TENSION ROLLER
CAPSTAN MOTOR
TENSION ROLLER
TAPE END STOP
LEFT DIFFERENTIAL TRANSFORMER
RIGHT DIFFERENTIAL TRANSFORMER
+UNREG
TACHO AMPLIFIER
A7
+6V
A18-6
A1
SPEED STABILIZER
A8
SECOND SPEED ADAPTER
A11-3
TAPE DECK GND
UNREG GND
SPEED VARIER INPUT
LOGIC
See diagram 09.07.700.0.00
LEFT STANDSTILL BRAKE
RIGHT STANDSTILL BRAKE
LEFT MOTOR
RIGHT MOTOR
REMOVING (A) FROM GROUND
A19
VOLTAGE STABILIZER
SENSE ⊕
SENSE ⊖
B52
B51a
UNREG GND
CR2 B6
+UNREG
20
B051
+6V
PILOT OUT
PILOT
A21
CRYSTAL PILOT GENERATOR
UNREG GND
STOP
+6V
A18-1
A18-2
MIC.1 PREAMPLIFIER
A13
MIC.2 PREAMPLIFIER
MIC OUTPUT 1
MIC OUTPUT 2
TAPE DECK INTERCONNECTION
B1
HEAD INTERCONNECTION
B4
A11
A9
A18
B9
B8
PRESELECTOR SWITCH
UPPER KEYBOARD CIRCUIT
LOWER KEYBOARD CIRCUIT
BOX INTERCONNECTION
A15 & A17
B6
PLAYBACK
RECORD
B7
RF FILTER
B71
B72
MICRO INPUT
55
54
48
24
13
7
UNREG. GND

STROBOSCOPE

41

PILOT CONNECTOR

58

BJ3

BRIDGE WITHOUT CRYSTAL

BRIDGE WITH CRYSTAL

CR1 B6

CLAPPER INPUT

BIAS OUTPUT

A18

BIAS OSCILLATOR

A7-9

A13-8

A13-10 -6V

BS1e

ERASE HEAD

C3 B4

C4* B4

PILOT OUT

STOP

R12 B6

R5 B6

CR3 B6

CR4 B6

BS1b

+6V

BS1d

A9

RECORD PREAMPLIFIER

BIAS

PRE-EMPHASIS

R1 B4

PILOT HEAD

RECORD HEAD

C2 B4

R3 B4

-6V

+UNREG

R6 B6

CR5 B6

C1 B6

R2 B4

C1 B4

A8-A

OUTPUT

INPUT

SPEED

25

A11

PLAYBACK AMPLIFIER

PLAYBACK HEAD

REF GENERATOR CONTROL INPUT

A20

REFERENCE GENERATOR

A30

AUTOMATIC LEVEL CONTROL

A1C-3

2a

2b

BR3

BS3b

A17

LEVEL

MODULOMETER OR SUPER VU METER OR PEAK VU METER

BM1

R10 B6

R11 B6

R2 B6

BS3a

BS1c

CR6 B6

A15

LINE AMPLIFIER

-UNREG

UNREG GND

A14

LF.A. FILTER

DIRECT AMPLIFIER

A20-3

A16

BR1

BR2

R3 B6

LINE TRANSFORMER

R9 B6

L51

BJ6

BC2

BC3

62

61

LINE OUTPUT

R4 B6

60

HEADPHONES OUTPUT

BJ7

HEADPHONES OUTPUT

PILOT CONNECTOR

BJ4

BF1

A21-11

OUTPUT FUSE

R8 B6

C1

BJ5

49

50

11

12

10

LINE INPUT

UNREGULATED

REGULATED

-UNREG

UNREG GND

+6V

*Asterisk denotes a factory selected value

All connectors viewed from the outside

NAGRA IS	09.07.001.0.00	18.4.77
SYNOPTIC DIAGRAM		

SYMBOLS
- GROUND (GND) connected to frame
- PLUG-IN CONNECTION on p.c. board
- SIGNAL PATH (arrow shows sense)
- SIGNAL TO (OR FROM) circuitry not on block dgrm

CIRCUITS outside block diagram:
A1= SPEED STABILIZER
A7= TACHOMETER AMPLIFIER

COMPONENTS unless otherwise stated
All diodes BAW 218
All resistors A-B, 220 KΩ, ½W ± 10%

WIRE COLOR CODE:

+B (Unreg.)	Orange
+ 6V	Red
-B (Unreg.)	Yellow
-Regulated	Black

⊕ UNREG. → TO A5 (7), A6 (3), A4 (7)

⊕ UNREG. → TO A7 (5)

⊖ UNREG. → TO A1 (2)

A19 VOLTAGE STABILIZER
⊕6V → TO A7 (8)
TO A1 (1)
STAB. COMMAND

L1, C1, C2, M_L, L2
+6V
LEFT BRAKE COIL

+ UNREG.
FAST STOP OUT
H.V. IN
UNREG. OR H.V. OUT

A5 LEFT MOTOR CONTROL & TIME DELAY

TAPE END STOP PULSE OUT
TAPE END STOP IN

+6V

LEFT TENSIO-METER
LEFT DIFFERENTIAL TRANSFORMER B3
120 kHz IN
TENSIOMETRIC SIGNAL
120kHz OUT

LEFT MOTOR CONTROL
LEFT MOTOR SERVO AMP. ½ A2
+6V
SERVO OPEN OUT
SERVO AT OUT GND

LEFT BRAKE CONTI
FAST RWD INHIBIT
FAST RWD CMD

CR. → 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
← R... 1 2 3 4 5 6 7

TAPE END STOP TIME DELAY A29

BF2 2.5A
REMOVABLE BATTERY CASE
CR2 B6 IN 4003
TO A1 (9)

PRESELECTOR
PLAYBACK RECORD
LINE
GROUND CONNECTION with any button depressed

Tensio-meter shown in "tight" position
TAPE END CONTACT

⊕ UNREG.
⊖ GROUND
⊖ UNREG. GND

RWD FWD
PRESELECTOR

FAST FWD a
"ON" b
FAST RWD c
RIGHT MOTOR ROT. DETECTOR d
LEFT MOTOR ROT. DETECTOR e
TAPE END STOP f
"TEST" g

RIGHT BRAKE COIL
L3 C3 C4 L4
M_R
+ UNREG.
FAST STOP OUT
UNREG. OR H.V. OUT
H.V. IN
RIGHT MOTOR CONTROL A4
FAST STOP IN
+6V

+ UNREG.
H.V. OUT
A6
DC CONVERTER
+6V

BIAS OSCILLATOR A18
120kHz OUT
+50V TO A7

RIGHT DIFFERENTIAL TRANSFORMER B2
RIGHT TENSIOMETER
120kHz IN
TENSIOMETRIC SIGNAL

+6V
RIGHT BRAKE CONTROL

FWD & RWD CONTROL
STANDSTILL BRAKES CONTROL
A3

+6V
RIGHT MOTOR SERVO AMP. ½A2
RIGHT MOTOR CONTROL
SERVO A1 OUT GND
SERVO OPEN OUT

FAST FWD CMD
FAST FWD OUT
BRAKE COMMAND
UNREG SUPPLY

CR...
FAST FWD BUS a
"ON" BUS b
FAST RWD BUS c
RIGHT MOTOR ROTATION DETECTOR BUS d
LEFT MOTOR ROTATION DETECTOR BUS e
TAPE END STOP BUS f
"TEST" BUS g

R8 100Ω
CR 36
⊕ UNREGULATED

ON STOP
BRAKES NORMAL RELEASED
shown in TEST position

KUDELSKI S.A. Dept. NAGRA CH-1033 CHESEAUX Switzerland	NAGRA MAGNETIC RECORDERS INC NEW YORK, N.Y. 10036	B1
NAGRA IS	09 07 700 000	18 4 77
CONTROL LOGIC BLOCK DIAGRAM		

A12

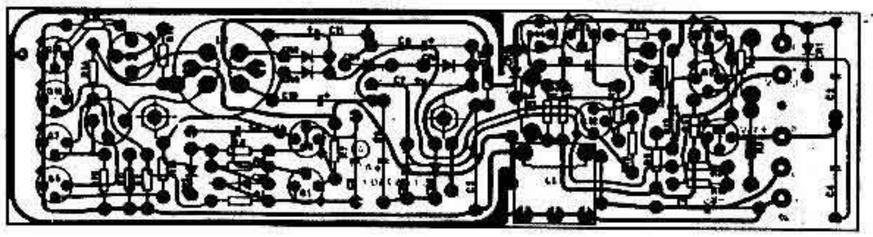
+48 V
C4 47nF 10%
C2 47nF 10%
R3 470K 2%
R4* +48V adj.
CR1 1N4148
Q2 BFY36 2N2484
Q4 BFY36 2N2484
R5 100K 2%
R9 100K
R12 100K
R13 100K
Q6 ES8072 2N3505
R26 220 Ω
TP2 DC +46 V
CR4 1N4148
CR5 1N4148
CR6 1N4148
CR7 1N4148
C7 6,8 µF
C8 6,8 µF
C9 6,8 µF
C10 6,8 µF
C11 6,8 µF
R17 1K
COMMON
L2 (PW4)
CR8 1N4148
CR9 1N4148
TP3 DC +17,5 V
Q12 ES8072 2N3505
R19 10R
R20 10K
R22 56K 2%
C12 22 µF
R24* +12V adj.
C13 15 µF
+12 V
COMMON
CR10 1N4148
TP4 DC -0,6 V
Q13 BFY36 2N2484
Q14 BFY36 2N2484
R21 18K
R23 47K 2%
R25 * -12V adj.
R7 4,7K
Q1 DW9626 2N3965
Q3 DW9626 2N3965
C5 470pF T.V.
C6 470pF T.V.
R6 56K 2%
R8 56K 2%
CR2 1N4148
CR3 1N4148
R1 4,7K
R10 4,7K
R2 1,5K
R11 1,5K
C1 33µF
C3 33µF
L1 (PW7)
-10V
TP1
R14 5,6K
R18 5,6K
Q8 DW6079 2N3107
Q9 DW6079
Q5 DW7021 2N3302
Q7 DW7021 2N3302
Q10 DW7021 2N3303
Q11 DW7021 2N3303
R15 10Ω
R16 10Ω

