

# **STUDER A820 MCH TLS-4000**

## **INTERFACE DOCUMENTATION**

**Interface number : 1.812.134.23**

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## 1. LED-Anzeige/Indicator LEDs

The two LEDs on the INTERFACE A820 MCH serve as status indicators and for diagnosing possible errors.

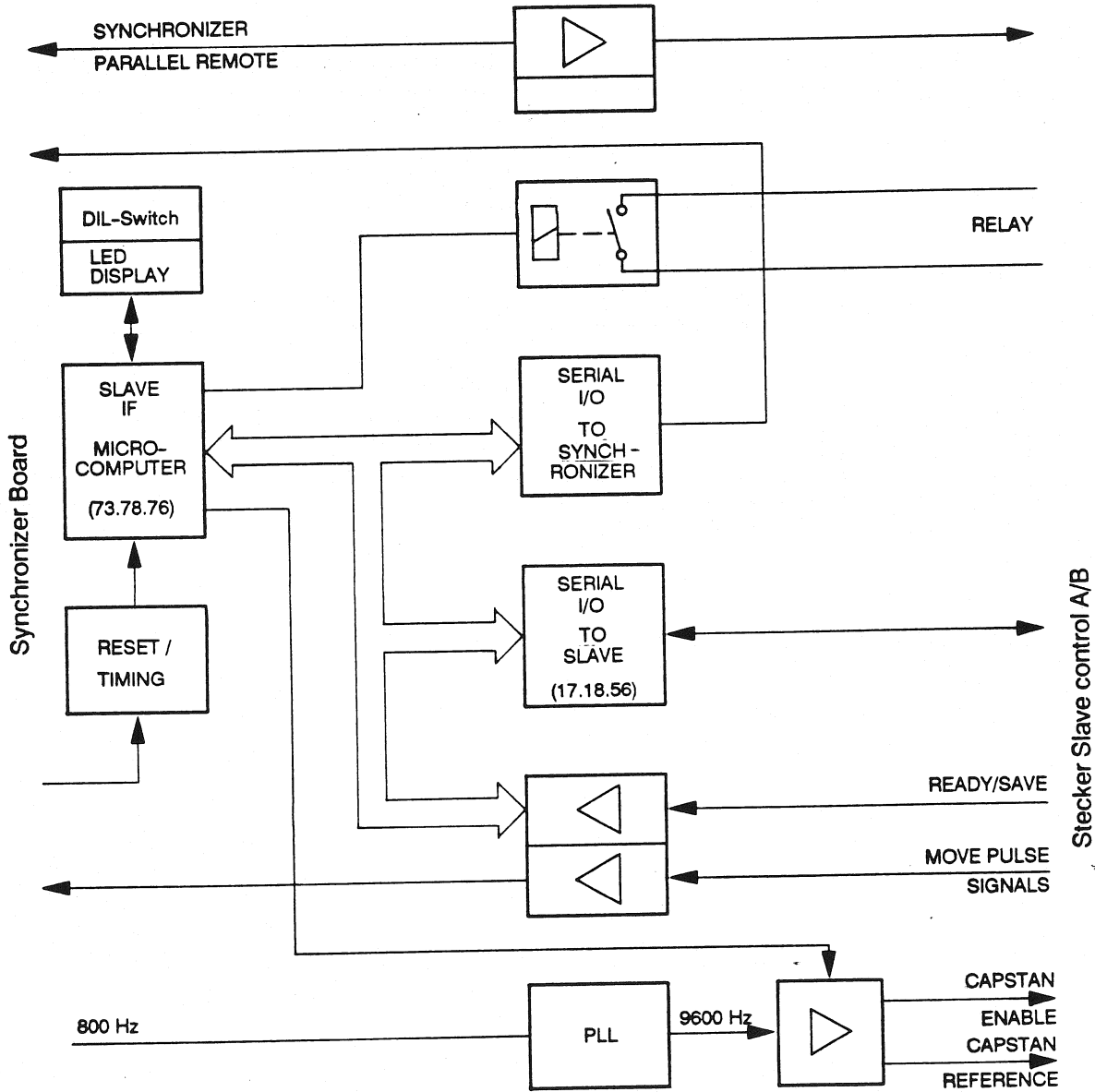
DL 1 2 (viewed from the front)

DL 1 2 (- LED dark/dunkel, \* LED on/leuchtend, # LED flashes/blinkend)

