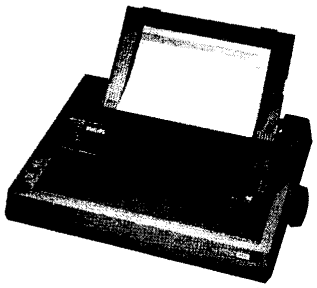
Near letter quality matrix printer NMS 1421/00

Service
Service
Service



41 835 A12

Service Manual

TECHNICAL SPECIFICATIONS

Print method	: Impact dot matrix Bi-directional Logic seeking
Print head	: 9 pins
Characters & symbols	: 254 (including graphic symbols)
Graphic printing	: 8 categories: – 8 dots vertically – Horizontal density (dots/inch): 60, 72, 80, 90 ,120, 136, 160 and 240* *Adjoining dots cannot be printed
Print modes:	
Standard quality	: Pica (10 cpi) Elite (12 cpi) Condensed (17 cpi)
Near letter quality	: Pica (10 cpi) Elite (12 cpi) Condensed (17 cpi)

Mixing of print modes within a single line is possible. Printing of the present data is performed prior to mode change.

Additional possibilities	: Bold Double strike Double width Superscript Subscript Italic

Paper transport	: Friction feed or Pin-feed
Line feed pitch	: Minimum 1/216 inch
Line feed speed	: 6.7 lines/second (6 lines/inch)
Paper width	: Min.: 4 inches (102 mm) Max.: 10 inches (254 mm)
Paper weight	: 50 to 80 g/m^2
Number of copies	: Max. original +1 copy, using paper with a combined thickness of max. 0.15 mm
Ribbon	: Single colour (black) in cassette
Ribbon cassette	: SBC436
Ribbon life	: Approx. 2.5 million characters (standard quality)
Operating temperature	: 5°C to 35°C
Storage temperature	: –30°C to +60°C
Power supply	: 230 V AC ± 15%
Power consumption	
During operation	: approx. 45 W
While idling	: approx. 7 W
Dimensions (WxHxD)	: 403x119x278 mm
Weight	: 4.5 kg

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

Documentation Technique Service Dokumentation Documentazione di Servizio Huolte-Ohje Manual de Servicio Manual de Serviçic

Subject to modification
4822 727 15996
Printed in The Netherlands

PHILIPS Published by Service Consumer Electronics

CS 7 793

CAUTIONS

- Remove the mains voltage from the device before removing the upper case.
- When the upper case is removed you can easily touch the parts on the AC Board Unit which carry the mains voltage. Be careful not to touch these parts when you switch the printer on or off with the power switch.
- Most screws are fixed in plastic holes. In order to prevent damage of the threaded holes, fixing screws shall not be overtightened.
- Do not apply undue force to the print head.
- To prevent damage of print head and platen, do not print without ink ribbon and paper installed.
- The roller springs (EV-31 and EV-88)* located near the shaft of the platen may spring off to injure your face during replacement. Be especially careful when assembling these springs.
- Do not touch the print head immediately after printing because it can get hot during operation.
- Wait at least two seconds after turning the power off before turning it back on again. If not, the initialization process may not be performed properly.
- Do not exchange the CR-motor and the LF-motor since the positions of the motor gears are different (see figure 1).
  The connector housing of the LF motor is red coloured.

* The indications used in the text (EV-..) refer to item number in the exploded view.

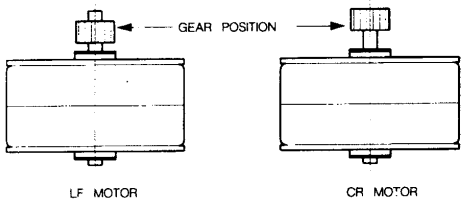


Fig. 1

MDA 235
T02

TEST FUNCTIONS

Printer self-test

The printer self-test facility offers the opportunity to check the main functions of the printer.

1. Insert a sheet of paper (A4-size) into the printer.
2. Turn the printer off.
3. Press the HOLD/NLQ-key while turning on the printer again.
   Keep the HOLD/NLQ-key depressed until the printer starts self-test printing. See figure 2.
   During self-test printing the POWER-lamp at the front will flicker.
4. Stop the self-test printing by pressing the HOLD/NLQ-key, or by switching off the printer.

The header of the self-test printout contains type-/version-number, the printer code-number and the version-code of the software. All remaining lines contain 80 different characters from the MSX-character set of the printer.

During self-test printing the print mode switches every 5 lines between Near Letter Quality (NLQ) and Standard (draft) Quality. After printing of 33 lines, the printer switches over from uni-directional printing to bi-directional printing.

Note: Near Letter Quality printing always needs two passes of the print head. Both passes will be performed in the same print direction.

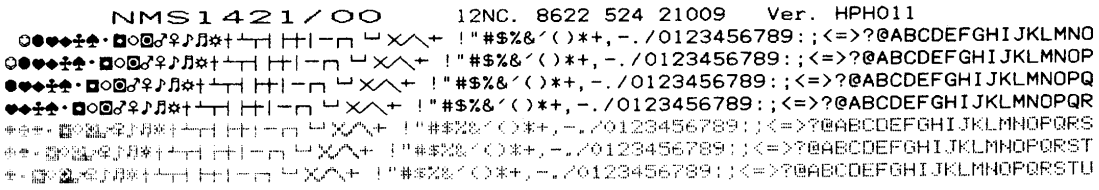


Fig. 2

DIP switch setting

A number of printer funtions can be selected by using the DIP-switches located at the back of the printer. The DIP-switches are read after an initialisation process. This is done either after switching on the power or after a reset command (ESC,@).

