

# **AMPEX VPR-80 TLS-4000 MKII**

## **INTERFACE DOCUMENTATION**

**Interface number: 1.812.432.20  
IF - Doc number: 10.27.1170**

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## Summary

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## PIN ASSIGNMENT OF SLAVE REMOTE CONNECTORS A AND B

### SLAVE REMOTE CONNECTOR A

PIN	SIGNAL NAME	SIGNAL TYPE	FUNCTION
1	GND	0.0V	Ground
2	TA	RS422	Transmit A
3	TB	RS422	Transmit B
4	TC	0.0V	Transmit Common
5	SHLD	0.0V	Shield
6			
7			
8			
9			
10	AUX1	SWITCH IN	Record Enable Video
11	AUX2	SWITCH IN	Record Enable Audio1
12	AUX3	SWITCH IN	Record Enable Audio2
13	AUX4		(not used)
14	OUT1		(not used)
15	OUT2		(not used)
16	OUT3		(not used)
17	OUT4		(not used)
18			
19	GND	0.0V	Ground
20			
21			
22	RA	RS422	Receive A
23	RB	RS422	Receive B
24	RC	0.0V	Receive Common
25	REMON+	+24V	Remote Power on

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

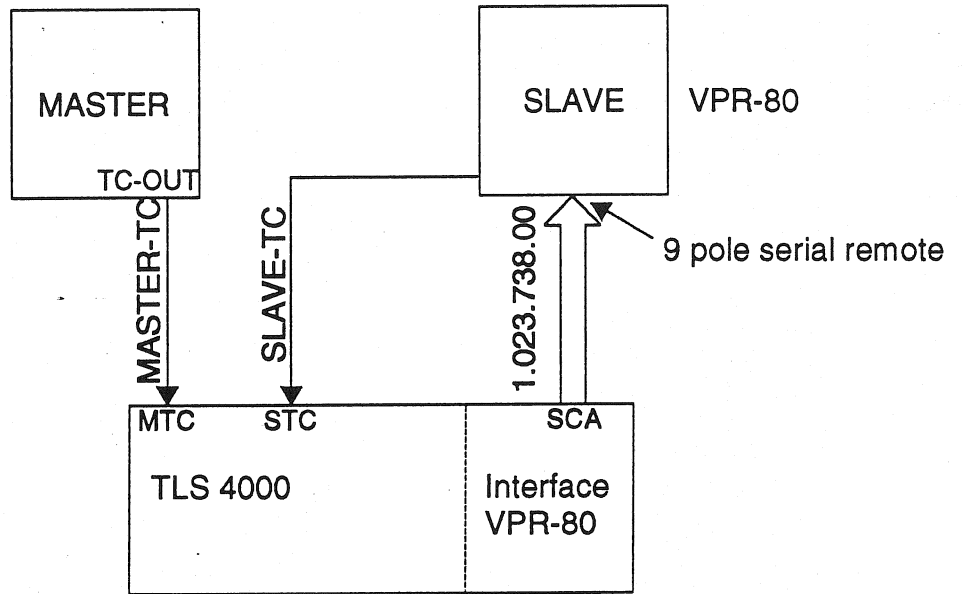
### SLAVE REMOTE CONNECTOR B

PIN	SIGNAL NAME	SIGNAL TYPE	FUNCTION
1	GND	0.0V	GND Synchronizer
2	RECEN VID.	SWITCH IN	Record enable signal VIDEO
3	RECEN A1	SWITCH IN	Record enable signal AUDIO1
4	RECEN A2	SWITCH IN	Record enable signal AUDIO2
5	AUX4		(not used)
6	REL1		Relais contact 1
7	REL2		Relais contact 2
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22	OUT1		
23	OUT2		
24	OUT3		
25	OUT4		

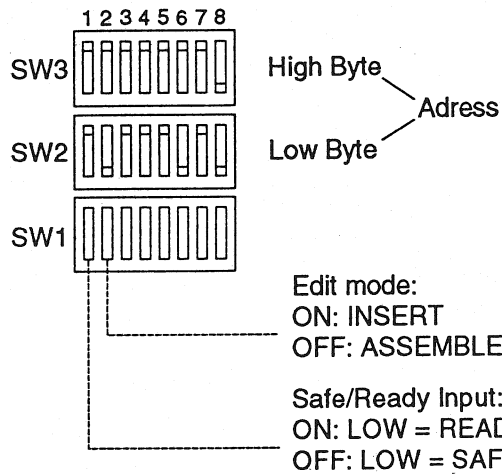
**OC.OUT** = output with external pullup resistor (+28V max.)

