

Integration Guide

LPC-3 Line Printer Controller

LPC-3 Line Printer Controller has been verified by Engineering for use with the following printers and Data General CPUs.

SECTION A: DATA GENERAL PROCESSORS

NOVA 3	via DCH	RDOS (6.0 to 7.5)
NOVA 4	via DCH	RDOS (6.0 to 7.5)
S/120	via DCH	RDOS (6.0 to 7.5), AOS (6.0 to 7.0)
S/140	via DCH	RDOS (6.0 to 7.5), AOS (6.0 to 7.0)
S/280	via DCH	RDOS (7.0 to 7.5), AOS (6.0 to 7.0)
M/600	via DCH	RDOS (6.0 to 7.5), AOS (6.0 to 7.0)
C/150	via DCH	RDOS (6.0 to 7.5), AOS (6.0 to 7.0)
S/250	via DCH	RDOS (6.0 to 7.5), AOS (6.0 to 7.0)
C/350	via DCH	RDOS (6.0 to 7.5), AOS (6.0 to 7.0)
S/130	via DCH	RDOS (6.0 to 7.5), AOS (6.0 to 7.0)
S/230	via DCH	RDOS (6.0 to 7.5), AOS (6.0 to 7.0)
C/330	via DCH	RDOS (6.0 to 7.5), AOS (6.0 to 7.0)
MV/4000	via DCH	AOS/VS (5.0 to 7.65), AOS/VS II (1.12) & DG/UX (4.01)
MV/6000	via DCH	AOS/VS (5.0 to 7.65), AOS/VS II (1.12) & DG/UX (4.01)
MV/7800C,U	via DCH	AOS/VS (6.06 to 7.65), AOS/VS II (1.12) & DG/UX (4.01)
MV/7800XP	via DCH	AOS/VS (5.75 to 7.65), AOS/VS II (1.12) & DG/UX (4.01)

....continued

MV/8000,II,C via DCH AOS/VS (5.0 to 7.65), AOS/VS II (1.12) &
DG/UX (4.01)
MV/10000 . . . via DCH AOS/VS (5.0 to 7.65), AOS/VS II (1.12) &
DG/UX (4.01)
MV/15000 . . . via DCH AOS/VS (7.55 to 7.65), AOS/VS II (1.12) &
DG/UX (4.01)
MV/20000 . . . via DCH AOS/VS (6.54 to 7.65), AOS/VS II (1.12) &
DG/UX (4.01)

NOTE: Use Data General's DCHPT-TST as the diagnostic test program with LPC-3.

SECTION B: VERIFIED DISK DRIVES

Centronics 2230, 2260
Data Products B-300, B-600, B-1000
Fujitsu M3040, M3041, M3042, M3043
Printronix P300, P600

If you know of devices other than those listed here that are running with LPC-3, please write, FAX or telex our Customer Support Group with the information so they can be added to this section.

LPC-3 FEATURES SUMMARY

- Supports both DataProducts/Centronics (parallel) and RS-232 (serial) interfaces.
- Selectable switch packs: device code, hardware, strobe width, UART, and configuration.
- Emulates DG's 4215, 4216, 4327, 4328, 4356, 4363, 4364, 4374, and 6192.



LPC-3 Integration Guide

LPC-3 Line Printer Controller has been verified by Engineering for use with the following printers and DG CPU's.

SECTION A: DATA GENERAL PROCESSORS

CPU	BUS	OPERATING SYSTEMS
NOVA 3	DCH	RDOS ONLY (6.0 TO 7.5)
NOVA 4	DCH	RDOS ONLY (6.0 TO 7.5)
S/120	DCH	RDOS (6.0 TO 7.5) & AOS (6.0 TO 7.0)
S/140	DCH	RDOS (6.0 TO 7.5) & AOS (6.0 TO 7.0)
S/280	DCH	RDOS (7.0 TO 7.5) & AOS (6.0 TO 7.0)
M/600	DCH	RDOS (6.0 TO 7.5) & AOS (6.0 TO 7.0)
C/150	DCH	RDOS (6.0 TO 7.5) & AOS (6.0 TO 7.0)
S/250	DCH	RDOS (6.0 TO 7.5) & AOS (6.0 TO 7.0)
C/350	DCH	RDOS (6.0 TO 7.5) & AOS (6.0 TO 7.0)
S/130	DCH	RDOS (6.0 TO 7.5) & AOS (6.0 TO 7.0)
S/230	DCH	RDOS (6.0 TO 7.5) & AOS (6.0 TO 7.0)
C/330	DCH	RDOS (6.0 TO 7.5) & AOS (6.0 TO 7.0)
MV/4000	DCH	AOS/VS (5.0 TO 7.6)
MV/6000	DCH	AOS/VS (5.0 TO 7.6)
MV/7800C,U	DCH	AOS/VS (6.06 TO 7.6)
MV/7800XP	DCH	AOS/VS (5.75 TO 7.6)
MV/8000,II,C	DCH	AOS/VS (5.0 TO 7.6)
MV/10000	DCH	AOS/VS (5.0 TO 7.6)
MV/15000	DCH	AOS/VS (7.55 TO 7.6)
MV/20000	DCH	AOS/VS (6.54 TO 7.6)

NOTE: Use Data General's DCHPT-TST as the diagnostic test program with LPC-3.