DIP SWITCH NUMBER							FUNCTION
1	2	3	4	5	6	7	8	
0 0 1	0 1 0							Page length= 12 inch (66 lines) Page length= 8 inch (42 lines) Page length= 11 inch (60 lines)
1	1							Page length= 14 inch (78 lines)
		0 1						Normal characters Italic characters
			0 0 1	0 1 0				Pica (10 char. per inch) Elite (12 char. per inch) Condensed (17 char. per inch)
1	1							Pica (10 char. per inch)
					0 1			Zero= 0 Zero= Ø
						0 1		No function No function
							0 1	Continuous printing Skipping page perforation 1 inch

0= switch off (down)
1= switch on (up)

CONTROL CODES

	SYMBOL	CODE IN BASIC	FUNCTION
1	CR	CHR$(13)	Carriage return after printing
2	LF	CHR$(10)	Carriage return and line feed after printing
3	VT	CHR$(11)	Same as LF
4	FF	CHR$(12)	Form feed after printing
		The four above commands are print commands	
5	ESC,N	CHR$(27);"N"	10 cpi (pica) printing on
6	ESC,E	CHR$(27);"E"	12 cpi (elite) printing on
7	ESC,Q	CHR$(27);"Q"	17 cpi (condensed) printing on
8	SO	CHR$(14)	Double width mode on
9	SI	CHR$(15)	Double width mode off
10	ESC,!	CHR$(27);"!"	Near letter quality printing on
11	ESC,"	CHR$(27);CHR$(34)	Near letter quality printing off
12	ESC,C,S	CHR$(27);"CS"	Superscript printing on
13	ESC,C,s	CHR$(27);"Cs"	Superscript printing off
14	ESC,C,U	CHR$(27);"CU"	Subscript printing on
15	ESC,C,u	CHR$(27);"Cu"	Subscript printing off
16	ESC,C,I	CHR$(27);"CI"	Italic printing on
17	ESC,C,i	CHR$(27);"Ci"	Italic printing off
18	ESC,C,B	CHR$(27);"CB"	Bold printing on
19	ESC,C,b	CHR$(27);"Cb"	Bold printing off
20	ESC,C,D	CHR$(27);"CD"	Double strike printing on
21	ESC,C,d	CHR$(27);"Cd"	Double strike printing off
22	ESC,O,"nnn"	CHR$(27);"Onnn"	Page length setting in line units
23	ESC,A	CHR$(27);"A"	Select 1/8" line feed
24	ESC,B	CHR$(27);"B"	Select 1/9" line feed
25	ESC,T,"nn"	CHR$(27);"Tnn"	Select nn/144" line feed
26	ESC,@	CHR$(27);"@"	Resets printer
27	CAN	CHR$(24)	Clears buffer
28	ESC,G,"nnn"	CHR$(27);"Gnnn"	"nnn" dots/inch graphic printing density
29	ESC,S	CHR$(27);"S"	Graphic printing dots/inch depending on print mode
30	SOH	CHR$(1)	Code to precede special symbol code
31	ESC,X	CHR$(27);"X"	Underline printing on
32	ESC,Y	CHR$(27);"Y"	Underline printing off

Note:
"n" in the above symbols and BASIC codes corresponds with the numbers 0-9 in the ASCII code table

