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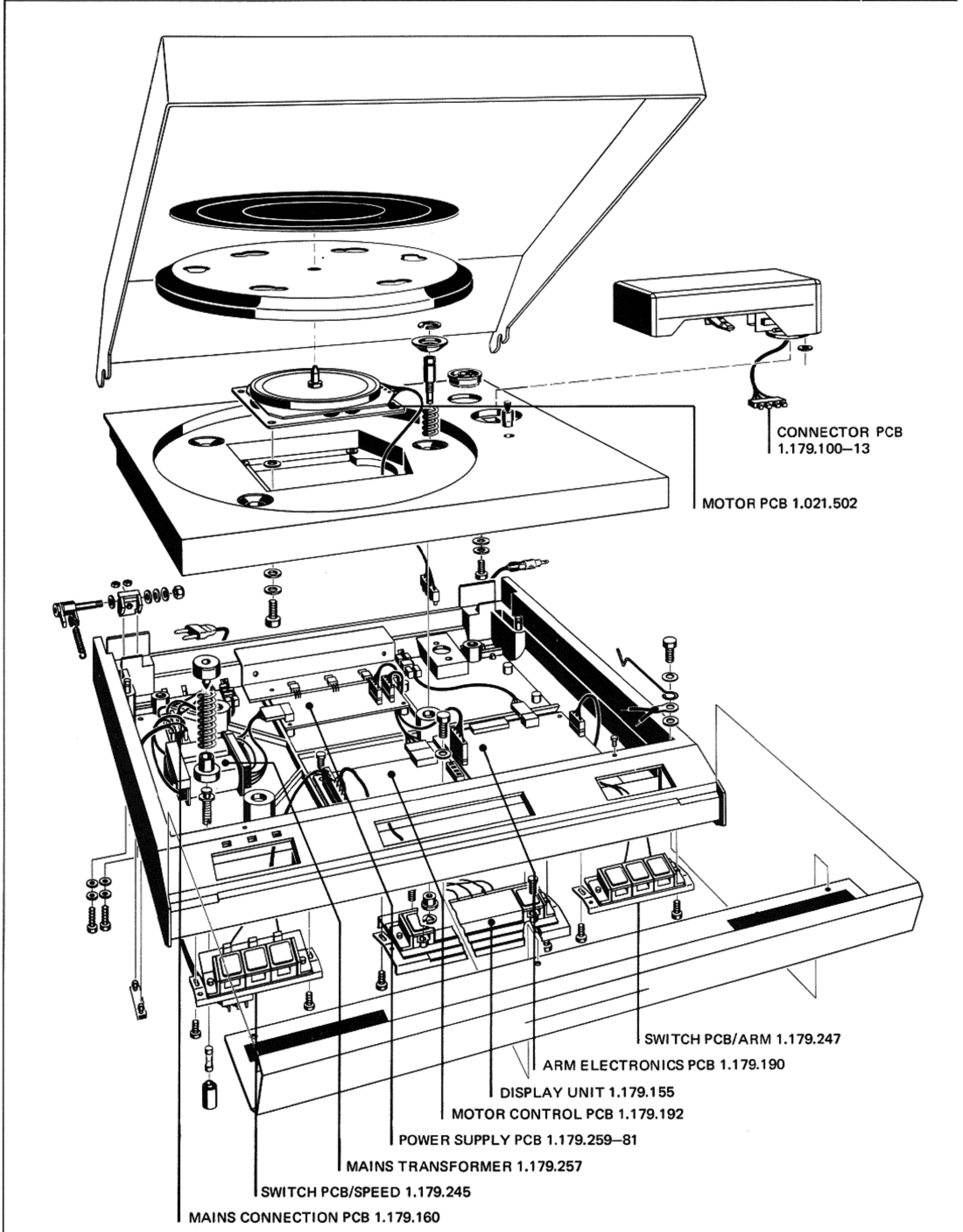
THE VINYL ENGINE®

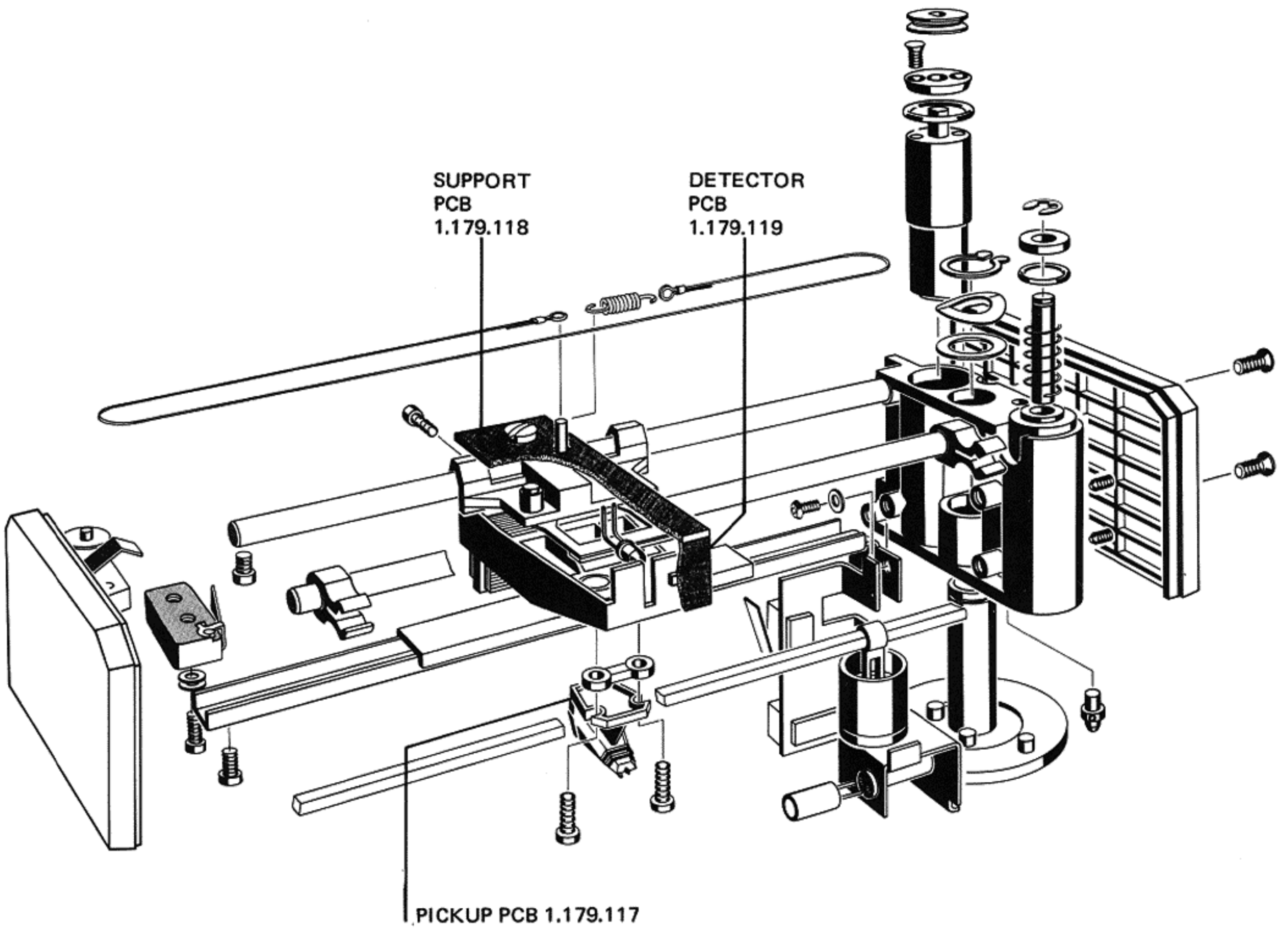
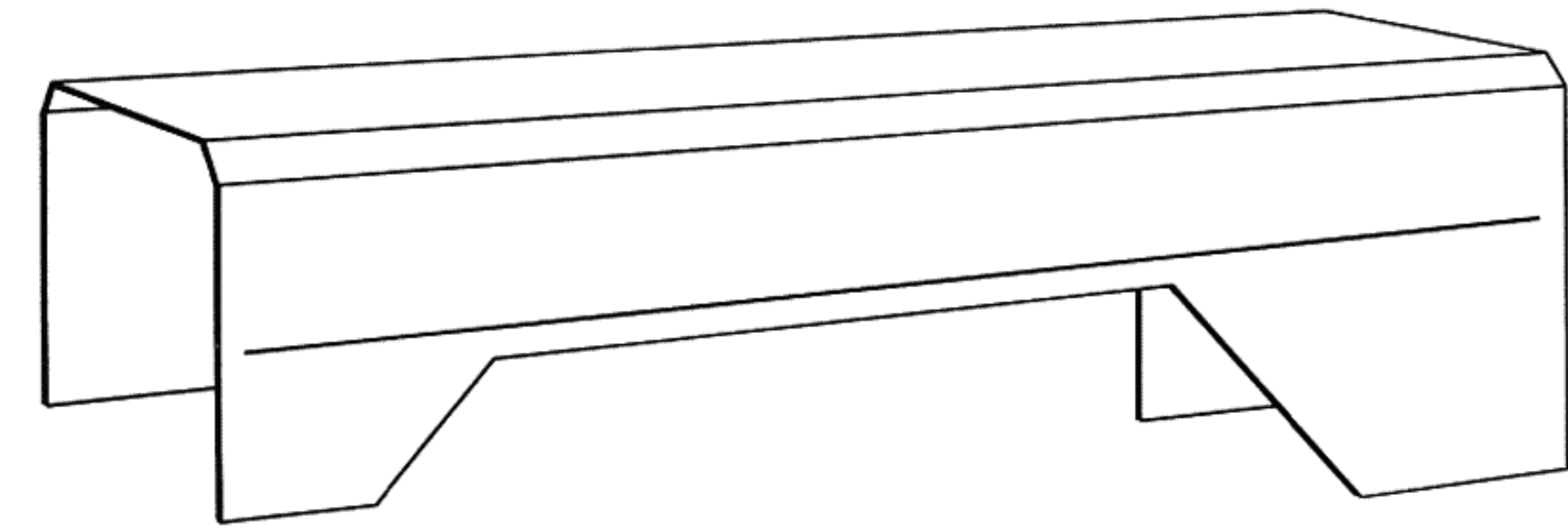
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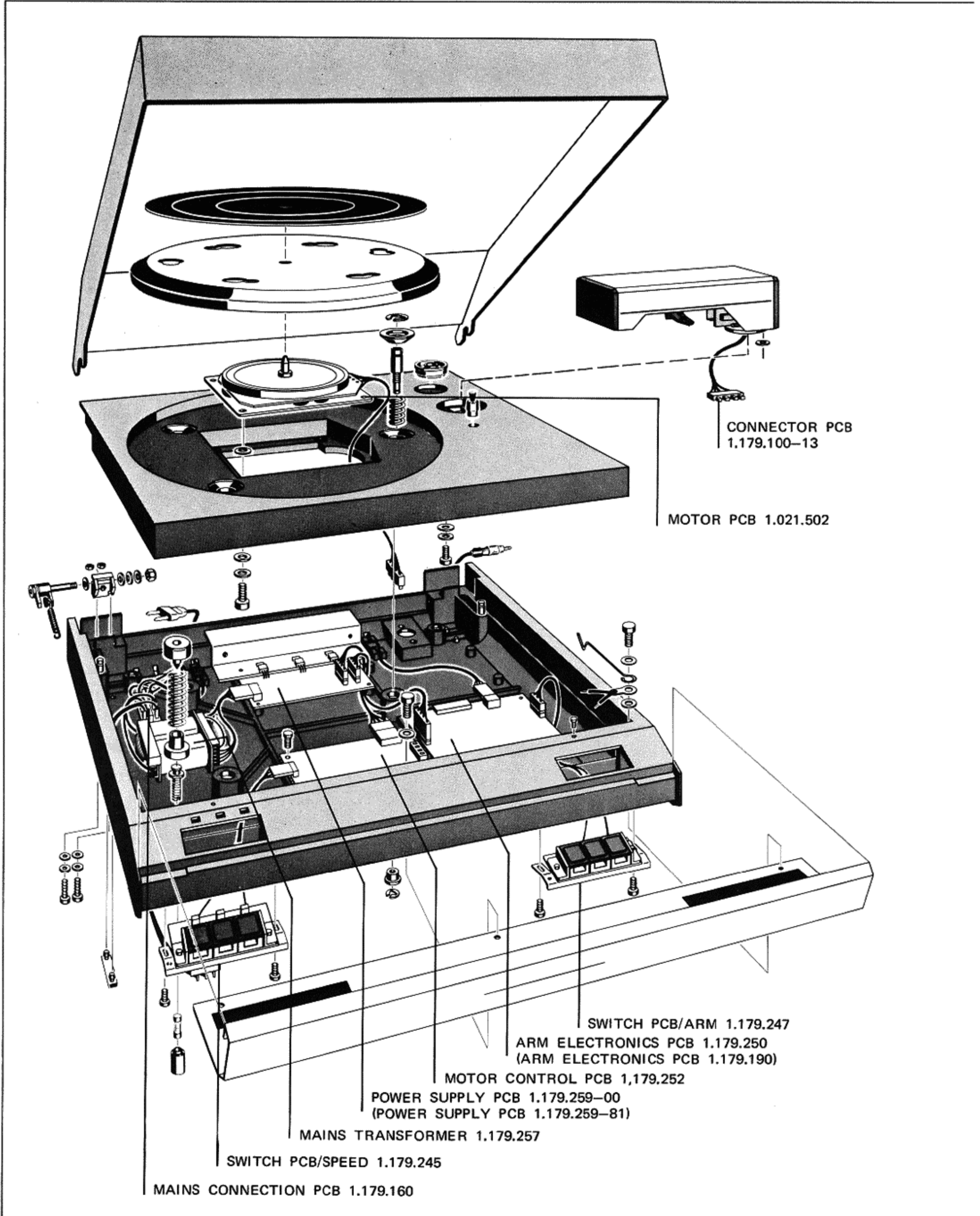
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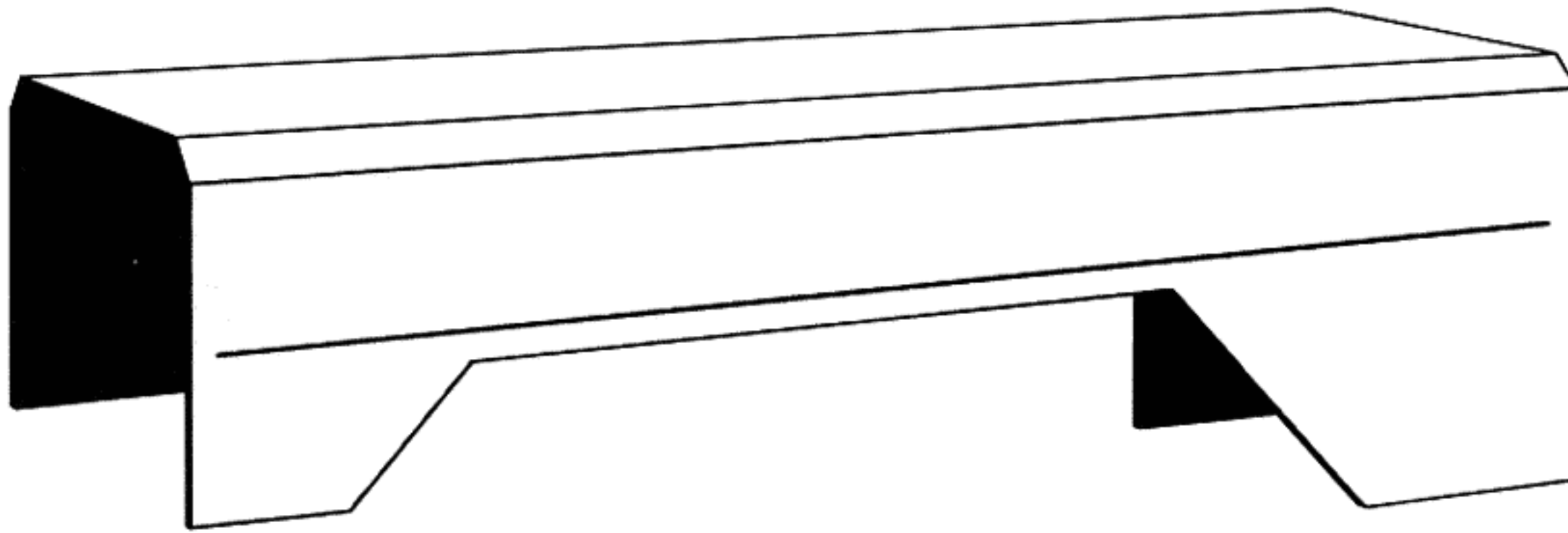
CONFIGURATION OF PC-BOARDS