SECTION B: VERIFIED PRINTERS

Manufacturer	Model/s
Centronics.....	2230 & 2260
Data Products.....	B-300, B-600, & B-1000
Fujitsu.....	M3040, M3041, M3042, & M3043
Printronic.....	P300 & P600

SECTION C: If you know of devices, other than those listed in Section B, that are running with LPC-3, please write or telex our Customer Support Group with the information so they can be added to this section.

LPC-3 FEATURES SUMMARY:

- * Supports both Data Products/Centronics (Parallel) and RS-232 (Serial) Interfaces.
- * Selectable Switch Packs: Device Code, Hardware, Strobe Width, UART, and Configuration.
- * Emulates DG's 4215, 4216, 4327, 4328, 4356, 4363, 4364, 4374, 6192

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*****
*****
*                               TECH TIP 001A                               *
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Catagory::Priter                 Product::LPC-3
Reference::Centronics cable pinout
Submitted by::Robert Shaffer     Date::November 3, 1993
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The following is the pinout for Zetaco's external cable for the LPC-3 going to a Centronics connector:

50 Pin	Centronics	50 Pin	Centronics
-----	-----	-----	-----
7	20	27	29
8	2	28	10
9	21	33	27
10	3	34	8
11	22	37	28
12	4	38	9
17	23	41	20
18	5	42	1
19	24	45	31
20	6	46	13
21	25		
22	7		

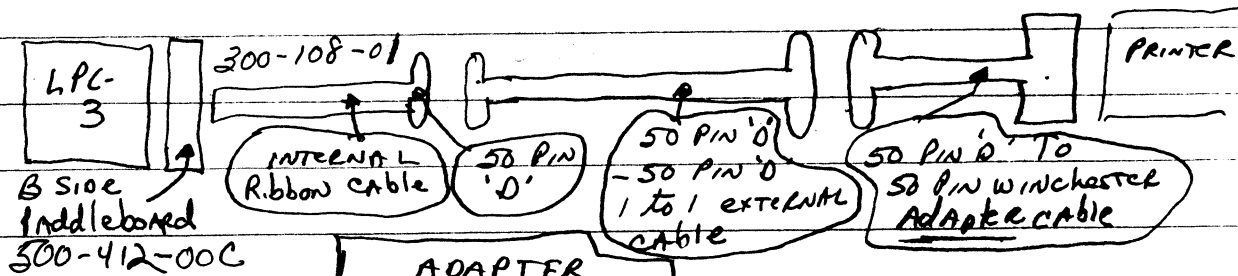
TECH TIP # 1

CATEGORY - PRINTER

PRODUCT - LPC-3

REFERENCE - CABLING FOR DATA PRODUCTS WINCHESTER plug

When connecting a winchester style interface to the LPC-3 without using ZETACO externals, make a adapter cable using the following pinouts.



SIGNAL	Polarity	ADAPTER		Paddle-board	BACK PLANE	CENTRINICS 36 PIN
		WINCHESTER PIN	50 PIN 'D' PIN			
READY	+	CC	46	46	B54	13
		EE RETURN	45	GRD		
ON Line	+	lower y	30	30	B40	
		AA RETURN	29	GRD		
DEMAND	+	E	28	28	B38	
		C RETURN	27	GRD		
Strobe	+	lower j	42	42	B53	
		lower m	41	GRD		
Bit 1	+	B	8	8	B15	
		D RETURN	7	GRD		
Bit 2	+	F	10	10	B19	
		J RETURN	9	GRD		
Bit 3	+	L	12	12	B23	
		N RETURN	11	GRD		
Bit 4	+	R	18	18	B25	
		T RETURN	17	GRD		
Bit 5	+	V	20	20	B27	
		X RETURN	19	GRD		
Bit 6	+	Z	22	22	B31	
		lower b	21	GRD		
Bit 7	+	lower n	34	34	B49	
		lower k	33	GRD		
PI	+	lower p	26	26	* B36	
		lower s	25	GRD		