CHARACTER SET

DEC	HEX	CHAR	NLQ	DEC	HEX	CHAR	NLQ	DEC	HEX	CHAR	NLQ	DEC	HEX	CHAR	NLQ	DEC	HEX	CHAR	NLQ	DEC	HEX	CHAR	NLQ	DEC	HEX	CHAR	NLQ	DEC	HEX	CHAR	NLQ
32	20			64	40	@	@	96	60	`	`	128	80	Ç	Ç	160	A0	á	á	192	C0	└	┌	224	E0	α	α	1,64	1,40		
33	21	!	!	65	41	A	A	97	61	a	a	129	81	ü	ü	161	A1	í	í	193	C1	┴	┬	225	E1	ß	ß	1,65	1,41	☺	☺
34	22	"	"	66	42	B	B	98	62	b	b	130	82	é	é	162	A2	ó	ó	194	C2	├	─	226	E2	Γ	Γ	1,66	1,42	☻	☻
35	23	#	#	67	43	C	C	99	63	c	c	131	83	â	â	163	A3	ú	ú	195	C3	─	├	227	E3	π	π	1,67	1,43	♥	♥
36	24	$	$	68	44	D	D	100	64	d	d	132	84	ä	ä	164	A4	ñ	ñ	196	C4	┼	┼	228	E4	Σ	Σ	1,68	1,44	♦	♦
37	25	%	%	69	45	E	E	101	65	e	e	133	85	à	à	165	A5	Ñ	Ñ	197	C5	┤	┤	229	E5	σ	σ	1,69	1,45	♣	♣
38	26	&	&	70	46	F	F	102	66	f	f	134	86	å	å	166	A6	ª	ª	198	C6	╞	╟	230	E6	µ	µ	1,70	1,46	♠	♠
39	27	'	'	71	47	G	G	103	67	g	g	135	87	ç	ç	167	A7	º	º	199	C7	╟	╞	231	E7	τ	τ	1,71	1,47	•	•
40	28	(	(	72	48	H	H	104	68	h	h	136	88	ê	ê	168	A8	¿	¿	200	C8	╚	╔	232	E8	Φ	Φ	1,72	1,48	◘	◘
41	29	)	)	73	49	I	I	105	69	i	i	137	89	ë	ë	169	A9	⌐	⌐	201	C9	╔	╚	233	E9	Θ	Θ	1,73	1,49	○	○
42	2A	*	*	74	4A	J	J	106	6A	j	j	138	8A	è	è	170	AA	¬	¬	202	CA	╩	╧	234	EA	Ω	Ω	1,74	1,4A	◙	◙
43	2B	+	+	75	4B	K	K	107	6B	k	k	139	8B	ï	ï	171	AB	½	½	203	CB	╦	╤	235	EB	δ	δ	1,75	1,4B	♂	♂
44	2C	,	,	76	4C	L	L	108	6C	l	l	140	8C	î	î	172	AC	¼	¼	204	CC	╠	╒	236	EC	∞	∞	1,76	1,4C	♀	♀
45	2D	-	-	77	4D	M	M	109	6D	m	m	141	8D	ì	ì	173	AD	¡	¡	205	CD	═	═	237	ED	ø	ø	1,77	1,4D	♪	♪
46	2E	.	.	78	4E	N	N	110	6E	n	n	142	8E	Ä	Ä	174	AE	«	«	206	CE	╬	╪	238	EE	∈	∈	1,78	1,4E	♫	♫
47	2F	/	/	79	4F	O	O	111	6F	o	o	143	8F	Å	Å	175	AF	»	»	207	CF	╧	╩	239	EF	∩	∩	1,79	1,4F	☼	☼
48	30	0	0	80	50	P	P	112	70	p	p	144	90	É	É	176	B0	▒	▒	208	D0	╨	╥	240	F0	≡	≡	1,80	1,50	►	►
49	31	1	1	81	51	Q	Q	113	71	q	q	145	91	æ	æ	177	B1	▓	▓	209	D1	╤	╨	241	F1	±	±	1,81	1,51	◄	◄
50	32	2	2	82	52	R	R	114	72	r	r	146	92	Æ	Æ	178	B2	│	│	210	D2	╥	╙	242	F2	≥	≥	1,82	1,52	↕	↕
51	33	3	3	83	53	S	S	115	73	s	s	147	93	ô	ô	179	B3	┤	┤	211	D3	╙	╘	243	F3	≤	≤	1,83	1,53	‼	‼
52	34	4	4	84	54	T	T	116	74	t	t	148	94	ö	ö	180	B4	╡	╡	212	D4	╘	╒	244	F4	⌠	⌠	1,84	1,54	¶	¶
53	35	5	5	85	55	U	U	117	75	u	u	149	95	ò	ò	181	B5	╢	╢	213	D5	╒	╓	245	F5	⌡	⌡	1,85	1,55	§	§
54	36	6	6	86	56	V	V	118	76	v	v	150	96	û	û	182	B6	╖	╖	214	D6	╓	╒	246	F6	÷	÷	1,86	1,56	▬	▬
55	37	7	7	87	57	W	W	119	77	w	w	151	97	ù	ù	183	B7	╕	╕	215	D7	╫	╪	247	F7	≈	≈	1,87	1,57	↨	↨
56	38	8	8	88	58	X	X	120	78	x	x	152	98	ÿ	ÿ	184	B8	╣	╣	216	D8	╪	╫	248	F8	°	°	1,88	1,58	↑	↑
57	39	9	9	89	59	Y	Y	121	79	y	y	153	99	Ö	Ö	185	B9	╕	╕	217	D9	┘	┌	249	F9	∙	∙	1,89	1,59	↓	↓
58	3A	:	:	90	5A	Z	Z	122	7A	z	z	154	9A	Ü	Ü	186	BA	╓	╓	218	DA	┌	┘	250	FA	·	·	1,90	1,5A	→	→
59	3B	;	;	91	5B	[	[	123	7B	{	{	155	9B	¢	¢	187	BB	╗	╗	219	DB	▌	▌	251	FB	√	√	1,91	1,5B	←	←
60	3C	<	<	92	5C	\	\	124	7C	|	|	156	9C	£	£	188	BC	╜	╜	220	DC	▄	▄	252	FC	ⁿ	n	1,92	1,5C	∞	∞
61	3D	=	=	93	5D	]	]	125	7D	}	}	157	9D	¥	¥	189	BD	╝	╝	221	DD	▐	▐	253	FD	²	²	1,93	1,5D	↔	↔
62	3E	>	>	94	5E	^	^	126	7E	~	~	158	9E	₧	₧	190	BE	╛	╛	222	DE	▐	▐	254	FE	■	■	1,94	1,5E	▲	▲
63	3F	?	?	95	5F	_	_	127	7F	⌂	⌂	159	9F	ƒ	ƒ	191	BF	╡	╡	223	DF	▀	▀	255	FF			1,95	1,5F	▼	▼

Print parameters

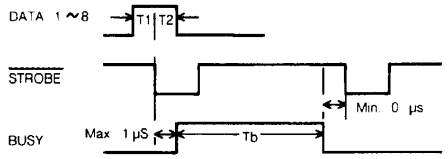
Character category			Character structure (H x V + space)	Maximum column number	Character spacing (CPI)	Print speed (CPS)
Standard character	Standard	Pica	6* x 9	80	10	100
		Elite	6* x 9	96	12	50
		Condensed	7* x 9	137	17	70
	N.L.Q.	Pica	12* x 18	80	10	20
		Elite	12* x 18	96	12	24
Italic character	Standard	Pica	16* x 9	80	10	100
		Elite	16* x 9	96	12	50
		Condensed	18* x 9	137	17	70
	N.L.Q.	Pica	16* x 18	80	10	20
		Elite	16* x 18	96	12	24

* *Includes half dot*

INTERFACE SPECIFICATION

PIN NO.	SIGNAL
1	STROBE
2	DATA 1
3	DATA 2
4	DATA 3
5	DATA 4
6	DATA 5
7	DATA 6
8	DATA 7
9	DATA 8
10	*
11	BUSY
12	*
13	*
14	GND

