

## Microphone Pre-Amplifiers

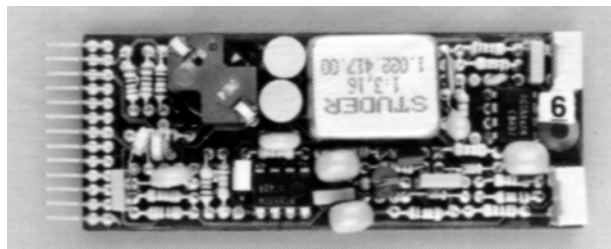
1.914.506/507

Two different microphone pre-amplifiers are available, for dynamic or condenser microphones, and for electret microphones. Both offer high gain and low noise, as is required for microphone pre-amplification.

1.914.506 features a balanced and floating input. It is designed for dynamic or condenser microphones with a source impedance of  $200\ \Omega$  or less. An RF filter is incorporated at the input transformer's primary. Furthermore, the input is equipped with the resistors required for phantom powering of condenser microphones.

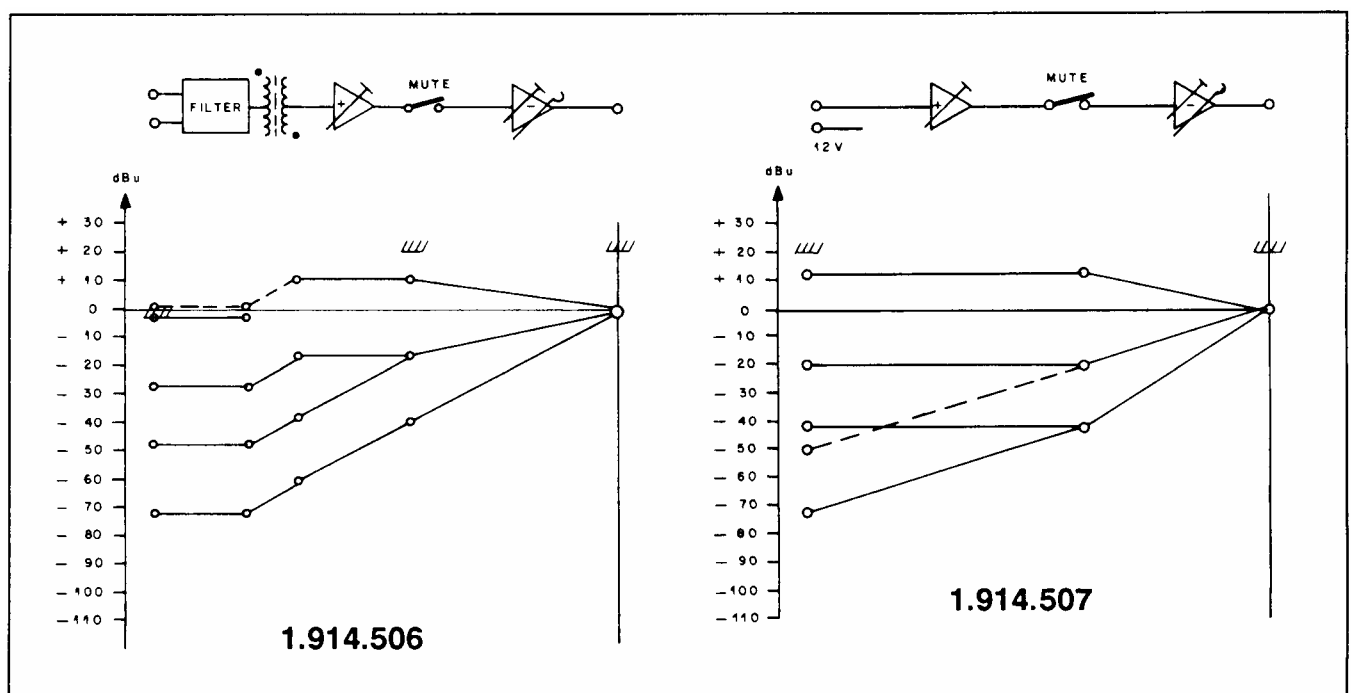
1.914.507 is designed for unbalanced electret microphones requiring a 12 V supply.

A wide range of input levels can be accommodated (see level diagram).



By using the same solid-state switching circuit as can be found in the line and high-level amplifiers, remote muting or activation of a fixed amount of attenuation are possible as well.