* VIA Jumper W18-2 W18-1 USED FOR DATA BIT 8 INSTEAD OF PI

TECH TIP # 2

CATEGORY - PRINTER

PRODUCT - LPC-3

REFERENCE - INTERNAL CABLE PIN OUTS

50 PIN 'D'	BACK PLANE	50 PIN 'D'	BACK PLANE	50 PIN 'D'	BACK PLANE
1	GRD	23	GRD	45	GRD
2	B6	24	B34	46	B54 Ready
3	GRD	25	GRD	47	GRD
4	B11	26	B36 PI	48	B67
5	GRD	27	GRD	49	GRD
6	B13	28	B38 DEMAND	50	B69
7	GRD	29	GRD		
8	B15 Bit 1	30	B40 ONLINE		
9	GRD	31	GRD		
10	B19 Bit 2	32	B48		
11	GRD	33	GRD		
12	B23 Bit 3	34	B49 DATA 7		
13	GRD	35	GRD		
14	N/A	36	W18-1 DATA 8		
15	GRD	37	GRD		
16	N/A	38	B50 VIA W18-2		
17	GRD	39	GRD		
18	B25 Bit 4	40	B52		
19	GRD	41	GRD		
20	B27 Bit 5	42	B53 Strobe		
21	GRD	43	GRD		
22	B31 Bit 6	44	N/A		

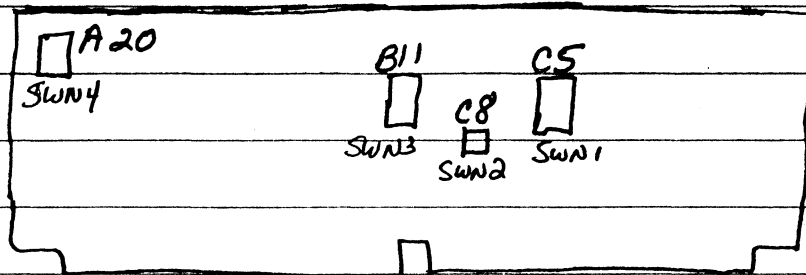
TECH TIP # 4

CATEGORY - PRINTER

Product - LPC3 / LW400/800/1200

Reference - Setup using DATA Products interface

PERSONALITY CARD - 44682848



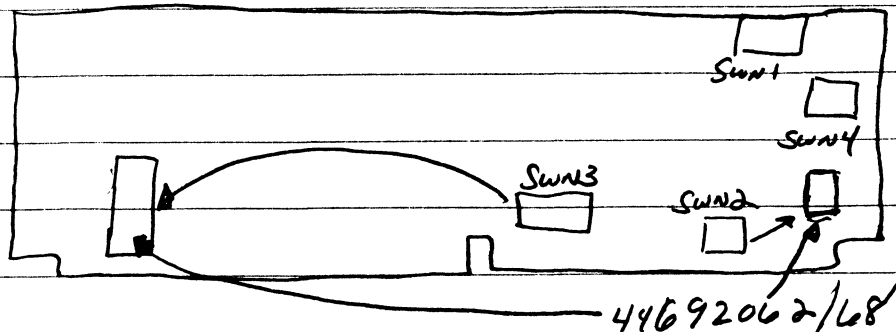
<u>SWN1</u>	<u>SWN2</u>	<u>SWN3</u>	<u>SWN4</u>
1 ON	1 ON	1 ON	1 off
2 ON (enable VFE)	2 ON	2 off	2 off
3 off	3 off	3 off	3 off
4 off	4 ON	4 off	4 off
5 off		5 off	5 off
6 off		6 off	6 ON
7 off		7 off	7 off
8 off		8 off	8 off

Personality CARD MUST MATCH CPU CARD Settings

: IE, VFE enabled on personality, it must be enabled ON CPU

TECH TIP #4 CONTINUED

CPU CARD 44694095 (LW1255)



<u>SWN1</u>		<u>SWN2</u>		<u>SWN3</u>		<u>SWN4</u>	
1	ON	1	OFF	1	OFF	1	OFF
2	ON	2	OFF	2	ON	2	ON
3	ON	3	OFF	3	ON	3	OFF
4	ON			4	ON		
5	ON			5	ON		
6	ON			6	OFF		
7	ON			7	ON		
8	ON			8	ON		

Annotations: SWN2 1 OFF } NO BOF; SWN2 2 OFF } NO BOF; SWN2 3 OFF } NO AUTO LF; SWN3 1 OFF } EVFU; SWN3 2 ON } off = NO VFU; SWN4 1 OFF } LW 1255; SWN4 2 ON } LW 1255

LPC 3 Switches

<u>UART</u>	<u>MICRO PROCESSOR</u>	<u>HARDWARE</u>	<u>STROBE WIDTH</u>
NOT USED	1 OFF	1 ON	1 OFF
	2 ON	2 ON	2 OFF
	3 ON	3 ON	3 ON
	4 ON	4 OFF	4 OFF
	5 ON	5 OFF	
	6 ON	6 OFF	
	7 ON	7 ON	
	8 OFF	8 OFF	