*NOT CONNECTED

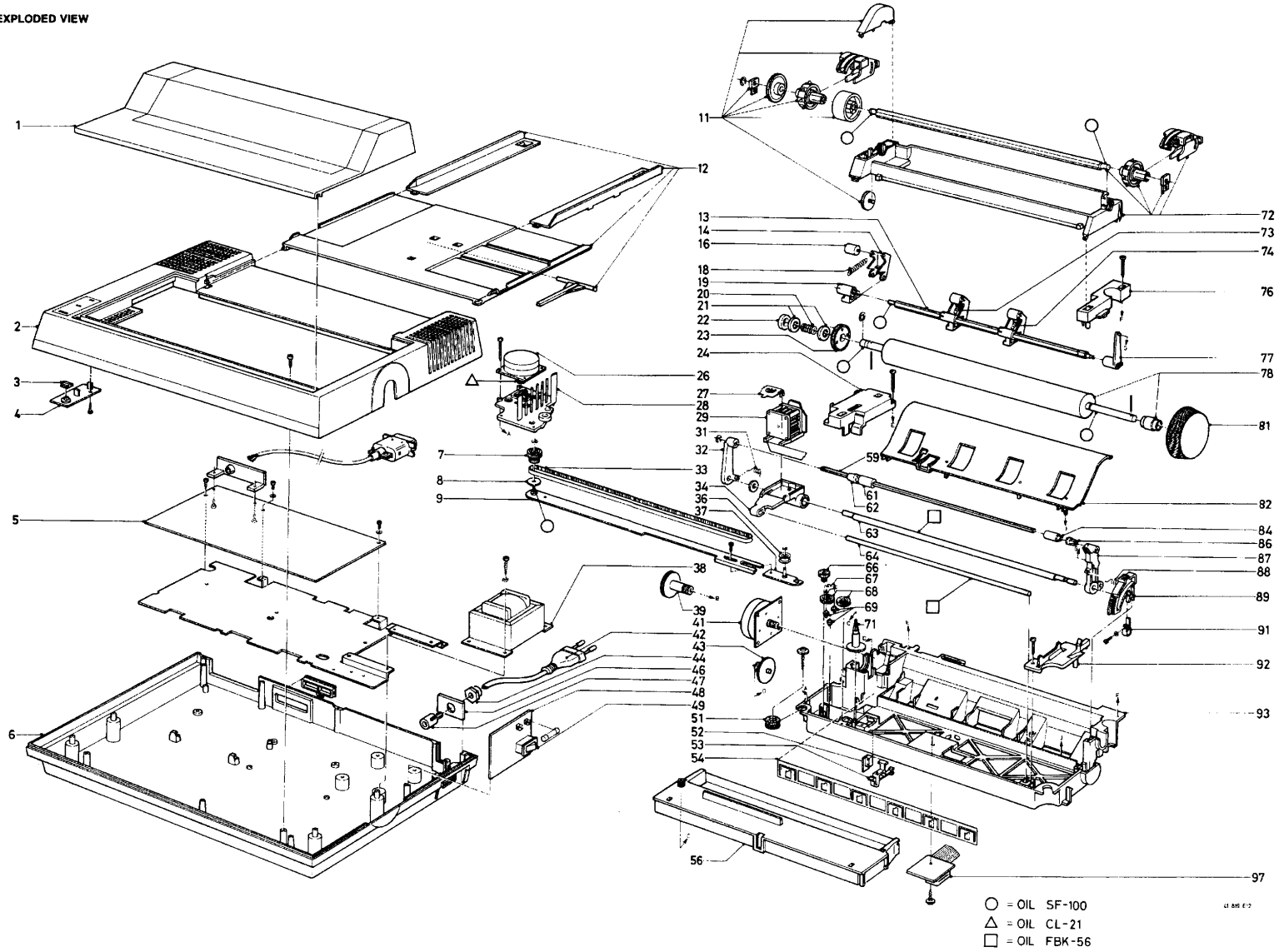


T1,T2 ≧ 1 µS

Tb. > 45 µS (VARIES ACCORDING TO THE DATA)

PRS 00240
T-02 732

EXPLODED VIEW



MECHANICAL PARTSLIST

1	4822 432 92116	Transparent cover
2	4822 432 92143	Upper case unit
3	4822 413 70252	Cap HOLD key
4	4822 218 20666	Lamp PCB unit
5	4822 216 93901	Control PCB complete
6	4822 432 92142	Lower case unit
7	4822 522 32311	Drive pulley
8	4822 532 11589	Pulley step
9	4822 404 60368	Pulley board
11	4822 693 91111	Tractor unit complete
12	4822 432 92144	Paper rack unit
13	4822 535 92341	Friction shaft
14	4822 404 60372	Friction roller step
16	4822 528 70502	Friction roller
18	4822 492 32728	Friction spring 856 g
19	4822 528 20592	Friction board
20	4822 492 51916	Shaft pressure spring
21	4822 532 11591	Shaft press lock washer
22	4822 520 20494	Platen bearing
23	4822 522 32316	Platen gear
24	4822 432 91823	Top case back/left
26	4822 361 30202	CR motor
27	4822 466 81661	Clip
28	4822 432 91821	Top case front/left
29	4822 218 20667	Print head unit
31	4822 492 41365	Roller spring
32	4822 404 60375	Paper press board left
33	4822 358 20248	Timing belt
34	4822 404 60393	Carrier
36	4822 528 81169	Idler pulley
37	4822 404 60369	Slide
38	4822 146 40397	Transformer
39	4822 522 32315	Reduction gear
41	4822 361 30235	LF motor
42	4822 321 22368	AC cord
43	4822 522 32317	Reduction gear B
44	4822 401 11116	Cord bush
46	4822 459 80397	Power cord plate
47	4822 401 11116	Cord bush
48	4822 216 93902	AC board unit
49	4822 276 11584	AC switch
51	4822 462 40837	Rubber food
52	4822 218 20665	Home sensor
53	4822 404 60392	Home sensor clip
54	4822 466 82244	Paper press board
56	4822 015 50032	Ink ribbon SBC436
59	4822 535 92383	Paper bail
61	4822 528 90648	Roller
62	4822 528 30332	Roller step
63	4822 535 92342	Guide pillar
64	4822 535 92338	Guide pillar B
66	4822 522 32313	Ribbon reduction gear 1
67	4822 404 60374	Gear guide
68	4822 522 32314	Ribbon reduction gear 2
69	4822 522 32312	Ribbon gear
71	4822 535 71225	Ribbon drive shaft
72	4822 693 91111	Tractor unit complete
73	4822 492 32728	Friction spring 856 g
74	4822 492 32728	Friction spring 856 g
76	4822 432 91822	Top case back/right
77	4822 404 60219	Friction lever right
78	4822 693 91142	Platen unit
81	4822 413 41389	Paperfeed knob
82	4822 432 91818	Paper guide
84	4822 528 90648	Roller
86	4822 528 30332	Roller step
87	4822 404 60377	Paper press board right
88	4822 492 41365	Roller spring
89	4822 404 60371	Head adjust lever
91	4822 404 60373	Bracket
92	4822 432 91819	Top case front/right
93	4822 464 90245	Frame
97	4822 219 81058	Head board