The amplifier's two outputs are unbalanced, with impedances of  $3.3\ \text{k}\Omega$  or  $33\ \Omega$ , respectively.



Technical Specifications

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<b>Input:</b>	Transformer-balanced and floating, with RF filter	(1.914.506)
	Unbalanced, with RF filter and electret supply	(1.914.507)
Impedance	> <b>1 k<math>\Omega</math></b> , for microphones with an impedance of 200 $\Omega$ or less.	
Max. input level	<b>-2 dBu</b> (615 mV <sub>rms</sub> ); THD at 30 Hz: approx. 1%	
Common mode rejection	> <b>60 dB</b> , unbalanced, to ground	

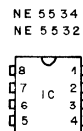
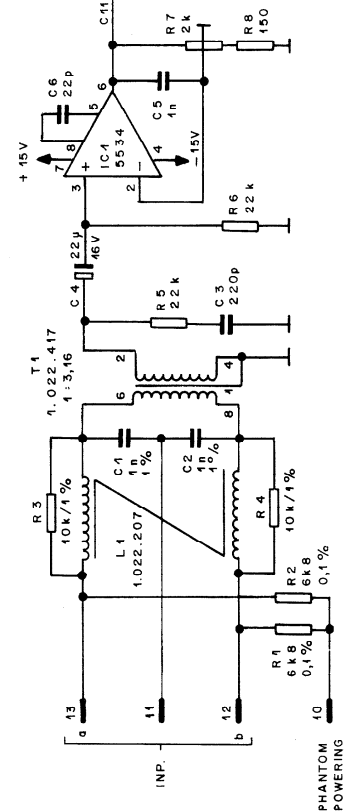
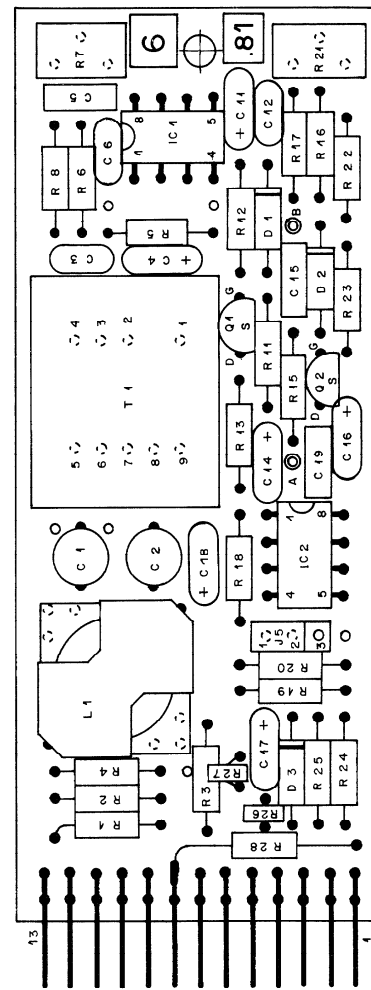
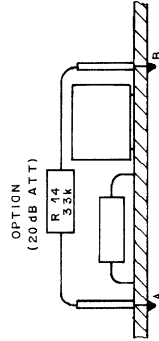
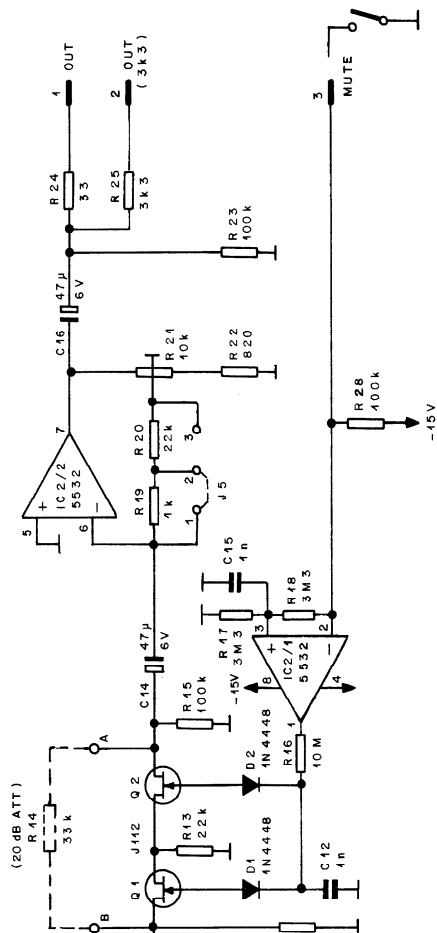
<b>Output:</b>	Max. level	<b>+20 dBu</b> (7.75 V <sub>rms</sub> )
	Nominal level	<b>0 dBu</b> (0.775 V <sub>rms</sub> )
	Impedance	<b>33 <math>\Omega</math></b> (pin1)
		<b>3.3 k<math>\Omega</math></b> (pin2; to a 0- $\Omega$ amp.)
	Minimum load	<b>600 <math>\Omega</math></b>
	Max. gain	<b>71 dB</b> (see level diagram)
	Frequency response	<b><math>\pm 0.5</math> dB</b> , 30 Hz...16 kHz
	THD	<b>&lt; 0.3%</b> , 30 Hz...16 kHz at 20 dB gain
	Noise figure, linear	<b>&lt; 4.5 dB</b> , input terminated with 200 $\Omega$