TP1
5V/div
10 µs/div

MEASURING INSTRUMENT
D.C. Voltmeter 40'000 Ω/V
A.C. Voltmeter (eg. Brüel & Kjaer type 2112 or 2606 + 1615 or equivalent

Voltages may vary ± 10%

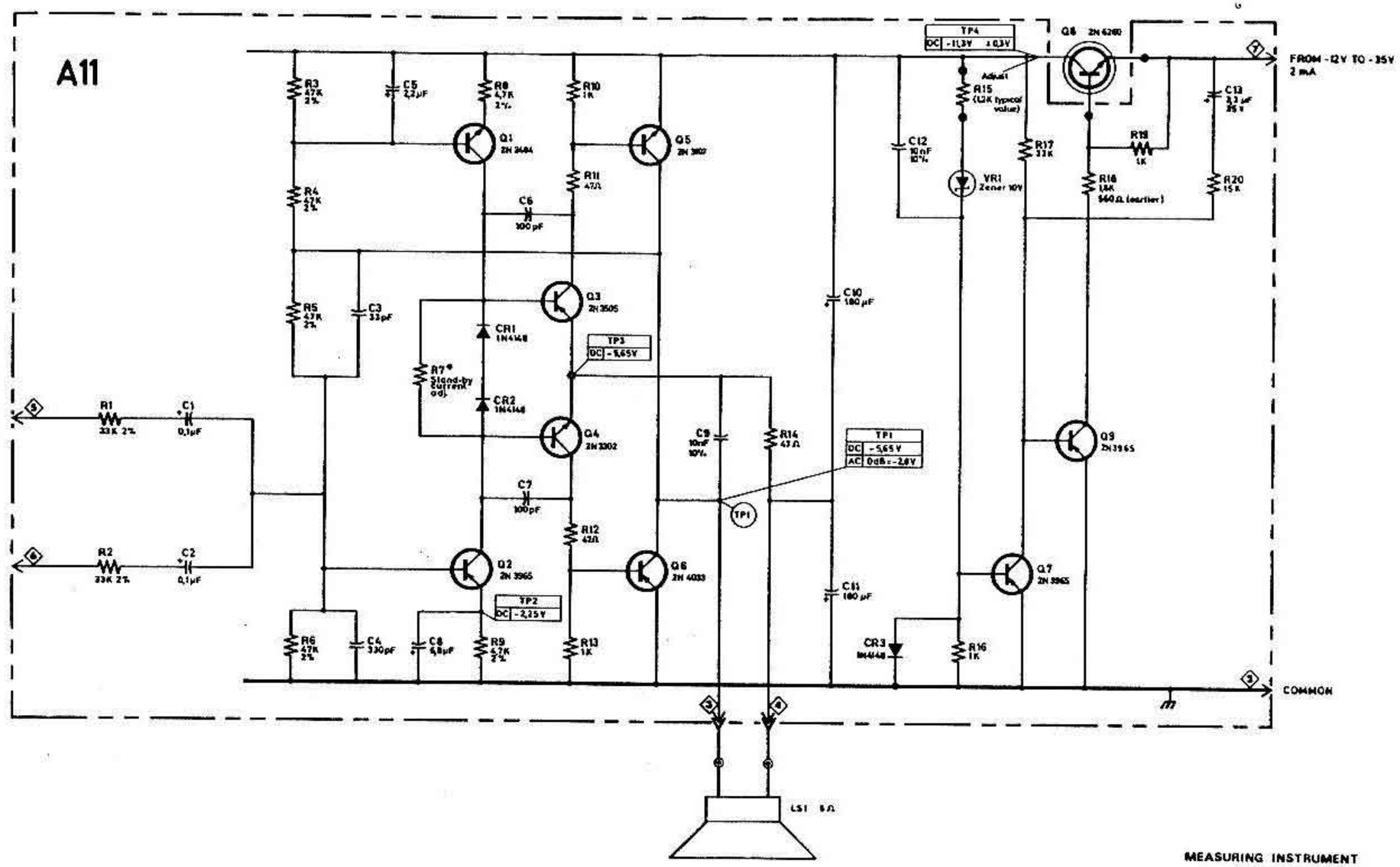
UNLESS SPECIFIED
ALL RESISTORS ALLEN BRADLEY 1/4W ± 10%
ALL CAPACITORS ± 20%

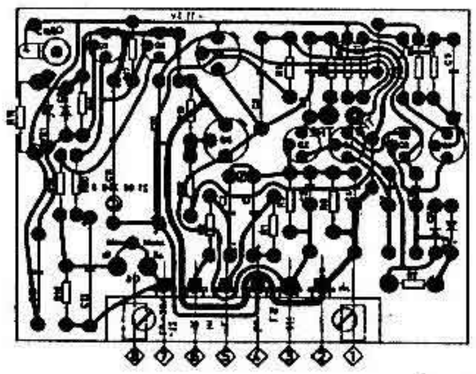


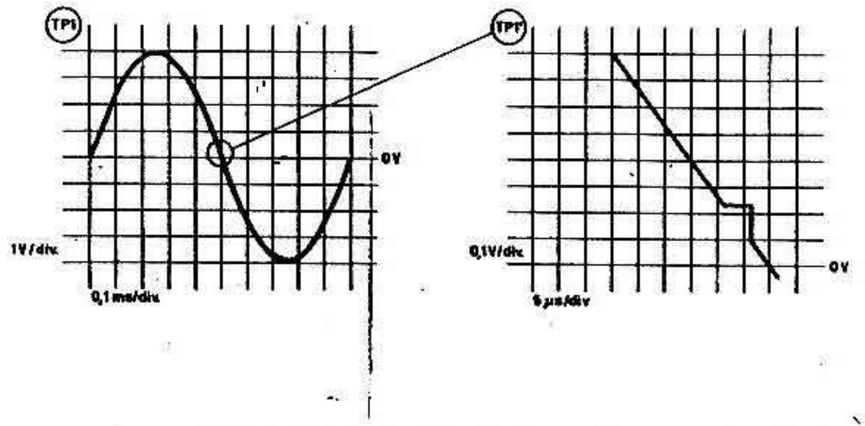
KUDELSKI S.A. Dept. NAGRA CH-1033 CHESEAUX Switzerland	NAGRA MAGNETIC RECORDERS INC. NEW YORK, N.Y. 10036	A12
NAGRA IV-S	0906 760000	1.5.74
MICRO. POWER SUPPLY		

This drawing is confidential and may not be divulged in whole or in part to a third party

A11
3.3.80







MEASURING INSTRUMENT
DC VOLTMETER 40 000 Ω/V
AC VOLTMETER (e.g. B&K Type 2112 or 2606 + 1615 or equivalent)