REPLACEMENT AND ADJUSTMENT

Print Head Replacement

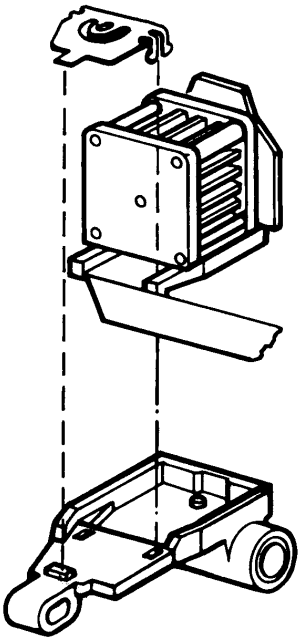
The print head which is mounted on a carrier, can be replaced without removing the top cover of the printer cabinet. See figure 1.

A. Removal

1. Remove the ribbon cassette.
2. Remove the metal clip with the aid of a screwdriver.
3. Disconnect the flexible cable of the print head from the connector in the printer frame.
4. Pull the print head backwards (i.e. from the platen).
5. Take the print head from the carrier.

B. Installing

1. Position a new print head on the top of the carrier.
2. Push it towards the platen until it clicks in place.
3. Insert the rear part of the metal clip into the hole of the carrier and push down the front part of the metal clip.
4. Connect the flexible cable to the connector in the printer frame.
5. Install the ink ribbon and insert a sheet of paper.
6. Perform the self-test printing and check that the print quality is correct at all click-in positions of the head adjustment lever.



42 594 A12

Fig. 1

Adjustment of the Head Adjustment Lever

The Head Adjustment Lever (see figure 2) is situated on the right hand side in the printer. The lever is meant to increase or decrease the print force by changing the space between the print head and the platen.
When smudging occurs or when certain dots are not being printed at any click-in position of the lever, the lever must be readjusted to the position of the front guide pillar of the print head (see figure 3). As this guide pillar is borne eccentrically, rotating the pillar will change the position of the print head.
Adjustment can be realized as follows:

1. Push the lever towards the platen (position A see figure 2).
2. Loosen the screw which fixes the head adjustment lever to the guide pillar.
3. Rotate the guide pillar in such a manner that part P of the pillar is facing up. Part P is the part which protrudes the most (see figure 3).

Caution: The surface of the guide pillar shall not be damaged.
When rotating the guide pillar, only the rightmost end of it shall be grasped with pliers.

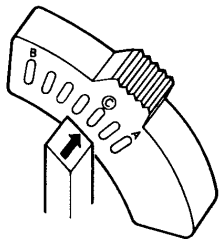


Fig. 2

38793A12

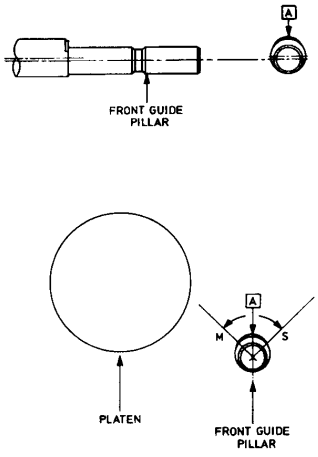


Fig. 3

38794A12

4. Tighten the screw while the lever is in position A (see Fig. 2).
5. Install the ink ribbon and insert a sheet of paper.
6. Perform the self-test printing in standard character mode and check the print quality at all the click-in positions of the head adjustment lever.
7. Continue with step 8 if smudging occurs when the lever is in position A.
   Continue with step 9 if dots are missing when the lever is in position B.
   Adjustment is completed when the print quality is correct at all click-in positions of the lever. Put the head adjustment lever in position C for normal printing (medium print force).
8. Smudging occurs when the distance between the print head and the platen is too small. The ink ribbon is continuously in contact with the paper.
   a. Push the lever towards the platen (position A).
   b. Loosen the screw.
   c. Hold the rightmost end of the guide pillar with pliers and rotate it from the platen slightly while the lever remains in position A. As a result the protruding part P of the guide pillar shall be rotated in direction S (Smudge). See figure 3.
   d. Tighten the screw.
   e. Go back to step 5.
9. Dots are not printed on the paper when the distance between the print head and the platen is too large. The print head needles can not press the ribbon against the paper.
   a. Push the lever towards the platen (position A).
   b. Loosen the screw.
   c. Hold the rightmost end of the guide pillar with pliers and rotate it towards the platen slightly while the lever remains in position A. As a result the protruding part of the guide pillar shall be rotated in direction M (Missing) see figure 3.
   d. Tighten the screw.
   e. Continue with step 5.

Adjustment of the Timing Belt Tension

The tension of the timing belt can be adjusted by changing the position of the idler pulley plate block (see figure 4).
1. Loosen the fixing screw (A).
2. Press the idler pulley (B) outward manually to put tension on the timing belt (C).
3. Tighten the screw (A) to fix the position of the idler pulley plate block.
4. Install the ink ribbon and insert a sheet of paper.
5. Switch on the self-test printing in standard character mode for several lines.
6. Check the width of the printed characters at the first and second character columns. If the character width is not equal for all character columns, readjust the tension of the timing belt (go back to step 1).