**SWITCH IN** = open collector or switch driving to ground

**CABLING**



**DIL- switch setting on the Interface:**



Example: set address 80A2 Hex

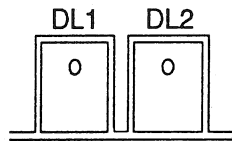
SW3.	1	2	3	4	5	6	7	8
	Ø	Ø	Ø	Ø	Ø	Ø	Ø	1
SW2.	1	2	3	4	5	6	7	8
	Ø	1	Ø	Ø	Ø	1	Ø	1

**Setup on the VPR-80:**

Remote: SETUP 2-4  
ID (ADDRESS): SETUP 13-X

## STATUS DISPLAY ON THE INTERFACE

The two LED's on the interface VPR-80 PCB serve as status indicators and for diagnosing possible problems.



### after initialisation

DL1	DL2	
-	-	no ERROR
-	*	EPROM error
*	-	RAM error
*	*	SSDA error (serial I/O) defectiv

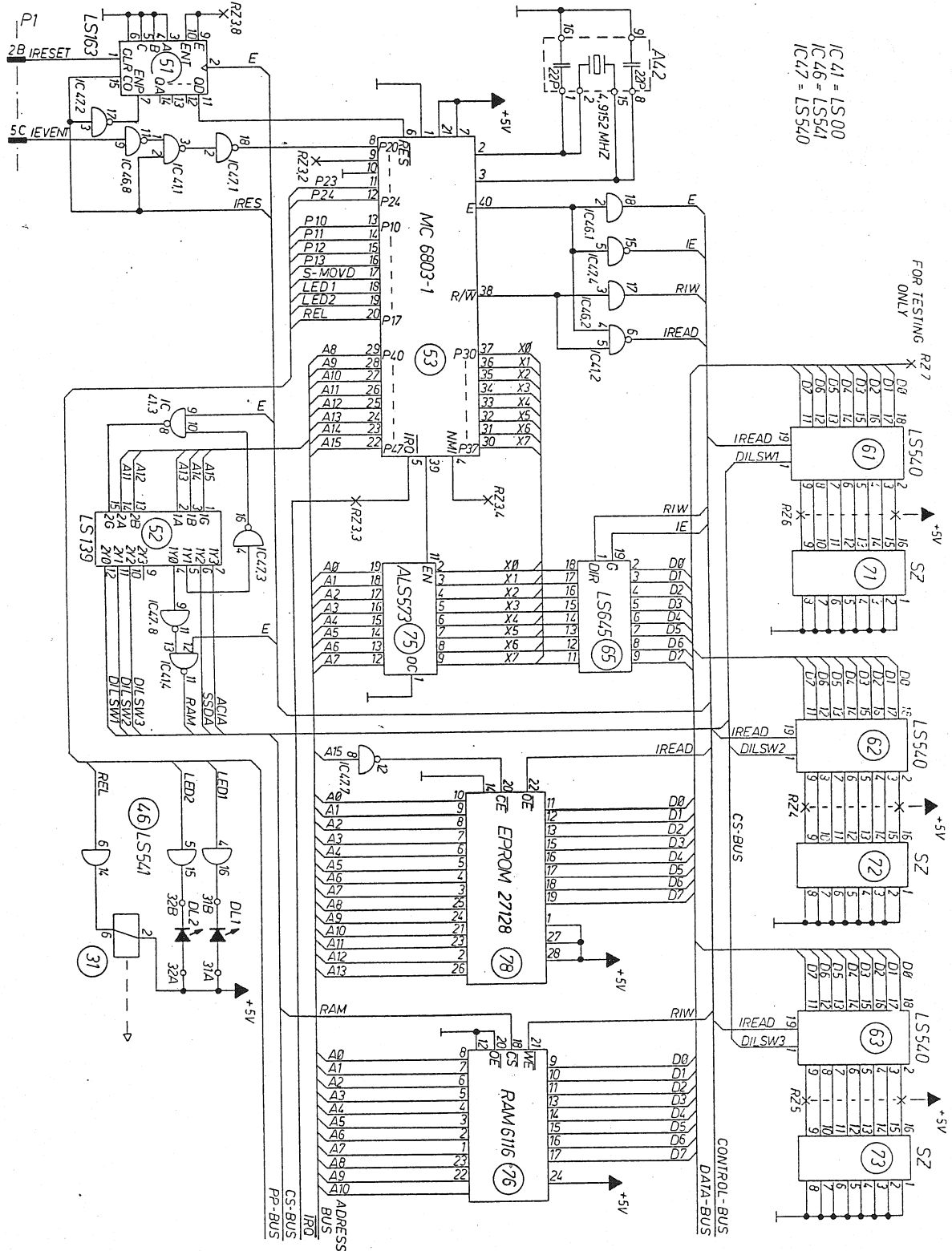
### during operation

DL1	DL2	
-	-	no error
-	*	no error
*	-	no communication between interface and machine
*	*	no communication between interface and synchronizer board

SERVICE INSTRUCTIONS



Diagrams 1.812.432.20



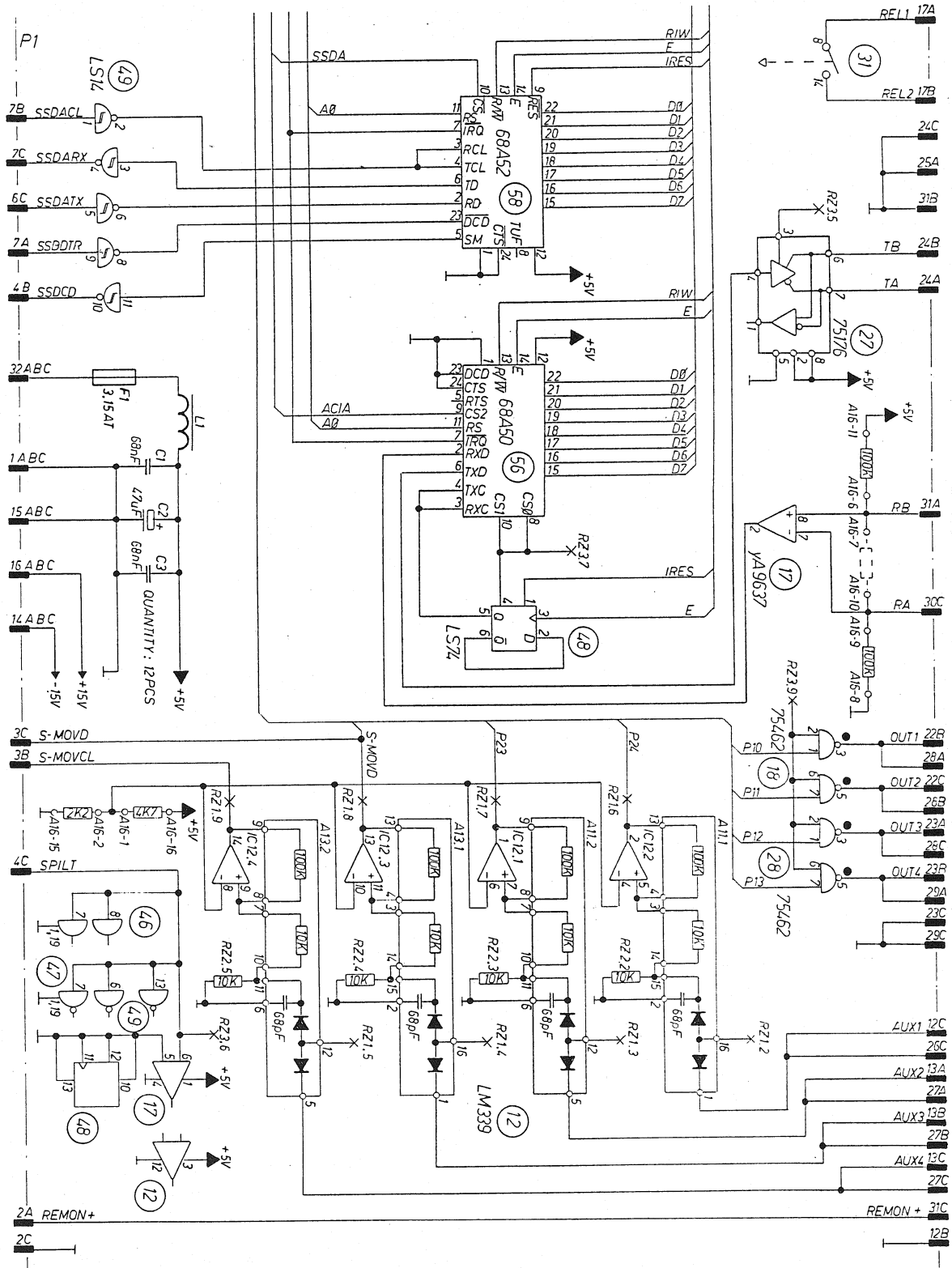
IC 41 = LS00  
 IC 46 = LS541  
 IC 47 = LS540