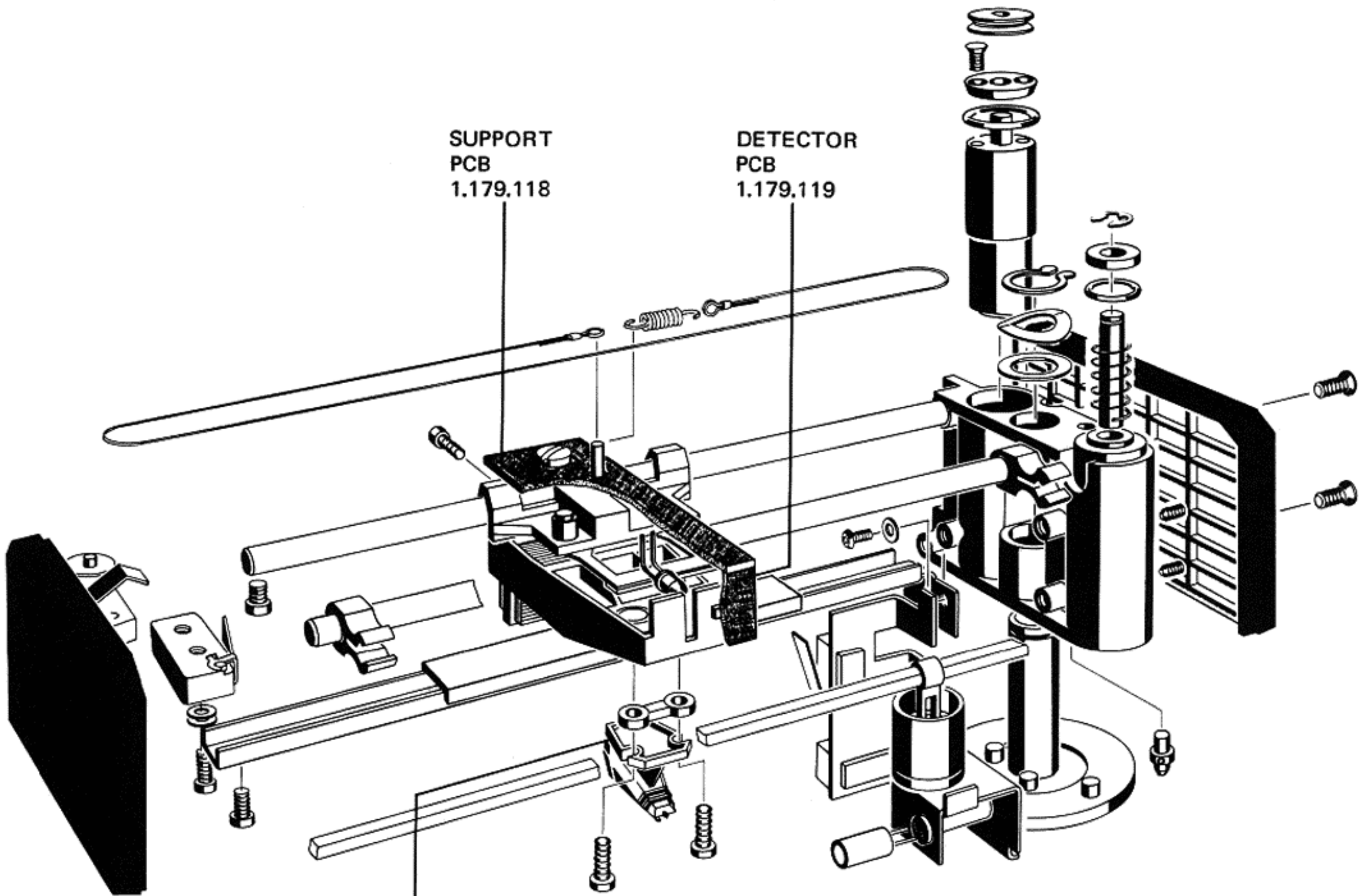
CONFIGURATION OF PC-BOARDS





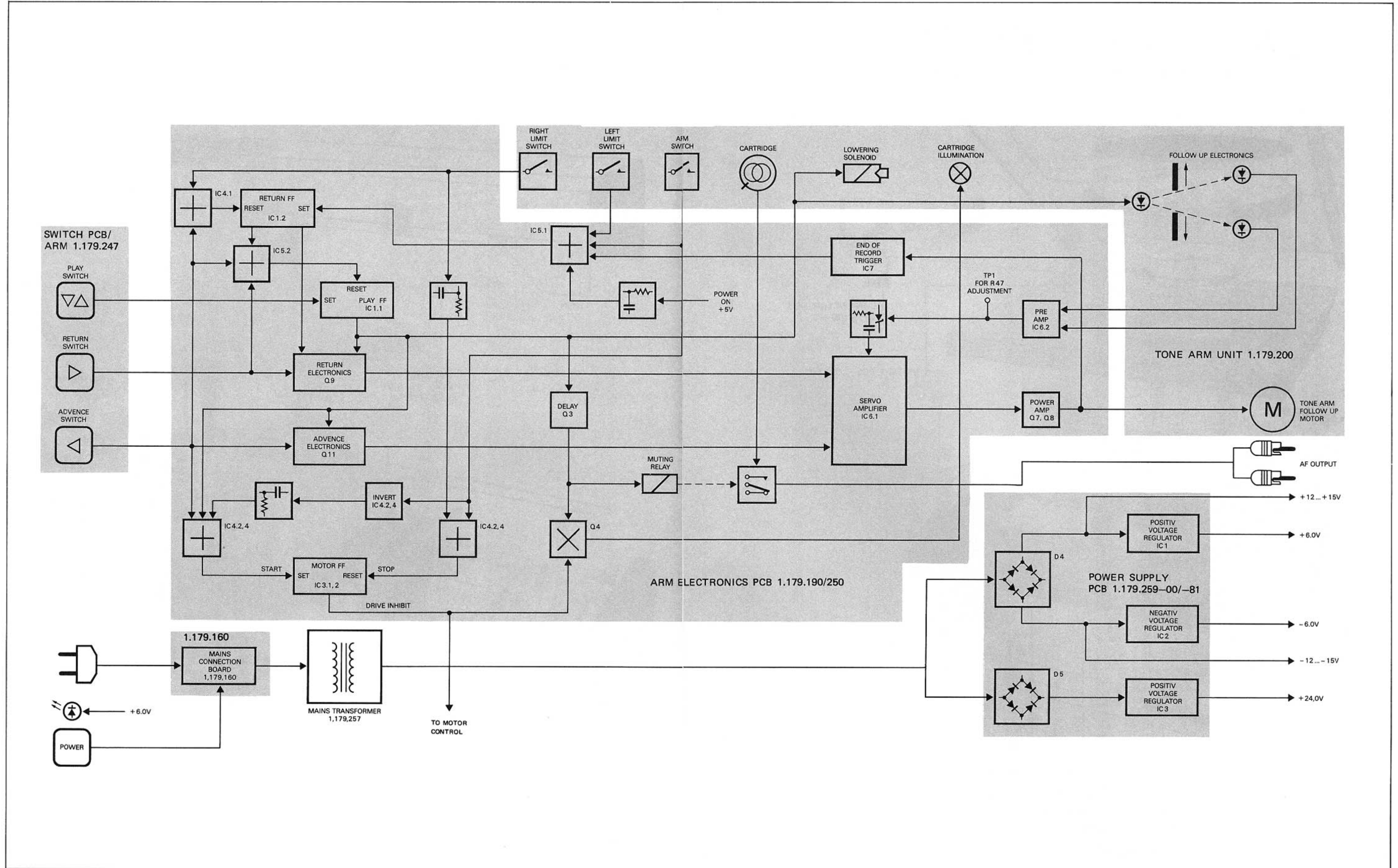
SUPPORT
PCB
1.179.118

DETECTOR
PCB
1.179.119

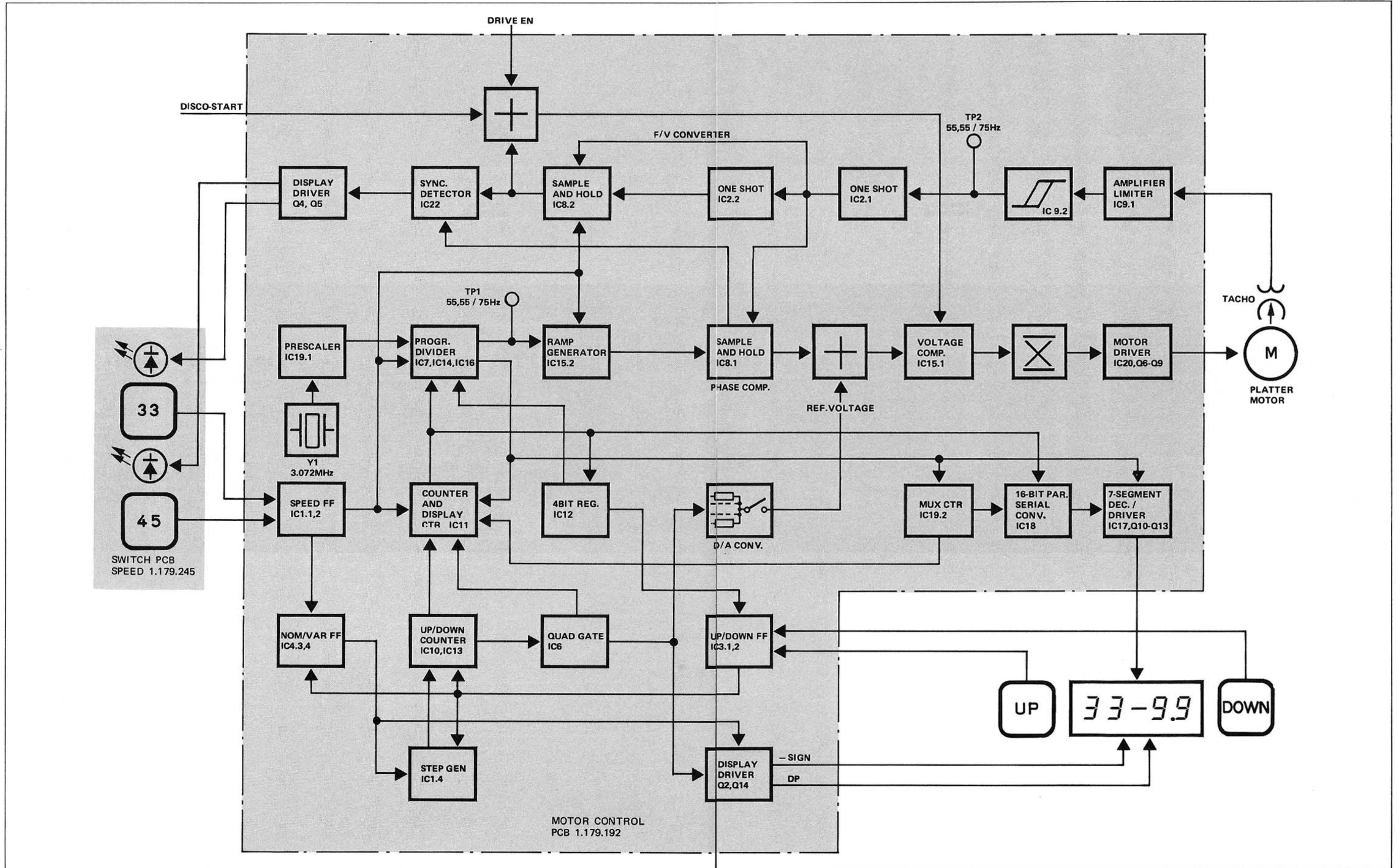


PICKUP PCB 1.179.117

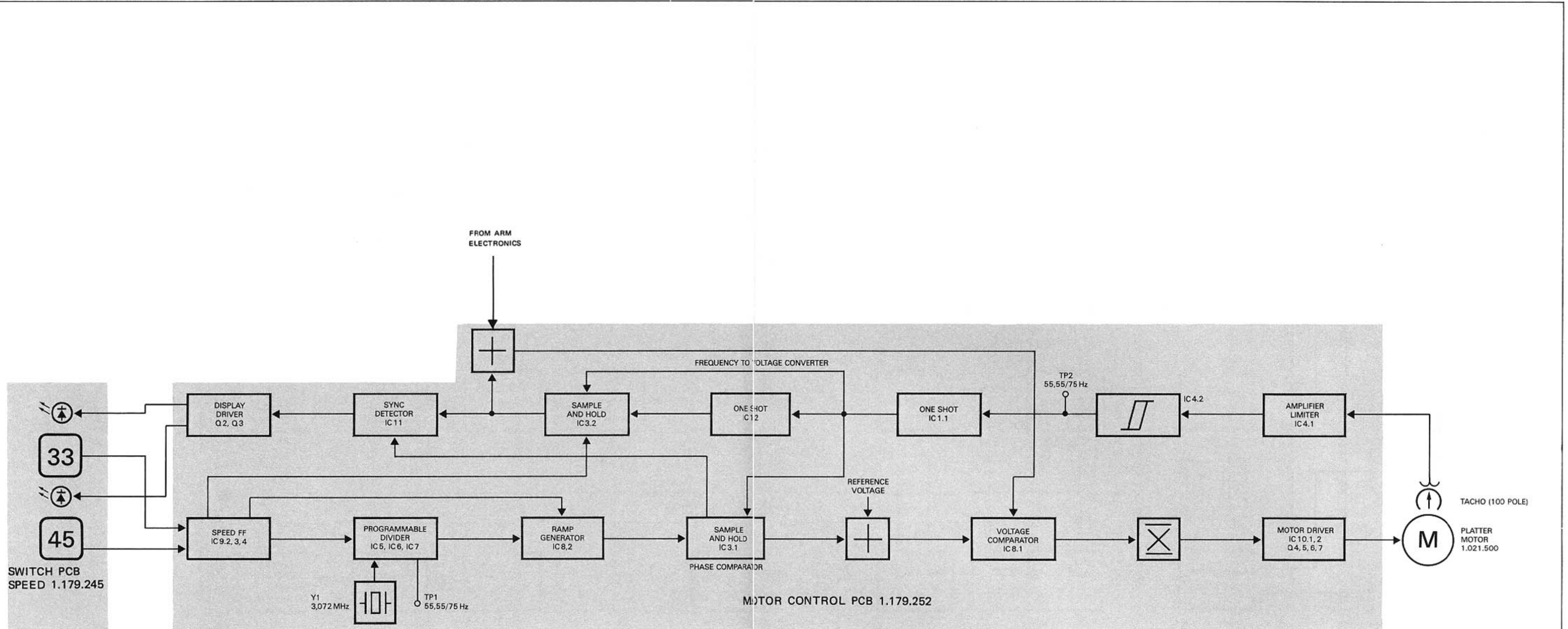
BLOCKDIAGRAM / POWER SUPPLY AND ARM ELECTRONICS



BLOCKDIAGRAM / MOTOR CONTROL

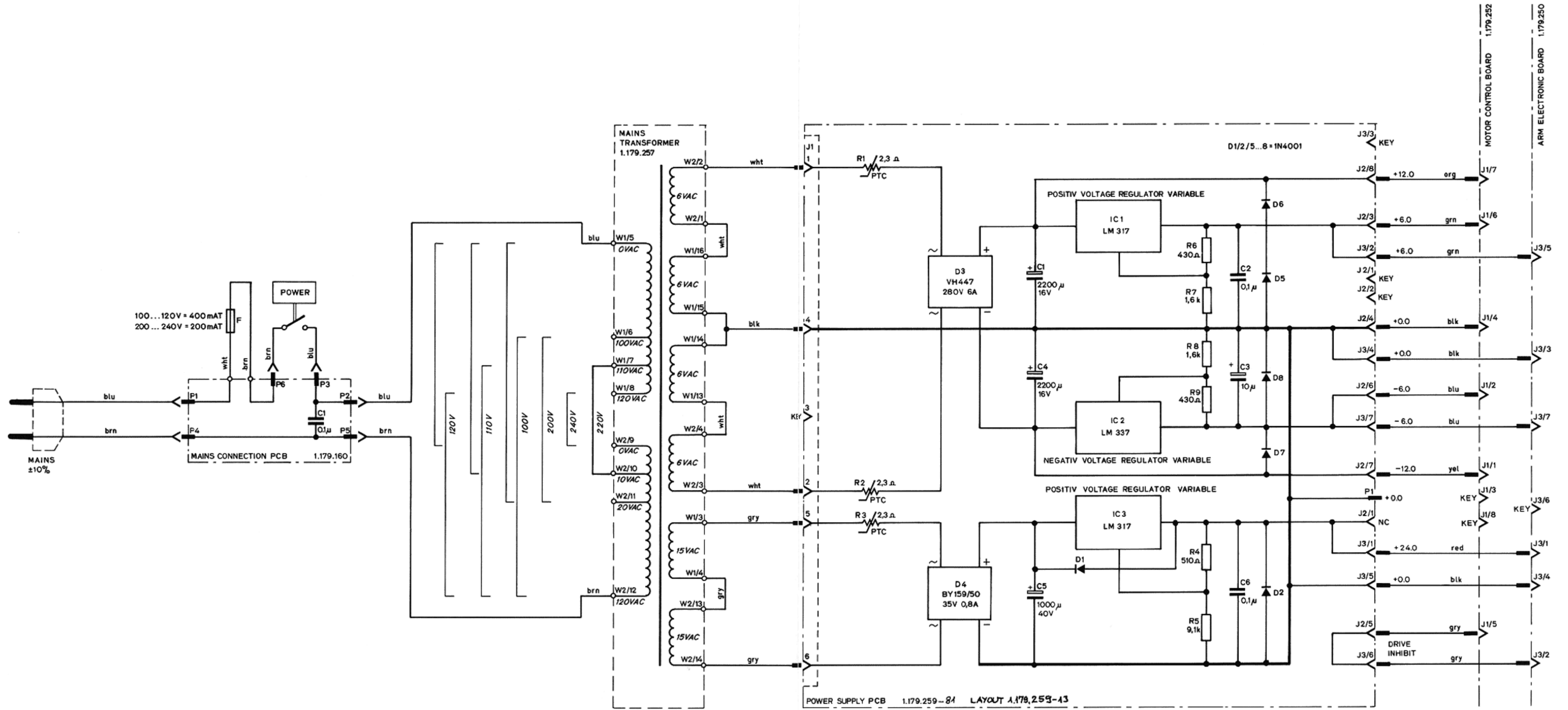


BLOCKDIAGRAM / MOTOR CONTROL

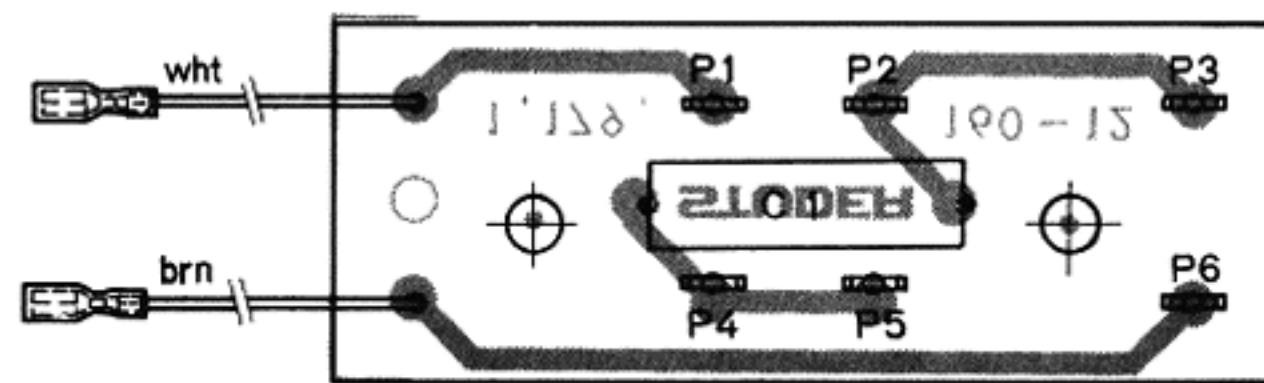
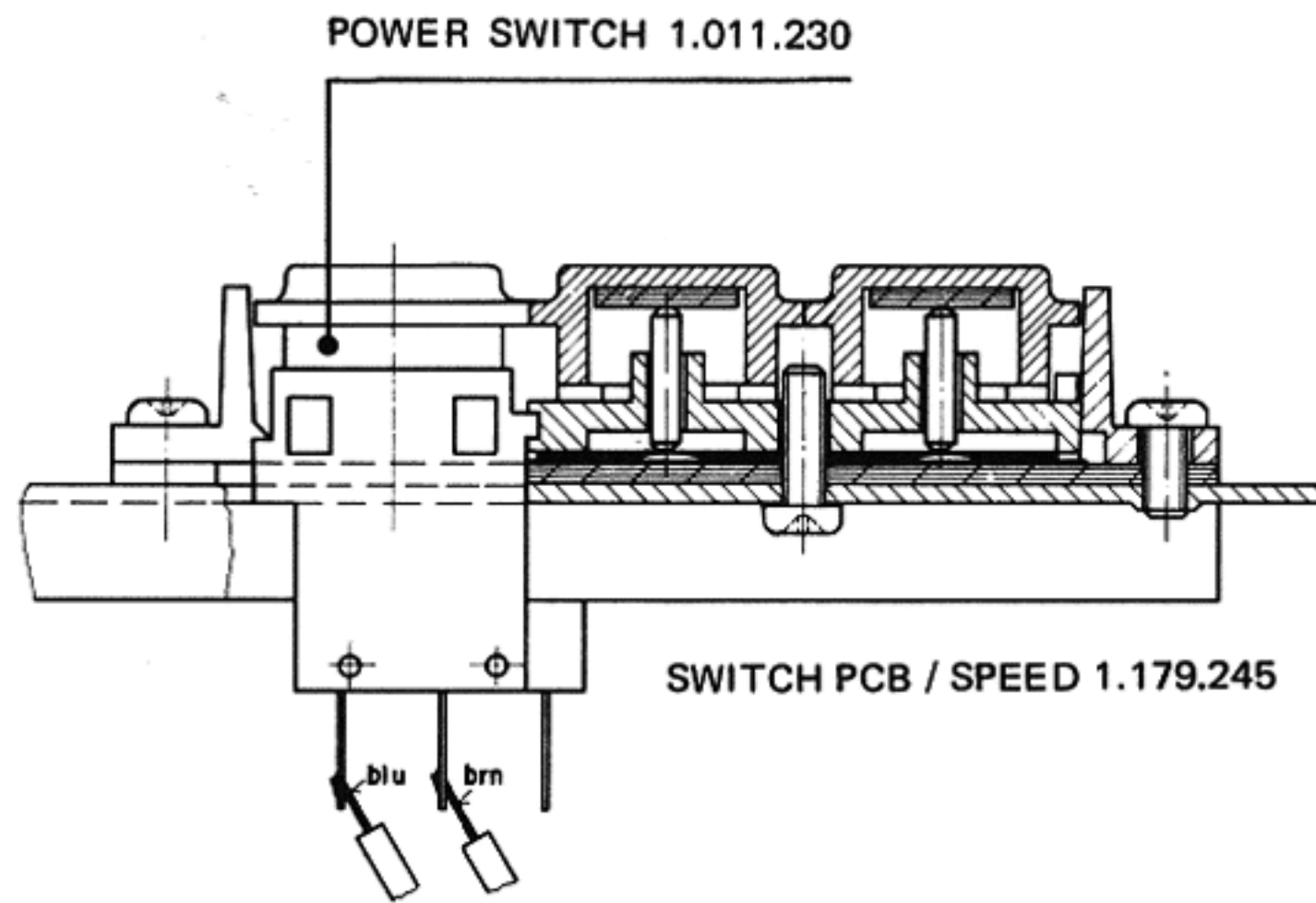
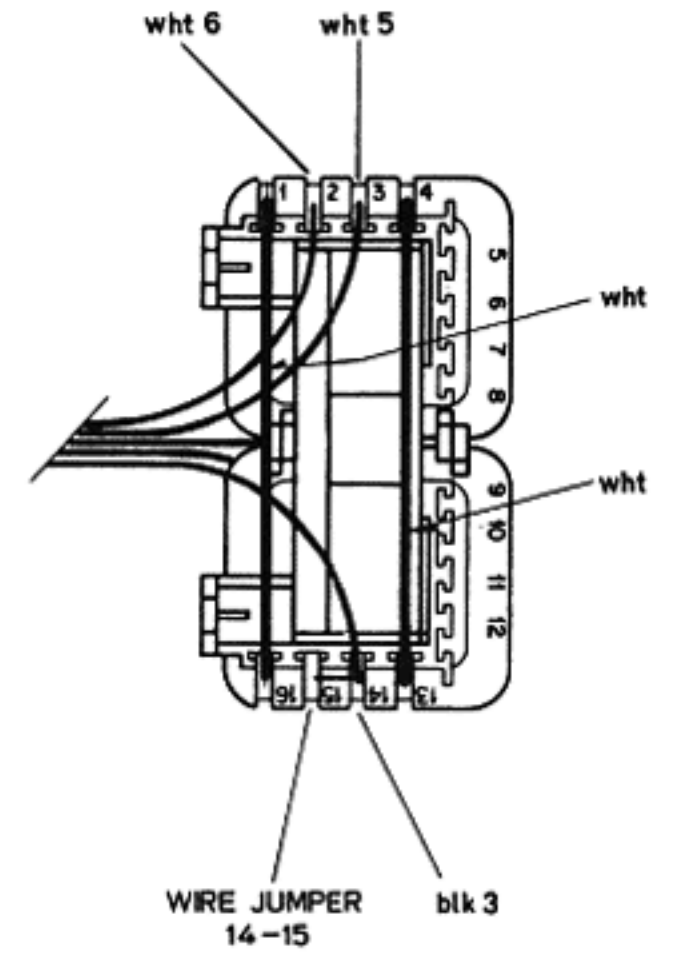
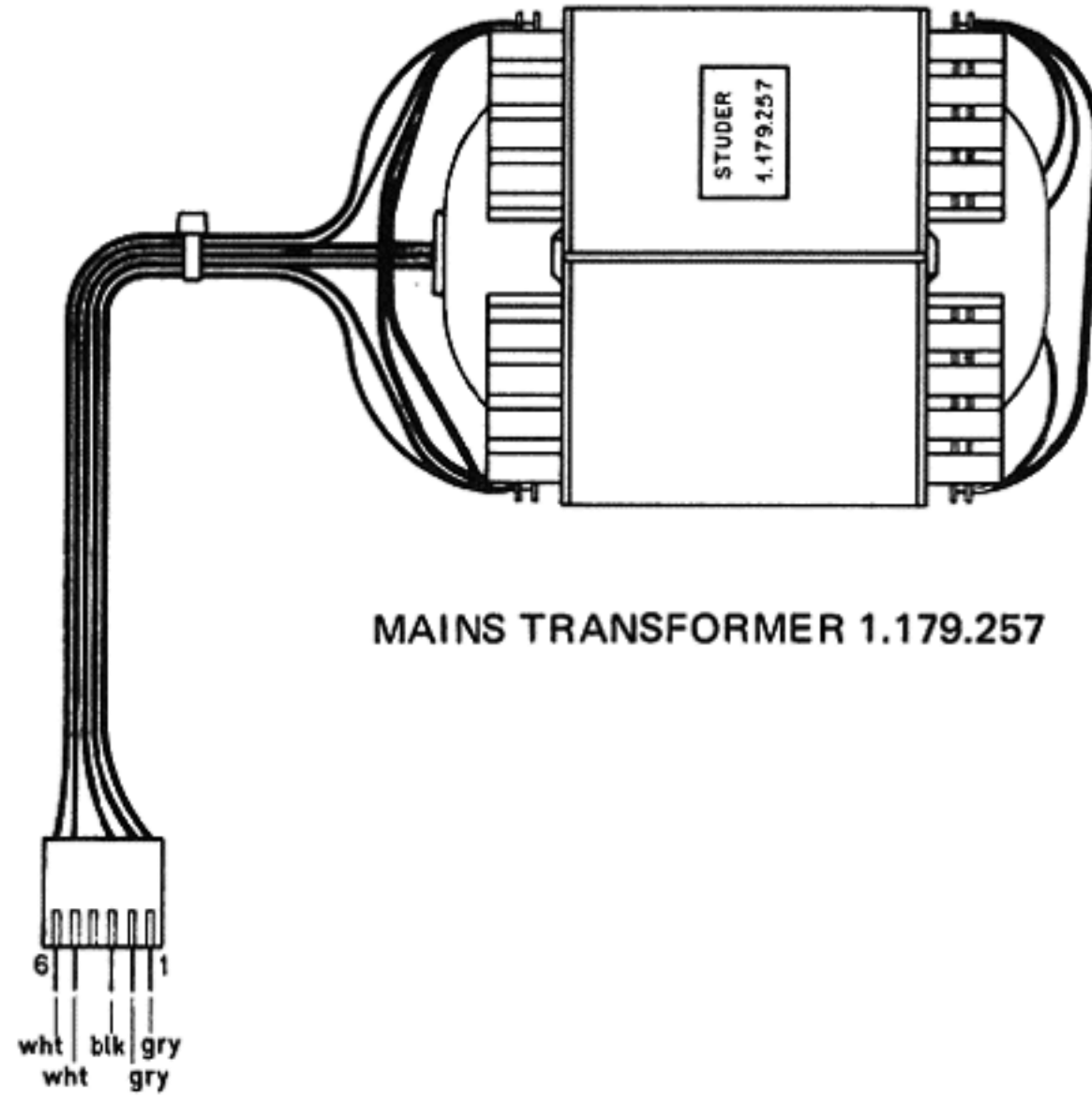
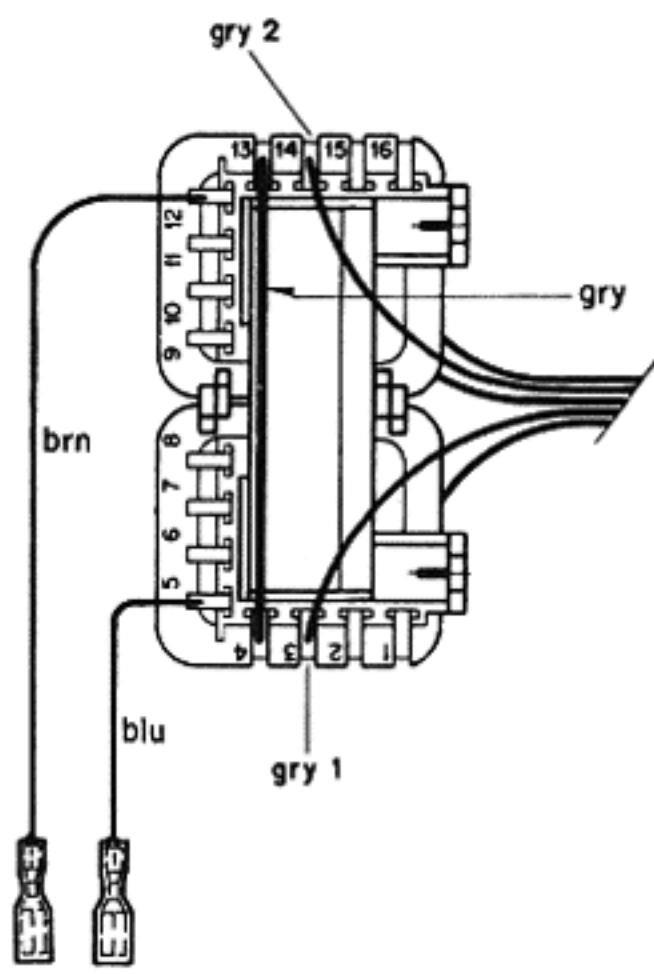


POWER SUPPLY UNIT

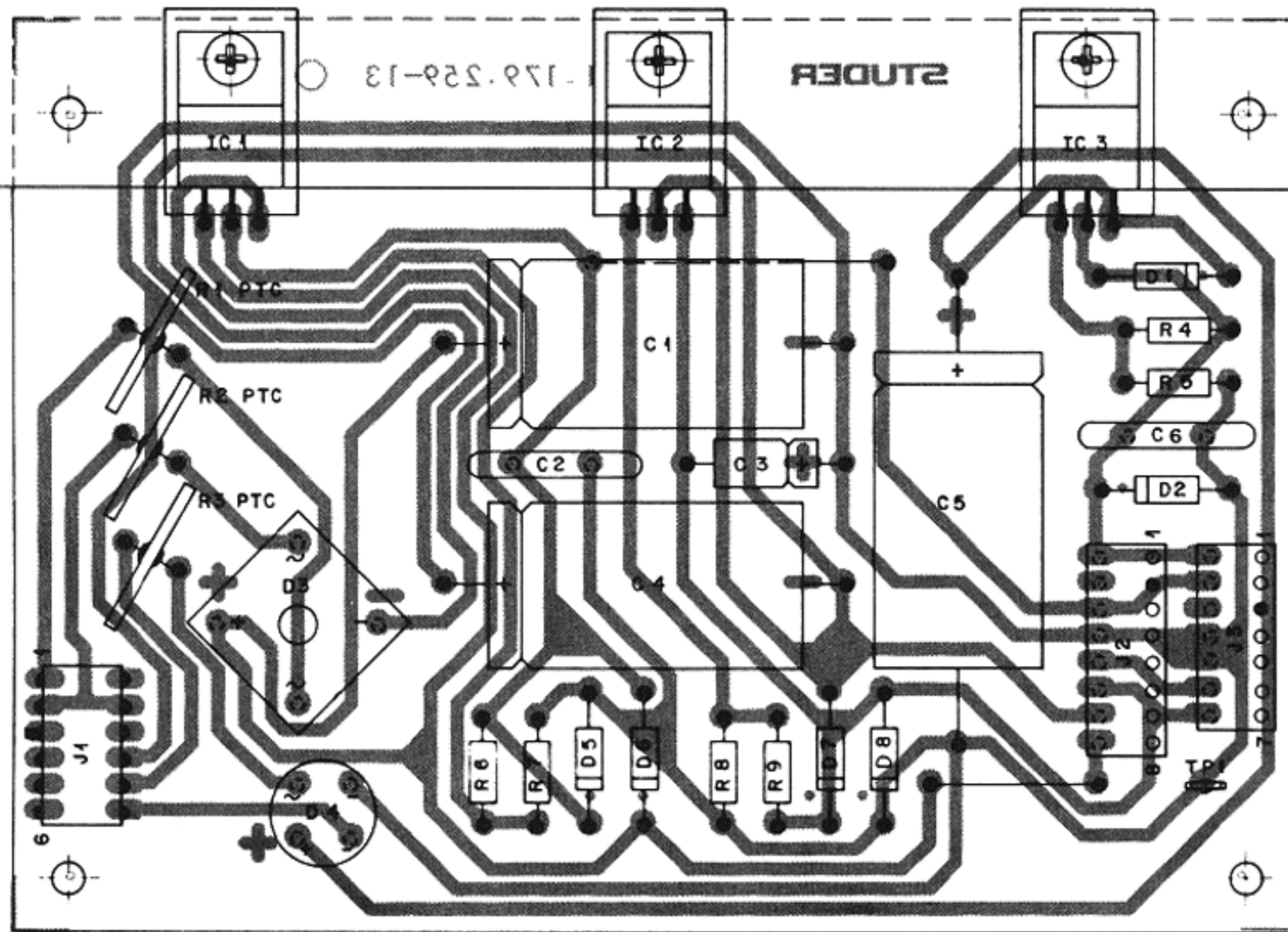
MAINS CONNECTION PCB 1.179.160
 MAINS TRANSFORMER 1.179.257
 POWER SUPPLY PCB 1.179.259-81