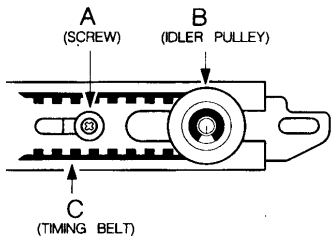
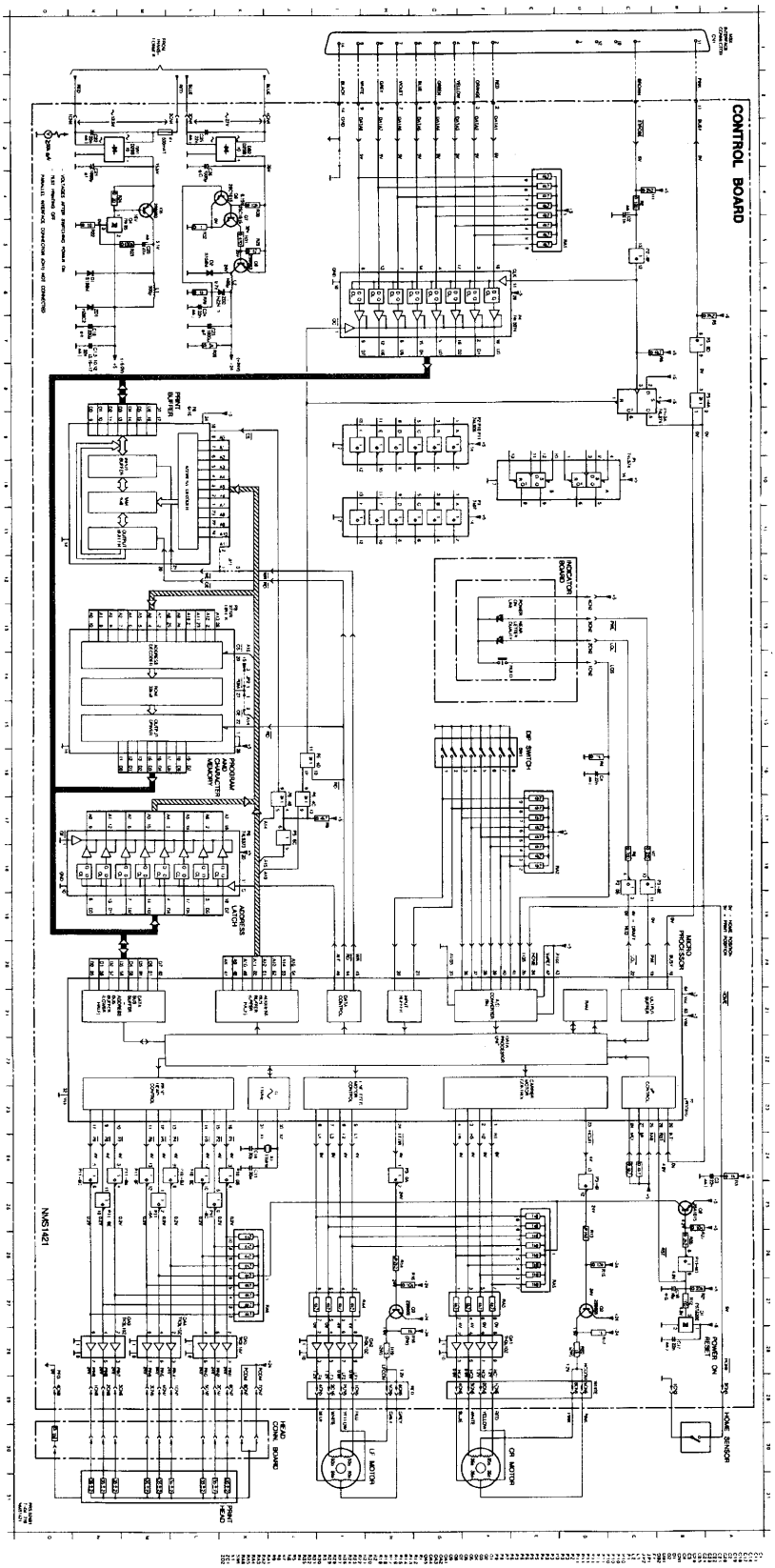


