

CHAPTER 3 HARNESSES

CSM 66/84/84V III

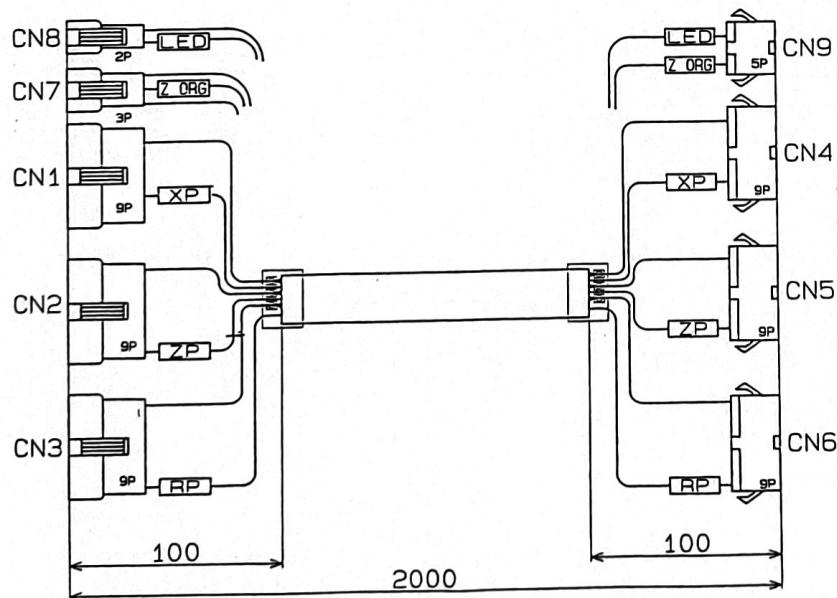
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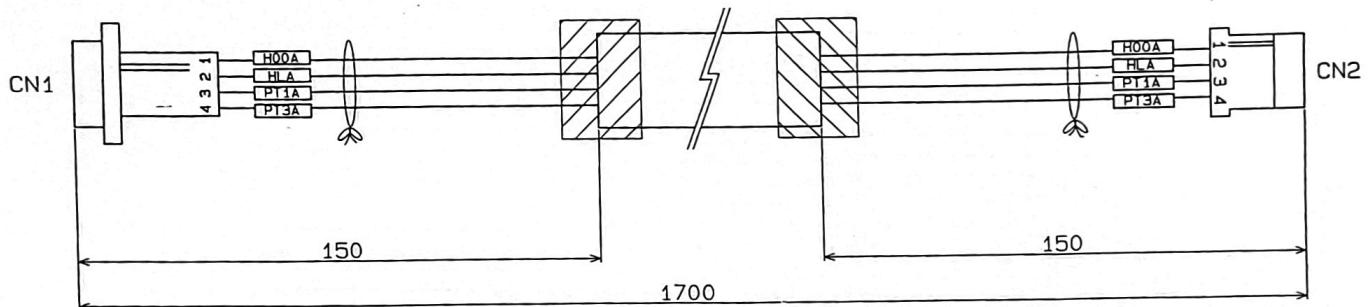
J123 HARNESS 2-4 : Y-FLEX. PI

| No | SIGNAL | COLOR | CONNECTION | REMARKS |
|----|--------|-------|-------------------------|---------|
| | EA0 | | CN1 1 -> XP -> CN 4 1 | |
| | EA0 | | 2 -> XP -> 2 | |
| | EB0 | | 3 -> 3 | |
| | EB0 | | 4 -> 4 | |
| | EC0 | | 5 -> 5 | |
| | EC0 | | 6 -> 6 | |
| | EPOW | | 7 -> 7 | |
| | GND | | 8 -> 8 | |
| | FG | GRAY | 9 -> 9 | |
| | | | | |
| | EA2 | | CN2 1 -> ZP -> CN 5 1 | |
| | EA2 | | 2 -> ZP -> 2 | |
| | EB2 | | 3 -> 3 | |
| | EB2 | | 4 -> 4 | |
| | EC2 | | 5 -> 5 | |
| | EC2 | | 6 -> 6 | |
| | EPOW | | 7 -> 7 | |
| | GND | | 8 -> 8 | |
| | FG | GRAY | 9 -> 9 | |
| | | | | 10 |
| | | | | 11 |
| | EA4 | | CN3 1 -> RP -> CN 6 1 | |
| | EA4 | | 2 -> RP -> 2 | |
| | EB4 | | 3 -> 3 | |
| | EB4 | | 4 -> 4 | |
| | EC4 | | 5 -> 5 | |
| | EC4 | | 6 -> 6 | |
| | EPOW | | 7 -> 7 | |
| | GND | | 8 -> 8 | |
| | FG | GRAY | 9 -> 9 | |
| | | | | 10 |
| | | | | 11 |
| | | | | 12 |
| | VP | | CN7 1 -> ZORG -> CN 9 1 | |
| | N16 | | 2 -> ZORG -> 2 | ORIGIN |
| | VG | | 3 -> ZORG -> 3 | |
| | VP1A | | CN8 1 -> LED -> CN 9 4 | LED |
| | VG | | 2 -> LED -> 5 | |

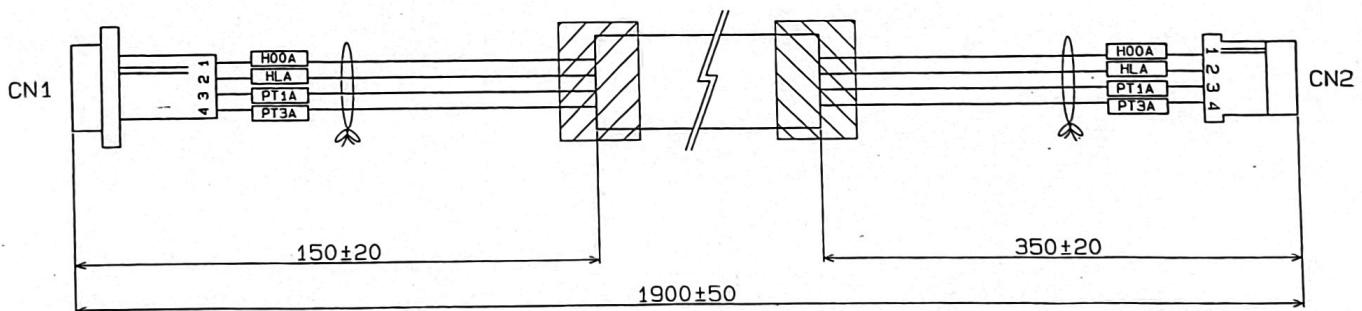


J36 HARNESS 2-10 : Y-FLEX. THERMO

| No | SIGNAL | COLOR | CN | CONNECTION | CN | REMARKS |
|----|----------------|--------|-------|------------|------------|-----------|
| 1 | HEATER | BLUE | CN1 1 | H00A | H00A CN2 1 | DISPENSER |
| 2 | HEATER | VIOLET | ↑ 2 | HLA | HLA ↑ 2 | ↑ |
| 3 | THERMAL SENSOR | GRAY | 3 | PT1A | PT1A 3 | |
| 4 | THERMAL SENSOR | WHITE | 4 | PT3A | PT3A 4 | |