POWER SUPPLY UNIT



POWER SUPPLY PCB 1.179.259-81

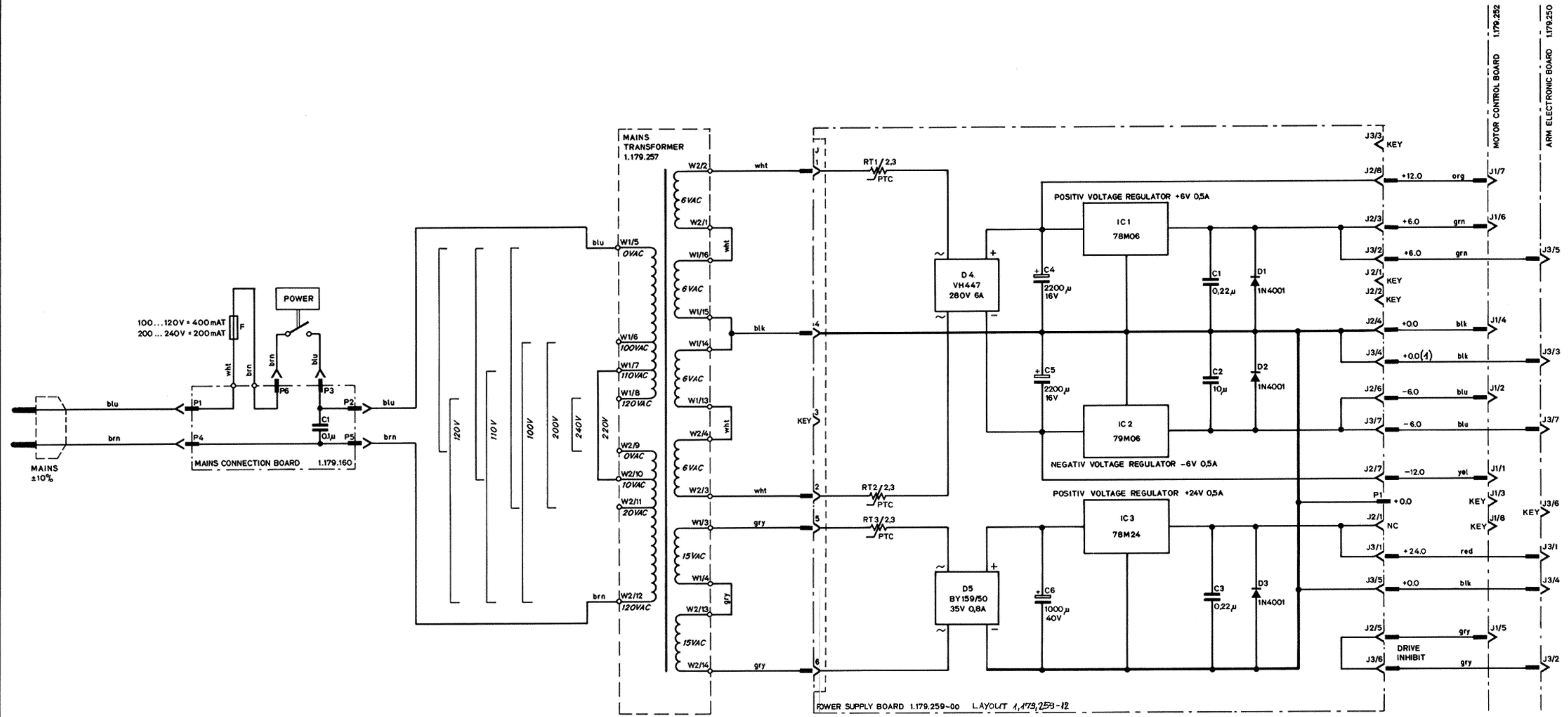


IND.	PCS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
C.....1	59.25.3222	2200 uF	-20%	EL	
C.....2	59.32.3104	0.1 uF	-20%	CER	
C.....3	59.25.4100	10 uF	-20%	EL	
C.....4	59.25.3222	2200 uF	-20%	EL	
C.....5	59.25.5102	1000 uF	-20%	EL	
C.....6	59.32.3104	0.1 uF	-20%	CER	
D.....1	50.04.0122	1N4001	50V, 1A	Si	
D.....2	50.04.0122	1N4001	50V, 1A	Si	
D.....3	70.01.0227	VH 447	280V, 6A	Si	
D.....4	70.01.0222	RY 159	35V, 0.8A	Si	
D.....5	50.01.0222	1N4001	50V, 1A	Si	
D.....6	50.01.0222	1N4001	50V, 1A	Si	
D.....7	50.01.0222	1N4001	50V, 1A	Si	
D.....8	50.01.0222	1N4001	50V, 1A	Si	
IC.....1	50.10.0104	LM 317	Pos. VReg. var.		N, TI
IC.....2	50.10.0105	LM 337	Neg. VReg. var.		N, TI
IC.....3	50.10.0104	LM 317	Pos. VReg. var.		N, TI
J.....1	54.01.0214	6-Pole	CIS		
J.....2	54.01.0289	8-Pole	CIS		
J.....3	54.01.0218	7-Pole	CIS		
R.....1	57.99.0210	2.3 Ohm	PTC		P
R.....2	57.99.0210	2.3 Ohm	PTC		P
R.....3	57.99.0210	2.3 Ohm	PTC		P
R.....4	57.11.3511	510 Ohm	1%, 0.25W, MF		
R.....5	57.11.3912	9.1 kOhm	1%, 0.25W, MF		
R.....6	57.11.3431	430 Ohm	1%, 0.25W, MF		
R.....7	57.11.3162	1.6 kOhm	1%, 0.25W, MF		
R.....8	57.11.3162	1.6 kOhm	1%, 0.25W, MF		
R.....9	57.11.3431	430 Ohm	1%, 0.25W, MF		

IND.	PCS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
<p>EL=Electrolytic, CER=Ceramic, PE=Polyester, Si=Silicon, MF=Metal Film MANUFACTURER:F=Fairchild, N=National, P=Philips TI=Texas Instruments</p>					
CRIG B1/C5/27					

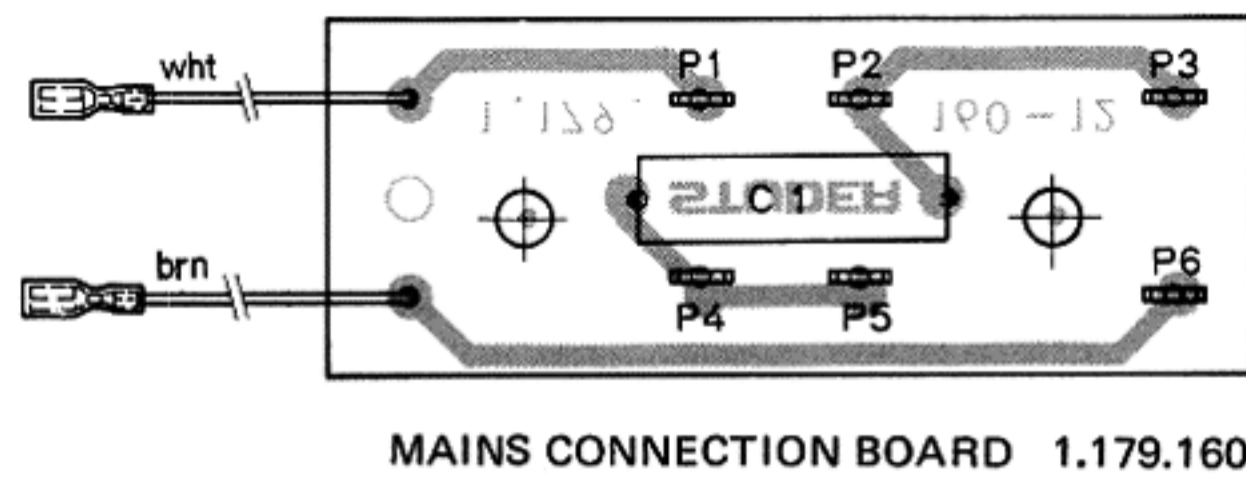
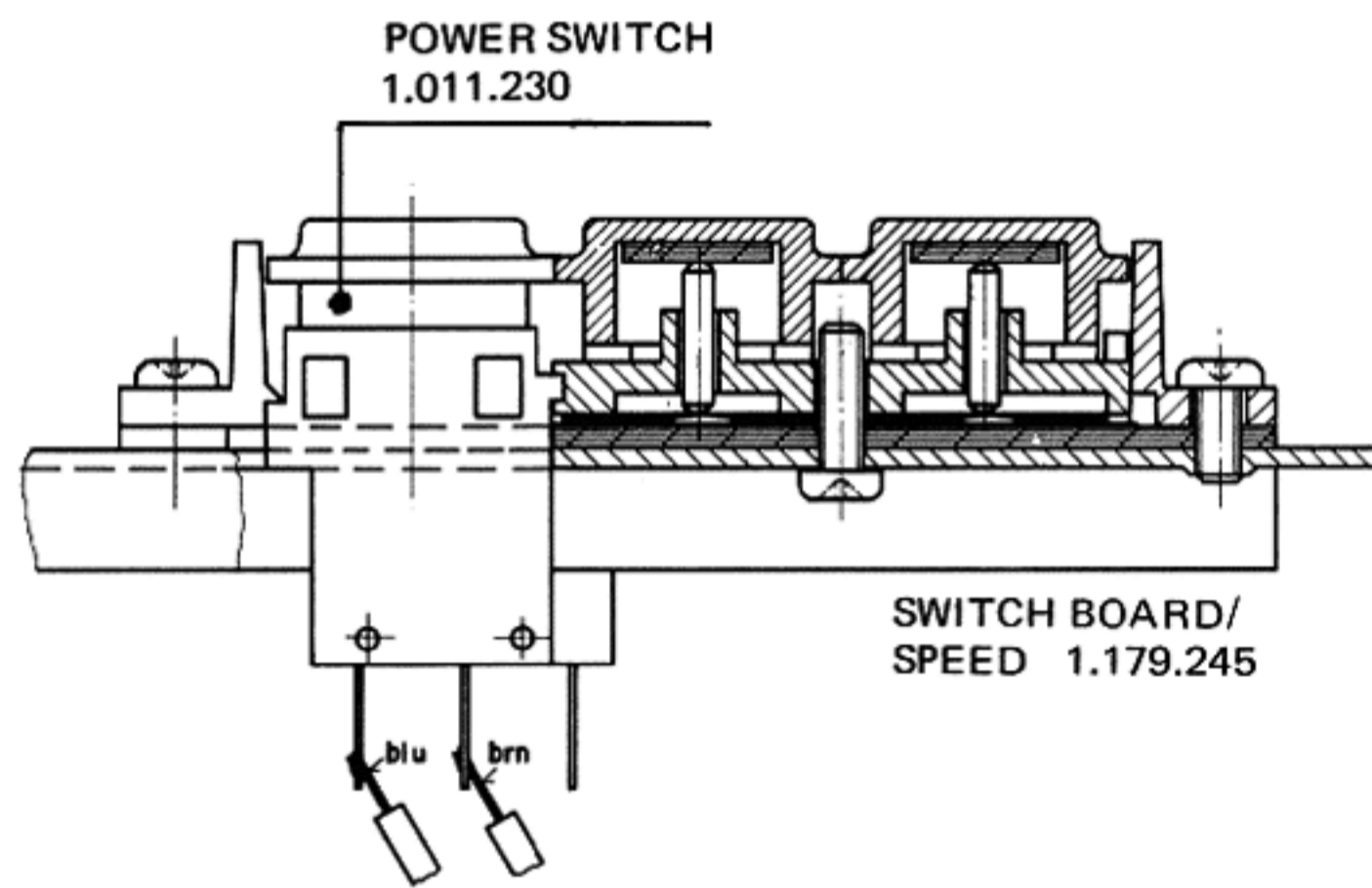
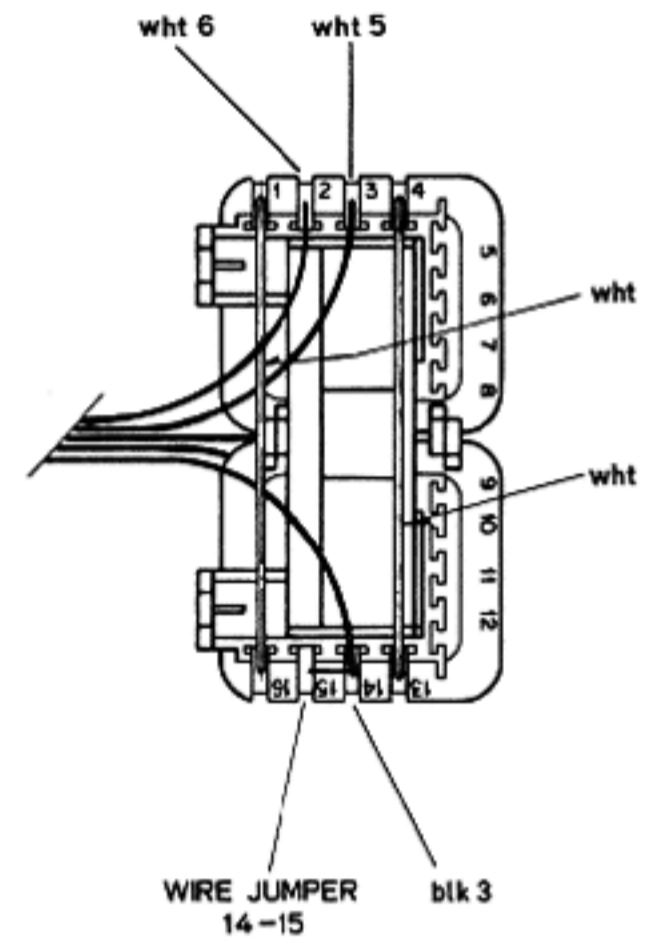
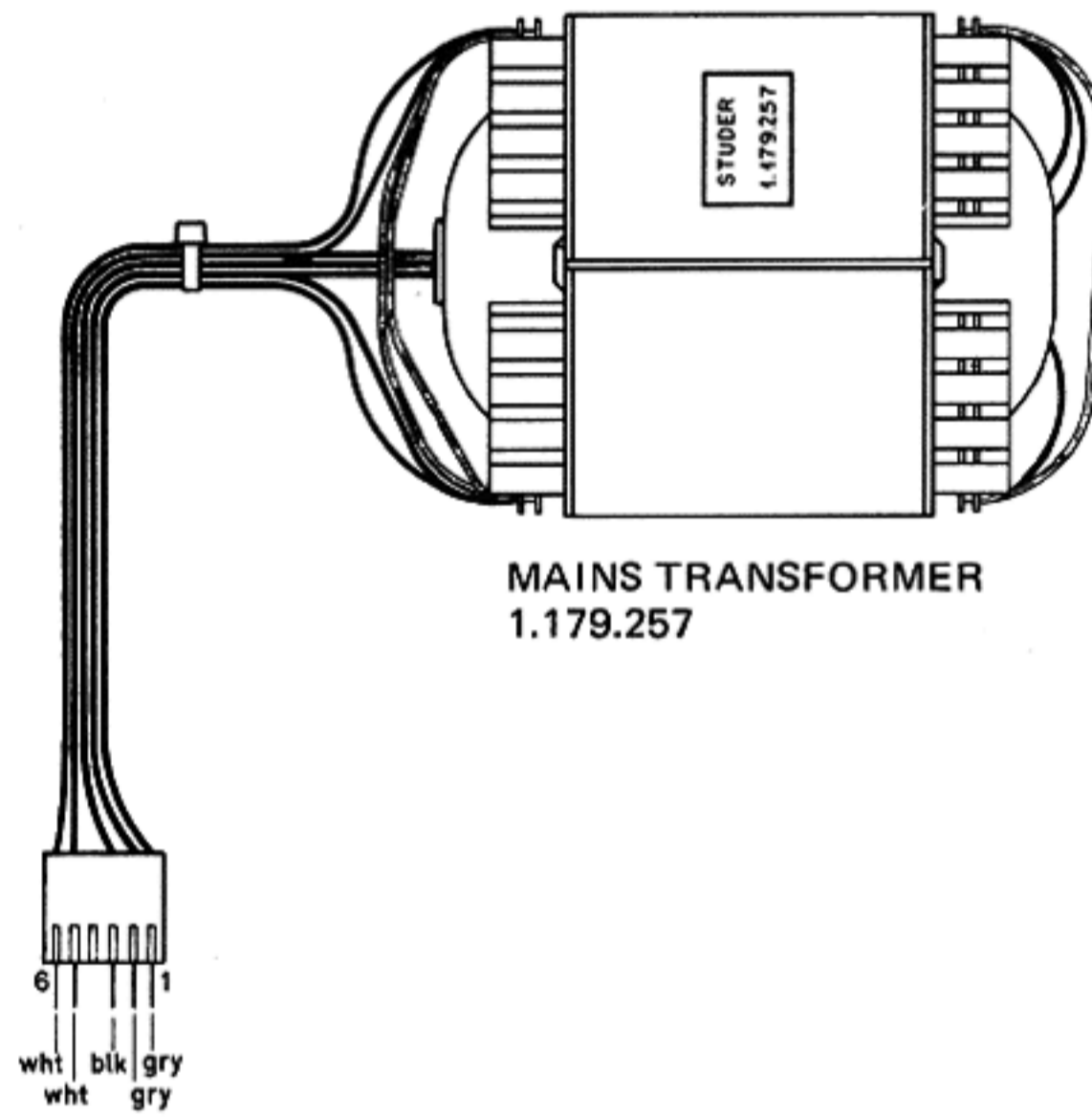
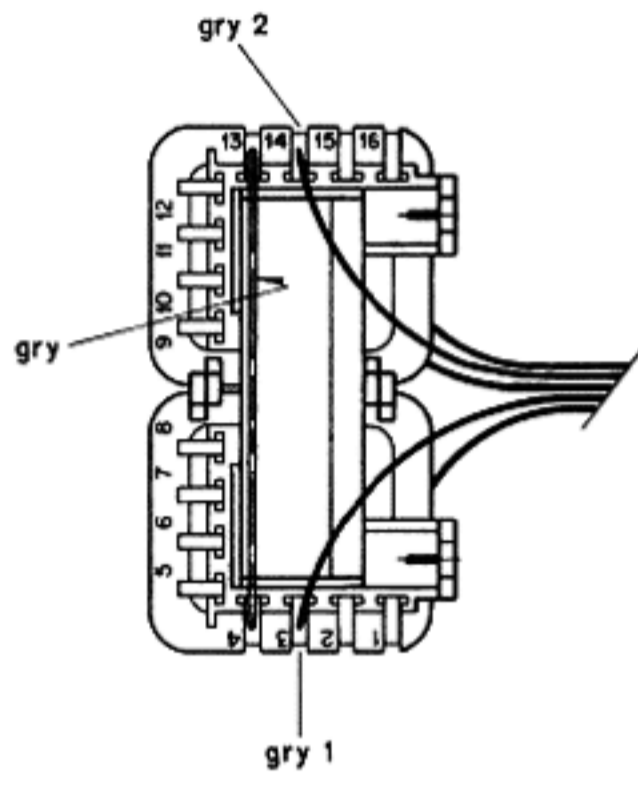
POWER SUPPLY UNIT

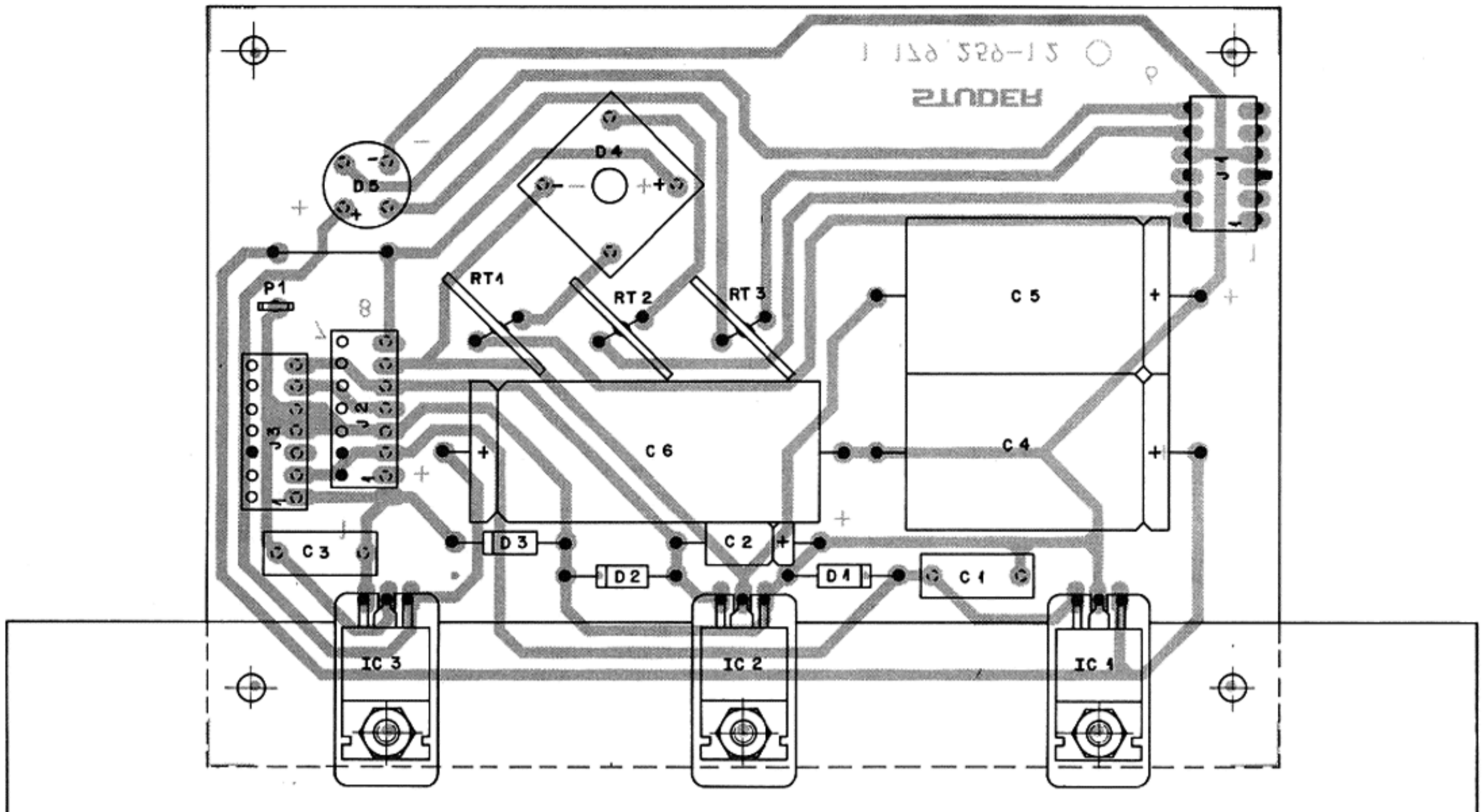
MAINS CONNECTION PCB 1.179.160
MAINS TRANSFORMER 1.179.257
POWER SUPPLY PCB 1.179.259-00



POWER SUPPLY BOARD 1.179.259-00 LAYOUT 1.179.259-12

POWER SUPPLY UNIT





POWER SUPPLY PCB 1.179.259

INDI	POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
	C 01	59.31.1224	0,22 U	20% 100V MPETP	
	C 02	59.25.4100	10 U	-10% 25V EL	
	C 03	59.31.1224	0,22 U	20% 100V MPETP	
	C 04	59.25.3222	2,2 M	-10% 16V EL	
	C 05	59.25.3222	2,2 M	-10% 16V EL	
	C 06	59.25.5102	1000 U	-10% 40V EL	
	D 01	50.04.0122	1N4001	50V 1A Si	
	D 02	50.04.0122	1N4001		
	D 03	50.04.0122	1N4001		
	D 04	70.01.0227	VH447	280V 6A	
	D 05	70.01.0222	BY159/50	35V 0,8A	
	IC 01	50.05.0259	µA78M06	Positiv Volt.Reg. +6V,0,5A	
	IC 02	50.10.0103	µA79M06	Negativ Volt.Reg. -6V,0,5A	
	IC 03	50.10.0102	µA78M24	Positiv Volt.Reg. +24V,0,5A	
	J 01	54.01.0214	6-Pole	CIS-Plug	
	J 02	54.01.0289	8-Pole		
	J 03	54.01.0218	7-Pole		
	RT 01	57.99.0210	2,3 Ω	PTC-Resistor	Ph
	RT 02	57.99.0210	2,3 Ω		
	RT 03	57.99.0210	2,3 Ω		

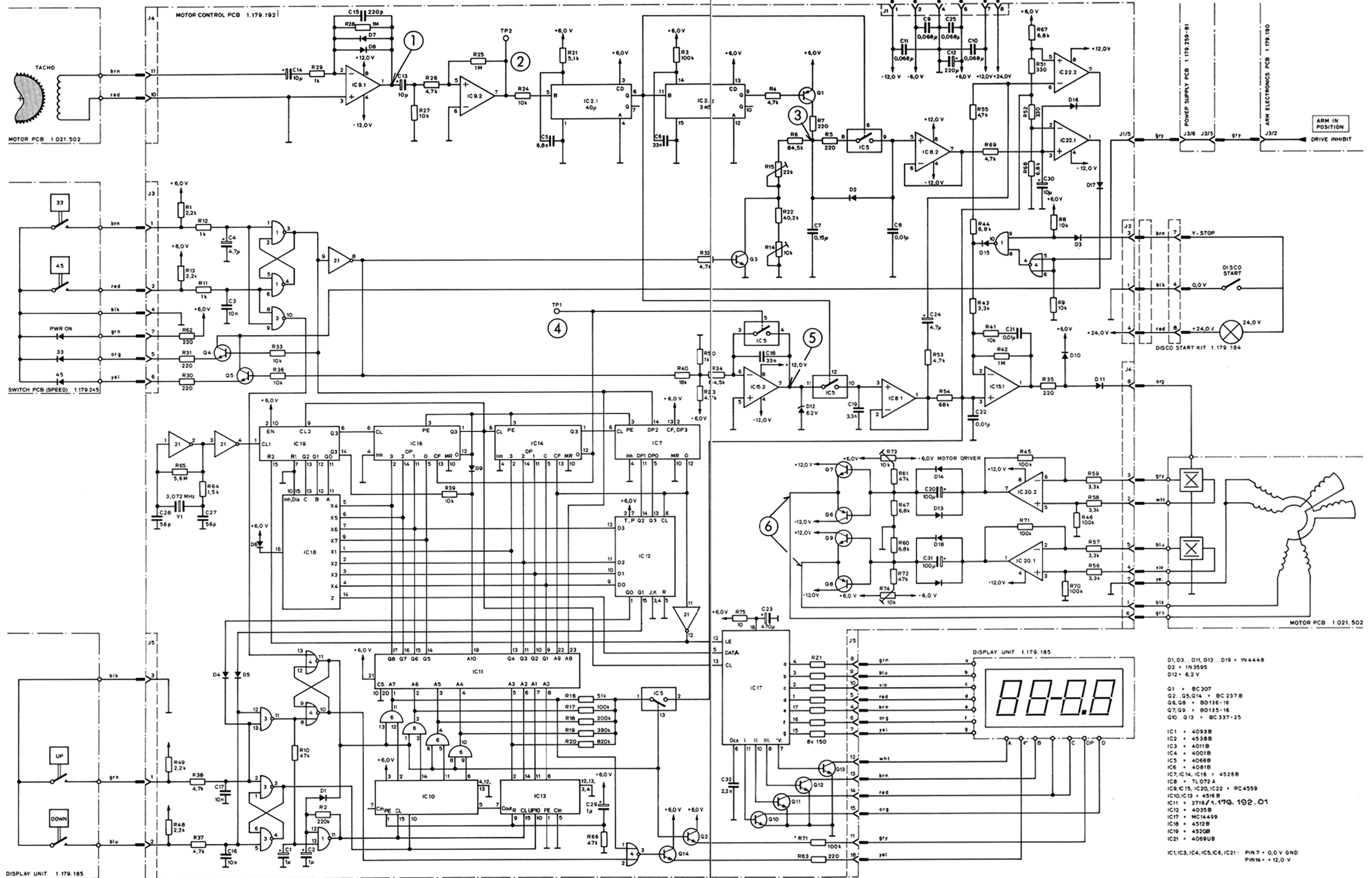
INDI	DATE	NAME	
④			Ph = Philips
③			
②			
①			
○	2.7.79	Schn./gv	

