |
| | 14(0) | | | | | |
| | 15(0) | | | | | |
| | 16(0) | | | | | |
| | 17(0) | | | | | |
| | 18(0) | | | | | |
| | 19(0) | | | | | |
| | 20(0) | | | | | |
| | 21(0) | | | | | |
| 19A41 | 22(2) | 20A42 | 0064900 | | STEP | |
| | 23(0) | | | | | |
| | 24(1) | 20A03 | 0016200 | | CONPB | |
| 06B40 | 25(1) | | 0023800 | | NDC0 | |
| 23A20 | 26(2) | 19A06 | 0063300 | | SKS | |
| 24A07 | 27(2) | 16C17 | 0012600 | | CDN | |
| | 28(1) | 20A38 | 0030750 | | ERSTOP | |
| | 29(0) | | | | | |
| | 30(0) | | | | | |
| | 31(0) | | | | | |
| | 32(0) | | | | | |
| | 33(1) | 10B31 | 0046000 | | J080 | |
| | 34(1) | 29B22 | 0046285 | | J095 | |
| | 35(1) | 19A36 | 0079300 | | WRINTRN | |
| 19A35 | 36(2) | 30B18 | 0079300 | | WRINTRN | |
| 28A35 | 37(2) | 04B11 | 0074300 | | NTRN | |
| 16B36 | 38(2) | 28B13 | 0006600 | | BC7 | |
| 17A42 | 39(2) | 20A20 | 0015900 | | NCONP | |
| 20A35 | 40(1) | | 0030770 | | NERSTOP | |
| 15A43 | 41(2) | 19A22 | 0064900 | | STEP | |
| 25B03 | 42(2) | 03B33 | 0062400 | | NSERVCON | |
| | 43(0) | | | | | |
| 23A11 | 44(2) | 16B09 | 0079200 | | WRI | |
| | 45(1) | 19B22 | 0031300 | | FNTEN | |
| | 46(1) | 27B01 | 0046280 | | J094 | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| 21A12 | 01(1) | | 0045600 | J054 | | |
| 26A33 | 02(1) | | 0076300 | UNEM | | |
| 19A24 | 03(2) | 19B13 | 0016200 | CONPB | | |
| | 04(1) | 23C33 | 0038900 | INI | | |
| 26A11 | 05(2) | 12B39 | 0052100 | PRB | | |
| 21A26 | 06(2) | 25A05 | 0010000 | BTC0 | | |
| 25A06 | 07(2) | 11B22 | 0010200 | BTC1 | | |
| | 08(1) | 23C45 | 0056400 | NRSTR | | |
| 20A38 | 09(2) | 15A42 | 0030750 | ERSTOP | | |
| | 10(1) | 22A06 | 0060300 | SD3 | | |
| 14C46 | 11(1) | | 0078500 | NWDT | | |
| 24B29 | 12(1) | | 0007700 | BIT6PRB | | |
| 19A02 | 13(2) | 29B20 | 0048600 | MANRST | | |
| | 14(1) | 28A05 | 0030600 | EDSSET | | |
| 07B45 | 15(2) | 23A47 | 0069500 | TER | | |
| | 16(0) | | | | | |
| 21B17 | 17(2) | 28B26 | 0052650 | NPSPM | | |
| 24A40 | 18(1) | | 0051900 | NPARER | | |
| | 19(0) | | | | | |
| 19A39 | 20(2) | 21A36 | 0015900 | NCONP | | |
| 17A43 | 21(1) | | 0030300 | EDR | | |
| | 22(1) | 29B50 | 0069800 | TIOU | | |
| 20A37 | 23(2) | 24B24 | 0029900 | DVTR | | |
| | 24(1) | 27B13 | 0024400 | NDCB | | |
| 22A29 | 25(2) | 12B28 | 0029350 | NDVBSY | | |
| 17A19 | 26(2) | 23C27 | 0023900 | DCA | | |
| | 27(1) | 25A10 | 0036100 | HIOU | | |
| | 28(1) | 15B11 | 0014400 | NCIL | | |
| | 29(0) | | | | | |
| 25A29 | 30(2) | 12B01 | 0053400 | NRATER | | |
| 24A11 | 31(1) | | 0014000 | NCHWER | | |
| | 32(0) | | | | | |
| | 33(1) | 20A34 | 0046250 | J090 | | |
| 20A33 | 34(2) | 23B31 | 0046250 | J090 | | |
| | 35(1) | 19A40 | 0030770 | NERSTOP | | |
| | 36(1) | 21A12 | 0045600 | J054 | | |
| 27A38 | 37(2) | 20A23 | 0029900 | DVTR | | |
| 19A28 | 38(2) | 20A09 | 0030750 | ERSTOP | | |
| | 39(0) | | | | | |
| 11B27 | 40(2) | 23A15 | 0013700 | CHW | | |
| | 41(1) | 02B37 | 0052400 | NPRE | | |
| 19A22 | 42(1) | | 0064900 | STEP | | |
| | 43(0) | | | | | |
| | 44(1) | 26A35 | 0038500 | IDS | | |
| | 45(1) | 04B07 | 0065000 | NSTEP | | |
| 25A08 | 46(1) | | 0041900 | J014 | | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| 17A11 | 01(1) | 25B29 | 0011380 | | NRBY1-360 | |
| | 02(1) | | 0003500 | | ARSET | |
| 14C12 | 03(0) | | | | | |
| | 04(1) | | 0025100 | | NDCL | |
| | 05(0) | | | | | |
| | 06(0) | | | | | |
| | 07(0) | | | | | |
| 25A04 | 08(2) | 03B03 | 0025000 | | DCL | |
| | 09(1) | 21B39 | 0017300 | | CUP | |
| | 10(0) | | | | | |
| 16B46 | 11(1) | | 0011350 | | RBV1-360 | |
| 20A36 | 12(2) | 20A01 | 0045600 | | J054 | |
| | 13(0) | | | | | |
| 22A02 | 14(2) | 16B20 | 0060400 | | SD4 | |
| | 15(1) | 16B03 | 0044900 | | J044 | |
| | 16(0) | | | | | |
| | 17(0) | | | | | |
| | 18(1) | 07B40 | 0045500 | | J053 | |
| | 19(0) | | | | | |
| 17A06 | 20(1) | | 0060500 | | NSD4 | |
| | 21(1) | 12B09 | 0045000 | | J045 | |
| | 22(0) | | | | | |
| | 23(0) | | | | | |
| | 24(0) | | | | | |
| | 25(1) | 03B11 | 0015200 | | CM002 | |
| 02B07 | 26(2) | 20A06 | 0010000 | | BTC0 | |
| 27A14 | 27(1) | | 0011400 | | BYTE361 | |
| 17A13 | 28(2) | 20B11 | 0017000 | | NCSLI | |
| | 29(1) | 17A33 | 0016300 | | CONPC | |
| 19B13 | 30(2) | 28B05 | 0016200 | | CONPB | |
| 17A20 | 31(2) | 27B02 | 0016000 | | CONPA | |
| | 32(0) | | | | | |
| | 33(0) | | | | | |
| | 34(0) | | | | | |
| | 35(1) | 29C23 | 0016900 | | CSLI | |
| 20A20 | 36(2) | 21A37 | 0015900 | | NCONP | |
| 21A36 | 37(2) | 21A38 | 0015900 | | NCONP | |
| 21A37 | 38(2) | 19B05 | 0015900 | | NCONP | |
| | 39(1) | 25A43 | 0001900 | | AN0R | |
| 30A38 | 40(2) | 10C29 | 0002300 | | AN1R | |
| 30A40 | 41(2) | 10C43 | 0002700 | | AN2R | |
| 30A42 | 42(2) | 22B22 | 0003100 | | AN3R | |
| | 43(0) | | | | | |
| | 44(0) | | | | | |
| 25A37 | 45(1) | | 0002000 | | NAN0R | |
| | 46(1) | 10C36 | 0002400 | | NAN1R | |
| | 47(1) | 10C33 | 0002800 | | NAN2R | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(1) | 10C38 | 0003200 | | NAN3R | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| | 01(1) | 02C30 | 0028250 | DSRZ | | |
| | 02(1) | 21A14 | 0060400 | SD4 | | |
| 27A12 | 03(2) | 18B23 | 0055800 | RSAUZ | | |
| 22A46 | 04(1) | | 0060100 | SD1 | | |
| 22A45 | 05(2) | 28A11 | 0060200 | SD2 | | |
| 20A10 | 06(2) | 22A44 | 0060300 | SD3 | | |
| | 07(0) | | | | | |
| 17A04 | 08(2) | 22A47 | 0060000 | SD0 | | |
| 29A42 | 09(1) | | 0044300 | J038 | | |
| 19A04 | 10(1) | | 0046200 | J085 | | |
| | 11(1) | 31B07 | 0068300 | T1 | | |
| | 12(1) | 25A09 | 0022700 | DA7U | | |
| | 13(1) | 23A28 | 0054000 | RED | | |
| | 14(1) | 29A30 | 0061400 | SEK | | |
| | 15(1) | 26A05 | 0063600 | SNS | | |
| | 16(0) | | | | | |
| | 17(1) | 25A29 | 0053400 | NRATER | | |
| | 18(1) | 26A25 | 0049200 | NOOS | | |
| | 19(0) | | | | | |
| | 20(0) | | | | | |
| | 21(0) | | | | | |
| | 22(0) | | | | | |
| | 23(0) | | | | | |
| | 24(0) | | | | | |
| 17A39 | 25(1) | | 0073900 | TRKCLKEN | | |
| 24A45 | 26(1) | | 0005140 | BCD | | |
| | 27(1) | 15C17 | 0048000 | LSB1 | | |
| | 28(1) | 26A17 | 0060800 | SEC | | |
| | 29(1) | 20A25 | 0029350 | NDVBSY | | |
| | 30(0) | | | | | |
| | 31(0) | | | | | |
| | 32(0) | | | | | |
| | 33(0) | | | | | |
| | 34(0) | | | | | |
| | 35(0) | | | | | |
| | 36(0) | | | | | |
| | 37(0) | | | | | |
| | 38(0) | | | | | |
| | 39(0) | | | | | |
| | 40(0) | | | | | |
| | 41(0) | | | | | |
| 30A10 | 42(2) | 22B17 | 0028200 | DSR | | |
| 24A30 | 43(2) | 16C22 | 0055700 | RSAU | | |
| 22A06 | 44(1) | | 0060300 | SD3 | | |
| | 45(1) | 22A05 | 0060200 | SD2 | | |
| | 46(1) | 22A04 | 0060100 | SD1 | | |
| 22A08 | 47(1) | | 0060000 | SD0 | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 30A50 | 50(2) | 15A50 | 0000600 | NBV-1 | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| | 01(0) | | | | | |
| 17A09 | 02(2) | 19B20 | 0016700 | CSL | | |
| | 03(0) | | | | | |
| | 04(0) | | | | | |
| 27A03 | 05(2) | 23A22 | 0038875 | NINDUP | | |
| 27C36 | 06(1) | | 0075800 | U2 | | |
| | 07(0) | | | | | |
| | 08(1) | 29B04 | 0076000 | UNE | | |
| 15A07 | 09(1) | | 0076975 | UNEU2 | | |
| | 10(1) | 30B01 | 0078900 | WPV | | |
| 11B04 | 11(2) | 19A44 | 0079200 | WRI | | |
| 15A03 | 12(1) | | 0079250 | WRIWPV | | |
| 23A18 | 13(2) | 27A07 | 0038850 | INDUP | | |
| | 14(1) | 15A04 | 0013750 | CHWCIL | | |
| 20A40 | 15(2) | 24B09 | 0013700 | CHW | | |
| | 16(0) | | | | | |
| | 17(1) | 15B06 | 0014300 | CIL | | |
| 15A18 | 18(2) | 23A13 | 0038850 | INDUP | | |
| 27C23 | 19(1) | | 0075400 | U0 | | |
| 23B07 | 20(2) | 19A26 | 0063300 | SKS | | |
| 15A05 | 21(1) | | 0063350 | SKSU0 | | |
| 23A05 | 22(1) | | 0038875 | NINDUP | | |
| | 23(1) | 23A30 | 0033525 | GND25 | | |
| 28B43 | 24(1) | | 0029600 | DVOR | | |
| 26A27 | 25(2) | 17A10 | 0024350 | DCB-1 | | |
| 15A01 | 26(1) | | 0024550 | DCBDVO | | |
| 15A02 | 27(1) | | 0054450 | REDSUN | | |
| 22A13 | 28(2) | 25B19 | 0054000 | RED | | |
| 24A21 | 29(2) | 22B43 | 0065600 | SUN | | |
| 23A23 | 30(2) | 23A32 | 0033525 | GND25 | | |
| | 31(1) | 26B20 | 0017100 | CSLSET | | |
| 23A30 | 32(2) | 23A33 | 0033525 | GND25 | | |
| 23A32 | 33(1) | | 0033525 | GND25 | | |
| | 34(0) | | | | | |
| | 35(0) | | | | | |
| | 36(0) | | | | | |
| | 37(0) | | | | | |
| | 38(0) | | | | | |
| | 39(0) | | | | | |
| | 40(0) | | | | | |
| | 41(0) | | | | | |
| | 42(0) | | | | | |
| | 43(0) | | | | | |
| | 44(0) | | | | | |
| | 45(0) | | | | | |
| 15A06 | 46(1) | | 0069550 | TERU1 | | |
| 20A15 | 47(1) | | 0069500 | TER | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 27C31 | 50(1) | | 0075600 | U1 | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 24B02 | 01(1) | | 0014100 | CHWERM | | |
| | 02(0) | | | | | |
| 25B15 | 03(1) | | 0014200 | CHWERSET | | |
| | 04(1) | 24A16 | 0033415 | GND03 | | |
| 02C11 | 05(2) | 24A45 | 0005140 | BCD | | |
| | 06(1) | 29B07 | 0013900 | CHWER | | |
| | 07(1) | 19A27 | 0012600 | CDN | | |
| | 08(1) | 17A47 | 0065200 | STOPPET | | |
| 19A07 | 09(1) | | 0012700 | NCDN | | |
| 24A35 | 10(1) | | 0049100 | OOS | | |
| | 11(1) | 20A31 | 0014000 | NCHWER | | |
| 21B06 | 12(2) | 15C09 | 0018700 | DAIU | | |
| | 13(1) | 29A36 | 0012900 | CDNSET | | |
| | 14(1) | 24A36 | 0056100 | RSDC | | |
| 22B45 | 15(1) | | 0065875 | SUNM | | |
| 24A04 | 16(2) | 24A19 | 0033415 | GND03 | | |
| | 17(1) | 10B09 | 0064500 | SRWC | | |
| | 18(1) | 29B15 | 0065900 | SUNSET | | |
| 24A16 | 19(2) | 24A24 | 0033415 | GND03 | | |
| 27A37 | 20(2) | 23B04 | 0060900 | SECP | | |
| | 21(1) | 23A29 | 0065600 | SUN | | |
| | 22(1) | 29B18 | 0054800 | RESA | | |
| 29A10 | 23(2) | 24B44 | 0069900 | TOS | | |
| 24A19 | 24(2) | 24A31 | 0033415 | GND03 | | |
| 28A03 | 25(2) | 22B07 | 0070000 | NTOS | | |
| | 26(0) | | | | | |
| | 27(1) | 25A21 | 0065700 | NSUN | | |
| 17A44 | 28(2) | 23B43 | 0030700 | EDU | | |
| | 29(1) | 27A21 | 0031000 | NESU | | |
| 27B20 | 30(2) | 22A43 | 0055700 | RSAU | | |
| 24A24 | 31(2) | 24A39 | 0033415 | GND03 | | |
| | 32(0) | | | | | |
| 29A33 | 33(1) | | 0012000 | CCHSET1 | | |
| 29A01 | 34(1) | | 0011900 | CCHSET | | |
| 23C10 | 35(2) | 24A10 | 0049100 | OOS | | |
| 24A14 | 36(2) | 30B42 | 0056100 | RSDC | | |
| | 37(0) | | 0011700 | CCH | | |
| | 38(1) | 24B03 | 0051800 | PARER | | |
| 24A31 | 39(2) | 24A41 | 0033415 | GND03 | | |
| | 40(1) | 20A18 | 0051900 | NPARER | | |
| 24A39 | 41(1) | | 0033415 | GND03 | | |
| 08C21 | 42(1) | | 0011800 | NCCH | | |
| 16B04 | 43(2) | 18C50 | 0050300 | PAOSET | | |
| 19A01 | 44(1) | | 0052000 | PARERSET | | |
| 24A05 | 45(2) | 22A26 | 0005140 | BCD | | |
| | 46(0) | | | | | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| 32A45 | 01(1) | 19B33 | 0035900 | | H1ORST | |
| | 02(1) | | 0038400 | | ID2 | |
| | 03(1) | 25A39 | 0074800 | | TTSHU | |
| | 04(1) | 21A08 | 0025000 | | DCL | |
| 20A06 | 05(1) | | 0010000 | | BTC0 | |
| | 06(1) | 20A07 | 0010200 | | BTC1 | |
| 28B06 | 07(1) | | 0010400 | | BTC2 | |
| | 08(1) | 20A46 | 0041900 | | J014 | |
| 22A12 | 09(2) | 25B10 | 0022700 | | DA7U | |
| 20A27 | 10(2) | 29A05 | 0036100 | | H10U | |
| 29A06 | 11(2) | 04B35 | 0029800 | | DVSEL | |
| 28A33 | 12(2) | 31B41 | 0007800 | | BIT7 | |
| 20C23 | 13(1) | | 0060600 | | SDBRO | |
| | 14(1) | 24B05 | 0031200 | | NFAULT | |
| | 15(0) | | | | | |
| | 16(0) | | | | | |
| | 17(0) | | | | | |
| | 18(0) | | | | | |
| 15B42 | 19(2) | 26A18 | 0076100 | | NUNE | |
| 18B25 | 20(1) | | 0079000 | | NWPV | |
| 24A27 | 21(1) | | 0065700 | | NSUN | |
| | 22(0) | | | | | |
| | 23(0) | | | | | |
| | 24(0) | | | | | |
| 27A22 | 25(1) | | 0006200 | | BC5 | |
| 27A23 | 26(1) | | 0015300 | | CM003 | |
| | 27(1) | 02B20 | 0006900 | | NBC8 | |
| | 28(0) | | | | | |
| 22A17 | 29(2) | 20A30 | 0053400 | | NRATER | |
| | 30(0) | | | | | |
| | 31(0) | | | | | |
| | 32(0) | | | | | |
| | 33(1) | 19A11 | 0011300 | | BYTE360 | |
| | 34(0) | | | | | |
| 10C27 | 35(1) | | 0001700 | | ANO | |
| 10C25 | 36(1) | | 0001800 | | NANO | |
| | 37(1) | 21A45 | 0002000 | | NANOR | |
| 17A17 | 38(2) | 25A44 | 0027800 | | DISC | |
| 25A03 | 39(2) | 25A40 | 0074800 | | TTSHU | |
| 25A39 | 40(2) | 28A08 | 0074800 | | TTSHU | |
| 21B10 | 41(2) | 12B22 | 0022000 | | DA6U | |
| 21B09 | 42(2) | 25B11 | 0021300 | | DA5U | |
| 21A39 | 43(2) | 30A36 | 0001900 | | ANOR | |
| 25A38 | 44(2) | 27A47 | 0027800 | | DISC | |
| 32A37 | 45(1) | | 0038200 | | ID0 | |
| 32A39 | 46(1) | | 0038300 | | ID1 | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| | 01(1) | 26A19 | 0054600 | | RENPRB | |
| | 02(1) | 29B10 | 0041500 | | J009 | |
| | 03(1) | 26A42 | 0075300 | | TYP1R | |
| 27A45 | 04(2) | 26A28 | 0074900 | | NTYP0 | |
| 22A15 | 05(2) | 28A13 | 0063600 | | SNS | |
| 28A17 | 06(1) | | 0026800 | | DP2 | |
| | 07(0) | | | | | |
| 26A09 | 08(2) | 17A22 | 0070200 | | TRK0 | |
| | 09(1) | 26A08 | 0070200 | | TRK0 | |
| 32A19 | 10(2) | 05B01 | 0054500 | | REN | |
| | 11(1) | 20A05 | 0052100 | | PRB | |
| 28A45 | 12(1) | | 0040700 | | J001 | |
| | 13(1) | 29B11 | 0041600 | | J010 | |
| 28A46 | 14(2) | 11C33 | 0052900 | | PSPR | |
| 02B39 | 15(1) | | 0052500 | | PRESET | |
| | 16(0) | | | | | |
| 22A28 | 17(2) | 10C45 | 0060800 | | SEC | |
| 25A19 | 18(2) | 29A26 | 0076100 | | NUNE | |
| 26A01 | 19(2) | 03B08 | 0054600 | | RENPRB | |
| 20C31 | 20(1) | | 0008000 | | NBR0 | |
| | 21(1) | 20C25 | 0008100 | | BR1 | |
| | 22(0) | | | | | |
| 27A46 | 23(1) | | 0075200 | | NTYP1 | |
| | 24(1) | 17A23 | 0070600 | | TRK1 | |
| 22A18 | 25(2) | 12B14 | 0049200 | | NOOS | |
| | 26(1) | 18B02 | 0062600 | | NSERVEX | |
| | 27(1) | 23A25 | 0024350 | | DCB-1 | |
| 26A04 | 28(1) | | 0074900 | | NTYP0 | |
| 27A19 | 29(2) | 16B23 | 0022950 | | NDAIR | |
| | 30(1) | 26B50 | 0056800 | | RWC | |
| 23C02 | 31(1) | | 0066550 | | NSUNSET | |
| | 32(0) | | | | | |
| 28B17 | 33(2) | 20A02 | 0076300 | | UNEM | |
| | 34(1) | 29B09 | 0041700 | | J011 | |
| 20A44 | 35(2) | 28A04 | 0038500 | | IDS | |
| | 36(1) | 23B23 | 0032300 | | NFSC | |
| | 37(0) | | | | | |
| | 38(1) | 28A09 | 0033400 | | FSU | |
| | 39(1) | 27A39 | 0075000 | | TYP0R | |
| 09B41 | 40(2) | 18B47 | 0040500 | | ISRBR | |
| | 41(1) | 28B35 | 0046400 | | NLDBR | |
| 26A03 | 42(2) | 27A40 | 0075300 | | TYP1R | |
| | 43(0) | | | | | |
| | 44(1) | 06B25 | 0032500 | | NFSCP | |
| 27A41 | 45(2) | 17A24 | 0027700 | | DRM | |
| | 46(1) | 20C13 | 0064300 | | SRBR | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| 31B21 | 00(0) | | | | | |
| | 01(1) | | 0016800 | NCSL | | |
| | 02(0) | | | | | |
| 29A25 | 03(1) | 23A05 | 0038875 | NINDUP | | |
| | 04(1) | | 0020000 | NDA3U | | |
| | 05(0) | | | | | |
| | 06(0) | | | | | |
| 23A13 | 07(1) | | 0038850 | INDUP | | |
| 21B08 | 08(2) | 31B10 | 0019900 | DA3U | | |
| | 09(0) | | | | | |
| | 10(0) | | | | | |
| | 11(1) | 25B02 | 0016700 | CSL | | |
| | 12(1) | 22A03 | 0055800 | RSAUZ | | |
| 30A13 | 13(2) | 16B11 | 0022900 | DAIR | | |
| 08B12 | 14(2) | 21A27 | 0011400 | BYTE361 | | |
| | 15(1) | 19B07 | 0030900 | ESU | | |
| | 16(0) | | | | | |
| | 17(0) | | | | | |
| 19B21 | 18(1) | | 0032600 | FSCPM | | |
| | 19(1) | 26A29 | 0022950 | NDAIR | | |
| 05B27 | 20(1) | | 0011450 | NBYTE361 | | |
| 24A29 | 21(1) | | 0031000 | NESU | | |
| 28B02 | 22(2) | 25A25 | 0006200 | BC5 | | |
| 28B01 | 23(2) | 25A26 | 0015300 | CM003 | | |
| | 24(1) | 03B23 | 0042100 | J016 | | |
| 23B44 | 25(1) | | 0026300 | NDOS | | |
| | 26(1) | 25B24 | 0040000 | NIORF | | |
| | 27(1) | 25B39 | 0025900 | DORF | | |
| | 28(0) | | | | | |
| 04B17 | 29(1) | | 0037900 | IBIT0 | | |
| 04B03 | 30(1) | | 0061000 | NSECP | | |
| | 31(1) | 07B50 | 0030000 | NDVTR | | |
| | 32(0) | | | | | |
| | 33(0) | | | | | |
| | 34(0) | | | | | |
| | 35(0) | | | | | |
| 22B18 | 36(2) | 21B02 | 0007400 | BIT0 | | |
| 29A41 | 37(2) | 24A20 | 0060900 | SECP | | |
| 30A20 | 38(2) | 20A37 | 0029900 | DVTR | | |
| 26A39 | 39(2) | 30A27 | 0075000 | TYP0R | | |
| 26A42 | 40(2) | 30A34 | 0075300 | TYP1R | | |
| 28B03 | 41(2) | 26A45 | 0027700 | DRM | | |
| 26B36 | 42(1) | | 0056900 | RWCEN | | |
| | 43(0) | | | | | |
| | 44(0) | | | | | |
| | 45(1) | 26A04 | 0074900 | NTYP0 | | |
| | 46(1) | 26A23 | 0075200 | NTYP1 | | |
| 25A44 | 47(2) | 30B11 | 0027800 | DISC | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(1) | 26B30 | 0060850 | SECEL | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 28A23 | 01(1) | | 0004900 | BAXLP | | |
| 25B33 | 02(1) | | 0043200 | J027 | | |
| | 03(1) | 24A25 | 0070000 | NTOS | | |
| 26A35 | 04(2) | 28A07 | 0038500 | IDS | | |
| 20A14 | 05(2) | 28A41 | 0030600 | EDSSET | | |
| | 06(0) | | | | | |
| 28A04 | 07(2) | 32A03 | 0038500 | IDS | | |
| 25A40 | 08(2) | 29A02 | 0074800 | TTSHU | | |
| 26A38 | 09(2) | 31B31 | 0033400 | FSU | | |
| | 10(0) | | | | | |
| 22A05 | 11(1) | | 0060200 | SD2 | | |
| | 12(1) | 29A18 | 0023300 | DATAS | | |
| 26A05 | 13(2) | 28A29 | 0063600 | SNS | | |
| | 14(0) | | | | | |
| 29A15 | 15(1) | | 0045400 | J052 | | |
| | 16(0) | | | | | |
| 32B10 | 17(2) | 26A06 | 0026800 | DP2 | | |
| | 18(1) | 29A17 | 0027000 | DP3 | | |
| 06B44 | 19(1) | | 0060700 | SDCO | | |
| 29B12 | 20(2) | 28A21 | 0053300 | RATER | | |
| 28A20 | 21(2) | 12B03 | 0053300 | RATER | | |
| 30B21 | 22(1) | | 0054900 | NRESA | | |
| 12C05 | 23(2) | 28A01 | 0004900 | BAXLP | | |
| 25B36 | 24(1) | | 0043100 | J026 | | |
| | 25(1) | 28A31 | 0046275 | J093 | | |
| 29A46 | 26(2) | 15B13 | 0077850 | USECP | | |
| 26B19 | 27(2) | 09B04 | 0040900 | J003 | | |
| | 28(0) | | | | | |
| 28A13 | 29(2) | 14B19 | 0063600 | SNS | | |
| 14C39 | 30(1) | | 0067800 | SYNC1SET | | |
| 28A25 | 31(2) | 26B05 | 0046275 | J093 | | |
| | 32(0) | | | | | |
| | 33(1) | 25A12 | 0007800 | BIT7 | | |
| 08B46 | 34(1) | | 0043400 | J029 | | |
| | 35(1) | 19A37 | 0074300 | NTRN | | |
| 14B11 | 36(1) | | 0063650 | SNSD | | |
| 28A47 | 37(2) | 31B06 | 0061400 | SEK | | |
| 29A37 | 38(2) | 31B20 | 0023300 | DATAS | | |
| | 39(0) | | | | | |
| 29A30 | 40(2) | 28A47 | 0061400 | SEK | | |
| 28A05 | 41(2) | 15B18 | 0030600 | EDSSET | | |
| | 42(1) | 26B02 | 0044600 | J041 | | |
| 26B42 | 43(2) | 09B44 | 0044400 | J039 | | |
| | 44(0) | | | | | |
| | 45(1) | 26A12 | 0040700 | J001 | | |
| | 46(1) | 26A14 | 0052900 | PSPR | | |
| 28A40 | 47(2) | 28A37 | 0061400 | SEK | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(1) | 04B01 | 0061200 | SEEKCHE | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| | 01(1) | 24A34 | 0011900 | | CCHSET | |
| 28A08 | 02(2) | 31B17 | 0074800 | | TTSHU | |
| 24B07 | 03(2) | 17A01 | 0024200 | | DCAU | |
| 28B09 | 04(1) | | 0038100 | | ICSO | |
| 25A10 | 05(2) | 29B46 | 0036100 | | HIOU | |
| | 06(1) | 25A11 | 0029800 | | DVSEL | |
| 24B23 | 07(2) | 31B42 | 0032800 | | FSD | |
| | 08(1) | 30B23 | 0057400 | | SI | |
| | 09(0) | | | | | |
| 29A44 | 10(2) | 24A23 | 0069900 | | TOS | |
| | 11(1) | 26B01 | 0048800 | | OIS | |
| 29B19 | 12(1) | | 0041000 | | J004 | |
| 14B29 | 13(1) | | 0057350 | | SOCLK | |
| | 14(0) | | | | | |
| | 15(1) | 28A15 | 0045400 | | J052 | |
| | 16(0) | | | | | |
| 28A18 | 17(2) | 31B05 | 0027000 | | DP3 | |
| 28A12 | 18(2) | 29A37 | 0023300 | | DATAS | |
| | 19(0) | | | | | |
| | 20(0) | | | | | |
| | 21(0) | | | | | |
| 32B08 | 22(1) | | 0026500 | | NDP0 | |
| 32B07 | 23(1) | | 0026700 | | NDP1 | |
| 32B05 | 24(1) | | 0026900 | | NDP2 | |
| | 25(1) | 27A04 | 0020000 | | NDA3U | |
| 26A18 | 26(1) | | 0076100 | | NUNE | |
| 29B41 | 27(2) | 15C08 | 0019300 | | DA2U | |
| | 28(0) | | | | | |
| | 29(0) | | | | | |
| 22A14 | 30(2) | 28A40 | 0061400 | | SEK | |
| | 31(0) | | | | | |
| | 32(0) | | | | | |
| | 33(1) | 24A33 | 0012000 | | CCHSET1 | |
| | 34(1) | 25B05 | 0027400 | | DPC0-1 | |
| | 35(1) | 14C29 | 0014800 | | CLKB | |
| 24A13 | 36(1) | | 0012900 | | CDNSET | |
| 29A18 | 37(2) | 28A38 | 0023300 | | DATAS | |
| | 38(1) | 16B38 | 0014700 | | CLK | |
| 08B34 | 39(1) | | 0044200 | | J037 | |
| 27C34 | 40(1) | | 0024300 | | DCB | |
| | 41(1) | 27A37 | 0060900 | | SECP | |
| 23B33 | 42(2) | 22A09 | 0044300 | | J038 | |
| | 43(0) | | | | | |
| | 44(1) | 29A10 | 0069900 | | TOS | |
| | 45(1) | 16C21 | 0046270 | | J092 | |
| | 46(1) | 28A26 | 0077850 | | USECP | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| | 01(0) | | | | | |
| | 02(0) | | | | | |
| | 03(0) | | | | | |
| | 04(0) | | | | | |
| | 05(0) | | | | | |
| | 06(1) | 07B04 | 0040300 | IPR | | |
| | 07(0) | | | | | |
| | 08(1) | 07B03 | 0064200 | SPR | | |
| | 09(0) | | | | | |
| | 10(1) | 22A42 | 0028200 | DSR | | |
| | 11(0) | | | | | |
| | 12(0) | | | | | |
| | 13(1) | 27A13 | 0022900 | DAIR | | |
| | 14(0) | | | | | |
| | 15(0) | | | | | |
| | 16(0) | | | | | |
| | 17(0) | | | | | |
| | 18(1) | 30B19 | 0074400 | TRPR | | |
| | 19(0) | | | | | |
| | 20(1) | 27A38 | 0029900 | DVTR | | |
| | 21(0) | | | | | |
| | 22(1) | 28B27 | 0029600 | DVOR | | |
| | 23(0) | | | | | |
| | 24(0) | | | | | |
| | 25(0) | | | | | |
| 27A39 | 26(0) | | | | | |
| | 27(1) | | 0075000 | TYPOR | | |
| | 28(0) | | | | | |
| | 29(0) | | | | | |
| | 30(0) | | | | | |
| | 31(0) | | | | | |
| | 32(0) | | | | | |
| 27A40 | 33(0) | | | | | |
| | 34(1) | | 0075300 | TYP1R | | |
| | 35(0) | | | | | |
| 25A43 | 36(2) | 30B10 | 0001900 | ANOR | | |
| | 37(0) | | | | | |
| | 38(1) | 21A40 | 0002300 | AN1R | | |
| | 39(0) | | | | | |
| | 40(1) | 21A41 | 0002700 | AN2R | | |
| | 41(0) | | | | | |
| | 42(1) | 21A42 | 0003100 | AN3R | | |
| | 43(0) | | | | | |
| | 44(0) | | | | | |
| | 45(0) | | | | | |
| | 46(0) | | | | | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(1) | 22A50 | 0000600 | NBV-1 | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| | 01(0) | | | | | |
| | 02(0) | | | | | |
| 28A07 | 03(1) | | 0038500 | IDS | | |
| | 04(0) | | | | | |
| | 05(0) | | | | | |
| | 06(0) | | | | | |
| | 07(0) | | | | | |
| | 08(0) | | | | | |
| | 09(1) | 31B45 | 0063500 | SLN | | |
| | 10(0) | | | | | |
| | 11(0) | | | | | |
| | 12(1) | 30B04 | 0023000 | DAM | | |
| | 13(0) | | | | | |
| | 14(0) | | | | | |
| | 15(1) | 31B37 | 0078700 | WEN | | |
| | 16(0) | | | | | |
| | 17(0) | | | | | |
| | 18(0) | | | | | |
| | 19(1) | 26A10 | 0054500 | REN | | |
| | 20(0) | | | | | |
| | 21(0) | | | | | |
| | 22(0) | | | | | |
| | 23(1) | 31B36 | 0059700 | SC2D | | |
| | 24(0) | | | | | |
| 31B13 | 25(1) | | 0059500 | SC1D | | |
| | 26(0) | | | | | |
| | 27(0) | | | | | |
| | 28(0) | | | | | |
| | 29(0) | | | | | |
| | 30(0) | | | | | |
| | 31(0) | | | | | |
| | 32(0) | | | | | |
| | 33(1) | 20B22 | 0074200 | TRN | | |
| | 34(0) | | | | | |
| | 35(1) | 30B06 | 0009300 | BR7 | | |
| | 36(0) | | | | | |
| | 37(1) | 25A45 | 0038200 | ID0 | | |
| | 38(0) | | | | | |
| | 39(1) | 25A46 | 0038300 | ID1 | | |
| | 40(0) | | | | | |
| | 41(0) | | | | | |
| | 42(0) | | | | | |
| | 43(0) | | | | | |
| | 44(0) | | | | | |
| | 45(1) | 25A02 | 0038400 | ID2 | | |
| | 46(0) | | | | | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(1) | 01B03 | 0033420 | | GND04 | |
| 01B17 | 01(2) | 08B06 | 0006200 | | BC5 | |
| | 02(1) | 01B11 | 0006400 | | BC6 | |
| 01B00 | 03(2) | 01B04 | 0033420 | | GND04 | |
| 01B03 | 04(2) | 01B05 | 0033420 | | GND04 | |
| 01B04 | 05(2) | 01B08 | 0033420 | | GND04 | |
| | 06(1) | 01B07 | 0006600 | | BC7 | |
| 01B06 | 07(2) | 04B29 | 0006600 | | BC7 | |
| 01B05 | 08(2) | 01B28 | 0033420 | | GND04 | |
| 01B12 | 09(1) | | 0006700 | | NBC7 | |
| 08B07 | 10(2) | 02B23 | 0006800 | | BC8 | |
| 01B02 | 11(2) | 04B21 | 0006400 | | BC6 | |
| | 12(1) | 01B09 | 0006700 | | NBC7 | |
| | 13(1) | 01B15 | 0006500 | | NBC6 | |
| | 14(0) | | | | | |
| 01B13 | 15(1) | | 0006500 | | NBC6 | |
| | 16(0) | | | | | |
| | 17(1) | 01B01 | 0006200 | | BC5 | |
| | 18(1) | 02B18 | 0009500 | | BRE | |
| | 19(0) | | | | | |
| 01B22 | 20(1) | | 0006100 | | NBC4 | |
| | 21(1) | 01B25 | 0006300 | | NBC5 | |
| | 22(1) | 01B20 | 0006100 | | NBC4 | |
| | 23(1) | 01B26 | 0006000 | | BC4 | |
| 01B30 | 24(2) | 04B24 | 0005800 | | BC3 | |
| 01B21 | 25(1) | | 0006300 | | NBC5 | |
| 01B23 | 26(2) | 18B41 | 0006000 | | BC4 | |
| 01B33 | 27(2) | 04B22 | 0005600 | | BC2 | |
| 01B08 | 28(2) | 01B31 | 0033420 | | GND04 | |
| | 29(1) | 01B36 | 0005400 | | BC1 | |
| | 30(1) | 01B24 | 0005800 | | BC3 | |
| 01B28 | 31(2) | 01B34 | 0033420 | | GND04 | |
| | 32(0) | | | | | |
| | 33(1) | 01B27 | 0005600 | | BC2 | |
| 01B31 | 34(2) | 01B35 | 0033420 | | GND04 | |
| 01B34 | 35(1) | | 0033420 | | GND04 | |
| 01B29 | 36(1) | | 0005400 | | BC1 | |
| 01B39 | 37(1) | | 0005500 | | NBC1 | |
| | 38(1) | 04B28 | 0005200 | | BC0 | |
| | 39(1) | 01B37 | 0005500 | | NBC1 | |
| | 40(0) | | | | | |
| 01B42 | 41(1) | | 0005300 | | NBC0 | |
| | 42(1) | 01B41 | 0005300 | | NBC0 | |
| | 43(0) | | | | | |
| | 44(1) | 01B45 | 0005700 | | NBC2 | |
| 01B44 | 45(1) | | 0005700 | | NBC2 | |
| 01B50 | 46(1) | | 0005900 | | NBC3 | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(1) | 01B46 | 0005900 | | NBC3 | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|--|-------------------------|-------------------------------|---------------|------------------------|-----------------------|
| 05B33 | 00(1) 01(1) 02(0) | 02B03 | 0033425 0006950 | | GND05 BC8CLK | |
| 02B00 | 03(2) 04(0) | 02B05 | 0033425 | | GND05 | |
| 02B03 | 05(2) | 02B08 | 0033425 | | GND05 | |
| 02C10 | 06(2) 07(1) | 04C02 | 0005130 | | BCC | |
| 02B05 | 08(2) 09(1) | 21A26 02B34 02B12 | 0010000 0033425 0010100 | | BTC0 GND05 NBTC0 | |
| 02B27 | 10(1) 11(1) | | 0010200 | | BTC1 | |
| 02B09 | 12(2) 13(0) 14(0) | 22B18 04B30 | 0007400 0010100 0007500 | | BIT0 NBTC0 NBIT0 | |
| 05B26 | 15(2) 16(0) 17(0) | 11C39 | 0007800 | | BIT7 | |
| 01B18 | 18(2) 19(0) | 08C45 | 0009500 | | BRE | |
| 25A27 | 20(2) 21(0) | 02B22 | 0006900 | | NBC8 | |
| 02B20 | 22(2) | 02B43 | 0006900 | | NBC8 | |
| 01B10 | 23(2) 24(0) 25(0) 26(0) | 04B41 | 0006800 | | BC8 | |
| 11B22 | 27(2) 28(0) | 02B10 | 0010200 | | BTC1 | |
| 02B30 | 29(2) 30(1) 31(1) 32(0) | 04B31 02B29 08B13 | 0010400 0010400 0064550 | | BTC2 BTC2 SSP | |
| 02B08 | 33(1) | 08B08 | 0067900 | | SYNC2 | |
| 02B34 | 34(2) 35(1) 36(1) | 02B35 | 0033425 0033425 | | GND05 GND05 | |
| 20A41 | 37(2) | 03B05 | 0052300 | | PRE | |
| 20B22 | 38(2) 39(1) | 11C38 02B42 26A15 | 0052400 0074200 0052500 | | NPRE TRN PRESET | |
| 12B14 | 40(1) | | 0049200 | | NOOS | |
| 04B11 | 41(1) | | 0074300 | | NTRN | |
| 02B38 | 42(1) | | 0074200 | | TRN | |
| 02B22 | 43(1) | | 0006900 | | NBC8 | |
| 02B44 | 44(1) 45(2) 46(0) 47(0) 48(0) 49(0) 50(0) 51(0) | 02B45 04B18 | 0010300 0010300 | | NBTC1 NBTC1 | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| | 01(1) | 03B20 | 0078300 | | WCPB-358 | |
| | 02(1) | 03B24 | 0010600 | | BY0-359 | |
| 21A08 | 03(2) | 03B10 | 0025000 | | DCL | |
| 03B14 | 04(2) | 04B04 | 0056900 | | RWCEN | |
| 02B36 | 05(2) | 04B19 | 0052300 | | PRE | |
| 04C04 | 06(2) | 18B25 | 0079000 | | NWPV | |
| | 07(0) | | | | | |
| 26A19 | 08(1) | | 0054600 | | RENPRB | |
| | 09(0) | | | | | |
| 03B03 | 10(2) | 02C31 | 0025000 | | DCL | |
| 21A25 | 11(2) | 03B13 | 0015200 | | CM002 | |
| | 12(1) | 04B02 | 0015100 | | CM001 | |
| 03B11 | 13(1) | | 0015200 | | CM002 | |
| 03B22 | 14(2) | 03B04 | 0056900 | | RWCEN | |
| | 15(0) | | | | | |
| | 16(0) | | | | | |
| | 17(1) | 08B04 | 0067600 | | SYNC1 | |
| 05B13 | 18(1) | | 0078000 | | WCHEN | |
| 08B41 | 19(2) | 04B14 | 0052100 | | PRB | |
| 03B01 | 20(2) | 04B25 | 0078300 | | WCPB-358 | |
| | 21(1) | 28B08 | 0042000 | | J015 | |
| | 22(1) | 03B14 | 0056900 | | RWCEN | |
| 27A24 | 23(1) | | 0042100 | | J016 | |
| 03B02 | 24(2) | 16B26 | 0010600 | | BY0-359 | |
| 03B36 | 25(2) | 06B13 | 0062200 | | SEROIC | |
| 12B34 | 26(2) | 03B28 | 0048900 | | NOIS | |
| 10B14 | 27(1) | | 0054300 | | REDSN | |
| 03B26 | 28(2) | 24B37 | 0048900 | | NOIS | |
| 10B21 | 29(1) | | 0078100 | | WCHSK | |
| 05B28 | 30(2) | 03B31 | 0049100 | | OOS | |
| 03B30 | 31(2) | 05B39 | 0049100 | | OOS | |
| | 32(0) | | | | | |
| 19A42 | 33(2) | 11C18 | 0062400 | | NSERVCON | |
| 16A10 | 34(1) | | 0077815 | | US1P | |
| | 35(0) | | | | | |
| | 36(1) | 03B25 | 0062200 | | SEROIC | |
| | 37(1) | 07B42 | 0032800 | | FSD | |
| | 38(1) | 15A41 | 0056650 | | RUNCONT | |
| 06B45 | 39(2) | 12C45 | 0056100 | | RSDC | |
| | 40(1) | 09B06 | 0056600 | | RUN | |
| | 41(0) | | | | | |
| 15A29 | 42(1) | | 0049600 | | OR7P | |
| | 43(1) | 08B35 | 0016400 | | CONPORD | |
| | 44(1) | 16C34 | 0077895 | | USOR-7 | |
| | 45(1) | 14C42 | 0055325 | | RSAPSET | |
| 06B18 | 46(1) | | 0040100 | | IORFSET | |
| 06B03 | 47(1) | | 0026100 | | DORFSET | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 28A50 | 01(1) | | 0061200 | | SEEKCHE | |
| 03B12 | 02(2) | 11B02 | 0015100 | | CM001 | |
| | 03(1) | 27A30 | 0061000 | | NSECP | |
| 03B04 | 04(2) | 04B23 | 0056900 | | RWCEN | |
| 15A42 | 05(1) | | 0030750 | | ERSTOP | |
| 08B44 | 06(2) | 13C37 | 0016300 | | CONPC | |
| 20A45 | 07(1) | | 0065000 | | NSTEP | |
| 09B21 | 08(2) | 10B24 | 0013700 | | CHW | |
| 08B10 | 09(2) | 04B44 | 0024350 | | DCB-1 | |
| | 10(1) | 14B36 | 0061300 | | SEEKEND | |
| 19A37 | 11(2) | 02B41 | 0074300 | | NTRN | |
| | 12(1) | 07B01 | 0052050 | | PERSTP | |
| | 13(1) | 11C35 | 0013800 | | CHWEN | |
| 03B19 | 14(1) | | 0052100 | | PRB | |
| | 15(1) | 12B40 | 0007600 | | BIT1 | |
| | 16(0) | | | | | |
| | 17(1) | 27A29 | 0037900 | | IBIT0 | |
| 02B45 | 18(1) | | 0010300 | | NBTC1 | |
| 03B05 | 19(2) | 24B21 | 0052300 | | PRE | |
| | 20(0) | | | | | |
| 01B11 | 21(2) | 08B20 | 0006400 | | BC6 | |
| 01B27 | 22(1) | | 0005600 | | BC2 | |
| 04B04 | 23(2) | 05B04 | 0056900 | | RWCEN | |
| 01B24 | 24(1) | | 0005800 | | BC3 | |
| 03B20 | 25(2) | 20B27 | 0078300 | | WCPB-358 | |
| 09B29 | 26(2) | 12B50 | 0052200 | | NPRBBC8 | |
| | 27(1) | 08B09 | 0009700 | | BRR1 | |
| 01B38 | 28(1) | | 0005200 | | BC0 | |
| 01B07 | 29(2) | 08B21 | 0006600 | | BC7 | |
| 02B12 | 30(1) | | 0010100 | | NBTC0 | |
| 02B29 | 31(2) | 15B23 | 0010400 | | BTC2 | |
| | 32(0) | | | | | |
| | 33(1) | 11B21 | 0044100 | | J036 | |
| | 34(1) | 08B19 | 0015300 | | CM003 | |
| 25A11 | 35(2) | 04B37 | 0029800 | | DVSEL | |
| | 36(1) | 07B47 | 0029300 | | DVBSY | |
| 04B35 | 37(2) | 10C01 | 0029800 | | DVSEL | |
| | 38(1) | 24B07 | 0024200 | | DCAU | |
| | 39(0) | | | | | |
| 04C19 | 40(2) | 07B28 | 0054050 | | REDA | |
| 02B23 | 41(2) | 08B29 | 0006800 | | BC8 | |
| | 42(0) | | | | | |
| | 43(0) | | | | | |
| 04B09 | 44(1) | | 0024350 | | DCB-1 | |
| | 45(0) | | | | | |
| | 46(1) | 16B25 | 0054150 | | REDBCB | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| 26A10 | 01(1) | | 0054500 | REN | | |
| 11C34 | 02(1) | | 0078700 | WEN | | |
| 08B40 | 03(2) | 09B25 | 0079200 | WRI | | |
| 04B23 | 04(2) | 05B09 | 0056900 | RWCEN | | |
| 06B04 | 05(2) | 06B19 | 0048800 | OIS | | |
| 05B22 | 06(2) | 16B01 | 0062300 | SERVCON | | |
| | 07(0) | | | | | |
| 17A26 | 08(2) | 10B10 | 0077900 | WCH | | |
| 05B04 | 09(2) | 05B11 | 0056900 | RWCEN | | |
| 16B10 | 10(2) | 10B46 | 0053600 | RCH | | |
| 05B09 | 11(2) | 10B03 | 0056900 | RWCEN | | |
| | 12(1) | 08C20 | 0062250 | SEROIS | | |
| | 13(1) | 03B18 | 0078000 | WCHEN | | |
| 21C23 | 14(1) | | 0041300 | J007 | | |
| 21C44 | 15(1) | | 0041400 | J008 | | |
| | 16(0) | | | | | |
| 05B19 | 17(2) | 04C18 | 0064000 | SNST2 | | |
| | 18(1) | 05B20 | 0026800 | DP2 | | |
| 22B24 | 19(2) | 05B17 | 0064000 | SNST2 | | |
| 05B18 | 20(2) | 08B30 | 0026800 | DP2 | | |
| 10C29 | 21(1) | | 0002300 | AN1R | | |
| | 22(1) | 05B06 | 0062300 | SERVCON | | |
| 08B24 | 23(2) | 06B41 | 0070000 | NTOS | | |
| 11C50 | 24(2) | 09B05 | 0055700 | RSAU | | |
| | 25(0) | | | | | |
| 31B41 | 26(2) | 02B15 | 0007800 | BIT7 | | |
| | 27(1) | 27A20 | 0011450 | NBYTE361 | | |
| 06B10 | 28(2) | 03B30 | 0049100 | OOS | | |
| | 29(0) | | | | | |
| | 30(0) | | | | | |
| 10C43 | 31(1) | | 0002700 | AN2R | | |
| | 32(0) | | | | | |
| | 33(1) | 02B01 | 0006950 | BC8CLK | | |
| | 34(1) | 11B14 | 0049900 | OTS | | |
| | 35(1) | 17C01 | 0015000 | CLP | | |
| | 36(1) | 11B33 | 0021450 | DA63 | | |
| 11B35 | 37(2) | 11B50 | 0022000 | DA6U | | |
| 08C13 | 38(2) | 04C28 | 0013100 | CFDISCL | | |
| 03B31 | 39(2) | 06B35 | 0049100 | OOS | | |
| 04C20 | 40(2) | 08C05 | 0013300 | CFIOP | | |
| 18B31 | 41(2) | 05B43 | 0068500 | T2 | | |
| | 42(1) | 08B22 | 0032700 | FSCU | | |
| 05B41 | 43(2) | 06C06 | 0068500 | T2 | | |
| 13C03 | 44(2) | 13C42 | 0019900 | DA3U | | |
| 17C18 | 45(1) | | 0025500 | DLUPX0 | | |
| 17C26 | 46(1) | | 0017300 | CUP | | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| | 01(1) | 06B15 | 0048700 | OIC | | |
| | 02(0) | | | | | |
| | 03(1) | 03B47 | 0026100 | DORFSET | | |
| 14B40 | 04(2) | 05B05 | 0048800 | OIS | | |
| 18B08 | 05(2) | 06B14 | 0062500 | SERVEX | | |
| 12B37 | 06(2) | 08C23 | 0025900 | DORF | | |
| 08C43 | 07(1) | | 0013500 | CHE | | |
| | 08(1) | 06B29 | 0033430 | GND06 | | |
| | 09(0) | | 0013600 | NCHE | | |
| | 10(1) | 05B28 | 0049100 | OOS | | |
| 12B11 | 11(2) | 08C22 | 0026000 | NDORF | | |
| 08B23 | 12(2) | 06B33 | 0023300 | DATAS | | |
| 03B25 | 13(2) | 29B13 | 0062200 | SEROIC | | |
| 06B05 | 14(2) | 06B20 | 0062500 | SERVEX | | |
| 06B01 | 15(2) | 31B14 | 0048700 | OIC | | |
| | 16(0) | | | | | |
| | 17(0) | | | | | |
| | 18(1) | 03B46 | 0040100 | IORFSET | | |
| 05B05 | 19(2) | 12B43 | 0048800 | OIS | | |
| 06B14 | 20(2) | 06B36 | 0062500 | SERVEX | | |
| 12B36 | 21(2) | 08C17 | 0039900 | IORF | | |
| 07B31 | 22(2) | 08C40 | 0024400 | NDCB | | |
| | 23(1) | 19B47 | 0032400 | FSCP | | |
| | 24(1) | 19B21 | 0032600 | FSCPM | | |
| 26A44 | 25(1) | | 0032500 | NFSCP | | |
| 19B07 | 26(1) | | 0030900 | ESU | | |
| 12B12 | 27(2) | 08C24 | 0040000 | NIORF | | |
| | 28(0) | | | | | |
| 06B08 | 29(2) | 06B32 | 0033430 | GND06 | | |
| 07B39 | 30(2) | 06B45 | 0056100 | RSDC | | |
| 09B31 | 31(2) | 16C19 | 0039400 | INLM | | |
| 06B29 | 32(2) | 06B39 | 0033430 | GND06 | | |
| 06B12 | 33(2) | 08C02 | 0023300 | DATAS | | |
| 10B02 | 34(1) | | 0039700 | INLSET | | |
| 05B39 | 35(2) | 08B43 | 0049100 | OOS | | |
| 06B20 | 36(2) | 08B27 | 0062500 | SERVEX | | |
| 15C27 | 37(1) | | 0039100 | INL | | |
| | 38(1) | 29B02 | 0023700 | DC0 | | |
| 06B32 | 39(1) | | 0033430 | GND06 | | |
| | 40(1) | 19A25 | 0023800 | NDC0 | | |
| 05B23 | 41(2) | 06B43 | 0070000 | NTOS | | |
| | 42(0) | | 0039200 | NINL | | |
| 06B41 | 43(1) | | 0070000 | NTOS | | |
| 09B30 | 44(2) | 28A19 | 0060700 | SDC0 | | |
| 06B30 | 45(2) | 03B39 | 0056100 | RSDC | | |
| | 46(0) | | | | | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| 04B12 | 01(2) | 10B04 | 0052050 | | PERSTP | |
| 08B39 | 02(2) | 06C19 | 0053200 | | PWC | |
| 30A08 | 03(1) | | 0064200 | | SPR | |
| 30A06 | 04(1) | | 0040300 | | IPR | |
| | 05(0) | | | | | |
| | 06(0) | | | | | |
| 23B04 | 07(1) | | 0060900 | | SECP | |
| | 08(0) | | | | | |
| | 09(0) | | | | | |
| | 10(0) | | | | | |
| | 11(1) | 07B17 | 0033435 | | GND07 | |
| 18B30 | 12(2) | 08C13 | 0013100 | | CFDISCL | |
| | 13(0) | | | | | |
| 08C05 | 14(2) | 18B12 | 0013300 | | CF10PL | |
| | 15(0) | | | | | |
| | 16(0) | | | | | |
| 07B11 | 17(2) | 07B30 | 0033435 | | GND07 | |
| 04C23 | 18(2) | 11C20 | 0005000 | | BAXUP | |
| 08C31 | 19(2) | 09B03 | 0009800 | | BRR2 | |
| 12B07 | 20(2) | 09B02 | 0003400 | | ARR2 | |
| | 21(1) | 05C08 | 0025450 | | DLS | |
| 04C31 | 22(2) | 11C19 | 0004900 | | BAXLP | |
| | 23(1) | 06C03 | 0068200 | | NT0 | |
| 07B28 | 24(2) | 17A27 | 0054050 | | REDA | |
| 09B43 | 25(2) | 07B29 | 0054100 | | NRED | |
| 32B38 | 26(1) | | 0077800 | | UPCOUNT | |
| 32B40 | 27(1) | | 0025600 | | DNCOUNT | |
| 04B40 | 28(2) | 07B24 | 0054050 | | REDA | |
| 07B25 | 29(2) | 18B10 | 0054100 | | NRED | |
| 07B17 | 30(2) | 07B32 | 0033435 | | GND07 | |
| 12B08 | 31(2) | 06B22 | 0024400 | | NDCB | |
| 07B30 | 32(2) | 07B34 | 0033435 | | GND07 | |
| 09B11 | 33(2) | 06C05 | 0068400 | | T6 | |
| 07B32 | 34(2) | 07B44 | 0033435 | | GND07 | |
| | 35(1) | 12B10 | 0003480 | | NARR2 | |
| | 36(0) | | | | | |
| | 37(0) | | | | | |
| | 38(0) | | | | | |
| 12B27 | 39(2) | 06B30 | 0056100 | | RSDC | |
| 21A18 | 40(1) | | 0045500 | | J053 | |
| | 41(1) | 19B10 | 0000800 | | A10C | |
| 03B37 | 42(2) | 11B05 | 0032800 | | FSD | |
| | 43(0) | | | | | |
| 07B34 | 44(1) | | 0033435 | | GND07 | |
| 08C28 | 45(2) | 20A15 | 0069500 | | TER | |
| 27C27 | 46(1) | | 0065500 | | STSH02 | |
| 04B36 | 47(2) | 12B29 | 0029300 | | DVBSY | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 27A31 | 50(1) | | 0030000 | | NDVTR | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 11823 | 01(1) | 10C11 | 0024600 | | DCBNT5 | |
| | 02(1) | | 0044000 | | J035 | |
| | 03(1) | 16B31 | 0011350 | | RBY1-360 | |
| 03817 | 04(2) | 08C37 | 0067600 | | SYNC1 | |
| 08819 | 05(2) | 28B11 | 0015300 | | CM003 | |
| 01801 | 06(2) | 16B28 | 0006200 | | BC5 | |
| | 07(1) | 01B10 | 0006800 | | BC8 | |
| 02833 | 08(2) | 14B15 | 0067900 | | SYNC2 | |
| 04827 | 09(2) | 16B33 | 0009700 | | BRR1 | |
| 20819 | 10(2) | 04B09 | 0024350 | | DCB-1 | |
| 06C18 | 11(2) | 09B12 | 0068900 | | NT5 | |
| | 12(1) | 27A14 | 0011400 | | BYTE361 | |
| 02831 | 13(2) | 14B33 | 0064550 | | SSP | |
| | 14(1) | 31B40 | 0011200 | | BYTE359 | |
| | 15(1) | 26B18 | 0027500 | | DPC14-15 | |
| | 16(0) | | | | | |
| | 17(1) | 18B36 | 0026600 | | DP1 | |
| | 18(1) | 18B35 | 0026400 | | DP0 | |
| 04834 | 19(2) | 08B05 | 0015300 | | CM003 | |
| 04821 | 20(2) | 28B12 | 0006400 | | BC6 | |
| 04829 | 21(2) | 16B36 | 0006600 | | BC7 | |
| 05B42 | 22(2) | 16B18 | 0032700 | | FSCU | |
| 08B37 | 23(2) | 06B12 | 0023300 | | DATAS | |
| 15B19 | 24(2) | 05B23 | 0070000 | | NTOS | |
| 08B43 | 25(2) | 26B24 | 0049100 | | OOS | |
| 10B28 | 26(2) | 11B31 | 0061400 | | SEK | |
| 06B36 | 27(2) | 12B44 | 0062500 | | SERVEX | |
| | 28(1) | 18B14 | 0003300 | | ARR1 | |
| 04B41 | 29(2) | 12B38 | 0006800 | | BC8 | |
| 05B20 | 30(2) | 22B23 | 0026800 | | DP2 | |
| | 31(0) | | | | | |
| | 32(0) | | | | | |
| | 33(1) | 10B40 | 0056550 | | RTRSET | |
| | 34(1) | 29A39 | 0044200 | | J037 | |
| 03B43 | 35(2) | 08C09 | 0016400 | | CONPORD | |
| | 36(1) | 16C44 | 0016100 | | CONPAT | |
| 23B38 | 37(2) | 08B23 | 0023300 | | DATAS | |
| 19B18 | 38(2) | 08B44 | 0016300 | | CONPC | |
| | 39(1) | 07B02 | 0053200 | | PWC | |
| 10B25 | 40(2) | 05B03 | 0079200 | | WRI | |
| 12B39 | 41(2) | 03B19 | 0052100 | | PRB | |
| | 42(0) | | | | | |
| 06B35 | 43(2) | 08B25 | 0049100 | | OOS | |
| 08B38 | 44(2) | 04B06 | 0016300 | | CONPC | |
| | 45(1) | 26B35 | 0007200 | | BFR | |
| | 46(1) | 28A34 | 0043400 | | J029 | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 15B15 | 01(1) | | 0040800 | J002 | | |
| 07B20 | 02(1) | | 0003400 | ARR2 | | |
| 07B19 | 03(1) | | 0009800 | BRR2 | | |
| 28A27 | 04(1) | | 0040900 | J003 | | |
| 05B24 | 05(1) | | 0055700 | RSAU | | |
| 03B40 | 06(2) | 23B47 | 0056600 | RUN | | |
| 11B24 | 07(1) | | 0040550 | IXBR | | |
| 14B05 | 08(1) | | 0074142 | TRKOVFM | | |
| | 09(0) | | | | | |
| 12C30 | 10(1) | | 0068200 | NT0 | | |
| | 11(1) | 07B33 | 0068400 | T6 | | |
| 08B11 | 12(1) | | 0068900 | NT5 | | |
| 05C12 | 13(1) | | 0053200 | PWC | | |
| | 14(1) | 12B24 | 0020600 | DA4U | | |
| 11B18 | 15(1) | | 0020700 | NDA4U | | |
| | 16(0) | | | | | |
| | 17(1) | 11B09 | 0021400 | NDA5U | | |
| | 18(1) | 11B08 | 0022100 | NDA6U | | |
| 10C13 | 19(1) | | 0022800 | NDA7U | | |
| | 20(0) | | | | | |
| | 21(1) | 04B08 | 0013700 | CHW | | |
| | 22(1) | 11B26 | 0054200 | REDPAR | | |
| 11B39 | 23(1) | | 0049900 | OTS | | |
| 11C11 | 24(1) | | 0049800 | ORDRST | | |
| 05B03 | 25(1) | | 0079200 | WRI | | |
| 12B03 | 26(1) | | 0053300 | RATER | | |
| | 27(0) | | | | | |
| 13C22 | 28(1) | | 0040600 | IXDA | | |
| | 29(1) | 04B26 | 0052200 | NPRBBC8 | | |
| | 30(1) | 06B44 | 0060700 | SDCO | | |
| | 31(1) | 06B31 | 0039400 | INLM | | |
| | 32(0) | | | | | |
| 16C08 | 33(1) | | 0062500 | SERVEX | | |
| 16B13 | 34(1) | | 0045000 | J045 | | |
| | 35(1) | 13B04 | 0070400 | TRKOM | | |
| | 36(1) | 09C23 | 0004400 | BA0 | | |
| | 37(1) | 09C25 | 0004500 | NBA0 | | |
| | 38(1) | 09C30 | 0004600 | BA1 | | |
| | 39(1) | 09C29 | 0004700 | BA2 | | |
| | 40(1) | 09C18 | 0004800 | BA3 | | |
| | 41(1) | 26A40 | 0040500 | ISRBR | | |
| 10C10 | 42(1) | | 0013000 | CFDISC | | |
| | 43(1) | 07B25 | 0054100 | NRED | | |
| 28A43 | 44(1) | | 0044400 | J039 | | |
| | 45(1) | 18B30 | 0013100 | CFDISCL | | |
| | 46(1) | 14C39 | 0067800 | SYNC1SET | | |
| | 47(1) | 31B30 | 0032900 | NFSD | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| | 01(0) | | | | | |
| 05B11 | 02(1) | 06B34 | 0039700 | | INLSET | |
| 07B01 | 03(2) | 19A08 | 0056900 | | RWCEN | |
| | 04(1) | | 0052050 | | PERSTP | |
| | 05(0) | | | | | |
| 19B08 | 06(2) | 10B12 | 0056800 | | RWC | |
| | 07(1) | 14B01 | 0058190 | | S3CLK | |
| 10B19 | 08(2) | 10B28 | 0061400 | | SEK | |
| 24A17 | 09(1) | | 0064500 | | SRWC | |
| 05B08 | 10(2) | 10B20 | 0077900 | | WCH | |
| 10B15 | 11(2) | 11B42 | 0054000 | | RED | |
| 10B06 | 12(1) | | 0056800 | | RWC | |
| | 13(0) | | | | | |
| | 14(1) | 03B27 | 0054300 | | REDSN | |
| 10B47 | 15(2) | 10B11 | 0054000 | | RED | |
| | 16(0) | | | | | |
| 10B29 | 17(2) | 11B15 | 0063600 | | SNS | |
| | 18(0) | | | | | |
| 11B25 | 19(2) | 10B08 | 0061400 | | SEK | |
| 10B10 | 20(2) | 10B26 | 0077900 | | WCH | |
| 11C06 | 21(2) | 03B29 | 0078100 | | WCHSK | |
| | 22(0) | | | | | |
| | 23(1) | 10B30 | 0033440 | | GND08 | |
| 04B08 | 24(2) | 10B50 | 0013700 | | CHW | |
| 11B07 | 25(2) | 08B40 | 0079200 | | WRI | |
| 10B20 | 26(2) | 11C41 | 0077900 | | WCH | |
| | 27(1) | 23B39 | 0063300 | | SKS | |
| 10B08 | 28(2) | 08B26 | 0061400 | | SEK | |
| 14B19 | 29(2) | 10B17 | 0063600 | | SNS | |
| 10B23 | 30(2) | 10B32 | 0033440 | | GND08 | |
| 19A33 | 31(1) | | 0046000 | | J080 | |
| 10B30 | 32(2) | 10B36 | 0033440 | | GND08 | |
| 19A12 | 33(1) | | 0046100 | | J081 | |
| | 34(0) | | | | | |
| | 35(0) | | | | | |
| 10B32 | 36(2) | 10B43 | 0033440 | | GND08 | |
| | 37(0) | | | | | |
| | 38(0) | | | | | |
| | 39(0) | | | | | |
| 08B33 | 40(1) | | 0056550 | | RTRSET | |
| | 41(1) | 16C04 | 0074150 | | TRKRST | |
| | 42(1) | 13B18 | 0056500 | | RTR | |
| 10B36 | 43(1) | | 0033440 | | GND08 | |
| | 44(0) | | | | | |
| | 45(0) | | | | | |
| 05B10 | 46(1) | | 0053600 | | RCH | |
| 11B29 | 47(2) | 10B15 | 0054000 | | RED | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 10B24 | 50(2) | 11B27 | 0013700 | | CHW | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 11B20 | 01(2) | 10C08 | 0009800 | BRR2 | | |
| 04B02 | 02(2) | 16B34 | 0015100 | CM001 | | |
| 19B27 | 03(2) | 11C26 | 0033400 | FSU | | |
| | 04(1) | 23A11 | 0079200 | WRI | | |
| 07B42 | 05(2) | 12C33 | 0032800 | FSD | | |
| 12B33 | 06(2) | 11B28 | 0049800 | ORDRST | | |
| 16B09 | 07(2) | 10B25 | 0079200 | WRI | | |
| 09B18 | 08(2) | 11B13 | 0022100 | NDA6U | | |
| 09B17 | 09(2) | 10C20 | 0021400 | NDA5U | | |
| 12B19 | 10(2) | 11B36 | 0022700 | DA7U | | |
| | 11(0) | | | | | |
| 12B25 | 12(2) | 11B34 | 0022800 | NDA7U | | |
| 11B08 | 13(2) | 11B37 | 0022100 | NDA6U | | |
| 05B34 | 14(2) | 11B39 | 0049900 | OTS | | |
| 10B17 | 15(2) | 11B19 | 0063600 | SNS | | |
| | 16(0) | | | | | |
| 12B23 | 17(2) | 10C18 | 0021300 | DA5U | | |
| 12B17 | 18(2) | 09B15 | 0020700 | NDA4U | | |
| 11B15 | 19(2) | 04C14 | 0063600 | SNS | | |
| 18B28 | 20(2) | 11B01 | 0009800 | BRR2 | | |
| 04B33 | 21(1) | | 0044100 | J036 | | |
| 20A07 | 22(2) | 02B27 | 0010200 | BTC1 | | |
| | 23(1) | 08B02 | 0044000 | J035 | | |
| 13C18 | 24(2) | 09B07 | 0040550 | IXBR | | |
| 31B26 | 25(2) | 10B19 | 0061400 | SEK | | |
| 09B22 | 26(2) | 11C27 | 0054200 | REDPAR | | |
| 10B50 | 27(2) | 20A40 | 0013700 | CHW | | |
| 11B06 | 28(2) | 11C11 | 0049800 | ORDRST | | |
| 18B07 | 29(2) | 10B47 | 0054000 | RED | | |
| 11C27 | 30(1) | | 0054200 | REDPAR | | |
| 08B26 | 31(2) | 14B39 | 0061400 | SEK | | |
| | 32(0) | | | | | |
| 05B36 | 33(1) | | 0021450 | DA63 | | |
| 11B12 | 34(2) | 11B40 | 0022800 | NDA7U | | |
| 12B22 | 35(2) | 05B37 | 0022000 | DA6U | | |
| 11B10 | 36(2) | 10C06 | 0022700 | DA7U | | |
| 11B13 | 37(2) | 10C23 | 0022100 | NDA6U | | |
| | 38(1) | 25B01 | 0020750 | DA57 | | |
| 11B14 | 39(2) | 09B23 | 0049900 | OTS | | |
| 11B34 | 40(2) | 10C13 | 0022800 | NDA7U | | |
| 25B17 | 41(1) | | 0013700 | CHW | | |
| 10B11 | 42(2) | 11C10 | 0054000 | RED | | |
| | 43(0) | | | | | |
| | 44(1) | 11B48 | 0033528 | GND26 | | |
| | 45(0) | | | | | |
| | 46(0) | | | | | |
| | 47(0) | | | | | |
| 11B44 | 48(1) | | 0033528 | GND26 | | |
| | 49(0) | | | | | |
| 05B37 | 50(2) | 10C17 | 0022000 | DA6U | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 20A30 | 01(1) | | 0053400 | | NRATER | |
