

STUDER

A80 RC MK II

ZUSATZ ZU MANUAL A80 RC
ADDITIONAL TO MANUAL A80 RC



**A80 RC MK II
ZUSATZ ZU SERVICEANLEITUNG A80 RC**

Dieser Zusatz für A80 RC MK II Tonbandmaschinen gilt als Ergänzung zur normalen Serviceanleitung A80 RC. Es ist deshalb nötig beide Bücher vor sich zu haben. Beschreibungen nicht geänderter Baugruppen befinden sich in der normalen Serviceanleitung.

**A80 RC MK II
SUPPLEMENTARY SERVICE INSTRUCTIONS A80 RC**

These supplementary instructions for the A80 RC MK II magnetic tape machine should be used in conjunction with standard maintenance manual A80 RC. It is thus necessary to have both documents at hand. Unchanged components are described in the standard maintenance manual only.

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1. ÄNDERUNGEN GEGENÜBER DER STANDARDVERSION

Die A80 RC MK II Tonbandmaschine bietet gegenüber der Standardversion folgende Verbesserungen:

- Nahtloses, adressierbares Einsteigen (neuer Oszillator 1.081.984).
- PLAY-Vorwahl während des LOCATE-Suchlaufes
- Der Papierkorbbetrieb ist von der Stellung der rechten Bandzugwaage abhängig und nicht mehr, wie bei der Standardversion, vom Stillstand der Zählerrolle.
- Tastensatz mit Hall-Elementen wie bei der A800
- Trotz Tastensatz mit Hall-Elementen (keine verdrahtete Verriegelung der Tasten untereinander) kann durch Betätigen einer Wickeltaste, während die andere niedergedrückt ist, das Band positioniert werden.
- Die Wickelmotorsteuerung 1.080.385-81 kann für beide Geschwindigkeitsversionen (19/38 cm/s und 38/76 cm/s) verwendet werden. Über einen Brückenstecker (S2) können die Startkreise für die schnelle Version aktiviert werden. Das Umlöten der blauen Litze erübrigt sich.

1.1 LAUFWERKELEKTRONIK

Spooling Motor Control 1.080.385-81:

Dieser Print enthält neu die Schaltung für den Papierkorbbetrieb. Durch Öffnen der Brücke S1 kann dieser gesperrt werden. Alle bisherigen Funktionen dieses Prints bleiben erhalten; die übrige Schaltung ist unverändert.

Command Receiver 1.081.393-81:

Um die Funktionen Vor/Rückwickeln mit nur einer Taste (FORW) bei konstant gedrückter Taste (REW) zu ermöglichen, wurde ein zusätzliches Gatter IC 3.6 belegt. Diese Funktion war vor der Printänderung nur mit dem mechanischen Tastensatz möglich.

In Verbindung mit dem Zerolocator erlaubt eine zusätzliche Schaltung die Funktion PLAY während der Suchlaufphase vorzuwählen.

Neue Signale:

B-ZLOCAT Pin 3A
B-REPR Pin 9A

1. DEVIATIONS FROM STANDARD MODEL

Compared with the standard model, the A80 RC MK II tape machine offers the following advantages:

- Gap-free, addressable drop-in (new oscillator 1.081.984).
- PLAY preselection during LOCATE search run.
- The waste basket mode is dependent on position of the right tape tension sensor in contrast to the standard version, which is dependent on stopping the counting cylinder.
- Command switches are complemented with Hall elements, as in the A800 tape machine.
- Despite the use of Hall elements in the set of command switches (no wired key interlocks), the tape can be positioned by depressing the wind key even when REW key remains depressed.
- The spooling motor control 1.080.385-81 can be used with both speed versions (7.5/15 ips, and 15/30 ips). The starting circuits for the fast version can be activated via a jumper plug without resoldering the blue stranded wire.

1.1 TAPE TRANSPORT ELECTRONICS

Spooling motor control 1.080.385-81:

This print includes the new circuit for the waste basket mode. It can be disabled by removing jumper S1. All previously available functions of this print have been retained and the remainder of the circuit design is unchanged.

Command receiver 1.081.393-81:

A gate IC 3.6 has been installed to permit forward and rewind operations by using only the FORW key while the REW key remains constantly depressed. Without this circuit change this function could only be implemented with the mechanically operated set of keys.

In conjunction with the zero locator, and additional circuit allows preselection of the PLAY function during the loop phase.