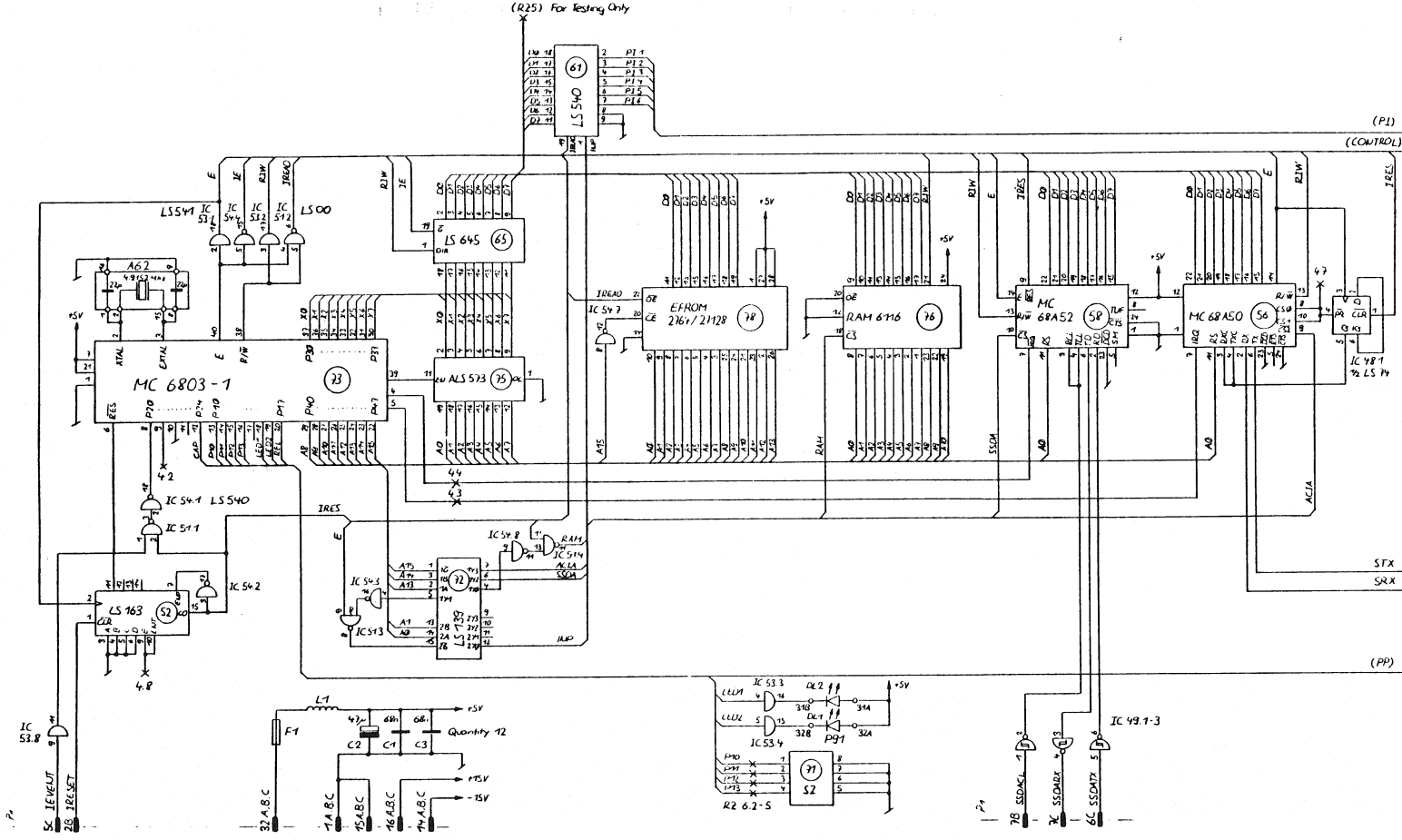
DL1	DL2	
-	#	EPROM-Fehler
#	-	RAM-Fehler
#	#	SSDA-Fehler
*		Befehlsverarbeitung von Synchronizer
	*	Verbindung zu Slave gestört
	-	Verbindung zu Slave in Ordnung

