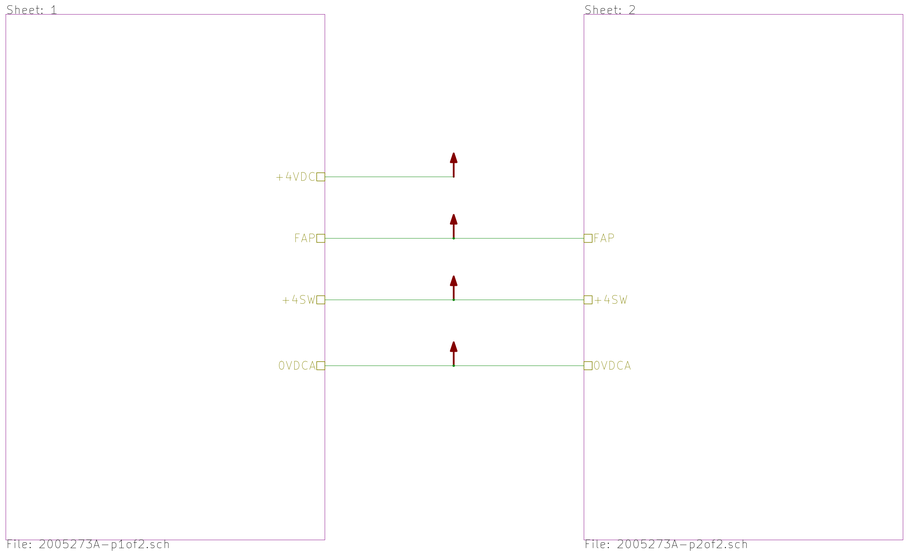
REVISIONS						
SYM	ZONE	DESCRIPTION	DR	CHK	DATE	APPROVED
A		REVISED PER TDRR 30754				



QTY REQD	PART OR IDENTIFYING NO.	MATERIAL OR NOTES	NOMENCLATURE OR DESCRIPTION	FIND NO.
			LIST OF MATERIALS	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
CAPACITOR VALUES ARE IN uF
RESISTOR VALUES ARE IN OHMS
TOLERANCES ON
FRACTIONS DECIMALS ANGLES
± ± ±
DO NOT SCALE THIS DRAWING
MATERIAL

NEXT ASSY | USED ON
APPLICATION

MIT
INSTRUMENTATION LAB
CAMBRIDGE, MASS.

MANNED SPACECRAFT CENTER
HOUSTON, TEXAS

DRAWN
CHECKED
APPROVED
APPROVED
APPROVED M I T
APPROVED MSC
DATE

LOGIC FLOW DIAGRAM
MODULE NO. A24
INOUT VII

CODE IDENT NO 80230 | SIZE E | DRAWING NO. 2005273
SCALE NONE | SHEET OF

REVISIONS						
SYM	ZONE	DESCRIPTION	DR	CHK	DATE	APPROVED
A		REVISED PER TDRR 30754				

STANDBY POWERED

A16/ 171 — 49101 01 — 49103 02 — 49105 03 — 49106 03 — 49108 04
A15/ 170 — 49102 01 — 49104 02 — 49107 04 — 49109 05 — 162 OVNHRP; 163 MP3

CA6/ 159, T02/ 158, XB7/ 161 — 49110 06 — 49111 05 — 49112 06 — F17B 157
156 SB2/ — 49114 07 — 49116 08 — 49117 09 — 154 WATCH/; 150 WATCH
F17A 155 — 49113 07 — SB1/ 153 SB1 (1) — 49115 08 — 49118 11 — MWATCH/ 149
(NC) 145, (NC) 147 — 49119 11 — 146 (NC)

WL01 122 — 49143 22 — 49144 22 — 120 CHWL01/

DKCTR5 152, DKCTR4 144 — 49120 09 — 49121 10 — 49122 10 — 143 HIGH0/
49123 12 — 49124 13 — 49125 14 — 140 HIGH1/
DKCTR5/ 141 — 49126 12 — 49127 13 — 49128 14 — 138 HIGH2/
DKCTR4/ 142 — 49129 15 — 49130 16 — 49131 17 — 137 HIGH3/
RCH/ 139, RT/ 135 — 49132 15 — 49133 16 — 49134 17 — 49135 18 — 134 RCHG/
WT/ 132, WCH/ 130 — 49136 18 — 49137 19 — 49138 20 — 49139 21 — 128 WCHG/
CT/ 131 — 49140 19 — 49141 20 — 49142 21 — 129 CCHG/