New signals:

B-ZLOCAT Pin 3A
B-REPR Pin 9A

Command Switches 1.081.265:

Die Funktion des Drucktastenprints bleibt grundsätzlich gleich, mit der Einschränkung, dass die Hall-Elemente gegenüber den mechanischen Schaltern nur Ein/Aus-Schaltfunktionen erlauben (mechanische Schalter sind für Umschaltfunktion ausgelegt). Die erforderliche Umschaltfunktion der Tasten FORW/REW wurde deshalb auf dem Logikprint 1.081.393-81 elektronisch gelöst.

1.2 AUDIOELEKTRONIK

Basis Board 1.081.938-81:

Dieser Basisprint ist in neuere A80 RC Serviceanleitungen bereits integriert. In Kapitel 6 dieses Zusatzes ist ebenfalls ein Schema enthalten.

Oszillator 1.081.984:

Der Oszillator 1.081.984 kann nur in der A80 RC MK II Tonbandmaschine eingesetzt werden. Um zeitgerechtes Ein- und Aussteigen mit Lösch- und Aufnahmekopf (auch bei variabler Geschwindigkeit) zu ermöglichen, werden die Zeitverzögerungen von der Zählerrolle abgeleitet und sind dadurch von der Bandgeschwindigkeit unabhängig.

Verzögertes Einsteigen mit dem Aufnahmekopf kann unterdrückt werden (Jumper auf Position DROP IN BIAS DELAY INHIBIT, LED leuchtet), das Aussteigen bleibt jedoch zeitgerecht.

Adressiertes Einsteigen in START EDIT MODE ist vom Hochlauf der Maschine unabhängig. Die Adresse ist mit einer Genauigkeit von ± 20 ms bei 38 cm/s und ± 30 ms bei 76 cm/s reproduzierbar.

Command switches 1.081.265:

The print controlling the command switches remains basically unaltered, but with the restriction that the Hall elements associated with mechanical switches only permit on/off functions (mechanical switches are designed as selectors). For this reason, the selector functions of the FORW/REW keys have been implemented electronically on circuit board 1.081.393-81.

1.2 AUDIO ELECTRONICS

Basic board 1.081.938-81:

This basic circuit board is already implemented in the newer A80 RC service manuals. Chapter 6 of this supplement also includes a circuit diagram.

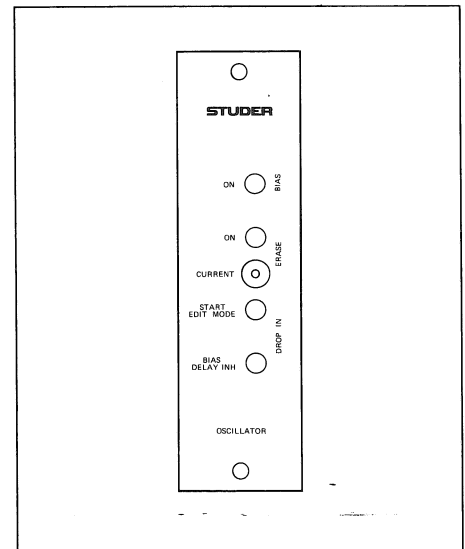
Oscillator 1.081.984:

The oscillator type 1.081.984 can only be used with the A80 RC MK II machine. For accurate drop-in timing of the erase and record head (even with variable tape speed), all time delays are derived from the counter cylinder and thus independent of the tape speed.

Staggered drop-in of the record head can be suppressed (jumper in position DROP IN BIAS DELAY INHIBIT, LED lights up). Drop-out timing remains unaffected.

The run-up time of the tape transport does not influence the addressed drop-in into START EDIT MODE.

The address is reproducible with an accuracy of ± 20 ms with a tape speed of 15 ips and ± 30 ms at 30 ips.



2. BEDIENUNG

2.1 ANWENDUNG

Der neue Oszillator 1.081.984 erlaubt lückenloses Ein- und Aussteigen in ein bereits bespieltes Band oder nahtloses Anschliessen an eine Aufnahme.

Es sind zwei Anwendungsverfahren möglich:

2.2 STANDARD INSERT

Die Bedienung bleibt im wesentlichen gleich. Der RECORD-Mode wird während der PLAY-Funktion ausgelöst (DROP-IN).

Nach Beenden der Aufnahme wird durch erneutes Eintippen der Funktion PLAY ein knackfreies Aussteigen (DROP-OUT) gewährleistet. Es ist nach wie vor möglich, aus der STOP-Position direkt in RECORD-Betrieb zu gehen (oder umgekehrt). In diesem Fall kann jedoch das Übereinstimmen der Ein- und Aussteigepunkte des Löschens oder Vormagnetisierung (Audio) nicht garantiert werden.