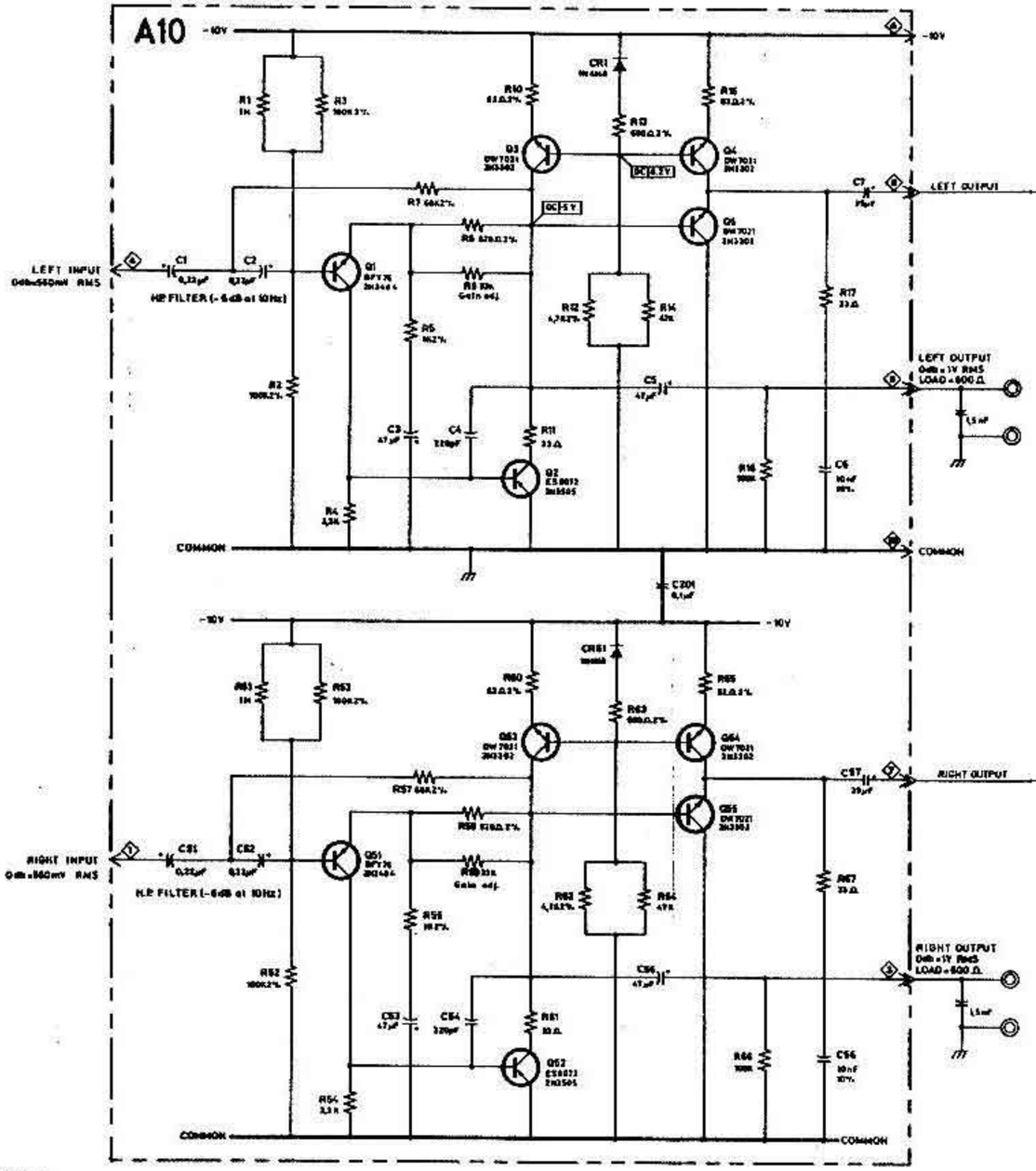
UNLESS SPECIFIED
AC MEASUREMENT SHOULD BE MADE AT 1 kHz FOR 0dB LEVEL
VOLTAGES MAY VARY ± 10 %

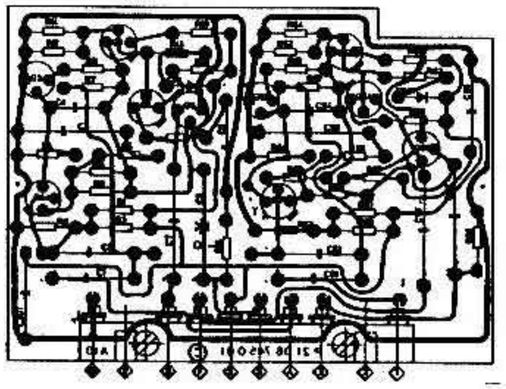
ALL RESISTORS ALLEN BRADLEY 1/4 W ± 10 %
ALL CAPACITORS ± 20 %

ALL CONNECTORS VIEWED FROM THE OUTSIDE

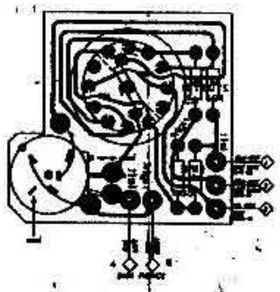
KUDELSKI S.A. Dept. NAGRA CH-1033 CHESEAUX	NAGRA MAGNETIC RECORDERS INC. NEW YORK, N.Y. 10036	A11
NAGRA IV-S	09.06.750.000	13.3.80
L.S. AMPLIFIER		

A9-10
26 2 80





A10



A9

MEASURING INSTRUMENT
DC VOLTMETER 40 000 Ω / V
AC VOLTMETER (e.g. B&K Type 2112 or 2606 + 1615 or equivalent)

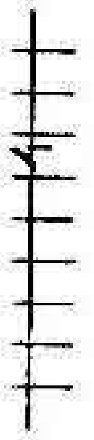
UNLESS SPECIFIED
AC MEASUREMENT SHOULD BE MADE AT 1kHz FOR 0dB LEVEL
VOLTAGES MAY VARY ± 10 %

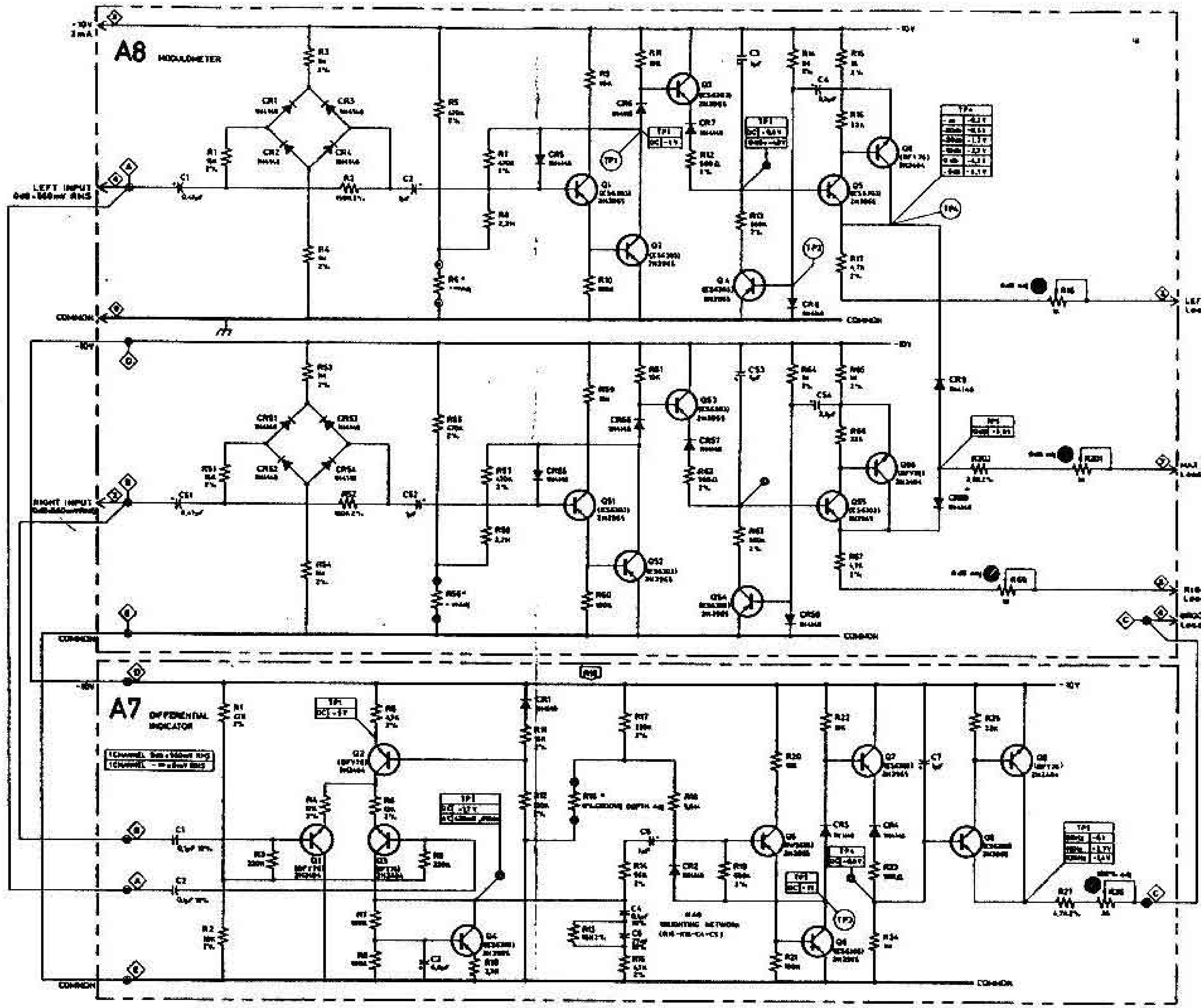
ALL RESISTORS ALLEN BRADLEY ¼ W ± 10 %
ALL CAPACITORS ± 20 %