2. Service Instructions

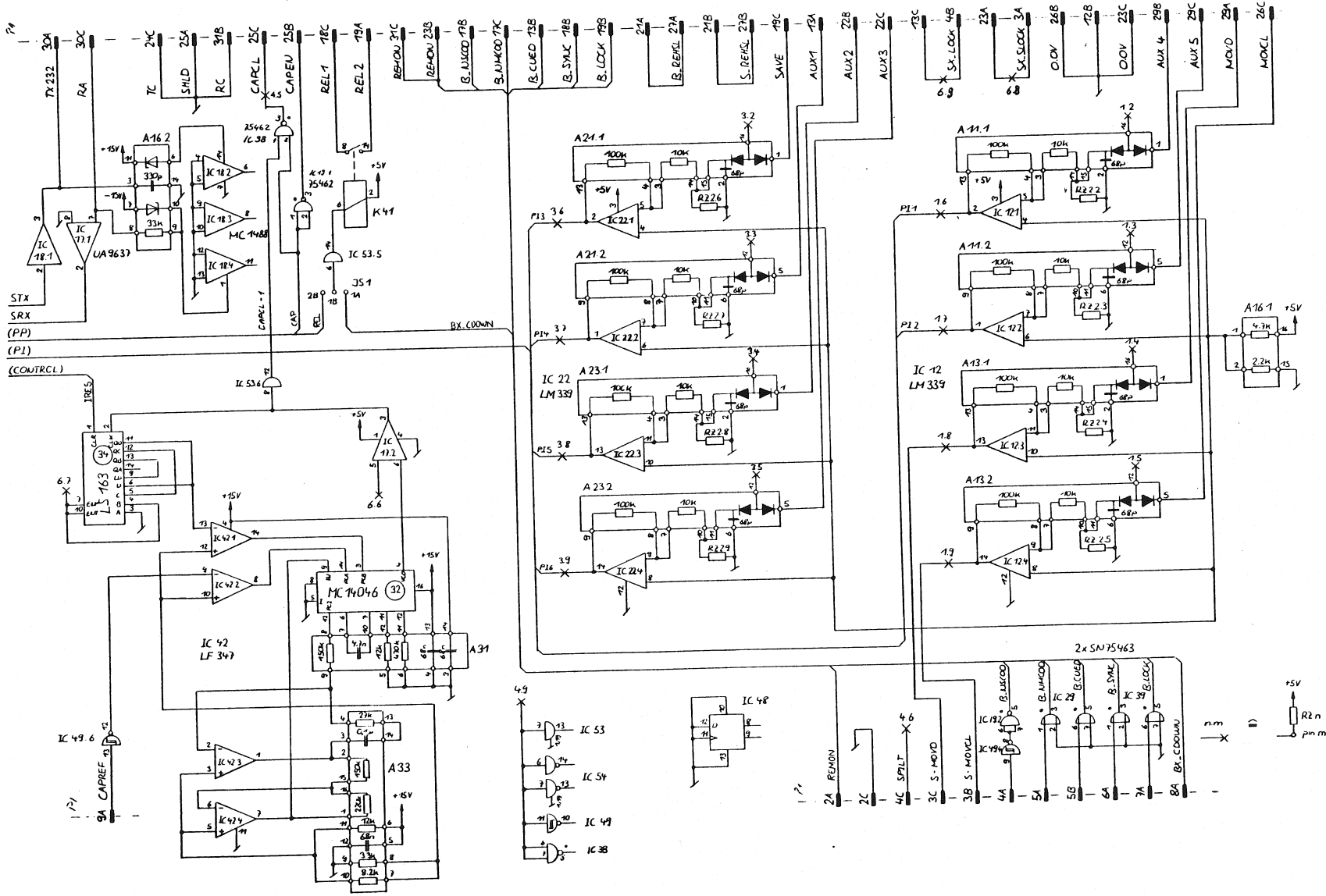
2.1 Block diagram



2.2 Diagrams

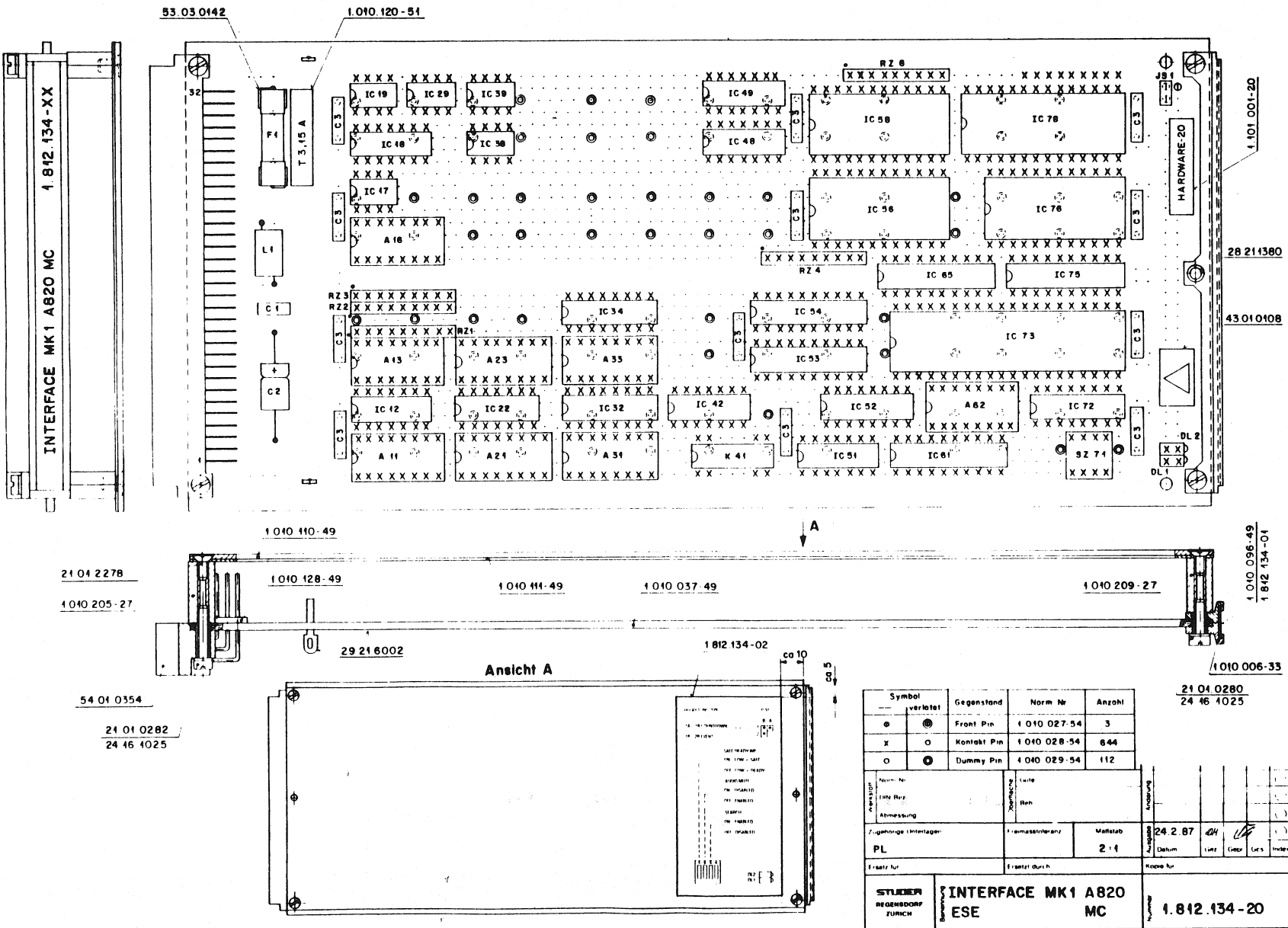


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2.3 Component arrangement



## 2.4 Component position list

## INTERFACE MK1 A820 MC

1.812.134.23

Ad	POS.	REF.No.	DESCRIPTION	MANUFACTURER
A....11		1.812.208.00	Assembly 406 - 11	St
A....13		1.812.208.00	Assembly 406 - 11	St
A....16		1.812.211.00	Assembly 126 - 16	St
A....21		1.812.208.00	Assembly 406 - 11	St
A....23		1.812.208.00	Assembly 406 - 11	St
A....31		1.812.202.00	Assembly 120 - 45	St
A....33		1.812.203.00	Assembly 120 - 35	St
A....62		1.812.201.00	Assembly 106 - 62	St
C....1	59.99.0205	68 n	-20%, 63V, CER	
C....2	59.25.3470	47 u	-10%, 16V, EL	
C....3	59.99.1200	.068 u	20%, 63V, PE Quantity: 12	
DL....1	50.04.2107		LED red, 555-2007	Di
DL....2	50.04.2107		LED red, 555-2007	Di
F....1	51.01.0122	3,15 AT	250V, 5*20	
IC....12	50.11.0104		LM 339 AN, uA 339 ,A	
IC....17	50.15.0114		uA 9637	
IC....18	50.15.0106		MC 1488 P, DS 1488	Mot,NS
IC....19	50.05.0227		SN 75 472 P, SN 75 462 JG	
IC....22	50.11.0104		LM 339 AN, uA 339 ,A	
IC....29	50.05.0203		SN 75463 P	
IC....32	50.07.0046		MC 1 4046 BPC ,A	RCA,Ph,Mot
IC....34	50.06.0163		SN 74 LS 163 AN	
IC....38	50.05.0227		SN 75 472 P, SN 75 462 JG	
IC....39	50.05.0203		SN 75463 P	
IC....42	50.09.0104		LF 347 N	
IC....48	50.06.0074		SN 74 LS 74 N	
