

| PIN | LABEL | SIGNAL | TO | FUNCTION | PIN | LABEL | SIGNAL | TO | FUNCTION | PIN | LABEL | SIGNAL | TO | FUNCTION |
|-----|-------|--------|-----------|--------------------------|-----|---------|---------|--------|--|-----|-------|--------|--------|----------------------|
| 1 | GND | GND | TBB-1 | GND TO GND TERMINALS | 36 | INP6 | INP6 | | | 71 | HOMEZ | HOMEZ | J3-19 | FIDUCIAL APERTURE |
| 2 | ACMDX | ACMDX | | | 37 | INP5 | INP5 | | | 72 | FLSW | FLSW | J4-15 | FWD LIMIT |
| 3 | AENX | AENX | | | 38 | INP4/LW | INP4/LW | J4-5 | TV FOCUS | 73 | RLSW | RLSW | J4-16 | REV LIMIT |
| 4 | PULSX | PULSX | | | 39 | INP3/LZ | INP3/LZ | J3-5 | APERTURE | 74 | HOMEW | HOMEW | J4-19 | FIDUCIAL |
| 5 | DIRX | DIRX | | | 40 | INP2/LY | INP2/LY | J2-5 | FILTER WHEEL | 75 | GND | GND | J45-14 | GND TO GND TERMINALS |
| 6 | ACMDY | ACMDY | | | 41 | INP1/LX | INP1/LX | J1-5 | SLIT MASK | 76 | ABORT | ABORT | | |
| 7 | AENY | AENY | | | 42 | INCOM | INCOM | | (JUMPERED TO +5V ON BOARD) | 77 | XA+ | XA+ | J1-7 | A+ |
| 8 | PULSY | PULSY | | | 43 | GND | GND | J45-8 | GND TO GND TERMINALS | 78 | XA- | XA- | J1-8 | A- |
| 9 | DIRY | DIRY | | | 44 | WAB- | WAB- | | | 79 | XB+ | XB+ | J1-9 | B+ |
| 10 | ACMDZ | ACMDZ | | | 45 | WAB+ | WAB+ | | | 80 | XB- | XB- | J1-10 | B- |
| 11 | AENZ | AENZ | | | 46 | WAA- | WAA- | | | 81 | XI+ | XI+ | J21-3 | XI+ |
| 12 | PULSZ | PULSZ | | | 47 | WAA+ | WAA+ | | | 82 | XI- | XI- | J21-2 | XI- |
| 13 | DIRZ | DIRZ | | | 48 | ZAB- | ZAB- | J23-4 | ZAB- | 83 | YA+ | YA+ | J2-7 | A+ |
| 14 | ACMDW | ACMDW | | | 49 | ZAB+ | ZAB+ | J23-5 | ZAB+ | 84 | YA- | YA- | J2-8 | A- |
| 15 | AENW | AENW | | | 50 | ZAA- | ZAA- | J23-6 | ZAA- | 85 | YB+ | YB+ | J2-9 | B+ |
| 16 | PULSW | PULSW | | | 51 | ZAA+ | ZAA+ | J23-7 | ZAA+ | 86 | YB- | YB- | J2-10 | B- |
| 17 | DIRW | DIRW | | | 52 | YAB- | YAB- | J22-4 | YAB- | 87 | YI+ | YI+ | J22-3 | YI+ |
| 18 | AN1 | AN1 | AIC P1-9 | ANALOG INPUT 1 | 53 | YAB+ | YAB+ | J22-5 | YAB+ | 88 | YI- | YI- | J22-2 | YI- |
| 19 | AN2 | AN2 | AIC P1-13 | ANALOG INPUT 2 | 54 | YAA- | YAA- | J22-6 | YAA- | 89 | ZA+ | ZA+ | J3-7 | A+ |
| 20 | AN3 | AN3 | AIC P1-11 | ANALOG INPUT 3 | 55 | YAA+ | YAA+ | J22-7 | YAA+ | 90 | ZA- | ZA- | J3-8 | A- |