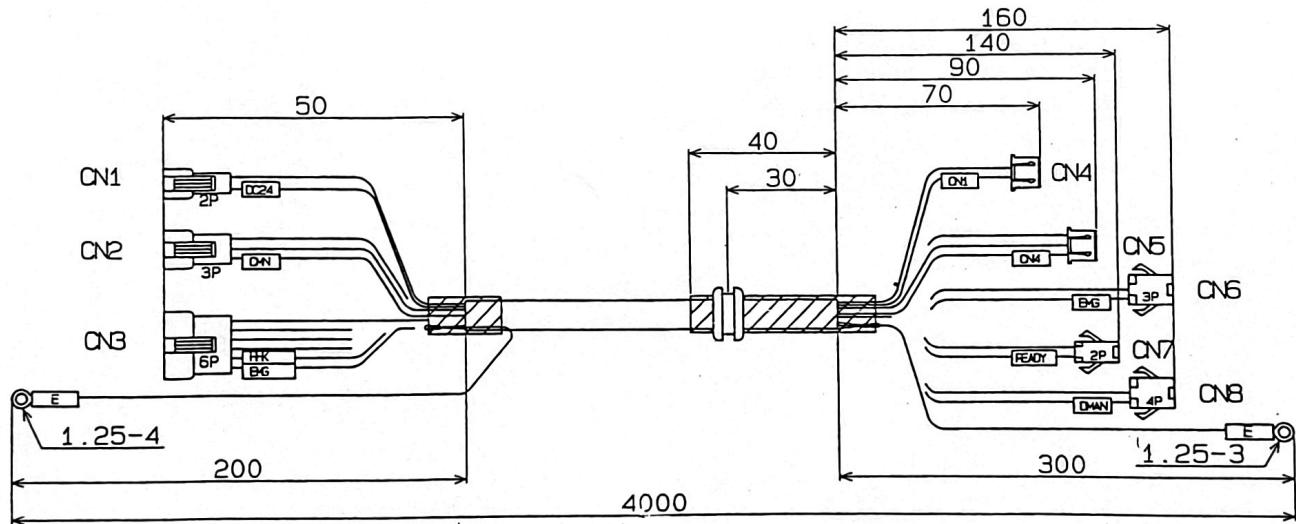
**J37 HARNESS 2-11 : X-FLEX. THERMO**

| No | SIGNAL | COLOR | CN | CONNECTION | CN | REMARKS |
|----|----------------|--------|-------|------------|------------|-----------|
| 1 | HEATER | BLUE | CN1 1 | H00A | H00A CN2 1 | DISPENSER |
| 2 | HEATER | VIOLET | ↑ 2 | HLA | HLA ↑ 2 | ↑ |
| 3 | THERMAL SENSOR | GRAY | 3 | PT1A | PT1A 3 | |
| 4 | THERMAL SENSOR | WHITE | 4 | PT3A | PT3A 4 | |



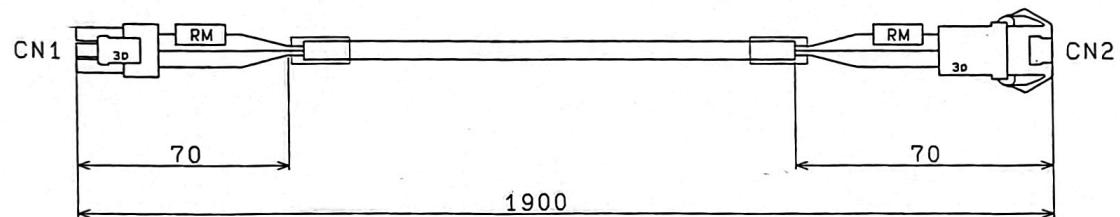
CSM 66/84/84V III**HARNESS HAND-HELD-KEYBOARD**

| No | SIGNAL | COLOR | CN | CONNECTION | CN | REMARKS |
|----|--------|----------|-------|------------|-------|-----------|
| | +24V | WHITE | CN1 1 | DC24 | CN1 1 | DC24V |
| | -24V | BLACK | 2 | | 2 | YPU POWER |
| | Rx | ORANGE | CN2 1 | | CN5 1 | YPU TD |
| | Tx | BLUE | 2 | | 2 | YPU RD |
| | GND | GREEN | 3 | | 3 | GND |
| | SHIELD | GRN/YELW | | E | | EARTH |
| | EMG | BROWN | CN3 1 | EMG | CN6 1 | YPU EMG |
| | EMG | RED | 2 | HHK | 2 | YPU EMG |
| | | | | | 3 | |
| | DMAN | GRAY | 3 | DMAN | CN8 1 | DMAN |
| | DMAN | YELLOW | 4 | | 2 | DMAN |
| | | | | | 3 | |
| | | | | | 4 | |
| | READY | PURPLE | 5 | READY | CN7 1 | READY |
| | READY | PINK | 6 | | 2 | READY |