<b>Supply:</b>	<b><math>\pm 15</math> V</b> (11 mA idling)
	<b>+48 V</b> (1.914.506, only if phantom powering required)

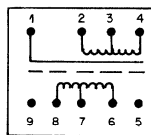
<b>Dimensions:</b>	<b>MS-card</b> , 34 × 85 mm
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<b>Ordering Information:</b>	<ul style="list-style-type: none"><li>• Microphone pre-amplifier for dynamic microphones</li><li>• Microphone pre-amplifier for electret microphones</li></ul>	1.914.506.xx 1.914.507.xx
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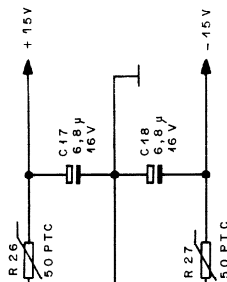
## MSC MICROPHONE PRE-AMP.



1.022.417  
T1



BOTTOM VIEW



CIS	PIN	EURO 32 PIN		
		(a)	(b)	(c)
IN a	13	1	7	24
IN b	12	2	8	22
IN L	11	3	9	23
PHANTOM	10	17	18	18
	9			
-15V	8	14		
0V	7	15		
+15V	6	16		
	5			
	4			
MUTE	3	4	10	24
OUT (3k3)	2	5	11	25
OUT	1	6	13	26
				30
				31
				32

## MICROPHONE PRE-AMP. MSC

Ad	POS	REF.No	DESCRIPTION	MANUFACTURER
C....1		59.05.1102	1000pF 630V 1% PP	
C....2		59.05.1102	1000pF 630V 1% PP	
C....3		59.34.4221	220pF CER	
C....4		59.30.4220	22pF 16V TA	
C....5		59.06.0102	1000pF PE	
C....6		59.34.2220	22pF CER	
C....11		59.26.0470	47pF 6,3V SAL	
C....12		59.32.4102	1000pF CER	
C....13				
C....14		59.26.0470	47pF 6,3V SAL	
C....15		59.06.0102	1000pF PE	
C....16		59.26.0470	47pF 6,3V SAL	
C....17		59.26.2689	6,8pF 16V SAL	
C....18		59.26.2689	6,8pF 16V SAL	
C....19		59.06.0102	1000pF PE	
D....1		50.04.0125	1N4448	
D....2		50.04.0125	1N4448	
D....3		50.04.0125	1N4448	
IC....1		50.05.0244	NES534AN LOW NOISE OP AMP	SIG
IC....2		50.09.0106	NES532AN DUAL LOW NOISE OP AMP	SIG
J....5		54.01.0021	JUMPER	
L....1	1.022.207.00		HF SYM. COIL	ST
P	54.01.0273	13PIN	CIS	
P (J5)	54.01.0020	PIN	JUMPER PLUG	
Q....1	50.03.0350	J112	N N-FET	
Q....2	50.03.0350	J112	N N-FET	
R....1	57.99.0250	6,8kΩ	0,1%	
R....2	57.99.0250	6,8kΩ	0,1%	
R....3	57.11.3103	10kΩ	1%	
R....4	57.11.3103	10kΩ	1%	
R....5	57.11.4123	12kΩ		
R....6	57.11.4223	22kΩ		
R....7	58.01.9202	2kΩ	POT	
R....8	57.11.4151	150		
R....11	57.11.4104	100kΩ		
R....12	57.11.4332	3,3kΩ		
R....13	57.11.4223	22kΩ		
R....14	57.11.4333	33kΩ	OPTIONAL (20dB ATT)	
R....15	57.11.4104	100kΩ		
R....16	57.11.5106	10MΩ		
R....17	57.11.5335	3,3MΩ	5%	
R....18	57.11.5335	3,3MΩ	5%	
R....19	57.11.4102	1kΩ		
R....20	57.11.4223	22kΩ		
R....21	58.01.9103	10kΩ	POT	
R....22	57.11.4821	820kΩ		
R....23	57.11.4104	100kΩ		
R....24	57.11.4330	33kΩ		
R....25	57.11.4332	3,3kΩ		
R....26	57.99.0206	50Ω	PTC	PH
R....27	57.99.0206	50Ω	PTC	PH
R....28	57.11.4104	100kΩ		
T....1	1.022.417.00	1:3,16	TRAFO	ST