| | 02(1) | 12B33 | 0049800 | | ORDRST | |
| 28A21 | 03(2) | 09B26 | 0053300 | | RATER | |
| 16B06 | 04(1) | | 0044900 | | J044 | |
| | 05(0) | | | | | |
| | 06(0) | | | | | |
| 16C02 | 07(2) | 07B20 | 0003400 | | ARR2 | |
| 15B40 | 08(2) | 07B31 | 0024400 | | NDCB | |
| 21A21 | 09(2) | 16B13 | 0045000 | | J045 | |
| 07B35 | 10(2) | 08C27 | 0003480 | | NARR2 | |
| 25B28 | 11(2) | 06B11 | 0026000 | | NDORF | |
| 24B41 | 12(2) | 06B27 | 0040000 | | NIORF | |
| | 13(0) | | | | | |
| 26A25 | 14(2) | 02B40 | 0049200 | | NOOS | |
| | 15(0) | | | | | |
| | 16(0) | | | | | |
| | 17(1) | 11B18 | 0020700 | | NDA4U | |
| 10C20 | 18(1) | | 0021400 | | NDA5U | |
| 25B10 | 19(2) | 11B10 | 0022700 | | DA7U | |
| | 20(0) | | | | | |
| | 21(0) | | | | | |
| 25A41 | 22(2) | 11B35 | 0022000 | | DAGU | |
| 25B11 | 23(2) | 11B17 | 0021300 | | DA5U | |
| 09B14 | 24(2) | 13C24 | 0020600 | | DA4U | |
| | 25(1) | 11B12 | 0022800 | | NDA7U | |
| 10C23 | 26(1) | | 0022100 | | NDA6U | |
| 15B20 | 27(2) | 07B39 | 0056100 | | RSDC | |
| 20A25 | 28(1) | | 0029350 | | NDVBSY | |
| 07B47 | 29(2) | 27C26 | 0029300 | | DVBSY | |
| | 30(0) | | | | | |
| | 31(1) | 16C24 | 0003500 | | ARSET | |
| | 32(0) | | | | | |
| 12B02 | 33(2) | 11B06 | 0049800 | | ORDRST | |
| | 34(1) | 03B26 | 0048900 | | NOIS | |
| | 35(0) | | | | | |
| 25B41 | 36(2) | 06B21 | 0039900 | | IORF | |
| 25B38 | 37(2) | 06B06 | 0025900 | | DORF | |
| 08B29 | 38(1) | | 0006800 | | BCB | |
| 20A05 | 39(2) | 08B41 | 0052100 | | PRB | |
| 04B15 | 40(2) | 16B43 | 0007600 | | BIT1 | |
| | 41(0) | | | | | |
| | 42(0) | | | | | |
| 06B19 | 43(2) | 11C13 | 0048800 | | OIS | |
| 08B27 | 44(2) | 12C31 | 0062500 | | SERVEX | |
| | 45(0) | | | | | |
| | 46(1) | 19C17 | 0059200 | | SBRX0 | |
| 12B50 | 47(1) | | 0052200 | | NPRBBC8 | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 04B26 | 50(2) | 12B47 | 0052200 | | NPRBBC8 | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| 17A23 | 01(1) | 13B27 | 0071000 | | TRK2 | |
| | 02(2) | 13B23 | 0070600 | | TRK1 | |
| | 03(1) | 15C18 | 0070800 | | TRK1M | |
| 09B35 | 04(2) | 31B01 | 0070400 | | TRK0M | |
| | 05(1) | 15C02 | 0072800 | | TRK6M | |
| | 06(1) | 14B17 | 0073400 | | TRK8 | |
| | 07(1) | 13B29 | 0072600 | | TRK6 | |
| | 08(1) | 15C04 | 0073200 | | TRK7M | |
| | 09(1) | 13B12 | 0072700 | | NTRK6 | |
| | 10(1) | 13B11 | 0073000 | | TRK7 | |
| 13B10 | 11(2) | 20B35 | 0073000 | | TRK7 | |
| 13B09 | 12(1) | | 0072700 | | NTRK6 | |
| 13B15 | 13(1) | | 0073100 | | NTRK7 | |
| | 14(0) | | | | | |
| | 15(1) | 13B13 | 0073100 | | NTRK7 | |
| | 16(0) | | | | | |
| 14B10 | 17(2) | 20B39 | 0070200 | | TRK0 | |
| 10B42 | 18(2) | 14B18 | 0056500 | | RTR | |
| | 19(0) | | | | | |
| 13B22 | 20(1) | | 0070700 | | NTRK1 | |
| | 21(1) | 13B25 | 0070300 | | NTRK0 | |
| | 22(1) | 13B20 | 0070700 | | NTRK1 | |
| 13B02 | 23(2) | 20B40 | 0070600 | | TRK1 | |
| | 24(1) | 13B30 | 0071400 | | TRK3 | |
| 13B21 | 25(1) | | 0070300 | | NTRK0 | |
| | 26(1) | 13B36 | 0071800 | | TRK4 | |
| 13B01 | 27(2) | 20B41 | 0071000 | | TRK2 | |
| | 28(1) | 15C20 | 0071600 | | TRK3M | |
| 13B07 | 29(2) | 20B36 | 0072600 | | TRK6 | |
| 13B24 | 30(2) | 20B42 | 0071400 | | TRK3 | |
| | 31(1) | 15C01 | 0072400 | | TRK5M | |
| | 32(0) | | | | | |
| 13B38 | 33(2) | 20B37 | 0072200 | | TRK5 | |
| | 34(1) | 15C19 | 0071200 | | TRK2M | |
| | 35(1) | 15C21 | 0072000 | | TRK4M | |
| 13B26 | 36(2) | 20B38 | 0071800 | | TRK4 | |
| 13B39 | 37(1) | | 0071900 | | NTRK4 | |
| | 38(1) | 13B33 | 0072200 | | TRK5 | |
| | 39(1) | 13B37 | 0071900 | | NTRK4 | |
| | 40(0) | | | | | |
| 13B42 | 41(1) | | 0072300 | | NTRK5 | |
| | 42(1) | 13B41 | 0072300 | | NTRK5 | |
| | 43(0) | | | | | |
| 13B45 | 44(1) | | 0071100 | | NTRK2 | |
| | 45(1) | 13B44 | 0071100 | | NTRK2 | |
| 13B50 | 46(1) | | 0071500 | | NTRK3 | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(1) | 13B46 | 0071500 | | NTRK3 | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 10807 | 01(1) | | 0058190 | S3CLK | | |
| | 02(1) | 24B35 | 0073550 | TRK8C | | |
| | 03(1) | 15C45 | 0058200 | S3M | | |
| | 04(1) | 15C03 | 0073600 | TRK8M | | |
| 22801 | 05(2) | 09808 | 0074142 | TRKOVFM | | |
| 14C33 | 06(2) | 15B30 | 0005120 | BCB | | |
| | 07(1) | 29B06 | 0074000 | TRKOVF | | |
| | 08(1) | 14B16 | 0033445 | GND09 | | |
| 14B12 | 09(1) | | 0074100 | NTRKOVF | | |
| 17A22 | 10(2) | 13B17 | 0070200 | TRK0 | | |
| | 11(1) | 28A36 | 0063650 | SNSD | | |
| | 12(1) | 14B09 | 0074100 | NTRKOVF | | |
| | 13(0) | | | | | |
| | 14(0) | | | | | |
| 08B08 | 15(2) | 15B07 | 0067900 | SYNC2 | | |
| 14B08 | 16(2) | 14B35 | 0033445 | GND09 | | |
| 13B06 | 17(2) | 20B12 | 0073400 | TRK8 | | |
| 13B18 | 18(1) | | 0056500 | RTR | | |
| 28A29 | 19(2) | 10B29 | 0063600 | SNS | | |
| | 20(1) | 14B22 | 0058100 | NS3 | | |
| | 21(1) | 14B25 | 0073500 | NTRK8 | | |
| 14B20 | 22(2) | 10C40 | 0058100 | NS3 | | |
| | 23(1) | 14B26 | 0058000 | S3 | | |
| | 24(1) | 14B30 | 0057700 | S2 | | |
| 14B21 | 25(1) | | 0073500 | NTRK8 | | |
| 14B23 | 26(2) | 10C37 | 0058000 | S3 | | |
| 30B23 | 27(2) | 10C28 | 0057400 | S1 | | |
| | 28(1) | 15C46 | 0057900 | S2M | | |
| | 29(1) | 29A13 | 0057350 | SOCLK | | |
| 14B24 | 30(2) | 10C34 | 0057700 | S2 | | |
| | 31(1) | 15C50 | 0057300 | S0M | | |
| | 32(0) | | | | | |
| 08B13 | 33(2) | 22B40 | 0064550 | SSP | | |
| | 34(1) | 15C47 | 0057600 | S1M | | |
| 14B16 | 35(1) | | 0033445 | GND09 | | |
| 04B10 | 36(1) | | 0061300 | SEEKEND | | |
| | 37(0) | | 0061350 | NSEEKEND | | |
| 24B43 | 38(2) | 10C26 | 0057100 | S0 | | |
| 11B31 | 39(1) | | 0061400 | SEK | | |
| 22B06 | 40(2) | 06B04 | 0048800 | OIS | | |
| | 41(1) | 14B42 | 0057200 | NS0 | | |
| 14B41 | 42(2) | 10C31 | 0057200 | NS0 | | |
| | 43(0) | | | | | |
| 14B45 | 44(2) | 10C30 | 0057500 | NS1 | | |
| | 45(1) | 14B44 | 0057500 | NS1 | | |
| | 46(1) | 14B50 | 0057800 | NS2 | | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 14B46 | 50(2) | 10C42 | 0057800 | NS2 | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| | 01(1) | 15B08 | 0033450 | | GND10 | |
| 21B05 | 02(2) | 15C11 | 0018100 | | DA0U | |
| 23B24 | 03(1) | | 0069900 | | TOS | |
| | 04(1) | 12C39 | 0014500 | | CILR | |
| 21B18 | 05(2) | 15B36 | 0056200 | | RSFSC | |
| 23A17 | 06(2) | 27C12 | 0014300 | | CIL | |
| 14B15 | 07(1) | | 0067900 | | SYNC2 | |
| 15B01 | 08(2) | 15B16 | 0033450 | | GND10 | |
| 14C40 | 09(2) | 08C38 | 0068000 | | NSYNC2 | |
| 16B47 | 10(1) | | 0011250 | | BYT10 | |
| 20A28 | 11(2) | 24B17 | 0014400 | | NCIL | |
| 14C36 | 12(1) | | 0067600 | | SYNC1 | |
| 28A26 | 13(1) | | 0077850 | | USECP | |
| 14C10 | 14(2) | 16B45 | 0059600 | | SC2 | |
| 26B04 | 15(2) | 09B01 | 0040800 | | J002 | |
| 15B08 | 16(2) | 15B24 | 0033450 | | GND10 | |
| 15B27 | 17(1) | | 0030500 | | NEDS | |
| 28A41 | 18(2) | 21B45 | 0030600 | | EDSSET | |
| 22B07 | 19(2) | 08B24 | 0070000 | | NTOS | |
| 18B18 | 20(2) | 12B27 | 0056100 | | RSDC | |
| | 21(1) | 30B43 | 0030400 | | EDS | |
| 29B20 | 22(2) | 16C07 | 0048600 | | MANRST | |
| 04B31 | 23(2) | 28B06 | 0010400 | | BTC2 | |
| 15B16 | 24(2) | 15B39 | 0033450 | | GND10 | |
| | 25(1) | 15B29 | 0010500 | | NBTC2 | |
| 14C37 | 26(1) | | 0067700 | | NSYNC1 | |
| | 27(1) | 15B17 | 0030500 | | NEDS | |
| | 28(0) | | | | | |
| 15B25 | 29(1) | | 0010500 | | NBTC2 | |
| 14B06 | 30(2) | 20C01 | 0005120 | | BCB | |
| | 31(1) | 28B38 | 0076300 | | UNEM | |
| | 32(0) | | | | | |
| 31B10 | 33(2) | 15C07 | 0019900 | | DA3U | |
| | 34(1) | 24B36 | 0076500 | | UNESET | |
| | 35(1) | 19B02 | 0076450 | | UNER | |
| 15B05 | 36(2) | 12C01 | 0056200 | | RSFSC | |
| 12C40 | 37(2) | 22B03 | 0076000 | | UNE | |
| 20B13 | 38(2) | 16C01 | 0024300 | | DCB | |
| 15B24 | 39(1) | | 0033450 | | GND10 | |
| 16B29 | 40(2) | 12B08 | 0024400 | | NDCB | |
| 08C01 | 41(1) | | 0024450 | | DCBR | |
| | 42(1) | 25A19 | 0076100 | | NUNE | |
| | 43(0) | | | | | |
| | 44(1) | 19B31 | 0063100 | | SIOSET | |
| | 45(1) | 12C02 | 0024500 | | DCBC | |
| | 46(0) | | | | | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 05B06 | 01(2) | 16B21 | 0062300 | | SERVCON | |
| 25B18 | 02(1) | | 0015800 | | NCOMP | |
| 21A15 | 03(2) | 16B06 | 0044900 | | J044 | |
| | 04(1) | 24A43 | 0050300 | | PA0SET | |
| 18C09 | 05(1) | | 0051700 | | NPA7 | |
| 16B03 | 06(2) | 12B04 | 0044900 | | J044 | |
| | 07(0) | | | | | |
| 30B06 | 08(2) | 16B24 | 0009300 | | BR7 | |
| 19A44 | 09(2) | 11B07 | 0079200 | | WRI | |
| 19A10 | 10(2) | 05B10 | 0053600 | | RCH | |
| 27A13 | 11(2) | 16B17 | 0022900 | | DAIR | |
| | 12(0) | | | | | |
| 12B09 | 13(2) | 09B34 | 0045000 | | J045 | |
| 18C07 | 14(1) | | 0051600 | | PA7 | |
| | 15(0) | | | | | |
| | 16(0) | | | | | |
| 16B11 | 17(2) | 20C22 | 0022900 | | DAIR | |
| 08B22 | 18(2) | 16C23 | 0032700 | | FSCU | |
| | 19(0) | | | | | |
| 21A14 | 20(2) | 14C26 | 0060400 | | SD4 | |
| 16B01 | 21(2) | 23B19 | 0062300 | | SERVCON | |
| 30B13 | 22(2) | 20C05 | 0009400 | | NBR7 | |
| 26A29 | 23(1) | | 0022950 | | NDAIR | |
| 16B08 | 24(2) | 13C15 | 0009300 | | BR7 | |
| 04B46 | 25(1) | | 0054150 | | REDBC8 | |
| 03B24 | 26(2) | 25B31 | 0010600 | | BY0-359 | |
| 28B07 | 27(2) | 16C05 | 0042200 | | J017 | |
| 08B06 | 28(2) | 28B02 | 0006200 | | BC5 | |
| 24B18 | 29(2) | 15B40 | 0024400 | | NDCB | |
| | 30(0) | | | | | |
| 08B03 | 31(2) | 16B46 | 0011350 | | RBV1-360 | |
| | 32(0) | | | | | |
| 08B09 | 33(2) | 18B27 | 0009700 | | BRR1 | |
| 11B02 | 34(2) | 16C03 | 0015100 | | CM001 | |
| | 35(0) | | | | | |
| 08B21 | 36(2) | 19A38 | 0006600 | | BC7 | |
| 22B19 | 37(1) | | 0027800 | | DISC | |
| 29A38 | 38(2) | 02C34 | 0014700 | | CLK | |
| | 39(1) | 14C27 | 0012400 | | CD1 | |
| | 40(1) | 22B41 | 0027700 | | DRM | |
| | 41(0) | | | | | |
| | 42(1) | 19A13 | 0043900 | | J034 | |
| 12B40 | 43(1) | | 0007600 | | BIT1 | |
| 18B27 | 44(1) | | 0009700 | | BRR1 | |
| 15B14 | 45(2) | 02C25 | 0059600 | | SC2 | |
| 16B31 | 46(2) | 21A11 | 0011350 | | RBV1-360 | |
| | 47(1) | 15B10 | 0011250 | | BYT10 | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| 31B30 | 01(1) | | 0032900 | | NFSD | |
| 26A26 | 02(2) | 21B13 | 0062600 | | NSERVEX | |
| 12C44 | 03(2) | 24B23 | 0032800 | | FSD | |
| 17A37 | 04(1) | | 0011000 | | BYCLKEN | |
| | 05(0) | | | | | |
| | 06(0) | | | | | |
| 24B39 | 07(2) | 11B29 | 0054000 | | RED | |
| 31B35 | 08(2) | 06B05 | 0062500 | | SERVEX | |
| | 09(1) | 17A39 | 0073900 | | TRKCLKEN | |
| 07B29 | 10(1) | | 0054100 | | NRED | |
| 21B01 | 11(2) | 18B31 | 0068500 | | T2 | |
| 07B14 | 12(2) | 23B41 | 0013300 | | CFIOPPL | |
| 21B03 | 13(2) | 18B29 | 0068700 | | T4 | |
| 08B28 | 14(2) | 19B39 | 0003300 | | ARR1 | |
| | 15(1) | 16C20 | 0003400 | | ARR2 | |
| | 16(0) | | | | | |
| | 17(1) | 21B46 | 0054900 | | NRESA | |
| 19B34 | 18(2) | 15B20 | 0056100 | | RSDC | |
| 30B20 | 19(2) | 08C33 | 0078900 | | WPV | |
| | 20(0) | | | | | |
| | 21(0) | | | | | |
| | 22(1) | 29B14 | 0076900 | | NUNESSET3 | |
| 22A03 | 23(2) | 30B30 | 0055800 | | RSAUZ | |
| 29B18 | 24(1) | | 0054800 | | RESA | |
| 03B06 | 25(2) | 25A20 | 0079000 | | NWPV | |
| | 26(1) | 28B44 | 0076800 | | UNESSET3 | |
| 16B33 | 27(2) | 16B44 | 0009700 | | BRR1 | |
| 28B14 | 28(2) | 11B20 | 0009800 | | BRR2 | |
| 18B13 | 29(2) | 06C07 | 0068700 | | T4 | |
| 09B45 | 30(2) | 07B12 | 0013100 | | CFDISCL | |
| 18B11 | 31(2) | 05B41 | 0068500 | | T2 | |
| | 32(0) | | | | | |
| | 33(1) | 17A31 | 0048500 | | LT4 | |
| 17A25 | 34(2) | 24B01 | 0035600 | | GT12 | |
| 08B18 | 35(2) | 32B15 | 0026400 | | DPO | |
| 08B17 | 36(2) | 32B06 | 0026600 | | DPI | |
| | 37(0) | | | | | |
| 24B20 | 38(2) | 11C34 | 0078700 | | WEN | |
| 24B21 | 39(2) | 18B40 | 0052300 | | PRE | |
| 18B39 | 40(2) | 18C35 | 0052300 | | PRE | |
| 01B26 | 41(1) | | 0006000 | | BC4 | |
| | 42(0) | | | | | |
| | 43(1) | 32B07 | 0026700 | | NDP1 | |
| | 44(1) | 32B08 | 0026500 | | NDP0 | |
| | 45(0) | | | | | |
| 28B42 | 46(1) | | 0052650 | | NPSPM | |
| 26A40 | 47(1) | | 0040500 | | ISRBR | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| | 01(1) | 17A40 | 0073950 | | TRKCLRT | |
| 15B35 | 02(1) | | 0076450 | | UNER | |
| | 03(1) | 28C10 | 0030800 | | ESR | |
| 17A34 | 04(2) | 31B09 | 0030100 | | EDC | |
| 21A38 | 05(2) | 27B22 | 0015900 | | NCONP | |
| | 06(1) | 19B16 | 0033460 | | GND12 | |
| 27A15 | 07(2) | 06B26 | 0030900 | | ESU | |
| 26B50 | 08(2) | 10B06 | 0056800 | | RWC | |
| 17A47 | 09(2) | 12C41 | 0065200 | | STOPPET | |
| 07B41 | 10(2) | 22B44 | 0000800 | | AIOC | |
| 15A21 | 11(1) | | 0001000 | | AIOCP | |
| | 12(1) | 12C34 | 0001100 | | AIOCU | |
| 20A03 | 13(2) | 21A30 | 0016200 | | CONPB | |
| | 14(0) | | | | | |
| | 15(0) | | | | | |
| 19B06 | 16(2) | 19B19 | 0033460 | | GND12 | |
| | 17(0) | | | | | |
| 17A33 | 18(2) | 08B38 | 0016300 | | CONPC | |
| 19B16 | 19(2) | 19B23 | 0033460 | | GND12 | |
| 23A02 | 20(2) | 23C41 | 0016700 | | CSL | |
| 06B24 | 21(2) | 27A18 | 0032600 | | FSCPM | |
| 19A45 | 22(2) | 12C22 | 0031300 | | FNTEN | |
| 19B19 | 23(2) | 19B30 | 0033460 | | GND12 | |
| | 24(1) | 19B29 | 0033200 | | FSR | |
| 27B19 | 25(2) | 19B28 | 0033150 | | FSP-1 | |
| 27B27 | 26(2) | 14C01 | 0063500 | | SLN | |
| 22B37 | 27(2) | 11B03 | 0033400 | | FSU | |
| 19B25 | 28(2) | 24C14 | 0033150 | | FSP-1 | |
| 19B24 | 29(2) | 27C38 | 0033200 | | FSR | |
| 19B23 | 30(2) | 19B35 | 0033460 | | GND12 | |
| 15B44 | 31(2) | 24B15 | 0063100 | | SIOSET | |
| | 32(0) | | | | | |
| 25A01 | 33(2) | 12C35 | 0035900 | | HIORST | |
| 20B02 | 34(2) | 18B18 | 0056100 | | RSDC | |
| 19B30 | 35(2) | 19B43 | 0033460 | | GND12 | |
| | 36(0) | | | | | |
| | 37(0) | | | | | |
| | 38(0) | | | | | |
| 18B14 | 39(1) | | 0003300 | | ARR1 | |
| | 40(0) | | | | | |
| | 41(0) | | | | | |
| | 42(0) | | | | | |
| 19B35 | 43(1) | | 0033460 | | GND12 | |
| 25B13 | 44(1) | | 0046290 | | J096 | |
| 30B02 | 45(1) | | 0073800 | | TRKCLK | |
| 16C23 | 46(2) | 20B09 | 0032700 | | FSCU | |
| 06B23 | 47(1) | | 0032400 | | FSCP | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 22B05 | 50(2) | 23C22 | 0032200 | | FSC | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 20B08 | 01(1) | 27B21 | 0055600 | | RSARC | |
| 20B25 | 02(2) | 19B34 | 0056100 | | RSDC | |
| | 03(1) | | 0039500 | | INLM-1 | |
| | 04(1) | 29C44 | 0056000 | | RSD | |
| | 05(0) | | | | | |
| | 06(0) | | | | | |
| 16C17 | 07(2) | 29B01 | 0012600 | | CDN | |
| 30B42 | 08(2) | 20B02 | 0056100 | | RSDC | |
| 19B46 | 09(2) | 24B04 | 0032700 | | FSCU | |
| | 10(0) | | | | | |
| 21A28 | 11(2) | 31B43 | 0017000 | | NCSLI | |
| 14B17 | 12(2) | 19C08 | 0073400 | | TRK8 | |
| | 13(1) | 15B38 | 0024300 | | DCB | |
| | 14(1) | 28B10 | 0062800 | | NSGLTRK | |
| 16C01 | 15(2) | 25B09 | 0024300 | | DCB | |
| | 16(0) | | | | | |
| | 17(0) | | | | | |
| | 18(1) | 15A17 | 0073700 | | TRK8P | |
| 17A10 | 19(2) | 08B10 | 0024350 | | DCB-1 | |
| 17A45 | 20(1) | | 0015500 | | CNTRCL | |
| | 21(1) | 23B26 | 0049700 | | ORDER | |
| 32A33 | 22(2) | 02B38 | 0074200 | | TRN | |
| | 23(1) | 17A02 | 0015400 | | CM005 | |
| 20C24 | 24(1) | | 0065300 | | STRKBRO | |
| 16C15 | 25(2) | 20B03 | 0039500 | | INLM-1 | |
| 15C24 | 26(1) | | 0007250 | | BFEPWC | |
| 04B25 | 27(1) | | 0078300 | | WCPB-358 | |
| | 28(1) | 15A15 | 0073300 | | TRK7P | |
| | 29(1) | 15A14 | 0072900 | | TRK6P | |
| | 30(1) | 15A13 | 0072500 | | TRK5P | |
| | 31(1) | 15A12 | 0072100 | | TRK4P | |
| | 32(0) | | | | | |
| | 33(0) | | | | | |
| | 34(0) | | | | | |
| 13B11 | 35(2) | 19C03 | 0073000 | | TRK7 | |
| 13B29 | 36(2) | 21C02 | 0072600 | | TRK6 | |
| 13B33 | 37(2) | 21C21 | 0072200 | | TRK5 | |
| 13B36 | 38(2) | 19C40 | 0071800 | | TRK4 | |
| 13B17 | 39(2) | 21C10 | 0070200 | | TRK0 | |
| 13B23 | 40(2) | 19C47 | 0070600 | | TRK1 | |
| 13B27 | 41(2) | 21C25 | 0071000 | | TRK2 | |
| 13B30 | 42(2) | 19C25 | 0071400 | | TRK3 | |
| | 43(0) | | | | | |
| | 44(0) | | | | | |
| | 45(1) | 15A08 | 0070500 | | TRK0P | |
| | 46(1) | 15A09 | 0070900 | | TRK1P | |
| | 47(1) | 15A10 | 0071300 | | TRK2P | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(1) | 15A11 | 0071700 | | TRK3P | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| 27A36 | 01(1) | 18B11 | 0068500 | T2 | | |
| | 02(1) | | 0007400 | BIT0 | | |
| | 03(1) | 18B13 | 0068700 | T4 | | |
| 32B01 | 04(1) | | 0068650 | T3-1 | | |
| 29B43 | 05(2) | 15B02 | 0018100 | DA0U | | |
| 29B40 | 06(2) | 24A12 | 0018700 | DA1U | | |
| | 07(1) | 29B41 | 0019300 | DA2U | | |
| | 08(1) | 27A08 | 0019900 | DA3U | | |
| | 09(1) | 25A42 | 0021300 | DA5U | | |
| | 10(1) | 25A41 | 0022000 | DA6U | | |
| 27B29 | 11(1) | | 0042700 | J022 | | |
| 27B40 | 12(1) | | 0042800 | J023 | | |
| 18B02 | 13(1) | | 0062600 | NSERVEX | | |
| 17A31 | 14(1) | | 0048500 | LT4 | | |
| 28B44 | 15(1) | | 0076800 | UNESET3 | | |
| | 16(0) | | | | | |
| | 17(1) | 20A17 | 0052650 | NPSPM | | |
| | 18(1) | 15B05 | 0056200 | RSFSC | | |
| 26B02 | 19(1) | | 0044600 | J041 | | |
| 26B20 | 20(1) | | 0017100 | CSLSET | | |
| | 21(1) | 26B21 | 0044700 | J042 | | |
| 19C27 | 22(2) | 23B09 | 0059200 | SBRX0 | | |
| 19C30 | 23(1) | | 0059300 | SBRXDT | | |
| 21C27 | 24(1) | | 0023250 | DARESET | | |
| | 25(1) | 22B39 | 0063700 | SNSBYTE1 | | |
| | 26(1) | 21C29 | 0063800 | SNSBYTE2 | | |
| 26B47 | 27(1) | | 0046275 | J093 | | |
| | 28(1) | 27B10 | 0064000 | SNST2 | | |
| | 29(1) | 21C50 | 0041200 | J006 | | |
| | 30(1) | 21C23 | 0041300 | J007 | | |
| | 31(1) | 21C44 | 0041400 | J008 | | |
| | 32(0) | | | | | |
| | 33(1) | 21C38 | 0041800 | J012 | | |
| 21C30 | 34(1) | | 0023500 | DAXDT | | |
| 19C50 | 35(1) | | 0050300 | PA0SET | | |
| | 36(1) | 26B43 | 0038600 | ILO | | |
| 15C43 | 37(1) | | 0048100 | LSB2 | | |
| | 38(1) | 26B40 | 0076200 | UNEIMM | | |
| 21A09 | 39(2) | 17C26 | 0017300 | CUP | | |
| 17C01 | 40(1) | | 0015000 | CLP | | |
| 23B41 | 41(1) | | 0013300 | CFIOPL | | |
| | 42(1) | 32B38 | 0077800 | UPCOUNT | | |
| | 43(1) | 32B40 | 0025600 | DNCOUNT | | |
| 24B37 | 44(1) | | 0048900 | NOIS | | |
| 15B18 | 45(1) | | 0030600 | EDSSET | | |
| 18B17 | 46(2) | 30B21 | 0054900 | NRESA | | |
| 25B20 | 47(2) | 16C13 | 0007100 | NBFE | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(1) | 28B40 | 0076700 | UNESET2 | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| | 01(1) | 14B05 | 0074142 | | TRKOVFM | |
| | 02(1) | 27B07 | 0041850 | | J013 | |
| 15B37 | 03(2) | 26B26 | 0076000 | | UNE | |
| 27B10 | 04(2) | 22B25 | 0064000 | | SNST2 | |
| 31B03 | 05(2) | 19B50 | 0032200 | | FSC | |
| 25B35 | 06(2) | 14B40 | 0048800 | | OIS | |
| 24A25 | 07(2) | 15B19 | 0070000 | | NTOS | |
| 25B25 | 08(1) | | 0027000 | | DP3 | |
| | 09(1) | 22B12 | 0049000 | | OIT | |
| 29B34 | 10(1) | | 0074145 | | TRKOVFM1 | |
| 15C17 | 11(2) | 31B11 | 0048000 | | LSB1 | |
| 22B09 | 12(2) | 15C26 | 0049000 | | OIT | |
| 21C29 | 13(1) | | 0063800 | | SNSBYTE2 | |
| 19C29 | 14(1) | | 0047000 | | LDISC | |
| | 15(1) | 13C13 | 0040550 | | IXBR | |
| | 16(0) | | | | | |
| 22A42 | 17(1) | | 0028200 | | DSR | |
| 02B11 | 18(2) | 27A36 | 0007400 | | BIT0 | |
| 30B17 | 19(2) | 16B37 | 0027800 | | DISC | |
| 22B40 | 20(2) | 28B23 | 0064550 | | SSP | |
| | 21(0) | | | | | |
| 21A42 | 22(2) | 10C39 | 0003100 | | AN3R | |
| 08B30 | 23(2) | 27B08 | 0026800 | | DP2 | |
| 22B25 | 24(2) | 05B19 | 0064000 | | SNST2 | |
| 22B04 | 25(2) | 22B24 | 0064000 | | SNST2 | |
| | 26(1) | 25B06 | 0027100 | | NDP3 | |
| | 27(1) | 32B05 | 0026900 | | NDP2 | |
| | 28(0) | | | | | |
| | 29(0) | | | | | |
| 17A27 | 30(2) | 23B03 | 0054050 | | REDA | |
| | 31(0) | | | | | |
| | 32(0) | | | | | |
| 21C31 | 33(1) | | 0063700 | | SNSBYTE1 | |
| 21C38 | 34(1) | | 0041800 | | J012 | |
| 21C05 | 35(1) | | 0043700 | | J032 | |
| | 36(1) | 22B38 | 0001200 | | AIOFSU | |
| 26B38 | 37(2) | 19B27 | 0033400 | | FSU | |
| 22B36 | 38(2) | 08C29 | 0001200 | | AIOFSU | |
| 21B25 | 39(2) | 21C31 | 0063700 | | SNSBYTE1 | |
| 14B33 | 40(2) | 22B20 | 0064550 | | SSP | |
| 16B40 | 41(2) | 30B24 | 0027700 | | DRM | |
| 29B15 | 42(2) | 23C04 | 0065900 | | SUNSET | |
| 23A29 | 43(2) | 27C28 | 0065600 | | SUN | |
| 19B10 | 44(2) | 26B37 | 0000800 | | AIOC | |
| | 45(1) | 24A15 | 0065875 | | SUNM | |
| 19C31 | 46(1) | | 0046500 | | LDRM | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 29B03 | 01(2) | 23B02 | 0038600 | ILO | | |
| 23B01 | 02(2) | 23B10 | 0038600 | ILO | | |
| 22B30 | 03(2) | 26B11 | 0054050 | REDA | | |
| 24A20 | 04(2) | 07B07 | 0060900 | SECP | | |
| | 05(0) | | | | | |
| | 06(0) | | | | | |
| 23B39 | 07(2) | 23A20 | 0063300 | SKS | | |
| 26B12 | 08(2) | 17A26 | 0077900 | WCH | | |
| 21B22 | 09(1) | | 0059200 | SBRX0 | | |
| 23B02 | 10(1) | | 0038600 | ILO | | |
| 23B26 | 11(2) | 24B08 | 0049700 | ORDER | | |
| 25B12 | 12(2) | 15C23 | 0007000 | BFE | | |
| | 13(0) | | | | | |
| | 14(1) | 19A04 | 0046200 | J085 | | |
| | 15(1) | 25B20 | 0007100 | NBFE | | |
| | 16(0) | | | | | |
| | 17(1) | 23B18 | 0023250 | DARESET | | |
| 23B17 | 18(2) | 23B46 | 0023250 | DARESET | | |
| 16B21 | 19(1) | | 0062300 | SERVCON | | |
| | 20(0) | | | | | |
| | 21(0) | | | | | |
| 26B22 | 22(2) | 23B38 | 0023300 | DATAS | | |
| 26A36 | 23(2) | 31B38 | 0032300 | NFSC | | |
| 24B44 | 24(2) | 15B03 | 0069900 | TOS | | |
| 30B37 | 25(2) | 25B03 | 0062400 | NSERVCON | | |
| 20B21 | 26(2) | 23B11 | 0049700 | ORDER | | |
| | 27(1) | 27B29 | 0042700 | J022 | | |
| | 28(0) | | | | | |
| | 29(0) | | | | | |
| | 30(0) | | | | | |
| 20A34 | 31(1) | | 0046250 | J090 | | |
| | 32(0) | | | | | |
| | 33(1) | 29A42 | 0044300 | J038 | | |
| | 34(0) | | | | | |
| | 35(0) | | | | | |
| | 36(0) | | | | | |
| | 37(0) | | | | | |
| 23B22 | 38(2) | 08B37 | 0023300 | DATAS | | |
| 10B27 | 39(2) | 23B07 | 0063300 | SKS | | |
| 25B46 | 40(1) | | 0025400 | DIS | | |
| 18B12 | 41(2) | 21B41 | 0013300 | CFIOPL | | |
| | 42(0) | | | | | |
| 24A28 | 43(1) | | 0030700 | EDU | | |
| | 44(1) | 27A25 | 0026300 | NDOS | | |
| | 45(0) | | | | | |
| 23B18 | 46(2) | 21C17 | 0023250 | DARESET | | |
| 09B06 | 47(1) | | 0056600 | RUN | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 31B27 | 50(2) | 06C29 | 0068300 | T1 | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| 18B34 | 01(1) | | 0035600 | | GT12 | |
| | 02(1) | 24A01 | 0014100 | | CHWERM | |
| 24A38 | 03(2) | 11C02 | 0051800 | | PARER | |
| 20B09 | 04(2) | 24B40 | 0032700 | | FSCU | |
| 25A14 | 05(2) | 27B38 | 0031200 | | NFAULT | |
| | 06(1) | 29B45 | 0069400 | | TDVU | |
| 04B38 | 07(2) | 29A03 | 0024200 | | DCAU | |
| 23B11 | 08(2) | 29B25 | 0049700 | | ORDER | |
| 23A15 | 09(2) | 25B17 | 0013700 | | CHW | |
| | 10(1) | 25B07 | 0027300 | | NDPF | |
| | 11(0) | | | | | |
| | 12(1) | 27B45 | 0042600 | | J021 | |
| | 13(1) | 26B27 | 0042900 | | J024 | |
| 20C14 | 14(1) | | 0078800 | | WPRE | |
| 19B31 | 15(2) | 31B39 | 0063100 | | SIOSET | |
| | 16(0) | | | | | |
| 15B11 | 17(1) | | 0014400 | | NCIL | |
| 27B13 | 18(2) | 16B29 | 0024400 | | NDCB | |
| | 19(0) | | | | | |
| 31B37 | 20(2) | 18B38 | 0078700 | | WEN | |
| 04B19 | 21(2) | 18B39 | 0052300 | | PRE | |
| 29B37 | 22(2) | 11C25 | 0074800 | | TTSHU | |
| 18B03 | 23(2) | 29A07 | 0032800 | | FSD | |
| 20A23 | 24(2) | 24B30 | 0029900 | | DVTR | |
| 17A38 | 25(1) | | 0055200 | | RSAP | |
| 10C50 | 26(1) | | 0014800 | | CLKB | |
| | 27(0) | | | | | |
| | 28(0) | | | | | |
| | 29(1) | 20A12 | 0007700 | | BIT6PRB | |
| 24B24 | 30(1) | | 0029900 | | DVTR | |
| 29B47 | 31(2) | 12C26 | 0063200 | | SIOU | |
| | 32(0) | | | | | |
| 23C30 | 33(2) | 27B24 | 0055350 | | RSAP1 | |
| | 34(1) | 26B45 | 0043000 | | J025 | |
| 14B02 | 35(1) | | 0073550 | | TRK8C | |
| 15B34 | 36(1) | | 0076500 | | UNESSET | |
| 03B28 | 37(2) | 21B44 | 0048900 | | NOIS | |
| 28B10 | 38(2) | 17A36 | 0062800 | | NSGLTRK | |
| 25B19 | 39(2) | 18B07 | 0054000 | | RED | |
| 24B04 | 40(2) | 30B33 | 0032700 | | FSCU | |
| 25B42 | 41(2) | 12B12 | 0040000 | | NIORF | |
| | 42(0) | | | | | |
| 30B22 | 43(2) | 14B38 | 0057100 | | SO | |
| 24A23 | 44(2) | 23B24 | 0069900 | | TOS | |
| 26B46 | 45(1) | | 0054050 | | REDA | |
| | 46(1) | 27B43 | 0045900 | | J057 | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 11B38 | 01(1) | | 0020750 | DA57 | | |
| 27A11 | 02(2) | 17A09 | 0016700 | CSL | | |
| 23B25 | 03(2) | 19A42 | 0062400 | NSERVCON | | |
| 27B12 | 04(2) | 16C11 | 0056650 | RUNCONT | | |
| 29A34 | 05(2) | 26B10 | 0027400 | DPC0-1 | | |
| 22B26 | 06(2) | 26B13 | 0027100 | NDP3 | | |
| 24B10 | 07(2) | 32B20 | 0027300 | NDPF | | |
| 16C04 | 08(2) | 24C20 | 0074150 | TRKRST | | |
| 20B15 | 09(2) | 25B23 | 0024300 | DCB | | |
| 25A09 | 10(2) | 12B19 | 0022700 | DA7U | | |
| 25A42 | 11(2) | 12B23 | 0021300 | DA5U | | |
| 25B37 | 12(2) | 23B12 | 0007000 | BFE | | |
| | 13(1) | 19B44 | 0046290 | J096 | | |
| | 14(1) | 26B25 | 0045950 | J058 | | |
| | 15(1) | 24A03 | 0014200 | CHWERSET | | |
| | 16(0) | | | | | |
| 24B09 | 17(2) | 11B41 | 0013700 | CHW | | |
| | 18(1) | 16B02 | 0015800 | NCOMP | | |
| 23A28 | 19(2) | 24B39 | 0054000 | RED | | |
| 23B15 | 20(2) | 21B47 | 0007100 | NBFE | | |
| | 21(0) | | | | | |
| | 22(0) | | | | | |
| 25B09 | 23(2) | 27C21 | 0024300 | DCB | | |
| 27A26 | 24(2) | 25B42 | 0040000 | NIORF | | |
| 26B09 | 25(2) | 22B08 | 0027000 | DP3 | | |
| 17A08 | 26(2) | 25B46 | 0025400 | DIS | | |
| 26B18 | 27(1) | | 0027500 | DPC14-15 | | |
| 25B40 | 28(2) | 12B11 | 0026000 | NDORF | | |
| 21A01 | 29(1) | | 0011380 | NRBY1-360 | | |
| | 30(0) | | | | | |
| 16B26 | 31(1) | | 0010600 | BY0-359 | | |
| | 32(0) | | | | | |
| | 33(1) | 28A02 | 0043200 | J027 | | |
| 26B24 | 34(2) | 23C10 | 0049100 | OOS | | |
| 30B26 | 35(2) | 22B06 | 0048800 | OIS | | |
| | 36(1) | 28A24 | 0043100 | J026 | | |
| 26B34 | 37(2) | 25B12 | 0007000 | BFE | | |
| 25B39 | 38(2) | 12B37 | 0025900 | DORF | | |
| 27A27 | 39(2) | 25B38 | 0025900 | DORF | | |
| | 40(1) | 25B28 | 0026000 | NDORF | | |
| 25B43 | 41(2) | 12B36 | 0039900 | IORF | | |
| 25B24 | 42(2) | 24B41 | 0040000 | NIORF | | |
| | 43(1) | 25B41 | 0039900 | IORF | | |
| | 44(1) | 25B45 | 0026200 | DOS | | |
| 25B44 | 45(1) | | 0026200 | DOS | | |
| 25B26 | 46(2) | 23B40 | 0025400 | DIS | | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| 29A11 | 01(2) | 30B26 | 0048800 | | OIS | |
| 28A42 | 02(2) | 21B19 | 0044600 | | J041 | |
| 31B20 | 03(2) | 26B06 | 0023300 | | DATAS | |
| | 04(1) | 15B15 | 0040800 | | J002 | |
| 28A31 | 05(2) | 26B47 | 0046275 | | J093 | |
| 26B03 | 06(2) | 26B22 | 0023300 | | DATAS | |
| | 07(1) | 26B32 | 0033465 | | GND13 | |
| 12C13 | 08(1) | | 0005000 | | BAXUP | |
| 32B35 | 09(2) | 25B25 | 0027000 | | DP3 | |
| 25B05 | 10(1) | | 0027400 | | DPC0-1 | |
| 23B03 | 11(2) | 26B46 | 0054050 | | REDA | |
| 26B33 | 12(2) | 23B08 | 0077900 | | WCH | |
| 25B06 | 13(2) | 31B25 | 0027100 | | NDP3 | |
| | 14(0) | | | | | |
| 12C42 | 15(2) | 31B19 | 0076950 | | UNESTOP | |
| | 16(0) | | | | | |
| | 17(0) | | | | | |
| 08B15 | 18(2) | 25B27 | 0027500 | | DPC14-15 | |
| | 19(1) | 28A27 | 0040900 | | J003 | |
| 23A31 | 20(2) | 21B20 | 0017100 | | CSLSET | |
| 21B21 | 21(2) | 26B31 | 0044700 | | J042 | |
| 26B06 | 22(2) | 23B22 | 0023300 | | DATAS | |
| | 23(0) | | | | | |
| 08B25 | 24(2) | 25B34 | 0049100 | | OOS | |
| 25B14 | 25(1) | | 0045950 | | J058 | |
| 22B03 | 26(1) | | 0076000 | | UNE | |
| 24B13 | 27(1) | | 0042900 | | J024 | |
| | 28(0) | | | | | |
| 26B30 | 29(1) | | 0060850 | | SECEL | |
| 27A50 | 30(2) | 26B29 | 0060850 | | SECEL | |
| 26B21 | 31(1) | | 0044700 | | J042 | |
| 26B07 | 32(1) | | 0033465 | | GND13 | |
| 30B28 | 33(2) | 26B12 | 0077900 | | WCH | |
| | 34(1) | 25B37 | 0007000 | | BFE | |
| 08B45 | 35(2) | 17A46 | 0007200 | | BFR | |
| 19A08 | 36(2) | 27A42 | 0056900 | | RWCEN | |
| 22B44 | 37(2) | 27B37 | 0000800 | | AIOC | |
| 27B50 | 38(2) | 22B37 | 0033400 | | FSU | |
| | 39(0) | | | | | |
| 21B38 | 40(2) | 28B36 | 0076200 | | UNEIMM | |
| | 41(1) | 29C14 | 0025800 | | DORD | |
| | 42(1) | 28A43 | 0044400 | | J039 | |
| 21B36 | 43(2) | 29B08 | 0038600 | | ILO | |
| | 44(0) | | | | | |
| 24B34 | 45(1) | | 0043000 | | J025 | |
| 26B11 | 46(2) | 24B45 | 0054050 | | REDA | |
| 26B05 | 47(2) | 21B27 | 0046275 | | J093 | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 26A30 | 50(2) | 19B08 | 0056800 | | RWC | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 19A46 | 01(1) | | 0046280 | J094 | | |
| 21A31 | 02(2) | 27B23 | 0016000 | CONPA | | |
| | 03(0) | | | | | |
| 21C50 | 04(1) | | 0041200 | J006 | | |
| | 05(0) | | | | | |
| | 06(0) | | | | | |
| 22B02 | 07(1) | | 0041850 | J013 | | |
| 22B23 | 08(2) | 32B10 | 0026800 | DP2 | | |
| | 09(0) | | | | | |
| 21B28 | 10(2) | 22B04 | 0064000 | SNST2 | | |
| | 11(1) | 30B03 | 0041100 | J005 | | |
| 15A41 | 12(2) | 25B04 | 0056650 | RUNCONT | | |
| 20A24 | 13(2) | 24B18 | 0024400 | NDCB | | |
| | 14(0) | | | | | |
| 15A40 | 15(1) | | 0033100 | FSP | | |
| | 16(0) | | | | | |
| | 17(1) | 23C26 | 0055375 | NRSAP1 | | |
| | 18(0) | | | | | |
| | 19(1) | 19B25 | 0033150 | FSP-1 | | |
| 30B36 | 20(2) | 24A30 | 0055700 | RSAU | | |
| 20B01 | 21(2) | 29C26 | 0055600 | RSARC | | |
| 19B05 | 22(2) | 16C28 | 0015900 | NCONP | | |
| 27B02 | 23(1) | | 0016000 | CONPA | | |
| 24B33 | 24(1) | | 0055350 | RSAP1 | | |
| | 25(0) | | | | | |
| | 26(0) | | | | | |
| 29B21 | 27(2) | 19B26 | 0063500 | SLN | | |
| 31B31 | 28(2) | 27B50 | 0033400 | FSU | | |
| 23B27 | 29(2) | 21B11 | 0042700 | J022 | | |
| | 30(0) | | | | | |
| | 31(0) | | | | | |
| | 32(0) | | | | | |
| | 33(0) | | | | | |
| | 34(0) | | | | | |
| | 35(0) | | | | | |
| | 36(0) | | | | | |
| 26B37 | 37(2) | 31C24 | 0000800 | AIOC | | |
| 24B05 | 38(1) | | 0031200 | NFAULT | | |
| | 39(0) | | | | | |
| 27B41 | 40(2) | 21B12 | 0042800 | J023 | | |
| | 41(1) | 27B40 | 0042800 | J023 | | |
| | 42(1) | 29C13 | 0039800 | IORD | | |
| 24B46 | 43(1) | | 0045900 | J057 | | |
| | 44(0) | | | | | |
| 24B12 | 45(1) | | 0042600 | J021 | | |
| | 46(0) | | | | | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 27B28 | 50(2) | 26B38 | 0033400 | FSU | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 28B11 | 01(2) | 27A23 | 0015300 | | CM003 | |
| 16B28 | 02(2) | 27A22 | 0006200 | | BC5 | |
| 30B09 | 03(2) | 27A41 | 0027700 | | DRM | |
| 15A19 | 04(2) | 28B15 | 0062700 | | SGLTRK | |
| 21A30 | 05(2) | 28B19 | 0016200 | | CONPB | |
| 15B23 | 06(2) | 25A07 | 0010400 | | BTC2 | |
| | 07(1) | 16B27 | 0042200 | | J017 | |
| 03B21 | 08(1) | | 0042000 | | J015 | |
| | 09(1) | 29A04 | 0038100 | | IC50 | |
| 20B14 | 10(2) | 24B38 | 0062800 | | NSGLTRK | |
| 08B05 | 11(2) | 28B01 | 0015300 | | CM003 | |
| 08B20 | 12(1) | | 0006400 | | BC6 | |
| 19A38 | 13(1) | | 0006600 | | BC7 | |
| | 14(1) | 18B28 | 0009800 | | BRR2 | |
| 28B04 | 15(1) | | 0062700 | | SGLTRK | |
| | 16(0) | | | | | |
| 28B38 | 17(2) | 26A33 | 0076300 | | UNEM | |
| | 18(0) | | | | | |
| 28B05 | 19(1) | | 0016200 | | CONPB | |
| 30B31 | 20(1) | | 0048950 | | OISSERV | |
| | 21(0) | | | | | |
| | 22(0) | | | | | |
| 22B20 | 23(1) | | 0064550 | | SSP | |
| | 24(0) | | | | | |
| 24C30 | 25(2) | 28B41 | 0076600 | | UNESET1 | |
| 20A17 | 26(2) | 28B42 | 0052650 | | NPSPM | |
| 30A22 | 27(2) | 28B43 | 0029600 | | DVOR | |
| | 28(0) | | | | | |
| | 29(0) | | | | | |
| | 30(0) | | | | | |
| | 31(0) | | | | | |
| | 32(0) | | | | | |
| | 33(0) | | | | | |
| | 34(0) | | | | | |
| 26A41 | 35(2) | 11C47 | 0046400 | | NLDBR | |
| 26B40 | 36(1) | | 0076200 | | UNEIMM | |
| | 37(0) | | | | | |
| 15B31 | 38(2) | 28B17 | 0076300 | | UNEM | |
| | 39(0) | | | | | |
| 21B50 | 40(2) | 11C14 | 0076700 | | UNESET2 | |
| 28B25 | 41(2) | 11C01 | 0076600 | | UNESET1 | |
| 28B26 | 42(2) | 18B46 | 0052650 | | NPSPM | |
| 28B27 | 43(2) | 23A24 | 0029600 | | DVOR | |
| 18B26 | 44(2) | 21B15 | 0076800 | | UNESET3 | |
| | 45(0) | | | | | |
| | 46(0) | | | | | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 20B07 | 01(1) | | 0012600 | CDN | | |
| 06B38 | 02(2) | 19A05 | 0023700 | DCO | | |
| 29B08 | 03(2) | 23B01 | 0038600 | ILO | | |
| 23A08 | 04(2) | 27C20 | 0076000 | UNE | | |
| | 05(1) | 29B16 | 0033470 | GND14 | | |
| 14B07 | 06(1) | | 0074000 | TRKOVF | | |
| 24A06 | 07(1) | | 0013900 | CHWER | | |
| 26B43 | 08(2) | 29B03 | 0038600 | ILO | | |
| 26A34 | 09(1) | | 0041700 | J011 | | |
| 26A02 | 10(1) | | 0041500 | J009 | | |
| 26A13 | 11(1) | | 0041600 | J010 | | |
| 27C13 | 12(2) | 28A20 | 0053300 | RATER | | |
| 06B13 | 13(1) | | 0062200 | SEROIC | | |
| 18B22 | 14(1) | | 0076900 | NUNES3 | | |
| 24A18 | 15(2) | 22B42 | 0065900 | SUNSET | | |
| 29B05 | 16(2) | 29B17 | 0033470 | GND14 | | |
| 29B16 | 17(2) | 29B23 | 0033470 | GND14 | | |
| 24A22 | 18(2) | 18B24 | 0054800 | RESA | | |
| | 19(1) | 29A12 | 0041000 | J004 | | |
| 20A13 | 20(2) | 15B22 | 0048600 | MANRST | | |
| 31B45 | 21(2) | 27B27 | 0063500 | SLN | | |
| 19A34 | 22(1) | | 0046285 | J095 | | |
| 29B17 | 23(2) | 29B26 | 0033470 | GND14 | | |
| 30B34 | 24(1) | | 0030550 | EDSL | | |
| 24B08 | 25(1) | | 0049700 | ORDER | | |
| 29B23 | 26(2) | 29B27 | 0033470 | GND14 | | |
| 29B26 | 27(2) | 29B44 | 0033470 | GND14 | | |
| | 28(0) | | | | | |
| | 29(0) | | | | | |
| | 30(0) | | | | | |
| | 31(0) | | | | | |
| | 32(0) | | | | | |
| 31B09 | 33(1) | | 0030100 | EDC | | |
| | 34(1) | 22B10 | 0074145 | TRKOVFM1 | | |
| | 35(0) | | | | | |
| | 36(0) | | | | | |
| 31B17 | 37(2) | 24B22 | 0074800 | TTSHU | | |
| | 38(0) | | | | | |
| | 39(0) | | | | | |
| | 40(1) | 21B06 | 0018700 | DA1U | | |
| 21B07 | 41(2) | 29A27 | 0019300 | DA2U | | |
| | 42(0) | | | | | |
| | 43(1) | 21B05 | 0018100 | DA0U | | |
| 29B27 | 44(1) | | 0033470 | GND14 | | |
| 24B06 | 45(2) | 12C14 | 0069400 | TDVU | | |
| 29A05 | 46(2) | 12C27 | 0036100 | HIOU | | |
| | 47(1) | 24B31 | 0063200 | SIOU | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 20A22 | 50(2) | 12C12 | 0069800 | TIOU | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 23A10 | 01(2) | 30B20 | 0078900 | WPV | | |
| | 02(1) | 19B45 | 0073800 | TRKCLK | | |
| 27B11 | 03(1) | | 0041100 | J005 | | |
| 32A12 | 04(1) | | 0023000 | DAM | | |
| 14C07 | 05(1) | | 0012200 | CD0 | | |
| 32A35 | 06(2) | 16B08 | 0009300 | BR7 | | |
| | 07(0) | | | | | |
| | 08(1) | 30B22 | 0057100 | S0 | | |
| 30B24 | 09(2) | 28B03 | 0027700 | DRM | | |
| 30A36 | 10(1) | | 0001900 | AN0R | | |
| 27A47 | 11(2) | 30B17 | 0027800 | DISC | | |
| | 12(0) | | | | | |
| | 13(1) | 16B22 | 0009400 | NBR7 | | |
| 14C09 | 14(2) | 31B08 | 0012300 | NCDO | | |
| | 15(0) | | | | | |
| | 16(0) | | | | | |
| 30B11 | 17(2) | 22B19 | 0027800 | DISC | | |
| 19A36 | 18(1) | | 0079300 | WRINTRN | | |
| 30A18 | 19(2) | 21C20 | 0074400 | TRPR | | |
| 30B01 | 20(2) | 18B19 | 0078900 | WPV | | |
| 21B46 | 21(2) | 28A22 | 0054900 | NRESA | | |
| 30B08 | 22(2) | 24B43 | 0057100 | S0 | | |
| 29A08 | 23(2) | 14B27 | 0057400 | S1 | | |
| 22B41 | 24(2) | 30B09 | 0027700 | DRM | | |
| 30B33 | 25(1) | | 0032700 | FSCU | | |
| 26B01 | 26(2) | 25B35 | 0048800 | OIS | | |
| 14C26 | 27(1) | | 0060400 | SD4 | | |
| 30B29 | 28(2) | 26B33 | 0077900 | WCH | | |
| | 29(1) | 30B28 | 0077900 | WCH | | |
| 18B23 | 30(1) | | 0055800 | RSAUZ | | |
| 30B46 | 31(2) | 28B20 | 0048950 | OISSERV | | |
| | 32(0) | | | | | |
| 24B40 | 33(2) | 30B25 | 0032700 | FSCU | | |
| 30B44 | 34(2) | 29B24 | 0030550 | EDSL | | |
| | 35(0) | | | | | |
| | 36(1) | 27B20 | 0055700 | RSAU | | |
| 31B29 | 37(2) | 23B25 | 0062400 | NSERVCON | | |
| 16A11 | 38(1) | | 0077830 | US2P | | |
| 16C37 | 39(1) | | 0016400 | CONPORD | | |
| | 40(1) | 15A28 | 0049500 | OR6P | | |
| | 41(0) | | | | | |
| 24A36 | 42(2) | 20B08 | 0056100 | RSDC | | |
| 15B21 | 43(1) | | 0030400 | EDS | | |
| | 44(1) | 30B34 | 0030550 | EDSL | | |
| | 45(1) | 16C35 | 0077880 | USOR-6 | | |
| | 46(1) | 30B31 | 0048950 | OISSERV | | |
| | 47(1) | 13C05 | 0040600 | IXDA | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| 13B04 | 01(1) | | 0070400 | TRKOM | | |
| | 02(1) | 29C11 | 0030200 | EDD | | |
| | 03(1) | 22B05 | 0032200 | FSC | | |
| 31B44 | 04(2) | 14C10 | 0059600 | SC2 | | |
| 29A17 | 05(2) | 32B35 | 0027000 | DP3 | | |
| 28A37 | 06(2) | 31B26 | 0061400 | SEK | | |
| 22A11 | 07(2) | 31B27 | 0068300 | T1 | | |
| 30B14 | 08(1) | | 0012300 | NCDO | | |
| 19B04 | 09(2) | 29B33 | 0030100 | EDC | | |
| 27A08 | 10(2) | 15B33 | 0019900 | DA3U | | |
| 22B11 | 11(2) | 31B33 | 0048000 | LSB1 | | |
| | 12(1) | 15C06 | 0048100 | LSB2 | | |
| | 13(1) | 32A25 | 0059500 | SC1D | | |
| 06B15 | 14(1) | | 0048700 | OIC | | |
| 17A05 | 15(1) | | 0045300 | J048 | | |
| | 16(0) | | | | | |
| 29A02 | 17(2) | 29B37 | 0074800 | TTSHU | | |
| | 18(0) | | | | | |
| 26B15 | 19(1) | | 0076950 | UNESTOP | | |
| 28A38 | 20(2) | 26B03 | 0023300 | DATAS | | |
| | 21(1) | 27A01 | 0016800 | NCSL | | |
| | 22(0) | | | | | |
| | 23(0) | | | | | |
| | 24(0) | | | | | |
| 26B13 | 25(2) | 32B37 | 0027100 | NBP3 | | |
| 31B06 | 26(2) | 11B25 | 0061400 | SEK | | |
| 31B07 | 27(2) | 23B50 | 0068300 | T1 | | |
| | 28(0) | | | | | |
| | 29(1) | 30B37 | 0062400 | NSERVCON | | |
| 09B47 | 30(2) | 18B01 | 0032900 | NFSD | | |
| 28A09 | 31(2) | 27B28 | 0033400 | FSU | | |
| | 32(0) | | | | | |
| 31B11 | 33(1) | | 0048000 | LSB1 | | |
| | 34(0) | | | | | |
| | 35(1) | 18B08 | 0062500 | SERVEX | | |
| 32A23 | 36(1) | | 0059700 | SC2D | | |
| 32A15 | 37(2) | 24B20 | 0078700 | WEN | | |
| 23B23 | 38(2) | 29C31 | 0032300 | NFSC | | |
| 24B15 | 39(1) | | 0063100 | SIOSET | | |
| 08B14 | 40(1) | | 0011200 | BYTE359 | | |
| 25A12 | 41(2) | 05B26 | 0007800 | BIT7 | | |
| 29A07 | 42(2) | 27C01 | 0032800 | FSD | | |
| 20B11 | 43(1) | | 0017000 | NCSLI | | |
| | 44(1) | 31B04 | 0059600 | SC2 | | |
| 32A09 | 45(2) | 29B21 | 0063500 | SLN | | |
| 19C28 | 46(1) | | 0059400 | SBRXPA | | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| 06C04 | 01(2) | 21B04 | 0068650 | T3-1 | | |
| | 02(1) | 17C18 | 0025500 | DLUPX0 | | |
| | 03(1) | 32B32 | 0033475 | GND15 | | |
| | 04(0) | | | | | |
| 22B27 | 05(2) | 29A24 | 0026900 | NDP2 | | |
| 18B36 | 06(1) | | 0026600 | DP1 | | |
| 18B43 | 07(2) | 29A23 | 0026700 | NDP1 | | |
| 18B44 | 08(2) | 29A22 | 0026500 | NDP0 | | |
| | 09(0) | | | | | |
| 27B08 | 10(2) | 28A17 | 0026800 | DP2 | | |
| | 11(0) | | | | | |
| | 12(0) | | | | | |
| | 13(0) | | | | | |
| | 14(0) | | | | | |
| 18B35 | 15(1) | | 0026400 | DP0 | | |
| | 16(0) | | | | | |
| | 17(0) | | 0027200 | DPF | | |
| | 18(0) | | | | | |
| | 19(0) | | | | | |
| 25B07 | 20(1) | | 0027300 | NDPF | | |
| | 21(0) | | | | | |
| | 22(0) | | | | | |
| | 23(0) | | | | | |
| | 24(0) | | | | | |
| | 25(0) | | | | | |
| | 26(0) | | | | | |
| | 27(0) | | | | | |
| | 28(0) | | | | | |
| | 29(0) | | | | | |
| | 30(0) | | | | | |
| | 31(0) | | | | | |
| 32B03 | 32(2) | 32B33 | 0033475 | GND15 | | |
| 32B32 | 33(2) | 32B42 | 0033475 | GND15 | | |
| | 34(0) | | | | | |
| 31B05 | 35(2) | 26B09 | 0027000 | DP3 | | |
| | 36(0) | | | | | |
| 31B25 | 37(1) | | 0027100 | NDP3 | | |
| 21B42 | 38(2) | 07B26 | 0077800 | UPCOUNT | | |
| | 39(0) | | | | | |
| 21B43 | 40(2) | 07B27 | 0025600 | DNCOUNT | | |
| | 41(0) | | | | | |
| 32B33 | 42(1) | | 0033475 | GND15 | | |
| | 43(0) | | | | | |
| | 44(0) | | | | | |
| | 45(0) | | | | | |
| | 46(0) | | | | | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| | 01(0) | | | | | |
| | 02(0) | | | | | |
| | 03(0) | | | | | |
| | 04(0) | | | | | |
| | 05(0) | | | | | |
| | 06(0) | | | | | |
| | 07(0) | | | | | |
| | 08(1) | 18C01 | 0005110 | | BCA | |
| | 09(1) | 14C33 | 0005120 | | BCB | |
| | 10(1) | 02B06 | 0005130 | | BCC | |
| | 11(1) | 24A05 | 0005140 | | BCD | |
| | 12(0) | | | | | |
| | 13(0) | | | | | |
| | 14(0) | | | | | |
| | 15(0) | | | | | |
| | 16(0) | | | | | |
| | 17(0) | | | | | |
| | 18(0) | | | | | |
| | 19(0) | | | | | |
| | 20(0) | | | | | |
| | 21(0) | | | | | |
| | 22(0) | | | | | |
| | 23(0) | | | | | |
| | 24(1) | 14C07 | 0012200 | | CD0 | |
| 16B45 | 25(1) | | 0059600 | | SC2 | |
| | 26(1) | 02C32 | 0033480 | | GND16 | |
| | 27(0) | | | | | |
| | 28(0) | | | | | |
| | 29(0) | | | | | |
| 22A01 | 30(1) | | 0028250 | | DSRZ | |
| 03B10 | 31(1) | | 0025000 | | DCL | |
| 02C26 | 32(1) | | 0033480 | | GND16 | |
| | 33(0) | | | | | |
| 16B38 | 34(1) | | 0014700 | | CLK | |
| | 35(0) | | | | | |
| | 36(0) | | | | | |
| | 37(0) | | | | | |
| | 38(0) | | | | | |
| | 39(0) | | | | | |
| 02C44 | 40(1) | | 0045800 | | J056 | |
| | 41(0) | | | | | |
| | 42(0) | | | | | |
| | 43(0) | | | | | |
| | 44(1) | 02C40 | 0045800 | | J056 | |
| | 45(0) | | | | | |
| | 46(0) | | | | | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 04C50 | 50(1) | | 0000700 | | NBV-2 | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| 05C25 | 01(1) | | 0061800 | | SENSE200 | |
| 02B06 | 02(1) | | 0005130 | | BCC | |
| 08C11 | 03(1) | | 0062400 | | NSERVCON | |
| | 04(1) | 03B06 | 0079000 | | NWPV | |
| | 05(0) | | | | | |
| | 06(1) | 04C24 | 0013200 | | CF10P | |
| | 07(0) | | | | | |
| | 08(1) | 09C13 | 0068600 | | T3 | |
| | 09(0) | | | | | |
| | 10(0) | | | | | |
| | 11(0) | | | | | |
| | 12(1) | 05C38 | 0061725 | | SENSE100 | |
| | 13(0) | | | | | |
| 11B19 | 14(1) | | 0063600 | | SNS | |
| | 15(0) | | | | | |
| | 16(0) | | | | | |
| | 17(0) | | | | | |
| 05B17 | 18(1) | | 0064000 | | SNST2 | |
| 08C14 | 19(2) | 04B40 | 0054050 | | REDA | |
| | 20(1) | 05B40 | 0013300 | | CF10PL | |
| | 21(0) | | | | | |
| | 22(1) | 21C30 | 0023500 | | DAXDT | |
| 04C36 | 23(2) | 07B18 | 0005000 | | BAXUP | |
| 04C06 | 24(2) | 10C03 | 0013200 | | CF10P | |
| | 25(0) | | | | | |
| | 26(0) | | | | | |
| | 27(1) | 19C30 | 0059300 | | SBRXDT | |
| 05B38 | 28(1) | | 0013100 | | CFDISCL | |
| 08C06 | 29(1) | | 0077900 | | WCH | |
| | 30(0) | | | | | |
| 04C37 | 31(2) | 07B22 | 0004900 | | BAXLP | |
| | 32(0) | | | | | |
| 08C46 | 33(2) | 08C26 | 0013000 | | CFDISC | |
| | 34(0) | | | | | |
| | 35(0) | | | | | |
| | 36(1) | 04C23 | 0005000 | | BAXUP | |
| | 37(1) | 04C31 | 0004900 | | BAXLP | |
| | 38(0) | | | | | |
| 05C10 | 39(1) | | 0068100 | | T0 | |
| | 40(0) | | | | | |
| | 41(0) | | | | | |
| | 42(0) | | | | | |
| | 43(0) | | | | | |
| | 44(0) | | | | | |
| | 45(1) | 04C47 | 0061600 | | SENSE060 | |
| | 46(1) | 05C25 | 0061800 | | SENSE200 | |
| 04C45 | 47(2) | 05C31 | 0061600 | | SENSE060 | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 05C50 | 50(2) | 02C50 | 0000700 | | N8V-2 | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| | 01(0) | | | | | |
| | 02(1) | 06C20 | 0061900 | | SENSE230 | |
| | 03(0) | | | | | |
| | 04(0) | | | | | |
| | 05(0) | | | | | |
| 15C22 | 06(2) | 05C12 | 0053200 | | PWC | |
| | 07(0) | | | | | |
| 07B21 | 08(1) | | 0025450 | | DLS | |
| | 09(0) | | | | | |
| 06C28 | 10(2) | 04C39 | 0068100 | | TO | |
| 06C25 | 11(1) | | 0062000 | | SENSE300 | |
| 05C06 | 12(2) | 09B13 | 0053200 | | PWC | |
| | 13(0) | | | | | |
| | 14(0) | | | | | |
| | 15(0) | | | | | |
| | 16(0) | | | | | |
| 06C23 | 17(1) | | 0062100 | | SENSE180 | |
| | 18(0) | | | | | |
| | 19(0) | | | | | |
| | 20(0) | | | | | |
| | 21(0) | | | | | |
| | 22(1) | 06C22 | 0061750 | | SENSE170 | |
| | 23(1) | 06C24 | 0061740 | | SENSE130 | |
| | 24(0) | | | | | |
| 04C46 | 25(2) | 04C01 | 0061800 | | SENSE200 | |
| | 26(0) | | | | | |
| | 27(0) | | | | | |
| | 28(0) | | | | | |
| | 29(0) | | | | | |
| | 30(0) | | | | | |
| 04C47 | 31(2) | 06C47 | 0061600 | | SENSE060 | |
| | 32(0) | | | | | |
| | 33(0) | | | | | |
| | 34(0) | | | | | |
| | 35(0) | | | | | |
| | 36(0) | | | | | |
| | 37(0) | | | | | |
| 04C12 | 38(2) | 06C27 | 0061725 | | SENSE100 | |
| | 39(0) | | | | | |
| | 40(0) | | | | | |
| | 41(0) | | | | | |
| | 42(0) | | | | | |
| | 43(0) | | | | | |
| | 44(0) | | | | | |
| | 45(0) | | | | | |
| | 46(1) | 06C46 | 0061500 | | SENSE000 | |
| 06C21 | 47(1) | | 0061700 | | SENSE040 | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 06C50 | 50(2) | 04C50 | 0000700 | | N8V-2 | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| | 01(0) | | | | | |
| | 02(0) | | | | | |
| 07B23 | 03(2) | 11C23 | 0068200 | NT0 | | |
| | 04(1) | 32B01 | 0068650 | T3-1 | | |
| 07B33 | 05(1) | | 0068400 | T6 | | |
| 05B43 | 06(1) | | 0068500 | T2 | | |
| 18B29 | 07(1) | | 0068700 | T4 | | |
| | 08(0) | | | | | |
| | 09(0) | | | | | |
| | 10(0) | | | | | |
| | 11(0) | | | | | |
| | 12(0) | | | | | |
| | 13(0) | | | | | |
| | 14(0) | | | | | |
| | 15(0) | | | | | |
| | 16(0) | | | | | |
| 09C14 | 17(1) | | 0068600 | T3 | | |
| | 18(1) | 08B11 | 0068900 | NT5 | | |
| 07B02 | 19(2) | 15C22 | 0053200 | PWC | | |
| 05C02 | 20(1) | | 0061900 | SENSE230 | | |