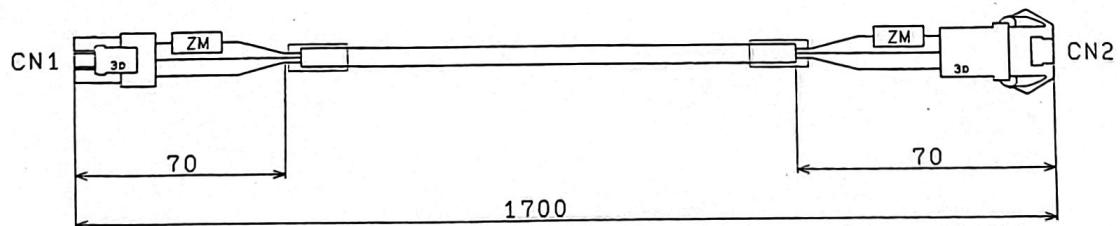


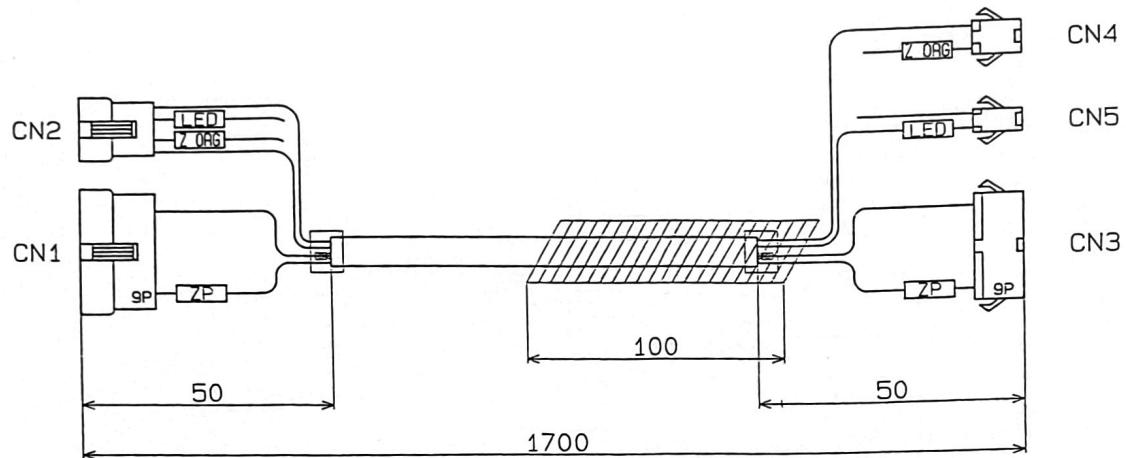
J145 HARNESS 2-8 : RM-X. FLEX.

| No | SIGNAL | COLOR | CN1 | CONNECTION | CN2 | REMARKS |
|----|--------|-------|-----|------------|-----|--------------|
| | U | RED | 1 | RM — RM | 1 | R-AXIS MOTOR |
| | V | WHITE | 2 | | 2 | |
| | W | BLACK | 3 | | 3 | |

**J146 HARNESS 2-6 : X-FLEX.-ZM**

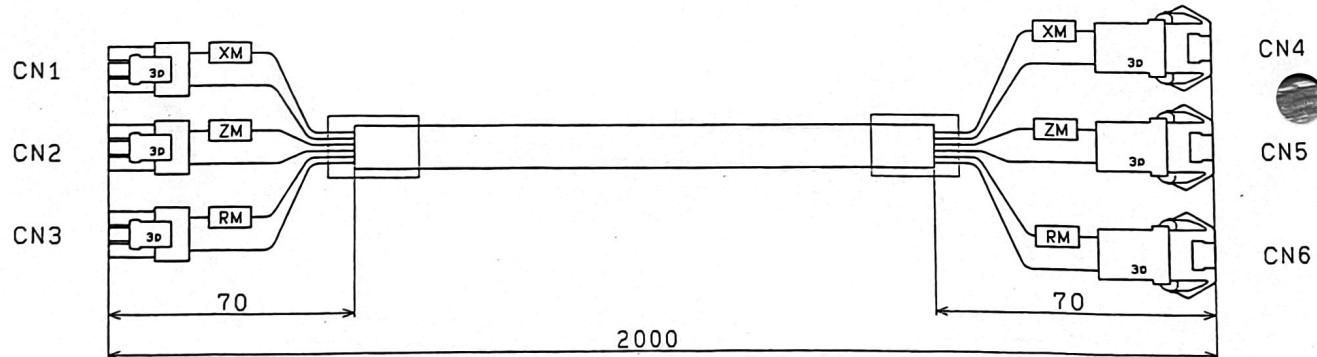
| No | SIGNAL | COLOR | CN1 | CONNECTION | CN2 | REMARKS |
|----|--------|-------|-----|------------|-----|--------------|
| | U | RED | 1 | ZM — ZM | 1 | Z-AXIS MOTOR |
| | V | WHITE | 2 | | 2 | |
| | W | BLACK | 3 | | 3 | |





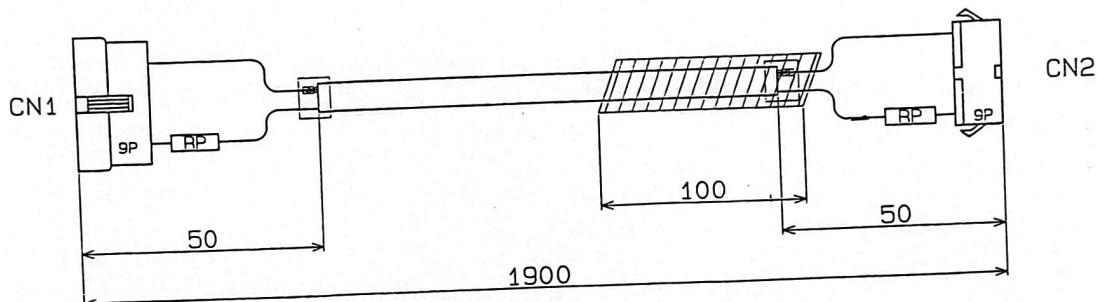
J143 HARNESS 2-5 : Y-FLEX. MO

| No | SIGNAL | COLOR | CN | CONNECTION | CN | REMARKS |
|----|--------|--------|--------|-------------|-------|---------|
| | U | BLACK1 | CN1. 1 | [XM] — [XM] | CN4 1 | X MOTOR |
| | V | BLACK2 | 2 | | 2 | |
| | W | BLACK3 | 3 | | 3 | |
| | U | BLACK4 | CN2 1 | [ZM] — [ZM] | CN5 1 | Z MOTOR |
| | V | BLACK5 | 2 | | 2 | |
| | W | BLACK6 | 3 | | 3 | |
| | U | BLACK7 | CN3 1 | [RM] — [RM] | CN6 1 | R MOTOR |
| | V | BLACK8 | 2 | | 2 | |
| | W | BLACK9 | 3 | | 3 | |



J125 HARNESS 2-9 : RP-X. FLEX.