2.3 START EDIT MODE INSERT

Den Einsteigepunkt (DROP-IN) in EDIT-Betrieb suchen und markieren.

Es wird empfohlen, die Bandzugwaagen vor dem Blockieren in EDIT-Betrieb voll aufzuspannen. Dadurch wird möglicher Schlupf (besonders bei 38 cm/s) während der Startphase eliminiert.

START EDIT MODE muss direkt von EDIT in REC erfolgen (Taste REC vor der Taste PLAY drücken).

- Das Band in EDIT-Position zurückdrehen, bis die Marke im Lichtkegel der Lichtschranke erscheint. Falls der einzusetzende Teil von einem anderen Band überspielt wird, ist bei dieser Maschine der Startpunkt nach dem gleichen Verfahren einzustellen.
- Der Start muss direkt aus der EDIT-Position erfolgen, um den Schlupf an der Zählrolle möglichst klein zu halten.
- Der Start muss unbedingt aus der EDIT-Position erfolgen; nur so kann der Schlupf möglichst klein gehalten werden.
- Da die rechte Umlenkrolle (Tape Move Sensor) die Zählinformation liefert, kann man weitere Ungenauigkeiten vermeiden, indem man die rechte Umlenkrolle bewegt, bis die Sekundenzahl im LED-Display umspringt (siehe Bild).
- Mit den Tasten REC und PLAY (je nach Position des Jumpers S2 auf Print 1.081.393-81 auch nur mit Taste REC) das Gerät starten.

2. OPERATION

2.1 APPLICATION

The new oscillator 1.081.984 permits unrestricted dropping in and out of a previously recorded tape or gap-free start behind an existing recording.

Two methods of operation are possible:

2.2 STANDARD INSERT

Operation remains basically the same. The RECORD mode is initiated during the PLAY function (DROP-IN).

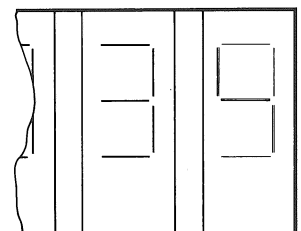
After termination of the recording, a click-free drop-out is obtained by reselecting the PLAY function. It is still possible to switch to RECORD directly from the STOP position (or vice versa). However, it cannot be guaranteed that drop-in and drop-out positions of the erase or bias magnetization (audio) will match if this is done.

2.3 START EDIT MODE INSERT

To reduce potential slippage (especially at 15 ips) during the start phase it is recommended that the tape tension sensor be set for maximum tension before blocking in EDIT operation.

START EDIT MODE must be initiated directly from EDIT in REC (depress REC ahead of PLAY):

- Rewind the tape to the EDIT position until the marker appears directly below the beam of the light barrier. If the section to be inserted is being copied from another tape, the starting point of the source machine must be set up in the same manner.
- Start must be initiated directly from the EDIT position in order to keep slippage of the counter cylinder to a minimum.
- Only if the start is initiated directly from the EDIT position can slippage be kept to a minimum.
- Since the counting information is supplied from the tape movement sensor at the right-hand guide roller, potential inaccuracy can be eliminated by turning the right-hand guide roller until the seconds count of the LED display jumps to a new digit (see illustration).
- Start tape unit by depressing REC and PLAY keys (depending on position of jumper S2 in circuit board 1.081.393-81 with REC key alone).



Durch gestaffeltes Einsteigen des Lösch- und Aufnahmekopfes wird das Überlappen minimal gehalten (keine Addition der Signale). Bei erneuter Betätigung der Taste PLAY erfolgt das Aussteigen ebenfalls gestaffelt. Falls das einzusetzende Signal von einer anderen Maschine genommen wird, so hängt die Genauigkeit nicht nur vom Einsteigen und eventuell leicht abweichendem Hochlauf (unterschiedliche Massen) ab, sondern auch vom Synchronlauf der Maschinen.

Staggered drop-in of the erase and record heads reduces overlap to a minimum (no summing of signals). When the PLAY key is depressed anew, the drop-out function is also staggered. If the signals to be inserted originate from another source, accuracy depends not only on the drop-in function and possible deviation while running up to nominal tape speed (different reel weights) but also on the synchronicity of the two machines.