MOTOR CONTROL UNIT

MOTOR CONTROL PCB 1.179.192
MOTOR PCB 1.021.502
SWITCH PCB/SPEED 1.179.245

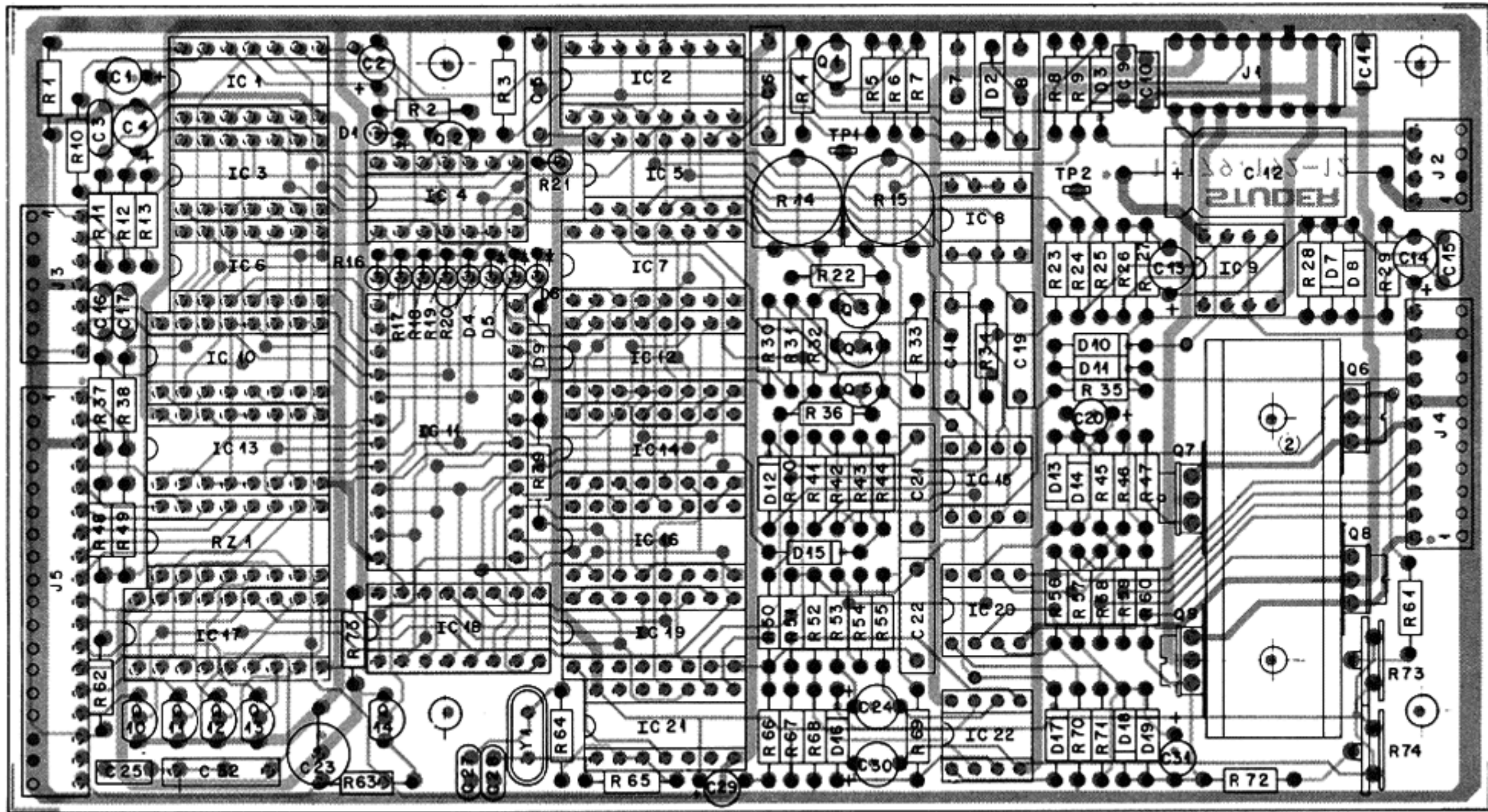
DISPLAY UNIT 1.179.185
DISCO START KIT 1.179.184

SEE MOTOR CONTROL DIAGRAMS SECTION 4/14



- D1, D3... D11, D13... D19 • 1N4448
- D2 • 1N3595
- D12 • 6.2 V
- Q1 • BC 307
- Q2, Q5, Q14 • BC 237 B
- Q6, Q8 • BD136-16
- Q7, Q9 • BD135-16
- Q10, Q13 • BC 337-25
- IC1 • 4093B
- IC2 • 4538B
- IC3 • 4011B
- IC4 • 4001B
- IC5 • 4066B
- IC6 • 4081B
- IC7, IC14, IC16 • 4528B
- IC8 • TL 072 A
- IC9, IC15, IC20, IC22 • RC 4559
- IC10, IC13 • 4518 B
- IC11 • 2716 / 1.179.192.01
- IC12 • 4035B
- IC17 • MC14499
- IC18 • 4512B
- IC19 • 4520B
- IC21 • 4069UB
- IC1, IC3, IC4, IC5, IC6, IC21: PIN 7 • 0.0 V GND
PIN 4 • +12.0 V

MOTOR CONTROL UNIT



MOTOR CONTROL PCB 1.179.192

IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.	IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.	
		C..0001	59.36.4109	1 uF	20%, 25V, Ta			IC.0022	50.09.0107	RC 4559	Dual OpAmp	Ra,NEC
		C..0002	59.36.4109	1 uF	20%, 25V, Ta			J..0001	54.01.0306	J 8 pol CIS	St	
		C..0003	59.32.3103	10 nF	40V, Cer			J..0002	54.01.0241	J 4 pol CIS	St	
		C..0004	59.22.8479	4.7 uF	-20%, 25V, EI			J..0003	54.01.0218	J 7 pol CIS	St	
[02]		C..0005	59.11.3682	6.8 nF	5%, 63V, PC			J..0004	54.01.0291	J 11 pol CIS	St	
		C..0006	59.02.5333	33 nF	5%, 100V, PC			J..0005	54.01.0296	J 18 pol CIS	St	
		C..0007	59.02.2154	0.15uF	5%, 100V, PC							
		C..0008	59.12.4103	10 nF	5%, 100V, PE			Q..0001	50.03.0515	BC 307	BC 557 B, PNP	
		C..0009	59.99.0205	68 nF	63V, Cer			Q..0002	50.03.0436	BC 237 B	BC 547 B, NPN	
		C..0010	59.99.0205	68 nF	63V, Cer			Q..0003	50.03.0436	BC 237 B	BC 547 B, NPN	
		C..0011	59.99.0205	68 nF	63V, Cer			Q..0004	50.03.0436	BC 237 B	BC 547 B, NPN	
		C..0012	59.25.3221	220 uF	-20%, 16V, EL			Q..0005	50.03.0436	BC 237 B	BC 547 B, NPN	
		C..0013	59.22.6100	10 uF	-20%, 25V, EI			Q..0006	50.03.0510	BD 136-16	PNP	
		C..0014	59.22.6100	10 uF	-20%, 25V, EI			Q..0007	50.03.0495	BD 135-16	NPN	
		C..0015	59.32.0221	220 pF	20%, 100V, Cer			Q..0008	50.03.0510	BD 136-16	PNP	
		C..0016	59.32.3103	10 nF	40V, Cer			Q..0009	50.03.0495	BD 135-16	NPN	
		C..0017	59.32.3103	10 nF	40V, Cer			Q..0010	50.03.0340	BC 337-25	NPN	
		C..0018	59.02.5333	33 nF	5%, 100V, PC			Q..0011	50.03.0340	BC 337-25	NPN	
		C..0019	59.11.6332	3.3 nF	5%, 100V, PC			Q..0012	50.03.0340	BC 337-25	NPN	
		C..0020	59.30.1101	100 uF	20%, 3V, Ta			Q..0013	50.03.0340	BC 337-25	NPN	
		C..0021	59.12.4103	10 nF	5%, 100V, PE			Q..0014	50.03.0436	BC 237 B	BC 547 B, NPN	
		C..0022	59.12.4103	10 nF	5%, 100V, PE							
[01]		C..0023	59.25.1471	470 uF	-20%, 6V, EL			R..0001	57.11.4222	2.2 kOhm	5%, 0.25W, CF	
		C..0024	59.22.8479	4.7 uF	-20%, 25V, EI			R..0002	57.11.4224	220 kOhm	5%, 0.25W, CF	
		C..0025	59.99.0205	68 nF	-20%, 63V, Cer			R..0003	57.11.3104	100 kOhm	1%, 0.25W, MF	
		C..0026						R..0004	57.11.4472	4.7 kOhm	5%, 0.25W, CF	
		C..0027	59.34.4560	56 pF	5%, 50V, Cer			R..0005	57.11.4221	220 Ohm	5%, 0.25W, CF	
		C..0028	59.34.4560	56 pF	5%, 50V, Cer			R..0006	57.39.8452	84.5 kOhm	1%, 0.25W, MF	
		C..0029	59.36.4109	1 uF	20%, 25V, Ta			R..0007	57.11.4221	220 Ohm	5%, 0.25W, CF	
		C..0030	59.22.6100	10 uF	-20%, 25V, EI			R..0008	57.11.4103	10 kOhm	5%, 0.25W, CF	
		C..0031	59.30.1101	100 uF	-20%, 3V, Ta			R..0009	57.11.4103	10 kOhm	5%, 0.25W, CF	
[01]		C..0032	59.11.6222	2.2 nF	-5%, 25V, PC			R..0010	57.11.4473	47 kOhm	5%, 0.25W, CF	
		D..0001	50.04.0125	1N4448	Si			R..0011	57.11.4102	1 kOhm	5%, 0.25W, CF	
		D..0002	50.04.0134	1N3595	Si			R..0012	57.11.4102	1 kOhm	5%, 0.25W, CF	
		D..0003	50.04.0125	1N4448	Si			R..0013	57.11.4222	2.2 kOhm	5%, 0.25W, CF	
		D..0004	50.04.0125	1N4448	Si			R..0014	58.02.5103	10 kOhm	20% 0.1 W, PCF	

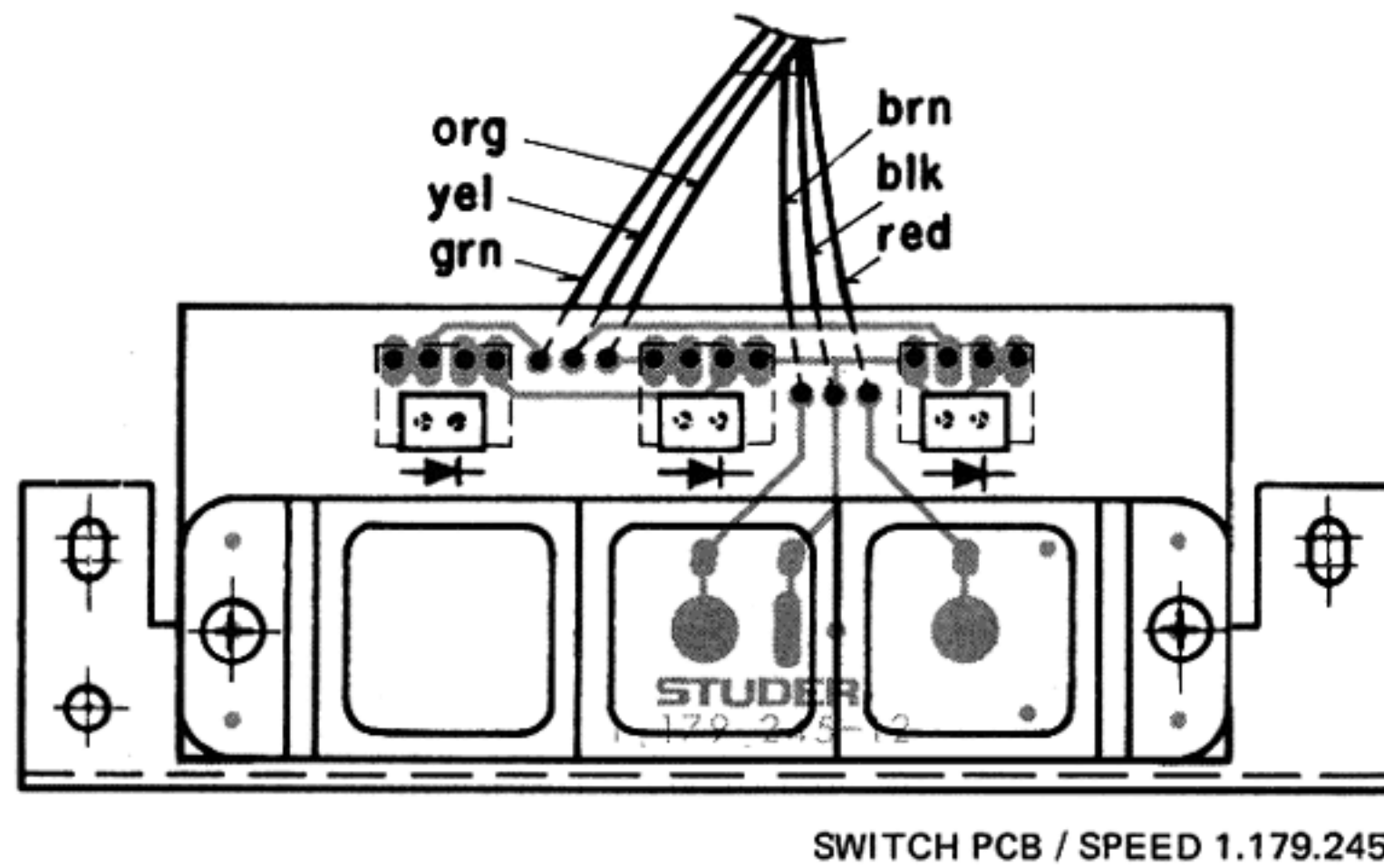
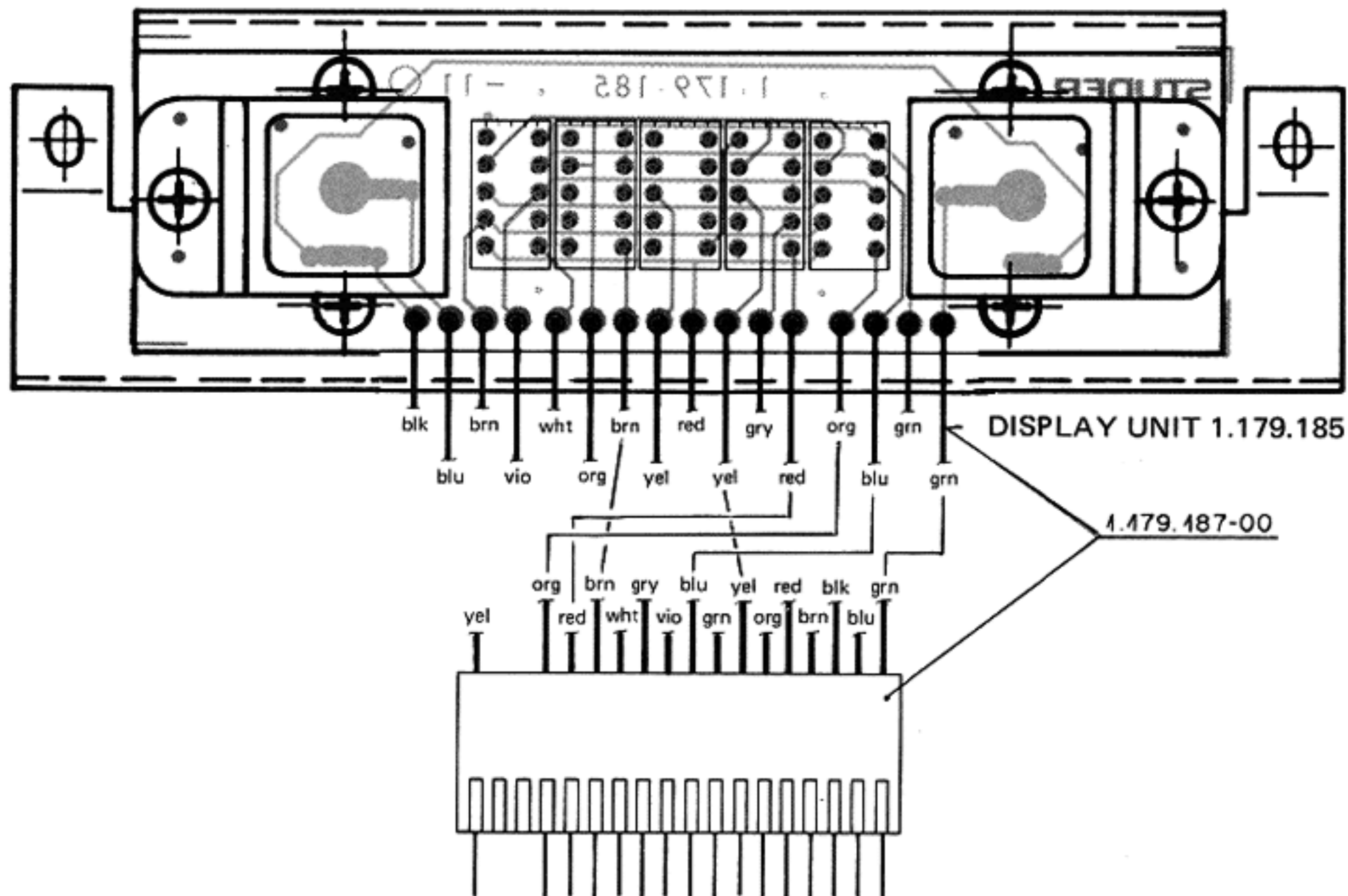
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STUDER 82/05/25 AST MOTOR CONTROL PC 1.179.192.00 PAGE 3

IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.	IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
		D..0005	50.04.0125	1N4448	Si			R..0015	58.02.5223	22 kOhm	20% 0.1 W, PCF
		D..0006	50.04.0125	1N4448	Si			R..0016	57.11.3513	51 kOhm	1%, 0.25W, MF
		D..0007	50.04.0125	1N4448	Si			R..0017	57.11.3104	100 kOhm	1%, 0.25W, MF
		D..0008	50.04.0125	1N4448	Si			R..0018	57.11.3204	200 kOhm	1%, 0.25W, MF
		D..0009	50.04.0125	1N4448	Si			R..0019	57.11.4394	390 kOhm	5%, 0.25W, CF
		D..0010	50.04.0125	1N4448	Si			R..0020	57.11.4824	820 kOhm	5%, 0.25W, CF
		D..0011	50.04.0125	1N4448	Si			R..0021	57.11.3512	5.1 kOhm	2%, 0.25W, CF
		D..0012	50.04.0118	2.6.2V	0.4W	[02]		R..0022	57.39.4022	40.2 kOhm	1%, 0.25W, MF
		D..0013	50.04.0125	1N4448	Si			R..0023	57.11.4472	4.7 kOhm	5%, 0.25W, CF
		D..0014	50.04.0125	1N4448	Si			R..0024	57.11.4103	10 kOhm	5%, 0.25W, CF
		D..0015	50.04.0125	1N4448	Si			R..0025	57.11.4105	1 MOhm	5%, 0.25W, CF
		D..0016	50.04.0125	1N4448	Si			R..0026	57.11.4472	4.7 kOhm	5%, 0.25W, CF
		D..0017	50.04.0125	1N4448	Si			R..0027	57.11.4103	10 kOhm	5%, 0.25W, CF
		D..0018	50.04.0125	1N4448	Si			R..0028	57.11.4105	1 MOhm	5%, 0.25W, CF
		D..0019	50.04.0125	1N4448	Si			R..0029	57.11.4102	1 kOhm	5%, 0.25W, CF
		IC.0001	50.07.0008	4093B	Quad 2-Input NAND Schmitt	Mot,Ph		R..0030	57.11.4221	220 Ohm	5%, 0.25W, CF
		IC.0002	50.07.0538	4538B	Dual retr. monost. Multivibr.	Mot,NS		R..0031	57.11.4221	220 Ohm	5%, 0.25W, CF
		IC.0003	50.07.0011	4011B	Quad 2-Input NAND	Mot,NS		R..0032	57.11.4472	4.7 kOhm	5%, 0.25W, CF
		IC.0004	50.07.0006	4001B	Quad 2-Input NOR	Mot,NS		R..0033	57.11.4103	10 kOhm	5%, 0.25W, CF
		IC.0005	50.07.0066	4066B	QUAD ANALOG SWITCH	Mot,RCA		R..0034	57.39.8452	84.5 kOhm	1%, 0.25W, MF
		IC.0006	50.07.0061	4081B	Quad 2-Input AND	Mot,NS		R..0035	57.11.4221	220 Ohm	5%, 0.25W, CF
		IC.0007	50.07.0526	4526B	Progr. divide-by-N Counter	Mot,NS		R..0036	57.11.4103	10 kOhm	5%, 0.25W, CF
		IC.0008	50.09.0101	TL 072A	LF 353 N-Dual BiFET-OpAmp	NS,TL		R..0037	57.11.4472	4.7 kOhm	5%, 0.25W, CF
		IC.0009	50.09.0107	RC 4559	Dual OpAmp	Ra,NEC		R..0038	57.11.4472	4.7 kOhm	5%, 0.25W, CF
		IC.0010	50.07.0009	4516B	Binary Up/Down Counter	Mot,NS		R..0039	57.11.4103	10 kOhm	5%, 0.25W, CF
		IC.0011	1.179.192.01	2716	ROM 2048x8	St		R..0040	57.11.4103	18 kOhm	5%, 0.25W, CF
		IC.0012	50.07.0007	4039B	4-Bit Shift Register	Mot,NS		R..0041	57.11.4103	10 kOhm	5%, 0.25W, CF
		IC.0013	50.07.0009	4516B	Binary Up/Down Counter	Mot,NS		R..0042	57.11.4105	1 MOhm	5%, 0.25W, CF
		IC.0014	50.07.0526	4526B	Progr. divide-by-N Counter	Mot,NS		R..0043	57.11.4332	3.3 kOhm	5%, 0.25W, CF
		IC.0015	50.09.0107	RC 4559	Dual OpAmp	Ra,NEC		R..0044	57.11.4682	6.8 kOhm	5%, 0.25W, CF
		IC.0016	50.07.0526	4526B	Progr. divide-by-N Counter	Mot,NS		R..0045	57.11.3104	100 kOhm	1%, 0.25W, MF
		IC.0017	50.07.0010	MC14499	7-Seg. Display Dec./Driver	Mot only		R..0046	57.11.3104	100 kOhm	1%, 0.25W, MF
		IC.0018	50.07.0512	4512B	8-Channel Data Selector	Mot,NS		R..0047	57.11.4682	6.8 kOhm	5%, 0.25W, CF
		IC.0019	50.07.0520	4520B	Dual Up Counters	Ph only		R..0048	57.11.4222	2.2 kOhm	5%, 0.25W, CF
		IC.0020	50.09.0107	RC 4559	Dual OpAmp	Ra,NEC		R..0049	57.11.4222	2.2 kOhm	5%, 0.25W, CF
		IC.0021	50.07.1069	4069UB	Hex Inverter	NS,Ph		R..0050	57.11.4102	1 kOhm	5%, 0.25W, CF
								R..0051	57.11.4331	330 Ohm	5%, 0.25W, CF