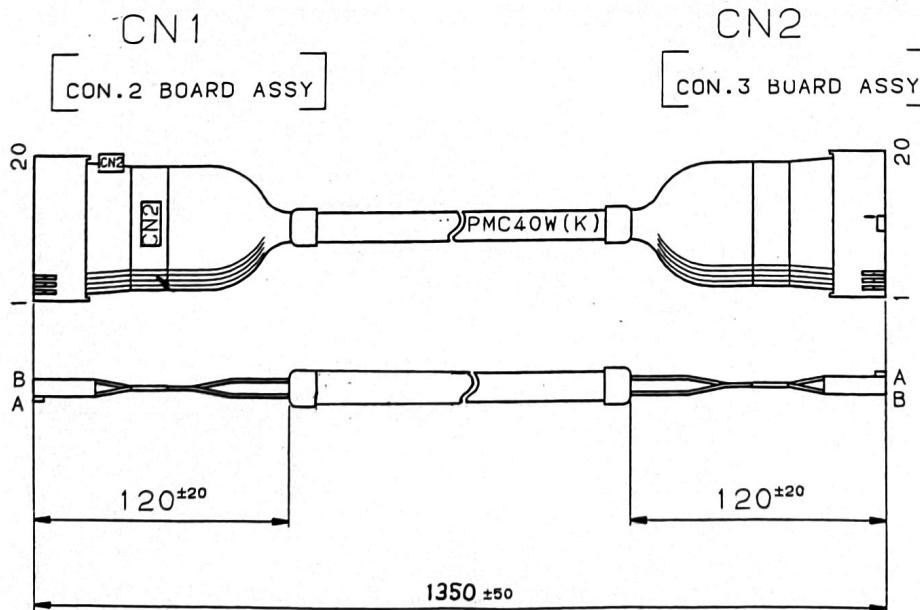
| No | SIGNAL | COLOR | CONNECTION | REMARKS |
|----|--------|-------|-------------------------|-----------------|
| | EA | | CN1 1 - RP - RP - CN2 1 | R-AXIS |
| | EA\ | | 2 | 2 PULSE ENCODER |
| | EB | | 3 | 3 |
| | EB\ | | 4 | 4 |
| | EC | | 5 | 5 |
| | EC\ | | 6 | 6 |
| | EPOW | | 7 | 7 |
| | GND | | 8 | 8 |
| | FG | GRAY | 9 | 9 |
| | | | 10 | |
| | | | 11 | |
| | | | 12 | |

**J126 HARNESS 2-7 : X-FLEX.-ZP, Z.ORG, LED**

| No | SIGNAL | COLOR | CONNECTION | REMARKS |
|----|--------|-------|-------------------------|-----------------|
| | EA | | CN1 1 - ZP - ZP - CN3 1 | Z-AXIS |
| | EA\ | | 2 | 2 PULSE ENCODER |
| | EB | | 3 | 3 |
| | EB\ | | 4 | 4 |
| | EC | | 5 | 5 |
| | EC\ | | 6 | 6 |
| | EPOW | | 7 | 7 |
| | GND | | 8 | 8 |
| | FG | GRAY | 9 | 9 |
| | | | 10 | |
| | | | 11 | |
| | VP | | CN2 1 - CN4 1 | |
| | N16 | | 2 - [Z ORG] - CN4 1 | 2 ORIGIN |
| | VG | | 3 | 3 |
| | VP1A | | 4 - LED - CN5 1 | 1 LED |
| | VG | | 5 | 2 |