3. EINSTELLUNGEN

3.1 PROGRAMMIEREN DES OSZILLATORS 1.081.984

Für genaues weiches Einsteigen muss ein Bezugspunkt gewählt werden. Ab Werk wird bei allen A80 RC MK II Maschinen dieser Bezugspunkt auf die Lichtschranke eingestellt. Man kann allerdings auch einen anderen Bezugspunkt wählen, dafür muss die Maschine umprogrammiert werden.

3.2 UMPROGRAMMIEREN

- Band einlegen, Gerät nicht eingeschaltet
- Andruckaggregat von Hand ganz einfahren und in dieser Position festhalten
- Mit einem Fettstift die Position der Lichtschranke auf dem Band markieren
- Die Mitte des Löschkopf- und Aufnahmekopfes auf die gleiche Art markieren
- Andruckaggregat loslassen
- Den Abstand der Markierungen Lichtschranke-Löschkopf messen. Die Distanz (in Millimeter) durch 11,78 teilen und das Ergebnis auf- resp. abrunden.
- Den gerundeten Wert durch Umlöten der Lötbrücken am Counter A des Oszillators 1.081.984 fest einprogrammieren.
- Den Abstand der Markierungen Löschkopf-Aufnahmekopf messen. Die Distanz (in Millimeter) durch 11,78 teilen und das Ergebnis runden.
- Den erhaltenen Wert am Counter B des Oszillators 1.081.984 einprogrammieren.

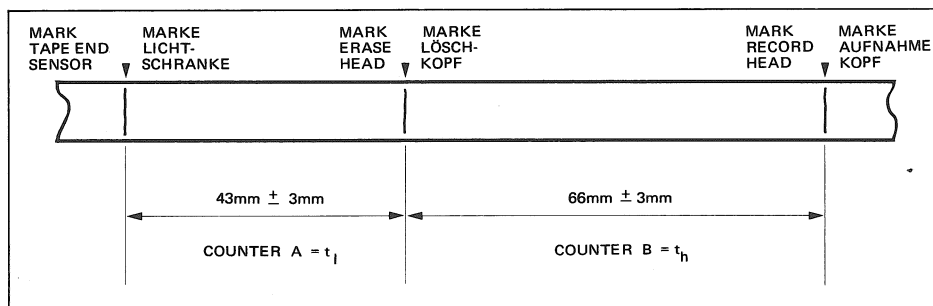
3. ADJUSTMENTS

3.1 PROGRAMMING OF OSCILLATOR 1.081.984

For accurate, smooth drop-in functions, a reference point must be selected. The factory setting for the A80 RC MK II uses the light barrier as the reference point. An alternate reference point can be chosen, but this requires reprogramming of the oscillator.

3.2 REPROGRAMMING

- Insert tape while machine is still switched off.
- Manually drop in pinch roller assembly and hold it firmly in this position.
- Mark the light barrier position on the tape with a grease pencil.
- Mark the erase and record head positions in the same manner.
- Release pinch roller assembly.
- Measure the distance between the light barrier and the erase head marking. Divide the distance (in millimeters) by 11.78 and round the result to the nearest integer.
- Permanently program the rounded value into counter A of oscillator 1.081.984 by resoldering the jumper.
- Measure the distance between the erase head and record head markings. Divide the distance (in millimeters) by 11.78 and round the result.
- The rounded value is permanently programmed into counter B of oscillator 1.081.984.



**3.3
BEISPIEL**

Abstand A: Lichtschranke-Löschkopf
43 mm

Abstand B: Löschkopf-Aufnahmekopf
66 mm

A 43 : 11,78 = 3,65 ≈ 4

B 66 : 11,78 = 5,6 ≈ 6

Demzufolge wird Counter A auf 4 und Counter B auf 6 programmiert.

Dies ist die Programmierung für den Pilotton-Kopfträger.

**3.3
EXAMPLE**

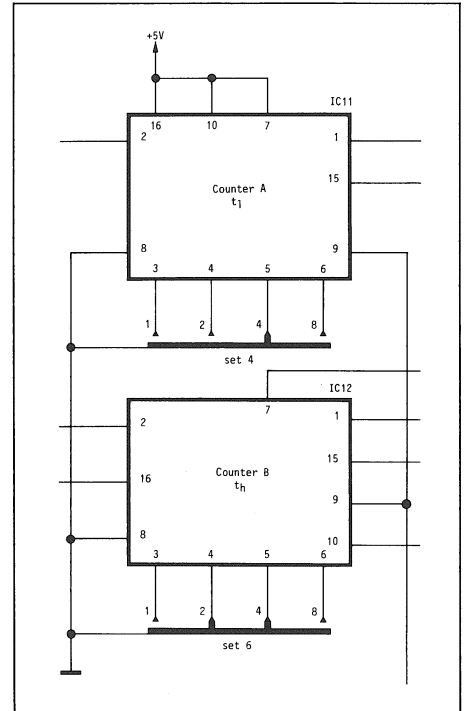
Distance A: light barrier-erase head
43 mm

Distance B: erase head-record head
66 mm

A 43 : 11,78 = 3,65 ≈ 4

B 66 : 11,78 = 5,6 ≈ 6

With this counter A is programmed for 4 and counter B for 6. This programming is necessary for the pilot tone head carrier.