| | 21(1) | 05C47 | 0061700 | SENSE040 | | |
| 05C22 | 22(1) | | 0061750 | SENSE170 | | |
| | 23(1) | 05C17 | 0062100 | SENSE180 | | |
| 05C23 | 24(1) | | 0061740 | SENSE130 | | |
| | 25(1) | 05C11 | 0062000 | SENSE300 | | |
| | 26(0) | | | | | |
| 05C38 | 27(1) | | 0061725 | SENSE100 | | |
| | 28(1) | 05C10 | 0068100 | T0 | | |
| 23B50 | 29(1) | | 0068300 | T1 | | |
| | 30(0) | | | | | |
| | 31(0) | | | | | |
| | 32(0) | | | | | |
| | 33(0) | | | | | |
| | 34(0) | | | | | |
| | 35(0) | | | | | |
| | 36(0) | | | | | |
| | 37(0) | | | | | |
| | 38(0) | | | | | |
| | 39(0) | | | | | |
| | 40(0) | | | | | |
| | 41(0) | | | | | |
| | 42(0) | | | | | |
| | 43(0) | | | | | |
| | 44(0) | | | | | |
| 06C46 | 45(1) | | 0061500 | SENSE000 | | |
| 05C46 | 46(2) | 06C45 | 0061500 | SENSE000 | | |
| 05C31 | 47(1) | | 0061600 | SENSE060 | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 09C50 | 50(2) | 05C50 | 0000700 | N8V-2 | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 06B33 | 01(1) | 15B41 | 0024450 | | DCBR | |
| | 02(1) | | 0023300 | | DATAS | |
| | 03(1) | 16C50 | 0077865 | | USOR-5 | |
| | 04(1) | 09C31 | 0031100 | | FAMCI | |
| 05B40 | 05(2) | 07B14 | 0013300 | | CFIOPL | |
| 11C41 | 06(2) | 04C29 | 0077900 | | WCH | |
| | 07(0) | | | | | |
| 15A27 | 08(1) | | 0049400 | | OR5P | |
| 08B35 | 09(2) | 16C37 | 0016400 | | CONPORD | |
| 16A12 | 10(1) | | 0077845 | | US4P | |
| 11C18 | 11(2) | 04C03 | 0062400 | | NSERVCON | |
| | 12(0) | | | | | |
| 07B12 | 13(2) | 05B38 | 0013100 | | CFDISCL | |
| 11C42 | 14(2) | 04C19 | 0054050 | | REDA | |
| | 15(0) | | | | | |
| | 16(0) | | | | | |
| 06B21 | 17(1) | | 0039900 | | IORF | |
| | 18(0) | | | | | |
| 12C35 | 19(1) | | 0035900 | | HIORST | |
| 05B12 | 20(1) | | 0062250 | | SEROIS | |
| | 21(1) | 24A42 | 0011800 | | NCCH | |
| 06B11 | 22(1) | | 0026000 | | NDORF | |
| 06B06 | 23(1) | | 0025900 | | DORF | |
| 06B27 | 24(1) | | 0040000 | | NIORF | |
| 10C11 | 25(1) | | 0024600 | | DCBNT5 | |
| 04C33 | 26(2) | 10C10 | 0013000 | | CFDISC | |
| 12B10 | 27(2) | 10C09 | 0003480 | | NARR2 | |
| | 28(1) | 07B45 | 0069500 | | TER | |
| 22B38 | 29(2) | 08C34 | 0001200 | | AIOFSU | |
| | 30(1) | 27C13 | 0053300 | | RATER | |
| 10C08 | 31(2) | 07B19 | 0009800 | | BRR2 | |
| | 32(0) | | | | | |
| 18B19 | 33(2) | 11C05 | 0078900 | | WPV | |
| 08C29 | 34(1) | | 0001200 | | AIOFSU | |
| | 35(0) | | | | | |
| 15C26 | 36(2) | 08C42 | 0049000 | | OIT | |
| 08B04 | 37(2) | 14C36 | 0067600 | | SYNC1 | |
| 15B09 | 38(1) | | 0068000 | | NSYNC2 | |
| | 39(0) | | | | | |
| 06B22 | 40(1) | | 0024400 | | NDCB | |
| | 41(0) | | | | | |
| 08C36 | 42(1) | | 0049000 | | OIT | |
| | 43(1) | 06B07 | 0013500 | | CHE | |
| 21C09 | 44(1) | | 0043800 | | J033 | |
| 02B18 | 45(1) | | 0009500 | | BRE | |
| | 46(1) | 04C33 | 0013000 | | CFDISC | |
| 21C22 | 47(1) | | 0043600 | | J031 | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| | 01(1) | 19C06 | 0029000 | DT7 | | |
| | 02(1) | 21C06 | 0028600 | DT3 | | |
| | 03(0) | | | | | |
| | 04(1) | 19C07 | 0028900 | DT6 | | |
| 21C42 | 05(1) | | 0029000 | DT7 | | |
| 19C42 | 06(1) | | 0028600 | DT3 | | |
| 21C41 | 07(1) | | 0028900 | DT6 | | |
| 19C41 | 08(1) | | 0028500 | DT2 | | |
| | 09(1) | 21C07 | 0028500 | DT2 | | |
| | 10(0) | | | | | |
| | 11(1) | 13C14 | 0037800 | I7 | | |
| | 12(1) | 13C07 | 0037400 | I3 | | |
| 04C08 | 13(2) | 09C14 | 0068600 | T3 | | |
| 09C13 | 14(2) | 06C17 | 0068600 | T3 | | |
| | 15(0) | | | | | |
| | 16(0) | | | | | |
| | 17(1) | 13C12 | 0037700 | I6 | | |
| 09B40 | 18(2) | 12C07 | 0004800 | BA3 | | |
| | 19(1) | 13C09 | 0037300 | I2 | | |
| | 20(0) | | | | | |
| | 21(0) | | | | | |
| | 22(0) | | | | | |
| 09B36 | 23(2) | 11C22 | 0004400 | BA0 | | |
| | 24(0) | | | | | |
| 09B37 | 25(2) | 11C29 | 0004500 | NBA0 | | |
| | 26(0) | | | | | |
| | 27(0) | | | | | |
| | 28(1) | 13C27 | 0037600 | I5 | | |
| 09B39 | 29(2) | 12C09 | 0004700 | BA2 | | |
| 09B38 | 30(2) | 12C46 | 0004600 | BA1 | | |
| 08C04 | 31(1) | | 0031100 | FAMCI | | |
| | 32(0) | | | | | |
| | 33(1) | 13C26 | 0037500 | I4 | | |
| | 34(1) | 13C46 | 0037200 | I1 | | |
| | 35(1) | 13C21 | 0037000 | I0 | | |
| | 36(0) | | | | | |
| | 37(0) | | | | | |
| | 38(0) | | | | | |
| 21C04 | 39(1) | | 0028400 | DT1 | | |
| 21C19 | 40(1) | | 0028300 | DT0 | | |
| | 41(1) | 19C26 | 0028400 | DT1 | | |
| 19C19 | 42(1) | | 0028700 | DT4 | | |
| | 43(1) | 19C45 | 0028300 | DT0 | | |
| 19C04 | 44(1) | | 0028800 | DT5 | | |
| | 45(1) | 21C45 | 0028700 | DT4 | | |
| | 46(1) | 21C26 | 0028800 | DT5 | | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 26C50 | 50(2) | 06C50 | 0000700 | NBV-2 | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 04B37 | 01(2) | 10C02 | 0029800 | DVSEL | | |
| 10C01 | 02(2) | 10C04 | 0029800 | DVSEL | | |
| 04C24 | 03(1) | | 0013200 | CFIOP | | |
| 10C02 | 04(1) | | 0029800 | DVSEL | | |
| | 05(1) | 14C13 | 0075900 | NU2 | | |
| 11B36 | 06(2) | 13C17 | 0022700 | DA7U | | |
| | 07(0) | | | | | |
| 11B01 | 08(2) | 08C31 | 0009800 | BRR2 | | |
| 08C27 | 09(2) | 10C15 | 0003480 | NARR2 | | |
| 08C26 | 10(2) | 09B42 | 0013000 | CFDISC | | |
| 08B01 | 11(2) | 08C25 | 0024600 | DCBNT5 | | |
| | 12(0) | | | | | |
| 11B40 | 13(2) | 09B19 | 0022800 | NDA7U | | |
| | 14(1) | 14C11 | 0075800 | U2 | | |
| 10C09 | 15(1) | | 0003480 | NARR2 | | |
| | 16(0) | | | | | |
| 11B50 | 17(2) | 13C10 | 0022000 | DA6U | | |
| 11B17 | 18(2) | 13C29 | 0021300 | DA5U | | |
| | 19(1) | 14C20 | 0075500 | NU0 | | |
| 11B09 | 20(2) | 12B18 | 0021400 | NDA5U | | |
| | 21(1) | 14C23 | 0075400 | U0 | | |
| | 22(1) | 14C25 | 0075700 | NU1 | | |
| 11B37 | 23(2) | 12B26 | 0022100 | NDA6U | | |
| | 24(1) | 14C17 | 0075600 | U1 | | |
| | 25(1) | 25A36 | 0001800 | NAN0 | | |
| 14B38 | 26(2) | 19C10 | 0057100 | S0 | | |
| | 27(1) | 25A35 | 0001700 | AN0 | | |
| 14B27 | 28(2) | 21C24 | 0057400 | S1 | | |
| 21A40 | 29(2) | 05B21 | 0002300 | AN1R | | |
| 14B44 | 30(1) | | 0057500 | NS1 | | |
| 14B42 | 31(1) | | 0057200 | NS0 | | |
| | 32(0) | | | | | |
| 21A47 | 33(1) | | 0002800 | NAN2R | | |
| 14B30 | 34(2) | 21C43 | 0057700 | S2 | | |
| | 35(0) | | | | | |
| 21A46 | 36(1) | | 0002400 | NAN1R | | |
| 14B26 | 37(2) | 21C36 | 0058000 | S3 | | |
| 21A50 | 38(1) | | 0003200 | NAN3R | | |
| 22B22 | 39(1) | | 0003100 | AN3R | | |
| 14B22 | 40(1) | | 0058100 | NS3 | | |
| | 41(0) | | | | | |
| 14B50 | 42(1) | | 0057800 | NS2 | | |
| 21A41 | 43(2) | 05B31 | 0002700 | AN2R | | |
| 10C46 | 44(1) | | 0060800 | SEC | | |
| 26A17 | 45(2) | 10C47 | 0060800 | SEC | | |
| 10C47 | 46(2) | 10C44 | 0060800 | SEC | | |
| 10C45 | 47(2) | 10C46 | 0060800 | SEC | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 14C30 | 50(2) | 24B26 | 0014800 | CLKB | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(1) | 11C04 | 0033485 | | GND17 | |
| 28B41 | 01(1) | | 0076600 | | UNESET1 | |
| 24B03 | 02(2) | 11C28 | 0051800 | | PARER | |
| | 03(0) | | | | | |
| 11C00 | 04(1) | | 0033485 | | GND17 | |
| 08C33 | 05(2) | 27C41 | 0078900 | | WPV | |
| | 06(1) | 10B21 | 0078100 | | WCHSK | |
| 11C09 | 07(1) | | 0065600 | | SUN | |
| | 08(1) | 11C17 | 0007250 | | BFEPWC | |
| 27C28 | 09(2) | 11C07 | 0065600 | | SUN | |
| 11B42 | 10(1) | | 0054000 | | RED | |
| 11B28 | 11(2) | 09B24 | 0049800 | | ORDRST | |
| | 12(0) | | | | | |
| 12B43 | 13(2) | 16C09 | 0048800 | | OIS | |
| 28B40 | 14(1) | | 0076700 | | UNESET2 | |
| | 15(1) | 14C28 | 0078600 | | WDTM | |
| | 16(0) | | | | | |
| 11C08 | 17(2) | 15C24 | 0007250 | | BFEPWC | |
| 03B33 | 18(2) | 08C11 | 0062400 | | NSERVCON | |
| 07B22 | 19(2) | 12C05 | 0004900 | | BAXLP | |
| 07B18 | 20(2) | 12C13 | 0005000 | | BAXUP | |
| | 21(1) | 12C20 | 0077000 | | UP0 | |
| 09C23 | 22(2) | 12C21 | 0004400 | | BA0 | |
| 06C03 | 23(2) | 12C30 | 0068200 | | NT0 | |
| | 24(1) | 12C19 | 0047200 | | LPO | |
| 24B22 | 25(1) | | 0074800 | | TTSHU | |
| 11B03 | 26(1) | | 0033400 | | FSU | |
| 11B26 | 27(2) | 11B30 | 0054200 | | REDPAR | |
| 11C02 | 28(1) | | 0051800 | | PARER | |
| 09C25 | 29(1) | | 0004500 | | NBA0 | |
| | 30(1) | 13C30 | 0040525 | | IX0 | |
| | 31(0) | | | | | |
| | 32(0) | | | | | |
| 26A14 | 33(1) | | 0052900 | | PSPR | |
| 18B38 | 34(2) | 05B02 | 0078700 | | WEN | |
| 04B13 | 35(2) | 11C37 | 0013800 | | CHWEN | |
| | 36(0) | | | | | |
| 11C35 | 37(1) | | 0013800 | | CHWEN | |
| 02B37 | 38(1) | | 0052400 | | NPRE | |
| 02B15 | 39(2) | 11C44 | 0007800 | | BIT7 | |
| | 40(0) | | | | | |
| 10B26 | 41(2) | 08C06 | 0077900 | | WCH | |
| 16C12 | 42(2) | 08C14 | 0054050 | | REDA | |
| | 43(0) | | | | | |
| 11C39 | 44(2) | 11C45 | 0007800 | | BIT7 | |
| 11C44 | 45(1) | | 0007800 | | BIT7 | |
| | 46(1) | 20C40 | 0046300 | | LDBR | |
| 28B35 | 47(1) | | 0046400 | | NLDBR | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 16C22 | 50(2) | 05B24 | 0055700 | | RSAU | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 15B36 | 01(1) | | 0056200 | RSFSC | | |
| 15B45 | 02(1) | | 0024500 | DCBC | | |
| 17C02 | 03(1) | | 0047800 | LP3 | | |
| | 04(1) | 17C24 | 0077600 | UP3 | | |
| 11C19 | 05(2) | 28A23 | 0004900 | BAXLP | | |
| | 06(1) | 17C06 | 0047600 | LP2 | | |
| 09C18 | 07(1) | | 0004800 | BA3 | | |
| | 08(1) | 17C27 | 0077400 | UP2 | | |
| 09C29 | 09(1) | | 0004700 | BA2 | | |
| | 10(1) | 28C20 | 0069700 | T1OR | | |
| 15A23 | 11(1) | | 0069600 | T1OP | | |
| 29B50 | 12(1) | | 0069800 | T1OU | | |
| 11C20 | 13(2) | 26B08 | 0005000 | BAXUP | | |
| 29B45 | 14(1) | | 0069400 | TDVU | | |
| 15A22 | 15(1) | | 0069200 | TDVP | | |
| | 16(0) | | | | | |
| | 17(1) | 27C03 | 0069300 | TDVR | | |
| 16C39 | 18(2) | 17A20 | 0016000 | CONPA | | |
| 11C24 | 19(2) | 17C07 | 0047200 | LP0 | | |
| 11C21 | 20(2) | 17C36 | 0077000 | UP0 | | |
| 11C22 | 21(1) | | 0004400 | BA0 | | |
| 19B22 | 22(1) | | 0031300 | FNTEN | | |
| | 23(1) | 12C32 | 0033490 | GND18 | | |
| | 24(1) | 28C13 | 0063000 | S1OR | | |
| 15A25 | 25(1) | | 0062900 | S1OP | | |
| 24B31 | 26(1) | | 0063200 | S1OU | | |
| 29B46 | 27(1) | | 0036100 | H1OU | | |
| 15A24 | 28(1) | | 0035700 | H1OP | | |
| | 29(1) | 28C18 | 0035800 | H1OR | | |
| 11C23 | 30(2) | 09B10 | 0068200 | NT0 | | |
| 12B44 | 31(2) | 16C08 | 0062500 | SERVEX | | |
| 12C23 | 32(2) | 12C36 | 0033490 | GND18 | | |
| 11B05 | 33(2) | 12C44 | 0032800 | FSD | | |
| 19B12 | 34(1) | | 0001100 | A10CU | | |
| 19B33 | 35(2) | 08C19 | 0035900 | H1ORST | | |
| 12C32 | 36(2) | 12C43 | 0033490 | GND18 | | |
| | 37(0) | | | | | |
| | 38(0) | | | | | |
| 15B04 | 39(1) | | 0014500 | CILR | | |
| 27C20 | 40(2) | 15B37 | 0076000 | UNE | | |
| 19B09 | 41(1) | | 0065200 | STOPPET | | |
| | 42(1) | 26B15 | 0076950 | UNESTOP | | |
| 12C36 | 43(1) | | 0033490 | GND18 | | |
| 12C33 | 44(2) | 18B03 | 0032800 | FSD | | |
| 03B39 | 45(1) | | 0056100 | RSDC | | |
| 09C30 | 46(1) | | 0004600 | BA1 | | |
| | 47(1) | 17C38 | 0077200 | UP1 | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(1) | 17C10 | 0047400 | LP1 | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 13C50 | 01(1) | | 0018700 | DA1U | | |
| 13C19 | 02(1) | | 0018100 | DA0U | | |
| 15C07 | 03(2) | 05B44 | 0019900 | DA3U | | |
| | 04(1) | 20C18 | 0008500 | BR3 | | |
| 30B47 | 05(2) | 13C22 | 0040600 | IXDA | | |
| 15C08 | 06(2) | 13C39 | 0019300 | DA2U | | |
| 09C12 | 07(1) | | 0037400 | I3 | | |
| | 08(1) | 20C10 | 0008300 | BR2 | | |
| 09C19 | 09(1) | | 0037300 | I2 | | |
| 10C17 | 10(2) | 15C14 | 0022000 | DA6U | | |
| 20C07 | 11(1) | | 0009100 | BR6 | | |
| 09C17 | 12(1) | | 0037700 | I6 | | |
| 22B15 | 13(2) | 13C18 | 0040550 | IXBR | | |
| 09C11 | 14(1) | | 0037800 | I7 | | |
| 16B24 | 15(2) | 20C03 | 0009300 | BR7 | | |
| | 16(0) | | | | | |
| 10C06 | 17(2) | 14C15 | 0022700 | DA7U | | |
| 13C13 | 18(2) | 11B24 | 0040550 | IXBR | | |
| 15C11 | 19(2) | 13C02 | 0018100 | DA0U | | |
| | 20(1) | 20C28 | 0007900 | BR0 | | |
| 09C35 | 21(1) | | 0037000 | I0 | | |
| 13C05 | 22(2) | 09B28 | 0040600 | IXDA | | |
| 13C30 | 23(1) | | 0040525 | IX0 | | |
| 12B24 | 24(2) | 15C12 | 0020600 | DA4U | | |
| 20C21 | 25(1) | | 0008700 | BR4 | | |
| 09C33 | 26(1) | | 0037500 | I4 | | |
| 09C28 | 27(1) | | 0037600 | I5 | | |
| 20C17 | 28(1) | | 0008900 | BR5 | | |
| 10C18 | 29(2) | 14C22 | 0021300 | DA5U | | |
| 11C30 | 30(2) | 13C23 | 0040525 | IX0 | | |
| 16A08 | 31(1) | | 0017800 | DA0P | | |
| | 32(1) | 13C36 | 0033495 | GND19 | | |
| | 33(1) | 24C05 | 0017900 | DA0R | | |
| | 34(1) | 24C23 | 0019100 | DA2R | | |
| 16A06 | 35(1) | | 0019000 | DA2P | | |
| 13C32 | 36(2) | 13C43 | 0033495 | GND19 | | |
| 04B06 | 37(2) | 14C43 | 0016300 | CONPC | | |
| 16C28 | 38(1) | | 0015900 | NCONP | | |
| 13C06 | 39(1) | | 0019300 | DA2U | | |
| | 40(1) | 24C29 | 0019700 | DA3R | | |
| 16A05 | 41(1) | | 0019600 | DA3P | | |
| 05B44 | 42(1) | | 0019900 | DA3U | | |
| 13C36 | 43(1) | | 0033495 | GND19 | | |
| 24C08 | 44(1) | | 0018500 | DA1R | | |
| 16A07 | 45(1) | | 0018400 | DA1P | | |
| 09C34 | 46(1) | | 0037200 | I1 | | |
| 20C33 | 47(1) | | 0008100 | BR1 | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 15C09 | 50(2) | 13C01 | 0018700 | DA1U | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| 19326 | 01(2) | 14C02 | 0063500 | SLN | | |
| 14C01 | 02(2) | 14C06 | 0063500 | SLN | | |
| | 03(1) | 14C04 | 0033500 | GND20 | | |
| 14C03 | 04(2) | 14C05 | 0033500 | GND20 | | |
| 14C04 | 05(2) | 14C08 | 0033500 | GND20 | | |
| 14C02 | 06(1) | | 0063500 | SLN | | |
| 02C24 | 07(2) | 30B05 | 0012200 | CDO | | |
| 14C05 | 08(2) | 14C31 | 0033500 | GND20 | | |
| 14C14 | 09(2) | 30B14 | 0012300 | NCDO | | |
| 31B04 | 10(2) | 15B14 | 0059600 | SC2 | | |
| 10C14 | 11(2) | 27C36 | 0075800 | U2 | | |
| | 12(1) | 21A04 | 0025100 | NDCL | | |
| 18C05 | 13(1) | | 0075900 | NU2 | | |
| | 14(1) | 14C09 | 0012300 | NCDO | | |
| 13C17 | 15(2) | 15C15 | 0022700 | DA7U | | |
| | 16(0) | | | | | |
| 10C24 | 17(2) | 27C31 | 0075600 | U1 | | |
| 16C07 | 18(1) | | 0048600 | MANRST | | |
| | 19(0) | | | | | |
| 10C19 | 20(1) | | 0075500 | NU0 | | |
| 15C14 | 21(2) | 15C40 | 0022000 | DA6U | | |
| 13C29 | 22(2) | 15C13 | 0021300 | DA5U | | |
| 10C21 | 23(2) | 27C23 | 0075400 | U0 | | |
| | 24(0) | | 0078400 | WDT | | |
| 10C22 | 25(1) | | 0075700 | NU1 | | |
| 16B20 | 26(2) | 30B27 | 0060400 | SD4 | | |
| 16B39 | 27(1) | | 0012400 | CD1 | | |
| 11C15 | 28(2) | 24C34 | 0078600 | WDTM | | |
| 29A35 | 29(2) | 14C30 | 0014800 | CLKB | | |
| 14C29 | 30(2) | 10C50 | 0014800 | CLKB | | |
| 14C08 | 31(2) | 14C32 | 0033500 | GND20 | | |
| 14C31 | 32(2) | 14C35 | 0033500 | GND20 | | |
| 02C09 | 33(2) | 14B06 | 0005120 | BCB | | |
| 14C35 | 34(2) | 14C50 | 0033500 | GND20 | | |
| 14C32 | 35(2) | 14C34 | 0033500 | GND20 | | |
| 08C37 | 36(2) | 15B12 | 0067600 | SYNC1 | | |
| | 37(1) | 15B26 | 0067700 | NSYNC1 | | |
| | 38(1) | 17A38 | 0055200 | RSAP | | |
| 09B46 | 39(2) | 28A30 | 0067800 | SYNC1SET | | |
| | 40(1) | 15B09 | 0068000 | NSYNC2 | | |
| | 41(0) | | 0055300 | NRSAP | | |
| 03B45 | 42(1) | | 0055325 | RSAPSET | | |
| 13C37 | 43(2) | 16C10 | 0016300 | CONPC | | |
| 14C45 | 44(1) | | 0012500 | NCD1 | | |
| | 45(1) | 14C44 | 0012500 | NCD1 | | |
| | 46(1) | 20A11 | 0078500 | NWDT | | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 14C34 | 50(1) | | 0033500 | GND20 | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| 13B31 | 01(1) | | 0072400 | | TRK5M | |
| 13B05 | 02(1) | | 0072800 | | TRK6M | |
| 14B04 | 03(1) | | 0073600 | | TRK8M | |
| 13B08 | 04(1) | | 0073200 | | TRK7M | |
| | 05(0) | | | | | |
| 31B12 | 06(2) | 15C43 | 0048100 | | LSB2 | |
| 15B33 | 07(2) | 13C03 | 0019900 | | DA3U | |
| 29A27 | 08(2) | 13C06 | 0019300 | | DA2U | |
| 24A12 | 09(2) | 13C50 | 0018700 | | DA1U | |
| | 10(0) | | | | | |
| 15B02 | 11(2) | 13C19 | 0018100 | | DA0U | |
| 13C24 | 12(2) | 15C42 | 0020600 | | DA4U | |
| 14C22 | 13(2) | 15C41 | 0021300 | | DA5U | |
| 13C10 | 14(2) | 14C21 | 0022000 | | DA6U | |
| 14C15 | 15(2) | 15C39 | 0022700 | | DA7U | |
| | 16(0) | | | | | |
| 22A27 | 17(2) | 22B11 | 0048000 | | LSB1 | |
| 13B03 | 18(1) | | 0070800 | | TRK1M | |
| 13B34 | 19(1) | | 0071200 | | TRK2M | |
| 13B28 | 20(1) | | 0071600 | | TRK3M | |
| 13B35 | 21(1) | | 0072000 | | TRK4M | |
| 06C19 | 22(2) | 05C06 | 0053200 | | PWC | |
| 23B12 | 23(1) | | 0007000 | | BFE | |
| 11C17 | 24(2) | 20B26 | 0007250 | | BFEPWC | |
| | 25(1) | 21C01 | 0039600 | | INLOIT | |
| 22B12 | 26(2) | 08C36 | 0049000 | | OIT | |
| | 27(1) | 06B37 | 0039100 | | INL | |
| | 28(0) | | | | | |
| | 29(0) | | | | | |
| | 30(0) | | | | | |
| | 31(0) | | | | | |
| | 32(0) | | | | | |
| | 33(0) | | | | | |
| | 34(0) | | | | | |
| | 35(0) | | | | | |
| | 36(0) | | | | | |
| | 37(0) | | | | | |
| | 38(0) | | | | | |
| 15C15 | 39(2) | 16C30 | 0022700 | | DA7U | |
| 14C21 | 40(2) | 16C31 | 0022000 | | DA6U | |
| 15C13 | 41(2) | 16C42 | 0021300 | | DA5U | |
| 15C12 | 42(2) | 16C41 | 0020600 | | DA4U | |
| 15C06 | 43(2) | 21B37 | 0048100 | | LSB2 | |
| | 44(0) | | | | | |
| 14B03 | 45(1) | | 0058200 | | S3M | |
| 14B28 | 46(1) | | 0057900 | | S2M | |
| 14B34 | 47(1) | | 0057600 | | S1M | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 14B31 | 50(1) | | 0057300 | | S0M | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| 15B38 | 01(2) | 20B15 | 0024300 | | DCB | |
| 16C20 | 02(2) | 12B07 | 0003400 | | ARR2 | |
| 16B34 | 03(1) | | 0015100 | | CM001 | |
| 10B41 | 04(2) | 25B08 | 0074150 | | TRKRST | |
| 16B27 | 05(1) | | 0042200 | | J017 | |
| | 06(0) | | | | | |
| 15B22 | 07(2) | 14C18 | 0048600 | | MANRST | |
| 12C31 | 08(2) | 09B33 | 0062500 | | SERVEX | |
| 11C13 | 09(1) | | 0048800 | | OIS | |
| 14C43 | 10(1) | | 0016300 | | CONPC | |
| 25B04 | 11(1) | | 0056650 | | RUNCONT | |
| | 12(1) | 11C42 | 0054050 | | REDA | |
| 21B47 | 13(1) | | 0007100 | | NBFE | |
| | 14(0) | | | | | |
| | 15(1) | 20B25 | 0039500 | | INLM-1 | |
| | 16(0) | | | | | |
| 19A27 | 17(2) | 20B07 | 0012600 | | CDN | |
| | 18(0) | | | | | |
| 06B31 | 19(1) | | 0039400 | | INLM | |
| 18B15 | 20(2) | 16C02 | 0003400 | | ARR2 | |
| 29A45 | 21(1) | | 0046270 | | J092 | |
| 22A43 | 22(2) | 11C50 | 0055700 | | RSAU | |
| 16B18 | 23(2) | 19B46 | 0032700 | | FSCU | |
| 12B31 | 24(2) | 17A03 | 0003500 | | ARSET | |
| | 25(1) | 24C26 | 0021800 | | DA6R | |
| | 26(1) | 24C44 | 0022500 | | DA7R | |
| 24C41 | 27(1) | | 0020400 | | DA4R | |
| 27B22 | 28(2) | 13C38 | 0015900 | | NCONP | |
| | 29(1) | 24C17 | 0021100 | | DA5R | |
| 15C39 | 30(1) | | 0022700 | | DA7U | |
| 15C40 | 31(1) | | 0022000 | | DA6U | |
| | 32(0) | | | | | |
| | 33(0) | | | | | |
| 03B44 | 34(1) | | 0077895 | | USOR-7 | |
| 30B45 | 35(1) | | 0077880 | | USOR-6 | |
| | 36(0) | | | | | |
| 08C09 | 37(2) | 30B39 | 0016400 | | CONPORD | |
| 15A26 | 38(1) | | 0049300 | | OR4P | |
| | 39(1) | 12C18 | 0016000 | | CONPA | |
| | 40(0) | | | | | |
| 15C42 | 41(1) | | 0020600 | | DA4U | |
| 15C41 | 42(1) | | 0021300 | | DA5U | |
| 16A03 | 43(1) | | 0021000 | | DA5P | |
| 08B36 | 44(1) | | 0016100 | | CONPAT | |
| 16A04 | 45(1) | | 0020300 | | DA4P | |
| 16A01 | 46(1) | | 0022400 | | DA7P | |
| 16A02 | 47(1) | | 0021700 | | DA6P | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 08C03 | 50(1) | | 0077865 | | USOR-5 | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| 05B35 | 01(2) | 21B40 | 0015000 | CLP | | |
| 17C23 | 02(2) | 12C03 | 0047800 | LP3 | | |
| | 03(1) | 17C04 | 0033505 | GND21 | | |
| 17C03 | 04(2) | 17C05 | 0033505 | GND21 | | |
| 17C04 | 05(2) | 17C08 | 0033505 | GND21 | | |
| 12C06 | 06(2) | 17C17 | 0047600 | LP2 | | |
| 12C19 | 07(1) | | 0047200 | LP0 | | |
| 17C05 | 08(2) | 17C28 | 0033505 | GND21 | | |
| 17C14 | 09(1) | | 0047300 | NLP0 | | |
| 12C50 | 10(2) | 17C11 | 0047400 | LP1 | | |
| 17C10 | 11(1) | | 0047400 | LP1 | | |
| | 12(0) | | | | | |
| 17C19 | 13(1) | | 0047500 | NLP1 | | |
| | 14(1) | 17C09 | 0047300 | NLP0 | | |
| | 15(0) | | | | | |
| | 16(0) | | | | | |
| 17C06 | 17(1) | | 0047600 | LP2 | | |
| 32B02 | 18(2) | 05B45 | 0025500 | DLUPX0 | | |
| | 19(1) | 17C13 | 0047500 | NLP1 | | |
| 17C22 | 20(1) | | 0047900 | NLP3 | | |
| | 21(1) | 17C25 | 0047700 | NLP2 | | |
| | 22(1) | 17C20 | 0047900 | NLP3 | | |
| | 23(1) | 17C02 | 0047800 | LP3 | | |
| 12C04 | 24(2) | 17C30 | 0077600 | UP3 | | |
| 17C21 | 25(1) | | 0047700 | NLP2 | | |
| 21B39 | 26(2) | 05B46 | 0017300 | CUP | | |
| 12C08 | 27(2) | 17C29 | 0077400 | UP2 | | |
| 17C08 | 28(2) | 17C31 | 0033505 | GND21 | | |
| 17C27 | 29(1) | | 0077400 | UP2 | | |
| 17C24 | 30(1) | | 0077600 | UP3 | | |
| 17C28 | 31(2) | 17C32 | 0033505 | GND21 | | |
| 17C31 | 32(2) | 17C34 | 0033505 | GND21 | | |
| 17C38 | 33(1) | | 0077200 | UP1 | | |
| 17C32 | 34(2) | 17C35 | 0033505 | GND21 | | |
| 17C34 | 35(1) | | 0033505 | GND21 | | |
| 12C20 | 36(1) | | 0077000 | UP0 | | |
| 17C40 | 37(1) | | 0077100 | NUP0 | | |
| 12C47 | 38(2) | 17C33 | 0077200 | UP1 | | |
| | 39(0) | | | | | |
| | 40(1) | 17C37 | 0077100 | NUP0 | | |
| | 41(1) | 17C43 | 0077300 | NUP1 | | |
| | 42(0) | | | | | |
| 17C41 | 43(1) | | 0077300 | NUP1 | | |
| | 44(1) | 17C45 | 0077500 | NUP2 | | |
| 17C44 | 45(1) | | 0077500 | NUP2 | | |
| | 46(1) | 17C50 | 0077700 | NUP3 | | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 17C46 | 50(1) | | 0077700 | NUP3 | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| 02C08 | 01(2) | 18C02 | 0005110 | BCA | | |
| 18C01 | 02(2) | 18C06 | 0005110 | BCA | | |
| 18C04 | 03(1) | | 0052300 | PRE | | |
| 18C05 | 04(2) | 18C03 | 0052300 | PRE | | |
| 18C08 | 05(2) | 18C04 | 0052300 | PRE | | |
| 18C02 | 06(2) | 18C10 | 0005110 | BCA | | |
| | 07(1) | 16B14 | 0051600 | PA7 | | |
| 18C28 | 08(2) | 18C05 | 0052300 | PRE | | |
| | 09(1) | 16B05 | 0051700 | NPA7 | | |
| 18C06 | 10(2) | 18C26 | 0005110 | BCA | | |
| 18C12 | 11(2) | 19C09 | 0051400 | PA6 | | |
| | 12(1) | 18C11 | 0051400 | PA6 | | |
| | 13(0) | | 0051500 | NPA6 | | |
| | 14(0) | | | | | |
| 18C17 | 15(2) | 19C05 | 0051200 | PA5 | | |
| | 16(1) | 18C18 | 0033510 | GND22 | | |
| | 17(1) | 18C15 | 0051200 | PA5 | | |
| 18C16 | 18(1) | | 0033510 | GND22 | | |
| | 19(0) | | | | | |
| | 20(0) | | 0051100 | NPA4 | | |
| 18C23 | 21(2) | 19C01 | 0051000 | PA4 | | |
| 18C36 | 22(2) | 19C22 | 0050800 | PA3 | | |
| | 23(1) | 18C21 | 0051000 | PA4 | | |
| 18C45 | 24(2) | 19C23 | 0050000 | PA0 | | |
| | 25(0) | | 0051300 | NPA5 | | |
| 18C10 | 26(2) | 18C29 | 0005110 | BCA | | |
| | 27(1) | 18C42 | 0050400 | PA1 | | |
| 18C31 | 28(2) | 18C08 | 0052300 | PRE | | |
| 18C26 | 29(2) | 18C30 | 0005110 | BCA | | |
| 18C29 | 30(2) | 18C33 | 0005110 | BCA | | |
| 18C34 | 31(2) | 18C28 | 0052300 | PRE | | |
| | 32(0) | | | | | |
| 18C30 | 33(2) | 24C40 | 0005110 | BCA | | |
| 18C35 | 34(2) | 18C31 | 0052300 | PRE | | |
| 18B40 | 35(2) | 18C34 | 0052300 | PRE | | |
| | 36(1) | 18C22 | 0050800 | PA3 | | |
| | 37(0) | | 0050900 | NPA3 | | |
| | 38(1) | 18C39 | 0050600 | PA2 | | |
| 18C38 | 39(2) | 19C38 | 0050600 | PA2 | | |
| | 40(0) | | | | | |
| | 41(0) | | 0050700 | NPA2 | | |
| 18C27 | 42(2) | 19C44 | 0050400 | PA1 | | |
| | 43(0) | | | | | |
| | 44(0) | | 0050500 | NPA1 | | |
| | 45(1) | 18C24 | 0050000 | PA0 | | |
| | 46(0) | | 0050100 | NPA0 | | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 24A43 | 50(2) | 19C50 | 0050300 | PA0SET | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| 18C21 | 01(1) | | 0051000 | PA4 | | |
| 21C02 | 02(2) | 19C20 | 0072600 | TRK6 | | |
| 20B35 | 03(2) | 19C12 | 0073000 | TRK7 | | |
| 21C26 | 04(2) | 09C44 | 0028800 | DT5 | | |
| 18C15 | 05(1) | | 0051200 | PA5 | | |
| 09C01 | 06(2) | 21C42 | 0029000 | DT7 | | |
| 09C04 | 07(2) | 21C41 | 0028900 | DT6 | | |
| 20B12 | 08(2) | 19C11 | 0073400 | TRK8 | | |
| 18C11 | 09(1) | | 0051400 | PA6 | | |
| 10C26 | 10(2) | 21C47 | 0057100 | S0 | | |
| 19C08 | 11(2) | 21C11 | 0073400 | TRK8 | | |
| 19C03 | 12(2) | 21C12 | 0073000 | TRK7 | | |
| | 13(1) | 20C02 | 0009050 | BR5SET | | |
| | 14(1) | 20C04 | 0009250 | BR6SET | | |
| | 15(1) | 20C08 | 0009450 | BR7SET | | |
| | 16(0) | | | | | |
| 12B46 | 17(2) | 19C27 | 0059200 | SBRX0 | | |
| | 18(1) | 20C20 | 0008850 | BR4SET | | |
| 21C45 | 19(2) | 09C42 | 0028700 | DT4 | | |
| 19C02 | 20(1) | | 0072600 | TRK6 | | |
| 21C21 | 21(2) | 19C39 | 0072200 | TRK5 | | |
| 18C22 | 22(1) | | 0050800 | PA3 | | |
| 18C24 | 23(1) | | 0050000 | PA0 | | |
| 21C25 | 24(2) | 19C46 | 0071000 | TRK2 | | |
| 20B42 | 25(2) | 19C43 | 0071400 | TRK3 | | |
| 09C41 | 26(2) | 21C04 | 0028400 | DT1 | | |
| 19C17 | 27(2) | 21B22 | 0059200 | SBRX0 | | |
| | 28(1) | 31B46 | 0059400 | SBRXPA | | |
| | 29(1) | 22B14 | 0047000 | LDISC | | |
| 04C27 | 30(2) | 21B23 | 0059300 | SBRXDT | | |
| | 31(1) | 22B46 | 0046500 | LDRM | | |
| | 32(0) | | | | | |
| | 33(1) | 20C30 | 0008250 | BR1SET | | |
| | 34(1) | 20C44 | 0008450 | BR2SET | | |
| | 35(1) | 20C46 | 0008650 | BR3SET | | |
| 19C40 | 36(2) | 21C39 | 0071800 | TRK4 | | |
| | 37(1) | 20C26 | 0008050 | BR0SET | | |
| 18C39 | 38(1) | | 0050600 | PA2 | | |
| 19C21 | 39(1) | | 0072200 | TRK5 | | |
| 20B38 | 40(2) | 19C36 | 0071800 | TRK4 | | |
| 21C07 | 41(2) | 09C08 | 0028500 | DT2 | | |
| 21C06 | 42(2) | 09C06 | 0028600 | DT3 | | |
| 19C25 | 43(2) | 21C40 | 0071400 | TRK3 | | |
| 18C42 | 44(1) | | 0050400 | PA1 | | |
| 09C43 | 45(2) | 21C19 | 0028300 | DT0 | | |
| 19C24 | 46(1) | | 0071000 | TRK2 | | |
| 20B40 | 47(2) | 21C46 | 0070600 | TRK1 | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 18C50 | 50(2) | 21B35 | 0050300 | PA0SET | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 15B30 | 01(1) | | 0005120 | BCB | | |
| 19C13 | 02(1) | | 0009050 | BR5SET | | |
| 13C15 | 03(1) | | 0009300 | BR7 | | |
| 19C14 | 04(1) | | 0009250 | BR6SET | | |
| 16B22 | 05(2) | 20C06 | 0009400 | NBR7 | | |
| 20C05 | 06(1) | | 0009400 | NBR7 | | |
| | 07(1) | 13C11 | 0009100 | BR6 | | |
| 19C15 | 08(1) | | 0009450 | BR7SET | | |
| | 09(0) | | | | | |
| 13C08 | 10(2) | 20C37 | 0008300 | BR2 | | |
| 20C40 | 11(2) | 24C36 | 0046300 | LDBR | | |
| | 12(1) | 20C32 | 0033515 | GND23 | | |
| 26A46 | 13(2) | 20C34 | 0064300 | SRBR | | |
| | 14(1) | 24B14 | 0078800 | WPRE | | |
| | 15(0) | | 0009200 | NBR6 | | |
| | 16(0) | | | | | |
| | 17(1) | 13C28 | 0008900 | BR5 | | |
| 13C04 | 18(2) | 20C41 | 0008500 | BR3 | | |
| | 19(0) | | 0009000 | NBR5 | | |
| 19C18 | 20(1) | | 0008850 | BR4SET | | |
| | 21(1) | 13C25 | 0008700 | BR4 | | |
| 16B17 | 22(1) | | 0022900 | DAIR | | |
| | 23(1) | 25A13 | 0060600 | SDBR0 | | |
| | 24(1) | 20B24 | 0065300 | STRKBRO | | |
| 26A21 | 25(2) | 20C33 | 0008100 | BR1 | | |
| 19C37 | 26(1) | | 0008050 | BROSET | | |
| | 27(0) | | 0008800 | NBR4 | | |
| 13C20 | 28(2) | 20C29 | 0007900 | BRO | | |
| 20C28 | 29(1) | | 0007900 | BRO | | |
| 19C33 | 30(1) | | 0008250 | BR1SET | | |
| | 31(1) | 26A20 | 0008000 | NBR0 | | |
| 20C12 | 32(2) | 20C36 | 0033515 | GND23 | | |
| 20C25 | 33(2) | 13C47 | 0008100 | BR1 | | |
| 20C13 | 34(1) | | 0064300 | SRBR | | |
| | 35(0) | | 0008200 | NBR1 | | |
| 20C32 | 36(2) | 20C38 | 0033515 | GND23 | | |
| 20C10 | 37(1) | | 0008300 | BR2 | | |
| 20C36 | 38(1) | | 0033515 | GND23 | | |
| | 39(0) | | 0008400 | NBR2 | | |
| 11C46 | 40(2) | 20C11 | 0046300 | LDBR | | |
| 20C18 | 41(1) | | 0008500 | BR3 | | |
| | 42(0) | | | | | |
| | 43(0) | | 0008600 | NBR3 | | |
| 19C34 | 44(1) | | 0008450 | BR2SET | | |
| | 45(0) | | | | | |
| 19C35 | 46(1) | | 0008650 | BR3SET | | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| 15C25 | 01(1) | | 0039600 | | INLOIT | |
| 20B36 | 02(2) | 19C02 | 0072600 | | TRK6 | |
| | 03(1) | 21C08 | 0033520 | | GND24 | |
| 19C26 | 04(2) | 09C39 | 0028400 | | DT1 | |
| | 05(1) | 22B35 | 0043700 | | J032 | |
| 09C02 | 06(2) | 19C42 | 0028600 | | DT3 | |
| 09C09 | 07(2) | 19C41 | 0028500 | | DT2 | |
| 21C03 | 08(2) | 21C16 | 0033520 | | GND24 | |
| | 09(1) | 08C44 | 0043800 | | J033 | |
| 20B39 | 10(1) | | 0070200 | | TRK0 | |
| 19C11 | 11(1) | | 0073400 | | TRK8 | |
| 19C12 | 12(1) | | 0073000 | | TRK7 | |
| | 13(1) | 29C18 | 0018200 | | DA1D | |
| | 14(1) | 29C19 | 0018800 | | DA2D | |
| | 15(1) | 29C20 | 0019400 | | DA3D | |
| 21C08 | 16(1) | | 0033520 | | GND24 | |
| 23B46 | 17(2) | 21C27 | 0023250 | | DARESET | |
| | 18(1) | 29C17 | 0017600 | | DA0D | |
| 19C45 | 19(2) | 09C40 | 0028300 | | DT0 | |
| 30B19 | 20(1) | | 0074400 | | TRPR | |
| 20B37 | 21(2) | 19C21 | 0072200 | | TRK5 | |
| | 22(1) | 08C47 | 0043600 | | J031 | |
| 21B30 | 23(2) | 05B14 | 0041300 | | J007 | |
| 10C28 | 24(1) | | 0057400 | | S1 | |
| 20B41 | 25(2) | 19C24 | 0071000 | | TRK2 | |
| 09C46 | 26(2) | 19C04 | 0028800 | | DT5 | |
| 21C17 | 27(2) | 21B24 | 0023250 | | DARESET | |
| | 28(0) | | | | | |
| 21B26 | 29(2) | 22B13 | 0063800 | | SNSBYTE2 | |
| 04C22 | 30(2) | 21B34 | 0023500 | | DAXDT | |
| 22B39 | 31(2) | 22B33 | 0063700 | | SNSBYTE1 | |
| | 32(0) | | | | | |
| | 33(1) | 30C09 | 0020800 | | DA5D | |
| | 34(1) | 31C47 | 0021500 | | DA6D | |
| | 35(1) | 31C39 | 0022200 | | DA7D | |
| 10C37 | 36(1) | | 0058000 | | S3 | |
| | 37(1) | 31C29 | 0020100 | | DA4D | |
| 21B33 | 38(2) | 22B34 | 0041800 | | J012 | |
| 19C36 | 39(1) | | 0071800 | | TRK4 | |
| 19C43 | 40(1) | | 0071400 | | TRK3 | |
| 19C07 | 41(2) | 09C07 | 0028900 | | DT6 | |
| 19C06 | 42(2) | 09C05 | 0029000 | | DT7 | |
| 10C34 | 43(1) | | 0057700 | | S2 | |
| 21B31 | 44(2) | 05B15 | 0041400 | | J008 | |
| 09C45 | 45(2) | 19C19 | 0028700 | | DT4 | |
| 19C47 | 46(1) | | 0070600 | | TRK1 | |
| 19C10 | 47(1) | | 0057100 | | S0 | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 21B29 | 50(2) | 27B04 | 0041200 | | J006 | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| | 01(1) | 31C05 | 0003800 | | NASCM | |
| | 02(1) | 26A31 | 0066550 | | NSUNSET | |
| | 03(1) | 26C17 | 0053100 | | PT18S | |
| 22B42 | 04(2) | 23C08 | 0065900 | | SUNSET | |
| | 05(0) | | | | | |
| 26C04 | 06(1) | | 0036900 | | HPSR | |
| | 07(0) | | 0036700 | | HPSL | |
| 23C04 | 08(1) | | 0065900 | | SUNSET | |
| | 09(1) | 29C01 | 0036400 | | NHPIL | |
| 25B34 | 10(2) | 24A35 | 0049100 | | OOS | |
| | 11(0) | | | | | |
| | 12(1) | 29C08 | 0036800 | | NHPSL | |
| | 13(0) | | 0036300 | | HPIL | |
| | 14(0) | | | | | |
| | 15(1) | 28C27 | 0001500 | | AIOR | |
| | 16(0) | | | | | |
| 26C06 | 17(1) | | 0036500 | | HPIR | |
| | 18(0) | | | | | |
| | 19(1) | 31C41 | 0001600 | | NAIOR | |
| | 20(0) | | | | | |
| 19B50 | 21(0) | | | | | |
| | 22(2) | 29C28 | 0032200 | | FSC | |
| | 23(1) | 27C47 | 0033300 | | FSRC | |
| | 24(0) | | | | | |
| | 25(0) | | | | | |
| 27B17 | 26(1) | | 0055375 | | NRSAP1 | |
| 20A26 | 27(2) | 24C13 | 0023900 | | DCA | |
| | 28(0) | | | | | |
| | 29(0) | | | | | |
| | 30(1) | 24B33 | 0055350 | | RSAP1 | |
| | 31(0) | | | | | |
| 23C40 | 32(1) | | 0033600 | | GND23C32 | |
| 20A04 | 33(2) | 27C39 | 0038900 | | INI | |
| | 34(1) | 30C39 | 0059800 | | SCD | |
| | 35(0) | | | | | |
| | 36(1) | 26C33 | 0036600 | | HPSD | |
| | 37(1) | 28C34 | 0003900 | | ASCR | |
| | 38(1) | 29C07 | 0048300 | | LSH | |
| | 39(1) | 29C09 | 0048400 | | LSL | |
| | 40(1) | 23C32 | 0033600 | | GND23C32 | |
| 19B20 | 41(1) | | 0016700 | | CSL | |
| 29C31 | 42(1) | | 0032300 | | NFSC | |
| 26C11 | 43(2) | 31C42 | 0038700 | | INC | |
| | 44(0) | | 0004000 | | NASCR | |
| 20A08 | 45(2) | 29C39 | 0056400 | | NRSTR | |
| | 46(0) | | | | | |
| 29C45 | 47(1) | | 0056300 | | RSTR | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| | 01(1) | 27C24 | 0066200 | | SWA1 | |
| | 02(1) | 27C29 | 0066400 | | SWA2 | |
| | 03(0) | | 0067000 | | SWA5 | |
| | 04(0) | | 0066300 | | NSWA1 | |
| 13C33 | 05(2) | 30C22 | 0017900 | | DA0R | |
| | 06(0) | | 0018600 | | NDA1R | |
| | 07(0) | | 0018000 | | NDA0R | |
| 30C20 | 08(2) | 13C44 | 0018500 | | DA1R | |
| 24C13 | 09(2) | 27C02 | 0023900 | | DCA | |
| | 10(1) | 27C14 | 0066000 | | SWA0 | |
| | 11(0) | | 0066100 | | NSWA0 | |
| | 12(0) | | | | | |
| 23C27 | 13(2) | 24C09 | 0023900 | | DCA | |
| 19B28 | 14(1) | | 0033150 | | FSP-1 | |
| | 15(0) | | | | | |
| | 16(0) | | | | | |
| 16C29 | 17(2) | 30C10 | 0021100 | | DA5R | |
| | 18(0) | | | | | |
| | 19(0) | | 0067100 | | NSWA5 | |
| 25B08 | 20(1) | | 0074150 | | TRKRST | |
| | 21(0) | | 0066500 | | NSWA2 | |
| | 22(0) | | 0021200 | | NDA5R | |
| 13C34 | 23(2) | 30C18 | 0019100 | | DA2R | |
| | 24(0) | | 0019200 | | NDA2R | |
| | 25(0) | | 0021900 | | NDA6R | |
| 16C25 | 26(2) | 30C04 | 0021800 | | DA6R | |
| | 27(0) | | 0067300 | | NSWA6 | |
| | 28(0) | | 0066700 | | NSWA3 | |
| 13C40 | 29(2) | 30C13 | 0019700 | | DA3R | |
| | 30(1) | 28B25 | 0076600 | | UNESET1 | |
| | 31(0) | | | | | |
| | 32(0) | | | | | |
| | 33(0) | | 0019800 | | NDA3R | |
| 14C28 | 34(1) | | 0078600 | | WDTM | |
| | 35(0) | | 0066900 | | NSWA4 | |
| 20C11 | 36(1) | | 0046300 | | LDBR | |
| | 37(0) | | 0024100 | | DCA47 | |
| | 38(0) | | 0020500 | | NDA4R | |
| | 39(0) | | 0066800 | | SWA4 | |
| 18C33 | 40(1) | | 0005110 | | BCA | |
| 30C08 | 41(2) | 16C27 | 0020400 | | DA4R | |
| | 42(0) | | 0022600 | | NDA7R | |
| | 43(1) | 27C43 | 0066600 | | SWA3 | |
| 16C26 | 44(2) | 30C06 | 0022500 | | DA7R | |
| | 45(0) | | 0067400 | | SWA7 | |
| | 46(0) | | 0067200 | | SWA6 | |
| | 47(0) | | 0067500 | | NSWA7 | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(1) | 26C05 | 0033700 | | GND26C00 | |
| | 01(0) | | | | | |
| | 02(0) | | | | | |
| | 03(0) | | | | | |
| | 04(1) | 23C06 | 0036900 | | HPSR | |
| 26C00 | 05(1) | | 0033700 | | GND26C00 | |
| | 06(1) | 23C17 | 0036500 | | HPIR | |
| 27C11 | 07(2) | 29C02 | 0038900 | | INI | |
| 31C11 | 08(1) | | 0004100 | | AVIR | |
| | 09(0) | | 0038800 | | NINC | |
| | 10(0) | | | | | |
| | 11(1) | 23C43 | 0038700 | | INC | |
| | 12(0) | | | | | |
| | 13(0) | | | | | |
| | 14(0) | | | | | |
| | 15(1) | 29C46 | 0039000 | | NINI | |
| | 16(1) | 26C24 | 0033800 | | GND26C16 | |
| 23C03 | 17(1) | | 0053100 | | PT18S | |
| | 18(0) | | | | | |
| | 19(0) | | | | | |
| | 20(0) | | | | | |
| | 21(0) | | | | | |
| | 22(0) | | | | | |
| | 23(0) | | | | | |
| 26C16 | 24(1) | | 0033800 | | GND26C16 | |
| | 25(0) | | | | | |
| | 26(0) | | | | | |
| | 27(0) | | | | | |
| | 28(0) | | | | | |
| 31C36 | 29(1) | | 0004200 | | AVOD | |
| | 30(0) | | | | | |
| | 31(1) | 26C32 | 0033900 | | GND26C32 | |
| 26C31 | 32(1) | | 0033900 | | GND26C32 | |
| 23C36 | 33(1) | | 0036600 | | HPSD | |
| | 34(0) | | | | | |
| 31C35 | 35(1) | | 0036200 | | HPID | |
| | 36(0) | | | | | |
| | 37(0) | | | | | |
| | 38(0) | | | | | |
| | 39(0) | | | | | |
| | 40(0) | | | | | |
| | 41(1) | 26C48 | 0034000 | | GND26C48 | |
| | 42(0) | | | | | |
| | 43(0) | | | | | |
| | 44(0) | | | | | |
| | 45(0) | | | | | |
| | 46(0) | | | | | |
| | 47(0) | | | | | |
| 26C41 | 48(1) | | 0034000 | | GND26C48 | |
| | 49(0) | | | | | |
| 28C50 | 50(2) | 09C50 | 0000700 | | N8V-2 | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|----------------|--------------------|--------------------|
| | 00(0) | | | | | |
| 31B42 | 01(2) | 31C26 | 0032800 | FSD | | |
| 24C09 | 02(2) | 29C04 | 0023900 | DCA | | |
| 12C17 | 03(2) | 28C22 | 0069300 | TDVR | | |
| | 04(1) | 32C03 | 0031800 | FR4D | | |
| | 05(1) | 32C09 | 0031900 | FR5D | | |
| | 06(1) | 32C19 | 0031500 | FR1D | | |
| | 07(1) | 32C23 | 0031400 | FR0D | | |
| | 08(0) | | 0007300 | BFSD | | |
| | 09(0) | | 0069000 | (TDVR.DCA.FSD) | | |
| 31C21 | 10(1) | | 0009900 | BSYC | | |
| 27C39 | 11(2) | 26C07 | 0038900 | INI | | |
| 15B06 | 12(2) | 31C33 | 0014300 | CIL | | |
| 08C30 | 13(2) | 29B12 | 0053300 | RATER | | |
| 24C10 | 14(1) | | 0066000 | SWA0 | | |
| | 15(1) | 29C22 | 0074500 | TSH | | |
| | 16(1) | 27C18 | 0034100 | GND27C16 | | |
| | 17(0) | | | | | |
| 27C16 | 18(2) | 27C19 | 0034100 | GND27C16 | | |
| 27C18 | 19(2) | 27C25 | 0034100 | GND27C16 | | |
| 29B04 | 20(2) | 12C40 | 0076000 | UNE | | |
| 25B23 | 21(2) | 27C34 | 0024300 | DCB | | |
| | 22(1) | 27C32 | 0034200 | GND27C32 | | |
| 14C23 | 23(2) | 23A19 | 0075400 | U0 | | |
| 24C01 | 24(1) | | 0066200 | SWA1 | | |
| 27C19 | 25(1) | | 0034100 | GND27C16 | | |
| 12B29 | 26(1) | | 0029300 | DVBSY | | |
| | 27(1) | 07B46 | 0065500 | STSH02 | | |
| 22B43 | 28(2) | 11C09 | 0065600 | SUN | | |
| 24C02 | 29(1) | | 0066400 | SWA2 | | |
| | 30(0) | | | | | |
| 14C17 | 31(2) | 23A50 | 0075600 | U1 | | |
| 27C22 | 32(2) | 27C33 | 0034200 | GND27C32 | | |
| 27C32 | 33(2) | 27C35 | 0034200 | GND27C32 | | |
| 27C21 | 34(2) | 29A40 | 0024300 | DCB | | |
| 27C33 | 35(2) | 27C37 | 0034200 | GND27C32 | | |
| 14C11 | 36(2) | 23A06 | 0075800 | U2 | | |
| 27C35 | 37(1) | | 0034200 | GND27C32 | | |
| 19B29 | 38(2) | 28C36 | 0033200 | FSR | | |
| 23C33 | 39(2) | 27C11 | 0038900 | INI | | |
| | 40(0) | | | | | |
| 11C05 | 41(1) | | 0078900 | WPV | | |
| | 42(1) | 32C01 | 0032000 | FR6D | | |
| 24C43 | 43(1) | | 0066600 | SWA3 | | |
| | 44(1) | 32C15 | 0031600 | FR2D | | |
| | 45(1) | 32C12 | 0031700 | FR3D | | |
| | 46(1) | 32C02 | 0032100 | FR7D | | |
| 23C23 | 47(1) | | 0033300 | FSRC | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| | 50(0) | | | | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| 28C05 | 00(1) | | 0034300 | | GND28C00 | |
| | 01(0) | | | | | |
| | 02(0) | | | | | |
| | 03(0) | | | | | |
| | 04(0) | | 0014600 | | CL1R | |
| | 05(1) | 28C00 | 0034300 | | GND28C00 | |
| | 06(1) | 29C45 | 0056300 | | RSTR | |
| | 07(0) | | | | | |
| | 08(1) | 29C37 | 0055500 | | RSAR | |
| | 09(0) | | | | | |
| 19B03 | 10(2) | 29C43 | 0030800 | | ESR | |
| | 11(0) | | | | | |
| | 12(0) | | | | | |
| 12C24 | 13(2) | 29C33 | 0063000 | | SIOR | |
| | 14(0) | | | | | |
| | 15(0) | | | | | |
| | 16(1) | 28C24 | 0034400 | | GND28C16 | |
| | 17(0) | | | | | |
| 12C29 | 18(2) | 29C34 | 0035800 | | HIOR | |
| | 19(0) | | | | | |
| 12C10 | 20(2) | 29C35 | 0069700 | | TIOR | |
| | 21(0) | | | | | |
| 27C03 | 22(2) | 29C36 | 0069300 | | TDVR | |
| | 23(0) | | | | | |
| 28C16 | 24(1) | | 0034400 | | GND28C16 | |
| | 25(0) | | | | | |
| | 26(0) | | | | | |
| 23C15 | 27(2) | 31C17 | 0001500 | | A1OR | |
| | 28(0) | | | | | |
| | 29(0) | | | | | |
| | 30(0) | | | | | |
| | 31(0) | | | | | |
| | 32(0) | | | | | |
| | 33(0) | | | | | |
| 23C37 | 34(2) | 29C38 | 0003900 | | ASCR | |
| | 35(0) | | | | | |
| 27C38 | 36(2) | 29C42 | 0033200 | | FSR | |
| | 37(0) | | | | | |
| | 38(0) | | | | | |
| | 39(0) | | | | | |
| | 40(0) | | | | | |
| | 41(1) | 28C48 | 0034500 | | GND28C48 | |
| | 42(0) | | | | | |
| | 43(0) | | | | | |
| | 44(0) | | | | | |
| | 45(0) | | | | | |
| | 46(0) | | | | | |
| | 47(0) | | | | | |
| 28C41 | 48(1) | | 0034500 | | GND28C48 | |
| | 49(0) | | | | | |
| 29C50 | 50(2) | 26C50 | 0000700 | | N8V-2 | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|-------------|-------|-----------------|------------|--------------------|--------------------|
| | 00(0) | | | | | |
| 23C09 | 01(2) | 31C12 | 0036400 | | NHPIL | |
| 26C07 | 02(2) | 29C10 | 0038900 | | INI | |
| | 03(0) | | | | | |
| 27C02 | 04(2) | 31C10 | 0023900 | | DCA | |
| 31C01 | 05(1) | | 0046800 | | LIH | |
| 31C46 | 06(1) | | 0046900 | | LIL | |
| 23C38 | 07(1) | | 0048300 | | LSH | |
| 23C12 | 08(1) | | 0036800 | | NHPSL | |
| 23C39 | 09(1) | | 0048400 | | LSL | |
| 29C02 | 10(2) | 29C40 | 0038900 | | INI | |
| 31B02 | 11(2) | 30C33 | 0030200 | | EDD | |
| | 12(0) | | | | | |
| 27B42 | 13(2) | 32C33 | 0039800 | | IORD | |
| 26B41 | 14(2) | 30C37 | 0025800 | | DORD | |
| | 15(0) | | | | | |
| | 16(0) | | | | | |
| 21C18 | 17(2) | 30C23 | 0017600 | | DA0D | |
| 21C13 | 18(2) | 30C19 | 0018200 | | DA1D | |
| 21C14 | 19(2) | 30C15 | 0018800 | | DA2D | |
| 21C15 | 20(2) | 30C12 | 0019400 | | DA3D | |
| | 21(0) | | | | | |
| 27C15 | 22(1) | | 0074500 | | TSH | |
| 21A35 | 23(1) | | 0016900 | | CSLI | |
| | 24(1) | 31C30 | 0074700 | | TTSH | |
| | 25(1) | 31C23 | 0001300 | | AIOM | |
| 27B21 | 26(1) | | 0055600 | | RSARC | |
| | 27(0) | | 0003600 | | ASCB | |
| 23C22 | 28(2) | 31C03 | 0032200 | | FSC | |
| | 29(1) | 31C09 | 0003700 | | ASCM | |
| | 30(0) | | | | | |
| 31B38 | 31(2) | 23C42 | 0032300 | | NFSC | |
| | 32(0) | | | | | |
| 28C13 | 33(1) | | 0063000 | | SIOR | |
| 28C18 | 34(1) | | 0035800 | | HIOR | |
| 28C20 | 35(1) | | 0069700 | | TIOR | |
| 28C22 | 36(1) | | 0069300 | | TDVR | |
| 28C08 | 37(1) | | 0055500 | | RSAR | |
| 28C34 | 38(2) | 31C07 | 0003900 | | ASCR | |
| 23C45 | 39(2) | 31C45 | 0056400 | | NRSTR | |
| 29C10 | 40(2) | 31C50 | 0038900 | | INI | |
| | 41(1) | 31C11 | 0004100 | | AVIR | |
| 28C36 | 42(2) | 31C15 | 0033200 | | FSR | |
| 28C10 | 43(1) | | 0030800 | | ESR | |
| 20B04 | 44(2) | 31C37 | 0056000 | | RSD | |
| 28C06 | 45(2) | 23C47 | 0056300 | | RSTR | |
| 26C15 | 46(1) | | 0039000 | | NINI | |
| | 47(0) | | | | | |
| | 48(0) | | | | | |
| | 49(0) | | | | | |
| 30C50 | 50(2) | 28C50 | 0000700 | | NBV-2 | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(1) | 30C05 | 0034600 | | GND30C00 | |
| 31C47 | 01(1) | | 0021500 | | DA6D | |
| 31C39 | 02(1) | | 0022200 | | DA7D | |
| 31C29 | 03(1) | | 0020100 | | DA4D | |
| 24C26 | 04(1) | | 0021800 | | DA6R | |
| 30C00 | 05(1) | | 0034600 | | GND30C00 | |
| 24C44 | 06(1) | | 0022500 | | DA7R | |
| | 07(0) | | | | | |
| | 08(1) | 24C41 | 0020400 | | DA4R | |
| 21C33 | 09(2) | 31C31 | 0020800 | | DA5D | |
| 24C17 | 10(1) | | 0021100 | | DA5R | |
| | 11(0) | | | | | |
| 29C20 | 12(1) | | 0019400 | | DA3D | |
| 24C29 | 13(1) | | 0019700 | | DA3R | |
| | 14(0) | | | | | |
| 29C19 | 15(1) | | 0018800 | | DA2D | |
| | 16(1) | 30C24 | 0034700 | | GND30C16 | |
| | 17(0) | | | | | |
| 24C23 | 18(1) | | 0019100 | | DA2R | |
| 29C18 | 19(1) | | 0018200 | | DA1D | |
| | 20(1) | 24C08 | 0018500 | | DA1R | |
| | 21(0) | | | | | |
| 24C05 | 22(1) | | 0017900 | | DA0R | |
| 29C17 | 23(1) | | 0017600 | | DA0D | |
| 30C16 | 24(2) | 30C25 | 0034700 | | GND30C16 | |
| 30C24 | 25(1) | | 0034700 | | GND30C16 | |
| | 26(0) | | | | | |
| | 27(0) | | 0023200 | | DAPR | |
| | 28(0) | | | | | |
| | 29(0) | | | | | |
| | 30(0) | | | | | |
| | 31(0) | | | | | |
| | 32(1) | 30C35 | 0034800 | | GND30C32 | |
| 29C11 | 33(1) | | 0030200 | | EDD | |
| | 34(1) | 17A43 | 0030300 | | EDR | |
| 30C32 | 35(2) | 30C41 | 0034800 | | GND30C32 | |
| | 36(0) | | | | | |
| 29C14 | 37(1) | | 0025800 | | DORD | |
| | 38(0) | | | | | |
| 23C34 | 39(1) | | 0059800 | | SCD | |
| | 40(0) | | | | | |
| 30C35 | 41(1) | | 0034800 | | GND30C32 | |
| | 42(0) | | | | | |
| | 43(0) | | | | | |
| | 44(0) | | | | | |
| | 45(1) | 30C48 | 0034900 | | GND30C48 | |
| | 46(0) | | | | | |
| | 47(0) | | | | | |
| 30C45 | 48(1) | | 0034900 | | GND30C48 | |
| | 49(0) | | | | | |
| 32C50 | 50(2) | 29C50 | 0000700 | | NBV-2 | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| | 00(0) | | | | | |
| | 01(1) | 29C05 | 0046800 | LIH | | |
| | 02(0) | | | | | |
| 29C28 | 03(1) | | 0032200 | FSC | | |
| | 04(0) | | 0001350 | NAIOM | | |
| 23C01 | 05(1) | | 0003800 | NASCM | | |
| | 06(0) | | 0000900 | NAIOC | | |
| 29C38 | 07(1) | | 0003900 | ASCR | | |
| | 08(0) | | | | | |
| 29C29 | 09(1) | | 0003700 | ASCM | | |
| 29C04 | 10(2) | 31C18 | 0023900 | DCA | | |
| 29C41 | 11(2) | 26C08 | 0004100 | AVIR | | |
| 29C01 | 12(1) | | 0036400 | NHPIL | | |
| | 13(0) | | | | | |
| | 14(0) | | | | | |
| 29C42 | 15(1) | | 0033200 | FSR | | |
| | 16(0) | | | | | |
| 28C27 | 17(1) | | 0001500 | AIOR | | |
| 31C10 | 18(1) | | 0023900 | DCA | | |
| | 19(0) | | | | | |
| | 20(0) | | | | | |
| | 21(1) | 27C10 | 0009900 | BSYC | | |
| | 22(1) | 32C35 | 0033000 | FSLD | | |
| 29C25 | 23(1) | | 0001300 | AIOM | | |
| 27B37 | 24(1) | | 0000800 | AIOC | | |
| | 25(0) | | | | | |
| 27C01 | 26(1) | | 0032800 | FSD | | |
| | 27(0) | | | | | |
| 31C44 | 28(1) | | 0038900 | INI | | |
| 21C37 | 29(2) | 30C03 | 0020100 | DA4D | | |
| 29C24 | 30(1) | | 0074700 | TTSH | | |
| 30C09 | 31(1) | | 0020800 | DA5D | | |
| | 32(0) | | | | | |
| 27C12 | 33(1) | | 0014300 | CIL | | |
| | 34(0) | | 0024000 | NDCA | | |
| | 35(1) | 26C35 | 0036200 | HPID | | |
| | 36(1) | 26C29 | 0004200 | AVOD | | |
| 29C44 | 37(2) | 32C25 | 0056000 | RSD | | |
| | 38(1) | 32C39 | 0038000 | ICD | | |
| 21C35 | 39(2) | 30C02 | 0022200 | DA7D | | |
| | 40(0) | | | | | |
| 23C19 | 41(1) | | 0001600 | NAIOR | | |
| 23C43 | 42(1) | | 0038700 | INC | | |
| 31C48 | 43(1) | | 0035000 | GND31C48 | | |
| 31C50 | 44(2) | 31C28 | 0038900 | INI | | |
| 29C39 | 45(1) | | 0056400 | NRSTR | | |
| | 46(1) | 29C06 | 0046900 | LIL | | |
| 21C34 | 47(2) | 30C01 | 0021500 | DA6D | | |
| | 48(1) | 31C43 | 0035000 | GND31C48 | | |
| | 49(0) | | | | | |
| 29C40 | 50(2) | 31C44 | 0038900 | INI | | |
| | 51(0) | | | | | |