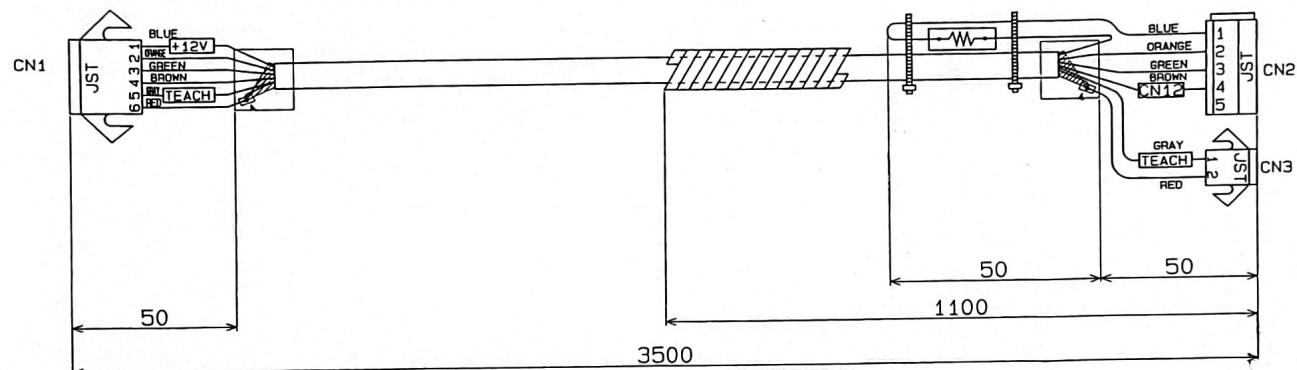
J302 HARNESS : CABLE TERMINAL 1

| No. | SIGNAL | COLOR | CN1 | CONNECTION | CN2 | REMARKS |
|-----|--------|--------|-----|------------|-----|---------------|
| 1 | +24 | BLUE | A20 | CN2 | A20 | P COM(+24) |
| 2 | +24 | ORANGE | B20 | | B20 | ↑ |
| 3 | GND | GREEN | A19 | | A19 | N COM(GND) |
| 4 | GND | BROWN | B19 | | B19 | ↑ |
| 5 | OTG | GRAY | A18 | | A18 | 2ND.LIMIT8 |
| 6 | N17B | RED | B18 | | B18 | R ORG.3 |
| 7 | N15A | BLACK | A17 | | A17 | Y ORG.2 |
| 8 | N14A | YELLOW | B17 | | B17 | X ORG.2 |
| 9 | N50 | PINK | A16 | | A16 | BMS1 |
| 10 | N51 | VIOLET | B16 | | B16 | BMS2 |
| 11 | N30 | WHITE | A15 | | A15 | H1LS LOWER |
| 12 | N31 | BL+R 1 | B15 | | B15 | H2LS LOWER |
| 13 | N32 | OR+W 1 | A14 | | A14 | H1LS ANGLE |
| 14 | N33 | GR+W 1 | B14 | | B14 | H2LS ANGLE |
| 15 | N34 | BR+W 1 | A13 | | A13 | H1PS |
| 16 | N35 | G +W 1 | B13 | | B13 | H2PS |
| 17 | N36 | R +W 1 | A12 | | A12 | H1 OPTION(DI) |
| 18 | N37 | B +W 1 | B12 | | B12 | H2 OPTION(DI) |
| 19 | N60A | Y +B 1 | A11 | | A11 | H3LS LOWER |
| 20 | N62A | P +B 1 | B11 | | B11 | H3LS ANGLE |
| 21 | N64 | V +W 1 | A10 | | A10 | H3PS |
| 22 | N66 | W +BL1 | B10 | | B10 | H3 OPTION(DI) |
| 23 | T20 | BL+R 2 | A9 | | A9 | H1 DOWN |
| 24 | T21 | OR+W 2 | B9 | | B9 | H2 DOWN |
| 25 | T22 | GR+W 2 | A8 | | A8 | H1 TURN |
| 26 | T23 | BR+W 2 | B8 | | B8 | H2 TURN |
| 27 | T24 | G +W 2 | A7 | | A7 | H1 VAC |
| 28 | T25 | R +W 2 | B7 | | B7 | H2 VAC |
| 29 | T26 | B +W 2 | A6 | | A6 | H1 OPTION(DO) |
| 30 | T27 | Y +B 2 | B6 | | B6 | H2 OPTION(DO) |
| 31 | T40 | P +B 2 | A5 | | A5 | H3 DOWN |
| 32 | T42 | V +W 2 | B5 | | B5 | H3 TURN |
| 33 | T44 | W +BL2 | A4 | | A4 | H3 VAC |
| 34 | T46 | BL+B 1 | B4 | | B4 | H3 OPTION(DO) |
| 35 | BP16 | OR+B 1 | A3 | | A3 | BYPATH |
| 36 | BP11 | GR+B 1 | B3 | | B3 | ↑ |
| 37 | BP15 | BR+B 1 | A2 | | A2 | |
| 38 | BP12 | G +B 1 | B2 | | B2 | |
| 39 | BP14 | R +B 1 | A1 | | A1 | |
| 40 | BP13 | Y +R 1 | B1 | | B1 | |

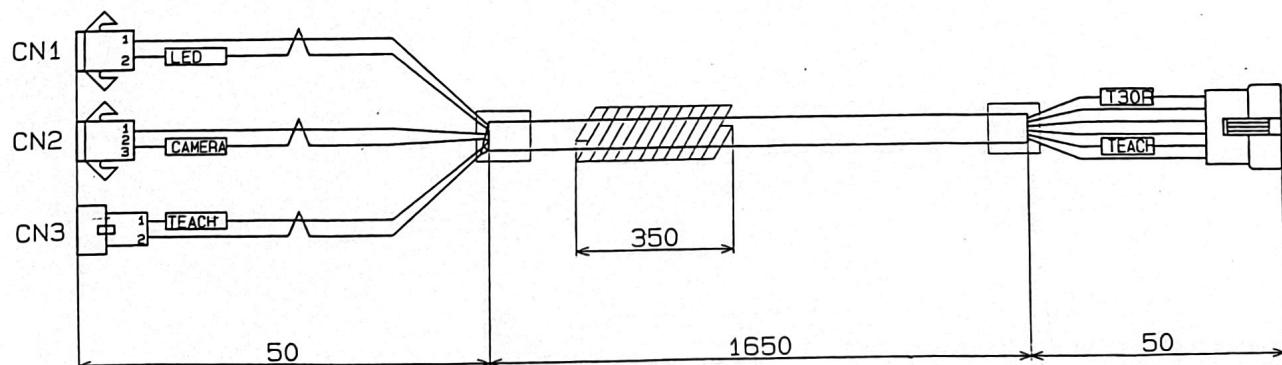


J211 HARNESS 13-5 : I/O TEACH. CAMERA

| No | SIGNAL | COLOR | CN | CONNECTION | CN | REMARKS |
|----|--------|--------|-------|------------|-------|---------|
| | T30R | BLUE | CN1 1 | T30R | CN2 1 | |
| | GND | ORANGE | ↑ 2 | R1 | ↑ 2 | |
| | T30 | GREEN | 3 | | 3 | |
| | GND | BROWN | 4 | CN12 | 4 | |
| | TEACH | GRAY | 5 | TEACH | CN3 1 | |
| | RED | RED | 6 | TEACH | ↑ 2 | |

**J212 HARNESS 13-1 : TEACH. CAMERA**

| No | SIGNAL | COLOR | CN | CONNECTION | CN | REMARKS |
|----|--------|--------|-------|------------|-------|---------|
| | T30R | BLUE | CN1 1 | T30R | CN3 1 | |
| | GND | ORANGE | ↑ 2 | LED | ↑ 2 | |
| | T30 | GREEN | CN2 1 | | 3 | |
| | GND | BROWN | ↑ 2 | | 4 | |
| | TEACH | GRAY | CN3 1 | CAMERA | 5 | |
| | RED | RED | ↑ 2 | TEACH | 6 | |