WL02 119 — 49145 23 — 49146 23 — 118 CHWL02/
WL03 117 — 49147 24 — 49148 24 — 116 CHWL03/
WL04 114 — 49149 25 — 49150 25 — 115 CHWL04/
WL05 113 — 49151 26 — 49152 26 — 111 CHWL05/
WL06 110 — 49153 27 — 49154 27 — 109 CHWL06/
WL07 107 — 49155 28 — 49156 28 — 108 CHWL07/
WL08 105 — 49157 29 — 49158 29 — 104 CHWL08/
WL09 102 — 49159 30 — 49160 30 — 103 CHWL09/

WL10 201 — 49235 60 — 49236 60 — CHWL10/ 202
NISQ/ 261 — 49237 36 — 49238 35 — NISQ 264, MNISQ 263
FS07A 265 — 49239 35 — MON800 267

XB4/ 203, XT0/ 205 — 49240 59 — 49241 59 — 49242 58 — 49243 58 — RCHAT/ 204
XB3/ 206 — 49244 57 — 49245 57 — 49246 56 — 49247 56 — RCHBT/ 211
FS07A 214 — 49248 55 — 49249 54 — 49250 54 — ELSNCN 213, ELSNCM 216
(NC) 207, (NC) 208, (NC) 209 — 49251 55 — 210 (NC)
FF1110/ 133 — 49252 36 — OT1110 166
FF1111/ 165 — 49253 33 — OT1111 168
FF1112/ 167 — 49254 33 — OT1112 169

FAP 127 — FAP

SPARE PINS: 101, 106, 125, 126

F03B/ 218, FS04 215 — 49201 53 — 49202 53 — 49203 52 — 49204 51 — PIPPLS/ 123; PIPASW 220
FS05/ 219, FS05 217 — 49205 52 — 49206 51 — PIPDAT 223
SB4 228 — 49207 49 — 49208 49 — PIPINT 227
F07A/ 231 — 49209 47 — 800SET 232
F07B/ 233 — 49210 47 — 800RST 235
F05A/ 243 — 49211 42 — 49212 42 — 244 3200A; 247 3200B
F05B/ 245 — 49213 41 — 49215 40 — 249 3200C; 253 3200D
F04B 246 — 49214 41
258 FS03 — 49217 37 — 262 12KPPS
F02B 259 — 49216 37
FS02 266 — 49220 34 — 268 25KPPS
F01B 269 — 49221 34
F01A 234 — 49222 46 — 49223 46 — 237 CDUCLK
SB0/ 238, SB0 257 — 49224 38 — 256 SB0/
49225 38
SB1 230 — 49226 48 — 229 SB1/
49227 48
SB2 226 — 49228 50 — 225 SB2/
49229 50

F05B/ 252, SB1/ SB1 — 49218 39 — 49219 39 — 255 RRRST; 254 LRRST

F05A 240 — 49230 45 — 49231 45 — 239 F05A/
F05B 242 — 49232 44 — 49233 44 — 49255 43 — 241 F05B/
F07B 271 — 49234 32 — 270 F07B/

0VDCA, 112, 0VDCA 136, 160 — TO PIN G & UNUSED INPUTS OF 49100 & 49200 SERIES GATES — 212, 236, 260
+4SW, 124, +4SW 148 — TO PIN V OF 49100 & 49200 SERIES GATES EXCEPT THOSE GATES TIED TO FAP PIN(127) OR +4VDC — 224, 248
+4VDC 250, 222, +4VDC — TO PIN V OF GATES 49201 THRU 49234 AND 49255

NOTES

1. INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED BY MIL-D-70327
2. (XXX) DENOTES PIN NUMBER
3. SEE DWG. NO.2005011 FOR LOGIC DESIGN CRITERIA
4. SYMBOLIC REPRESENTATION OF DUAL NOR GATE