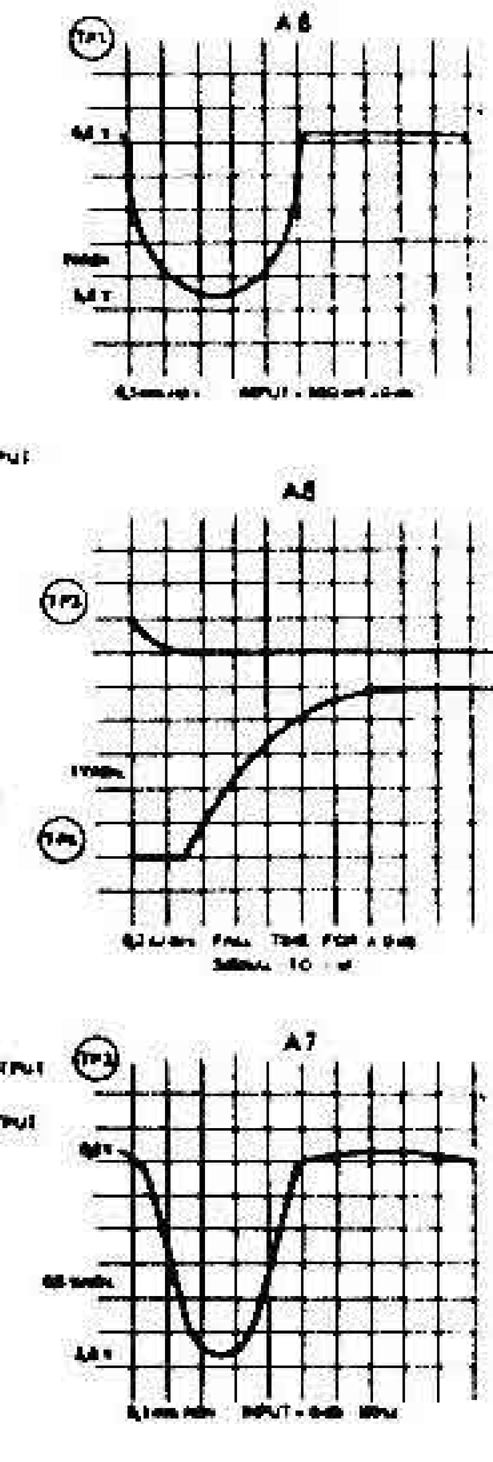
ALL CONNECTORS VIEWED FROM THE OUTSIDE

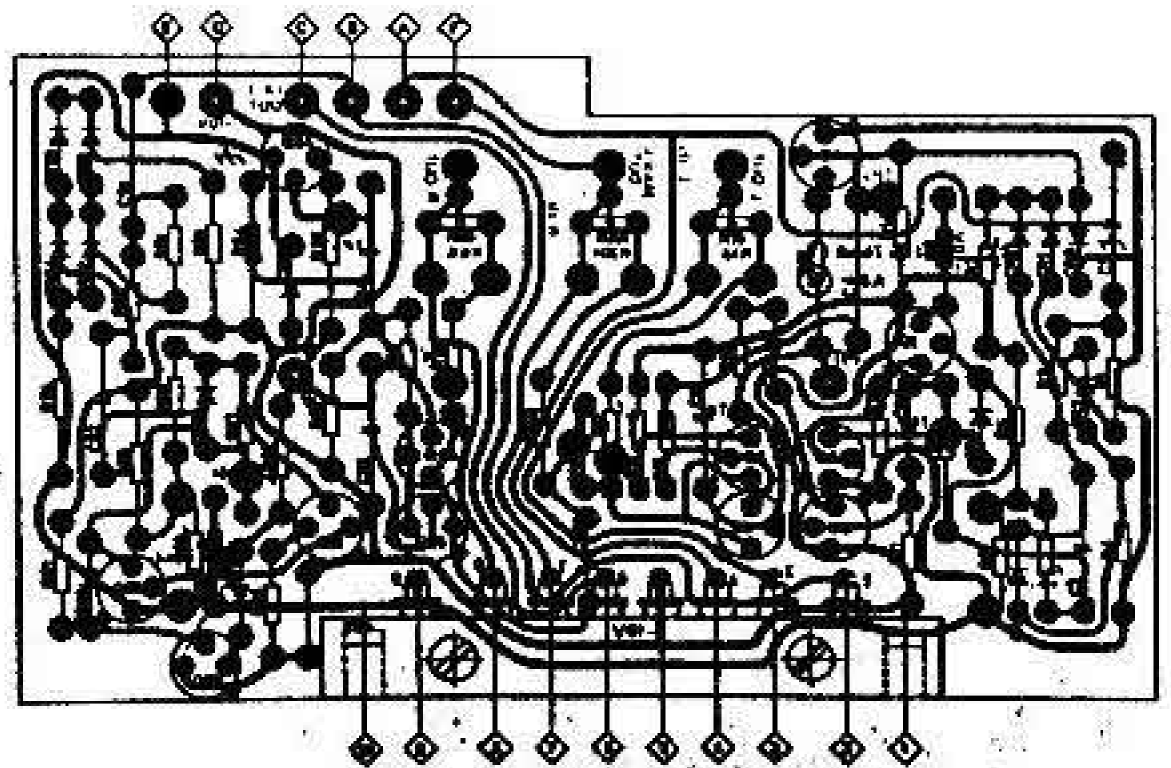
KUDELSKI S.A. Dept. NAGRA CH - 1033 CHESEAUX Switzerland	NAGRA MAGNETIC RECORDERS INC. NEW YORK, N.Y. 10022	A9-1
NAGRA IV-S	09 06 745 000	28.2.
LINES AND PHONES AMPLIFIERS		