| FROM | PIN (COUNT) | TO | SOURCE LINE NO. | ELEM. TYPE | SOURCE SIGNAL NAME | REFERENCE LINE NO. |
|-------|----------------|-------|--------------------|---------------|--------------------|-----------------------|
| 32C05 | 00(1) | | 0035100 | | GND32C00 | |
| 27C42 | 01(1) | | 0032000 | | FR6D | |
| 27C46 | 02(1) | | 0032100 | | FR7D | |
| 27C04 | 03(1) | | 0031800 | | FR4D | |
| | 04(0) | | | | | |
| | 05(1) | 32C00 | 0035100 | | GND32C00 | |
| | 06(0) | | | | | |
| | 07(0) | | | | | |
| | 08(0) | | | | | |
| 27C05 | 09(1) | | 0031900 | | FR5D | |
| | 10(0) | | | | | |
| | 11(0) | | | | | |
| 27C45 | 12(1) | | 0031700 | | FR3D | |
| | 13(0) | | | | | |
| | 14(0) | | | | | |
| 27C44 | 15(1) | | 0031600 | | FR2D | |
| | 16(1) | 32C24 | 0035200 | | GND32C16 | |
| | 17(0) | | | | | |
| | 18(0) | | | | | |
| 27C06 | 19(1) | | 0031500 | | FR1D | |
| | 20(0) | | | | | |
| | 21(0) | | | | | |
| | 22(0) | | | | | |
| 27C07 | 23(1) | | 0031400 | | FR0D | |
| 32C16 | 24(1) | | 0035200 | | GND32C16 | |
| 31C37 | 25(1) | | 0056000 | | RSD | |
| | 26(0) | | | | | |
| | 27(0) | | | | | |
| | 28(0) | | | | | |
| | 29(0) | | | | | |
| | 30(0) | | | | | |
| | 31(0) | | | | | |
| | 32(1) | 32C37 | 0035300 | | GND32C32 | |
| 29C13 | 33(1) | | 0039800 | | IORD | |
| | 34(0) | | | | | |
| 31C22 | 35(1) | | 0033000 | | FSLD | |
| | 36(0) | | | | | |
| 32C32 | 37(1) | | 0035300 | | GND32C32 | |
| | 38(0) | | | | | |
| 31C38 | 39(1) | | 0038000 | | ICD | |
| | 40(0) | | | | | |
| | 41(1) | 32C45 | 0035400 | | GND32C48 | |
| | 42(0) | | | | | |
| | 43(0) | | | | | |
| | 44(0) | | | | | |
| 32C41 | 45(2) | 32C48 | 0035400 | | GND32C48 | |
| | 46(0) | | | | | |
| | 47(0) | | | | | |
| 32C45 | 48(1) | | 0035400 | | GND32C48 | |
| | 49(0) | | | | | |
| | 50(1) | 30C50 | 0000700 | | N8V-2 | |
| | 51(0) | | | | | |

