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TO: Distribution
FROM: N. Abraham
DATE: 29 November 1965
SUBJECT: G&N Connector Keying, Blk II and LEM.

The keying used to prevent incorrect matings on the G&N System for C/M Blk II and LEM is given in Tables I & II of this memorandum.

It can be seen that none of the similar connector groups for LEM contain possible incorrect matings.

Two cases appear in Group II for Blk II, but these are so physically located that chances of an incorrect mating is quite remote unless an effort is made in that direction. (See remarks column.)

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CONNECTOR KEYING

(G & N INTERCONNECT HARNESS, BLK II)

Table I

Group	Connector Type	Conn Desig	Keying	Har	Connector Part Number		Location or Assy Interconnected	Remarks
					NASA	Vendor		
I	Deutsch "DSM" Plug 91 Sock Contacts	P13	N	B	1010771-201	DSM-32084- 27-30S	Optics HD (SXT)	Reverse Insert
II	Deutsch "STK" Plug 85 Pin Contacts	P4	N *	A	1010929-101	346-18-85P	LH Interface Brkt	*Same Keying. P4 located on Lower Left, P22 on Upper Right of G&N Equipment
		P22	N *	G	-101	-85P	Sig Cond	
		P3	W	A	-102	-85PW	LH Interface Brkt	
II	Deutsch "STK" Plug 85 sock contacts	P5	X	A	-103	-85PX	LH S/C Interface Brkt	*Same Keying. P32 Located on Lower Right, P12 on Upper Left of G & N Equipment
		P6	Y	A	-104	-85PY		
		P12	N *	C	1010929-001	346-18-85S	PIPA	
II	Deutsch "STK" Plug 85 sock contacts	P32	N *	G	-001	-85S	RH Interface Brkt	*Same Keying. P32 Located on Lower Right, P12 on Upper Left of G & N Equipment
		P20	W	G	-002	-85SW	Sig Cond	
		P25	X	H	-003	-85SX	DSKY	
II	Deutsch "STK" Receptacle 85 sock contacts	J4	N	D	1010930-001	340-18-85S	LH Interface Brkt	
		J3	W	D	-002	-85SW		
		J5	X	H	-003	-85SX		
III	Deutsch "DSM" Plug 61 sock contacts	P23	X	F	1010771-207	DSM-32084- 19-33SX	Optics HD (SCT)	Reverse Insert
IV	Deutsch "STK" Plug 61 Pin Contacts	P8	N	A	1010929-105	346-16-61P	LH S/C Interface	
		P7	Y	A	1010929-108	346-16-61PY	Brkt	
		P2	N	A	1010929-005	346-16-61S	LH Interface Brkt	
IV	Deutsch "STK" Plug 61 sock contacts	P21	Y	G	1010929-008	346-16-61SY	Sig Cond	
		J2	N	D	1010930-105	340-16-61P	LH Interface Brkt	
V	Deutsch "STK" Plug 44 Pin Contacts	P1	N	A	1010929-109	346-14-44D	LH Interface Brkt	
		J1	N	D	1010930-009	340-14-44S	LH Interface Brkt	
VI	Deutsch "STK" Plug 7 Sock Contacts	P14	N	B	1010929-017	346-8-7S	Optics RSLVR Module	
VII	Microdot "Marc 53" Plug 61 Sock Contacts	P16 P15	N Alt.	C C	1010965-001 -002	MD53-06E15-61	S-N Lower IMU -1 Upper IMU	
VIII	Cannon "DPKA" Plug 18 Pin Contacts	P30 P31	N V	H H	1010921-001 -002	DPKA-18-PND -PVD	RH Interface Brkt (PWR)	
IX	"Make" Connectors (Malco Type)	P9 P18 P19 P17 P26 P28 P29 P27 P10	See Remarks	A B C D E F G H A	2014741 2014742 2014743 2014744 2014745 2014746 2014747 2014748 2014749		CDU PSA Header ↓ AGC	Keying Pins Between Conn and Header Prevents Incorrect Mating

CONNECTOR KEYING

(G & N Interconnect Harness, LEM)

WIRING HARNESS "A"

Table II

Group	Connector Type	Conn Desig	Keying	Connector	Part Number	Location or Assy Interconnected	Remarks
				NASA	Vendor		
I	Deutsch "STK" Plug 85 Pin Contacts	P5	N	1010929-101	346-18-85P	Bulkhead Interface Brkt	
		P6	W	-102	-85PW		
		P7	X	-103	-85PX		
	Deutsch "STK" Plug 85 Sock Contacts	P12	N	1010929-201	42184-16-85S	Overhead Interface	Reverse Insert
		P10	W	-202	-85SW	Bulkhead Interface	
		P14	X	-203	-85SX	Overhead Interface	
		P13	Y	-204	-85SY		
II	Deutsch "STK" Plug 61 Sock Contacts	P9	W	1010929-206	42184-16-61SW	Bulkhead Interface	
III	Deutsch "DTK" Plug 12 Pin Contacts	P8	N	1010947-101	22048-20-98P	Bulkhead Interface Brkt	
IV	Deutsch "DTK" Plug 31 Sock Contacts	P11	N	1010947-205	22045-24-31S	Bulkhead Interface	Reverse Insert
V	"Make" Connectors (Malco Type)	P1 P2 P3 P4	See Remarks	6014531 6014532 6014533 6014534		Sig Cond PSA CDU AGC	Keying Pins Between Conn. and Header Prevents Incorrect Matings

WIRING HARNESS "B"

Group	Connector Type	Conn Desig	Keying	Connector	Part Number	Location or Assy Interconnected	Remarks
				NASA	Vendor		
I	Deutsch "STK" Plug 85 Pin Contacts	P16 P18	X Y	1010929-103 -104	346-18-85PX -85PY	Interface Brkt	
II	Deutsch "STK" Plug 44 Pin Contacts	P15	N	1010929-109	346-14-44P	Interface Brkt	
III	Deutsch "STK" Receptacle 19 Sock Contacts	J1	W	1010930-014	340-10-19SW	Bulkhead Interface (PTC)	
IV	Deutsch "DTK" Plug 31 Pin Contacts	P17	N	1010947-105	22007-24-31P	Interface Brkt	
V	Microdot "Marc 53" Plug 61 Sock Contacts	P21 P20	N Alt	1010965-001 -002	MD53-06E15-61	S-N Lower IMU -1 Upper IMU	
VI	"Make" Connector (Malco Type)	P19	See Remarks	1014535		PTA	Keying Pins Between Conn and Header Prevents Incorrect Mating