A7-A8

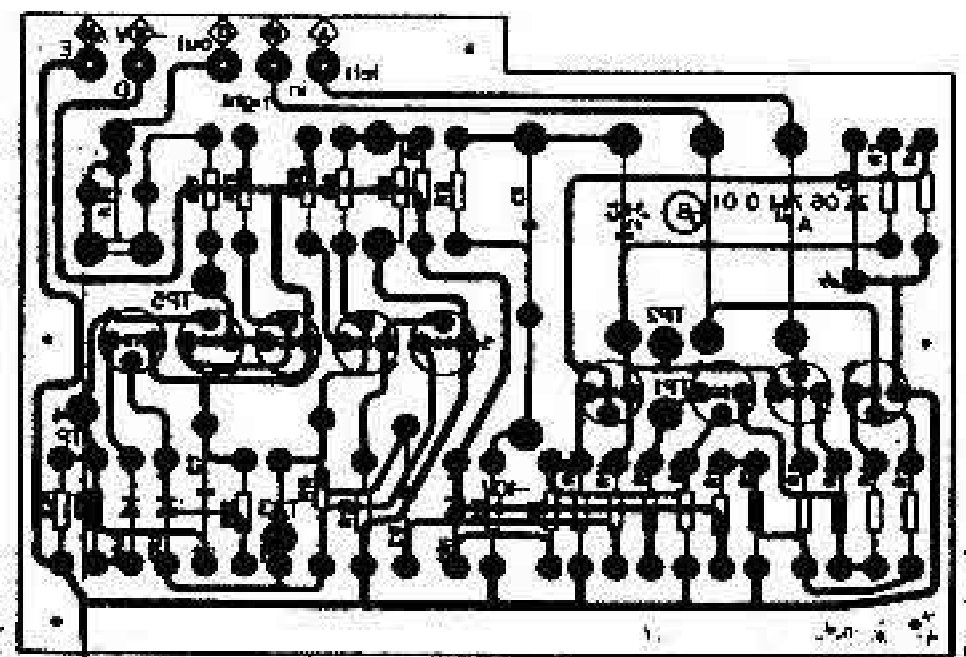






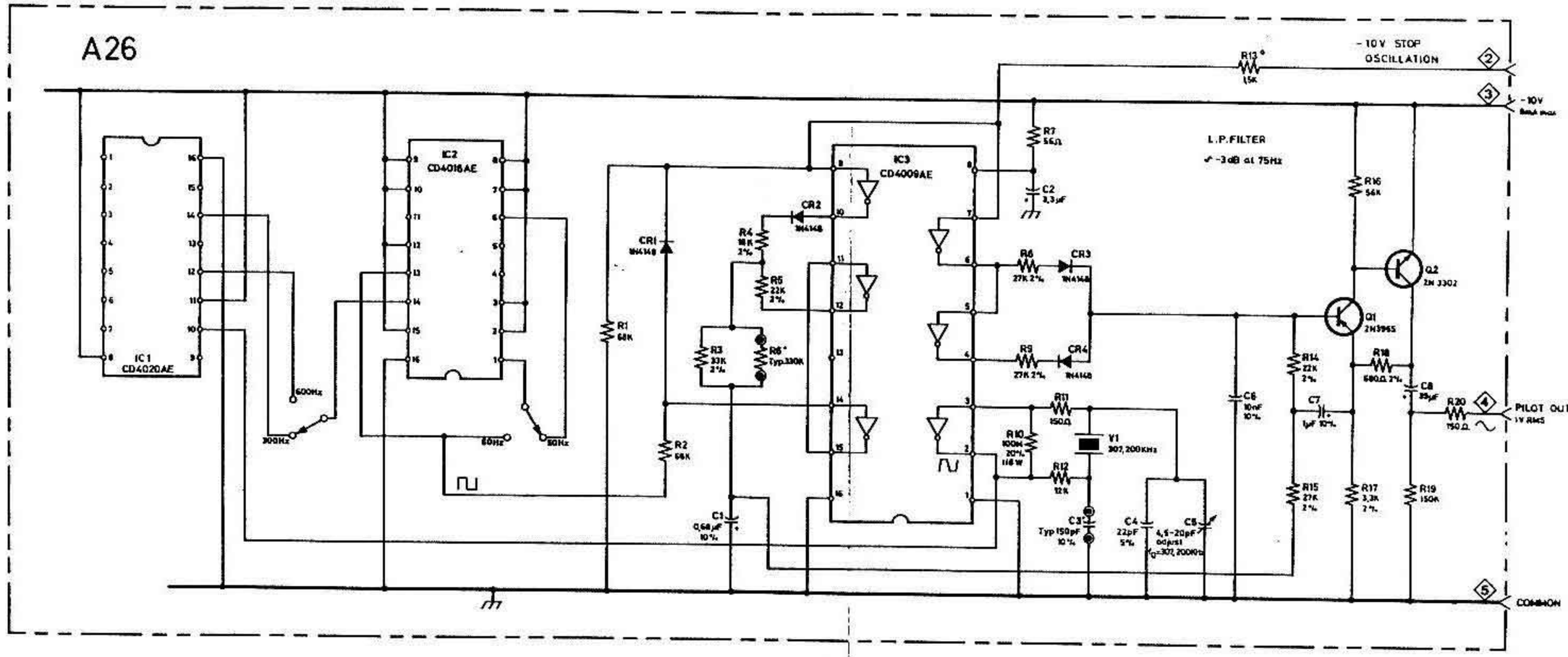


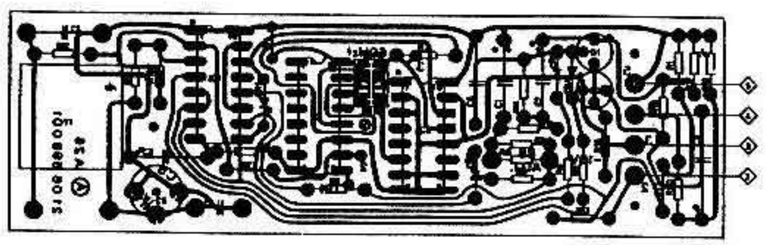
A8



A7

KUDELSKI S.A. CH-1033 CHESEAUX Switzerland		
NAGRA IV-S	09.06.740.0.00	
MODULOMETER & DIFFERENTIAL INDICATOR		

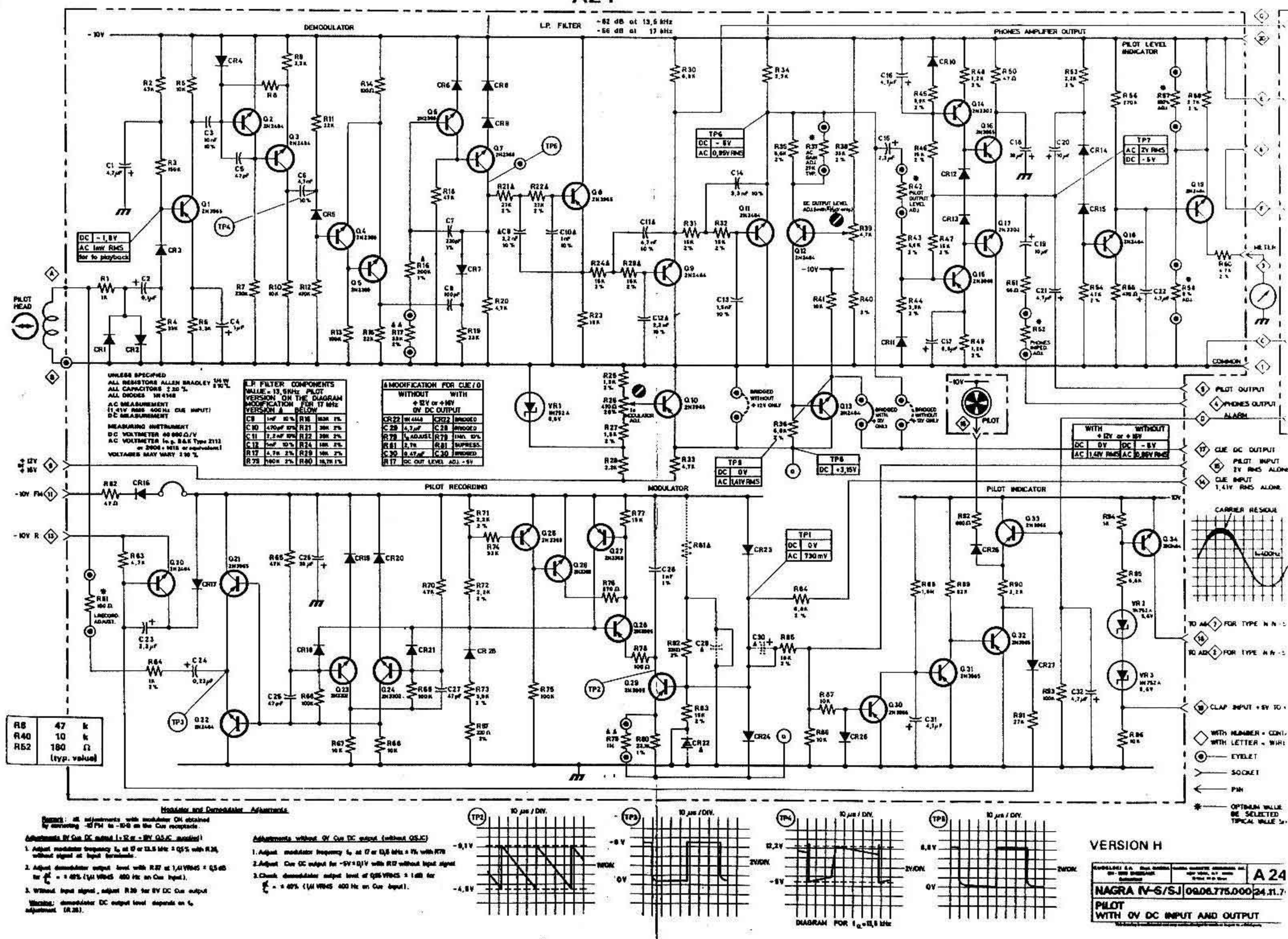




UNLESS SPECIFIED
ALL RESISTORS ALLEN-BRADLEY 1/4 W ± 10%
ALL CAPACITORS ± 20%

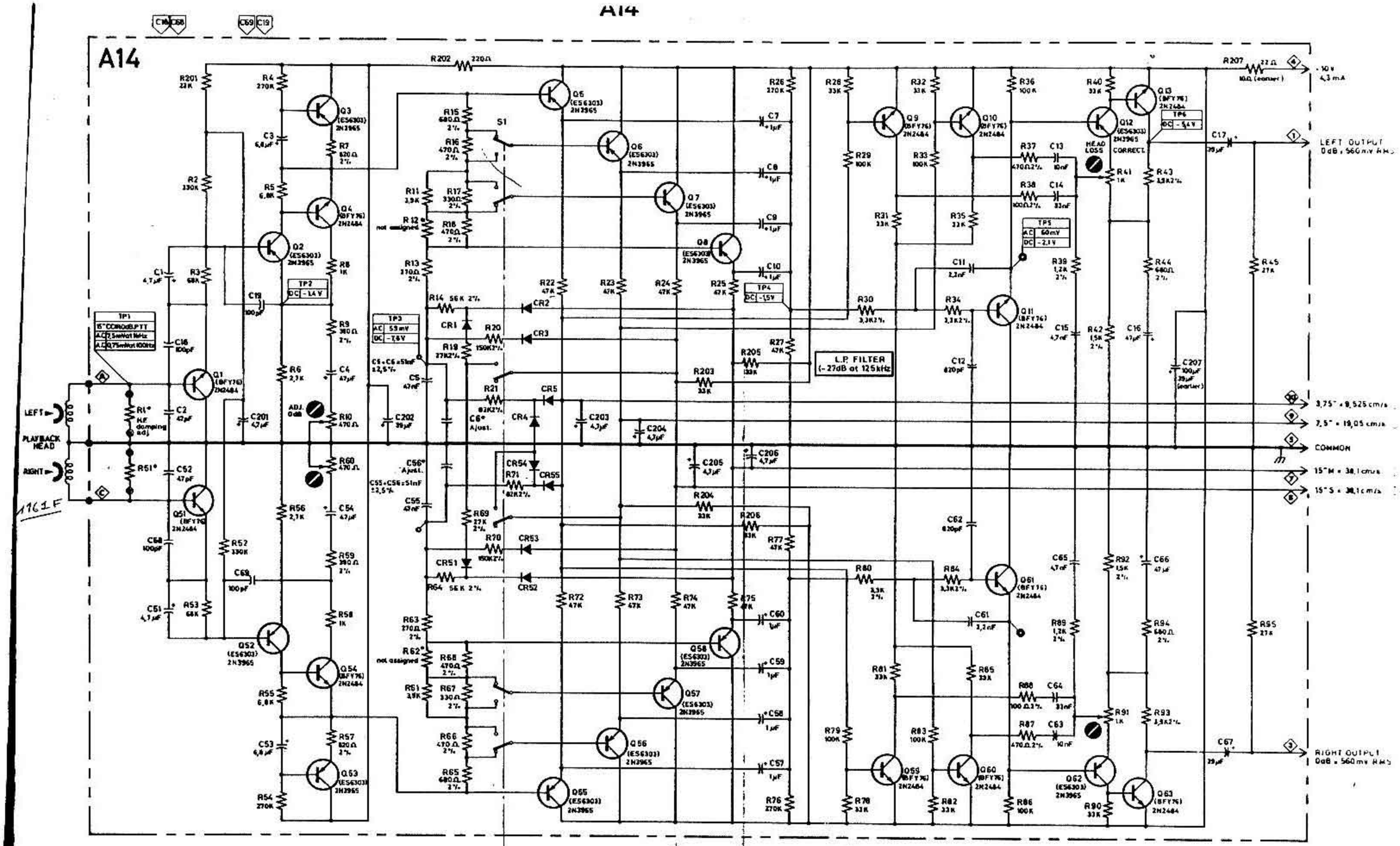
KUDELSKI S.A. Dept. NAGRA CH-1033 CHESEAUX Switzerland	NAGRA MAGNETIC RECORDERS INC. NEW YORK, N.Y. 10 036 10 West 44 th Street	A 26
NAGRA IV-S	09.06.698.000	25.5.76
CRISTAL SIGNAL GENERATOR		