CER=Ceramic, PE=Polystyrene, SAL=Solid Aluminium, PP=Polypropylen, TA=Tantalum

MANUFACTURER: ST=Studer, SIG=Signetics, PH=Philips

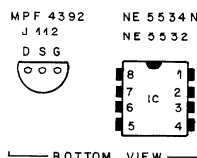
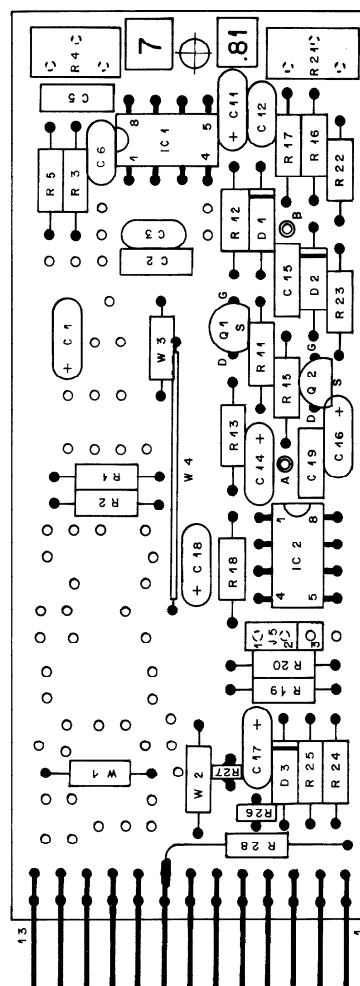
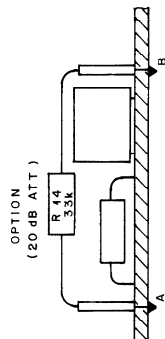
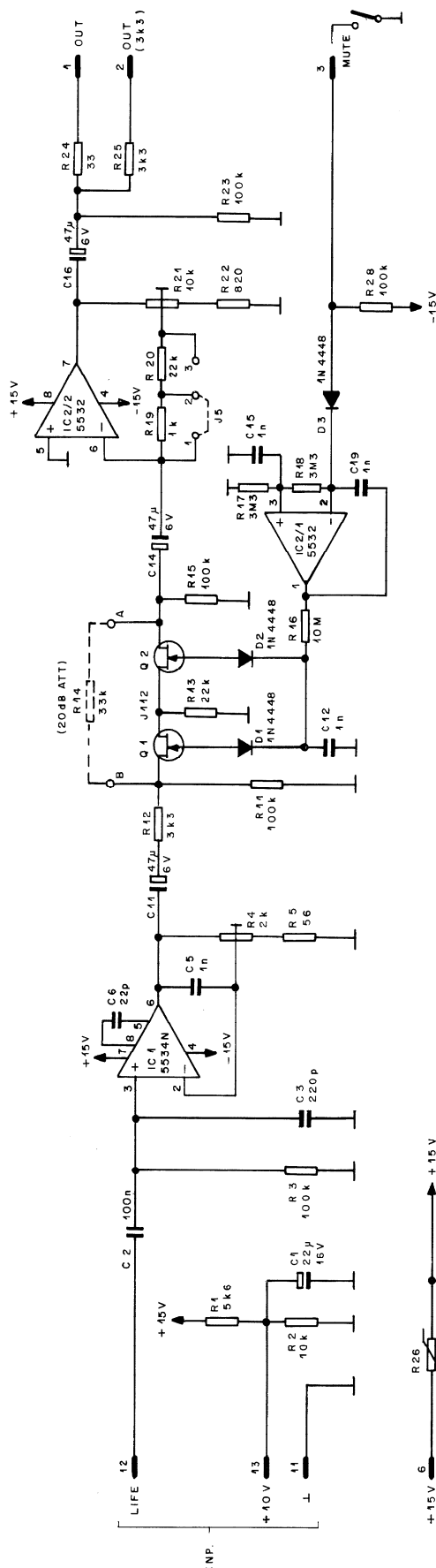
1.914.506.81 MIC. AMPLIFIER, FLOATING (Nr. 6)