STUDER 82/05/25 AST MOTOR CONTROL PC 1.179.192.00 PAGE 2

STUDER 82/05/25 AST MOTOR CONTROL PC 1.179.192.00 PAGE 4

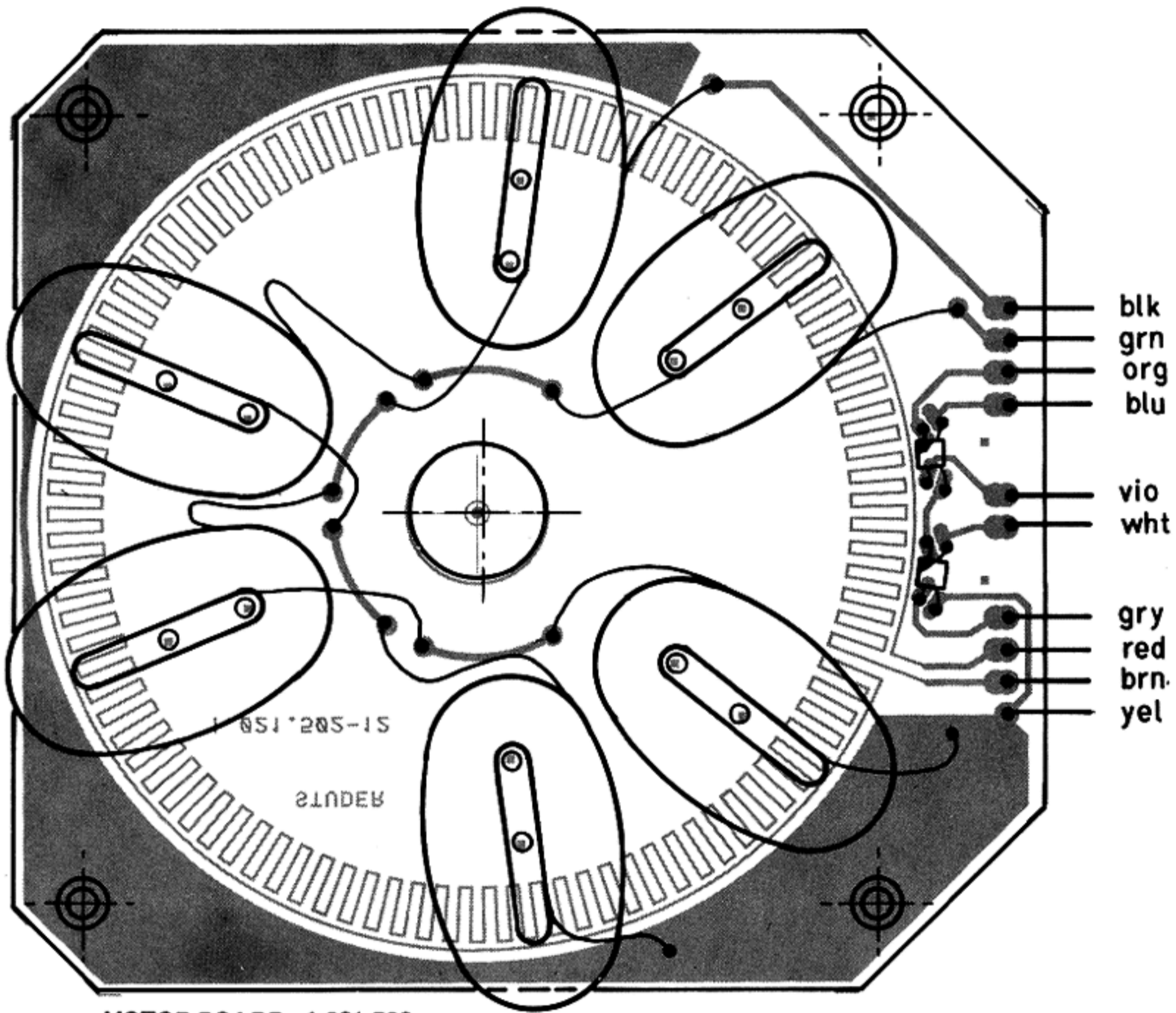


IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.	IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
	R..0052	57.11.4331	330 Ohm	5% 0.25W CF							
	R..0053	57.11.4472	4.7 kOhm	5% 0.25W CF							
(01)	R..0054	57.11.4683	68 kOhm	5% 0.25W CF							
	R..0055	57.11.4472	4.7 kOhm	5% 0.25W CF							
	R..0056	57.11.3332	3.3 kOhm	1% 0.25W MF							
	R..0057	57.11.3332	3.3 kOhm	1% 0.25W MF							
	R..0058	57.11.3332	3.3 kOhm	1% 0.25W MF							
	R..0059	57.11.3332	3.3 kOhm	1% 0.25W MF							
	R..0060	57.11.4682	6.8 kOhm	5% 0.25W CF							
	R..0061	57.11.4473	47 kOhm	5% 0.25W CF							
	R..0062	57.11.4221	220 Ohm	5% 0.25W CF							
	R..0063	57.11.4221	220 Ohm	5% 0.25W CF							
	R..0064	57.11.4152	1.5 kOhm	5% 0.25W CF							
	R..0065	57.11.4565	5.6 MOhm	5% 0.25W CF							
	R..0066	57.11.4473	47 kOhm	5% 0.25W CF							
	R..0067	57.11.3682	6.8 kOhm	1% 0.25W MF							
	R..0068	57.11.3682	6.8 kOhm	1% 0.25W MF							
	R..0069	57.11.4472	4.7 kOhm	5% 0.25W CF							
	R..0070	57.11.3104	100 kOhm	1% 0.25W MF							
	R..0071	57.11.3104	100 kOhm	1% 0.25W MF							
	R..0072	57.11.4472	47 kOhm	5% 0.25W CF							
	R..0073	58.02.4103	10 kOhm	20% 0.1 W PCF	1in						
	R..0074	58.02.4103	10 kOhm	20% 0.1 W PCF	1in						
(01)	R..0075	57.11.4100	10 Ohm	5% 0.25W CF							
	RZ.0001	57.88.3151	8*150 Ohm	2% 1.5 W DIL16	AB,Bm						
	Y..0001	89.01.0552	3.072 MHZ	RSmax.300 Ohm	St						

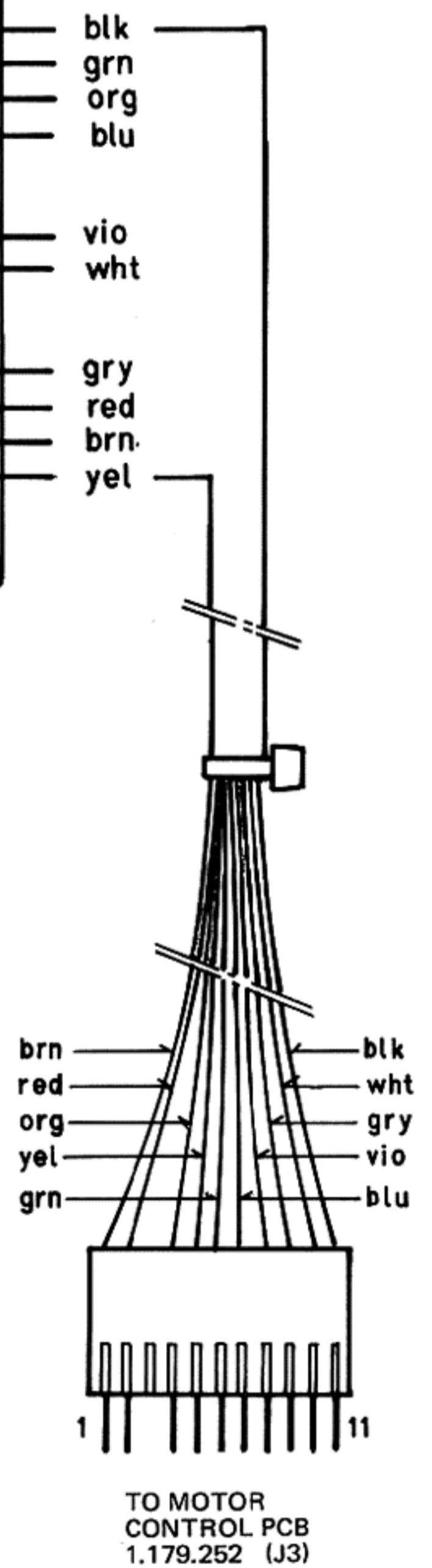
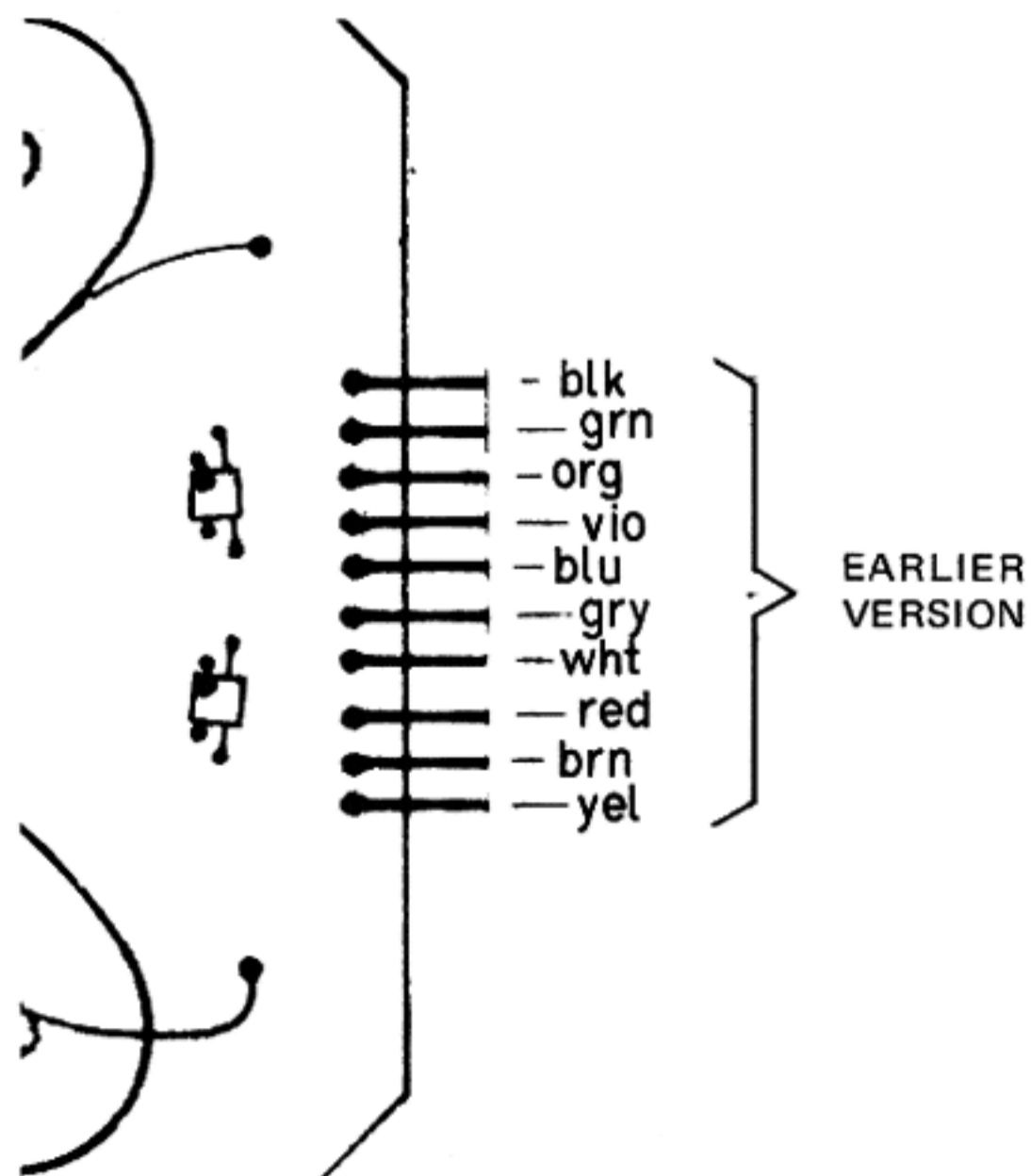
EL=Electrolytic, Cer=Ceramic, Ta=Tantal
 PE=Polyester, PC=Polycarbonat
 Si=Silicon, CF=Carbon Film
 MANUFACTURER: Mot=Motorola, NS=National, Ph=Philips
 Ra=Raytheon, TI=Texas Instruments,
 Fc=Fairchild, Ses=Sesosem, St=Studer,
 AB=Allen Bradley, Bm=Beckman,
 RCA=Radio Corp.of America, NEC=Nippon Electric Comp.

ORIG 81/09/22 (01) 82/01/18 (02) 82/05/17

MOTOR CONTROL UNIT



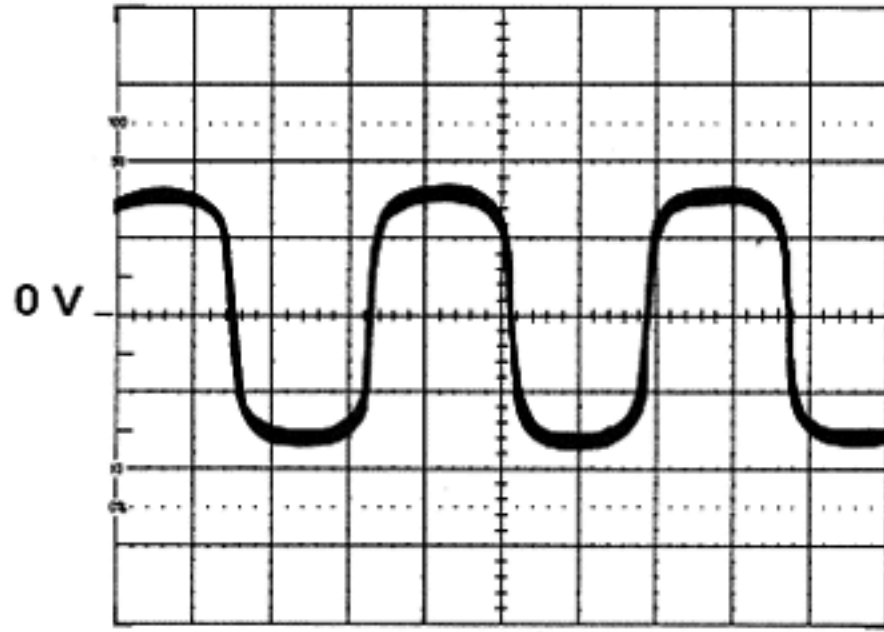
MOTOR BOARD 1.021.502



MOTOR CONTROL UNIT MOTOR CONTROL DIAGRAMS (VALID FOR 33 RPM)

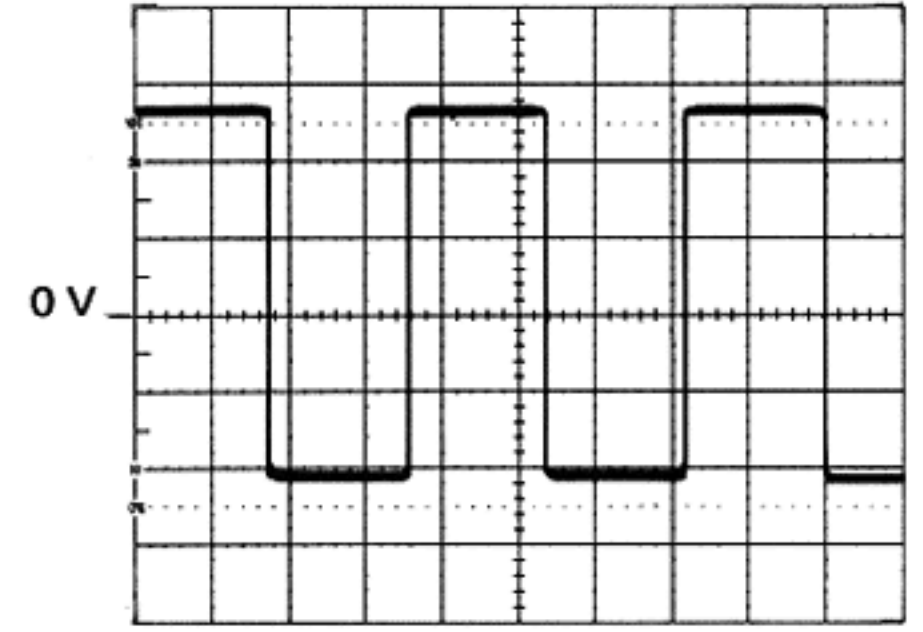
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200 mV 5 mS



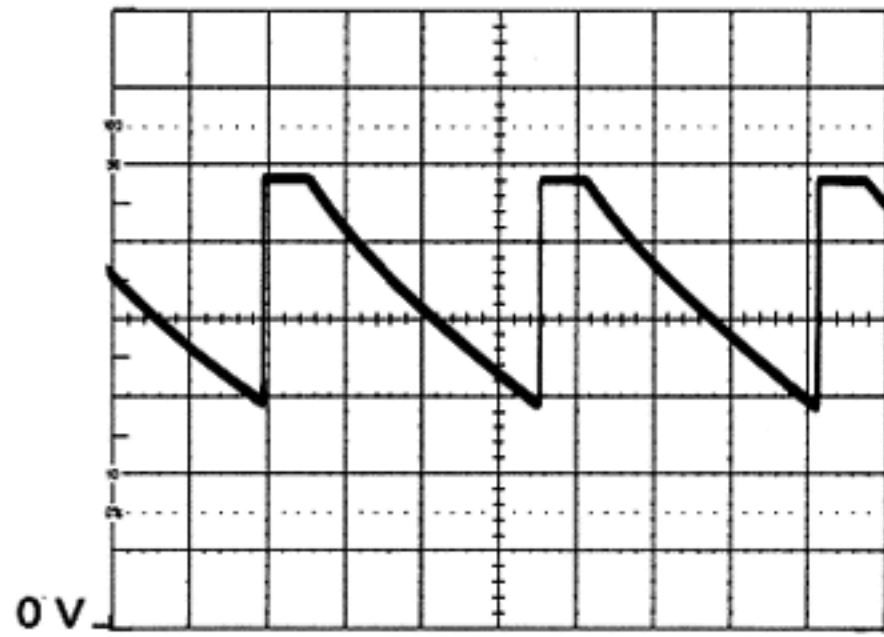
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2 V 5 mS



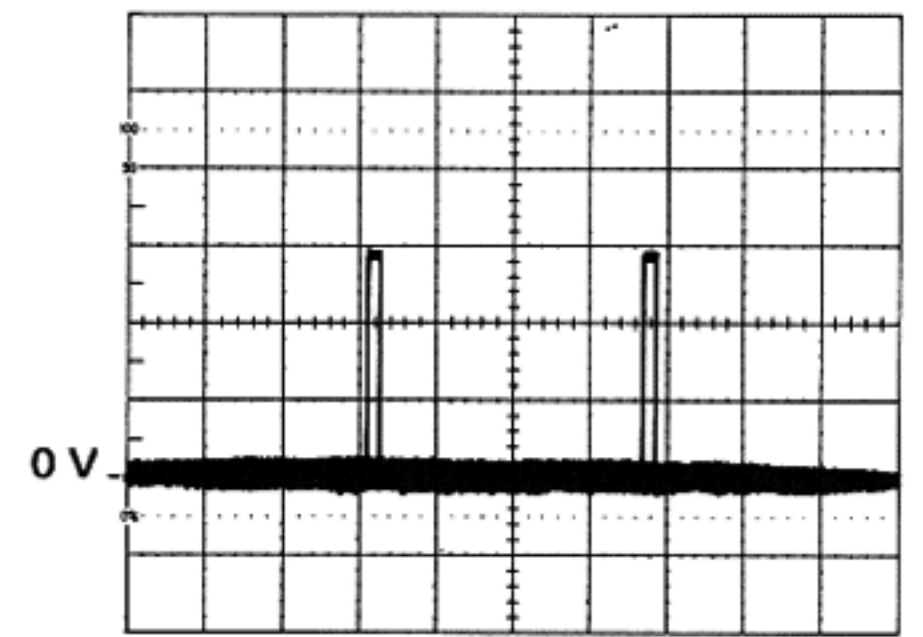
③

1 V 5 mS



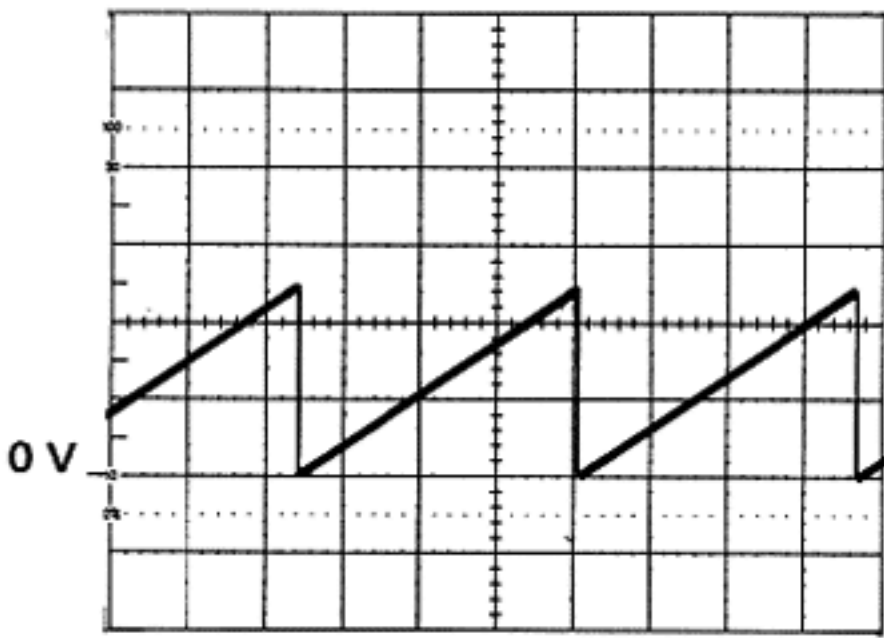
④

2 V 5 mS



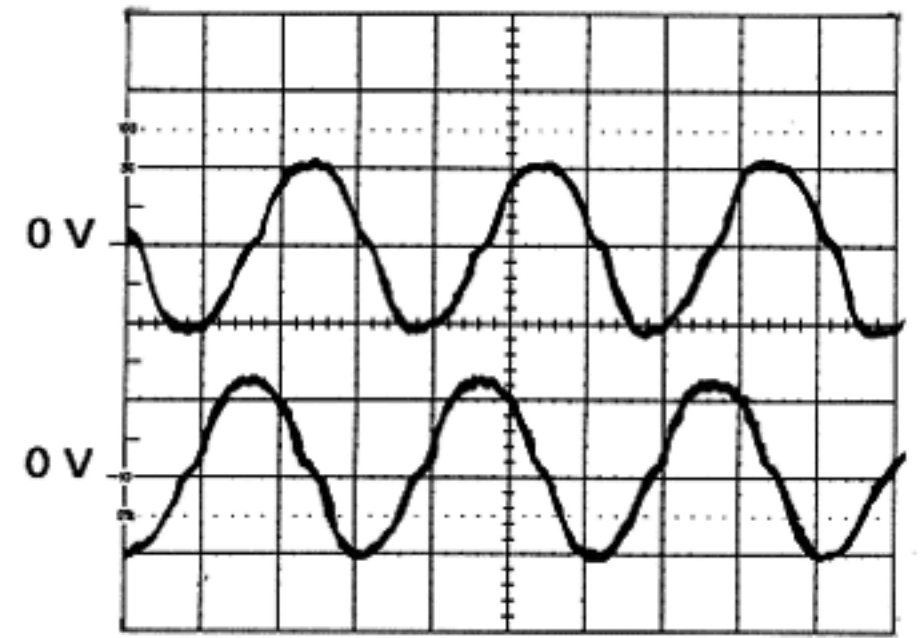
⑤

2 V 5 mS



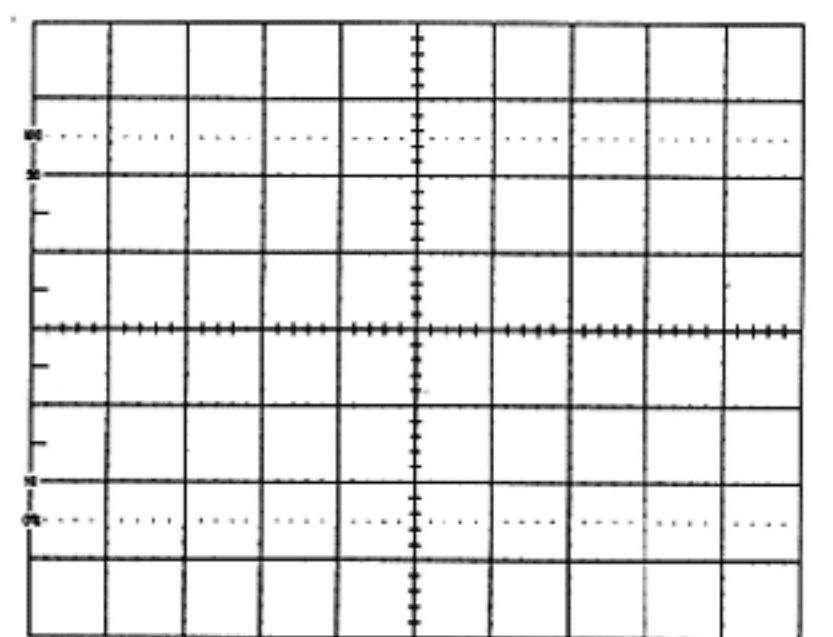
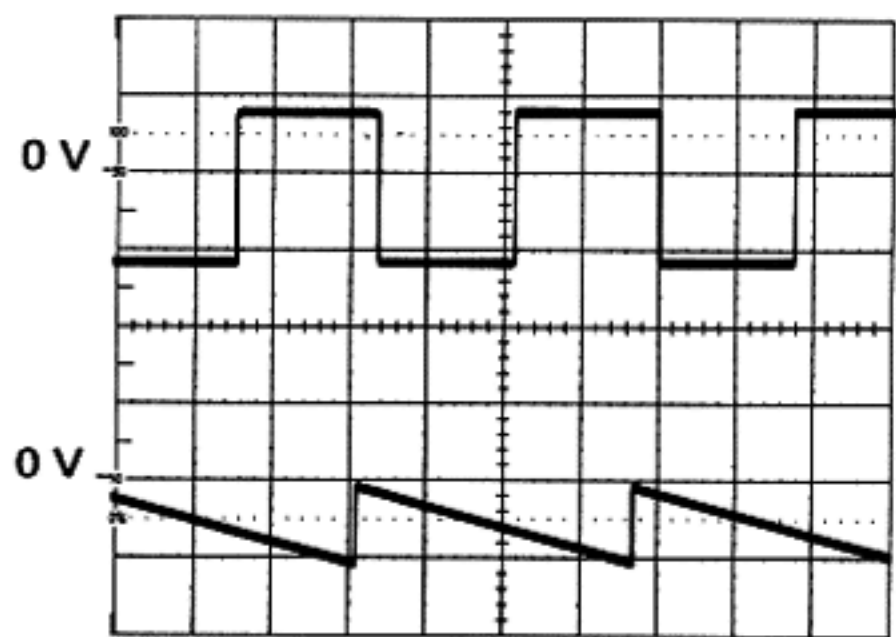
⑥