A24


DEMODULATOR
L.P. FILTER
-62 dB at 13,5 kHz
-56 dB at 17 kHz
PHONES AMPLIFIER OUTPUT
PILOT LEVEL INDICATOR
-10V
PILOT HEAD
DC - 1,8V
AC 1mV RMS
for to playback
TP4
TP6
DC - 5V
AC 0,95V RMS
TP7
AC 2V RMS
DC - 5V
PILOT OUTPUT
PHONES OUTPUT
ALARM
COMMON
CUE DC OUTPUT
PILOT INPUT 2V RMS ALONE
CUE INPUT 1,41V RMS ALONE
UNLESS SPECIFIED
ALL RESISTORS ALLEN BRADLEY 1/4 W ± 10 %
ALL CAPACITORS ± 20 %
ALL DIODES 1N 4148
AC MEASUREMENT
(1,41V RMS 400 Hz CUE INPUT)
DC MEASUREMENT
MEASURING INSTRUMENT
DC VOLTMETER 40 000 Ω/V
AC VOLTMETER (e.g. B&K Type 2112 or 2604 + 9018 or equivalent)
VOLTAGES MAY VARY ± 10 %
L.P. FILTER COMPONENTS
VALUE = 13,6kHz PILOT
VERSION ON THE DIAGRAM
MODIFICATION FOR 17 kHz
VERSION A BELOW
C9 1nF 10% R16 182K 1%
C10 470pF 10% R21 39K 2%
C11 2,2nF 10% R22 39K 2%
C12 1nF 10% R24 18K 2%
R17 4,7K 2% R29 16K 2%
R78 160K 2% R80 10,7K 1%
MODIFICATION FOR CUE / Q
WITHOUT +12V or +16V
WITH 0V DC OUTPUT
CR22 1N 4448 CR22 BRIDGED
C28 4,7µF C28 BRIDGED
R79 1/4 ADJUST. R79 1MΩ 10%
R81 2,7K R81 SUPPRESS.
C30 0,47µF C30 BRIDGED
R17 DC OUT LEVEL ADJ. -5V
BRIDGED WITHOUT +12V ONLY
BRIDGED WITH 0V ONLY
BRIDGED WITHOUT +12V ONLY
TP8
DC 0V
AC 1,41V RMS
TP8
DC +3,15V
WITH +12V or +16V
DC 0V AC 1,41V RMS
WITHOUT
DC - 5V AC 0,95V RMS
PILOT
PILOT RECORDING
MODULATOR
PILOT INDICATOR
TP1
DC 0V
AC 730 mV
TP2
TP3
TP4
TP5
CARRIER RESIDUE
R8 47 k
R40 10 k
R52 180 Ω
(typ. value)
WITH NUMBER = CONT.
WITH LETTER = WIRE
EYELET
SOCKET
PIN
OPTIMUM VALUE TO BE SELECTED TYPICAL VALUE
Modulator and Demodulator Adjustments
Remark : all adjustments with modulator ON obtained by connecting -10 FM to -10 V on the Cue receptacle.
Adjustments 0V Cue DC output (+12 or +16V Q.S./C. supplied)
1. Adjust modulator frequency f0 at 17 or 13,6 kHz ± 0,5% with R.29, without signal at input terminals.
2. Adjust demodulator output level with R.17 at 1,41 VRMS ± 0,5 dB for f = ± 40% (1µ VRMS 400 Hz on Cue input).
3. Without input signal, adjust R.30 for 0V DC Cue output
Warning: demodulator DC output level depends on f0 adjustment (R.29).
Adjustments without 0V Cue DC output (without QS./C.)
1. Adjust modulator frequency f0 at 17 or 13,6 kHz ± 1% with R78
2. Adjust Cue DC output for -5V ± 0,1V with R17 without input signal
3. Check demodulator output level at 0,95 VRMS ± 1 dB for f = ± 40% (1µ VRMS 400 Hz on Cue input).
10 µs / DIV.
-0,1V
-4,8V
0,1V/DIV.
-8 V
0V
2V/DIV.
12,2V
-5V
6,8V
DIAGRAM FOR f0 = 13,6 kHz
VERSION H
NAGRA IV-S/SJ 09.06.775.000 24.11.7
PILOT
WITH 0V DC INPUT AND OUTPUT
A 24

A14

A14



NAB ● ● CCIR

PLAYBACK EQUALIZATION

MEASURING INSTRUMENT
DC VOLTMETER 40 000 Ω/V
AC VOLTMETER (e.g. B&K Type 2112 or 2608 + 1615 or equivalent)

UNLESS SPECIFIED
AC MEASUREMENT SHOULD BE MADE AT 1kHz FOR 0dB LEVEL
VOLTAGES MAY VARY ±10 %

ALL RESISTORS ALLEN BRADLEY 1/4W ±10 %
ALL CAPACITORS ±20 %

ALL CONNECTORS VIEWED FROM THE OUTSIDE

KUDELSKI S.A. Dept. NAGRA CH-1033 CHESEAUX Switzerland	NAGRA MAGNETIC RECORDERS INC. NEW YORK, N.Y. 10036	A1
NAGRA IV-S	09.06.805.000	31.5
PLAYBACK AMPLIFIER		

1161F

2054 F HT

LIFIER

A12

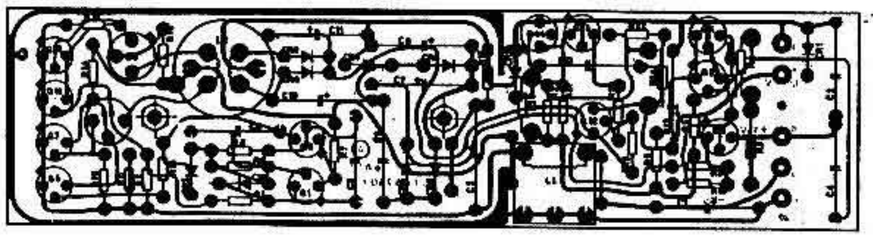
+48 V
C4 47nF 10%
C2 47nF 10%
R3 470K 2%
R4* +48V adj.
CR1 1N4148
Q2 BFY36 2N2484
Q4 BFY36 2N2484
R5 100K 2%
R9 100K
R12 100K
R13 100K
Q6 ES8072 2N3505
R26 220 Ω
TP2 DC +46 V
CR4 1N4148
CR5 1N4148
CR6 1N4148
CR7 1N4148
C7 6,8 µF
C8 6,8 µF
C9 6,8 µF
C10 6,8 µF
C11 6,8 µF
R17 1K
COMMON
L2 (PW4)
CR8 1N4148
CR9 1N4148
TP3 DC +17,5 V
Q12 ES8072 2N3505
R19 10R
R20 10K
R22 56K 2%
C12 22 µF
R24* +12V adj.
C13 15 µF
+12 V
COMMON
CR10 1N4148
TP4 DC -0,6 V
Q13 BFY36 2N2484
Q14 BFY36 2N2484
R21 18K
R23 47K 2%
R25 * -12V adj.
R7 4,7K
Q1 DW9626 2N3965
Q3 DW9626 2N3965
C5 470pF T.V.
C6 470pF T.V.
R6 56K 2%
R8 56K 2%
CR2 1N4148
CR3 1N4148
R1 4,7K
R10 4,7K
R2 1,5K
R11 1,5K
C1 33µF
C3 33µF
L1 (PW7)
-10V
TP1
R14 5,6K
R18 5,6K
Q8 DW6079 2N3107
Q9 DW6079
Q5 DW7021 2N3302
Q7 DW7021 2N3302
Q10 DW7021 2N3303
Q11 DW7021 2N3303
R15 10Ω
R16 10Ω

TP1
5V/div
10 µs/div

MEASURING INSTRUMENT
D.C. Voltmeter 40'000 Ω/V
A.C. Voltmeter (eg. Brüel & Kjaer type 2112 or 2606 + 1615 or equivalent