FRI 19/04/85

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## MICROPHONE PRE-AMP. MSC



CIS	PIN	(a)	(b)	(c)	(d)
+10V	13	1	7	21	27
IN	12	2	8	22	28
IN 1	11	3	9	23	29
	10				
	9				
-15V	8	14			
0V	7	15			
+15V	6	16			
	5				
	4				
MUTE	3	4	10	24	30
OUT(3k3)	2	5	11	25	31
OUT	1	6	13	26	32

12.9.91					
STUDER REGENSDORF ZÜRICH	ELECTRET MIC. AMP. (NR. 7)				1.914.507.81

## MICROPHONE PRE-AMP. MSC

Ad	POS.	REF.No.	DESCRIPTION			MANUFACTURER
C....1		59.30.4220	22pF	16V	TA	
C....2		59.06.5104	0,1pF	63V	PE	
C....3		59.34.4221	220pF		CER	
C....5		59.06.0102	1000pF		PE	
C....6		59.34.2220	22pF		CER	
C....11		59.26.0470	47pF	6,3V	SAL	
C....12		59.32.4102	1000p		CER	
C....13						
C....14		59.26.0470	47pF	6,3V	SAL	
C....15		59.06.0102	1000pF		PE	
C....16		59.26.0470	47pF	6,3V	SAL	
C....17		59.26.2689	6,8pF	16V	SAL	
C....18		59.26.2689	6,8pF	16V	SAL	
C....19		59.06.0102	1000pF		PE	
D....1		50.04.0125	1N4448			
D....2		50.04.0125	1N4448			
① D....3		50.04.0125	1N4448			
IC....1		50.05.0244	NE5534AN	LOW NOISE OP AMP		SIG
IC....2		50.09.0106	NE5532AN	DUAL LOW NOISE OP AMP		SIG
J....5		54.01.0021		JUMPER		
P		54.01.0273	13PIN	CIS		
P (J5)		54.01.0020	PIN	JUMPER PLUG		
Q....1		50.03.0350	J112	N-FET		
Q....2		50.03.0350	J112	N-FET		
R....1		57.11.4562	5,6kΩ			
R....2		57.11.4103	10kΩ			
R....3		57.11.4104	100kΩ			
R....4		58.01.9202	2kΩ	POT		
R....5		57.11.4560	56Ω			
R....11		57.11.4104	100kΩ			
R....12		57.11.4332	3,3kΩ			
R....13		57.11.4223	22kΩ			
R....14		57.11.4333	33kΩ	OPTIONAL (20dB ATT)		
R....15		57.11.4104	100kΩ			
R....16		57.11.5106	10MΩ			
R....17		57.11.5335	3,3MΩ	5%		
R....18		57.11.5335	3,3MΩ	5%		
R....19		57.11.4102	1kΩ			
R....20		57.11.4223	22kΩ			
R....21		58.01.9103	10kΩ	POT		
R....22		57.11.4821	820Ω			
R....23		57.11.4104	100kΩ			
R....24		57.11.4330	33Ω			
R....25		57.11.4332	3,3kΩ			
R....26		57.99.0206	50Ω	PTC	PH	
R....27		57.99.0206	50Ω	PTC	PH	
R....28		57.11.4104	100kΩ			
① W....1		57.11.4000	0Ω	LINK		
① W....2		57.11.4000	0Ω	LINK		
① W....3		57.11.4000	0Ω	LINK		
① W....4				WIRE		

CER=Ceramic, PE=Polystyrene, SAL=Solid Aluminium, TA=Tantalum

MANUFACTURER: SIG=Signetics, PH=Philips

1.914.507.81 ELECTRET MIC AMP (Nr. 7)

FRI 19/04/85

1.914.507.81 ELECTRET MIC AMP (Nr. 7)

① FRI 14/10/85

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