J184**HARNESS 3-10 : I/O CN14-CON.2 BOARD**

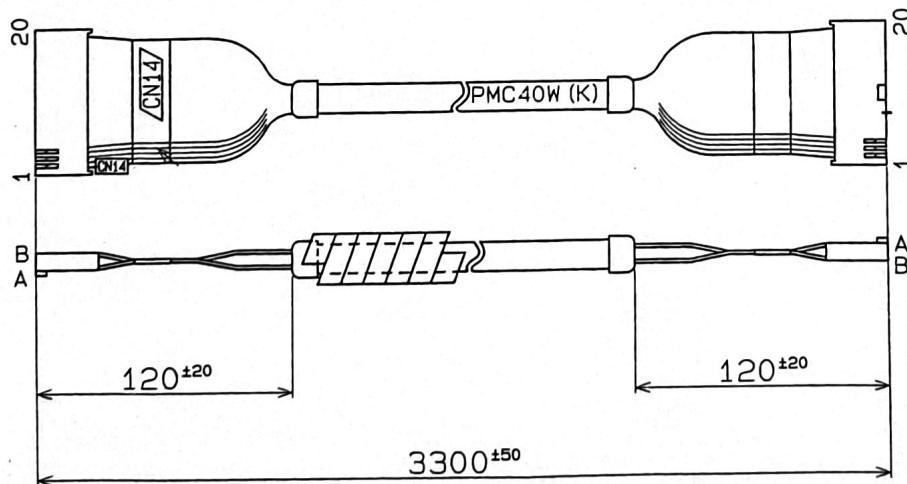
| No | SIGNAL | COLOR | CN1 | CONNECTION | CN2 | REMARKS |
|----|--------|--------|-----|------------|-----|------------------------|
| 1 | VP | BLUE | A1 | [CN14] | A1 | P COM (+24) |
| 2 | VP | ORANGE | B1 | | B1 | ↑ |
| 3 | GND | GREEN | A2 | | A2 | N COM (GND) |
| 4 | GND | BROWN | B2 | | B2 | ↑ |
| 5 | OT1 | GRAY | A3 | | A3 | 2ND. LIMIT |
| 6 | DI17 | RED | B3 | | B3 | R ORG. |
| 7 | DI15 | BLACK | A4 | | A4 | I Y ORG. |
| 8 | DI14 | YELLOW | B4 | | B4 | I X ORG. |
| 9 | DI50 | PINK | A5 | | A5 | BEAM SENSOR |
| 10 | DI51 | VIOLET | B5 | | B5 | H3 PUSH LS LOWER |
| 11 | DI30 | WHITE | A6 | | A6 | H1LS LOWER |
| 12 | DI31 | BL+R 1 | B6 | | B6 | H2LS LOWER |
| 13 | DI32 | OR+W 1 | A7 | | A7 | H1LS ANGLE |
| 14 | DI33 | GR+W 1 | B7 | | B7 | H2LS ANGLE |
| 15 | DI34 | BR+W 1 | A8 | | A8 | H1 3 LEVEL PS LOW BIT |
| 16 | DI35 | G +W 1 | B8 | | B8 | H2 3 LEVEL PS LOW BIT |
| 17 | DI36 | R +W 1 | A9 | | A9 | H1 3 LEVEL PS HIGH BIT |
| 18 | DI37 | B +W 1 | B9 | | B9 | H2 3 LEVEL PS HIGH BIT |
| 19 | DI60 | Y +B 1 | A10 | | A10 | H3LS LOWER |
| 20 | DI62 | P +B 1 | B10 | | B10 | H3LS ANGLE |
| 21 | DI64 | V +W 1 | A11 | | A11 | H3 3 LEVEL PS LOW BIT |
| 22 | DI66 | W +BL1 | B11 | | B11 | H3 3 LEVEL PS HIGH BIT |
| 23 | D020 | BL+R 2 | A12 | | A12 | H1 DOWN |
| 24 | D021 | OR+W 2 | B12 | | B12 | H2 DOWN |
| 25 | D022 | GR+W 2 | A13 | | A13 | H1 TURN |
| 26 | D023 | BR+W 2 | B13 | | B13 | H2 TURN |
| 27 | D024 | G +W 2 | A14 | | A14 | H1 VAC |
| 28 | D025 | R +W 2 | B14 | | B14 | H2 VAC |
| 29 | D026 | B +W 2 | A15 | | A15 | H1 OPTION (DO) |
| 30 | D027 | Y +B 2 | B15 | | B15 | H2 OPTION (DO) |
| 31 | D040 | P +B 2 | A16 | | A16 | H3 DOWN |
| 32 | D042 | V +W 2 | B16 | | B16 | H3 TURN |
| 33 | D044 | W +BL2 | A17 | | A17 | H3 VAC |
| 34 | D046 | BL+B 1 | B17 | | B17 | H3 V. CHG |
| 35 | VG | OR+B 1 | A18 | | A18 | GND |
| 36 | DI16 | GR+B 1 | B18 | | B18 | Z ORG |
| 37 | VP1 | BR+B 1 | A19 | | A19 | 24V |
| 38 | D036 | G +B 1 | B19 | | B19 | BACK LIGHT |
| 39 | OTX | R +B 1 | A20 | | A20 | X.2nd LIGHT |
| 40 | OTY | Y +R 1 | B20 | | B20 | Y.2nd LIGHT |