Voltages may vary ± 10%

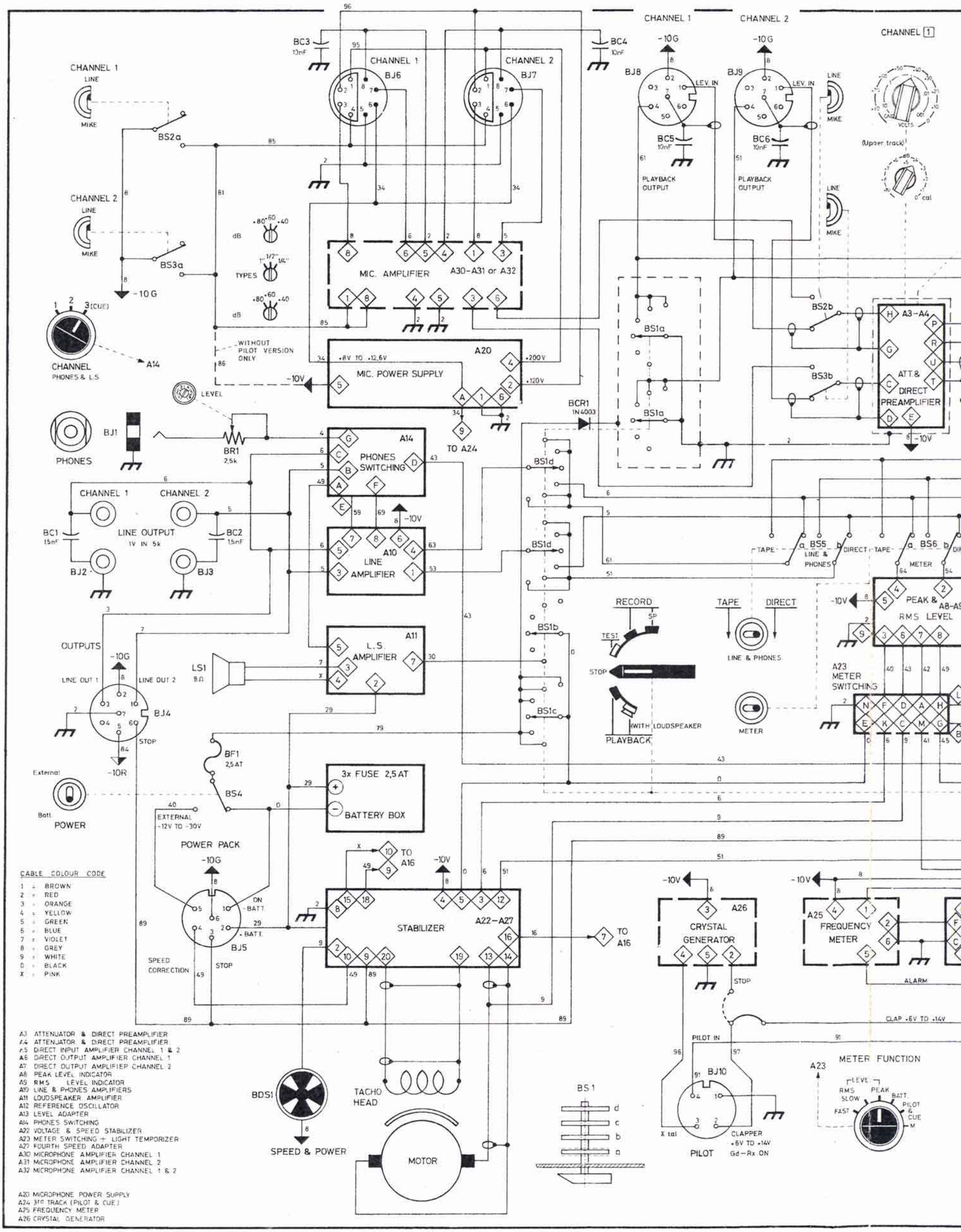
UNLESS SPECIFIED
ALL RESISTORS ALLEN BRADLEY 1/4W ± 10%
ALL CAPACITORS ± 20%



KUDELSKI S.A. Dept. NAGRA CH-1033 CHESEAUX Switzerland	NAGRA MAGNETIC RECORDERS INC. NEW YORK, N.Y. 10036	A12
NAGRA IV-S	0906 760000	1.5.74
MICRO. POWER SUPPLY		

This drawing is confidential and may not be divulged in whole or in part to a third party

A11
3.3.80



CABLE COLOUR CODE

1 = BROWN
2 = RED
3 = ORANGE
4 = YELLOW
5 = GREEN
6 = BLUE
7 = VIOLET
8 = GREY
9 = WHITE
0 = BLACK
X = PINK

A3 ATTENUATOR & DIRECT PREAMPLIFIER
A4 ATTENUATOR & DIRECT PREAMPLIFIER
A5 DIRECT INPUT AMPLIFIER CHANNEL 1 & 2
A6 DIRECT OUTPUT AMPLIFIER CHANNEL 1
A7 DIRECT OUTPUT AMPLIFIER CHANNEL 2
A8 PEAK LEVEL INDICATOR
A9 RMS LEVEL INDICATOR
A10 LINE & PHONES AMPLIFIERS
A11 LOUDSPEAKER AMPLIFIER
A12 REFERENCE OSCILLATOR
A13 LEVEL ADAPTER
A14 PHONES SWITCHING
A22 VOLTAGE & SPEED STABILIZER
A23 METER SWITCHING + LIGHT TEMPORIZER
A27 FOURTH SPEED ADAPTER
A30 MICROPHONE AMPLIFIER CHANNEL 1
A31 MICROPHONE AMPLIFIER CHANNEL 2
A32 MICROPHONE AMPLIFIER CHANNEL 1 & 2

A20 MICROPHONE POWER SUPPLY
A24 3rd TRACK (PILOT & CUE)
A25 FREQUENCY METER
A26 CRYSTAL GENERATOR

BOX

TAPE DECK

CHANNEL 1 | CHANNEL 2 | FILTERS

LINE / MIKE

(Upper track) (Lower track)

HP = HIGH PASS

HP LIN WEIGHTING A B C D

press LIGHT

BM1

REF. OSCILLATOR

TO A24

BS8

-10V

A12 REF. OSCILL.

A3-A4 ATT.& DIRECT PREAMPLIFIER

DIRECT AMPLIFIER A5-A6-A7

A13 LEVEL ADAPTER

2,2K 2% R2 | 10K 2% R1 | 10K 2% R4 | 2,2K 2% R3

BS2b BS3b

BS5 b DIRECT - TAPE a BS6 b DIRECT

METER

PEAK & RMS LEVEL A8-A9

A23 METER SWITCHING

BS7

A23 LIGHT TEMP.

CUE OUT (PHONE)

BS1c

BCR2 1N4148

BS9 -10VR

CR4 B2 1N4148

BS10

CR3 B2 1N4148

REW IN ONLY

BIAS

A17 A18

RECORD. AMPLIFIER & BIAS OSCILLATOR

-10V -10R

ERASE HEAD

CHANNEL 1 UPPER TRACK

RECORD HEAD

CHANNEL 2 LOWER TRACK

A16 RECORD. PREAMPLIFIER

3,75" 7,5" 1,5" 15"

A19 PLAYBACK AMPLIFIER

PLAYBACK HEAD

TO A22 TO A27

A 16 RECORDING PREAMPLIFIER
A 17 RECORDING AMPLIFIER CHANNEL 1 & 2 + BIAS OSCILLATOR
A 18 BIAS OSCILLATOR COIL
A 19 PLAYBACK AMPLIFIER CHANNEL 1 & 2

A25 FREQUENCY METER

3rd TRACK (PILOT & CUE) A24

CLAP

ALARM

CLAP -6V TO -14V

DC CUE OUT

CUE IN

-10FM

PILOT IN

TO A12 -10 R

TO A20

CHANNEL 3 PILOT HEAD

METER FUNCTION

A23

LEVEL: RMS SLOW / PEAK / BATT / FAST / PILOT & CUE M

CUE

-10G PILOT OUT BJ11

PILOT BDS2

-10R -10V

BOX INTERCONNECTION

TAPE DECK INTERCONNECTION

BATTERY BOX INTERCONNECTION

ALL CONNECTORS VIEWED FROM THE OUTSIDE

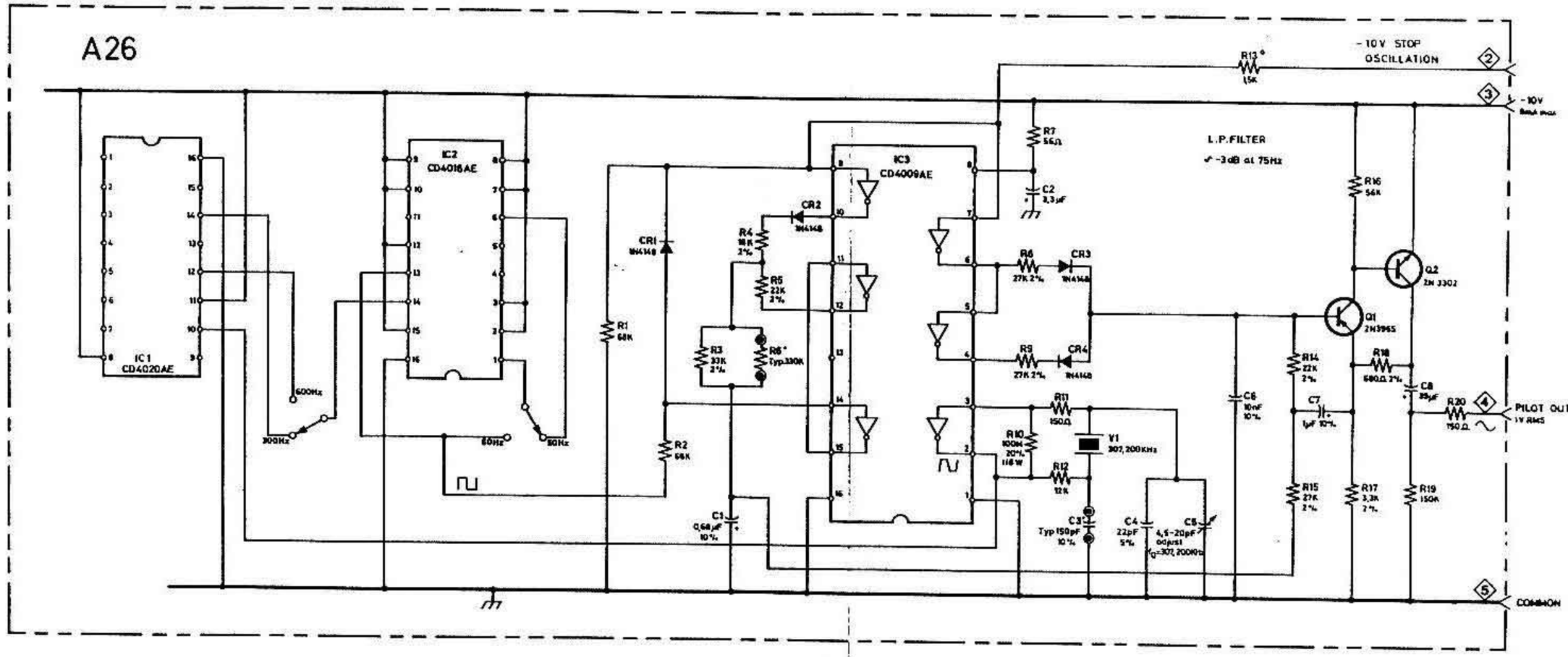
DATE	MODIFICATIONS
10.82	REVISION
4.83	REVISION
5.84	REVISION