Programmierung für den normalen Kopfträger
(Löschkopf rechts der Vorberuhigungsrolle):

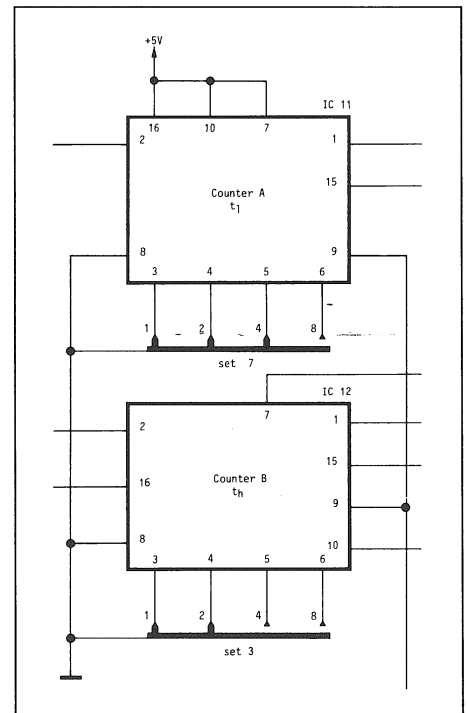
Counter A = 7

Counter B = 3

Programming for standard head carrier (erase
head to the right of prestabilizer roller):

Counter A = 7

Counter B = 3




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* * * * * * * * * * * * * * * * * * * * * * * * *
***** ** ** * ***** ***** ** ** * *****

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TITLE: PROFESSIONAL TAPE RECORDER ** STUDER A80 R/C ** 1.080.030.00 INDEX: 4 DATE OF ORIGIN: 79/03/28
 ***** DATE OF PROC.: 79/10/16 *****

OPTIONS IN EFFECT: LCLIS, SIGLIS

TOTAL GROUPS: 28
 TOTAL ELEMENTS: 82
 TOTAL PINS: 875
 TOTAL UNUSED PINS: 173
 MULTIPLE PINS: 7

SIGNALS: TOTAL: 217
 USED: 203
 UNUSED: 14

GROUP NODE = *
 INTER GROUP NODE = #
 DIRECT WIRE TO # = <
 WIRING NOT COMPUTED = @

DIAGNOSTICS GENERATED: NONE

 * STUDER * LOCATION PIN LIST * 79/10/16 * 14:05 * PAGE 2 *

 PROFESSIONAL TAPE RECORDER ** STUDER A80 R/C ** 1.080.030.00 79/03/28 *****

GR: 01 1.080.305.81
 REAR PANEL ASSEMBLY, POWER SECTION

GR: 02 1.081.320.00
 PCWER SUPPLY ASSEMBLY

GR: 02 (CONTINUATION)
 POWER SUPPLY ASSEMBLY

EL: 02 GROUND POST, EXTERNAL

 TYPE PT LV SIG.NAME CCLOR F X Y
 L 01 1* GROUND 4/5

EL: 01 POWER INPUT FEED CONNECTOR

 TYPE PT LV SIG.NAME COLOR F X Y
 M 01 1 LINE1 6
 02 1
 M 03 1 LINE2 8
 04 1
 M 05 1 GROUND 4/5
 06 1
 07 1
 08 1

EL: 04 (CONTINUATION)

 TYPE PT LV SIG.NAME COLOR F X Y
 L 20 1 T-20 8
 L 21 1 T-21 6
 L 22 1 T-22 8
 L 23 1 T-23 8
 L 24 1 T-24 0
 L 25 1 T-25 0
 L 26 1 T-26 1
 L 27 1 T-27 1
 L 28 1 T-28 2
 L 29 1 T-29 2
 L 30 1 T-30 9
 L 31 1 T-31 9