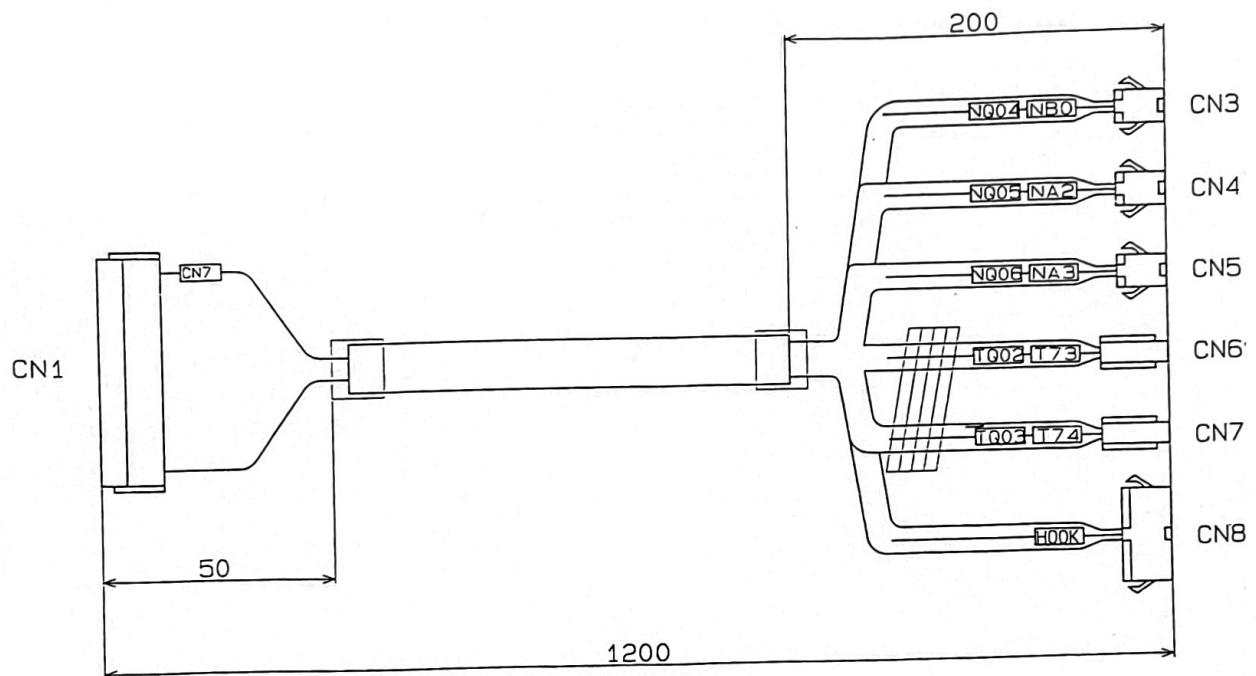
CN1

CON.1 BOARD ASSY

CN2

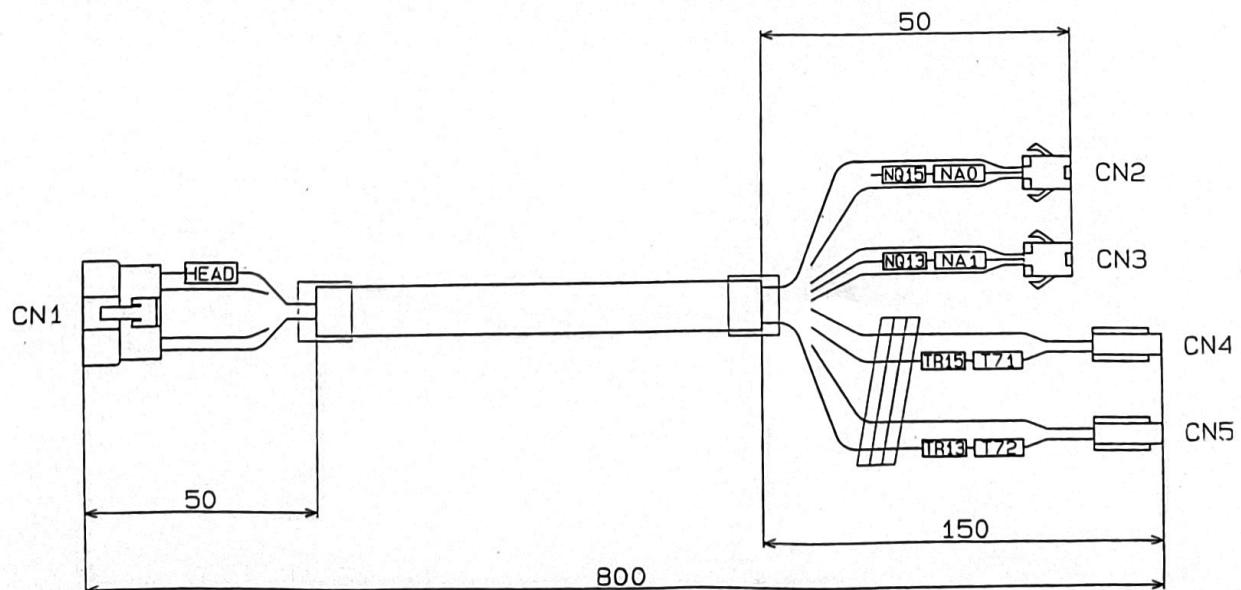
CON.2 BOARD ASSY





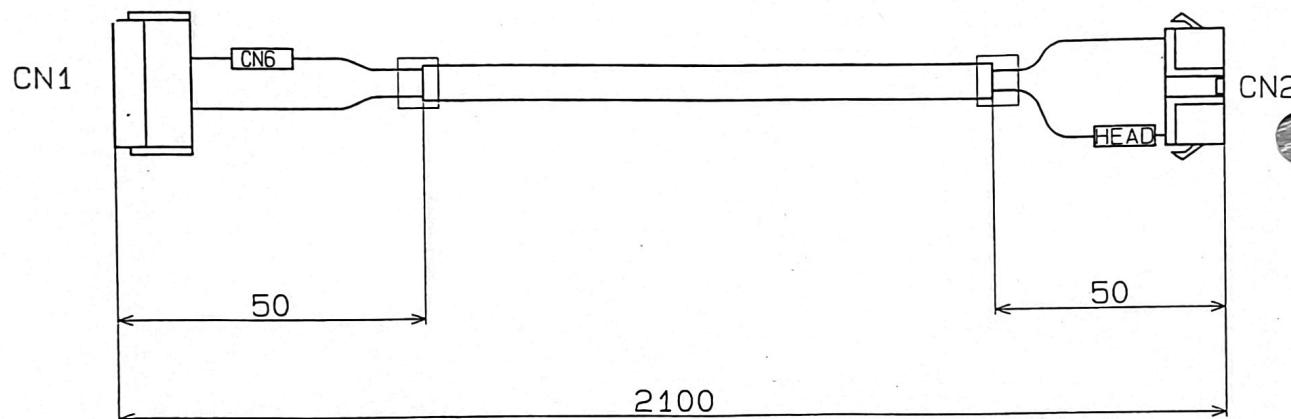
J152 HARNESS 8-4 : HEAD-DIDO

| No | SIGNAL | COLOR | CN1 | CONNECTION | CN | REMARKS |
|----|------------|-------|-----|------------|-------|-----------------|
| 1 | VP | | 1 | HEAD | CN2 1 | |
| 2 | NA0 (NQ15) | | 2 | NQ15-NA0 | 2 | HEAD DOWN |
| 3 | GND | | 3 | | 3 | |
| 4 | VP | | 4 | | CN3 1 | |
| 5 | NA1 (NQ13) | | 5 | NQ13-NA1 | 2 | HEAD VAC SENSOR |
| 6 | GND | | 6 | | 3 | |
| 7 | T71 (TR15) | | 7 | TR15-T71 | CN4 1 | HEAD DOWN |
| 8 | GND | | 8 | | 2 | |
| 9 | T72 (TR13) | | 9 | TR13-T72 | CN5 1 | HEAD VACUUM |
| 10 | GND | | 10 | | 2 | |