FOR TESTING ONLY

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STUDER	INTERFACE AMPEX VPR-80	ESE SC 1.812.432.2C



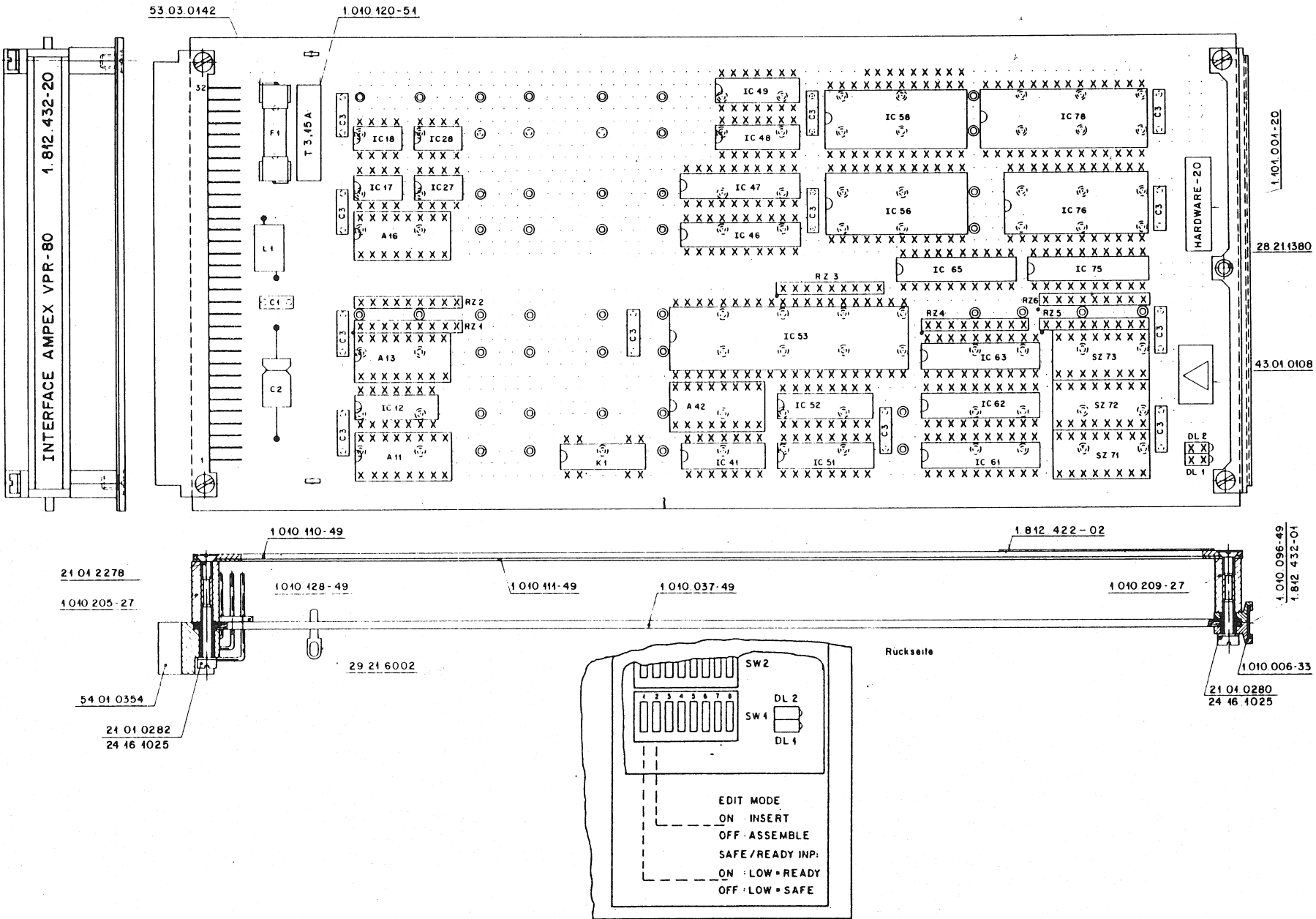
Diagrams 1.812.432.20



① 1,7.87 STA/SC	○ . . .	○ . . .	○ . . .	○ . . .
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Component arrangement 1.812.432.20





Component position list 1.812.432.20

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	1.812.210.00		Assembly 410-16	St
A....42	1.812.201.00		Assembly 120-52	St
C.....1	59.99.0205	68 nF	-20%, 63V, CER	
C.....2	59.25.3470	47 uF	-10%, 16V, EL	
C.....3	59.99.1200	0.068 uF	10%, 100V, MPETP	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	50.05.0227		SN 75 472 P, SN 75 462 JG,	
IC...27	50.15.0115		SN 75176, DS 3695	
IC...28	50.05.0227		SN 75 472 P, SN 75 462 JG,	
IC...41	50.06.0000		SN 74 LS 00 N	
IC...46	50.06.0541		SN 74 LS 541 N	
IC...47	50.06.0540		SN 74 LS 540 N	
IC...48	50.06.0074		SN 74 LS 74 N	
IC...49	50.06.0014		SN 74 LS 14 N	
IC...51	50.06.0163		SN 74 LS 163 AN	
IC...52	50.06.0139		SN 74 LS 139 N	
IC...53	50.16.0107		MC 6803 P-1, HD 6803 P-1	,A Mot,Hi