| 21 | AN4 | AN4 | - | - | 56 | XAB- | XAB- | J21-4 | XAB- | 91 | ZB+ | ZB+ | J3-9 | B+ |
| 22 | AN5 | AN5 | - | - | 57 | XAB+ | XAB+ | J21-5 | XAB+ | 92 | ZB- | ZB- | J3-10 | B- |
| 23 | AN6 | AN6 | - | - | 58 | XAA- | XAA- | J21-6 | XAA- | 93 | ZI+ | ZI+ | J23-3 | ZI+ |
| 24 | AN7 | AN7 | - | - | 59 | XAA+ | XAA+ | J21-7 | XAA+ | 94 | ZI- | ZI- | J23-2 | ZI- |
| 25 | GND | GND | AIC P1-5 | GND TO TEMPERATURE BOARD | 60 | GND | GND | J45-11 | GND TO GND TERMINALS | 95 | WA+ | WA+ | J4-7 | A+ |
| 26 | OUT1 | OUT1 | J1-21 | SLITMASK | 61 | 5V | 5V | | (JUMPER TO INCOM AND LSCOM ON BOARD) | 96 | WA- | WA- | J4-8 | A- |
| 27 | OUT2 | OUT2 | J2-21 | FILTER WHEEL | 62 | LSCOM | LSCOM | | (JUMPERED TO +5V ON BOARD) | 97 | WB+ | WB+ | J4-9 | B+ |
| 28 | OUT3 | OUT3 | J3-21 | APERTURE | 63 | FLSX | FLSX | J1-15 | FWD LIMIT | 98 | WB- | WB- | J4-10 | B- |
| 29 | OUT4 | OUT4 | J4-21 | TV FOCUS | 64 | RLSX | RLSX | J1-16 | REV LIMIT | 99 | WI+ | WI+ | | |
| 30 | OUT5 | OUT5 | | | 65 | HOMEX | HOMEX | J1-19 | FIDUCIAL | 100 | WI- | WI- | | |
| 31 | OUT6 | OUT6 | AIC P1-6 | ANALOG INPUT CONTROL 0 | 66 | FLSY | FLSY | J2-15 | FWD LIMIT | 101 | +12V | +12V | | |
| 32 | OUT7 | OUT7 | AIC P1-4 | ANALOG INPUT CONTROL 1 | 67 | RLSY | RLSY | J2-16 | REV LIMIT | 102 | -12V | -12V | | |
| 33 | OUT8 | OUT8 | - | - | 68 | HOMFY | HOMFY | J2-19 | FIDUCIAL | 103 | 5V | 5V | | |
| 34 | INP8 | INP8 | - | - | 69 | FLSZ | FLSZ | J3-15 | FWD LIMIT | 104 | GND | GND | | GND TO GND TERMINALS |
| 35 | INP7 | INP7 | - | - | 70 | RLSZ | RLSZ | J3-16 | REV LIMIT | | | | | |

- NOTE: 1. THOUGH NOTED AS X, Y, Z, AND W-AXIS WE HAVE DESIGNATED THESE AS A, B, C, AND D-AXIS
2. DUAL-LOOP ENCODING USED ON APERTURE, FILTER WHEEL, AND SLIT MASK WHEELS. NORMAL ENCODING ON TV FOCUS

UNIVERSITY OF CALIFORNIA
LICK OBSERVATORY

SIGNAL ASSIGNMENTS
CONTROLLER #0, 1ST AMPLIFIER
ESI SPECTROGRAPH

REVISION

9-11-97 ADDED APERTURE WHEEL SECONDARY ENCODER WIRING
11/19/97 ADDED NOTES, DESIGNATED DUAL-LOOP ENCODERS
1-15-98 SWAPPED INPUTS TO PINS 19 AND 20

DES'N BY: B. Alcott

ORIGIN DATE: 2/19/96

DWG. NO. NUM. 1 OF 1

DRAWN BY:

MODIFY DATE: 1-15-98

PATH: ESI\SIGNALS5

REV. A

EL-3324-1D