5. SPARE PINS DENOTE NO CONNECTION WITHIN THE MODULE. FOR EXTERNAL CONNECTION INFORMATION SEE COMPUTER WIRE LIST
6. XXXXX / XX — UPPER NUMBER DENOTES GATE SHOWN. LOWER NUMBER DENOTES PHYSICAL LOCATION OF GATE ON CIRCUIT BOARD, MULTILAYER SCD NO.1006395
7. SYMBOL FOR EXPANDER DUAL NOR GATE SCD NO.1006394

6. NUMBER IN PARENTHESES DENOTES NUMBER OF REF CIRCLES TO WHICH THIS SIGNAL IS TIED

Notes from the Virtual AGC Project:
1. This CAD drawing was transcribed from the original Apollo Program drawing 2005273A, but does not itself date from the Apollo period. — RSB 2018
2. The original drawing did not show reference designators for the components, so they are also not visible on this transcribed CAD drawing. Though not visible, the NOR-gates have been assigned reference designators U1nn, where nn is the 2-digit number shown on the NOR-gate symbol. The oval pads numbered 101-171 collectively form connector J1, while those numbered 201-271 form connector J2. — RSB 2018

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. CAPACITOR VALUES ARE IN uF. RESISTOR VALUES ARE IN OHMS. TOLERANCES ON: FRACTIONS ± — DECIMALS ± — ANGLES ± — DO NOT SCALE THIS DRAWING — MATERIAL — NEXT ASSY — USED ON — APPLICATION

QTY REQD	PART OR IDENTIFYING NO.	MATERIAL OR NOTES	NOMENCLATURE OR DESCRIPTION	FIND NO.

LIST OF MATERIALS

MIT INSTRUMENTATION LAB, CAMBRIDGE, MASS.

MANNED SPACECRAFT CENTER, HOUSTON, TEXAS

DRAWN — CHECKED — APPROVED — APPROVED — APPROVED MIT — APPROVED MSC

LOGIC FLOW DIAGRAM
MODULE NO. A24
INOUT VII

CODE IDENT NO 80230 | SIZE E | DRAWING NO. 2005273 | DATE | SCALE NONE | SHEET 1 OF 2

REVISIONS						
SYM	ZONE	DESCRIPTION	DR	CHK	DATE	APPROVED
A		REVISED PER TDRR 30754				

BOTHZ 330 — F5ASB2 331

PIPGZ+ 371 — PIPGZ− 370 — 49301 30 — 49302 30

49309 14 — 49310 19 — 49311 19 — 49312 18 — 49313 18 — 49314 17 — 49315 17 — 49316 16 — 49317 16 — 49318 14

49319 13 — 49320 12 — 49321 09 — 49322 09 — 49323 11 — 49324 11 — 49325 10 — 49326 10 — 49327 08 — 49328 08