J150 HARNESS 8-3 : I/F-HEAD

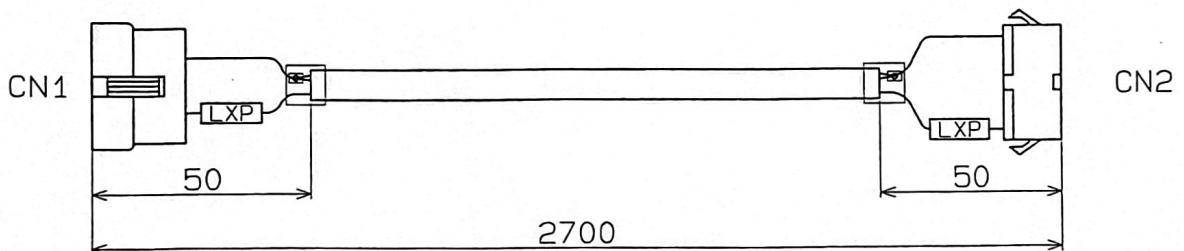
| No | SIGNAL | COLOR | CN1 | CONNECTION | CN2 | REMARKS |
|----|------------|-------|-----|------------|------|---------------|
| 1 | VP | | 1 | CN6 | HEAD | |
| 2 | NA0 (NQ15) | | 2 | | 8 | HEAD DOWN SEN |
| 3 | GND | | 3 | | 9 | |
| 4 | VP | | 4 | | 10 | |
| 5 | NA1 (NQ13) | | 5 | | 1 | HEAD VAC SEN |
| 6 | GND | | 6 | | 2 | |
| 7 | T71 (TR15) | | 7 | | 3 | HEAD DOWN |
| 8 | GND | | 8 | | 4 | |
| 9 | T72 (TR13) | | 9 | | 5 | HEAD VAC |
| 10 | GND | | 10 | | 6 | |

**J151 HARNESS 8-5 : I/F-HOOK, DIDO**

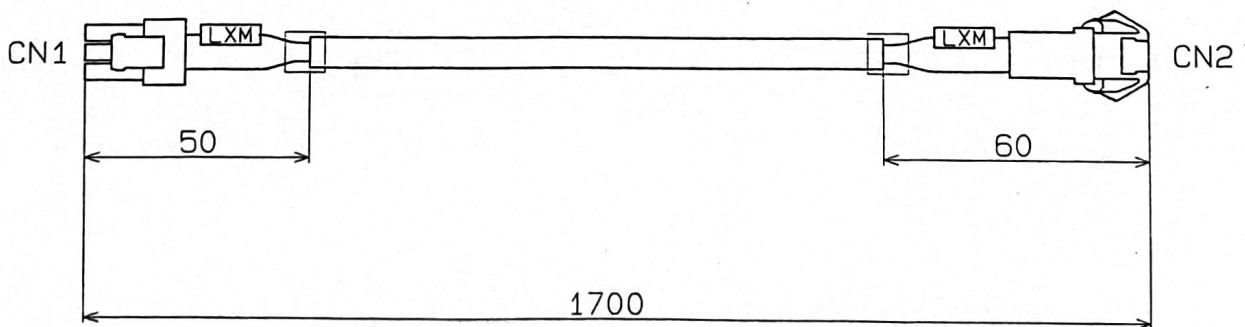
| No | SIGNAL | COLOR | CN1 | CONNECTION | CN | REMARKS |
|----|------------|-------|-------|------------|-------|-----------------|
| 1 | VP | | CN1 1 | CN7 | CN3 1 | |
| 2 | NB0 (NQ04) | | 2 | NQ04 - NB0 | 2 | PALETTE SET |
| 3 | GND | | 3 | | 3 | |
| 4 | VP | | 4 | | CN4 1 | |
| 5 | NA2 (NR05) | | 5 | NR05 - NA2 | 2 | HOOK FORWARD |
| 6 | GND | | 6 | | 3 | |
| 7 | VP | | 7 | | CN5 1 | |
| 8 | NA3 (NR06) | | 8 | NR06 - NA3 | 2 | HOOK BACKWARD |
| 9 | GND | | 9 | | 3 | |
| 10 | VP | | 10 | | CN8 1 | |
| 11 | NA4 (NR04) | | 11 | HOOK | 2 | HOOK WAIT |
| 12 | GND | | 12 | | 3 | |
| 13 | VP | | 13 | | 4 | |
| 14 | NA5 (NQ02) | | 14 | | 5 | HOOK OPEN |
| 15 | GND | | 15 | | 6 | |
| 16 | VP | | 16 | | 7 | |
| 17 | NA6 (NQ03) | | 17 | | 8 | HOOK CLOSE |
| 18 | GND | | 18 | | 9 | |
| 19 | T73 (TQ02) | | 19 | TQ02 - T73 | CN6 1 | |
| 20 | GND | | 20 | | 2 | HOOK ARM |
| 21 | T74 (TQ03) | | 21 | TQ03 - T74 | CN7 1 | |
| 22 | GND | | 22 | | 2 | HOOK OPEN CLOSE |

CSM TRAYFEEDER 31**J131 HARNESS 5-3 : LX, ENCODER**

| No | SIGNAL | COLOR | CN | CONNECTION | CN | REMARKS |
|----|--------|-------|-------|------------|-------|---------------|
| 1 | A | | CN1 1 | LXP | CN2 1 | X-AXIS |
| 2 | A\ | | 2 | | 2 | PULSE ENCODER |
| 3 | B | | 3 | | 3 | |
| 4 | B\ | | 4 | | 4 | |
| 5 | C | | 5 | | 5 | |
| 6 | C\ | | 6 | | 6 | |
| 7 | GND | | 7 | | 7 | |
| 8 | +5V | | 8 | | 8 | |
| 9 | SHIELD | GRAY | 9 | | 9 | |

**J142 HARNESS 6-3 : MOTOR, LX**

| No | SIGNAL | COLOR | CN1 | CONNECTION | CN2 | REMARKS |
|----|--------|-------|-----|------------|-----|---------|
| 1 | XU | RED | 1 | LXM | 1 | |
| 2 | XV | WHITE | 2 | | 2 | |
| 3 | XW | BLACK | 3 | | 3 | |



J153 HARNESS 8-6 : HOOK, DI

| No | SIGNAL | COLOR | CN1 | CONNECTION | CN | REMARKS |
|----|------------|-------|-------|-------------------|-------|------------|
| 1 | VP | | CN1 1 | | CN2 1 | |
| 2 | NA4 (NR04) | | 2 | HOOK - NR04 - NA4 | 2 | HOOK WAIT |
| 3 | GND | | 3 | | 3 | |
| 4 | VP | | 4 | | CN3 1 | |
| 5 | NA5 (NG02) | | 5 | NG02 - NA5 | 2 | HOOK OPEN |
| 6 | GND | | 6 | | 3 | |
| 7 | VP | | 7 | | CN4 1 | |
| 8 | NA6 (NG03) | | 8 | NG03 - NA6 | 2 | HOOK CLOSE |
| 9 | GND | | 9 | | 3 | |