XDS 902345

SECTION II
ENGINEERING TECHNICAL INFORMATION

C

C

C

NOTES: UNLESS OTHERWISE SPECIFIED

1.

Modules in locations C26, C28, C30 and C32 are furnished in Kit #152498.

TITLE

CHART, MODULE LOCATION
RAD CONTROLLER

SDS

135748

SHEET 2 OF 5

CONNECTOR LOCATION

| | | | | | | | | |
|---------|---|---|---|---|---|---|---|---|
| Type | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| Key Loc | | | | | | | | |

CONNECTOR LOCATION

| | | | | | | | | |
|---------|----|----|----|----|----|----|----|---|
| Type | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 |
| Key Loc | | | | | | | | |

CONNECTOR LOCATION

| | | | | | | | | |
|---------|--------|--------|--------|--------|------|--------|----|--------|
| Type | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 |
| Key Loc | FT10 / | FT27 / | DT16 / | IT13 / | IT11 | BT11 / | | BT10 / |
| | 2-15 | 6-20 | 9-13 | 2-12 | 2-11 | 2-11 | | 2-9 |

CONNECTOR LOCATION

| | | | | | | | | |
|---------|------|----|------|--------|--------|--------|--------|------|
| Type | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 |
| Key Loc | AT12 | | AT10 | BT11 / | BT17 / | IT13 / | BT11 / | BT11 |
| | 7-20 | | 2-23 | 2-11 | 5-16 | 2-12 | 2-11 | 2-11 |

| | |
|---------|-----|
| CHASSIS | LTR |
| | A |

TITLE
CHART,
MODULE LOCATION

SCIENTIFIC DATA SYSTEMS
135748
C
SHEET 3 OF 5

CONNECTOR LOCATION

| | | | | | | | | |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| Type | BT11 / | FT27 / | FT10 / | BT11 / | BT11 / | BT10 / | FT12 / | FT12 / |
| Key Loc | 2-11 | 6-20 | 2-15 | 2-11 | 2-11 | 2-9 | 2-13 | 2-13 |

CONNECTOR LOCATION

| | | | | | | | | |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 |
| Type | BT10 / | FT10 / | FT12 / | FT12 / | IT15 / | BT17 / | FT27 / | XT10 / |
| Key Loc | 2-9 | 2-15 | 2-13 | 2-13 | 2-6 | 5-16 | 6-20 | 2-8 |


CONNECTOR LOCATION

| | | | | | | | | |
|---------|--------|--------|--------|--------|--------|--------|--------|----|
| | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 |
| Type | BT11 / | IT15 / | BT11 / | XT10 / | BT13 / | FT27 / | IT15 / | |
| Key Loc | 2-11 | 2-6 | 2-11 | 2-8 | 2-12 | 5-16 | 2-6 | |

CONNECTOR LOCATION

| | | | | | | | | |
|---------|-------|--------|--------|--------|------|--------|--------|--------|
| | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 |
| Type | LT58 | BT11 / | BT10 / | FT26 / | IT18 | BT17 / | BT17 / | BT11 / |
| Key Loc | 11-21 | 2-11 | 2-9 | 6-13 | 5-14 | 5-16 | 5-16 | 2-11 |

| | |
|---------|-----|
| CHASSIS | LTR |
| | B |

| | | | | |
|-------|---------------------------|---|--------------|---|
| TITLE | CHART, MODULE LOCATION |  SCIENTIFIC DATA SYSTEMS | 135748 | C |
| | | | SHEET 4 OF 5 | |

CONNECTOR LOCATION

| | | | | | | | | |
|---------|------|---|------|------|------|---|------|---|
| | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| Type | BT10 | | HT15 | DT14 | HT16 | | CT10 | |
| Key Loc | 2-9 | | 8-10 | 6-17 | 7-21 | | 2-19 | |

CONNECTOR LOCATION

| | | | | | | | | |
|---------|------|------|------|------|------|------|------|------|
| | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 |
| Type | BT17 | BT13 | FT12 | FT27 | FT27 | IT14 | IT24 | FT25 |
| Key Loc | 5-16 | 2-12 | 2-13 | 6-20 | 6-20 | 2-10 | 9-17 | 5-22 |

CONNECTOR LOCATION

| | | | | | | | | |
|---------|------|------|----|------|-------|------|------|------|
| | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 |
| Type | LT26 | LT25 | | FT26 | FT41 | FT26 | FT12 | FT12 |
| Key Loc | 6-23 | 6-11 | | 6-13 | 17-22 | 6-13 | 2-13 | 2-13 |

CONNECTOR LOCATION

| | | | | | | | | |
|---------|------|------|--------------|------|------|------|------|----|
| | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 |
| Type | AT12 | LT43 | AT11 | LT41 | AT10 | IT24 | AT17 | |
| Key Loc | 7-20 | 6-9 | 2-23 7-20 | 6-10 | 2-23 | 6-8 | 8-15 | |

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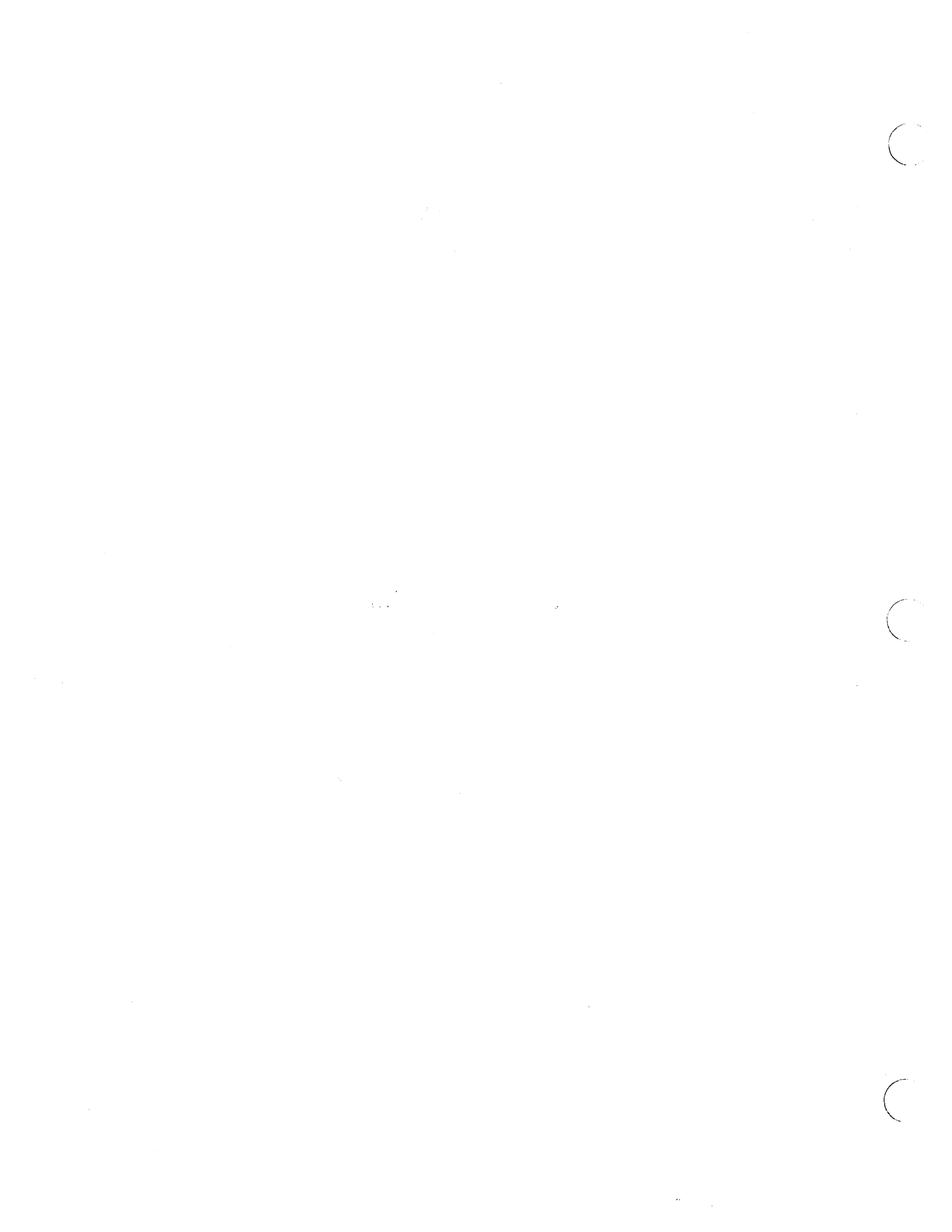
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| CHASSIS | LTR |
| | C |

TITLE
CHART,
MODULE LOCATION

SCIENTIFIC DATA SYSTEMS
135748
SHEET 5 OF 5
C

XDS 902345

SECTION III
ADDITIONAL ENGINEERING DOCUMENTS



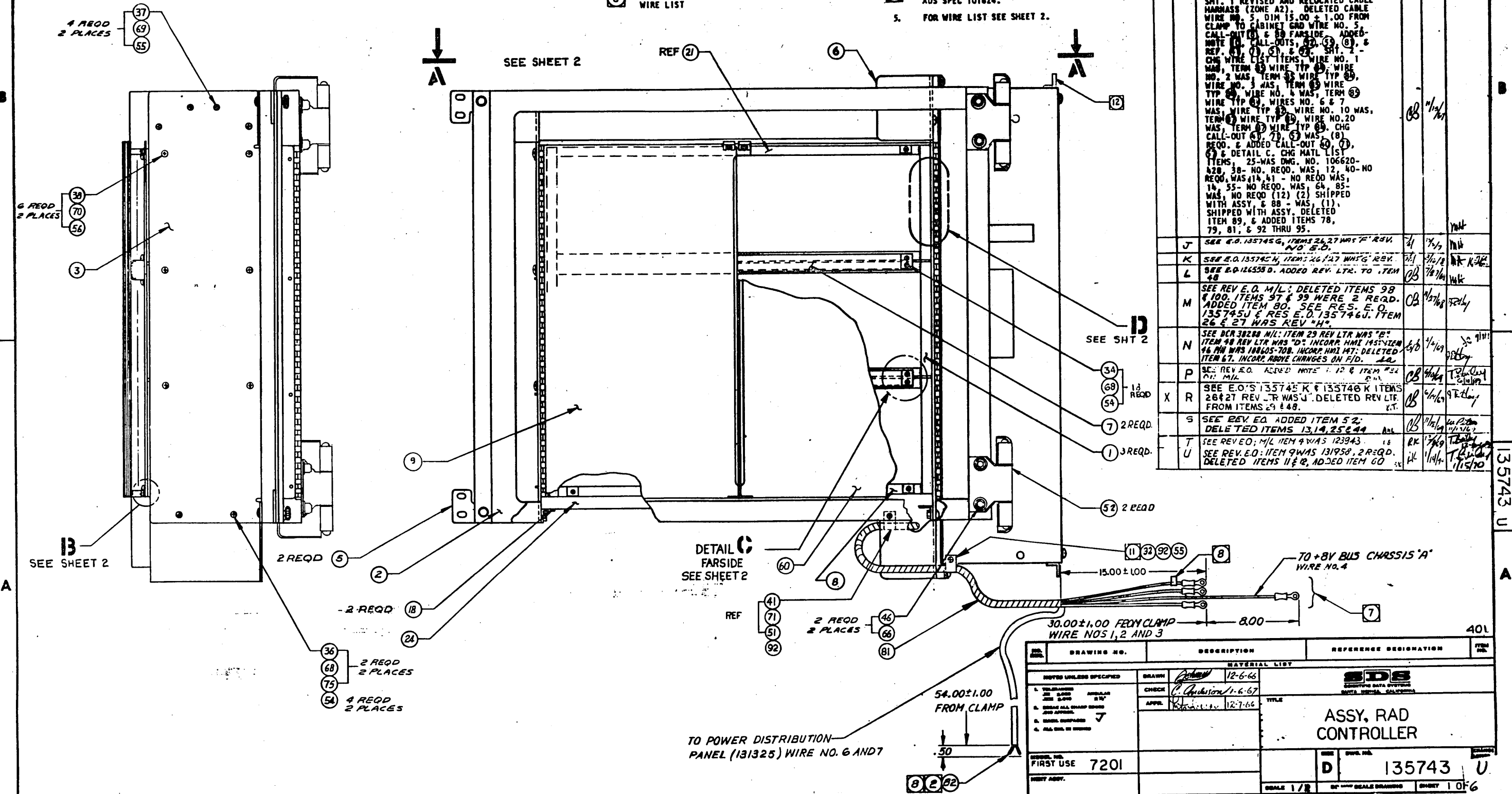
- 11 REMOVE EXISTING FLAT HD SCREW FROM POWER SUPPLY, REPLACE WITH PAN HD SCREW FOR CABLE CLAMP MOUNTING.
- 12 REMOVE BKT FROM POWER SUPPLY TO FACILITATE ASSY INSTALLATION INTO A CABINET, RE-INSTALL SCREWS.

- 9 INSTALL ITEM 96 INTO ITEM 105.
- 10 WIRE NUMBERS 10 AND 20 TO BE TWO WIRES EACH. EACH PAIR OF WIRES IS TO BE TERMINATED BY A SINGLE TERMINAL AT BUS BAR. CHASSIS CONNECTION TO BE WIRE WRAPPED.

- 6. REFERENCE DRAWINGS
 MASTER DWG LIST 135742
 MODULE LOCATION CHART 135748
 LOGIC EQUATIONS 135746
 WIRE LIST 135745
 INSTALLATION DWG 135747

- 7 GROUP WIRES 1, 2, 3, & 4 TOGETHER. SPOT TIE AT 1.5" INCREMENTS USING ITEM 90 BEGINNING CABLE CLAMP AND ENDING 8" FROM FIRST RING TONGUE TERMINAL.
- 8 TAG WIRES TO DESTINATIONS SHOWN IN "TO" COLUMN OF WIRE LIST

- NOTES, UNLESS OTHERWISE SPECIFIED
- 1 FOR IDENTIFICATION AND SERIALIZATION MARK CHARACTERS .12 HIGH COLOR:BLACK, PER XDS SPEC 101624, APPROX AS SHOWN.
 - 2 STRIP AND TIN.
 - 3 FOR MATERIAL LIST SEE SHEET 3, 4, 5 AND 6.
 - 4 MARK CHARACTERS .50 HIGH COLOR, BLACK, PER XDS SPEC 101624.
 - 5 FOR WIRE LIST SEE SHEET 2.



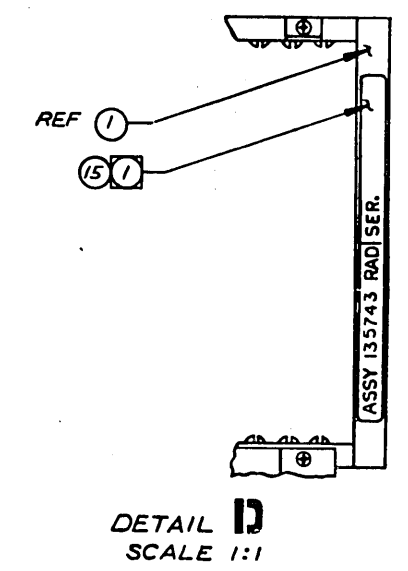
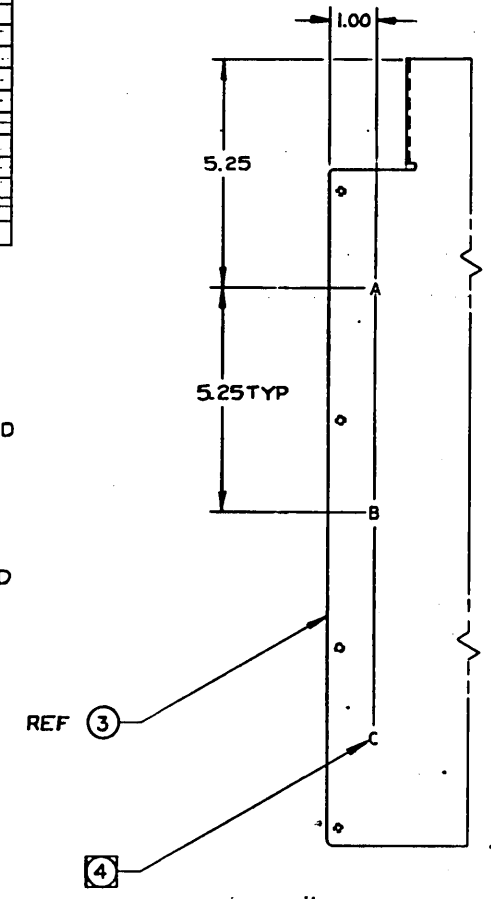
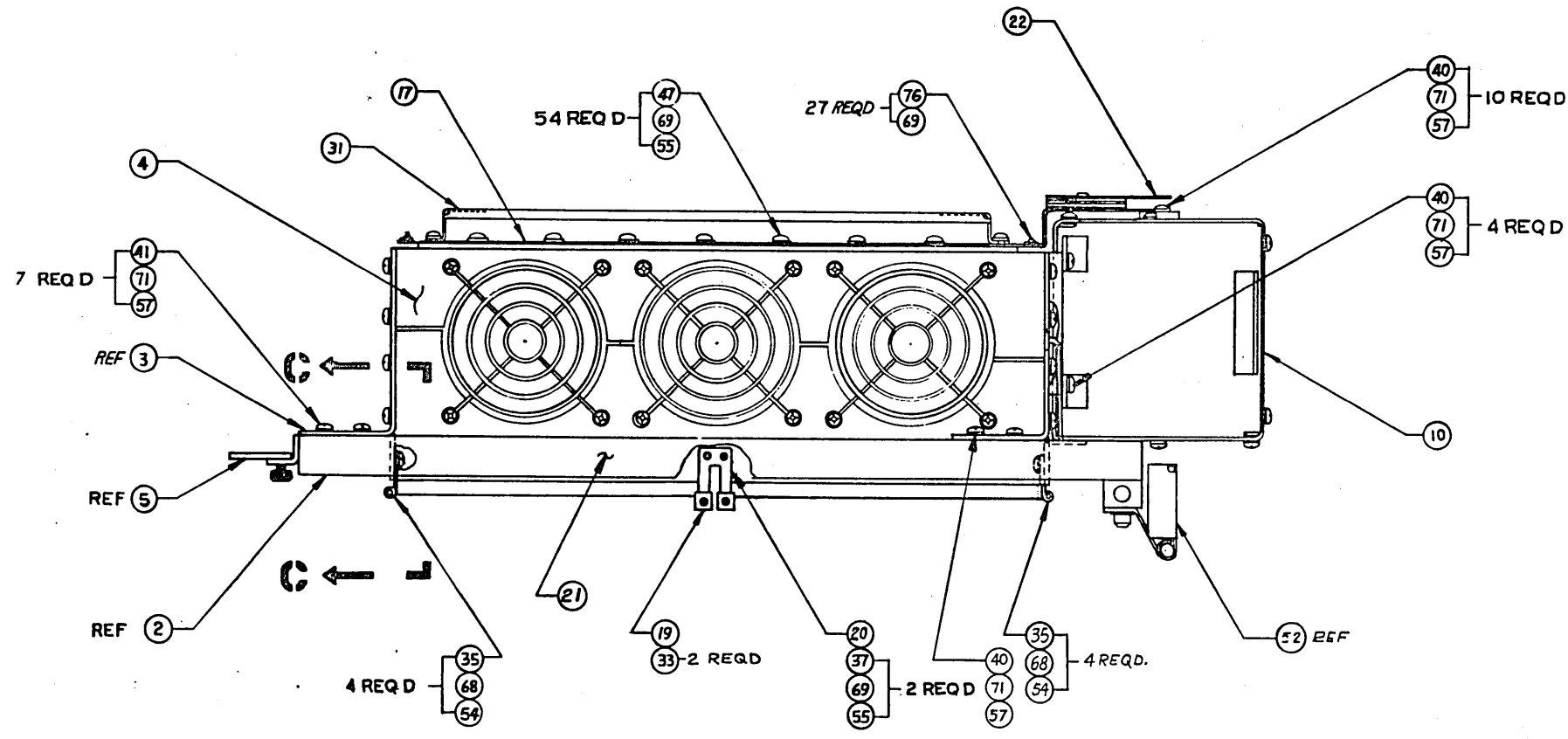
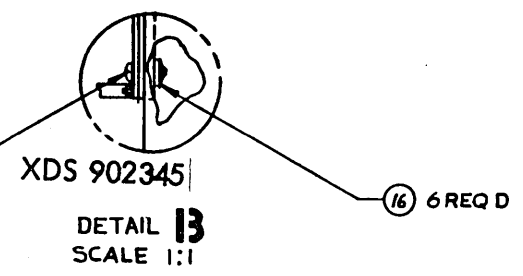
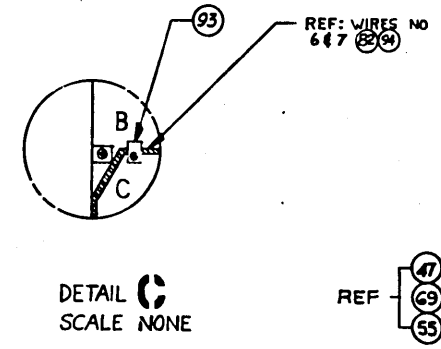
| REVISIONS | | DATE | APPROVED | 135743 U |
|-----------|------|--|----------|----------|
| LAL | REV. | DESCRIPTION | | |
| X | A | MFG RELEASE | | |
| | B | SEE REV. E.O. | | |
| | C | SEE REV. E.O. | | |
| X | D | SEE REV. E.O. | | |
| | E | SEE REV. E.O. | | |
| | F | SEE REV. E.O. | | |
| | G | SEE REV. E.O. | | |
| X | H | SEE REV. E.O. SHT. 1 REVISED AND RELOCATED CABLE HARNESS (ZONE A2). DELETED CABLE WIRE NO. 5, DIM 15.00 ± 1.00 FROM CLAMP TO CABINET GRD WIRE NO. 5. CALL-OUT (1) & 89 FAR SIDE. ADDED NOTE (1), CALL-OUTS (2), (3), (4), & REV. (1), (2), (3), & 4. SHT. 2 - CHG WIRE LIST ITEMS, WIRE NO. 1 WAS, TERM (1) WIRE TYP (1), WIRE NO. 2 WAS, TERM (2) WIRE TYP (2), WIRE NO. 3 WAS, TERM (3) WIRE TYP (3), WIRE NO. 4 WAS, TERM (4) WIRE TYP (4), WIRES NO. 6 & 7 WAS, WIRE TYP (6) WIRE NO. 10 WAS, TERM (10) WIRE TYP (10), WIRE NO. 20 WAS, TERM (20) WIRE TYP (20). CHG CALL-OUT (1), (2), (3) WAS (1), (2), (3) & DETAIL C. CHG MATL LIST ITEMS 25-WAS DWG. NO. 106620-428, 38- NO. REQD. WAS, 12, 40- NO. REQD. WAS, 14, 41- NO REQD WAS, 14, 55- NO REQD. WAS, 64, 65- WAS, NO REQD (12) (2) SHIPPED WITH ASSY & 89 - WAS, DELETED (11), SHIPPED WITH ASSY. DELETED ITEM 89, & ADDED ITEMS 78, 79, 81, & 92 THRU 95. | | |
| | J | SEE E.O. 135745 G, ITEMS 26, 27 WAS 'F' REV. NO. 5-D. | | |
| | K | SEE E.O. 135745 H, ITEMS 26, 27 WAS 'G' REV. | | |
| | L | SEE E.O. 126535 D. ADDED REV. LTR. TO ITEM 48 | | |
| | M | SEE REV. E.O. M/L; DELETED ITEMS 98 & 100. ITEMS 97 & 99 WERE 2 REQD. ADDED ITEM 80. SEE RES. E.O. 135745 J & RES. E.O. 135746 J. ITEM 26 & 27 WAS REV 'H'. | | |
| | N | SEE DCR 38288 M/L; ITEM 29 REV LTR WAS 'B' ITEM 48 REV LTR WAS 'D'. INCORP. HMI 145-VIEM 16 IN WAS 148-05-708. INCORP. HMI 147; DELETED ITEM 67. INCORP. ABOVE CHANGES ON F/D. | | |
| | P | SEE REV. E.O. ADDED NOTE 1, 12 & ITEM 24 ON M/L | | |
| X | R | SEE E.O.'S 135745 K & 135746 K ITEMS 26 & 27 REV LTR WAS 'J'. DELETED REV LTR FROM ITEMS 29 & 48. | | |
| | S | SEE REV. E.O. ADDED ITEM 52; DELETED ITEMS 13, 14, 25 & 44 | | |
| | T | SEE REV. E.O.; M/L ITEM 4 WAS 123943 | | |
| | U | SEE REV. E.O.; ITEM 9 WAS 131958, 2 REQD. DELETED ITEMS 11 & 12, ADDED ITEM 60 | | |

| | | | | | |
|-----------------------|--|-----------------------------|--|-----------------------|----------|
| DRAWING NO. | | DESCRIPTION | | REFERENCE DESIGNATION | ITEM NO. |
| 12-6-66 | | ASSY, RAD CONTROLLER | | | 401 |
| DRAWN: [Signature] | | CHECKED: [Signature] | | DATE: 12-6-66 | |
| APPROVED: [Signature] | | TITLE: ASSY, RAD CONTROLLER | | SCALE: 1/2" | |
| FIRST USE: 7201 | | PART NO.: 135743 | | SHEET: 1 OF 6 | |

135743 U

| REV. | | DESCRIPTION | CHK | DATE | APPROVED |
|------|--|---------------|-----|------|----------|
| | | SEE SHEET ONE | | | |

| WIRE LIST | | | | | | | |
|-----------|------|-----------|-------------|------|----------|--------|--------|
| WIRE NO. | TERM | FROM | TO | TERM | WIRE TYP | NOTES | SIGNAL |
| 1 | (78) | -8V BUS | -8V BUS | (78) | (64) | (7)(8) | -8V |
| 2 | (78) | 0V BUS | 0V BUS | (78) | (83) | | 0V |
| 3 | (78) | +4V BUS | +4V BUS | (78) | (84) | | +4V |
| 4 | (78) | +8V BUS | +8V BUS | (78) | (84) | (7) | +8V |
| 5 | (85) | PT 16 GRD | CABINET GRD | (85) | (83) | | 0V |
| 6 | (87) | 23C00 | TB2-3 | MECH | (87)(82) | | 0V |
| 7 | (87) | 23C05 | TB2-4 | MECH | (87)(82) | (8) | INT |
| 8 | (87) | 30A50 | 22A50 | (87) | (84) | | -8V |
| 9 | (87) | 22A50 | 15A50 | (87) | (84) | | -8V |
| 10 | MECH | 15A50 | 8V BUS | (85) | (85) | (10) | 8V |
| 11 | (87) | 32C50 | 30C50 | (87) | | | -8V |
| 12 | (87) | 30C50 | 29C50 | | | | -8V |
| 13 | (87) | 29C50 | 28C50 | | | | -8V |
| 14 | (87) | 28C50 | 26C50 | | | | -8V |
| 15 | (87) | 26C50 | 09C50 | | | | -8V |
| 16 | (87) | 09C50 | 06C50 | | | | -8V |
| 17 | (87) | 06C50 | 05C50 | | | | -8V |
| 18 | (87) | 05C50 | 04C50 | | | | -8V |
| 19 | (87) | 04C50 | 02C50 | (87) | | | -8V |
| 20 | MECH | 02C50 | -8V BUS | (85) | (85) | (10) | -8V |



| DRAWING NO. | | DESCRIPTION | REFERENCE DESIGNATION | ITEM NO. |
|--|--|-----------------------------------|-----------------------|----------|
| 7201 | | ASSY, RAD CONTROLLER | | |
| NOTES UNLESS SPECIFIED | | MATERIAL LIST | | |
| 1. TELETYPE UNIT 2. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. | | TITLE | | |
| SERIAL NO. FIRST USE 7201 | | SCALE 1/2 | | |
| MFGY ARMY. | | DO NOT SCALE DRAWING SHEET 2 OF 6 | | |

135743 U

REV. U
 DRAWING NO. 135743
 ML

303

MATERIAL LIST

ML

DRAWING NO. 135743 REV. U

XDS 902345

DRAWING TITLE ASSY, RAD CONTROLLER MODEL NO. 7201 DATE 12/3/66 SHEET 3 OF 6

| ITEM NO. | DRAWING TITLE | DWG. NO. | NO. REQ. | REMARKS ON CKT. DESIG. |
|---------------|-------------------------------------|-------------------|--------------|------------------------|
| 1 | Chassis, 32 Module | 116231 | 3 | |
| 2 | Frame, Swing | 127821 | 1 | |
| 3 | Angle Chassis Mtg. | 128207 | 1 | |
| 4 | Assy, Fan-Top | 159520 | 1 | |
| 5 | Brkt, Locking | 111097 | 2 | |
| 6 | Brkt, Chassis & PT16 Mtg. | 128208 | 1 | |
| 7 | Channel, Cable Routing | 116522 | 2 | |
| 8 | Channel, Cable Routing | 123940-001 | 1 | |
| 9 | Door, Chassis | 131958-002 | 1 | |
| 10 | Assy, Power Supply | 117264 | 1 | PT16 MDL 123509 |
| 11 | Hinge, Chassis Door | 131959 | 1 | |
| 12 | Hinge, Chassis Door | 131950 | 1 | |
| 13 | Block, Swing Frame Hinge | 117137 | 2 | |
| 14 | Pivot, Hinge Swing | 117136 | 2 | |
| 15 | Strip, Marker | 135171 | 1 | |
| 16 | Nut, Strip Speed | 129567-001 | 6 | |
| 17 | Assy, Controller Backwiring Board | 135744 | 1 | |
| 18 | Angle, Filter Mtg. | 135641 | 2 | |
| 19 | Trigger, Door Latch | 129554 | 2 | |
| 20 | Spring, Door Latch | 129540 | 1 | |
| 21 | Brkt, Door Latch Mtg. Support | 129940 | 1 | |
| 22 | Assy, Busbar-Controller | 132173 | 1 | |
| 23 | Nut, Unistrut | 124631-005 | 4 | Shipped with assy |
| 24 | Filter, Air Panel | 117427 | 1 | |
| 25 | Pin, Prec. Dowel | 134897 | 2 | |
| 26 | List, Wire Controller | 135745 K | x | ref. |
| 27 | Logic Equations | 135746 K | x | ref. |
| 28 | Installation Dwg. Controller | 135747 | x | ref. |
| 29 | Chart, Module Location | 135748 | x | ref. |
| 30 | List, Master Dwg. | 135742 | x | ref. |
| 31 | Bracket, Pin Protect | 132165-001 | 1 | |
| 32 | SCR W PAN HD. | 100012-306 | 1 | |

SOS

MATERIAL LIST

ML

DRAWING NO.