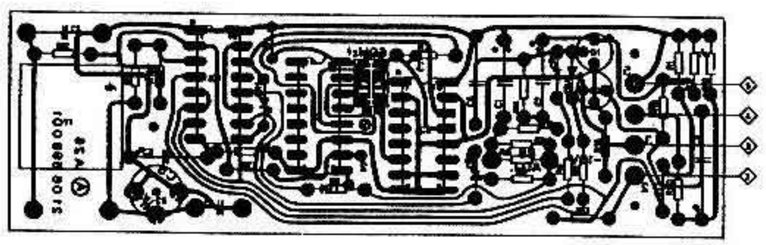
KUDELSKI S.A. Dept. NAGRA
CH-1033 CHESEAUX
Switzerland

NAGRA MAGNETIC RECORDERS INC
NEW YORK, N.Y. 10036
19 West 44th Street

NAGRA IV-SJ | 09.01.001.0.00 | 23.10.82

SYNOPTIC DIAGRAM





UNLESS SPECIFIED
ALL RESISTORS ALLEN-BRADLEY 1/4 W ± 10%
ALL CAPACITORS ± 20%

KUDELSKI S.A. Dept. NAGRA CH-1033 CHESEAUX Switzerland	NAGRA MAGNETIC RECORDERS INC. NEW YORK, N.Y. 10 036 10 West 44 th Street	A 26
NAGRA IV-S	09.06.698.000	25.5.76
CRISTAL SIGNAL GENERATOR		

CABLE COLOR CODE

1 =	BROWN	5 =	BLUE
2 =	RED	6 =	VIOLET
3 =	ORANGE	7 =	GREY
4 =	YELLOW	8 =	WHITE
9 =	GREEN	0 =	BLACK
		R =	PINK

MIKES
MIC LINE
LINE
MONO
STEREO
LEFT
RIGHT
REF. OSCILLATOR
TAPE DIRECT
LINE & PHONES
METER
LEVEL
EXT. NRS
NRS
NORMAL
PRESS
LIGHT
BOX | TAPE DECK
7.5" 15" 3.75" 15"
BIAS
P1 J1
MICROPHONES
LEFT PHASE RIGHT
INPUTS
LEVEL
PHONES
PRESS-MONO
A27 N.R.S.
A14 PLAYBACK AMPLI.
RECORD HEAD
ERASE HEAD
PLAYBACK HEAD
PILOT HEAD
A11 L.S. AMPLI.
OUTPUTS
LINE OUTPUT 1V in 5K
FUSE 2.5A
BATTERY BOX
EXTERNAL BAT. POWER
POWER PACK
A22 STABILIZER
TACHO HEAD
MOTOR
SPEED & POWER
RECORD NO LIMITER
TEST
STOP
PLAYBACK
With Loudspeaker
A26 CRYSTAL GEN.
PILOT
A25 FREQUENCY METER
A24 PILOT & CUE
CUE
REW
BCR1 IN4003
BCR2 IN4148
B2 CR1 IN4148
B2 CR2 IN4148
B2 CR3 IN4148
10K
27K 2%
2.2 K

B1 BOX INTERCONNECTION

B2 TAPE DECK INTERCONNECTION

B3 BATTERY BOX INTERCONNECTION

B4

A1 MIC. SWITCHING
A2 LEFT MIC. PREAMPLIFIER
A3 RIGHT MIC. PREAMPLIFIER
A4 RIGHT DIRECT AMPLIFIER
A5 LEFT DIRECT AMPLIFIER
A6 REFERENCE GENERATOR
A7 DIFFERENTIAL INDICATOR
A8 LEFT & RIGHT MODULOMETERS
A9 PHONES ATTENUATOR
A10 LEFT & RIGHT LINES AMPLIFIERS
A11 LOUDSPEAKER AMPLIFIER
A23 MODULOMETER SWITCHING + LIGHT TEMPORIZER
A22 VOLTAGE & SPEED STABILIZER
A12 MIC. POWER SUPPLY
A24 PILOT & CUE
A25 FREQUENCY METER
A26 CRYSTAL SIGNAL GENERATOR
A27 NOISE REDUCTION SYSTEM
A14 LEFT & RIGHT PLAYBACK AMPLIFIERS
A15 LEFT & RIGHT RECORDING PREAMPLIFIERS + LIMITER
A16 LEFT & RIGHT RECORDING AMPLIFIERS + OSCILLATOR

DATE	MODIFICATIONS

RECORDING CHAIN

KUDELSKI S.A. Dept. NAGRA CH-1033 CHESEAUX Switzerland

NAGRA MAGNETIC RECORDERS INC. NEW YORK, N.Y. 10036

NAGRA IV-S | 09.06.001.000 | 23.4.81

SYNOPTIC DIAGRAM

CABLE COLOR CODE

1 =	BROWN	5 =	BLUE
2 =	RED	6 =	VIOLET
3 =	ORANGE	7 =	GREY
4 =	YELLOW	8 =	WHITE
9 =	GREEN	0 =	BLACK
		R =	PINK

MIKES
MIC LINE
LINE
MONO
STEREO
LEFT
RIGHT
REF. OSCILLATOR
TAPE DIRECT
LINE & PHONES
METER
LEVEL
EXT. NRS
NRS
NORMAL
PRESS
LIGHT
BOX | TAPE DECK
7.5" 15" 3.75" 15"
BIAS
P1 J1
MICROPHONES
LEFT PHASE RIGHT
INPUTS
LEVEL
PHONES
PRESS-MONO
A27 N.R.S.
A14 PLAYBACK AMPLI.
RECORD HEAD
ERASE HEAD
PLAYBACK HEAD
PILOT HEAD
A11 L.S. AMPLI.
OUTPUTS
LINE OUTPUT 1V in 5K
FUSE 2.5A
BATTERY BOX
EXTERNAL BAT. POWER
POWER PACK
A22 STABILIZER
TACHO HEAD
MOTOR
SPEED & POWER
RECORD NO LIMITER
TEST
STOP
PLAYBACK
With Loudspeaker
A26 CRYSTAL GEN.
PILOT
A25 FREQUENCY METER
A24 PILOT & CUE
CUE
REW
BCR1 IN4003
BCR2 IN4148
B2 CR1 IN4148
B2 CR2 IN4148
B2 CR3 IN4148
10K
27K 2%
2.2 K

B1 BOX INTERCONNECTION

B2 TAPE DECK INTERCONNECTION

B3 BATTERY BOX INTERCONNECTION

B4

A1 MIC. SWITCHING
A2 LEFT MIC. PREAMPLIFIER
A3 RIGHT MIC. PREAMPLIFIER
A4 RIGHT DIRECT AMPLIFIER
A5 LEFT DIRECT AMPLIFIER
A6 REFERENCE GENERATOR
A7 DIFFERENTIAL INDICATOR
A8 LEFT & RIGHT MODULOMETERS
A9 PHONES ATTENUATOR
A10 LEFT & RIGHT LINES AMPLIFIERS
A11 LOUDSPEAKER AMPLIFIER
A23 MODULOMETER SWITCHING + LIGHT TEMPORIZER
A22 VOLTAGE & SPEED STABILIZER
A12 MIC. POWER SUPPLY
A24 PILOT & CUE
A25 FREQUENCY METER
A26 CRYSTAL SIGNAL GENERATOR
A27 NOISE REDUCTION SYSTEM
A14 LEFT & RIGHT PLAYBACK AMPLIFIERS
A15 LEFT & RIGHT RECORDING PREAMPLIFIERS + LIMITER
A16 LEFT & RIGHT RECORDING AMPLIFIERS + OSCILLATOR

DATE	MODIFICATIONS

RECORDING CHAIN

KUDELSKI S.A. Dept. NAGRA CH-1033 CHESEAUX Switzerland

NAGRA MAGNETIC RECORDERS INC. NEW YORK, N.Y. 10036

NAGRA IV-S | 09.06.001.000 | 23.4.81

SYNOPTIC DIAGRAM