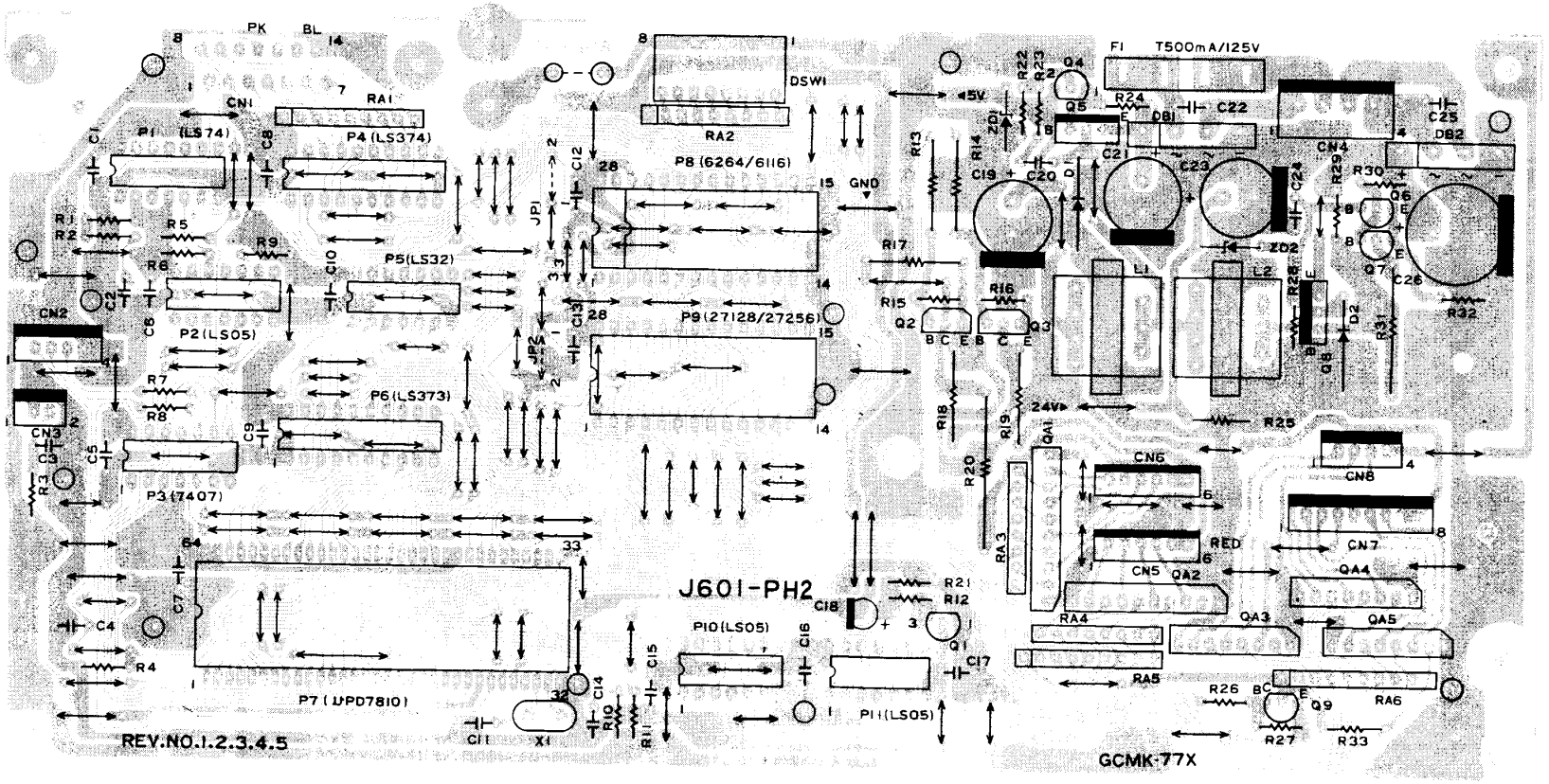
Fig. 4

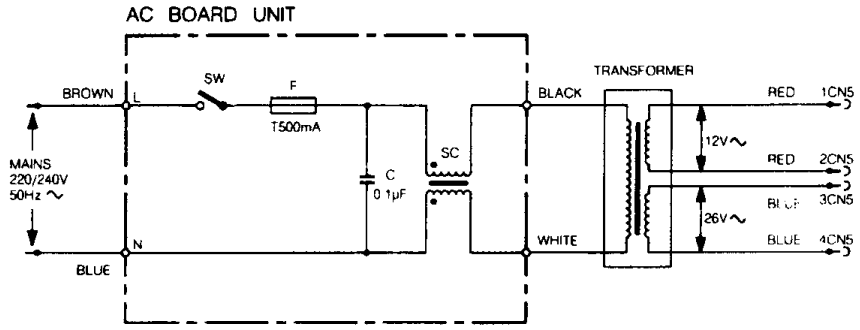
Detaching and fixing of the parallel cables from the PC-board

The parallel cable can be detached from the PC-board by pushing down the connector housing and taking the cable from the connector.
The parallel cable can be secured by pressing down the connector housing, inserting the parallel cable into the connector and releasing the connector housing.
Check whether the cable has been well fixed by pulling up the cable carefully.

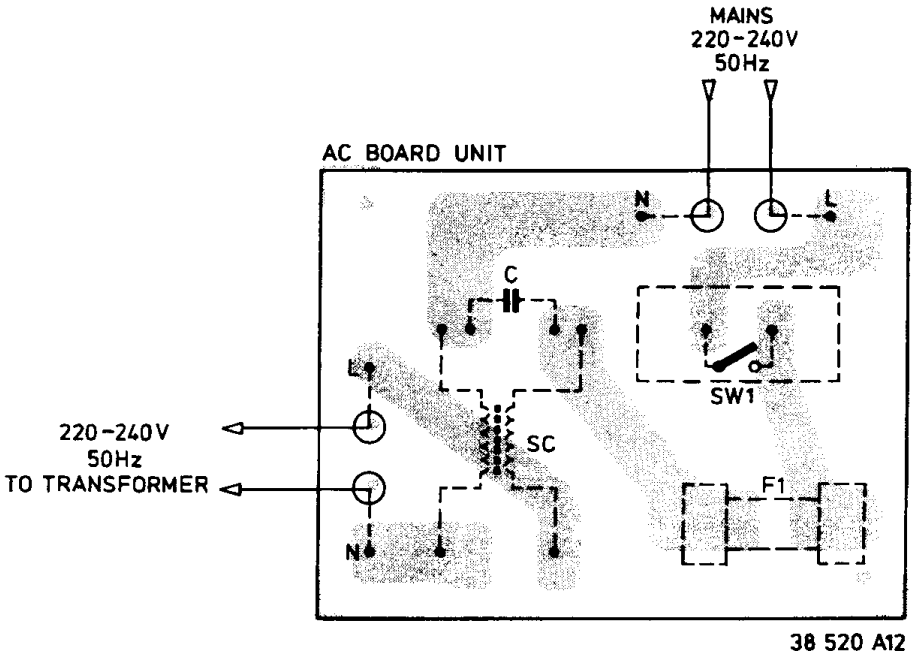

CONTROL BOARD
NNS1421
HEAD CONN. BOARD
PRINT HEAD
CR MOTOR
LF MOTOR
HOME SENSOR
DIP SWITCH
PROGRAM CHARACTER MEMORY
ADDRESS LATCH
MODEL PROCESSOR
INTERFACE