IC....49	50.06.0014		SN 74 LS 14 N	
IC....51	50.06.0000		SN 74 LS 00 N	
IC....52	50.06.0163		SN 74 LS 163 AN	
IC....53	50.06.0541		SN 74 LS 641 N	
IC....54	50.06.0540		SN 74 LS 540 N	
IC....56	50.16.0101		MC 68A50 P, S 68A50 ,A	Mot,AMI
IC....58	50.16.0114		MC 68A52, HD 68A52 ,A	Mot,Hi
IC....61	50.06.0540		SN 74 LS 540 N	
IC....65	50.06.0645		SN 74 LS 645 N	
IC....72	50.06.0139		SN 74 LS 139 N	
IC....73	50.16.0107		MC 6803P-1, HD 6803P-1 ,A	Mot,Hi
IC....75	50.06.1573		SN 74ALS 573 N	
IC....76	50.14.0107		HM 6116 LP-4, MSM 5128-15 ,A	Hi,OKI
IC....78	50.14.0125	see Note	P-27128 A, HN 27128 AG25 ,A	It,Hi
JS....1	54.01.0021		Jumper	
K....41	56.02.1003	5 V 1*A	100V/0.5A, Print	
L....1	62.01.0115		Wide Band HF-Choke	
P....1	54.01.0354		Card Connector 3 * 32 Euro Wrap	
RZ....1	57.88.4332	8 * 3.3K	5%, Single Line	
RZ....2	57.88.4103	8 * 10K	5%, Single Line	
RZ....3	57.88.4332	8 * 3.3K	5%, Single Line	
RZ....4	57.88.4332	8 * 3.3K	5%, Single Line	
RZ....6	57.88.4332	8 * 3.3K	5%, Single Line	
SZ...71	55.01.0164	4 * ON	DIL-Switch	

Note : Software release 1.812.968.23 (IC 78)

CER = Ceramic, EL = Electrolytic, PE = Met. Polyester

MANUFACTURERS : AMI = American Microsystem Inc.

Di = Dialco  
 Hi = Hitachi  
 It = Intel  
 Mot = Motorola  
 NS = National Semiconductor  
 OKI = OKI Semiconductor  
 Ph = Philips  
 RCA = Radio Cooperation Of America  
 St = Studer

1.812.134.23 INTERFACE MK1 A820 MC

KS89/10/2300