49329 07 — 317 PIPZP — 49330 07 — 318 PIPZM

NOZM 367 — 49303 29 — 49304 28 — F18AX 365

NOZP 361 — 49305 27 — 49306 26

MISSZ 362 — 49307 24 — 49308 25 — 356 F5ASB2

SB2 355 — 49331 53 — 354 CNTRSB/

RSCT 350 — 49332 51 — 346 RSCT/ — 49333 51

FS07/ 315 — FS08/ 316 — FS09/ 313 — 49341 05 — 49342 05

FS06/ 311 — 49343 04 — 49344 03 — 305 GTSET/ — 309 GTSET

F05B/ 310 — 49345 04 — 308 GTRST

FS06 314 — FS07A 307 — FS08 303 — FS09 304 — 49346 02 — 49347 01 — 49348 02 — 306 GTONE

320 — 49351 06 — F08B/ — 49352 06 — 319 F09D

F09A 327 — 49353 13 — 329 F09A/

OCTAD2 335 — 49349 15 — 334 CA2/

OCTAD3 332 — 49350 15 — 333 CA3/

CI/ 322 — 49354 03 — 323 CI

WCH/ 345 — 49334 50 — 343 MWCH

RCH/ 344 — 49335 50 — 342 MRCH

RUSG/ 357 — SUMA15/ 353 — SUMB15/ 352 — 49336 53 — 349 US2SG

U2BBK 340 — 49337 48 — 337 U2BBKG/ — 49338 48

FF1109/ 301 — 49339 01 — 302 OUTCOM

F5ASB0 325 — 49340 12 — 326 F5ASB0/

FS07/ 368 — F06B/ 369 — FS07A 341 — 49355 29 — 49356 28 — 49357 26 — 49358 27 — 363 F07D/ — 364 F07C/

SB1/ 359 — 49359 24 — 49360 25 — 358 F7CSB1/

F5ASB2 403 — 49401 31 — 402 F5ASB2/ — 49402 31 — 49403 32

GOJAM/ 408 — 49404 34 — 410 GOJAM — 49405 34 — 49406 35 — 49407 35 — 49408 36

409 FLASH — FS17 404 — FS16 406 — 49409 33 — 49410 33 — 407 FLASH/

OVDCA — 49411 32 — 405 ONE

T08 415 — 49412 37 — T06 414 — 49413 37 — 417 CDUSTB/

CT 437 — 49414 45 — 438 PHS3/ — 49415 45 — 49416 46 — 49417 46

IC11 413 — 49419 36 — 411 IC11/

F04B 439 — 49418 47 — F04B/ 441 — FS05/ 440 — 49420 47 — 442 F05D

T01DC/ 428 — ODDSET/ 432 — T09DC/ 433 — 49421 44 — 49422 44 — 435 T01 — 434 T09

T02 420 — 49423 40 — 423 T02/ — 49424 40

FAP 339 — FAP — TO PIN V OF GATES 49347 49436 49435 49438 49437 49439 49441 49440 49442 49443 49339 49335 49334

T1P 443 — T2P 444 — T3P 445 — 49435 49

T4P 347 — T5P 446 — T6P 447 — 49436 49

CDUXP 449 — CDUXM 450 — CDUYP 452 — 49437 52

CDUYM 453 — CDUZP 454 — CDUZM 455 — 49438 52

TRNP 456 — TRNM 457 — SHAFTP 458 — 49439 54

SHAFTM 459 — PIPXP 461 — PIPXM 462 — 49440 56

PIPYP 463 — PIPYM 464 — PIPZP 465 — 49441 56

PIPZM 466 — BMAGXP 467 — BMAGXM 468 — 49442 60

BMAGYP 469 — BMAGYM 470 — BMAGZP 471 — 49443 60

366 CTPLS/

WL11 416 — 49425 38 — 419 CHWL11/ — 49426 38

WL12 418 — 49427 39 — 422 CHWL12/ — 49428 39

WL13 425 — 49429 41 — 426 CHWL13/ — 49430 41

WL14 427 — 49431 42 — 429 CHWL14/ — 49432 42

WL16 430 — 49433 43 — 431 CHWL16/ — 49434 43

CGA24 401

OVDCA — 312 — OVDCA 336 — 360 — TO PIN G & UNUSED INPUTS OF 49300 & 49400 SERIES GATES — 412 — 436 — 460

+4SW — 324 — +4SW 348 — TO PIN V OF 49300 & 49400 SERIES GATES EXCEPT THOSE GATES TIED TO FAP PIN(339) — 424 — 448

SPARE PINS 328 338

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1. This CAD drawing was transcribed from the original Apollo Program drawing 2005273A, but does not itself date from the Apollo period. — RSB 2018
2. The original drawing did not show reference designators for the components, therefore this transcription does not show them either. Though not visible, the NOR gates have been assigned reference designators U2nn, where nn is the 2-digit number shown within the NOR-gate symbol. Connector J3 consists of the oval pads numbered 301-371, while connector J4 consists of the oval pads numbered 401-471. — RSB 2018

QTY REQD	PART OR IDENTIFYING NO.	MATERIAL OR NOTES	NOMENCLATURE OR DESCRIPTION	FIND NO.

LIST OF MATERIALS

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
CAPACITOR VALUES ARE IN µF
RESISTOR VALUES ARE IN OHMS
TOLERANCES ON
FRACTIONS DECIMALS ANGLES
± ± ±
DO NOT SCALE THIS DRAWING
MATERIAL
NEXT ASSY USED ON
APPLICATION

MIT INSTRUMENTATION LAB CAMBRIDGE, MASS.

MANNED SPACECRAFT CENTER HOUSTON, TEXAS

DRAWN
CHECKED
APPROVED
APPROVED
APPROVED M I T
APPROVED MSC

LOGIC FLOW DIAGRAM
MODULE NO. A24
INOUT VII

CODE IDENT NO 80230 | SIZE E | DRAWING NO. 2005273
DATE | SCALE NONE | SHEET 2 OF 2