IC...56	50.16.0101		MC 68A50, 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...62	50.06.0540		SN 74 LS 540 N	
IC...63	50.06.0540		SN 74 LS 540 N	
IC...65	50.06.0645		SN 74 LS 645 N	
IC...75	50.06.1573		SN 74ALS 573 N	
IC...76	50.14.0107		HM 6116 LP-4, HSH 5128-12RS	,A Hi,OKI
IC...78	50.14.0125	see note	HN 27128AG-25, 27128-A	,A It,Hi
K....31	56.02.1003	5V, 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	57.85.4103	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....5	57.88.4332	8 * 3.3K	5%, Single Line	
RZ....6	57.88.4332	8 * 3.3K	5%, Single Line	
SZ...71	55.01.0168		8 * ON DIL-Switch	
SZ...72	55.01.0168		8 * ON DIL-Switch	
SZ...73	55.01.0168		8 * ON DIL-Switch	

Note : Software release 1.812.973.20 (IC 78)

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

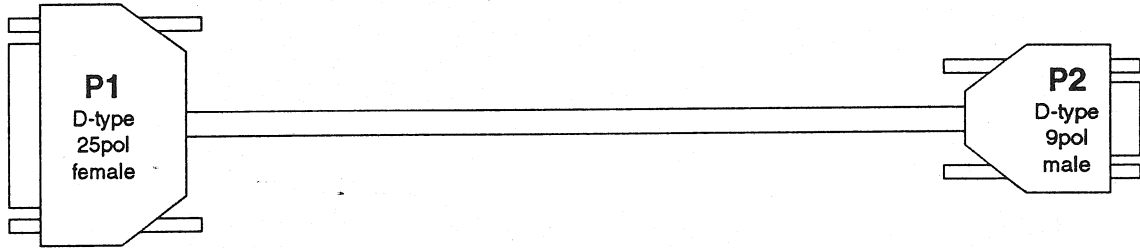
MANUFACTURERS : AMI = American Microsystem Inc.

- Di = Dialco
- Hi = Hitachi
- It = Intel
- Mot = Motorola
- OKI = OKI Semiconductor
- St = Studer

Interface cable for STUDER AMPEX VPR-80

TLS 4000 MKII  
SLAVE CONTROL A

AMPEX VPR-80  
SERIAL REMOTE



P1. 2 .....	TA .....	P2. 8
3 .....	TB .....	3
4 .....	TC .....	1
22 .....	RA .....	2
23 .....	RB .....	7
5 .....	SHLD .....	