2V / 2V 100 mS



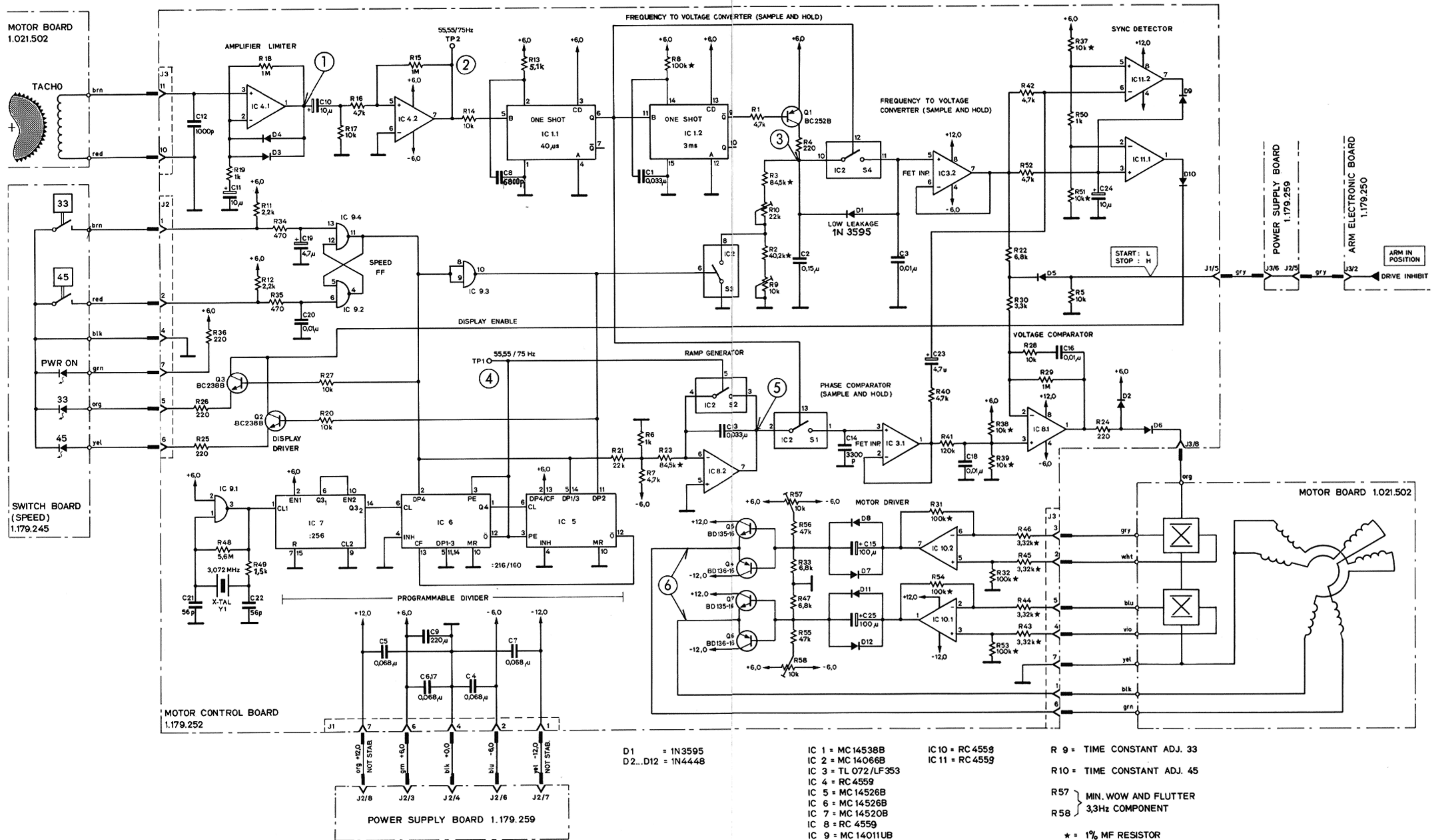
② + ⑤

5V / 5V 5 mS



MOTOR CONTROL UNIT

MOTOR CONTROL PCB 1.179.252
 MOTOR PCB 1.021.502
 SWITCH PCB/SPEED 1.179.245



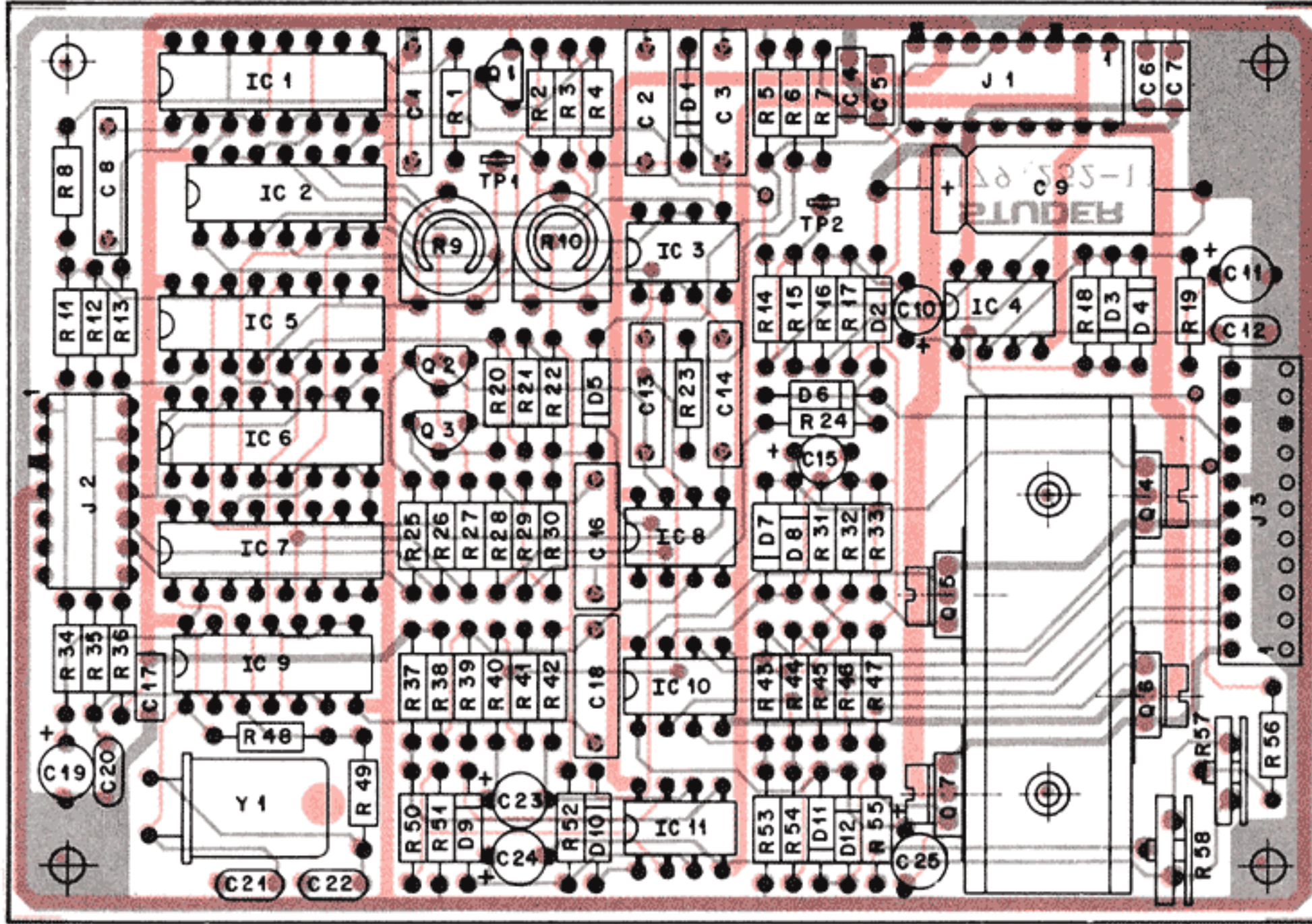
D1 = 1N3595
 D2...D12 = 1N4448

IC 1 = MC14538B
 IC 2 = MC14066B
 IC 3 = TL 072 / LF353
 IC 4 = RC 4559
 IC 5 = MC14526B
 IC 6 = MC14526B
 IC 7 = MC14520B
 IC 8 = RC 4559
 IC 9 = MC14011UB

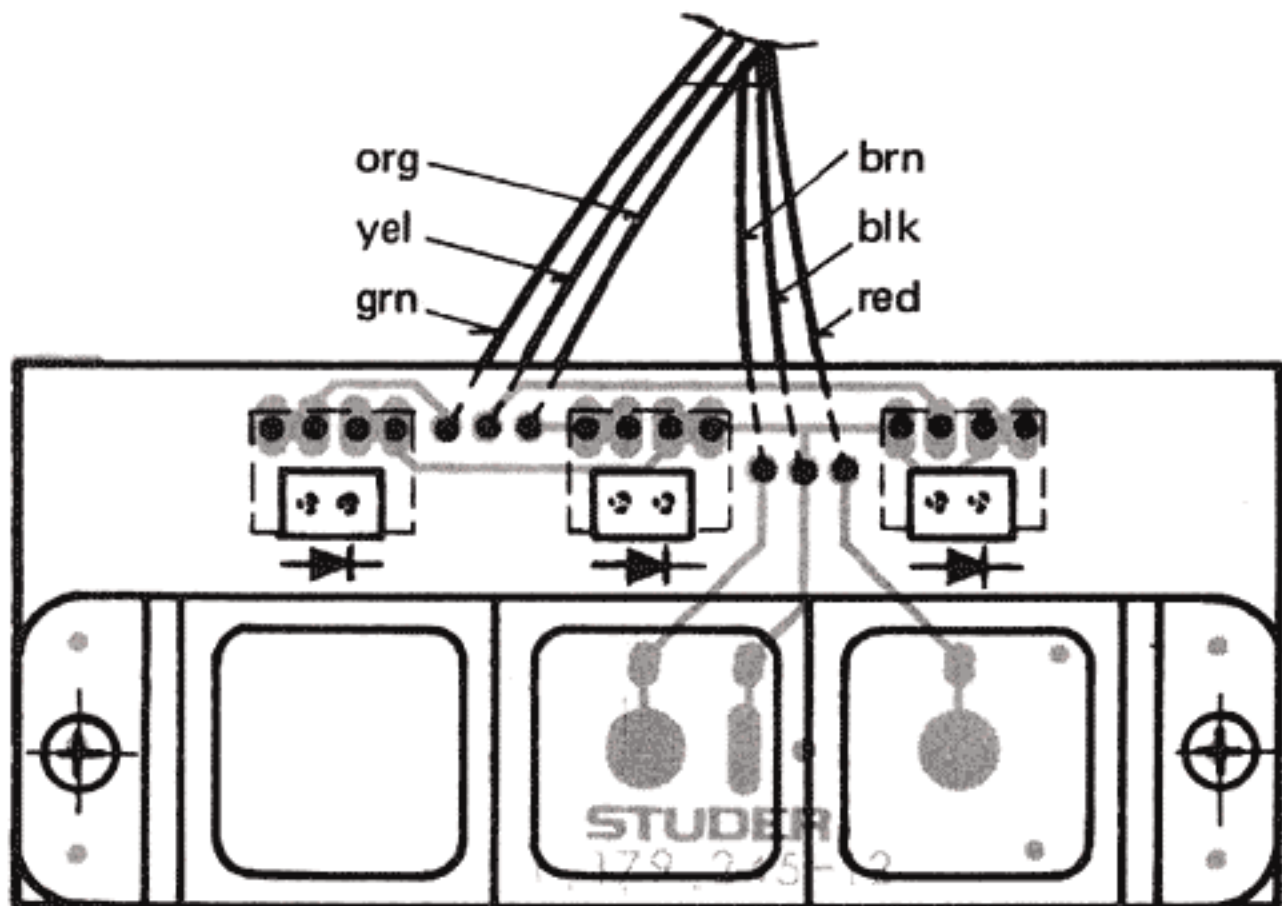
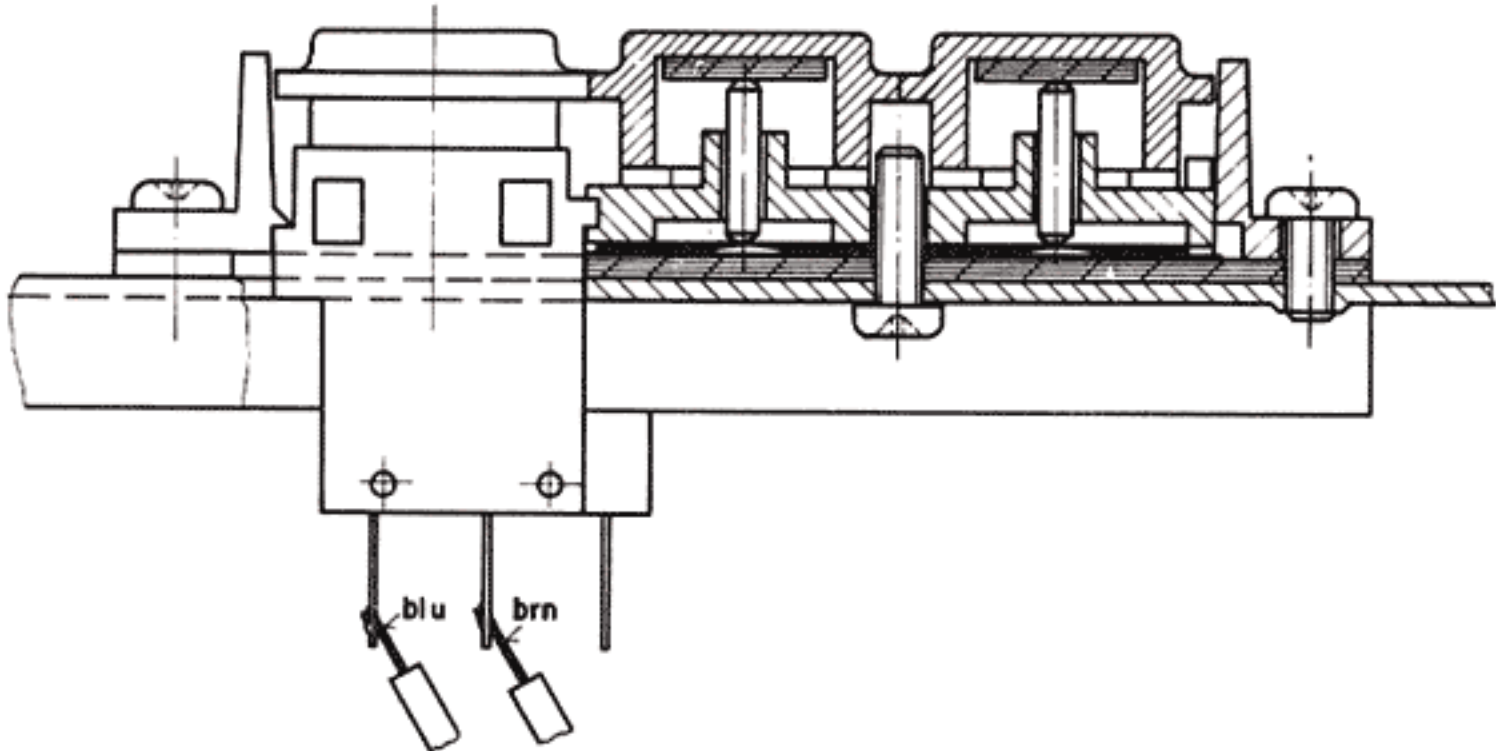
IC 10 = RC 4559
 IC 11 = RC 4559

R 9 = TIME CONSTANT ADJ. 33
 R10 = TIME CONSTANT ADJ. 45
 R57 } MIN. WOW AND FLUTTER
 R58 } 3,3Hz COMPONENT
 * = 1% MF RESISTOR

MOTOR CONTROL UNIT



MOTOR CONTROL PCB 1.179.252



SWITCH BOARD / SPEED 1.179.245

IND	POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR	
		C 01	59.02.5333	0,033 U 5%	MPC	
		C 02	59.02.2154	0,15 U		
		C 03	59.12.4103	0,01 U 5%	MPETP	
		C 04	59.99.0205	0,068 U	CER	
		C 05	59.99.0205	0,068 U		
		C 06	59.99.0205	0,068 U		
		C 07	59.99.0205	0,068 U		
4		C 08	59.11.3682	6800 P 5%	MPC	
		C 09	59.25.3221	220 U 50% 16V	EL	
		C 10	59.36.3100	10 U 20% 16V	TA	
		C 11	59.36.3100	10 U		
		C 12	59.32.4102	1000 P 20%	CER	
		C 13	59.02.5333	0,033 U 5%	MPC	
		C 14	59.11.6332	3300 P 5%	MPC	
		C 15	59.30.1101	100 U 20% 3V	TA	
		C 16	59.12.4103	0,01 U 5%	MPETP	
		C 17	59.99.0205	0,068 U	CER	
		C 18	59.12.4103	0,01 U 5%	MPETP	
		C 19	59.36.2479	4,7 U 20% 10V	TA	
		C 20	59.32.3103	0,01 U	CER	
		C 21	59.34.4560	56 P 5%	CER	
		C 22	59.34.4560	56 P		
		C 23	59.36.2479	4,7 U 20% 10V	TA	
		C 24	59.36.3100	10 U 20% 16V	TA	
		C 25	59.30.1101	100 U 20% 3V	TA	
①		D 01	50.04.0134	1N3595	Si low leakage FDH 300,1N3595	F,S
		D 02	50.04.0125	1N4448		
		D 03	50.04.0125	1N4448		
		D 04	50.04.0125	1N4448		

IND	DATE	NAME	
④	17.5.82	A.H. <i>HL</i>	F = Fairchild
③	11.12.81	Hgl. <i>AG</i>	S = Sescosm
②	9.9.80	Hgl. <i>hfr</i>	
①	24.3.80	<i>T. Bruch</i>	
○	21.6.79	Brodbeck/gy	

IND	POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
	D 05	50.04.0125	1N4448	Si	
	D 06				
	D 07				
	D 08				
	D 09				
	D 10				
	D 11				
	D 12	50.04.0125	1N4448	Si	
	IC 01	50.07.0538	MC14538B	Dual Monostable Multivibr. 4538B	M,F,S
	IC 02	50.07.0066	MC14066B	Quad Analog Switch	M,F,NS
	IC 03	50.09.0101	TL 072	Bi-Fet Op Amp LF 353	TI,NS
③	IC 04	50.09.0107	RC4559	Dual Op Amp	TI,R
	IC 05	50.07.0526	MC14526B	Progr.Divide-by-N Counter 4526B	M,F,NS
	IC 06	50.07.0526	MC14526B		
	IC 07	50.07.0520	MC14520B	Dual Binary Up Counter 4520B	
③	IC 08	50.09.0107	RC4559	Dual Op Amp	TI,R
	IC 09	50.07.1011	MC14011UB	Quad 2-Input NAND Gate 4011UBE	S,M,RCA
③	IC 10	50.09.0107	RC4559	Dual Op Amp	
③	IC 11	50.09.0107	RC4559		
	J 01	54.01.0306	8-Pole	CIS-Plug	
	J 02	54.01.0244	7-Pole		
	J 03	54.01.0215	11-Pole		
	Q 01	50.03.0318	BC252B	PNP	
	Q 02	50.03.0438	BC238B	NPN	
	Q 03	50.03.0438	BC238B	NPN	
	Q 04	50.03.0510	BD136-16	PNP	
	Q 05	50.03.0495	BD135-16	NPN	

IND	DATE	NAME	
④	17.5.82	AH <i>Ue</i>	M = Motorola
③	11.12.81	Hgl. AH	F = Fairchild
②	9.9.80	Hgl. AH	S = Solid State Scientific
①	24.3.80	F. Broth	NS = National Sem.
○	21.6.79	Brodbeck/gv	TI = Texas Instr.
			R = Raytheon

STUDER Motor Control Board 1.179.252 PAGE 20F 5

IND	POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
	R 27	57.11.4103	10 k	5% .25W CF	
	R 28	57.11.4103	10 k		
	R 29	57.11.4105	1 M		
	R 30	57.11.4332	3,3 k		
	R 31	57.39.1003	100 k	1% MF	
	R 32	57.39.1003	100 k		
	R 33	57.11.4682	6,8 k	5% CF	
	R 34	57.11.4471	470		
	R 35	57.11.4471	470		
	R 36	57.11.4221	220		
	R 37	57.39.1002	10 k	1% MF	
	R 38	57.39.1002	10 k		
	R 39	57.39.1002	10 k		
	R 40	57.11.4472	4,7 k	5% CF	
1	R 41	57.11.4124	120 k		
	R 42	57.11.4472	4,7 k		
	R 43	57.39.3321	3,32 k	1% MF	
	R 44	57.39.3321	3,32 k		
	R 45	57.39.3321	3,32 k		
	R 46	57.39.3321	3,32 k		
	R 47	57.11.4682	6,8 k	5% CF	
	R 48	57.11.4565	5,6 M		
2	R 49	57.11.4152	1,5 k		
	R 50	57.11.4102	1 k		
	R 51	57.39.1002	10 k	1% MF	
	R 52	57.11.4472	4,7 k	5% CF	
	R 53	57.39.1003	100 k	1% MF	
	R 54	57.39.1003	100 k		
	R 55	57.11.4473	47 k	5% CF	
	R 56	57.11.4473	47 k		

IND	DATE	NAME	
④	17.5.82	<i>Ue</i>	
③	11.12.81	Hgl. AH	
②	9.9.80	Hgl. AH	
①	24.3.80	F. Broth	
○	21.6.79	Brodbeck/gv	

STUDER Motor Control Board 1.179.252 PAGE 40F 5

IND	POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
	Q 06	50.03.0510	BD136-16	PNP	
	Q 07	50.03.0495	BD135-16	NPN	
	R 01	57.11.4472	4,7 k	5% .25W CF	
	R 02	57.39.4022	40,2 k	1% MF	
	R 03	57.39.8452	84,5 k		
	R 04	57.11.4221	220	5% CF	
	R 05	57.11.4103	10 k		
	R 06	57.11.4102	1 k		
	R 07	57.11.4472	4,7 k		
	R 08	57.39.1003	100 k	1% MF	
	R 09	58.02.5103	10 k	20% .1 W PCF	
	R 10	58.02.5223	22 k		
	R 11	57.11.4222	2,2 k	5% .25W CF	
	R 12	57.11.4222	2,2 k		
4	R 13	57.11.3512	5,1 k		
	R 14	57.11.4103	10 k		
	R 15	57.11.4105	1 M		
	R 16	57.11.4472	4,7 k		
	R 17	57.11.4103	10 k		
	R 18	57.11.4105	1 M		
	R 19	57.11.4102	1 K		
	R 20	57.11.4103	10 k		
	R 21	57.11.4223	22 k		
	R 22	57.11.4682	6,8 k		
	R 23	57.39.8452	84,5 k	1% MF	
	R 24	57.11.4221	220	5% CF	
	R 25	57.11.4221	220		
	R 26	57.11.4221	220		

IND	DATE	NAME	
④	17.5.82	AH <i>Ue</i>	
③	11.12.81	Hgl. AH	
②	9.9.80	Hgl. AH	
①	24.3.80	F. Broth	
○	21.6.79	Brodbeck/gv	

STUDER Motor Control Board 1.179.252 PAGE 3 OF 5

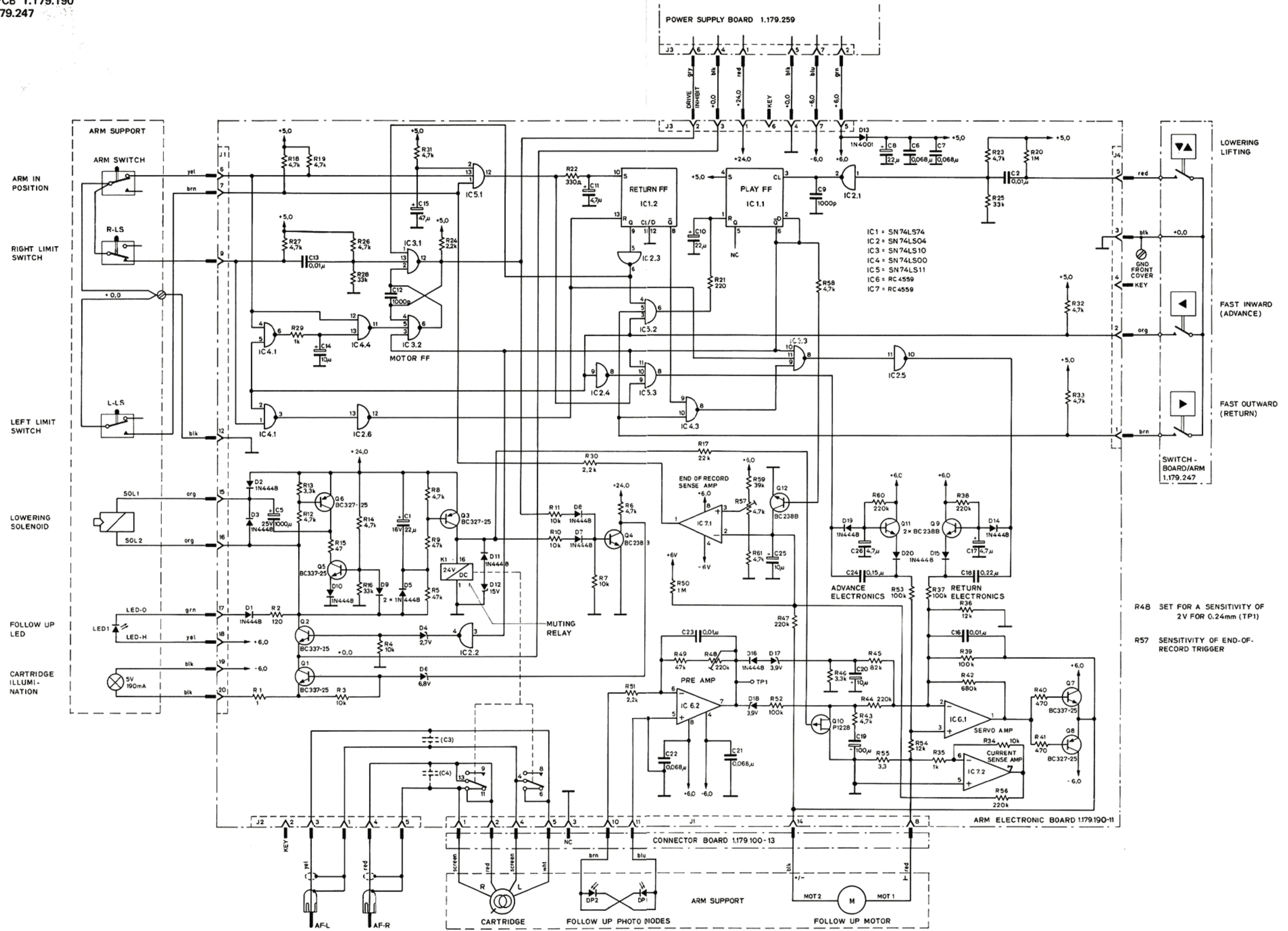
IND	POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
	R 57	58.02.4103	10 k	20% .1 W PCF	
	R 58	58.02.4103	10 k		
	Y 01	89.01.0552		Quartz 3,072 MHz	Studer