CONTROL PCB LAYOUT

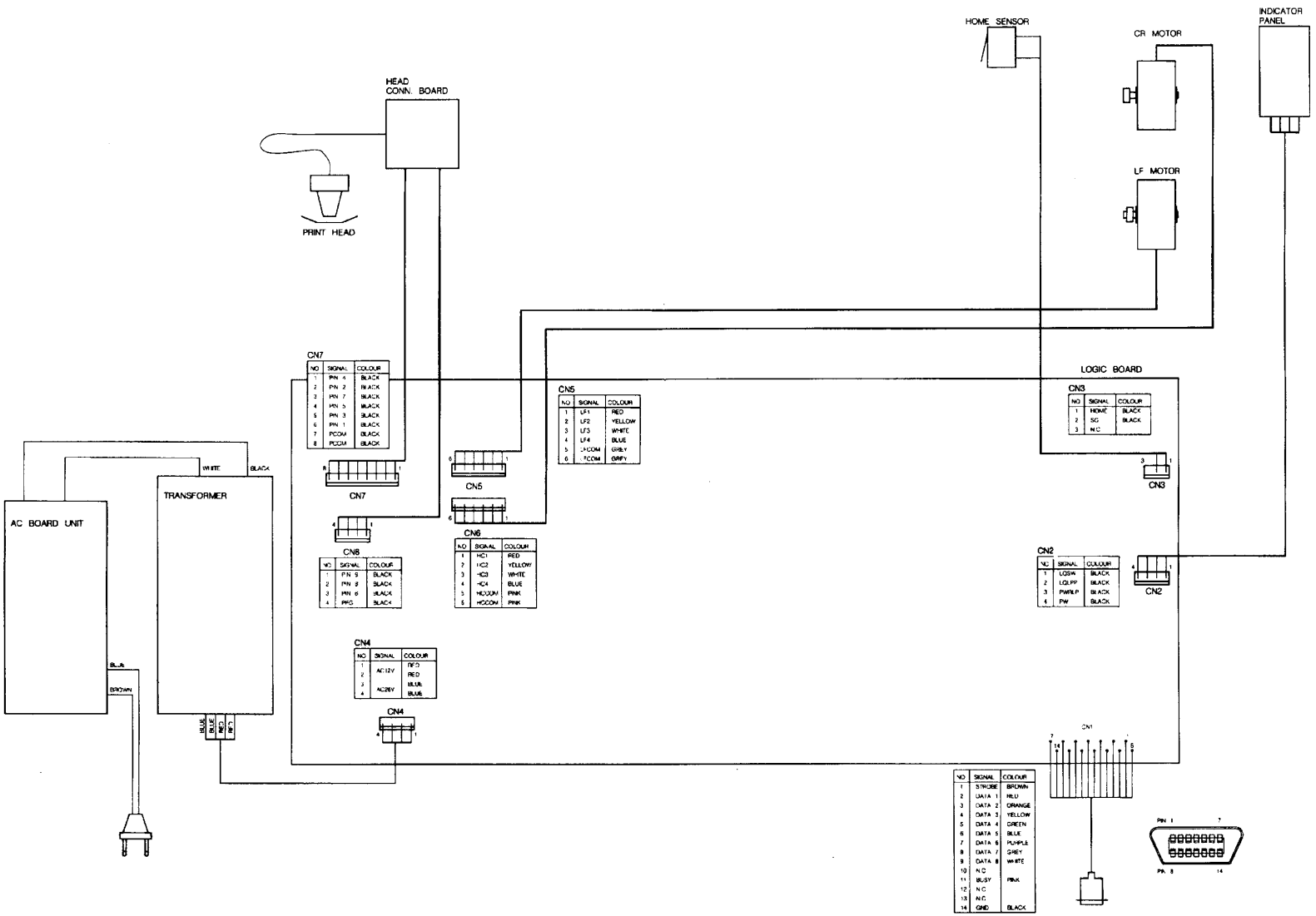




PRS 02519
T02/717



38 520 A12



NO	SIGNAL	COLOUR
1	PIN 4	BLACK
2	PIN 2	BLACK
3	PIN 7	BLACK
4	PIN 5	BLACK
5	PIN 3	BLACK
6	PIN 1	BLACK
7	PCOM	BLACK
8	PCOM	BLACK

CN7

NO	SIGNAL	COLOUR
1	LF1	RED
2	LF2	YELLOW
3	LF3	WHITE
4	LF4	BLUE
5	LFCOM	GRAY
6	LFCOM	GRAY

CN5

NO	SIGNAL	COLOUR
1	HOME	BLACK
2	SG	BLACK
3	N.C	

CN3

NO	SIGNAL	COLOUR
1	PIN 9	BLACK
2	PIN 8	BLACK
3	PIN 6	BLACK
4	PFG	BLACK

CN8

NO	SIGNAL	COLOUR
1	HC1	RED
2	HC2	YELLOW
3	HC3	WHITE
4	HC4	BLUE
5	HCOOM	PINK
6	HCOOM	PINK

CN6

NO	SIGNAL	COLOUR
1	LGSW	BLACK
2	LGLPP	BLACK
3	PWRLP	BLACK
4	PW	BLACK

CN2

NO	SIGNAL	COLOUR
1		RED
2	AC12V	RED
3	AC26V	BLUE
4		BLUE

CN4

NO	SIGNAL	COLOUR
1	STROBE	BROWN
2	DATA 1	RED
3	DATA 2	ORANGE
4	DATA 3	YELLOW
5	DATA 4	GREEN
6	DATA 5	BLUE
7	DATA 6	PURPLE
8	DATA 7	GREY
9	DATA 8	WHITE
10	N.C	
11	BUSY	PINK
12	N.C	
13	N.C	
14	GND	BLACK

CN1