REV.

135743

U

XDS 902345

DRAWING TITLE **ASSY RAD CONTROLLER**

MODEL NO. **7201**

DATE **12/3/66** SHEET **4** OF **6**

135743

ML

| ITEM NO. | DRAWING TITLE | DWG. NO. | NO. REQ. | REMARKS ON CKT. DESIG. |
|----------|------------------------------|-----------------------|-----------------|------------------------|
| 33 | Screw, Pan Hd | 100012-106 | 2 | |
| 34 | ↑ ↑ ↑ | 100012-203 | 18 | |
| 35 | ↑ ↑ ↑ | 100012-205 | 8 | |
| 36 | ↑ ↑ ↑ | 100012-206 | 4 | |
| 37 | ↑ ↑ ↑ | 100012-304 | 10 | |
| 38 | ↑ ↑ ↑ | 100012-405 | 14 | |
| 39 | ↑ ↑ ↑ | 100012-410 | 2 | Shipped with assy |
| 40 | ↓ ↓ ↓ | 100012-505 | 15 | |
| 41 | Screw, Pan Hd | 100012-508 | 13 | 3 Shipped with assy |
| 42 | Screw, Cap, Stl. Hex Hd. | 101441-102 | 6 | Shipped with assy |
| 43 | Screw, Cap, Stl, Hex Hd. | 101441-103 | 1 | Shipped with assy |
| 44 | Screw, Set Socket | 107151-304 | 2 | |
| 45 | Screw, Cap, Stl Socket Hd. | 108605-510 | 8 | Shipped with assy |
| 46 | Screw, Cap Stl, Socket Hd. | 108605-710 | 4 | |
| 47 | Screw, Sheet Metal Pan Hd. | 114538-212 | 54 | |
| 48 | Spec. Test & Acceptance | 126555 | ref. | |
| 49 | Logic Equations | 135746 | ref. | |
| 50 | Spec Diagnostic | 704072 | ref. | (Sigma 7) |
| 51 | Spec Diagnostic | 704027 | ref. | (Sigma 2) |
| 52 | Hinge Assy | 149219 | 2 | |
| 53 | | | | |
| 54 | Washer, Flat | 100018-200 | 34 | |
| 55 | ↑ ↑ | 100018-300 | 65 | |
| 56 | ↑ ↑ | 100018-400 | 14 | 2 Shipped with assy |
| 57 | ↓ ↓ | 100018-500 | 28 | 3 Shipped with assy |
| 58 | Washer, Flat | 100018-600 | 8 | Shipped with assy |
| 59 | | | | |
| 60 | Door, Chassis | 131958-001 | 1 | |
| 61 | | | | |
| 62 | | | | |
| 63 | | | | |
| 64 | | | | |

DRAWING NO. **135743** XDS 902345
 DRAWING TITLE **ASSY, RAD CONTROLLER** MODEL NO. **7201** DATE **12/3/66** SHEET **5** OF **6**

| ITEM NO. | DRAWING TITLE | DWG. NO. | NO. REQ. | REMARKS ON CKT. DESIG. |
|---------------|---|-----------------------|--------------|--------------------------------|
| 65 | Washer, Lock Spring | 100023-500 | 8 | Shipped with assy |
| 66 | Washer, Lock Spring | 100023-700 | 4 | |
| 67 | Washer, Lock Int. Tooth | 100024-100 | 2 | |
| 68 | ↑ ↑ ↑ ↑ | 100024-200 | 30 | |
| 69 | ↑ ↑ ↑ ↑ | 100024-300 | 91 | |
| 70 | ↑ ↑ ↑ ↑ | 100024-400 | 14 | 2 Shipped with assy |
| 71 | ↓ ↓ ↓ ↓ | 100024-500 | 28 | 6 Shipped with assy |
| 72 | Washer, Lock Int. Tooth | 100024-600 | 1 | Shipped with assy |
| 73 | | | | |
| 74 | | | | |
| 75 | Nut, Hex Machine | 100008-200 | 4 | |
| 76 | Nut, Hex Machine | 100008-300 | 27 | |
| 77 | Nut, Hex Machine | 100008-600 | 1 | Shipped with assy |
| 78 | Terminal, Ring Tongue | 132570-003 | 6 | |
| 79 | Terminal, Ring Tongue | 132570-004 | 2 | |
| 80 | Assy, Cable-Module Kit | 152498 | REF. | |
| 81 | Spyrap | 101625-003 | A/R | |
| 82 | Wire Stranded Twisted Pair | 133559-026 | A/R | |
| 83 | Wire, Stranded Ins. | 131436-910 | A/R | |
| 84 | Wire, Stranded Ins. | 131436-914 | A/R | |
| 85 | Terminal Ring Tongue | 132570-001 | 2 | 2 Shipped with assy |
| 86 | Terminal, Ring Tongue | 132570-004 | 1 | |
| 87 | Terminal, Inverted Crimp | 123879 | 2 | |
| 88 | Clamp, Cable | 100657-002 | 2 | 1 Shipped with assy |
| 89 | Clamp, Cable | 130815 | 1 | Shipped with assy |
| 90 | Cord, Lacing | 102066-001 | A/R | |
| 91 | Assv, Maint. ^{Disc Memory} Doc. Controller | 136360 | 1 | ref. |
| 92 | Clamp' | 100657-007 | 2 | |
| 93 | Clamp, Cable | 100657-001 | 1 | |
| 94 | Tubing | 100744-107 | A/R | |
| 95 | Wire, Solid | 116741-928 | A/R | |
| 96 | Crystal Quartz | 128131-008 | 1 | Install in Item 105 |

ML

138

REV. U
 DRAWING NO. 135743
 ML



MATERIAL LIST



DRAWING NO. 135743
 REV. U

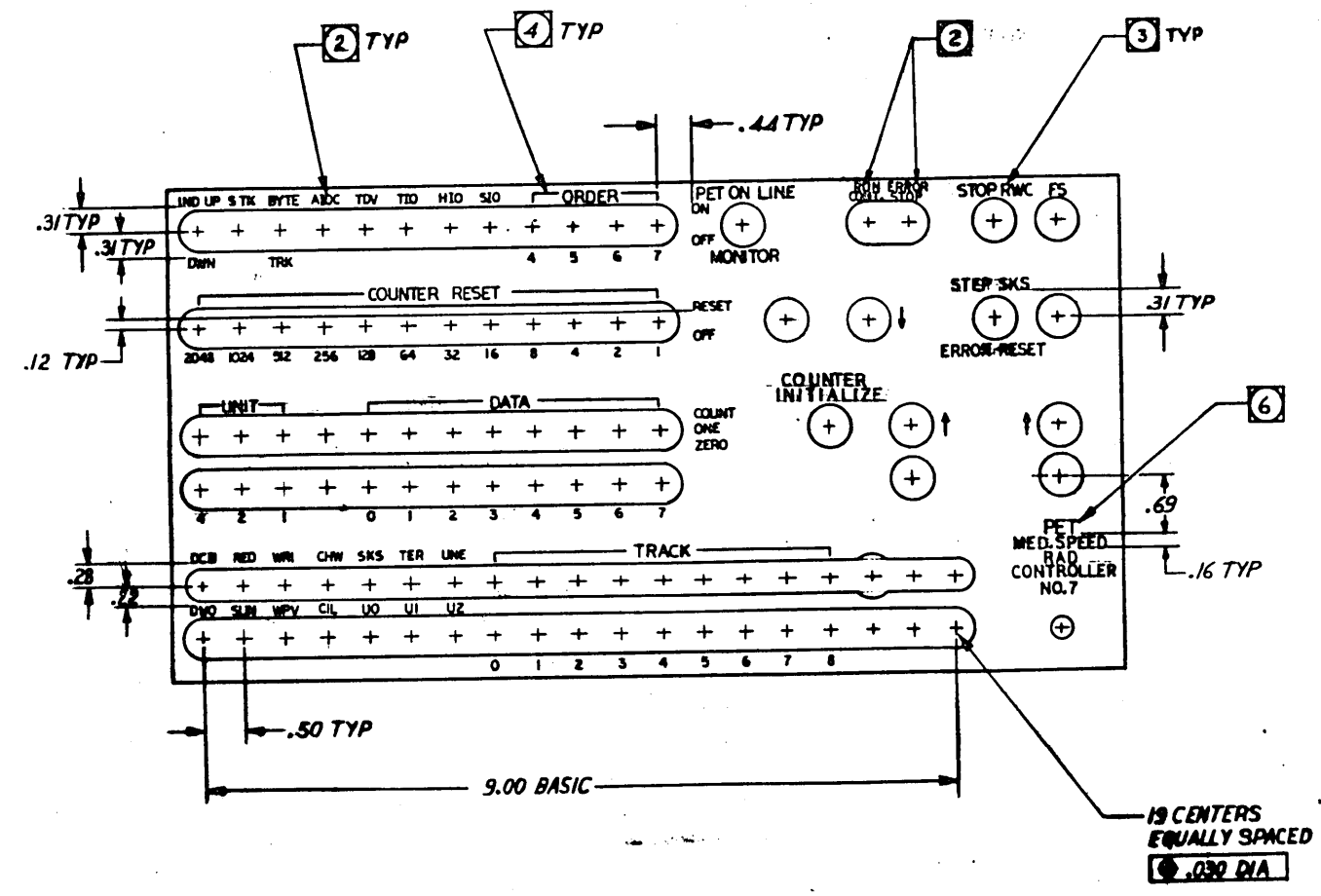
XDS 902345

DRAWING TITLE ASSY, RAD CONTROLLER MODEL NO. 7201 DATE 12/3/66 SHEET 6 OF 6

| ITEM NO. | DRAWING TITLE | DWG. NO. | NO. REQ. | REMARKS ON CKT. DESIG. |
|----------------|--------------------------------------|-------------------|--------------|------------------------|
| 97 | Assy, FW, Cable Receiver | 123018 | 1 | AT10 See MDL 123756 |
| 98 | Cable Driver Recvr. | 123019 | 1 | AT11 116530 |
| 99 | Cable Driver | 124629 | 1 | AT12 124665 |
| 100 | Cable Driver Recvr. | 126714 | 1 | AT17 126715 |
| 101 | Buffered And/Or Gate | 116056 | 5 | BT10 116057 |
| 102 | Band Gate | 116029 | 11 | BT11 116030 |
| 103 | Buffered Matrix | 116407 | 2 | BT13 116409 |
| 104 | Gated Buffer | 126330 | 5 | BT17 126486 |
| 105 | Clock Oscillator | 123491 | 1 | CT10 123863 (9) |
| 106 | Delay Line | 127319 | 1 | DT14 127320 |
| 107 | Delay Element | 128172 | 1 | DT16 128173 |
| 108 | Basic Flip Flop | 116380 | 3 | FT10 116382 |
| 109 | Gated Flip Flop | 117028 | 7 | FT12 117029 |
| 110 | Fast Access ^{16 x 8} Memory | 126743 | 1 | FT25 126744 |
| 111 | Buffered Latch #3 | 126856 | 3 | FT26 126857 |
| 112 | Buffered Latch #2 | 126986 | 6 | FT27 126987 |
| 113 | Register Flip Flop | 133251 | 1 | FT41 133250 |
| 114 | Delay Line Sensors | 127391 | 1 | HT15 127392 |
| 115 | Gated Delay ^{sensor} Line | 128011 | 1 | HT16 127397 |
| 116 | Nand Gate | 116994 | 1 | IT11 116995 |
| 117 | Inverter Matrix | 117000 | 2 | IT13 117001 |
| 118 | Gated Inverter | 117375 | 3 | IT15 117376 |
| 119 | Nand Gate | 126372 | 1 | IT18 126421 |
| 120 | Nand-Nor Gate | 128188 | 1 | IT24 128189 |
| 121 | Buffer Inverter #2 | 123017 | 1 | LT14 123354 |
| 122 | Logic Element | 126710 | 1 | LT24 126711 |
| 123 | Logic Element | 126712 | 1 | LT25 126713 |
| 124 | Switch Comparator | 126982 | 1 | LT26 129983 |
| 125 | Logic Element | 133392 | 1 | LT41 133391 |
| 126 | Logic Element | 133657 | 1 | LT43 133656 |
| 127 | Keyboard Display | 134278 | 1 | LT58 134277 |
| 128 | Assy, FW, Terminator Module | 116257 | 2 | XT10 See MDL 116271 |

- NOTES: UNLESS OTHERWISE SPECIFIED
- 1 IDENTIFY PER SDS SPEC 100198, FAR SIDE.
 - 2 SILKSCREEN CHARACTERS 6 POINT NEWS GOTHIC COLOR, DARK GRAY PER SDS SPEC 126405.
 - 3 SILKSCREEN CHARACTERS 8 POINT NEWS GOTHIC COLOR, DARK GRAY PER SDS SPEC 126405.
 - 4 LINE WIDTH .030, COLOR, DARK GRAY PER SDS SPEC 126405.
 - 5 LOCATE ALL CHARACTERS SYMMETRICALLY ABOUT INDICATED CENTERLINES.
 - 6 SILKSCREEN CHARACTERS 10 POINT NEWS GOTHIC COLOR, DARK GRAY PER SDS SPEC 126405.

| REVISIONS | | DATE | BY |
|-----------|---|--------|----|
| A | MFG RELEASE | | |
| B | MARKINGS CHANGED: RUN CONT. WAS: RUN; ERROR STOP WAS: CONT; STEP SKS WAS: STEP; ERROR RESET WAS: SKS; COUNTER INITIALIZE WAS: INITIALIZE MODEL NO. WAS: 8904; NEXT ASSY WAS: 130775; PET MED. SPEED RAD WAS: PET RAD; 2 WAS: NOTE 2 WAS: 8 POINT NOTE 3 WAS: 10 POINT NOTE 4 WAS: 12 POINT. | 1/8/67 | |
| C | STOP E.O. | | |
| D | SEE REV. E.O. CORRECTED "B" REV. AS FOLLOWS: CWS MARKINGS; COUNTER INITIALIZE WAS: COUNTER ANALYZE, PET MED. SPEED RAD CONTROLLER NO.7 WAS: PET RAD CONTROLLER NO.7 (ZONE A2, B2). CHG NOTES: NOTE 2 WAS: 8 POINT, NOTE 3 WAS: 10 POINTS, 4 NOTE 4 WAS 7E POINTS. | 1/4/68 | |

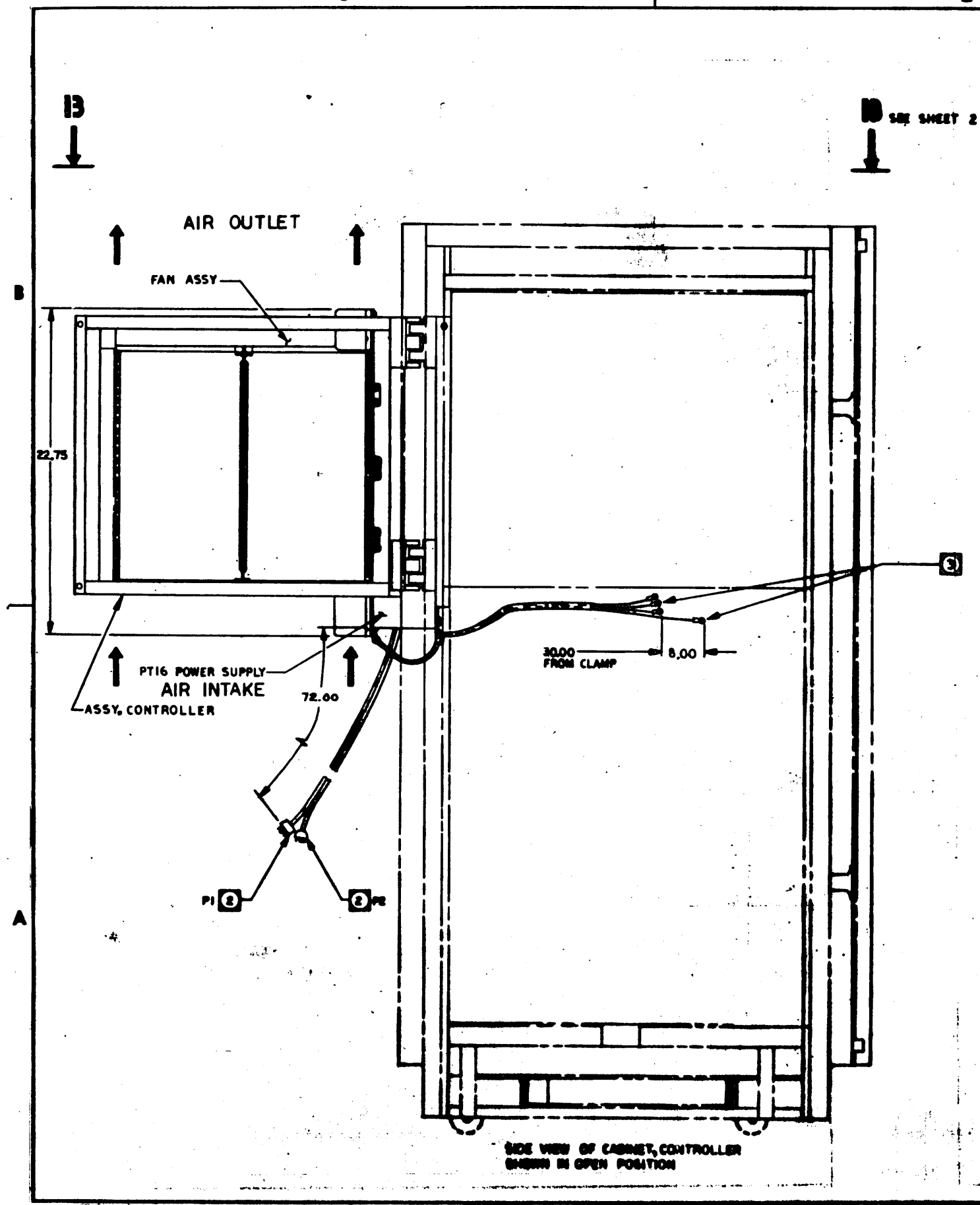


| DRAWING NO. | DESCRIPTION | REFERENCE DESIGNATION |
|--|---|--|
| 136431 | PANEL, OVERLAY, RAD CONTROLLER | |
| MATERIAL LIST | | |
| 1. UNLESS OTHERWISE SPECIFIED | DRAWN: [Signature] 1-17-66 | SDS SCIENTIFIC DATA SYSTEMS SANTA MONICA, CALIFORNIA |
| 2. ALL DIMENSIONS IN INCHES | CHECKED: [Signature] 5/1/67 | |
| 3. ALL DIMENSIONS TO CENTER UNLESS OTHERWISE SPECIFIED | APPROVED: [Signature] 1-20-67 | |
| 4. ALL DIMENSIONS TO CENTER UNLESS OTHERWISE SPECIFIED | MATERIAL: MAKE FROM SDS PART NO. 126575 | |
| 5. ALL DIMENSIONS TO CENTER UNLESS OTHERWISE SPECIFIED | | |
| 6. ALL DIMENSIONS TO CENTER UNLESS OTHERWISE SPECIFIED | | |
| 7. ALL DIMENSIONS TO CENTER UNLESS OTHERWISE SPECIFIED | | |
| 8. ALL DIMENSIONS TO CENTER UNLESS OTHERWISE SPECIFIED | | |
| 9. ALL DIMENSIONS TO CENTER UNLESS OTHERWISE SPECIFIED | | |
| 10. ALL DIMENSIONS TO CENTER UNLESS OTHERWISE SPECIFIED | | |
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| 18. ALL DIMENSIONS TO CENTER UNLESS OTHERWISE SPECIFIED | | |
| 19. ALL DIMENSIONS TO CENTER UNLESS OTHERWISE SPECIFIED | | |
| 20. ALL DIMENSIONS TO CENTER UNLESS OTHERWISE SPECIFIED | | |
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| REVISIONS | | 135747 |
|-----------|--------------|---------|
| NO. | DESCRIPTION | DATE |
| A | REV. RELEASE | 12-5-66 |

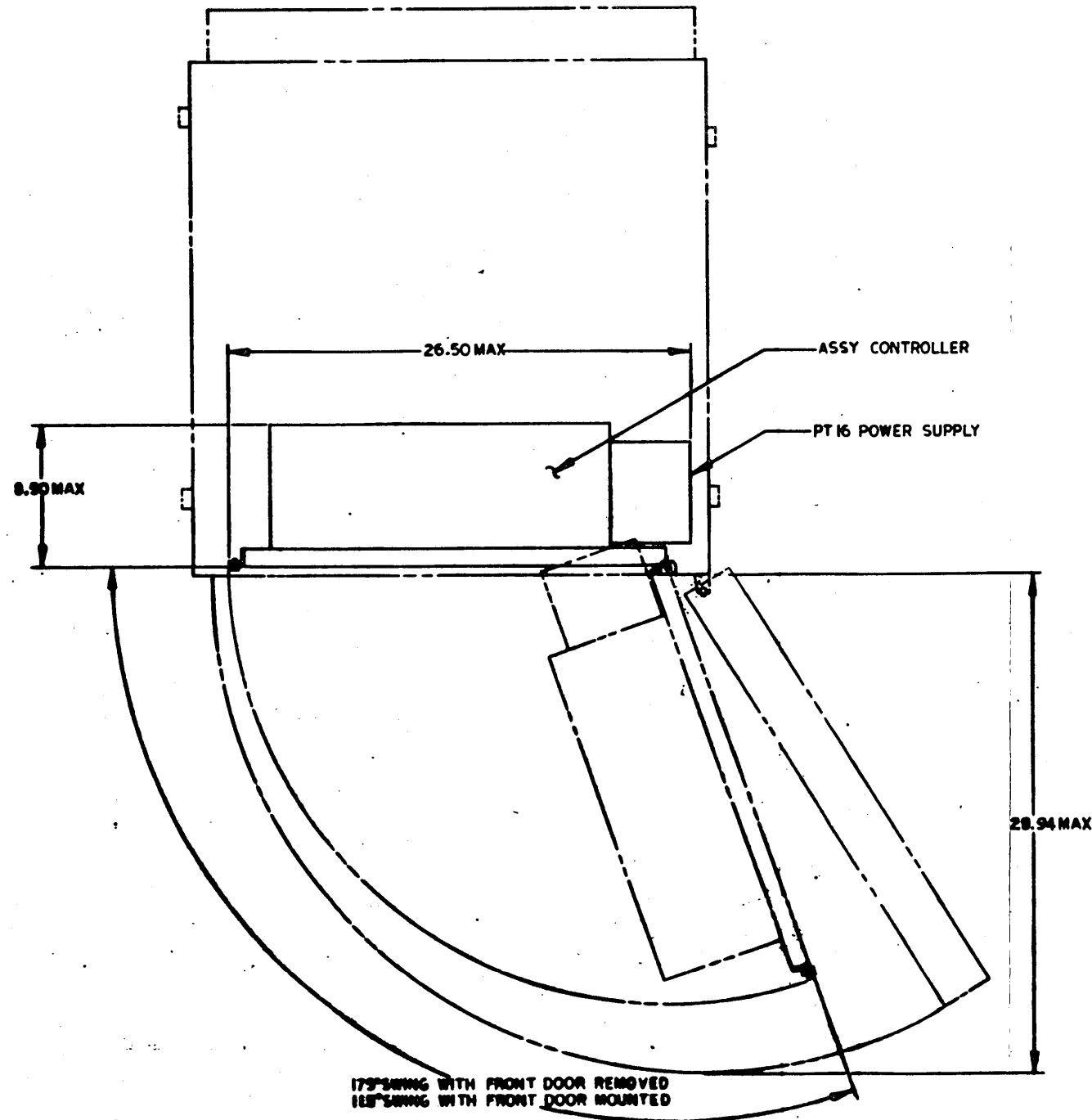
- NOTES: UNLESS OTHERWISE SPECIFIED
1. THIS IS A MECHANICAL DRAWING FOR POWER SUPPLY REQUIREMENTS.
 2. PT16 POWER SUPPLY IS PROVIDED WITH ONE 2 CONDUCTOR SHIELDED CABLE TERMINATING WITH A MALE CONNECTOR, P1 (120V 2400 CPS) AND ONE 3 CONDUCTOR CABLE TERMINATING WITH A MALE CONNECTOR, P2 (120V 50/60 CPS).
 3. WIRES FROM CONTROLLER ARE LABELED -8V BUS, 0V BUS, +4V BUS, +8V BUS CHASSIS A.
 4. WEIGHT, ASSEMBLY, CONTROLLER 62 LBS.
 5. REFERENCE DRAWINGS:
 CHART, MODULE LOCATION - 135748
 LIST, MODULE CONTROLLER - 135745
 LOGIC EQUATIONS - 135746
 ASSY, RAD CONTROLLER - 135743
 SIGMA 7 SYSTEM INSTALLATION DWG. - 134056
 PRINTER DWG. LIST - 135742



SIDE VIEW OF CABINET, CONTROLLER SHOWN IN OPEN POSITION

| DRAWING NO. | DESCRIPTION | REFERENCE DESIGNATION |
|---|----------------------------------|-----------------------|
| 135743 | INSTALLATION DWG. RAD CONTROLLER | |
| SCIENTIFIC DATA SYSTEMS SANTA MONICA, CALIFORNIA | | |
| FIRST USE: 7201 NEXT USE: 135743 | REV. 12-1-66 REV. 12-5-66 | 135747 D |

| REVISIONS | | | |
|-----------|---------------|-----|------|
| NO. | DESCRIPTION | CHK | DATE |
| | SEE SHEET ONE | | |



VIEW B-13
WITH CONTROLLER IN
CLOSED POSITION
ROTATED CCW 90°
SCALE: NONE.

| DRAWING NO. | DESCRIPTION | REFERENCE DESIGNATION | REV |
|---|-------------|-----------------------|---|
| | | | 108 |
| MATERIAL LIST | | | |
| REVISED UNLESS SPECIFIED | DRAWN | 12-1-66 | SDS SCIENTIFIC DATA SYSTEMS SANTA MONICA, CALIFORNIA |
| 1. DIMENSIONS 2. DIMENSIONS 3. DIMENSIONS | CHECK | 12-5-66 | TITLE INSTALLATION DWG, RAD CONTROLLER |
| 4. DIMENSIONS 5. DIMENSIONS | APPR. | 12-5-66 | |
| 6. DIMENSIONS | MATERIAL | | |
| MODEL NO. FIRST USE: 7201 | FINISH | | NO. DWG. NO. D 135747 A |
| MODEL NO. FIRST USE: 135743 | | | SCALE: DO NOT SCALE DRAWING SHEET 2 OF 2 |

1.0 SCOPE

1.1 This procedure describes the data interface cabling between the Sigma Rad device controller and the I/O channel and/or other device controllers. This procedure further describes the data interface and power cabling from the device controller to selection unit, and selection unit to selection unit.

2.0 I/O CHANNEL DATA INTERFACE

2.1 J1*, J2* and J3* shall connect to the device controller module locations 32C, 30C and 28C respectively. Where this Rad device controller is the last device controller in this I/O channel, install one terminator (P/N 127315) at each of the following locations: 28C, 30C and 32C. The I/O channel cables shall be part number 127314-xxxx.

2.2 J4* (priority cable). Connect cable (P/N 127314-xxxx) from lower priority device controller (or IOP) to component side of 26C. Connect cable (P/N 127314-xxxx) to higher priority device controller to etch side of 26C. Where no higher priority device controller exists, replace cable on etch side of 26C with terminator, P/N 128047.

* See SDS dwg. 123382, Specification, Design-8-Bit Data Path Interface.

TITLE

PROCEDURE, INSTALLATION
RAD INTERCONNECTIONS

SDS

134124

SHEET 2 OF 4

3.0 RAD DATA INTERFACE

3.1 On the 7202 (123084), 7203 (123085) or 7204 (123086) install two cables (P/N 127314-561) between device controller module locations A30 and A32 (etch side) and selection unit module locations A18 and A28 (component side) respectively. Install two terminators (P/N 127315) at device controller module locations A30 and A32 (component side). For each additional RAD (cabinet including selection unit and file) **, install two cables (P/N 127314 -xxx) from higher order selection unit module locations A18 and A28 (etch side) to next lower order selection unit module locations A18 and A28 (component side) respectively. Install two terminators (P/N 127315) on the lowest order selection unit module locations A18 and A28 (etch side).

XDS 902345

3.2 On the 7205 (132834) install two cables (P/N 127314-561) between device controller module locations A30 and A32 (etch side) and selection unit module locations B10 and B20 (component side) respectively. Install two terminators (P/N 127315) at device controller module locations A30 and A32 (component side). For each additional RAD (cabinet including selection unit and file) **, install two cables (P/N 127314-xxx) from higher priority selection unit module locations B10 and B20 (etch side) to next lower selection unit module locations B10 and B20 (component side) respectively. Install two terminators (P/N 127315) on the lowest order selection unit module locations B10 and B20 (etch side).

4.0 REMOTE ON-OFF

4.1 Connect remote on-off (120VAC, 60CPS, 1Ø) at J3 on the power distribution box of the highest order cabinet (use P/N 127676, plug). Connect remote on-off (going to additional equipment) at J4 on the power distribution box of the lowest order cabinet (use P/N 127674, plug).

** Maximum of eight cabinets.

| | |
|---|------|
| TITLE | |
| PROCEDURE, INSTALLATION RAD INTERCONNECTIONS | |
| 134124 | C |
| SHEET 3 | OF 4 |

5.0 EXTERNAL AC POWER

5.1 Each Rad cabinet requires 208 VAC, 60CPS, 3Ø (30 amperes maximum per cabinet) power to be connected at TBI of the power distribution box.

6.0 INTERCABINET AC POWER

6.1 AC power is conducted from power distribution Panel (P/N 131325) to power distribution Panel (P/N 131325) through three cables as follows:

| FROM (high order cabinet) | TO (next to lower order cabinet) | SDS CABLE PART NO. |
|------------------------------|-------------------------------------|-----------------------|
| J5 | J1 | 133928 |
| J4 | J3 | 133929 |
| J7 | J6 | 133930 |

7.0

7.1 All cables, plugs and terminators referenced in this procedure will be supplied at computer system assembly level.

TITLE

PROCEDURE, INSTALLATION
RAD INTERCONNECTIONS.

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134124

C

SHEET 4 OF 4

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C

| REV. NO. | | DRAWING NO. | | DESCRIPTION | | REFERENCE DESIGNATION | | ITEM NO. |
|--|------|--|------------|---------------|--|-----------------------|--|----------|
| 126555 | | H | | REVISIONS | | | | |
| LAL | REV. | CHK | DATE | APPROVED | | | | |
| X | A | | | | MANUFACTURING RELEASE | | | |
| | B | | | | REVISED AND REDRAWN | | | |
| | C | | | | REVISED AND REDRAWN SEE REV. E.O. | | | |
| | D | | | | REVISED AND REDRAWN | | | |
| | E | | | | DCR 25378 REVISED FIG. 5.4.1.2, 5.5.2.4 TABLE 6.5.2.4 | | | |
| | F | | | | See Rev. E.O. Revised & Redrawn | | | |
| | G | | | | SEE E.O. 126550M. REVISED PARA'S 5.6.13, 5.6.13.1, 5.6.13.2, 5.6.13.3, 5.6.13.4, 5.7.11, 5.7.11.1, 5.7.11.2, 5.7.11.3, 5.7.11.4 & 6.1.2. J.M. | | | |
| | H | | | | SEE REV. E.O.; ADDED PARA. 5.01 & 5.0.1.1, REV. TABLE 6.5.2.4 J.M. | | | |
| NO. REQ. | | DRAWING NO. | | DESCRIPTION | | REFERENCE DESIGNATION | | ITEM NO. |
| | | | | MATERIAL LIST | | | | 418 |
| NOTES UNLESS SPECIFIED | | DRAWN | U. Helffer | 3/13/67 | S.T.D.S. SANTA MONICA, CALIFORNIA | | | |
| 1. TOLERANCES XX ±.030 XXX ±.010 | | CHECK | | 3/13/67 | | | | |
| 2. BREAK ALL SHARP EDGES .010 APPROX. | | APPR. | | 3-51-67 | | | | |
| 3. MACH. SURFACES | | TITLE | | | | | | |
| 4. ALL DIM. IN INCHES | | SPECIFICATION, TEST AND ACCEPTANCE MEDIUM SPEED RAD | | | | | | |
| MODEL NO. | | SIZE | DWG. NO. | | CHANG LETTER | | | |
| First U. 7201 | | A | 126555 | | H | | | |
| NEXT ASSY. | | DO NOT SCALE DRAWING | | SHEET 1 of | | 78 | | |
| First U. 135743 | | | | | | | | |

SECTION

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| 5.0 | TEST PROCEDURE | | |
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| 6.0 | ACCEPTANCE TESTING | | |
| | General | PAGE | 71 |
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SDS

TITLE
 SPECIFICATION, TEST AND
 ACCEPTANCE MEDIUM SPEED RAD

126555 H

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1.0 SCOPE

Successful completion of this specification shall verify compliance to all requirements of Specification, Product Design, Disc Memory, Medium Speed, SDS Dwg.No.124399, from basic start-up through endurance testing.

2.0 CRITERIA

Failure of the system to perform any designated operation or the inability to bring any adjustment within its indicated tolerance as specified herein, shall be the cause for rejection and retest of the system.

3.0 APPLICABLE DOCUMENTS

| DRAWING TITLE | MODEL | SDS DWG. NO. |
|--|---------------------|-------------------|
| Installation Dwg. Disc Memory Chart, Module Location | - | 135345 |
| Chart, Module Location | 7201 | 135748 |
| Chart, Module Location | 7202,3,4 | 126552 |
| Chart, Module Location | 7203 | 132845 |
| Chart, Module Location | - | 136437 |
| Logic Equations | 7201 | 135746 |
| List, Wire Controller | 7201 | 135745 |
| Logic Equations | 7202,3,4 | 134125 |
| List, Wire Selector | 7202,3,4 | 126551 |
| Logic Equations | 7205 | 132833 |
| List, Wire Selector | 7205 | 126641 |
| Medium Speed Memory test | Sigma 7/5 | 704072-B |
| Hi-Capacity Rad Test | Sigma 2 | 704980 |
| Assy Controller | 7201 | 135743 |
| Design Specification - Diagnostic Control Program | Sigma 7/5 | 700971 |
| Manual, DCP | Sigma 7/5 | 900712 |
| Manual, DCP | Sigma 2 | 900839 |

SDS

TITLE
SPECIFICATION, TEST AND
ACCEPTANCE MEDIUM SPEED RAD

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Applicable Documents (Continued)

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| DRAWING TITLE X | MODEL | SDS DWG. NO. |
|---------------------------------|-----------------|-------------------|
| Assy Disc Memory Unit | 7202 | 123084 |
| Assy Selection Unit | 7202,3,4 | 126550 |
| Assy Power Distribution Panel | - | 131325 |
| Assy Disc Memory Unit | 7203 | 123085 |
| Assy Disc Memory Unit | 7204 | 123086 |
| Assy Rad-Memory Unit | 7205 | 132834 |
| Assy Selection Unit | 7205 | 126584 |
| Procedure Installation Rad | - | 134124 |
| Interconnection | - | - |
| Specification for Rad File | Sigma 7/5 | 702302 |
| Diagnostic | - | - |
| Manual, Medium Speed | - | - |
| RAD File Test, | Sigma 7/5 | 901130 |
| Manual, High-Capacity | - | - |
| RAD File Test, | Sigma 2 | 901538A |

4.0 PREREQUISITES

4.1 AC Power

- 208V 3Ø 60 Hz 30 amps/phase (60 Hz Units)
- 208V 3Ø 50 Hz 30 Amps/ Phase (50Hz Units)

4.2 Test and measuring Equipment

- Card Extender SDS 117036
 - Oscilloscope Tektronix 545A or Equiv.
 - Oscilloscope Preamp. Tektronix CA or Equiv.
 - Oscilloscope Preamp. Tektronix W or Equiv.
 - VOM Triplet 630A or Equiv.
- All test and measuring equipment shall have a current calibration sticker.

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| TITLE | H |
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4.3 Computer Equipment
 Peripheral Equipment Tester
 PET Overlay
 Sigma 7 or Sigma 2 Computer
 Card or Paper Tape Reader

JT14
 SDS 136431

Model 7120 (card) or Model 7061 (tape)

5.0 TEST PROCEDURE

- 5.0.1 High Pot Test
- 5.0.1.1 With AC power and logic wiring disconnected from the disc (123387, 126926, 126927, 152434, and 158177) measure the resistance of each Y line to ground. This resistance shall be greater than 1×10^9 OHMS with 50 volts applied.
- NOTE: On 123387, 126926, and 126927 Y lines are located on pins 1 thru 36 of P8-0A, P8-0B, P8-1A, P8-1B, P8-2A, P8-2B, P8-3A, and P8-3B. On 152434 and 158177 Y lines are located on pins 1 thru 42 of P8-0A, P8-0B, P8-1A, P8-1B, P8-2A, P8-2B, P8-3A and P8-3B.
- 5.1 General Precautions
- 5.1.1 Insure that AC power is disconnected from the RAD.
- 5.1.2 Insure that all modules are removed from the controller, selection unit and disc interface.
- 5.2 Visual Inspection
- 5.2.1 Insure that all cables between the controller, selection unit, disc interface, power supplies and power distribution box are installed as indicated on their respective installation drawings.
- 5.2.2 Inspect controller, selector and disc interface for loose wires, bent pins, etc.
- 5.3 Power Tests
- NOTE: Unless otherwise noted, power tests pertain to all models.
- 5.3.1 Continuity check for open, shorts or crossed wires from the PT16 and PT18 power supplies to the controller, selection unit, and disc interface.
- 5.3.2 Insure switch on power distribution box is OFF (center position). Insure the circuit breaker and toggle switch on the "Disc File Control Chassis" are OFF.
- 5.3.3 Connect system to 208 VAC 3ϕ , 60 Hz, or 50 Hz for 50 Hz unit.
- 5.3.4 Turn the PT19 and PT16 power supplies to ON.
- 5.3.5 Set the margin switches on the PT18 and PT16 for normal margins.

TITLE

SPECIFICATION, TEST AND
 ACCEPTANCE MEDIUM SPEED RAD

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- 5.3.6 Set switch on power distribution box to local.
- 5.3.7 Check, adjust, if necessary, the PT18 and PT16 voltage outputs.
- NOTE: The only adjustment on the PT18 adjusts the +25V. With the +25V adjusted the remaining voltages of the PT18 should fall within 5% of their nominal value.
- * 5.3.8 Check the selection unit power bus assembly for proper voltages $\pm 2\%$ as follows: (7202,3,4)

+4.0V
 +8.0V
 -8V
 +25V
 -25V

- 5.3.9 Set power distribution box switch to OFF.
- 5.3.10 Install modules as indicated on their respective module location charts.

NOTE: It is recommended that only a few modules be installed at one time. Do not install or remove modules with power on.

- 5.3.11 Check for proper voltages as in 5.3.7 and 5.3.8.
- 5.3.12 On the Disc File Control Chassis set the circuit breaker to ON. Compressor should run. Set the toggle switch to ON. The disc should turn. If disc does not turn refer to 5.3.14.

- 5.3.13 Check oscillator (CT-10 02C in Controller) for proper crystal.
 60 Hz units - 128131-008
 50 Hz units - 128131-026

XDS 902345

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| SDS | |
| TITLE | 126555 |
| SPECIFICATION, TEST AND ACCEPTANCE MEDIUM SPEED RAD | H |
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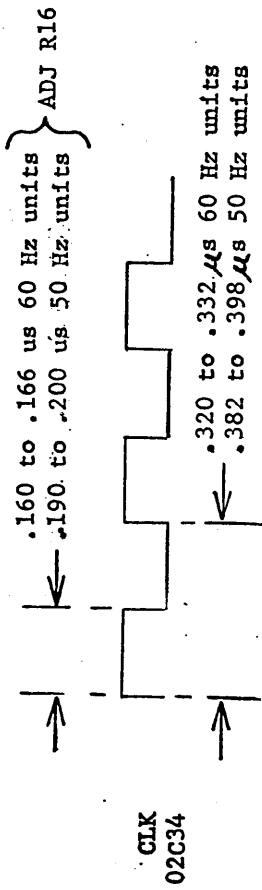
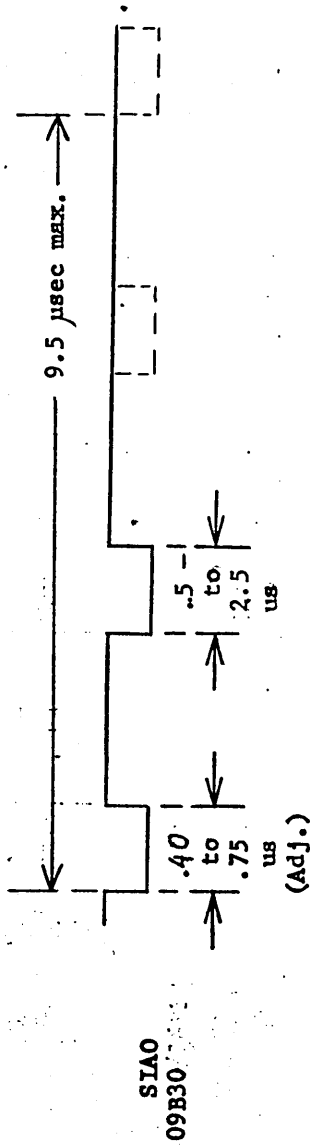


FIGURE 5.4.1.2



2 neg. pulses = Sector pulse
 4 neg. pulses = Index pulse

FIGURE 5.4.2.2

| | | | |
|---|---|--------|----|
| TITLE SPECIFICATION, TEST AND ACCEPTANCE MEDIUM SPEED RAD | | SDS | |
| | | 126555 | H |
| SHEET | 7 | OF | 78 |

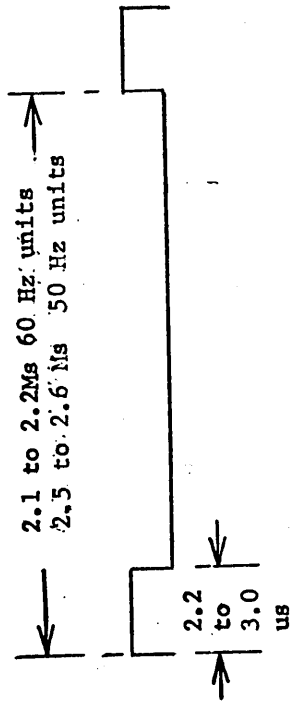


FIGURE 5.4.2.3A

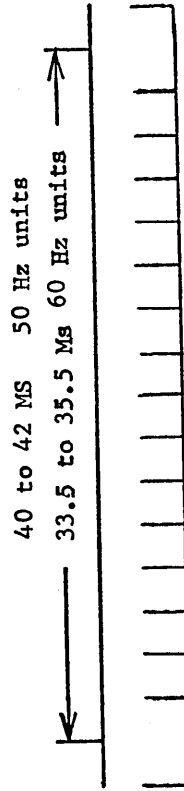


FIGURE 5.4.2.3B

| | |
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| SDS | |
| TITLE | H |
| SPECIFICATION, TEST AND ACCEPTANCE MEDIUM SPEED RAD | 126555 |
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5.3.14 Insure switches and circuit breaker, 5.3.2, are OFF. Disconnect system from 208VAC. Remove back cover from Power Distribution Panel. Interchange two of the power input wires, TBL-1 and TBL-2. Reconnect system to 208VAC. Repeat 5.3.12 or 5.3.13.

*5.4 Basic Checks and Adjustments

5.4.1 Oscillator (CT10)

5.4.1.1 Observe the oscillator output at O2C Test Point 'A'. Adjust L1 for maximum amplitude.

5.4.1.2 Adjust R16 on O2C for a symmetrical square wave at O2C34 as in Figure 5.4.1.2

5.4.2 Index/Sector Amplifier

5.4.2.1 Observe sector/index pulse in selection unit at pin 30,09B for 7202,3,4; (Internal Sync)

5.4.2.2 Adjust R28 on 09B (7202,3,4) for waveshape as indicated in Figure 5.4.2.2

5.4.2.3 Observe sector pulse at pin 19,08B (7202,3,4) Ref. Figures 5.4.2.3 A and B.

5.4.2.4 Observe index pulse at pin 13,08B (7202,3,4) Ref. Figure 5.4.2.3.B.

5.5 FET Operation

5.5.1 Preliminary

5.5.1.1 Install FET cables into controller; P181 in location 15A, P183 in location 16A.

5.5.1.2 In controller on module 23C insure that the "On Line - Off Line" switch is in the "Off Line" position (down).

5.5.1.3 In the selection unit set the address switches to "0".

7202,3,4 Location 23A
~~7205 Location 04B~~

5.5.1.4 Turn PET power on.
 Turn RAD power on.

| | |
|--|--------|
| SDS | |
| TITLE | H |
| SPECIFICATION, TEST AND ACCEPTANCE MEDIUM SPEED RAD | 126555 |
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5.5.1.5 Set the 3 toggle switches, on the PET, labeled with arrows in the direction of those arrows. Set all other toggle switches down.

Set PET "On Line - Monitor" switch in the "On Line" position.

NOTE: Setting this switch in the down position while the switch is in the controller, location 23C, is in the down position will RESET the controller.

5.5.2 Seek

- 5.5.2.1 Set SIO switch up.
- Set "ORDER" switches 6 and 7 up. (4 and 5 down).
- Set "SGL TRK" up.
- Set "IND" switch up.
- 5.5.2.2 Depress and release FS; DCB and SKS lights should light.
- 5.5.2.3 Set "DATA" switches 4 and 6 to center position. (All other Data switches down).
- 5.5.2.4 Depress and release "STEP SKS".
- "Track" lights 1 and 3 should light.
- 5.5.2.5 Set "DATA" switches 4 and 6 down, 2 and 0 to center position.
- 5.5.2.6 Depress and release "STEP SKS".
- "Track" lights 5 and 7 should come on, 1 and 3 remain on, DCB and SKS go off.
- 5.5.2.7 "RESET" by setting "MONITOR-ON Line" to Monitor momentarily.
- Perform 5.5.2.2 above.
- 5.5.2.8 Set "DATA" switches 7,5 and 3 to center position (all other Data switches down).
- 5.5.2.9 Depress and release "STEP SKS". "Track" lights 0,2 and 4 should light.
- 5.5.2.10 Set "DATA" switches 3 and 1 to center position (all other Data switches down).
- 5.5.2.11 Depress and release "STEP SKS".
- "Track" lights 6 and 8 should come on; 0,2 and 4 remain on; DCB and SKS go off.

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5.5.3 Write

- 5.5.3.1 Insure "SGL TRK" switch is down.
- 5.5.3.2 Set "SIO" and "Order" switch 7 UP.
Set "DATA" switches 1,3,5 and 7 to center position (01 pattern).
Set "Counter Reset" switches 1 through 256 UP.
Depress "Initialize".
Set "Run Cont." switch UP.

DCB and WRI lights will light and track register will increment. To stop writing set "Run Cont." down. PET will halt at the track set by the counter reset switches.

5.5.4 ANØ through AN3 and SEC.

- 5.5.4.1 Perform WRI from PET, ref. 5.5.3.
- 5.5.4.2 Sync scope on ANØ in the controller; 7201 at 25A43.
- 5.5.4.3 Observe ANØ through AN3 and SEC as indicated on Figure 5.5.4.

5.5.5 Delay Line Timing

- 5.5.5.1 Perform WRI from PET, ref. 5.5.3.
- 5.5.5.2 Sync scope at 05C15 (7201) observe delay line timing as indicated on Figure 5.5.7.
- 5.5.6 Y Select Test
- 5.5.6.1 Select track 0

Set "SIO" and "Order" switch 7 UP (WRI instruction).
Set "SGL TRK" UP
Set "Run Cont." UP

- 5.5.6.2 Check the outputs of the Y select matrix at the points indicated in Table 5.5.6.3. Outputs should be low (0-1V) when selected and high (25V± 10%) when not selected.