## 2.5 TLS 4000 MKI Interface STUDER A820 MCH

### Pin assignment of slave remote connectors A and B

#### SLAVE REMOTE CONNECTOR A:

Pin	Signal	Type	Function
1	GND		0.0 V
2	-		
3	-		
4	TC		Transmit common
5	SHLD		Shield
6	CAPEN	oc. out	Capstan contr. enable
7	CAPCLK	9600 Hz	Capstan clock
8	-		
9	GND		0.0 V
10	MOVCLK		Move clock
11	(B_Rehrs)		
12	S_REHRS		Rehearse command
13	-		
14	-		
15	-		
16	-		
17	MOVD		Move direction
18	AUX 4		
19	AUX 5		
20	TX 232		Transmit RS 232
21	-		
22	RA 232		Receive RS 232
23	-		
24	RC		Receive common
25	+24 V		Remote power on

signal types: oc. out output with external pullup resistor (+28V max.)

switch in open collector or switch driving to ground

Pin assignment of slave remote connectors A and B

SLAVE REMOTE CONNECTOR B:

Pin	Signal	Type	Function
1	0.0 V		GND Synchronizer
2	-		
3	AUX 1		-
4	B_CUED	oc. out	CUED STATUS
5	SX_LOCK	switch in	Lock command
6	-		
7	B_NSCOD	oc. out	No Slave code
8	B_NMCOD	oc. out	No Master code
9	-		
10	B_SYNC	oc. out	SYNC STATUS
11	REL 1		
12	REL 2		
13	B_LOCK	oc. out	Lock status
14	SAFE/RDY	switch in	Safe/Ready Input
15	-		
16	-		
17	-		
18	B_REHRS	oc. out	Rehearsal status
19	S_REHRS	Switch in	Rehearsal command
20	-		
21	-		
22	AUX 2		
23	AUX 3		
24	SX_SLOCK	switch in	Slow lock command
25	+24 V		Remote power on

signal types: oc. out output with external pullup resistor (+28V max.)

switch in open collector or switch driving to ground