IND	DATE	NAME	
④	17.5.82	<i>Ue</i>	
③	11.12.81	Hgl. AH	
②	9.9.80	Hgl. AH	
①	24.3.80	F. Broth	
○	21.6.79	Brodbeck/gv	

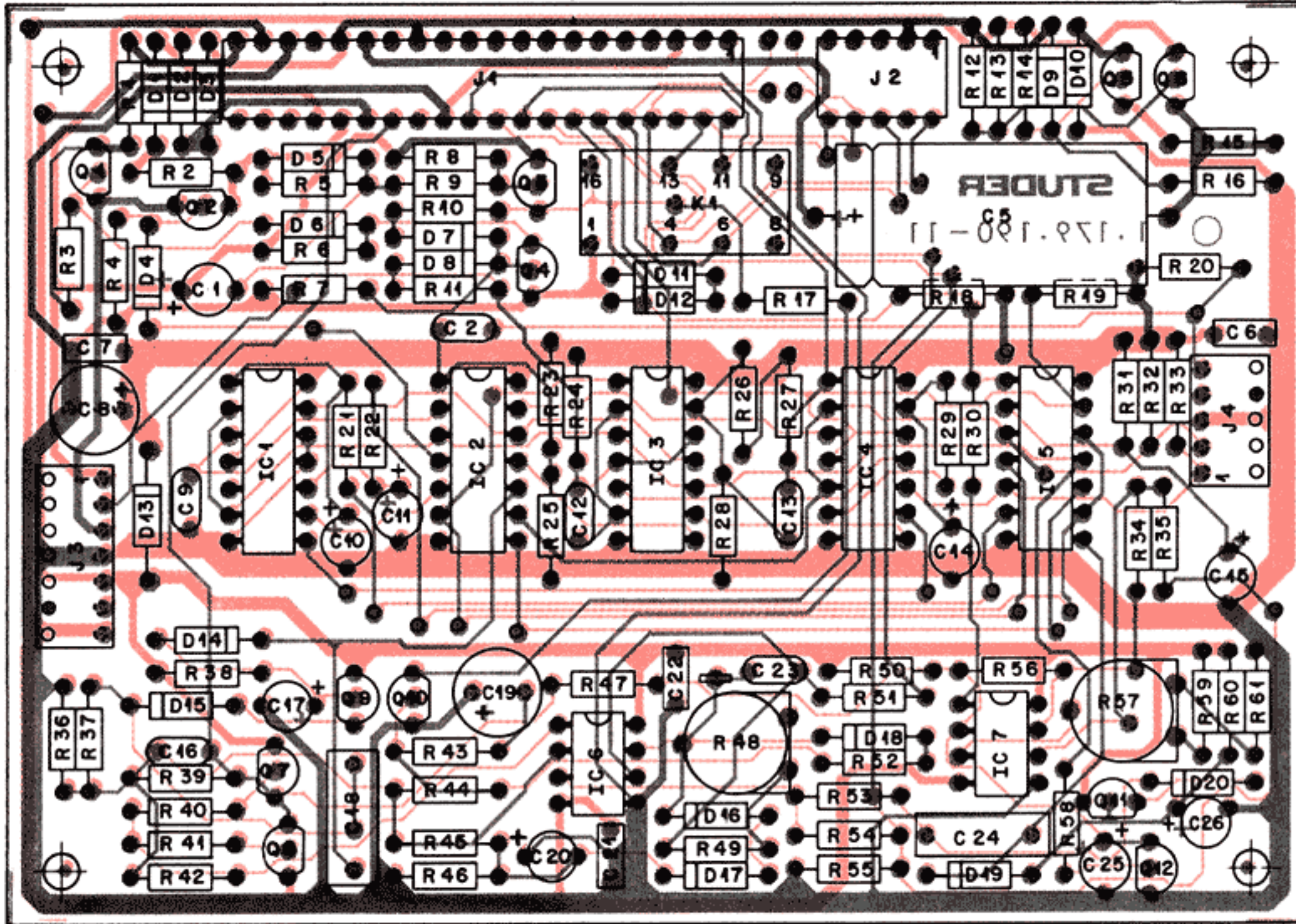
STUDER Motor Control Board 1.179.252 PAGE 5 OF 5

ARM ELECTRONICS UNIT

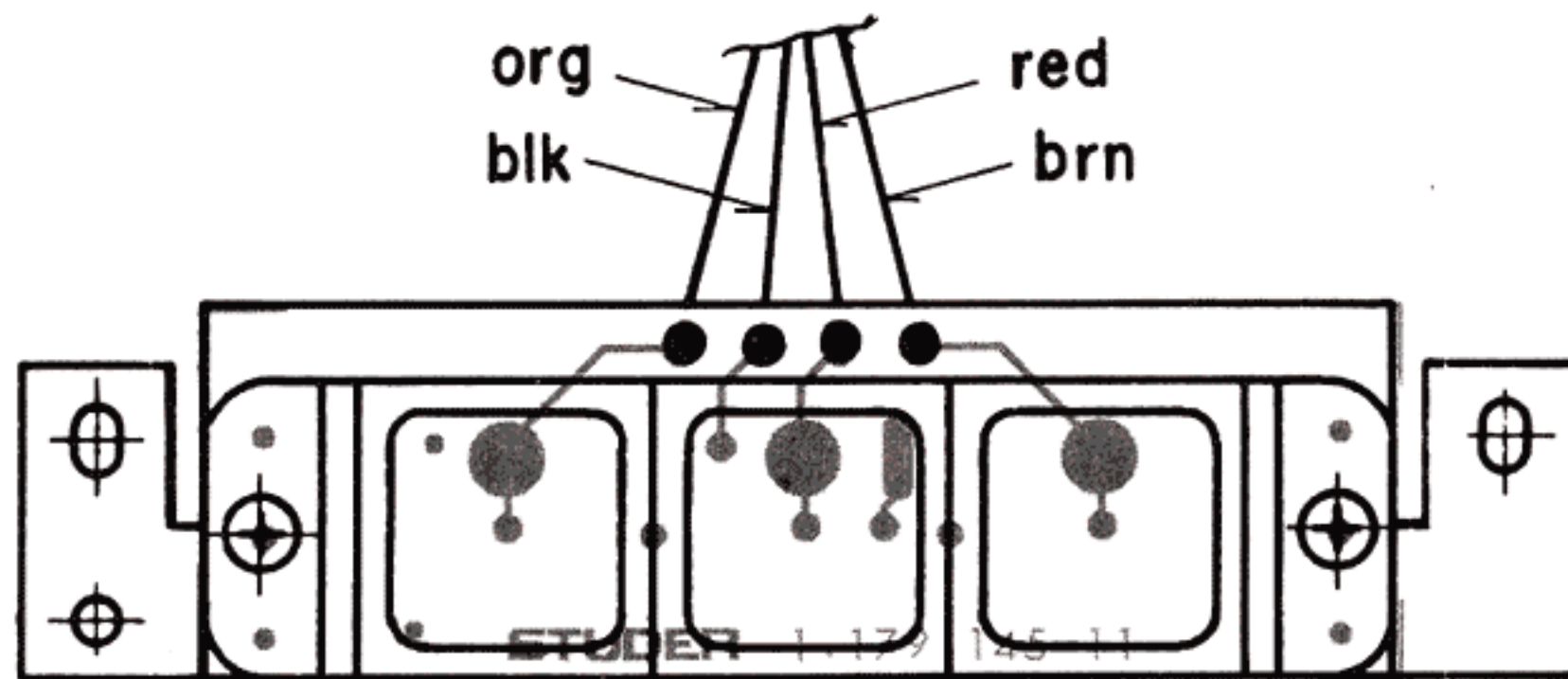
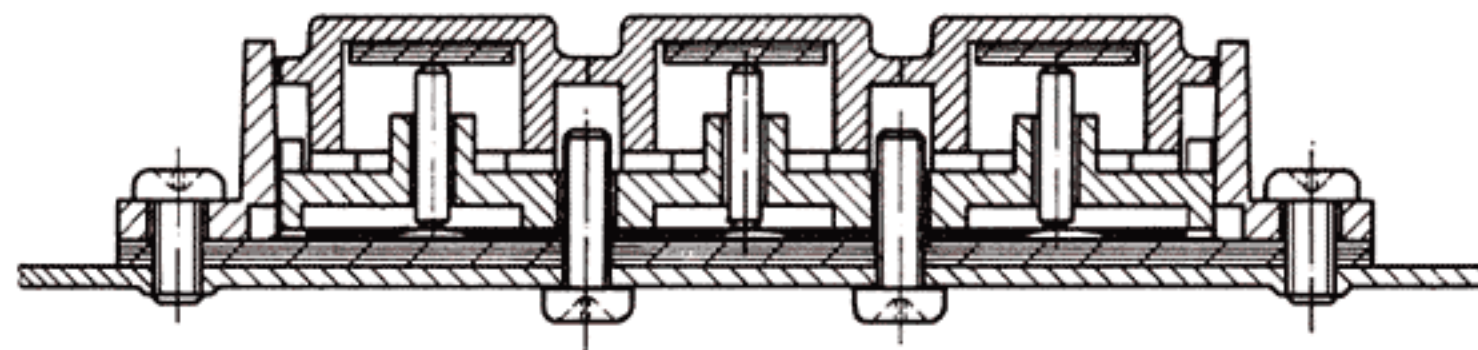
ARM ELECTRONICS PCB 1.179.190
SWITCH PCB/ARM 1.179.247



ARM ELECTRONICS UNIT



ARM ELECTRONICS PCB 1.179.190



SWITCH PCB/ARM 1.179.247

IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
C.....1		59.22.5220	22 uF	-10%, 25V, EL	
C.....2		59.32.3103	10 nF	40V, CER	
C.....3					
C.....4					
C.....5		59.25.4102	1000 uF	-20%, 25V, EL	
C.....6		59.99.0205	68 nF	63V, CER	
C.....7		59.99.0205	68 nF	63V, CER	
C.....8		59.22.5220	22 uF	-20%, 16V, EL	
C.....9		59.32.4102	1 nF	20%, 50V, CER	
C.....10		59.22.5220	22 uF	-20%, 16V, EL	
C.....11		59.22.8479	4.7 uF	-20%, 16V, EL	
C.....12		59.32.4102	1 nF	20%, 50V, CER	
C.....13		59.32.3103	10 nF	40V, CER	
C.....14		59.22.6100	10 uF	-20%, 16V, EL	
C.....15		59.22.3470	47 uF	-20%, 10V, EL	
C.....16		59.32.3103	10 nF	40V, CER	
C.....17		59.36.2479	4.7 uF	20%, 10V, TA	
C.....18		59.31.1224	0.22 uF	20%, 100V, MPETP	
C.....19		59.22.3101	100 uF	-20%, 10V, EL	
C.....20		59.22.6100	10 uF	-20%, 16V, EL	
C.....21		59.99.0205	68 nF	63V, CER	
C.....22		59.99.0205	68 nF	63V, CER	
C.....23		59.32.3103	10 nF	40V, CER	
C.....24		59.31.1154	0.15 uF	20%, 100V, MPETP	
C.....25		59.36.3100	10 uF	20%, 16V, TA	
C.....26		59.36.2479	4.7 uF	20%, 10V, TA	
D.....1		50.04.0125	1N4448		Si
D.....2		50.04.0125	1N4448		Si
D.....3		50.04.0125	1N4448		Si
D.....4		50.04.1106	Z 2.7V	5%, 0.4W,	Si
D.....5		50.04.0125	1N4448		Si
D.....6		50.04.1102	Z 6.8V	5%, 0.4W,	Si
D.....7		50.04.0125	1N4448		Si
D.....8		50.04.0125	1N4448		Si
D.....9		50.04.0125	1N4448		Si
D.....10		50.04.0125	1N4448		Si

S T U D E R 82/05/26 AST TONE ARM CONTROL PC 1.179.190.00 PAGE 1

IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
Q.....12		50.03.0438	BC238B	NPN	RC548B
R.....1		57.11.4109	1 Ohm	5%, 0.25W,	CF
R.....2		57.11.4121	120 Ohm	5%, 0.25W,	CF
R.....3		57.11.4103	10 kOhm	5%, 0.25W,	CF
R.....4		57.11.4103	10 kOhm	5%, 0.25W,	CF
R.....5		57.11.4473	47 kOhm	5%, 0.25W,	CF
R.....6		57.11.4472	4.7 kOhm	5%, 0.25W,	CF
R.....7		57.11.4103	10 kOhm	5%, 0.25W,	CF
R.....8		57.11.4472	4.7 kOhm	5%, 0.25W,	CF
R.....9		57.11.4473	47 kOhm	5%, 0.25W,	CF
R.....10		57.11.4103	10 kOhm	5%, 0.25W,	CF
R.....11		57.11.4103	10 kOhm	5%, 0.25W,	CF
R.....12		57.11.4472	4.7 kOhm	5%, 0.25W,	CF
R.....13		57.11.4332	3.3 kOhm	5%, 0.25W,	CF
R.....14		57.11.4472	4.7 kOhm	5%, 0.25W,	CF
R.....15		57.11.4470	47 Ohm	5%, 0.25W,	CF
R.....16		57.11.4333	33 kOhm	5%, 0.25W,	CF
R.....17		57.11.4223	22 kOhm	5%, 0.25W,	CF
R.....18		57.11.4472	4.7 kOhm	5%, 0.25W,	CF
R.....19		57.11.4472	4.7 kOhm	5%, 0.25W,	CF
R.....20		57.11.4105	1 MOhm	5%, 0.25W,	CF
R.....21		57.11.4221	220 Ohm	5%, 0.25W,	CF
R.....22		57.11.4331	330 Ohm	5%, 0.25W,	CF
R.....23		57.11.4472	4.7 kOhm	5%, 0.25W,	CF
R.....24		57.11.4222	2.2 kOhm	5%, 0.25W,	CF
R.....25		57.11.4333	33 kOhm	5%, 0.25W,	CF
R.....26		57.11.4472	4.7 kOhm	5%, 0.25W,	CF
R.....27		57.11.4472	4.7 kOhm	5%, 0.25W,	CF
R.....28		57.11.4333	33 kOhm	5%, 0.25W,	CF
R.....29		57.11.4102	1 kOhm	5%, 0.25W,	CF
R.....30		57.11.4222	2.2 kOhm	5%, 0.25W,	CF
R.....31		57.11.4472	4.7 kOhm	5%, 0.25W,	CF
R.....32		57.11.4472	4.7 kOhm	5%, 0.25W,	CF
R.....33		57.11.4472	4.7 kOhm	5%, 0.25W,	CF
R.....34		57.11.4103	10 kOhm	5%, 0.25W,	CF
R.....35		57.11.4102	1 kOhm	5%, 0.25W,	CF

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IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
D.....11		50.04.0125	1N4448		Si
D.....12		50.04.1119	Z 15V	5%, 0.4W,	Si
D.....13		50.04.0122	1N4001		Si
D.....14		50.04.0125	1N4448		Si
D.....15		50.04.0125	1N4448		Si
D.....16		50.04.0125	1N4448		Si
D.....17		50.04.1101	Z 3.9V	5%, 0.4W,	Si
D.....18		50.04.1101	Z 3.9V	5%, 0.4W,	Si
D.....19		50.04.0125	1N4448		Si
D.....20		50.04.0125	1N4448		Si
IC.....1		50.06.0074	74LS74	Dual D Flip Flop	N, TI
IC.....2		50.06.0004	74LS04	Hex Inverter	N, TI
IC.....3		50.06.0010	74LS10	Triple 3-Input NAND Gate	N, TI
IC.....4		50.06.0000	74LS00	Quad 2-Input NAND Gate	N, TI
IC.....5		50.06.0011	74LS11	Triple 3-Input AND Gate	N, TI
(01) IC.....6		50.09.0107	RC4559	DUAL OP. AMP.	RA, NEC
(01) IC.....7		50.09.0107	RC4559	DUAL OP. AMP.	RA, NEC
J.....1		54.01.0248	20-Pole	CIS	
J.....2		54.01.0305	5-Pole	CIS	
J.....3		54.01.0218	7-Pole	CIS	
J.....4		54.01.0288	5-Pole	CIS	
K.....1		56.04.0161	24V DC	G2V-2 2C Ag/Au	SDS
Q.....1		50.03.0340	BC337-25	NPN	2N4401
Q.....2		50.03.0340	BC337-25	NPN	2N4401
Q.....3		50.03.0351	BC327-25	PNP	2N4403
Q.....4		50.03.0438	BC238B	NPN	BC548B
Q.....5		50.03.0340	BC337-25	NPN	2N4401
Q.....6		50.03.0351	BC327-25	PNP	2N4403
Q.....7		50.03.0340	BC337-25	NPN	2N4401
Q.....8		50.03.0351	BC327-25	PNP	2N4403
Q.....9		50.03.0438	BC238B	NPN	BC548B
Q.....10		50.03.0329	P1228E	PDFET	SPF316
Q.....11		50.03.0438	BC238B	NPN	RC548B

S T U D E R 82/05/26 AST TONE ARM CONTROL PC 1.179.190.00 PAGE 2

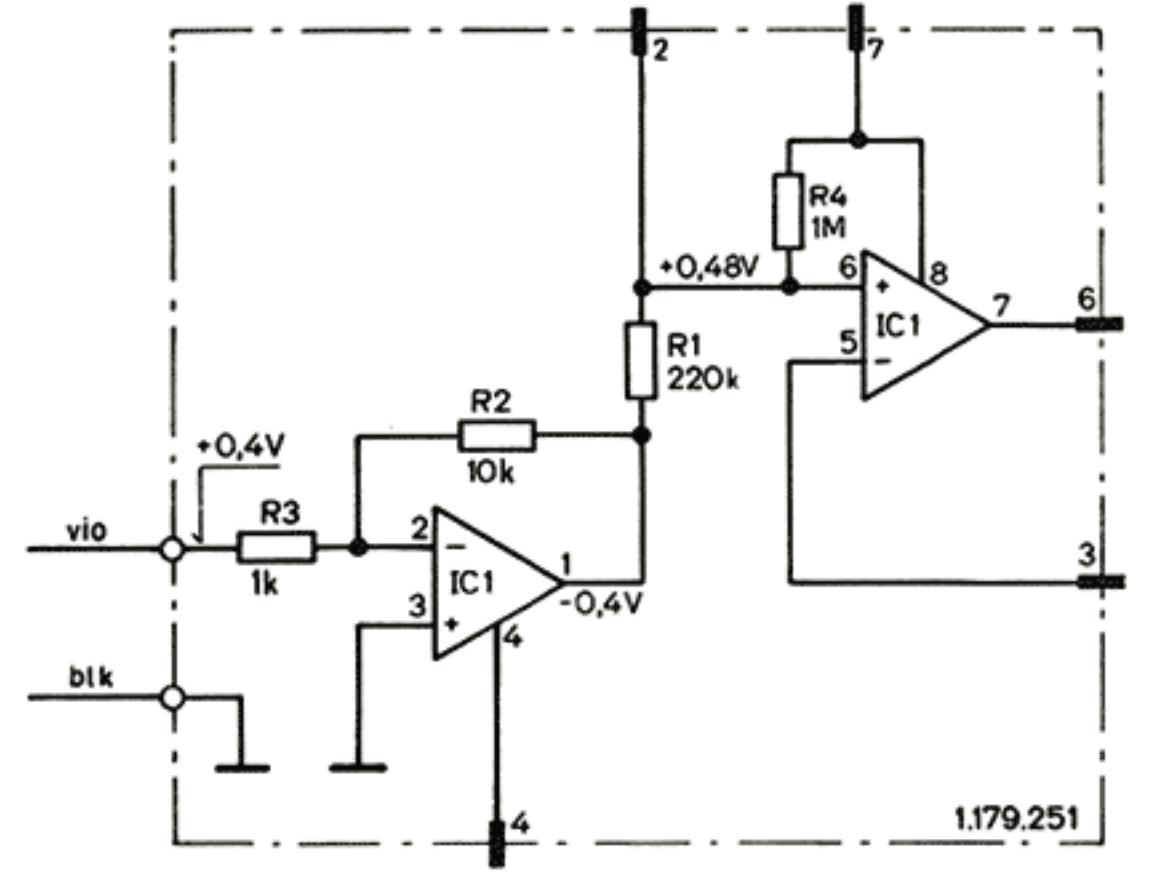
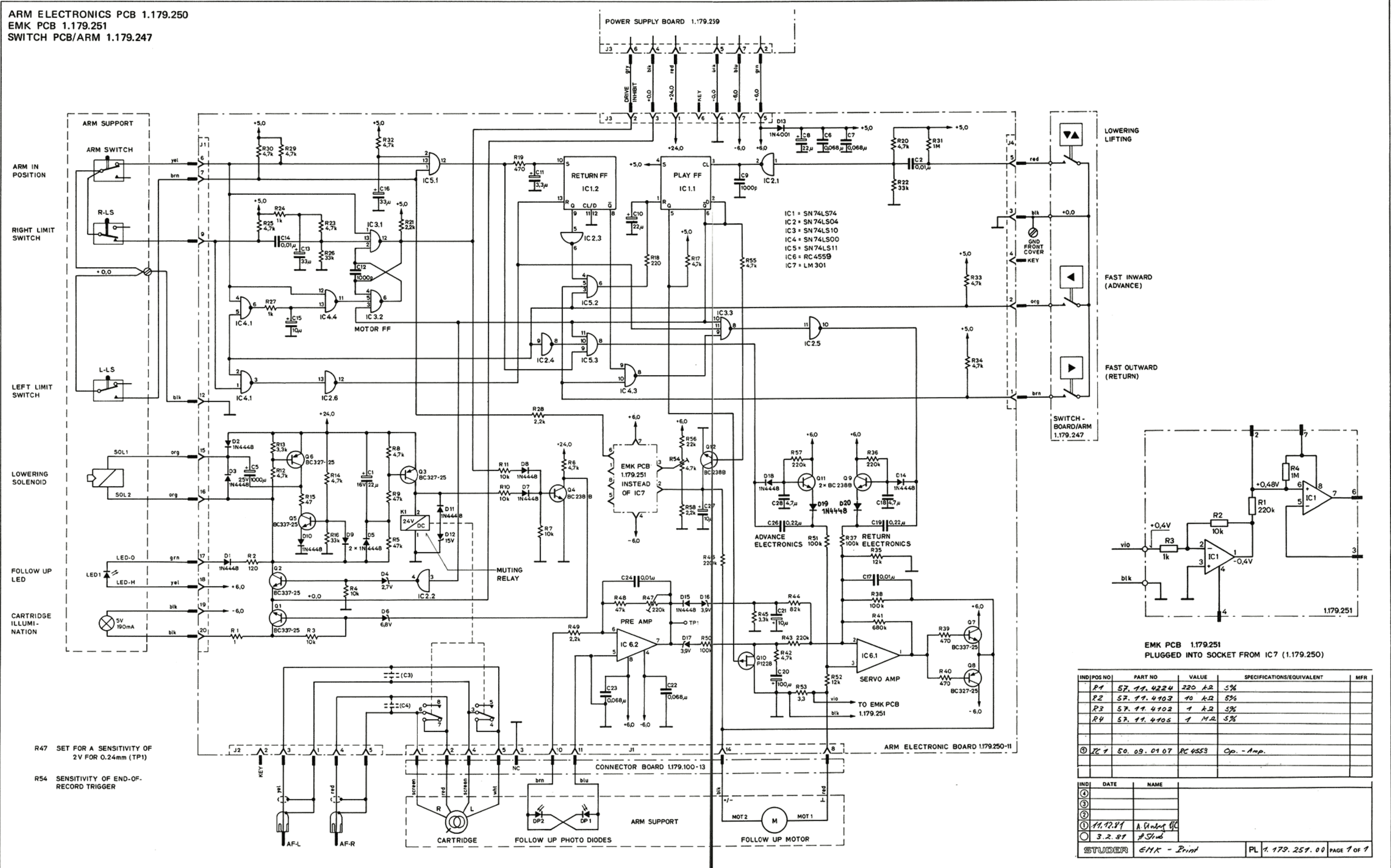
IND.	POS.NO.	PART NO.	VALUE	SPECIFICATIONS / EQUIVALENT	MANUF.
R.....36		57.11.4123	12 kOhm	5%, 0.25W,	CF
R.....37		57.11.4104	100 kOhm	5%, 0.25W,	CF
R.....38		57.11.4224	220 kOhm	5%, 0.25W,	CF
R.....39		57.11.4104	100 kOhm	5%, 0.25W,	CF
R.....40		57.11.4471	470 Ohm	5%, 0.25W,	CF
R.....41		57.11.4471	470 Ohm	5%, 0.25W,	CF
R.....42		57.11.4684	680 kOhm	5%, 0.25W,	CF
R.....43		57.11.4472	4.7 kOhm	5%, 0.25W,	CF
R.....44		57.11.4224	220 kOhm	5%, 0.25W,	CF
R.....45		57.11.4823	82 kOhm	5%, 0.25W,	CF
R.....46		57.11.4332	3.3 kOhm	5%, 0.25W,	CF
R.....47		57.11.4224	220 kOhm	5%, 0.25W,	CF
R.....48		58.02.5224	220 kOhm	20%, 0.1W,	PCF 1in
R.....49		57.11.4473	47 kOhm	5%, 0.25W,	CF
R.....50		57.11.4105	1 MOhm	5%, 0.25W,	CF
R.....51		57.11.4222	2.2 kOhm	5%, 0.25W,	CF
R.....52		57.11.4104	100 kOhm	5%, 0.25W,	CF
R.....53		57.11.4104	100 kOhm	5%, 0.25W,	CF
R.....54		57.11.4123	12 kOhm	5%, 0.25W,	CF
R.....55		57.11.4339	3.3 Ohm	5%, 0.25W,	CF
R.....56		57.11.4224	220 kOhm	5%, 0.25W,	CF
R.....57		58.02.5472	4.7 kOhm	20%, 0.1W,	PCF 1in
R.....58		57.11.4472	4.7 kOhm	5%, 0.25W,	CF
R.....59		57.11.4393	39 kOhm	5%, 0.25W,	CF
R.....60		57.11.4224	220 kOhm	5%, 0.25W,	CF
R.....61		57.11.4472	4.7 kOhm	5%, 0.25W,	CF

EL=Electrolytic, CER=Ceramic, TA=Tantal
PE=Polyester, Si=Silicon
CF=Carbon Film
MANUFACTURER: RA=Raytheon, N=National, TI=Texas Instruments
Td=Teledyne, SDS=Cmron, ITT, NEC=Nippon Electric Comp.