5.5.7 Write Amplifier Test

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2.2Ms 7202,3,4
2.5 Ms for 50 Hz units

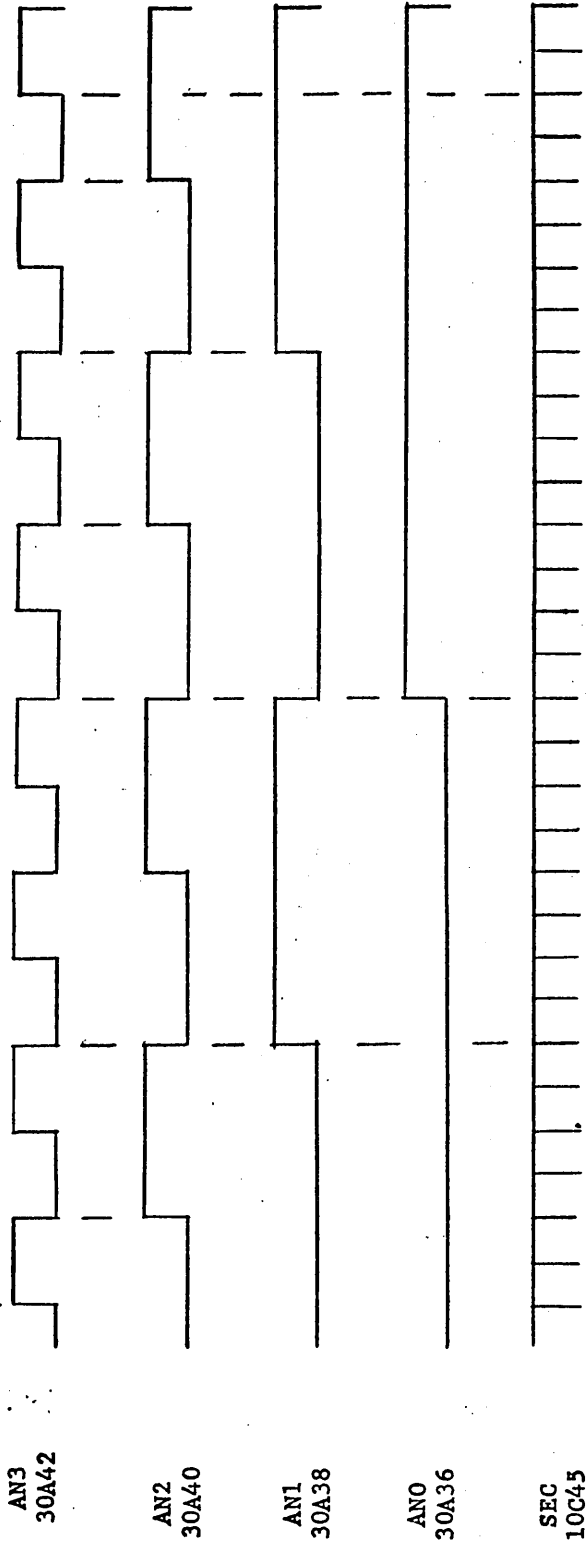


FIGURE 5.5.4

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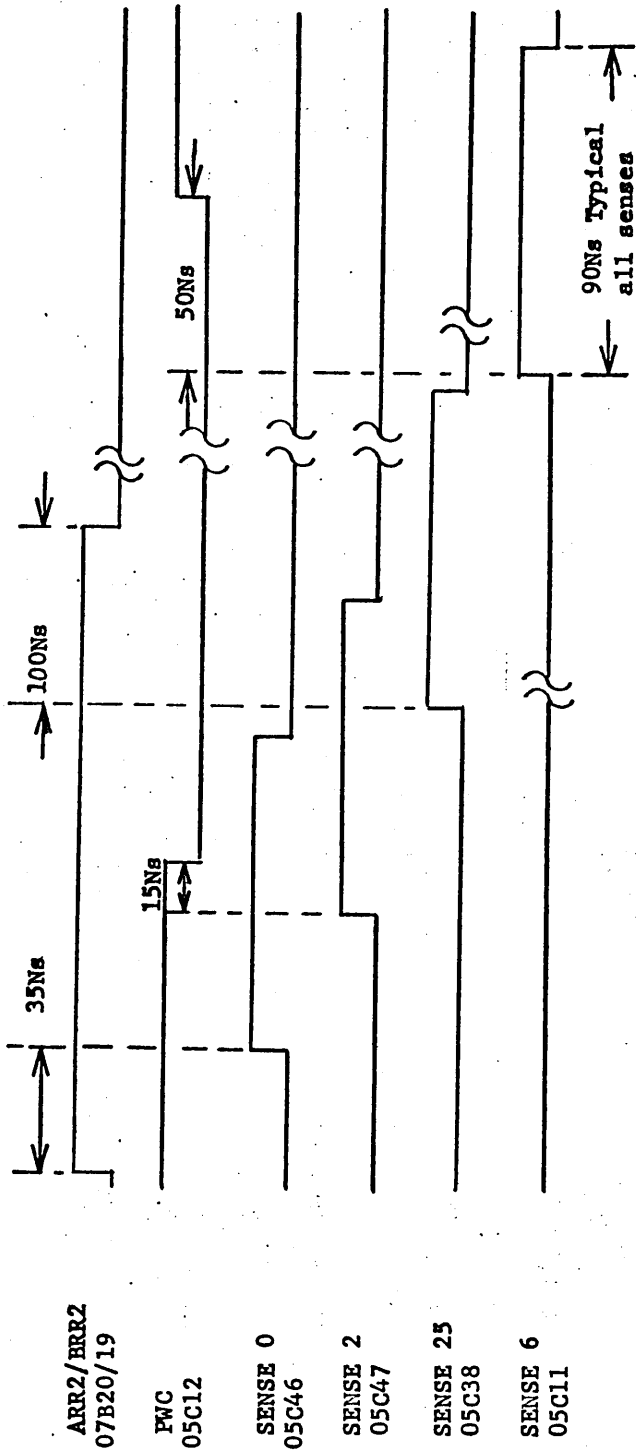


FIGURE 5.5.7

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| <u>SIGNAL</u> | <u>TRACK</u> | <u>7202,3,4</u> | <u>7205</u> |
|---------------|--------------|-----------------|---------------------------|
| Y00 | 0 | 20B36 | 11B36 |
| Y01 | 1 | 20B05 | 11B05 |
| Y02 | 2 | 20B38 | 11B38 |
| Y03 | 3 | 20B06 | 11B06 |
| Y04 | 4 | 20B35 | 11B35 |
| Y05 | 5 | 20B04 | 11B04 |
| Y06 | 6 | 20B37 | 11B37 |
| Y07 | 7 | 20B07 | 11B07 |
| | | | |
| Y10 | 8 | 21B36 | 12B36 |
| Y11 | 9 | 21B05 | 12B05 |
| Y12 | 10 | 21B38 | 12B38 |
| Y13 | 11 | 21B06 | 12B06 |
| Y14 | 12 | 21B35 | 12B35 |
| Y15 | 13 | 21B04 | 12B04 |
| Y16 | 14 | 21B37 | 12B37 |
| Y17 | 15 | 21B07 | 12B07 |
| | | | |
| Y20 | 16 | 22B36 | 13B36 |
| Y21 | 17 | 22B05 | 13B05 |
| Y22 | 18 | 22B38 | 13B38 |
| Y23 | 19 | 22B06 | 13B06 |
| Y24 | 20 | 22B35 | 13B35 |
| Y25 | 21 | 22B04 | 13B04 |
| Y26 | 22 | 22B37 | 13B37 |
| Y27 | 23 | 22B07 | 13B07 |
| | | | |
| Y30 | 24 | 23B36 | 14B36 |
| Y31 | 25 | 23B05 | 14B05 |
| Y32 | 26 | 23B38 | 14B38 |
| Y33 | 27 | 23B06 | 14B06 |
| Y34 | 28 | 23B35 | 14B35 |
| Y35 | 29 | 23B04 | 14B04 |
| Y36 | 30 | 23B37 | 14B37 |
| Y37 | 31 | 23B07 | 14B07 |
| Y40 | 32 | 24B36 | Not Applicable |
| Y41 | 33 | 24B05 | '''''''' |
| Y42 | 34 | 24B38 | '''''''' |
| Y43 | 35 | 24B06 | '''''''' |
| Y44 | 36 | 24B35 | '''''''' |
| Y45 | 37 | 24B04 | '''''''' |
| Y46 | 38 | 24B37 | '''''''' |
| Y47 | 39 | 24B07 | '''''''' |
| | | | |
| Y50 | 40 | 25B36 | '''''''' |
| Y51 | 41 | 25B05 | '''''''' |
| Y52 | 42 | 25B38 | '''''''' |
| Y53 | 43 | 25B06 | '''''''' |
| Y54 | 44 | 25B35 | '''''''' |
| Y55 | 45 | 25B04 | '''''''' |
| Y56 | 46 | 25B37 | '''''''' |
| Y57 | 47 | 25B07 | '''''''' |

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| <u>SIGNAL</u> | <u>TRACK</u> | <u>7202,3,4</u> | <u>7205</u> |
|---------------|--------------|-----------------|---------------------------|
| Y60 | 48 | 26B36 | Not applicable |
| Y61 | 49 | 26B05 | — — — — |
| Y62 | 50 | 26B38 | — — — — |
| Y63 | 51 | 26B06 | — — — — |
| Y64 | 52 | 26B35 | — — — — |
| Y65 | 53 | 26B04 | — — — — |
| Y66 | 54 | 26B37 | — — — — |
| Y67 | 55 | 26B07 | — — — — |
| | | | |
| Y70 | 56 | 27B36 | — — — — |
| Y71 | 57 | 27B05 | — — — — |
| Y72 | 58 | 27B38 | — — — — |
| Y73 | 59 | 27B06 | — — — — |
| Y74 | 60 | 27B35 | — — — — |
| Y75 | 61 | 27B04 | — — — — |
| Y76 | 62 | 27B37 | — — — — |
| Y77 | 63 | 27B07 | — — — — |

TABLE 5.5.6.3 (Sheet 2 cont'd)

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- 5.5.7.1 Select Tracks indicated on Table 5.5.7.3 individually as follows:
 Set "SIO" and "Order" switch 7 UP (WRI instruction).
 Set "Counter Reset" switches to desired track. Momentarily set "Run Cont" to "Run Con" position.
 Controller will stop at the track selected. Set "Sgl.Trk" switch UP.
- 5.5.7.2 Set "DATA" switches for alternate 10 pattern as in 5.5.3.2.
- 5.5.7.3 Sync scope on WPRE located at 24B14 in the controller. Observe waveshape, Figure 5.5.7.3 at points indicated in Table 5.5.7.3.
- 5.5.8 Data
- 5.5.8.1 Perform WRI operation as in 5.5.3.
- 5.5.8.2 Sync, delayed sweep, on WPRE 24B14 in controller, observe preamble, sync pattern and data at 20C03. Ref. Figure 5.5.8.2.
- 5.5.8.3 Insure "Data" switches control their respective bits by changing the pattern being written.
 Refer to Figure 5.5.8. i.e. Data switch 7 must control bit 7 etc.
- 5.5.8.4 Insure parity is being written. Sync scope on BY359, 08B14 in controller. Observe parity bits at 20C03 (BR7). Ref. Figure 5.5.8.4.
- 5.5.9 Clock Discriminator (AT29)
- 5.5.9.1 Perform WRI from PET, ref. 5.5.3.
- 5.5.9.2 Jumper UNEM to ground; 15B31 to 15B32 in controller.
- 5.5.9.3 Perform Read from PET; Set "SIO" and ORDER switch 6 UP; Set "SGL TRK" UP; Set "RUN CONT" UP.
- 5.5.9.4 Sync scope positive (+) on DD0B at 31B27.
 Perform the checks and adjustment as indicated in Table 5.5.9.5 and Figure 5.5.9.5.
- 5.5.10 Check Write
- 5.5.10.1 Perform 5.5.3, WRITE instruction, Data pattern of alternate 10. Write entire file halting by setting "RUN CONT" switch down.

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| SIGNAL | | TRACK | 7202 | 7203 | 7204 | 7205 |
|-----------------|-----------------|-------|-------|-------|-------|------------------|
| <u>7202,3,4</u> | 7205 | | | | | |
| X0A | X00A | 0 | 11B26 | 11B26 | 11B26 | 17A26 |
| X0B | X00B | 0 | 11B39 | 11B39 | 11B39 | 17A39 |
| - | X01A | 32 | - | - | - | 18A26 |
| - | X01B | 32 | - | - | - | 18A39 |
| X1A | X02A | 64 | 12B26 | 12B26 | 12B26 | 19A26 |
| X1B | X02B | 64 | 12B39 | 12B39 | 12B39 | 19A39 |
| - | X03A | 96 | - | - | - | 20A26 |
| - | X03B | 96 | - | - | - | 20A39 |
| X2A | X04A | 128 | - | 13B26 | 13B26 | 21A26 |
| X2B | X04B | 128 | - | 13B39 | 13B39 | 21A39 |
| - | X05A | 160 | - | - | - | 22A26 |
| - | X05B | 160 | - | - | - | 22A39 |
| X3A | X06A | 192 | - | 14B26 | 14B26 | 23A26 |
| X3B | X06B | 192 | - | 14B39 | 14B39 | 23A39 |
| - | X07A | 224 | - | - | - | 24A26 |
| - | X07B | 224 | - | - | - | 24A39 |
| X4A | X10A | 256 | - | - | 15B26 | 25A26 |
| X4B | X10B | 256 | - | - | 15B39 | 25A39 |
| - | X11A | 288 | - | - | - | 26A26 |
| - | X11B | 288 | - | - | - | 26A39 |
| X5A | X12A | 320 | - | - | 16B26 | 27A26 |
| X5B | X12B | 320 | - | - | 16B39 | 27A39 |
| - | X13A | 352 | - | - | - | 28A26 |
| - | X13B | 352 | - | - | - | 28A39 |
| X6A | X14A | 384 | - | - | 17B26 | 29A26 |
| X6B | X14B | 384 | - | - | 17B39 | 29A39 |
| - | X15A | 416 | - | - | - | 30A26 |
| - | X15B | 416 | - | - | - | 30A39 |
| X7A | X16A | 448 | - | - | 18B26 | 31A26 |
| X7B | X16B | 448 | - | - | 18B39 | 31A39 |
| - | X17A | 480 | - | - | - | 32A26 |
| - | X17B | 480 | - | - | - | 32A39 |

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TABLE 5.5.7.3

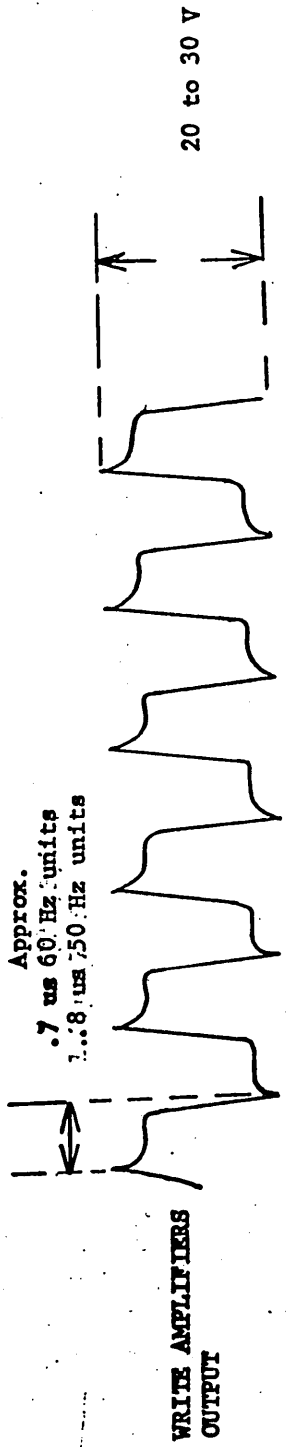


FIGURE 5.5.7.3

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LOCATION

| STEP | SIGNAL | 7202, 3, 4 | LOCATION |
|------|----------|------------|-----------------|
| 1 | DDOB | 31B27 | 7205 |
| 2 | CD | 30B38 | 23B27 |
| 3 | DDOB | 31B27 | 22B38 |
| | CD | 30B38 | 23B27 |
| 4 | CDD | 30B26 | 22B26 |
| 5 | DDOB | 31B27 | 23B27 |
| | CDD | 30B26 | 22B26 |
| 6 | adj. R19 | 30B | 22B |
| 7 | DAI | 29B24 | 21B24 |
| | CDD | 30B26 | 22B36 |
| 8 | DS | 29B03 | 21B03 |
| 9 | DS | 29B03 | 21B03 |
| | CD | 30B38 | 22B38 |

REMARKS

1320 or * 1600 ns symmetrical square wave
 660 or * 1800 ns symmetrical square wave
 delay between CD and DDOB should be less than
 30 ns.

660 or * 800, ns symmetrical square wave
 CDD should be delayed from DDOB
 by 100 ± 15 ns.

Adj. R19 until trailing edge of CDD is
 430 or * 520 ns after the rising edge of DDOB

DAI should change states 50 ± 20 ns
 after the rising edge of CDD

DS is a pulse 110 ± 10 ns wide

DS occurs 50 ± 20 ns after the falling edge
 of CD

* indicates 50 Hz timing

TABLE 5.5.9.5

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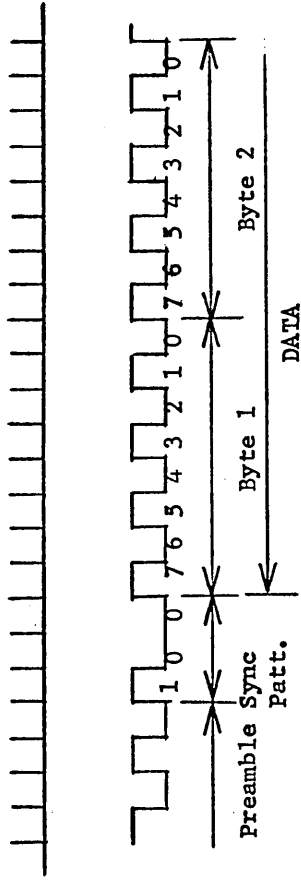


FIGURE 5.5.8.2

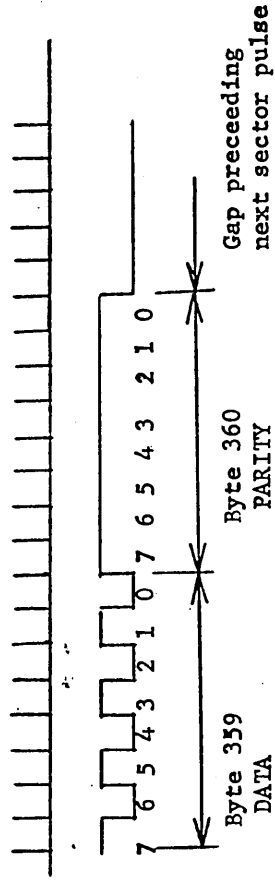


FIGURE 5.5.8.4

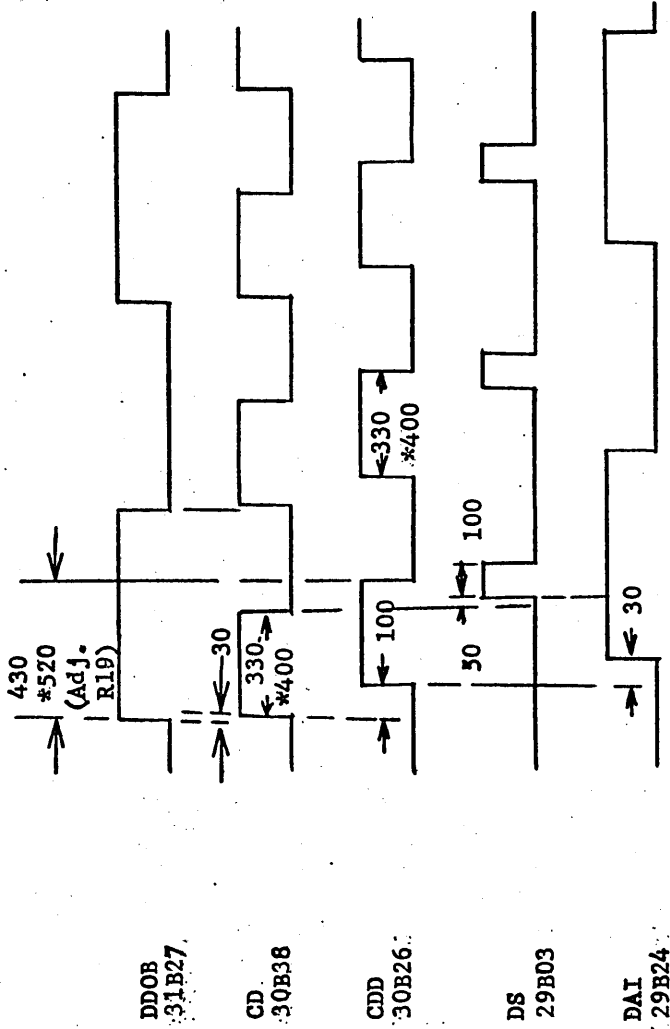
BC
20C01

BR7
20C03

BC
20C01

BR7
20C03

| | | |
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All time in nano sec
 * 50 Hz Units

FIGURE 5.5.9.5

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- 5.5.10.2 Set "SIO", Order switches 5 and 7 UP.
- 5.5.10.3 Check write compares data read from the memory with data sent from the "DATA" switches, thus the "DATA" switches must be set to the pattern previously written.
Depress "Initialize"
Set "Error Stop" and "Run Cont." switches UP.
- 5.5.10.4 DCB and CHW lights will light and track register will increment. Any error occurring will be indicated on the TER lamp and track will stop incrementing. To continue depress "Step" SKS/ Erstop.
- 5.5.10.6 Insure operation of UNE and TER by changing any one of the "Data" switches. The TER lamp should light immediately.- And track register should stop incrementing.
- 5.5.10.7 System must cycle thru the memory 5 (Five) times without halting on an error.
- 5.5.10.8 Change "DATA" switches to an all 0 pattern. Repeat 5.5.10.1 thru 5.5.10.7.
- 5.5.10.9 Change "DATA" switches to an all 1 pattern. Repeat 5.5.10.1 through 5.5.10.7.
- 5.5.10.10 Change "DATA" switches to 10011001 pattern, Repeat 5.5.10.1 through 5.5.10.7.
- 5.5.11 READ
- 5.5.11.1 Insure "SGL TRK" switch is down.
- 5.5.11.2 Set "SIO" and order switch 6 up
- 5.5.11.3 Set "Counter Reset" switches 1 through 256 up. Depress "Initialize."
- 5.5.11.4 Set "Run Cont" and "Error Stop" switches UP.
- 5.5.11.5 DCB and RED lights will light and track lights will increment, track will stop on an error.
Restart as in 5.5.10.5.
- 5.5.11.6 System must cycle through the memory 5 (Five) times without halting on an error.
- 5.5.12 Troubleshooting
- 5.5.12.1 If TER or UNE lamps come on during a WRI, CHW or RED operation "SGL TRK" operation may be used to localize the problem.
- 5.5.12.2 Set "DATA" switches for desired track as follows:

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| | | |
|--------------------|-----------|---------|
| | BYTE 1 | BYTE 2 |
| Data Switches | 7 6 5 4 3 | 3 2 1 0 |
| Track Register Bit | 4 3 2 1 0 | 8 7 6 5 |

Byte 1 = 1st time "STEP SKS" is depressed
 Byte 2 = 2nd time "STEP SKS" is depressed

- 5.5.12.3 Set SIO; order switches 6 and 7 up.
- 5.5.12.4 Depress and release FS
- 5.5.12.5 Set "DATA" switches as in 5.5.12.2 for byte 1.
- 5.5.12.6 Depress and release "STEP SKS"
- 5.5.12.7 Set "DATA" switches for byte 2.
- 5.5.12.8 Depress and release "STEP SKS"
- 5.5.12.9 Set desired operation into "Order Switches" as follows:

| | |
|-----|----------------|
| | ORDER SWITCHES |
| | <u>4 5 6 7</u> |
| WRI | 0 0 0 1 |
| RED | 0 0 1 0 |
| SEK | 0 0 1 1 |
| CHW | 0 1 0 1 |
| SNS | 0 1 0 0 |

- 5.5.12.10 Depress FS, system will now be operating on the track selected.
- 5.5.12.11 System may be operated on a band of tracks starting with track 0 by the following method.
- 5.5.12.12 Set "SGL TRK" switch down.
- 5.5.12.13 Set highest track desired into "COUNTER RESET" switches. Depress "Initialize."
- 5.5.12.14 Perform 5.5.12.9.
- 5.5.12.15 Set "RUN CONT" switch up. System will cycle from 0 to the number set in 5.5.12.13.

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5.6 Sigma 7/5 Computer Testing

5.6.1 Preliminary

Perform sections 5.1 through 5.4.2 of this procedure.

5.6.2 Program loading

Use the standard load procedure, as outlined in either the Sigma 7 or the Sigma 5 Computer Reference Manual, to load the combined Sigma 7/5 Diagnostic Control Program and RAD Diagnostic Program (SDS 704072B). The Input/Output keyboard shall print

MEDIUM SPEED RAD MEMORY TEST MODEL NO. 704072

and remain in the input mode when the program has been successfully loaded.

5.6.3 Power off status

5.6.3.1 Remove D.C. power from the controller and selection unit by setting the LOCAL-OFF-REMOTE switch on the PT18 Power Distribution Panel to the OFF position. Enter the following directives:

```

$DKB,Q+
$UNIT,0,0F0,n+ note: for part number
$LEN,360+ 123084,n = 4
$ADDR,1,0,0+ 123085,n = 5
$SMD,Q+ 123086,n = 6
$SML,3+
$TIO,0F0,0+ Q = Keyboard address

```

5.6.3.2 The TIO status response shall be as follows:

```

TIO 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCI, 2 ADDRESS NOTE: X = indeterminate
0 0 0 0 0 0 X X X X X X 1 1 FO

```

NOTE: Individual status bits may be interpreted using Manual Medium Speed RAD File Test (SDS 901130).

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5.6.4 Power On Status

5.6.4.1 Apply D.C. power to the controller and selection unit by setting the LOCAL-OFF-REMOTE switch on the Power Distribution Panel to the LOCAL position.

5.6.4.2 Set the ONLINE-OFFLINE switch (Controller 23C) to the "0" or OFFLINE position. Enter the following directives:

§ TI0, OF0, O+

The TI0 status response shall be identical to section 5.6.3.2.

5.6.4.3 Set the ONLINE-OFFLINE switch to the "1" or ONLINE position.

Set address comparator switches S1-1, S1-2, S2-1, S2-2, S3-1 and S4-1 (controller 24C) to the "0" position.

Set address comparator switches S2-2, S3-2, and S4-2 to the "1" position.

5.6.4.4 Enter the following directives:

§ TI0, OF0, O+

The TI0 status response shall be identical to section 5.6.3.2

5.6.4.5 Set address comparator switch S1-2 to the "1" position and enter the following directive:

§ TI0, OF0, O+

The TI0 status response shall be as follows:

TI0 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
0 0 0 1 0 0 0 0 X X X X X X X 0 0 FO

5.6.4.6 Enter the following directives: The accompanying responses shall be printed.

§ TDV, OF0, O+

TDV 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
0 X 0 0 X X X X X X X X X X X 0 X FO

NOTE: X = indeterminate

§ AIO, O+

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AIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
0 X 0 0 X X X X X X X X X X X X 1 1 0

§ HIO, OFO, O+

HIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
0 0 0 1 0 0 0 0 X X X X X X X X 0 0 FO

5.6.4.7 Attach a clip lead from GND to signal IDS (Controller 28A04)

5.6.4.8 Set computer sense switch 4 to the "I" position. Enter the following directives:

§ CLR +
TIO, OFO, O+/

5.6.4.9 Reference figure 3.6.4.9

Sync on and display signal SDO (controller 17A04). Two SDO's shall be displayed. They shall be 210 ± 40n sec in width, separated by 210 ± 40 nsec. Signal FSD (Controller 07B42) shall assume the true state 190 ± 45 nsec after the leading edge of the second SDO, and shall remain true until signal FSU (Controller 11B03) assumes the false state.

5.6.4.10 Regain keyboard control by momentarily setting computer sense switch 1 to the "I" position.

Set sense switch 4 to the "0" position.

Remove the GND jumper from signal IDS.

5.6.5 Illegal Order

5.6.5.1 Enter the following directives: The accompanying responses shall be printed:

§ SIO, OFO, OO, OO, 360, O+
SIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL 2 ADDRESS
0 0 0 1 0 0 0 0 X X X X X X X X 0 0 FO

§ TIO, OFO, O+
TIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CU, 2 ADDRESS
0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 FO

5.6.5.2 Set the computer COMPUTE switch to the "IDLE" position. Depress the computer I/O RESET switch momentarily. Set the COMPUTE switch to the "RUN" position.

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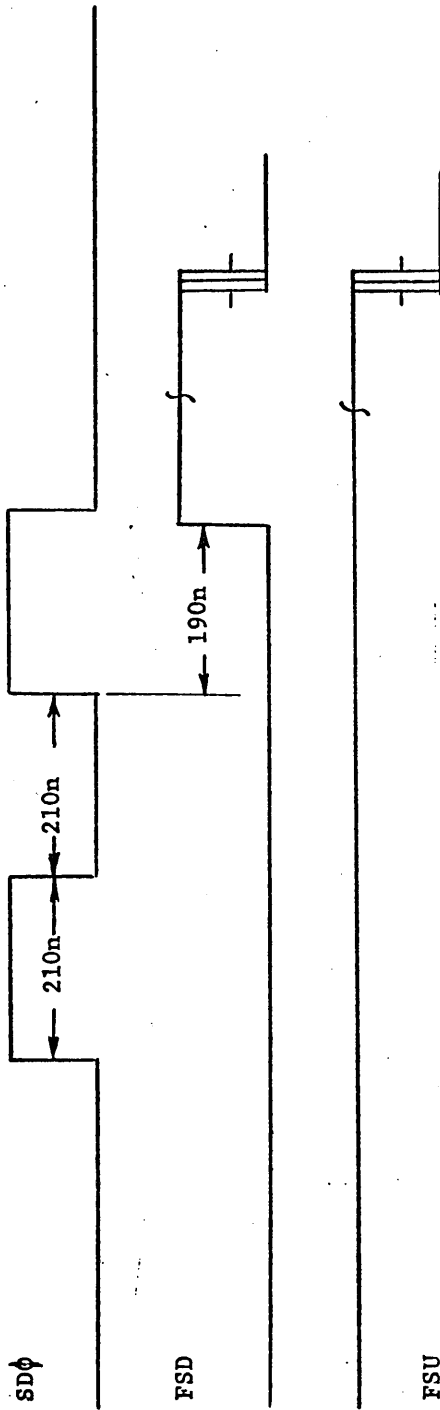


FIGURE 5.6.4.9

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5.6.5.3 Enter the following directive:

§ TIO, OFO, O+

The TIO status response shall be as follows:

TIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCl, 2 ADDRESS
0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 FO

5.6.5.4 Perform section 5.6.5.1.

5.6.5.5 Execute the following directives: The accompanying responses shall be printed:

§ HIG, OFO, O+

HIG 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCl, 2 ADDRESS
0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 FO

§ TIO, OFO, O+

TIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCl, 2 ADDRESS
0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 FO

5.6.5.6 Enter the following directive:

§ SIG, OFO, OO, O4, 360, O+

The response shall be as follows:

ILEG 360/FO/O/O/
CURRENT COMMAND (Command location)
UNUS END
AIG 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCl, 2 ADDRESS
0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 FO
TDV 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCl, 2 ADDRESS
0 X 0 0 X X X 0 0 0 0 0 0 0 0 0 X FO

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```

HIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
    0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 00 FO
SIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
    0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 00 FO

```

5.6.6 Seek-interrupt on count done, Channel End

5.6.6.1 Attach a clip lead from GND to signal SEEKCHE (Controller 04B01).

5.6.6.2 Enter the following directives: The accompanying responses shall be printed:

```

    § PAUT, 0, 1+
    § SIO, OF0, 03, 40, 02, 0+
SIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
    0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 00 FO

```

```

    § TIO, OF0, 0+
TIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
    1 1 1 1 0 1 1 0 0 0 0 0 0 0 0 0 01 FO

```

```

    § TDV, OF0, 0+
TDV 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
    0 X 0 0 X X X 0 0 0 0 0 0 0 0 0 0 00 FO

```

```

    § HIO, OF0, 0+
HIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
    1 1 1 1 0 1 1 0 0 0 0 0 0 0 0 0 01 FO

```

```

    § TIO, OF0, 0+
TIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
    0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 00 FO

```

5.6.6.3 Enter the following directive:

§ SIO, OF0, 03, 10, 02, 0+

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The response shall be as follows:

CHAN END NOT RECEIVED
 SEEK 360/FO/O/O/
 CURRENT COMMAND (Command location)
 AIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
 AIO Response ... meaningless
 TDV 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
 0 X 0 0 X X X 0 0 0 0 0 0 0 0 OX FO
 HIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
 0 1 1 1 0 1 1 0 0 0 0 0 0 0 0 0 01 FO
 SIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 FO

5.6.6.4 Remove the GND jumper from signal SEEKCHE.
 *5.6.6.5 Enter the following directives: The accompanying responses shall be printed.

\$ SIO, OFO, O3, 00, 02, 0+
 SIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 FO
 \$ HIO, OFO, 0+
 HIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 FO
 \$ SEEK, O7FF, 02+
 \$ TIO, OFO, 0+
 TIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 FO

| | |
|------------|--|
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* 5.6.6.5 Enter the following directive:
 § SEEK, MFFF, 02+

NOTE: for part number
 123084, m = 0
 123085, m = 1
 123086, m = 2

The response shall be as follows.

```

SEEK 360/FO/0/0/
CURRENT COMMAND (command location)
UNUS END
SECT UNAV
AIG 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL,2 ADDRESS
    0 0 1 0 0 0 0 0 0 0 1 1 0 0 0 0 1 FO
TDV 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
    0 X 1 0 X X X 0 0 0 0 0 0 0 0 OX FO
HIG 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
    0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 FO
    
```

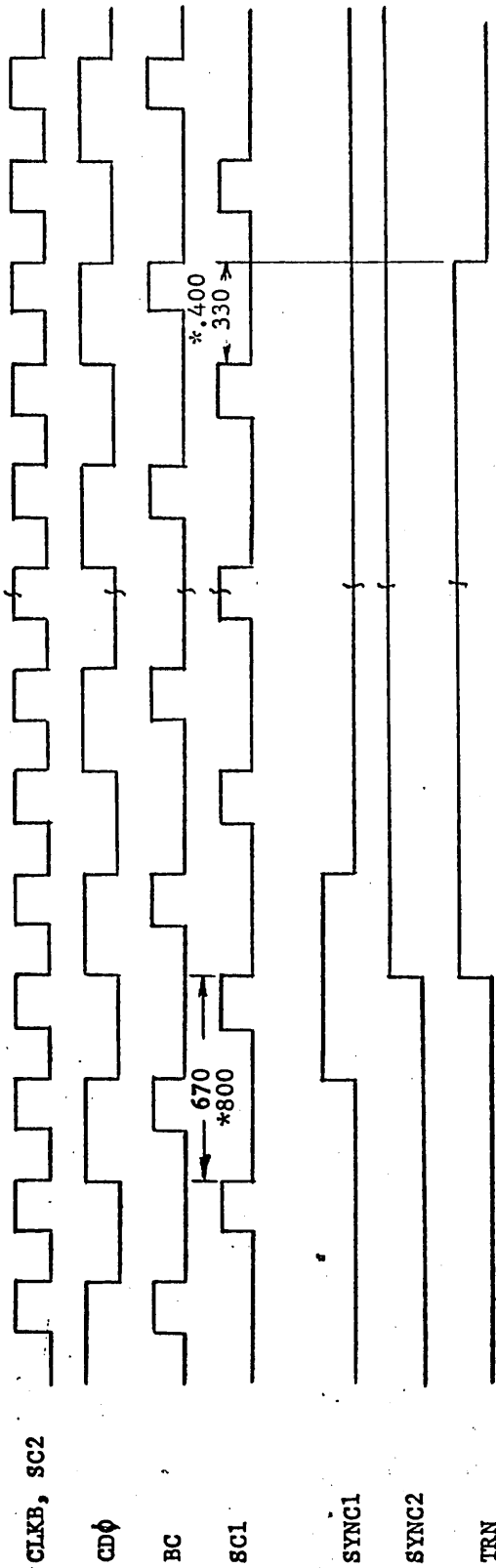
5.6.7 Dynamic Seek

5.6.7.1 Enter the following directives:
 § CLR+
 SEEK, 0557, 02+

5.6.7.2 Reference figure 5.6.7.2
 Sync on and display signal TRN. Also display signal SCL.

| | |
|------------|--|
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PART NUMBERS
123084, 123085, 123086



* For 50 Hz units

FIGURE 5.6.7.2

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| | |
|------------|-------|
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| PARTNUMBER | SIGNAL | LOCATION |
|------------------------|--------|----------|
| 123084, 123085, 123086 | TRN | 18A34) |
| | SCI | 18A27) |

in selection unit

Signal SCI shall have the following characteristics:

60 Hz Units
 Pulse 50 Hz Units
 165 ± 10 nsec 200 ± 10 nsec
 670 ± 20 nsec 800 ± 20 nsec

5.6.7.3 Insure that TRN is true for nine SCI pulses and that it assumes the false state at least 100nsec before the tenth SCI.

5.6.7.4 Reference Figure 5.6.7.2

Sync on and display signal USECP (controller 29A46). Also display signal SYNC1 (controller 14C36).

Sync1 shall have the following characteristics:

| | | |
|---------------------------------------|----------------------------------|--------------------------------------|
| Width | 60 Hz Units | 50 Hz Units |
| Relationship to leading edge of USECP | 670- 20nsec true within 700 nsec | 800 ± 20 n.sec true within 800 nsec. |

5.6.7.5 Reference Figure 5.6.7.5

Insure that signal TO (Controller 06C28) occurs 45 ± 20 nsec after signal ARR2 (controller 07B20). TO shall be 70 ± 20 nsec in width. Using signal TO as a reference inspect the following signals:

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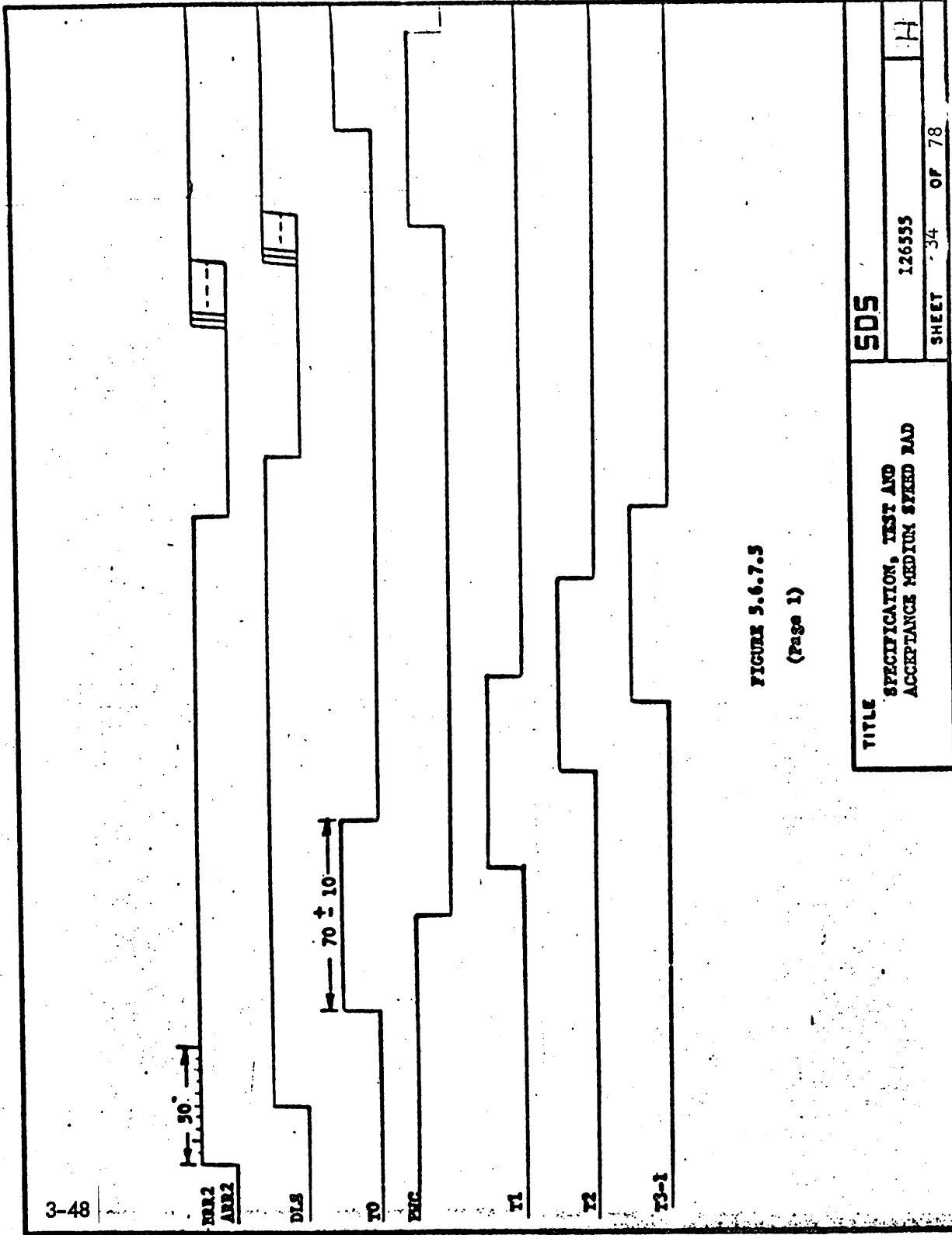


FIGURE 5.6.7.5
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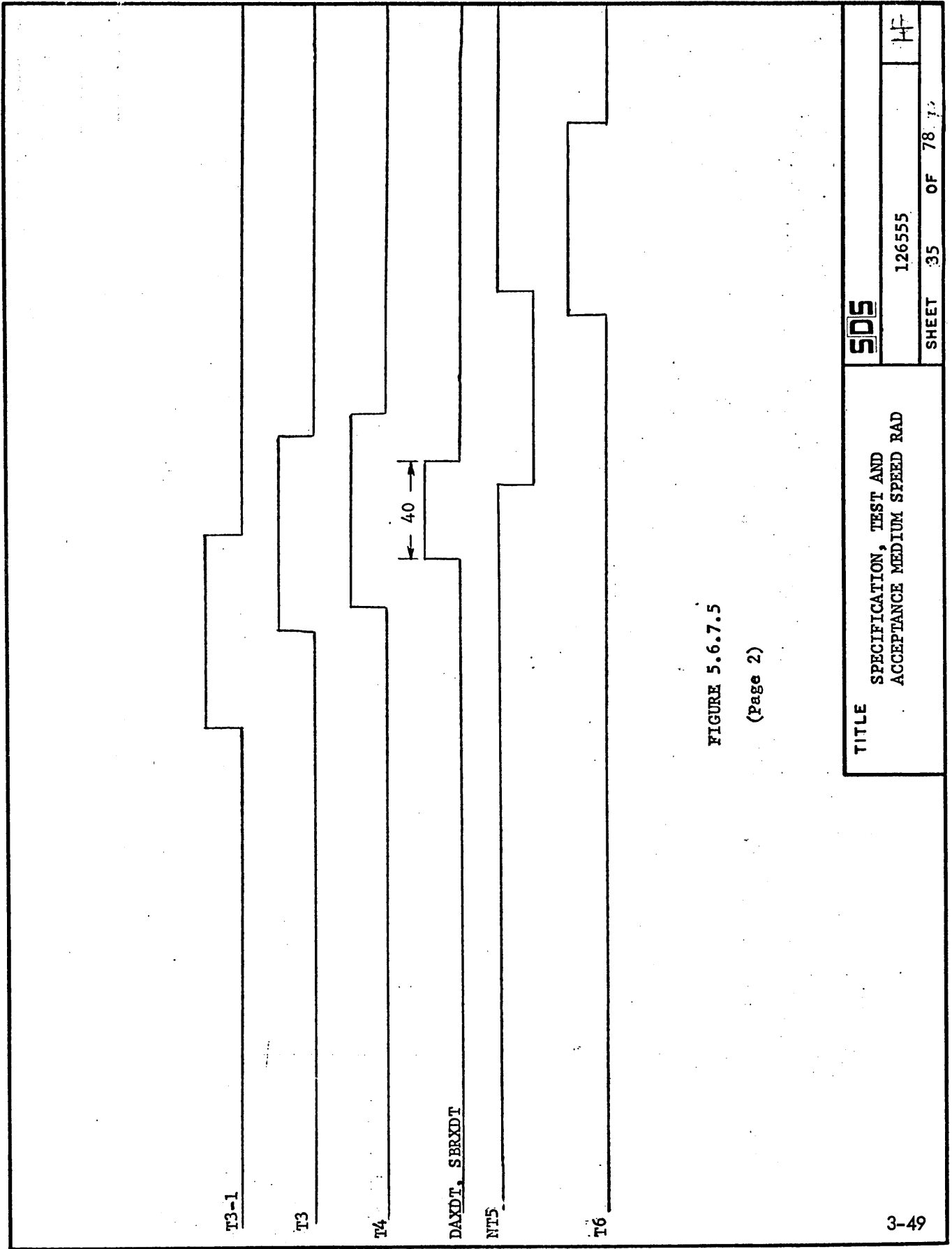


FIGURE 5.6.7.5
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| Signal | Location | Characteristics |
|--------|----------|---|
| PWC | 06C19 | False 40 nsec after T0. True 325 nsec after T0. |
| T1 | 06C29 | true 60 nsec after T0 |
| T2 | 06C06 | true 100nsec after T0 |
| T3-1 | 06C04 | true 130 nsec after T0 |
| T3 | 06C17 | true 170 nsec after T0 |
| T4 | 06C07 | true 180 nsec after T0 |
| NT3 | 06C18 | false 230 nsec after T0 |
| T6 | 06C05 | true 300 nsec after T0 |

NOTE: Tolerance is ± 10 nsec.

5.6.8 Sense
 5.6.8.1 Regain keyboard control and enter the following directives:

 \$ SEEK, 0000, 02 +
 \$ SENS, 03 +

The SENSE response shall be as follows:

SENS: j for part number 123084, 123085, 123086 00<j<OF
 NOTE:

leading zeros are not printed.

5.6.8.2 Enter the following directive:

 \$ TIO, OF0, 0 +

The TIO status response shall be as follows:

TIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCI, 2 ADDRESS
 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 FO

5.6.8.3 Enter the following directives:

| | |
|---|-------|
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\$ SEEK, m n FF, 02 +
\$ SENS, 03 +

NOTE: for part number 123084, m = 0, n = 7
123085, m = 0, n = F
123086, m = 1, n = F

The SENSE response shall be as follows:

SENS mm FF j

NOTE: j is described in Section 5.6.8.1

5.6.9 Write

5.6.9.1 Enter the following directives. The accompanying responses shall be printed:

\$ PATT, A, 1+
\$ SEEK 0000, 02 +
\$ SIO, OFO, 01, 10, 360, 0+

SIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 FO

\$ TIO, OFO, 0+

TIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 FO

\$ ADDR, 1, n, mt.

NOTE: for part number 123084, n = 127, m = 15 123086, n = 511, m = 15
123085, n = 255, m = 35

\$ CLR +
WRT+

| | | | |
|---|----|------------|----|
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5.6.9.2 Sync on and display signal WEN (controller 05B02). WEN shall have the following characteristics:

| | | |
|--------|-----------------|----------------|
| | 60 Hz Units | 50 Hz Units |
| width | 2.10 ± .1 m sec | 2.5 ± .1 m sec |
| period | 34.5 ± 1. m sec | 41 ± 1. m sec |

5.6.9.3 Display the following signal and observe that it assumes the true state when WEN goes false.

| Part number | signal | location |
|-------------|--------|----------|
| 123084 | TRK1 | 13B23) |
| 123085 | TRKO | 13B17) |
| 123086 | TRKOVF | 14B07) |

in controller

5.6.9.4 Reference Figure 5.6.9.4

Sync on signal WCPB-358 (controller 03B01). Display signal BR7 (Controller 20C03) and signal DAM (Controller 30B04). The period of BR7 shall be as follows:

| | | |
|-----|----------------|-----------------|
| BR7 | 60 Hz Units | 50 Hz Units |
| | 1330 ± .30nsec | 1600 ± .30 nsec |

For Reference, CDO is located in the controller at 30B05.

5.6.9.5 Sync on and display signal SECP (controller 29A41). Also display signal WEN (05B02). The relationship between SECP and WEN shall be as follows:

SECP : WEN 16:1

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| | |
|---|--|
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|---|--|

XDS 902345

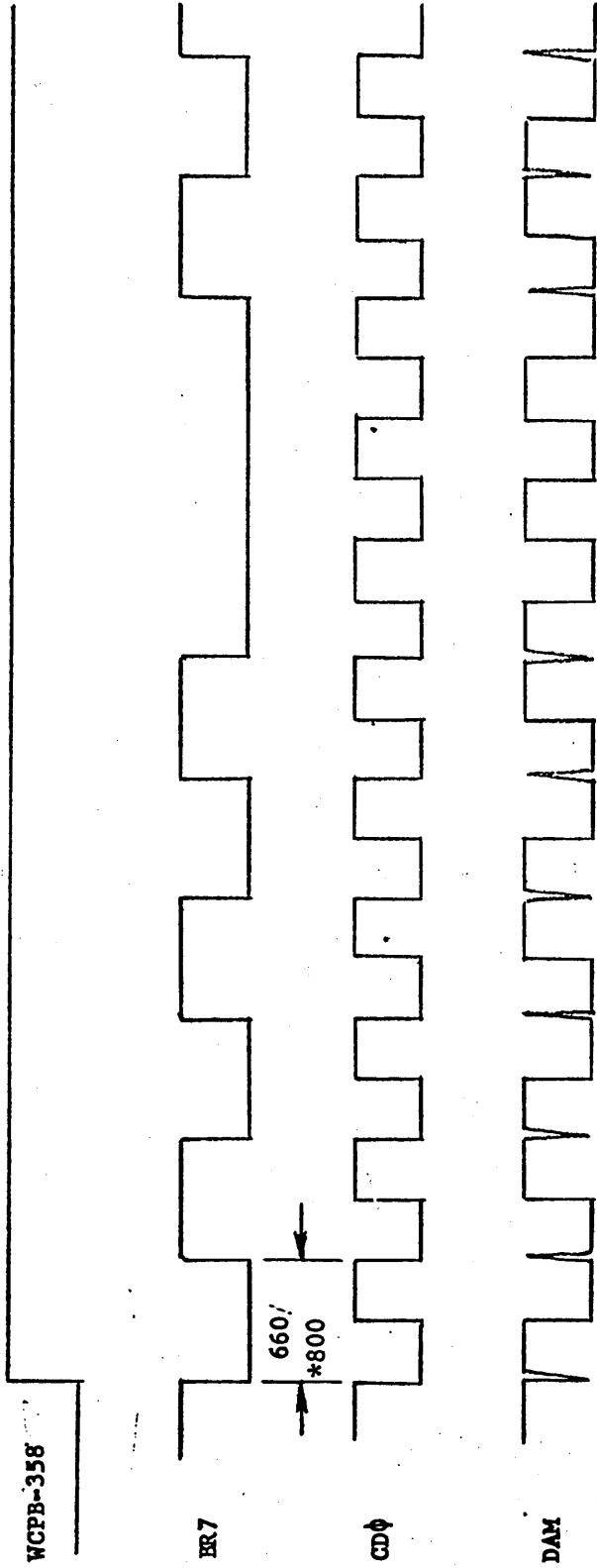


FIGURE 5.6.9.9

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5.6.9.6 Regain keyboard control and enter the following directives:

- \$ ADDR, 1, 0, 0+
- \$ PATT, F, 1+
- \$ LEN, 359+
- \$ WRT +
- \$ TIO, OFO, 0+

5.6.9.7 The TIO status response shall be as follows:

```
TIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 GC1, 2 ADDRESS
    0 0 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 FO
```

5.6.9.8 Enter the following directives:

- \$ LEN, 361 +
- \$ WRT +
- \$ TIO, OFO, 0+

The TIO Status response shall be identical to section 5.6.9.7

5.6.9.9 Sync on the trailing edge of signal PRE (controller 18C05). Display signals PA7 (controller 18C07) and BC (controller 18C10). Observe that signal PA7 stays true for eight BC pulses and goes false for eight. PA7 shall be false when SBRXPA (controller 31B46) goes true.

* 5.6.9.10 Regain keyboard control and enter the following directives:

- \$ ADDR, 1, n, m+
- \$ LEN, 720+
- \$ WRT +

NOTE: m and n are described in section.5.6.9.1

The WRITE response shall be as follows:

| | |
|------------|---|
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WRT 720/FO/n/15/
 CURRENT COMMAND (command location)
 UNUS END
 SECT UNAV
 AIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
 0 0 1 0 0 0 0 0 0 0 0 1 0 0 0 0 0 1 FO
 TDV 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
 0 X 1 0 X X X 0 0 0 0 0 0 0 0 0 X FO
 HIG 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 FO

* 5.6.9.11 Attach a clip lead from signal NBC2 (controller 01B44) to the unused input pin of signal GT12 (controller 24B11).

* 5.6.9.12 Enter the following directives:
 \$ ADDR, 1, 0, 0+
 \$ LEN, 360 +
 \$ GO +

The WRITE response shall be as follows:

WRT 360/FO/0/0/
 CURRENT COMMAND (command location)
 UNUS END
 RATE ERR
 TRANS ERROR
 AIO 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
 1 0 0 0 0 0 0 0 0 1 0 0 1 0 0 0 0 0 1 FO
 TDV 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
 1 X 0 0 X X X 0 1 0 0 0 0 0 1 0 0 X FO
 HIG 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 CCL, 2 ADDRESS
 0 0 0 1 1 0 0 0 0 1 0 0 0 0 0 1 0 0 0 FO

Remove the clip lead.

| | |
|---|-------|
| SDS | |
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* 5.6.9.13 Regain keyboard control and set the first track protect switch to the "1" position. Enter the

following directives:

\$ LEN, n +
\$ ADDR, 1, 31, 0+
\$ CLR +
WRT, 1 + 32(STEP+) + STOP, 00+/
*NOTE: For part no.
123084 n = 5760
123085 n = 5760
123086 n = 5760

* 5.6.9.14 The following message shall be printed:

WRT/FO/31/0/WRT PROT
STOP, 00

NOTE: The above message indicates that track 31 is write protected. The track address will be incremented by 32 as each successive track protect switch is set.

* 5.6.9.15 Reset the track protect switch which was set, and place the next one in the "1" position. Clear the STOP condition by placing the computer in the IDLE mode momentarily. Repeat section 5.6.9.14 by returning the computer to the RUN mode. Discontinue the test as per the list below:

PART NUMBER DISCONTINUE TEST
123084 after 4th switch
123085 after 8th switch
123086 after 16th switch

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| | |
|--|--------|
| SDS | |
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5.6.9.16 (Power monitor test - future)

Check-Write

5.6.10.1 Regain keyboard control. Set computer sense switch 4 to the "1" position and enter the following directives:

- \$ ADDR, 1, 0, 0+
- \$ LEN, 5760 +
- \$ PATT, 5, 1 +
- \$ WRT +
- \$ CLR +
- CMPW+

5.6.10.2 Follow the procedure outlined in section 5.5.9 to adjust the clock discriminator.

5.6.10.3 Sync on and display signal CHWEN (controller 04B13). Also display signal DCL (controller 03B03). Insure that DCL has the following characteristic:

| Part Number | Characteristics |
|-------------|--|
| 60 Hz units | true 21.3 $\frac{1}{2}$.3 $\frac{1}{4}$ sec after CHWEN |
| 50 Hz units | true 25.6 $\frac{1}{2}$.4 $\frac{1}{4}$ sec after chwen |

5.6.10.4 Reset computer sense switch 4 to the "0" position. No error reports shall occur.

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5.6.10.5 Create a sync pattern error by momentarily applying GND to signal PSPR (controller 26A14).

The resulting error report shall be as follows:

```

WRT Compare Error @ / FO/ O/ O/
CWRT      5760/ FO/ O/ O/
CURRENT COMMAND      (command location)
UNUS END
TRANS ERR
AIO 0123 4567 8901 2345 CCL,2 ADDRESS
      0000 0000 0101 1000 01 FO
TDV 0123 4567 8901 2345 CCL, 2 ADDRESS
      0X00 XXXX 0100 0010 0X FO
HIO 0123 4567 8901 2345 CCL,2 ADDRESS
      0001 1000 0100 0010 00 FO
  
```

5.6.10.6 Regain keyboard control; place a ground lead on signal PAOSET (controller 16B04), and enter the following directive:

\$ WRT+

Remove the ground lead and enter: \$ GO+
The resulting parity error report shall be as follows:

```

WRT Compare Error @/FO/O/O/ .0
CWRT      5760/FO O/ O/
CURRENT COMMAND      (command location)
UNUS END
TRANS ERR
AIO 0123 4567 8901 2345 CCL,2 ADDRESS
      0000 0000 0101 1000 01 FO
TDV 0123 4567 8901 2345 CCL,2 ADDRESS
      0X00 XXXX 0100 0010 0X FO
HIO 0123 4567 8901 2345 CCL,2 ADDRESS
      0001 1000 0100 0010 00 FO
  
```

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5.6.10.7 Regain keyboard control and enter the following directives:

\$WRT+
\$LEN, 360+
\$ADDR, 1 0, 1+
\$PATT, 5555554, 8+
\$WRT +
\$LEN, 5760 +
\$ADDR, 1, 0, 0 +
\$GO +

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The following

WRT Compare error report shall be as follows:
WRT Compare Error @ / FO/ O/ O/ XXXX
CWRT 5760/ FO/ O/ O/
CURRENT COMMAND (command location)
UNUS END

TRANS ERR
AIO'0123 4567 8901 2345 CCL,2 ADDRESS
FO 0000 0000 0100 1000 01
TDV 0123 4567 8901 2345 CCL,2 ADDRESS
OX00 XXXX 0100 0010 OX FO
HIO'0123 4567 8901 2345 CCL,2 ADDRESS
FO 0001 1000 0100 0010 00

* 5.6.11 Read

5.6.11.1 Regain keyboard control and enter the following directives:

\$ADDR,1,0,0+
\$PATT,5,1+
\$LEN,5760+
\$WRT+
\$CLR+
CMPR+/
No error reports shall occur.

5.6.11.2 Regain keyboard control and enter the following directives:

\$LEN,359,1+
\$GO+

| | |
|---|-------|
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The status response shall be as follows:

| | | | | | |
|-----------------|------|------|------|------|--------------------|
| READ | 359/ | FO/ | 0/ | 0/ | (command location) |
| CURRENT COMMAND | | | | | |
| INC LENGTH | | | | | |
| AI0' | 0123 | 4567 | 8901 | 2345 | CC1,2 ADDRESS |
| | 0000 | 0000 | 1001 | 1000 | 01 FO |
| TDV | 0123 | 4567 | 8901 | 2345 | CC1,2 ADDRESS |
| | 0X00 | XXXX | 1000 | 0010 | 0X FO |
| HI0' | 0123 | 4567 | 8901 | 2345 | CC1,2 ADDRESS |
| | 0001 | 0000 | 1000 | 0010 | 00 FO |

5.6.11.3 Regain keyboard control and enter the following directives:

\$LEN, 359+
 \$WRT+
 \$LEN, 360 +
 \$GO

The status response shall be as follows:

Compare Error @ /FO/O/O/
 90 55555555 55555500

Summary /FO/O

| BIT POS | Dropped | Picked |
|---------|---------|--------|
| 0 | 0 | 0 |
| 1 | 1 | 0 |
| 2 | 0 | 0 |
| 3 | 1 | 0 |
| 4 | 0 | 0 |
| 5 | 1 | 0 |
| 6 | 0 | 0 |
| 7 | 1 | 0 |

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5.6.11.4 Regain keyboard control and enter the following directions:

\$PATT, F, I+
\$LEN, 5760+
\$WRT+
\$CLR+
READ, 0, 1+/
No errors shall occur.

5.6.11.5 Regain keyboard control. Create a Parity error by applying GND to signal PAO (controller 18C24).

5.6.11.6 Enter the following directive: The accompanying print out shall occur.

\$GO+
READ 5760/ F0/ 0/ 0/
CURRENT COMMAND (command location)
UNUS END
TRANS ERR
AIO 0123 4567 8901 2345 CCI,2 ADDRESS
0000 0000 0101 1000 F0
TDV 0123 4567 8901 2345 CCI,2 ADDRESS
0000 0000 0100 0010 F0
HIO 0123 4567 8901 2345 CCI,2 ADDRESS
0001 1000 0100 0010 F0

Remove the GND from PAO.

| | |
|---|-------------|
| SDS | |
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* 5.6.12 Command Chain

5.6.12.1 Regain keyboard control and enter the following directives:

\$ADDR, 1, 0, 0 +
 \$CCHN, 1+
 \$CLR+
 CCHN, 0+ /

No error reports shall occur.

5.6.12.2 Sync on and display signal DGB (controller 15B38) and verify that it remains true for the following times:

| | |
|--------------------------|---------------------------|
| 123084, 123085, 123086 | 132834 |
| between 35 & 70 m sec | between 70 & 105 m sec |

* 5.6.13 Matrix Test

NOTE: Paragraphs 5.6.13.1 thru 5.6.13.4 to be performed only on units with logical sparing installed. (Wire list 126551H (and above).)

Paragraph 5.6.13.4 to be performed on all units.

5.6.13.1 Install LT105 modules as per the following chart

| <u>Model</u> | <u>Arm Interface Assy</u> | <u>LT105</u> | <u>Spare Tracks</u> |
|--------------|---------------------------|---|---------------------|
| 7202 | 127612 | 29A & 30A | 0-15 |
| 7203 | 127612 | 29A, 30A, 31A & 32A | 0-31 |
| 7204 | 127612 | 29A, 30A, 31A, & 32A 04B, 05B, 06B & 07B | 0-64 |

5.6.13.2 Perform the spares portion of the following test:

\$ADDR, 1, 0, 0+
 \$LEN, 2880+
 \$CLR+
 PATT, 0000000, 8 + BACK +
 n (WRT + PCYC, 00000008 + STEP +) +
 PATT, 0000000, 8 + BACK +
 n (CMFW+PCYC, 00000008 + STEP +) +
 STOP, 0001+ /

| | |
|--|--------|
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5.6.13.2 (Cont'd.)

Active Head Test Spares Test

NOTE: for part Number

| | |
|------------------|---------|
| 123084, N = 256 | n = 32 |
| 123085, n = 512 | n = 64 |
| 123086, n = 1024 | n = 128 |

5.6.13.3 Remove LTI05 modules installed in 5.6.13.1. List all failing tracks on Head Sparring Chart 153709-002.

5.6.13.4 Perform the "Active Head Test" portion of 5.6.13.2.

No error reports shall occur before the message

STOPOOOL

is printed.

5.6.14 Pattern Test

5.6.14.1 Regain keyboard control and enter the following directives:

```

$ADD, 1,0, 0+
$LEN, 46080+
$CLR+
PATT, D2D2D2D, 8 + 1 @ +
PATT, 33CCAAFF, 8 + 1 @ +
PATT, FFO055CC, 8 + 1 @ +
PATT, CC3311AA, 8 + 1 @ +
PATT, AA00FF55, 8 + 1 @ +
STOP, 0002+1. + BACK +
n (WRT+STEP+) +5 (BACK +
n (CMEW+STEP+))+@+

```

NOTE: for part number

| |
|----------------|
| 123084, n = 16 |
| 123085, n = 32 |
| 123086, n = 64 |
| 132834, n = 32 |

| | |
|--|--------|
| SDS | |
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5.6.14.2 Section 5.6.14.1 provides a control line which writes five different patterns on all tracks and check-writes each pattern five times. Run times are as follows:

| PART NUMBER | RUN TIME | Note: |
|-------------|------------|----------------|
| 123084 | ≈ 2.5 min | 50 Hz units |
| 123085 | ≈ 5.0 min | run 20% longer |
| 123086 | ≈ 10.0 min | |

No error reports shall occur before the message
STOP0002
is printed.

5.6.15 Margins

5.6.15.1 Set the PT16 margin switch to the "LOW" position. Regain keyboard control and enter:

\$GO+

No error report shall occur before the message STOP0002 is printed.

5.6.15.2 Set the PT16 margin switch to the "HIGH" position. Regain keyboard control and enter

\$GO+

No error report shall occur before the message STOP0002 is printed.

5.6.15.3 Return the PT16 margin switch to the "NORMAL" position.

| | |
|------------|---|
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5.7

Sigma 2 Computer Testing

The following tests shall constitute the minimum acceptable standard for the Medium Speed RAD, using a Sigma 2 computer.

- 5.7.1 Preliminary
Perform sections 5.1 through 5.4.2 of this procedure
- 5.7.2 Program loading
Use the standard load procedure, as outlined in the Sigma 2 Computer Reference Manual, to load the Sigma 2 Diagnostic Control Program and RAD Diagnostic Program (SDS 704980). The Input/Output keyboard shall print,

SIGMA 2 HIGH CAPACITY RAD TEST NO. 704980 MANUAL NO. 901538

and remain in the input mode when the program has been successfully loaded.

5.7.3 Power On Status

- 5.7.3.1 Apply D. C. power to the controller and selection unit by setting the LOCAL-OFF-REMOTE switch on the Power Distribution Panel to the LOCAL position.
- 5.7.3.2 Set the ONLINE-OFFLINE switch (Controller 23C) to the "1" or ONLINE position. Enter the following directives:
- \$ALT, 20, 168, B4, + \$ALT, 12CF, 8020, +
\$ALT, D3C, 168, + * \$ALT, 1310, XXXX, 6168, +
\$ALT, D40, 10, + \$ALT, 1324, 2168, +
\$ALT, 1141, 10, 0, + \$ALT, 1328, FFFF, +
\$ALT, 1290, A021, + * See Note Page 53

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5.7.3.2 (cont'd)

\$DKB, Q +
 \$UNIT, 0, C01+
 \$LEN, 0, 360 +
 \$ADDR, 1, 0, 0 +
 \$PATT, 0000, +
 \$SMD, Q +
 \$SML, 3 +

Note: for part number

123084, xxxxx = F802
 123085, xxxxx = F002
 123086, xxxxx = E002

Q = Keyboard Address

5.7.3.3 Set the ON LINE-OFFLINE switch (Controller 23C) to the "0" or OFFLINE position. Enter the following directive

\$ TIO, C0 +

5.7.3.4 The TIO status response shall be as follows:

| TIO | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | OC | ADDR |
|-----|---|---|---|---|---|---|---|---|----|------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | C0 |

Note: Individual status bits may be interpreted using Manual, Medium Speed
 RAD File Test (SDS 901167).

5.7.3.5 Set the ONLINE-OFFLINE switch to the "1" or ONLINE position.

Set address comparator switches S1-1, S1-2, S2-1, S2-2, S3-1, S3-2, S4-1, and S4-2 (Controller 24C.) to the "0" position.

Set address comparator switch S2-2 to the "1" position.

5.7.3.6 Enter the following directive

\$ TIO, C0 +

The TIO status response shall be identical to section 5.7.3.4

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5.7.3.7 Set address comparator switch S1-2 to the "1" position and enter the following directive

\$ TIO, C 0 +

The TIO status response shall be as follows:

| | | | | |
|-----|---------|---------|----|------|
| TIO | 0 1 2 3 | 4 5 6 7 | OC | ADDR |
| | 0 0 0 1 | 0 0 0 0 | 00 | C 0 |

5.7.3.8 Enter the following directives: The accompanying responses shall be printed:

\$ TDV, C 0 +

| | | | | |
|-----|---------|---------|----|------|
| TDV | 0 1 2 3 | 4 5 6 7 | OC | ADDR |
| | 0 0 0 0 | 0 0 0 0 | 00 | C 0 |

\$ HIO, C 0 +

| | | | | |
|-----|---------|---------|----|------|
| HIO | 0 1 2 3 | 4 5 6 7 | OC | ADDR |
| | 0 0 0 1 | 0 0 0 0 | 00 | C 0 |

5.7.3.9 Attach a clip lead from GND to signal IDS (Controller 28A04)

5.7.3.10 Set computer data switch 4 to the "1" position. Enter the following directives:

\$ CLR +

TIO, C 0, + 1

| | |
|---|----------|
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- 5.7.3.11 Reference figure 5.6.4.9
 Sync on and display signal SD0 (Controller 17A04). Two SD0's shall be displayed. They shall be 210 ± 40 n/sec. in width, separated by 210 ± 40 n/sec. Signal FSD (Controller 07B42) shall assume the true state 190 ± 45 n/sec. after the leading edge of the second SD, and shall remain true until signal FSU (Controller 11B03) assumes the false state.
 Regain keyboard control by momentarily setting computer data switch 0 to the "1" position.
 Set data switch 4 to the "0" position.
 Remove the GND jumper from signal IDS.
- 5.7.3.12

5.7.4 Illegal Order

5.7.4.1 Enter the following directives: The accompanying responses shall be printed:

| | | | | |
|-----|---------|---------|----|-------------------------------|
| SIO | 0 1 2 3 | 4 5 6 7 | OC | ADDR |
| | 0 0 0 1 | 0 0 0 0 | 00 | C 0 |
| | | | | \$ SIO, C 0, 00, 00, 360, C + |
| TIO | 0 1 2 3 | 4 5 6 7 | OC | ADDR |
| | 0 0 0 1 | 1 0 0 0 | 00 | C 0 |
| | | | | \$ TIO, C 0, 0, + |
| HIO | 0 1 2 3 | 4 5 6 7 | OC | ADDR |
| | 0 0 0 1 | 1 0 0 0 | 00 | C 0 |
| | | | | \$ HIO, C 0, + |
| TIO | 0 1 2 3 | 4 5 6 7 | OC | ADDR |
| | 0 0 0 1 | 0 0 0 0 | 00 | C 0 |
| | | | | \$ TIO, C 0, + |

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- 5.7.5 Seek-interrupt on count done, Channel End.
- 5.7.5.1 Attach a clip lead from GND to signal SEEKCHE
(Controller 04B01).
- 5.7.5.2 Enter the following directives: The accompanying responses shall be received:
 - \$\$SIO, C 0, 03, 00 , 02, 0+
 - SIO 0123 4567 0C ADDR
 - 0001 0000 00 C'O
 - \$WRT+
 - SIO NOT POSS
 - TIO 0123 4567 0C ADDR
 - 0111 0110 01 C'O
 - CHAN END NOT RECEIVED
 - SEEK 000002/ C'O / 000 / 00 /
 - HIO 0123 4567 0C ADDR
 - 0111 0110 01 C'O
- 5.7.5.3 Remove the GND jumper from SEEKCHE.
- 5.7.5.4 Enter the following directives. The accompanying responses shall be received:
 - \$\$SIO, C 0, 03, 00, 02, 0+

| | |
|---|-------|
| SDS | |
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SIO 0123 4567 OC ADDR
0001 0000 00 C0

\$HIO, C0 +
HIO 0123 4567 OC ADDR
0001 0000 00 C0

\$SEEK, 07FF +
\$TIO, C0 +

TIO 0123 4567 OC ADDR
0001 0000 00 C0

*5.7.5.5 Enter the following directive:

\$SEEK, mFFF+ NOTE: for part number 123084, m = 0
123085, m = 1
123086, m = 2

The response shall be as follows.

SEEK 000002 / C0 / 000 / 00 /

AIO 0123 4567 OC ADDR
0010 0000 01 C0

TDV 0123 4567 OC ADDR
0010 0000 01 C0

HIO 0123 4567 OC ADDR
0001 1000 00 C0

OPERATIONAL STATUS BYTE
00011000

UNUS END

SECT UNAV

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5.7.5.5 Enter the following directives: The accompanying responses shall be printed:

\$SIO, C0, 00, 01, 00, 00+

ILEG 000000/ C0 / 000 / 00 /

HIO 0123 4567 0C ADDR

0001 1000 00 C0

Operational Status Byte

00001000

Unus End

5.7.6 Dynamic Seek

5.7.6.1 Enter the following directives:

\$ CLR +

SEEK, 0557, 02+ /

5.7.6.2 Reference figure 5.6.7.2. Sync on and display signal TRN. Also display signal SCL.

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| PARTNUMBER | SIGNAL | LOCATION |
|------------------------|--------|---------------------------|
| 123084, 123085, 123086 | TRN | 18A34) |
| | SC1 | 18A27) in selection unit |

Signal SC1 shall have the following characteristics:

| Type | 60 Hz Units | 50 Hz units |
|--------|-----------------------------------|------------------------|
| Width | Pulse 165 ⁺ 10 nsec | Pulse 200 + 15 nsec |
| Period | 670 ⁺ 20 nsec | 800 + 30 nsec |

5.7.6.3 Insure that TRN is true for nine SC1 pulses and that it assumes the false state at least 100nsec before the tenth SC1.

5.7.6.4 Reference Figure 5.6.7.2

Sync on and display signal USECP (controller 29A46). Also display signal SYNC1 (controller 14C36).

Sync1 shall have the following characteristics:

| | | |
|---------------------------------------|--|---|
| Width | 60 Hz units 670 ⁺ 20nsec | 50 Hz units 800 ⁺ 30 nsec |
| Relationship to leading edge of USECP | true within 700 nsec | true within 850 nsec |

5.7.6.5 Reference Figure 5.6.7.5

Insure that signal TO (Controller 06C28) occurs 45⁺ 20 nsec after signal ARR2 (controller 07B20).

TO shall be 70⁺ 20 nsec in width. Using signal TO as a reference inspect the following signals:

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| SIGNAL | LOCATION | CHARACTERISTICS |
|--------|----------|--|
| FWC | 06C19 | False 40nsec after T0. True 325 nsec after T0. |
| T1 | 06C29 | true 60 nsec after T0 |
| T2 | 06C06 | true 100nsec after T0 |
| T3-1 | 06C04 | true 130nsec after T0 |
| T3 | 06C17 | true 170nsec after T0 |
| T4 | 06C07 | true 180nsec after T0 |
| NT5 | 06C18 | false 230nsec after T0 |
| T6 | 06C05 | true 300nsec after T0 |

NOTE: Tolerance is \pm 10 nsec.

5.7.7 Sense

5.7.7.1 Regain keyboard control and enter the following directives:

NOTE: Keyboard control can be regained by either, 1.) Setting DATA switch 0 "UP" or 2.) Momentarily setting Interrupt switch "UP".

\$ SEEK, 0000, 02 +
\$ SENS, 03 +

The SENSE response shall be as follows:

SENSE: J

Note: for part number 123084, 123085, 123086 00 < J < OF

5.7.8 Write

5.7.8.1 Enter the following directives:

\$PATT, AAAAA +
\$ADDR, 1, n, m + NOTE: for part number
\$CLR+ 123084, n = 127, m = 15
WRT+/ 123085, n = 255, m = 15
123086, n = 511, m = 15

| | |
|--|--------|
| SDS | |
| TITLE | # |
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5.7.8.2 Sync on and display signal WEN (controller 05B02). WEN shall have the following characteristics:

| | | |
|--------|------------------|----------------|
| Width | 60 Hz Units | 50 Hz units |
| | 2.10 ± 0.1 m sec | 2.5 ± .1 m sec |
| Period | 34.5 ± 1.0m sec | 41 ± 1. m sec |

5.7.8.3 Display the following signal and observe that it assumes the true state when WEN goes false.

| Part number | Signal | Location |
|-------------|--------|----------------------|
| 123084 | TRK1 | 13B23) |
| 123085 | TRKO | 13B17) |
| 123086 | TRKOVF | 14B07) in controller |

5.7.8.4 Reference Figure 5.6.9.4

Sync on signal WCPB-358 (controller 03B01). Display signal BR7 (Controller 20C03) and signal DAM (Controller 30B04). The period of BR7 shall be as follows:

| | | |
|-----|----------------|----------------|
| BR7 | 60 Hz units | 50 Hz units |
| | 1330 ± 30 nsec | 1600 ± 30 nsec |

For Reference, CDO is located in the controller at 30B05.

5.7.8.5 Sync on and display signal SECP (controller 29A41). Also display signal WEN (05B02). The relationship between SECP and WEN shall be as follows:

123084, 123085, 123086
SECP : WEN 16:1

5.7.8.6 Regain keyboard control and enter the following directives:

\$ADDR, 1, 0, 0 +
\$PATT, FFFF +
\$LEN, 0, 360 +
\$CLR +
WRT +/

| | |
|--|--------|
| SDS | |
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5.7.8.7 Sync on the trailing edge of signal PRE (controller 18C05). Display signals PA7 (controller 18C07) and BC (controller 18C10). Observe that signal PA7 stays true for eight BC pulses and goes false for eight. PA7 shall be false when SBRXPA (controller 31B46) goes true.

*5.7.8.8 Regain keyboard control and enter the following directives:

\$ADDR, 1, n, m + NOTE: n and m
\$LEN, 0, 720 + are described in section 5.7.8.1
\$WRT +

The Write response shall be as follows:

WRT 000720/CO / n / m /
AIO 0123 4567 OC ADDR
0010 0000 01 C'O
TDV 0123 4567 OC ADDR
0010 0000 01 C'O
HIO 0123 4567 OC ADDR
0001 1000 00 C'O

NOTE: n and m are described in Section 5.7.8.1.

OPERATIONAL STATUS BYTE
00001000

UNUS END
SECT UNAV

*5.7.8.9 Attach a clip lead from signal NBC2 (controller 01B44) to the unused pin of signal GT12 (controller 24B11).

*5.7.8.10 Enter the following directives:

\$ADDR, 1, 0, 0, 0 +
\$LEN, 0, 360 +
\$WRT +

| | |
|--|-------|
| SDS | |
| 126555 | H |
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The Write response shall be as follows:

```

WRT 000360/CO/000/ 00 /
AIO 0123 4567 OC ADDR
    1000 0000 01 C 0
TDV 0123 4567 OC ADDR
    1000 0000 01 C 0
HIO 0123 4567 OC ADDR
    0001 1000 00 C 0
OPERATIONAL STATUS BYTE
10001000
UNUS END
RATE ERR
TRANS ERR

```

Remove the clip lead.

* 5.7.8.11 Regain keyboard control and set the first track protect switch to the "1" position. Enter the following directives:

```

$LEN, 0, n +
$ADDR, 1, 31, 0+
$CLR+
WRT, 1+ 32(STEP+) + STOP, 00+ /

```

NOTE: For part no.
123084 n = 5760
123085 n = 5760
123086 n = 5760

* 5.7.8.12 The following message shall be printed:

```

WRT/CO/0031/0/WRT PROT
STOP, 00

```

NOTE: The above message indicates that track 31 is write protected. The track address will be incremented by 32 as each successive track protect switch is set.

* 5.7.8.13 Reset the track protect switch which was set, and place the next one in the "1" position. Clear the STOP condition by placing the computer in the IDLE mode momentarily. Repeat section 5.7.8.12 by returning the computer to the RUN mode. Discontinue the test as per the list below:

| | |
|------------|---|
| SDS | |
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PART NUMBER DISCONTINUE TEST

123084 after 4th switch
 123085 after 8th switch
 123086 after 16th switch

*5.7.9 Check-Write

5.7.9.1 Regain keyboard control. Set computer DATA switch 4 to the "1" position and enter the following directives:

\$ADDR, 1, 0, 0+
 \$LEN, 0, 360 +
 \$PATT, 5555+
 \$WRT+
 \$CLR+
 \$MPW + /

5.7.9.2 Follow the procedure outlined in section 5.5.9 to adjust the clock discriminator.
 5.7.9.3 Sync on and display signal CHWEN (controller 04B13). Also display signal DCL (Controller 03B03). Insure that DCL has the following characteristics:

| | |
|-------------|---------------------------------|
| Part Number | Characteristics |
| 60 Hz units | true 21.3 ± .3 μsec after CHWEN |
| 50 Hz units | true 25.6 ± .4 μsec after CHWEN |

5.7.9.4 Reset computer DATA switch 4 to the "0" position. No error reports shall occur.

| | |
|---|----------|
| SDS | |
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5.7.9.5 Create async pattern error by momentarily applying GND to signal P5PR (controller 26A14).

The resulting error report shall be as follows:

WRT COMPARE ERROR @ / CO / 000 / 00 /
CWRT 000350 / CO / 000 / 00 /

H10 0123 4567 OC ADDR
0001 1000 00 C O

OPERATIONAL STATUS BYTE
10001000

UNUS END
TRANS ERR

5.7.9.6 Regain keyboard control; place a ground lead on signal PA0SET (controller 16B04), and enter the following directive: \$WRT+

Remove the ground lead and enter: \$GO+

The resulting parity error report shall be as follows:

WRT COMPARE ERROR @ / CO / 000 / 00 /
CWRT 000350 / CO / 000 / 00 /

H10 0123 4567 OC ADDR
0001 1000 00 C O

OPERATIONAL STATUS BYTE
10011000

UNUS END
TRANS ERR

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*5.7.10 Read

5.7.10.1 Regain keyboard control and enter the following directives:

\$ADDR, 1, 0, 0 +
\$PATT, 5555+
\$LEN, 0, 5760+
\$WRT+
\$CLR+
CMER+ /

No error reports shall occur.

5.7.10.2 Regain keyboard control and enter the following directives:

\$LEN, 0, 359, 1 +
\$GO +

The following error typeout shall occur:

Read 000359 / Co / 000 / 00 /
OPERATIONAL STATUS BYTE
01010000
INC LENGTH

5.7.10.3 Regain keyboard control and enter the following directives:

\$LEN, 0, 359 +
\$WRT +
\$LEN, 0, 360 +
\$GO +

The following error typeout shall occur:

COMPARE ERROR @ / Co / 000 / 00 /
000179 5555 5500

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SUMMARY / CO / 000 / 00 /
 BIT POS DROPPED PICKED

| | | |
|----|--------|--------|
| 00 | 000000 | 000000 |
| 01 | 000001 | 000000 |
| 02 | 000000 | 000000 |
| 03 | 000001 | 000000 |
| 04 | 000000 | 000000 |
| 05 | 000001 | 000000 |
| 06 | 000000 | 000000 |
| 07 | 000001 | 000000 |

5.7.10.4 Regain keyboard control and enter the following directives:

\$PATT, FFFF+
 \$LEN, 0, 5760+
 \$WRT+
 \$CLR+
 READ, 0, 1 + /

No errors shall occur.

5.7.10.5 Create a read error by applying GND to signal PAO (Controller 18C24).

5.7.10.6 The error printout shall occur:

READ 005760/CO / 000 / 00 /
 HIO 0123 4567 OC ADDR
 0001 1000 00 C O
 OPERATIONAL STATUS BYTE
 10011000
 UNUS END
 TRANS ERR

Remove the GND from PAO.

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* 5.7.11 Matrix Test

NOTE: Paragraphs 5.7.11.1 thru 5.7.11.4 to be performed only on units with logical sparing installed. (Wire list 126551H and above).

Paragraph 5.7.11.4 to be performed on all units.

5.7.11.1 Install LT105 modules as per the following chart:

| <u>Model</u> | <u>Conn. Interface Assy.</u> | <u>LT105</u> | <u>Spare Tracks</u> |
|--------------|------------------------------|---------------------------------------|---------------------|
| 7202 | 127612 | 29A & 30A | 0-15 |
| 7203 | 127612 | 29A,30A,31A & 32A | 0-31 |
| 7204 | 127612 | 29A,30A,31A,32A, 04B,05B,06B & 07B | 0-64 |

5.7.11.2 Perform the spares portion of the following test:

```

$ADDR, 1, 0, 0 +
$LEN, 0, 2880 +
$CLR +
PATT, 0000 + BACK + n (WRT + PCYC,
0001 + STEP +) + PATT, 0000 + BACK
+n (CMPW + PCYC, 0001 + STEP +) +
STOP, 01 + /
    
```

| <u>Active Head Test</u> | <u>Spare Test</u> |
|-------------------------|-------------------|
| 123084, n = 256 | n = 32 |
| 123085, n = 512 | n = 64 |
| 123086, n = 1024 | n = 128 |

NOTE: for part number

5.7.11.3 Remove LT105 modules installed in 5.7.11.1. List all failing tracks on Head Sparing

Chart 153709-002.

5.7.11.4 Perform the "Active Head Test" portion of 5.7.11.2.

No error reports shall occur before the message.

STOP 01

is printed.

| | |
|---|--------|
| SDS | |
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5.7.12 Pattern Test

5.7.12.1 Regain keyboard control and enter the following directives:

```

$ADDR, 1, 0, 0+
$LEN, 0, 5760+
$CLR+
PATT, 0000 + 1Q PATT, 1111 + 1Q +
PATT, AAAA + 1Q PATT, CCCC + 1Q +
PATT, EEEE + 1Q + STOP, 02 + 1. +
BACK + n (WRT + STEP + )+5 (BACK +
n (CMFW + STEP + ) +) +(Q + /

```

NOTE: for part number

```

123084, n = 128
123085, n = 256
123086, n = 512

```

132894, n = 256

| | |
|--|--------|
| SDS | |
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5.7.12.2 Section 5.7.12.1 provides a control line which writes nine different patterns on all tracks and check writes each pattern three times. No error reports shall occur before the message: STOP 02 is printed.

Run times are as follows:

| Part No. | Run Time |
|----------|------------|
| 123084 | ~ 2.5 min |
| 123085 | ~ 5.0 min |
| 123086 | ~ 10.0 min |

NOTE: 50 Hz units take 20% longer.

Margins

5.7.13 Set the PT16 margin switch to the "LOW" position. Regain keyboard control and enter: \$GO+
No error report shall occur before the message: STOP 02 is printed.

5.7.13.1 Set the PT16 margin switch to the "HIGH" position. Regain keyboard control and enter: \$GO+
No error report shall occur before the message: STOP 02 is printed.

5.7.13.2 Return the PT16 margin switch to the "NORMAL" position.

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6.0 ACCEPTANCE TESTING

6.1 General

6.1.1 The acceptance test shall be executed according to sections 6.2.1 through 6.2.5, in that order. Criteria as to the success or failure to meet acceptance standards are given in section 6.3. Failure to pass any part of the acceptance test must be followed by repair and restart according to section 6.4

6.1.2 There shall be at least three spare head-pairs left unimplemented per head plate at the completion of the acceptance test. On units with logical sparing (wiring list 126551H or above) the amount of unimplemented spares shall be as listed below.

| Part no. | Number of Head Plates | Logical Spares |
|----------|-----------------------|----------------|
| 123084 | 1 | 8 |
| 123085 | 2 | 12 |
| 123086 | 4 | 20 |

6.1.3 Multiple unit testing is outlined in section 6.5.

6.2 Acceptance Procedure

6.2.1 Preliminary Tests

Perform the asterisked portions of section 5 (see table 6.1) in the order indicated. All printouts shall be identical to those listed in section 5.

6.2.2 Acceptance Test Control Line

6.2.2.1 Sigma 5/7

Set sense switch three to the "1" position, and enter the following directives:

| | |
|---|----------|
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Q = Keyboard Address
 K = IOP Address
 M = Controller Address
 N = Device Address

Core Memory Size

| PART NO. | 8K | | | 12K | | | 16K and above | | | |
|----------|----|-------|----|-----|-------|----|---------------|-------|----|----|
| | P | t | u | v | t | u | v | t | u | v |
| 123084 | 4 | 11520 | 28 | 64 | 23040 | 28 | 32 | 46080 | 28 | 16 |
| 123085 | 5 | 11520 | 14 | 128 | 23040 | 14 | 64 | 46080 | 14 | 32 |
| 123086 | 6 | 11520 | 7 | 256 | 23040 | 7 | 128 | 46080 | 7 | 64 |

\$UNIT, 0, kmnp+
 \$ADDR, 1, 0, 0+
 \$SML, 3+
 \$SMD, Q+
 \$CNTR, FFFF+
 \$LEN, t+
 \$PATT, F082B55, 7+
 \$CLR+

1. + u (BACK+v (WRT+STEP+)+5 (BACK+v (2CMFW+STEP+)+)+BACK+v (2CMFR+STEP+)+PCYC, 8265317+)
 +MARK, 09+5PCYC+1@+
2. +SENS+SML, 0+10 (CMFW+)+SML, 3+TYPB, 1, 2+TYPC, 02000+CNTR, 02000+@+/

6.2.2.2 Sigma 2

Set the computer data switch three to the "1" position, and enter the following directives:

Q = Keyboard Address
 M = Controller Address
 N = Device Address

| | |
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NOTE: FOR PART NUMBER

123084 N = 28
123085 N = 14
123086 N = 7

\$UNIT, 0, mn1+
\$ADDR, 1, 0, 0+
\$SML, 3+
\$SMD, 0+
\$TRY, 10+
\$LEN, 0, 1024 +
\$PATT, EB85+
\$XGEN, mn+
\$CLR

N(XWRT+5XCWT+XRDS+PCYC, 1357+5PCYC+) + MARK, 09+ /

6.2.2.3

The control line writes, check-writes, and reads on every track, changing the data pattern after each pass. Ten retries are attempted whenever a read or check-write error is detected. The following messages may occur during the acceptance test:

MARK 09 - 10⁹ bits have been read from each unit

Pass time, Sigma 5/7 - 20 to 25 min/unit

Pass time, Sigma 2 - 14 min/unit

NOTE: 50 Hz units take 20% longer per pass

SENSE XXX + XXX is the data group address, plus one sector, in which an error was detected.

COUNTER 14 YY - YY is the total number of read or check-write errors detected after. } Sigma 5/7 only
ten retries.

REL LOC - the data pattern recorded when an error was detected.
1-2 (data)

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6.2.3 Low Margins

Regain keyboard control, and set the PT16 margin switch to the "LOW" position. Enter \$GO+

and complete five MARK09 passes of the acceptance test.

6.2.4 High Margins

Regain keyboard control, and set the PT16 margin switch to the "HIGH" position. Enter \$GO+

and complete five MARK09 passes of the acceptance test.

6.2.5 Normal Margins

Regain keyboard control, and set the PT16 margin switch to the "NORMAL" position. Enter \$GO+

and run the acceptance test for the required time, as indicated.

| PART NUMBER | MINIMUM RUN TIME PER UNIT (INCLUDING MARGINS) |
|-------------|--|
| 123084 | 4 hrs. |
| 123085 | 6 hrs. |
| 123086 | 8 hrs. |

NOTE: ADD 20% to these run times for 50 Hz units

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- 6.3 Acceptance Criteria
 - 6.3.1 Recoverable errors
- The only error printouts allowed are for read or check-write data transmission errors, which have the form

```

READ t/mn/x/y/   or   WRT COMPARE ERROR@ mn/x/y/
(status)         CWRt t/mn/x/y/
UNUS END        (status)
TRANS ERROR     UNUS END
                TRANS ERROR
    
```

Note: See section 6.2.2 for t, m, and n.
 x = starting track address of this operation
 y = starting sector address of this operation

any other printout shall be considered a non-recoverable error, and cause for restart of the test.

- 6.3.2 Error Retry
- The retry provision will execute an additional ten check-write operations whenever an error is detected. The total number of detected errors during the retry is printed as COUNTER 14 (number) (Sigma 5/7 only)

- 6.3.3 Non-recoverable Errors
- More than one recoverable error on the same track per MARK09 pass shall be considered a non-recoverable error, and cause for restart of the test.
- 6.3.4 Recoverable Error Rate
 - 6.3.4.1 Sigma 5/7

The recoverable error rate per unit shall be equal to, or less than, one error per

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four hours of run time.

6.3.4.2 Sigma 2

The recoverable error rate per unit for 60 Hz units shall be equal to, or less than, two errors per five hours of run time. For 50 Hz units the recoverable error rate per unit shall be equal to, or less than one error per three hours of run time.

6.4 Restart Provisions

6.4.1 Failure to pass section 6.2.1 requires a restart at the beginning of section 6.2.1.

6.4.2 Failure to pass section 6.2.3, 6.2.4, or 6.2.5 requires a restart at the beginning of section 6.2.3, after the cause of the failure is repaired.

6.4.3 The minimum run time after restarting the acceptance test is three hours for each unit which failed section 6.3. Accrued run time before the restart may be used to meet the total acceptance test time, as stated in section 6.2.5.

6.4.4 If a failing head is replaced with a spare, the Matrix Test (section 5.6.13 or 5.7.11) must also be repeated.

6.4.5 Acceptance testing may continue beyond the minimum required run time, if the recoverable error rate exceeds the value stated in section 6.3.4. Testing may continue until

- 1) the recoverable error rate is achieved, or
- 2) twelve hours of testing per unit have elapsed.

6.4.6 If, after twelve hours of testing, a unit still has not achieved an acceptable error rate, the acceptance test for that unit must be restarted at section 6.2.3.

6.5 Testing Multiple Units

6.5.1 Acceptance testing multiple units

6.5.1.1 Addressing

A maximum of eight units (four units on Sigma 2) may be acceptance tested at one time using the control lines of Section 6.2. The storage capacity must be the same for each unit tested.

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6.5.1.1.1 Cont.

The unit XGEN and ADDR directives in section 6.2.2.1 and 6.2.2.2 must be modified as follows to include all units being tested.

\$UNIT, 0, km₁, n₁, p₁, km₂, n₂, p₂, ... km_x, n_x, p_x + (sigma 5/7 only)
 \$UNIT, 0, km, n, 1, km₂, n₂, 1, ... km_x, n_x, 1 + (Sigma 2 only)

\$ADDR, ff, 0, 0+

\$XGEN, km, n₁, 0, km₂, n₂, 0, ... km_x, n_x, 0 + (sigma 2 only)

Note: k = IOP Address, if applicable

m₁-m_x = Controller Address 1 ≤ x ≤ 8

n₁-n_x = Device Address 1 ≤ x ≤ 8

p₁-p_x = Capacity Designation 1 ≤ x ≤ 8 (sigma 5/7 only)

NUMBER OF UNITS TESTED

| | | | | | | | |
|----|----|----|----|----|----|----|-------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| ff | 01 | 03 | 07 | 0F | 1F | 3F | 7F FF |

6.5.1.2 Control Line

The "v" parameter in the control lines of section 6.2 must be modified for multiple unit testing. It becomes the sum of the individual v's, as determined in section 6.2.

Example: if three units (part number 123084) are tested together on a Sigma 5 with >8K core memory, v = 64+64+64 = 192.

The time per MARK09 printout is equal to the value of section 6.2.2.3 multiplied by the number of units tested.

6.5.1.3 Minimum Run Time

The minimum acceptance test run time is equal to the value given in section 6.2.5 multiplied by the number of units tested.

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- 6.5.2 System Testing Accepted Units
- 6.5.2.1 Refer to Section 6.5.1.1 for addressing of multiple units.
- 6.5.2.2 The "v" parameter of the control line in Section 6.2 is modified as outlined in Section 6.5.1.2. The u parameter is set at 7. (Sigma 5/7 only).
- 6.5.2.3 Complete two MARK09 passes of the acceptance test on normal margins.

TABLE 6.5.2.4 Acceptance Test Paragraphs

| <u>Testing Master Unit</u> | | <u>Testing Slave Unit Only</u> | |
|----------------------------|----------------|--------------------------------|----------------|
| <u>SIGMA 5/7</u> | <u>SIGMA 2</u> | <u>SIGMA 5/7</u> | <u>SIGMA 2</u> |
| 5.0.1 | 5.0.1 | 5.0.1 | 5.0.1 |
| 5.3.8 | 5.3.8 | 5.3.8 | 5.3.8 |
| 5.4 | 5.4 | 5.4.2 | 5.4.2 |
| 5.6.6.5 | 5.7.5.5 | 5.6.9.13 | 5.7.8.11 |
| 5.6.9.10 | 5.7.8.8 | 5.6.9.14 | 5.7.8.12 |
| 5.6.9.11 | 5.7.8.9 | 5.6.9.15 | 5.7.8.13 |
| 5.6.9.12 | 5.7.8.10 | 5.6.13 | 5.7.11 |
| 5.6.9.13 | 5.7.8.11 | | |
| 5.6.9.14 | 5.7.8.12 | | |
| 5.6.9.15 | 5.7.8.13 | | |
| 5.6.10 | 5.7.9 | | |
| 5.6.11 | 5.7.10 | | |
| 5.6.12 | 5.7.11 | | |
| 5.6.13 | | | |

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