ORIG 81/05/27 (01) 81/12/11 S T U D E R 82/05/26 AST TONE ARM CONTROL PC 1.179.190.00 PAGE 4

ARM ELECTRONICS UNIT

ARM ELECTRONICS PCB 1.179.250
EMK PCB 1.179.251
SWITCH PCB/ARM 1.179.247



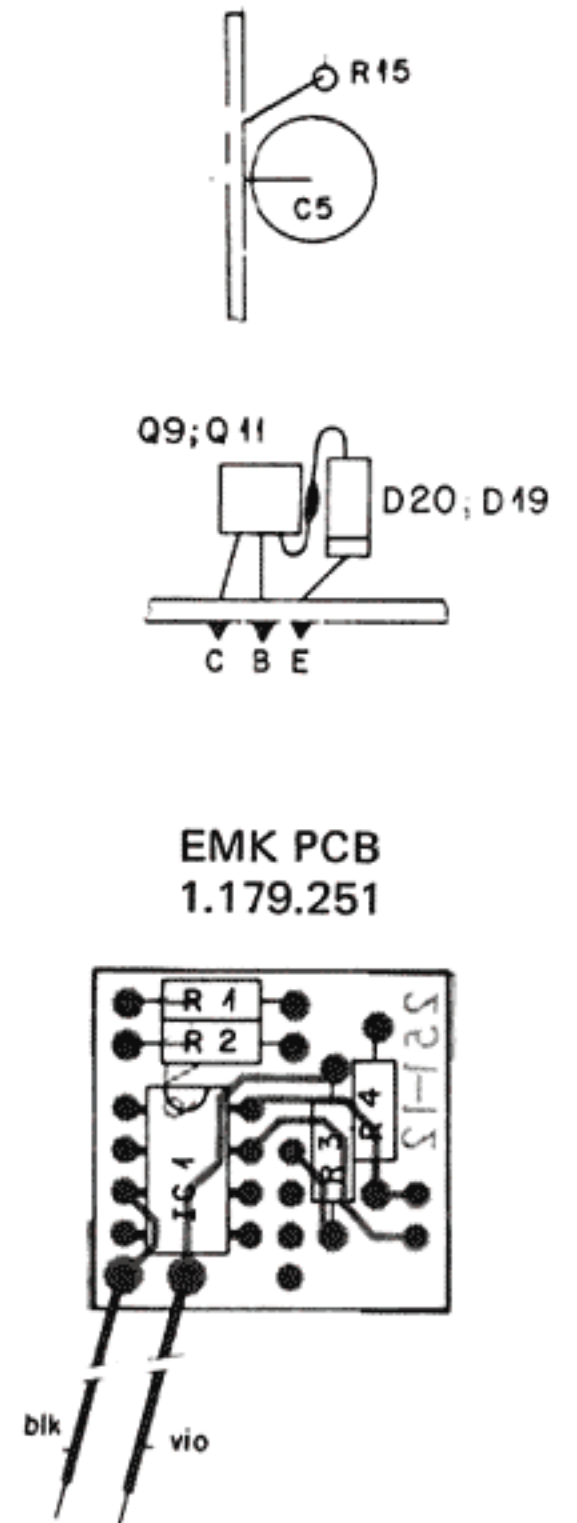
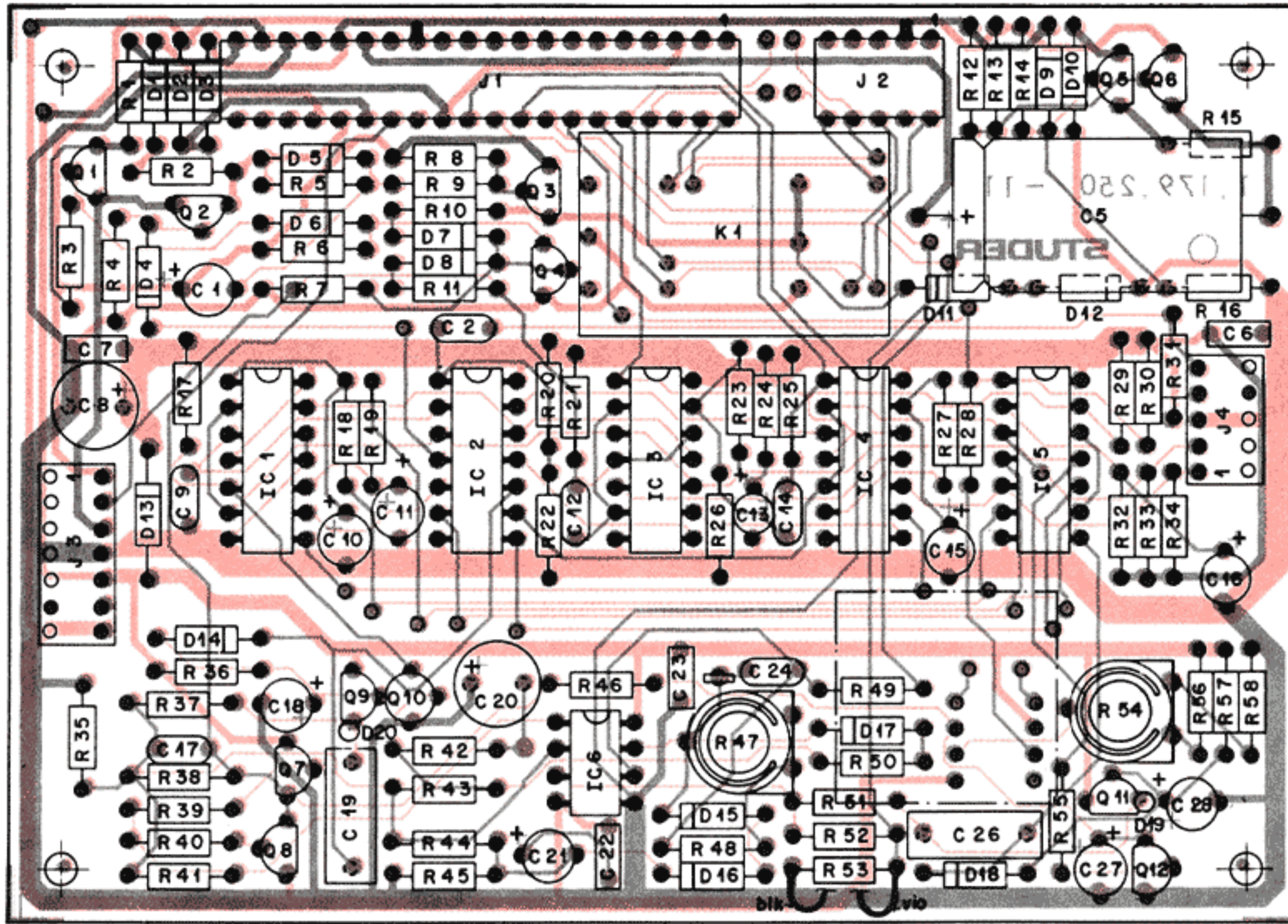
EMK PCB 1.179.251
PLUGGED INTO SOCKET FROM IC 7 (1.179.250)

INDI POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
R1	57.11.4224	220 kΩ	5%	
R2	57.11.4103	10 kΩ	5%	
R3	57.11.4102	1 kΩ	5%	
R4	57.11.4105	1 MΩ	5%	
IC1	50.09.0107	RC4553	Op.-Amp.	

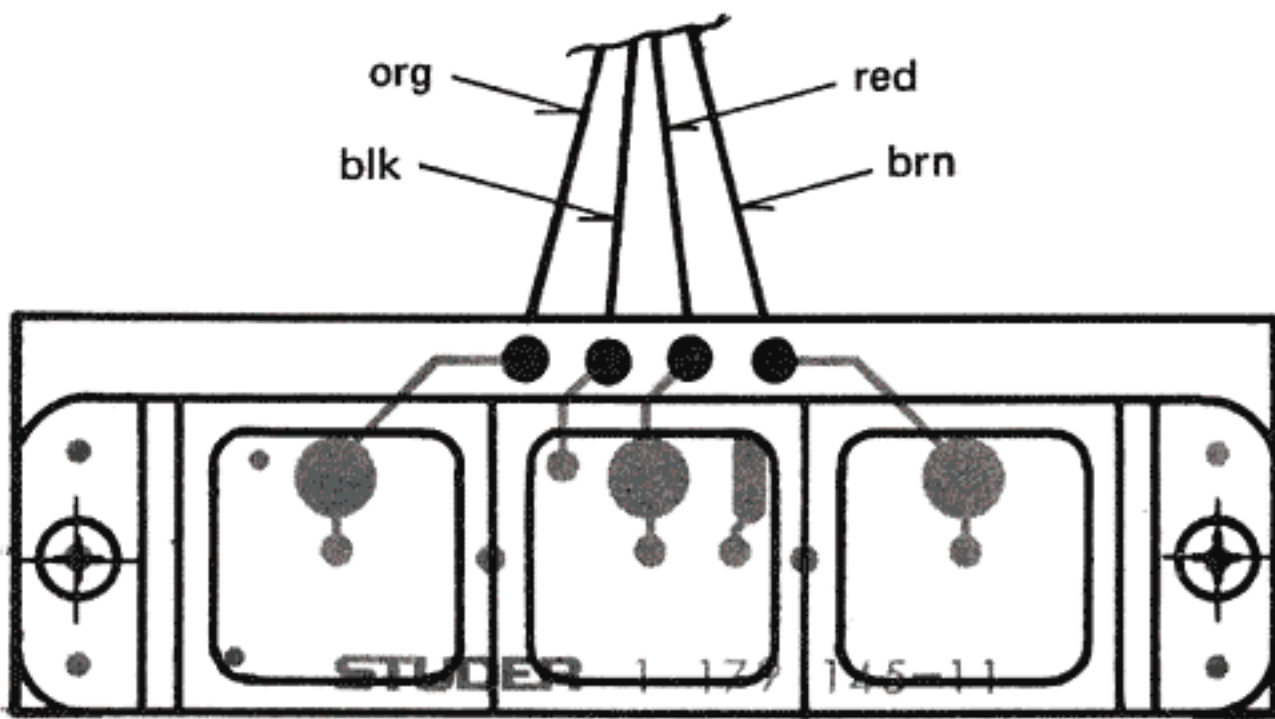
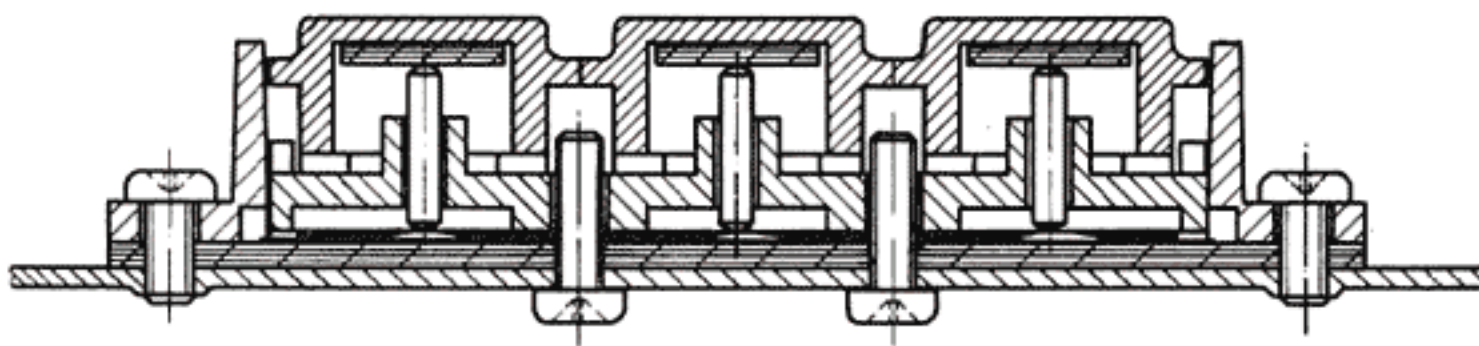
INDI	DATE	NAME
①		
②		
③		
④	11.12.81	A. G. ...
⑤	3.2.87	#Stub

STUDER EMK - Print PL 1.179.251.00 PAGE 7 OF 7

ARM ELECTRONICS UNIT



ARM ELECTRONICS PCB 1.179.250



SWITCH BOARD / ARM 1.179.247

INDI	POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
④	C 01	59.22.5220	22 μ F	25 V, -10+50%	EL
	C 02	59.32.3103	0,01 μ F	40 V,	KER
	C 03				
	C 04				
	C 05	59.25.4102	1000 μ F	25V, -10+50%	EL
	C 06	59.99.0205	0,068 μ F	63V,	KER
	C 07	59.99.0205	0,068 μ F	63V,	KER
	C 08	59.22.6220	22 μ F	40 V, -10+50%	EL
	C 09	59.32.4102	1000 pF	50 V, 20%	KER
	C 10	59.30.4220	22 μ F	16 V, -20+50%	TA
	C 11	59.30.4339	3,3 μ F	16 V, -20+50%	TA
	C 12	59.32.4102	1000 pF	50 V, 20%	KER
	C 13	59.30.3330	33 μ F	10 V, -20+50%	TA
	C 14	59.32.3103	0,01 μ F	40 V,	KER
	C 15	59.30.4100	10 μ F	16 V, -20+50%	TA
	C 16	59.30.3330	33 μ F	10 V, -20+50%	TA
	C 17	59.32.3103	0,01 μ F	40 V,	KER
	C 18	59.30.3479	4,7 μ F	10 V, -20+50%	TA
	C 19	59.31.1224	0,22 μ F	100 V, 20%	
	C 20	59.22.3101	100 μ F	10 V, -10+50%	EL
	C 21	59.30.4100	10 μ F	16 V, -20+50%	TA
	C 22	59.99.0205	0,068 μ F	63 V,	KER
	C 23	59.99.0205	0,068 μ F		
	C 24	59.32.3103	0,01 μ F	40 V,	KER
①	C 26	59.31.1224	0,22 μ F	100 V, 20%	
	C 27	59.30.4100	10 μ F	16 V, -20+50%	TA
	C 28	59.30.3479	4,7 μ F	10 V, -20+50%	TA

INDI	DATE	NAME	
④	25. 5. 82	A. Pt	TA = Tantal
③	11.12.81	A. Pt	EL = Electrolytic
②	24. 4. 81	% AS	KER = Ceramic
①	18. 2. 81	AG	
○	6. 7. 79	blw	⑤ 15. 9. 82

INDI	POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
	D 01	50.04.0125	1N4448	75 V, 100 mA	Si
	D 02	50.04.0125	1N4448		
	D 03	50.04.0125	1N4448		
	D 04	50.04.1106	2.7 V	5%, 0.4 W	Si
	D 05	50.04.0125	1N4448	75 V, 100 mA	Si
	D 06	50.04.1102	6.8 V	5%, 0.4 W	Si
	D 07	50.04.0125	1N4448	75 V, 100 mA	Si
	D 08	50.04.0125	1N4448		
	D 09	50.04.0125	1N4448		
	D 10	50.04.0125	1N4448		
	D 11	50.04.0125	1N4448		
	D 12	50.04.1119	15 V	5%, 0.4 W	Si
	D 13	50.04.0122	1N4001	50 V, 1 A	Si
	D 14	50.04.0125	1N4448	75 V, 100 mA	Si
	D 15	50.04.0125	1N4448		
	D 16	50.04.1101	3.9 V	5%, 0.4 W	Si
	D 17	50.04.1101	3.9 V		
	D 18	50.04.0125	1N4448	75 V, 100 mA	Si
②	D 19	50.04.0125	1N4448		
③	D 20	50.04.0125	1N4448		
	IC 01	50.06.0074	SN74LS74	Dual Flip-Flop	
	IC 02	50.06.0004	SN74LS04	Hex Inverter	
	IC 03	50.06.0010	SN74LS10	Triple 3-Input NAND	
	IC 04	50.06.0000	SN74LS00	4 x 2-Input NAND	
	IC 05	50.06.0011	SN74LS11	Triple 3-Input AND	
③	IC 06	50.09.0107	RC4559	Dual Op-Amp	

INDI	DATE	NAME	
④	25.5.82	A. St	Si = Silicon
③	11.12.81	A. St	
②	24.4.81	St	
①	18.2.81	A. St	
○	6.7.79	St	⑤ 15.9.82 qk

STUDER Arm Electronic Board 1.179.250.00 PAGE 2 OF 5

INDI	POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
	J 01	54.01.0248	20-pole	CIS-Plug	
	J 02	54.01.0305	5-pole	CIS-Plug	
	J 03	54.01.0218	7-pole	CIS-Plug	
	J 04	54.01.0288	5-pole	CIS-Plug	
③	K 01	56.04.0143	24VDC	Relay 2C Ag/Au	SDS
	Q 01	50.03.0340	BC337-25	NPN	2N4401
	Q 02	50.03.0340	BC337-25		
	Q 03	50.03.0351	BC327-25	PNP	2N4403
	Q 04	50.03.0438	BC238 B	NPN	BC548 B
	Q 05	50.03.0340	BC337-25	NPN	2N4401
	Q 06	50.03.0351	BC327-25	PNP	2N4403
	Q 07	50.03.0340	BC337-25	NPN	2N4401
	Q 08	50.03.0351	BC327-25	PNP	2N4403
	Q 09	50.03.0438	BC238 B	NPN	BC548 B
	Q 10	50.03.0329	P1228 E	P-Chan. FET	SPF316 M
	Q 11	50.03.0438	BC238 B	NPN	BC548 B
	Q 12	50.03.0438	BC238 B		
	R 01	57.11.4109	10 Ω	5% 0.25W CF	
	R 02	57.11.4121	120 Ω		
	R 03	57.11.4103	10 K		
	R 04	57.11.4103	10 K		
	R 05	57.11.4473	47 K		
	R 06	57.11.4472	4.7 K		
	R 07	57.11.4103	10 K		

INDI	DATE	NAME	
④	25.5.82	A. St	SDS = National, Omron, Zettler
③	11.12.81	A. St	M = Motorola
②	24.4.81	St	CF = Carbon Film
①	18.2.81	A. St	
○	6.7.79	St	⑤ 15.9.82 qk

STUDER Arm Electronic Board 1.179.250.00 PAGE 3 OF 5

INDI	POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
	R 08	57.11.4472	4.7 K	5% 0.25W CF	
	R 09	57.11.4473	47 K		
	R 10	57.11.4103	10 K		
	R 11	57.11.4103	10 K		
	R 12	57.11.4472	4.7 K		
	R 13	57.11.4332	33 K		
	R 14	57.11.4472	4.7 K		
	R 15	57.11.4470	47 Ω		
	R 16	57.11.4333	33 K		
	R 17	57.11.4472	4.7 K		
	R 18	57.11.4221	220 Ω		
	R 19	57.11.4471	470 Ω		
	R 20	57.11.4472	4.7 K		
	R 21	57.11.4222	2.2 K		
	R 22	57.11.4333	33 K		
	R 23	57.11.4472	4.7 K		
	R 24	57.11.4102	10 K		
	R 25	57.11.4472	4.7 K		
	R 26	57.11.4333	33 K		
	R 27	57.11.4102	10 K		
	R 28	57.11.4222	2.2 K		
	R 29	57.11.4472	4.7 K		
	R 30	57.11.4472	4.7 K		
	R 31	57.11.4105	10 M		
	R 32	57.11.4472	4.7 K		
	R 33	57.11.4472	4.7 K		
	R 34	57.11.4472	4.7 K		
	R 35	57.11.4123	12 K		
	R 36	57.11.4224	220 K		
	R 37	57.11.4104	100 K		

INDI	DATE	NAME	
④	25.5.82	A. St	CF = Carbon Film
③	11.12.81	A. St	
②	24.4.81	St	
①	18.2.81	A. St	
○	6.7.79	St	⑤ 15.9.82 qk

STUDER Arm Electronic Board 1.179.250.00 PAGE 4 OF 5

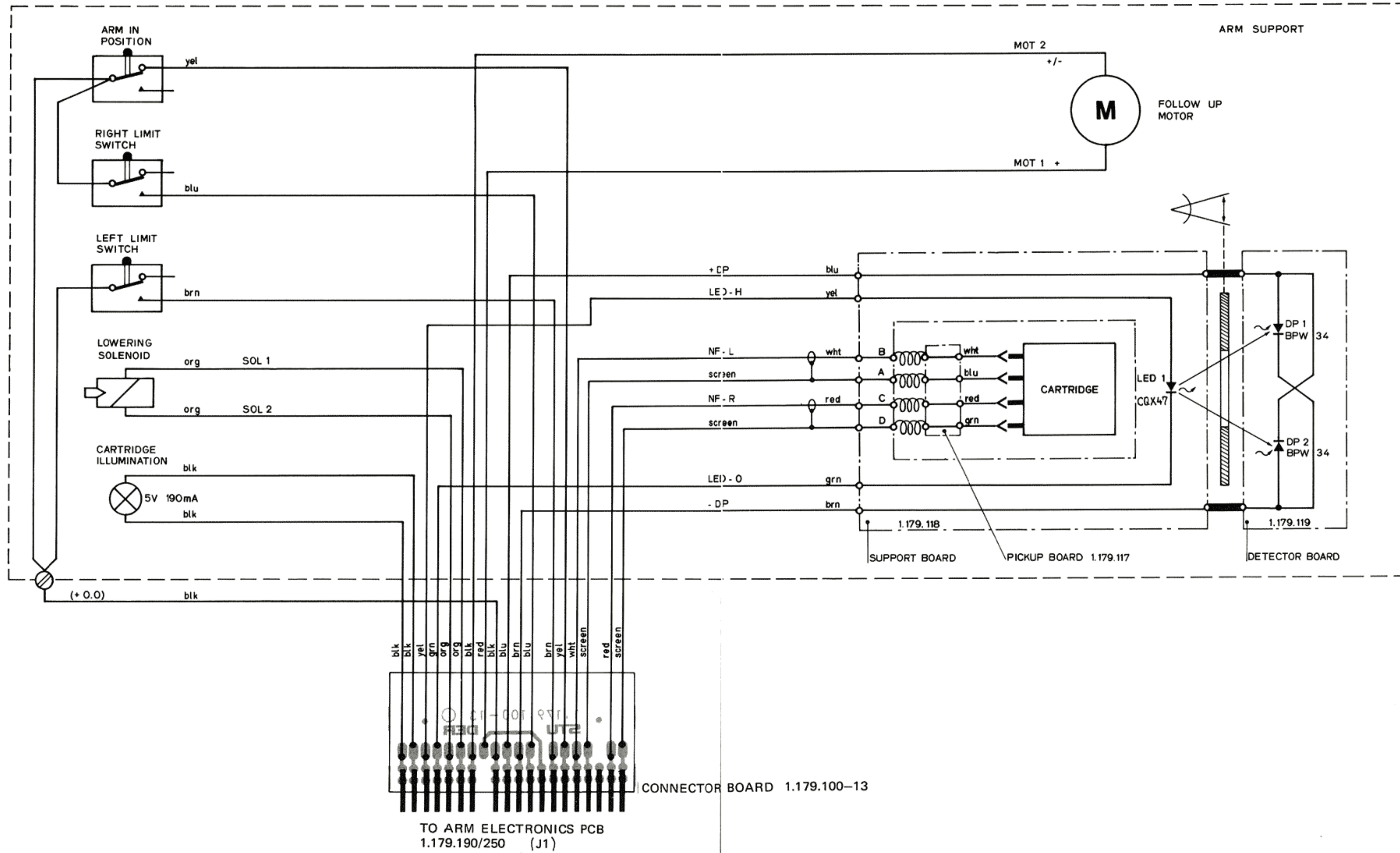
INDI	POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
	R 38	57.11.4104	100 K	5% 0.25W CF	
	R 39	57.11.4471	470 Ω		
	R 40	57.11.4471	470 Ω		
	R 41	57.11.4684	680 K		
	R 42	57.11.4472	4.7 K		
	R 43	57.11.4224	220 K		
	R 44	57.11.4823	82 K		
	R 45	57.11.4332	33 K		
①	R 46	57.11.4224	220 K		
	R 47	58.02.5224	220 K	20% Lin. 0.1W C	
	R 48	57.11.4473	47 K	5% 0.25W CF	
	R 49	57.11.4222	2.2 K		
	R 50	57.11.4104	100 K		
	R 51	57.11.4104	100 K		
	R 52	57.11.4123	12 K		
	R 53	57.11.4339	33 Ω		
	R 54	58.02.5472	4.7 K	20% Lin. 0.1W C	
	R 55	57.11.4472	4.7 K	5% 0.25W CF	
	R 56	57.11.4223	2.2 K		
	R 57	57.11.4224	220 K		
	R 58	57.11.4222	2.2 K		

INDI	DATE	NAME	
④	25.5.82	A. St	CF = Carbon Film
③	11.12.81	A. St	C = Carbon
②	24.4.81	St	
①	18.2.81	A. St	
○	6.7.79	St	⑤ 15.9.82 qk

STUDER Arm Electronic Board 1.179.250.00 PAGE 5 OF 5

TONE ARM UNIT 1.179.200

PICKUP PCB 1.179.117
 SUPPORT PCB 1.179.118
 DETECTOR PCB 1.179.119
 CONNECTOR PCB 1.179.100



TONE ARM UNIT 1.179.200