EL: 04 MAIN FUSE, TAPE DECK

 TYPE PT LV SIG.NAME CCLOR F X Y
 L 01 2 F-LINE2 7
 L 02 2 FL-LINE2 7

EL: 02 VOLTAGE SELECTOR TERMINAL BLOCK

 TYPE PT LV SIG.NAME COLOR F X Y
 L 01 3* S-LINE1 2
 L 02 2 T- 5 1
 L 03 2 T- 6 4
 L 04 2 T- 7 6
 L 05 2 T- 2 0
 L 06 2 T- 3 8
 L 07 3 T- 4 3
 L 08 2* S-LINE2 9

EL: 05 RECTIFIER & CONNECTOR PC CARD

 TYPE PT LV SIG.NAME COLOR F X Y
 L 01 1
 L 02 1
 L 03 1
 L 04 1
 L 05 1
 L 06 1
 L 07 1
 L 08 1
 L 09 1 F-M2 9
 L 10 1 F-M1 4
 L 11 1 T-M1 1
 L 12 1@ + 0.0 0
 L 13 1@ + 0.0 0
 L 14 1@ + 0.0 0
 L 15 1 F-M3 5
 L 16 1 T-M2 6
 L 17 2 +31.0 9
 L 18 1 -10.0(N) 9 6
 L 19 2* +10.0 8
 L 20 1 + 5.8 5
 L 21 1 T-M3 7(11)
 Y 31 1
 Y 32 1
 Y 33 1
 Y 34 1
 Y 35 1
 Y 36 1
 Y 37 1
 Y 38 1 0-AC1 6
 Y 39 1 0-AC2 7
 Y 40 1 AC1 6
 Y 41 1 AC2 7
 Y 42 1 0-AC3 4

EL: 05 MAINS FILTER

 TYPE PT LV SIG.NAME COLOR F X Y
 Z 01 2 FL-LINE1 6
 Z 01* 2 LINE1 6
 Z 02 2* F-LINE2 7
 Z 02* 2 LINE2 8
 K 03 2 GROUND 4/5

EL: 03 SCREEN CHASSIS CONNECTION

 TYPE PT LV SIG.NAME COLOR F X Y
 LS 01 1 SCREEN 0

EL: 08 POWER FEED CONNECTOR, MAINS

 TYPE PT LV SIG.NAME COLOR F X Y
 F 01 1 LINE1 6
 02 1
 F 03 1 LINE2 8
 04 1
 F 05 1 GROUND 4/5
 06 1
 07 1
 08 1

EL: 04 POWER TRANSFORMER

 TYPE PT LV SIG.NAME COLOR F X Y
 L 01 1 S-LINE1 2
 L 02 1 T- 2 0
 L 03 1 T- 3 8
 L 04 1 T- 4 (5)
 L 05 1 T- 5 1
 L 06 1 T- 6 4
 L 07 1 T- 7 6
 L 08 1 S-LINE2 9
 L 09 1 SCREEN 0
 L 10 1 T-10 0
 L 11 1 T-11 0
 L 12 1 T-12 2
 L 13 1 T-13 2
 L 14 1 T-14 6
 L 15 1 T-15 6
 L 16 1 T-16 4
 L 17 1 T-17 4
 L 18 1 T-18 5
 L 19 1 T-19 5

EL: 09 POWER INPUT CONNECTOR

 TYPE PT LV SIG.NAME COLOR F X Y
 L 01 2 FL-LINE1 6
 L 02 2 FL-LINE2 7
 L 03 2 GND MAIN 4/5

GR: 02 (CONTINUATION)
POWER SUPPLY ASSEMBLY

EL: 05 (CONTINUATION)

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
Y	43	1	0-AC4		3		
Y	44	1	AC3		4		
Y	45	1	AC4		3		
L	51	1	T-24		6		
L	52	1	T-25		0		
L	53	1	T-26		1		
L	54	1	T-27		1		
L	55	1	T-28		2		
L	56	1	T-29		2		
L	57	1	T-30		9		
L	58	1	T-31		9		
Y	59	1					
Y	60	1N	+ 0.0(1)		0		
L	61	1	F-M1(0)		4		
L	62	1	T-17		4		
L	63	1	T-18		5		
L	64	1	T-20		8		
L	65	1	T-21		6		
L	66	1	F-M2(0)		5		
L	67	1	T-23		8		
L	68	1	F-M3(0)		8		
Y	71	1	+31.0(0)		9		
Y	72	1	+31.0(10)		9		
Y	73	1	+ 0.0(2)		0		
Y	74	1	+ 0.0(2)		0		
L	75	1	F(+24.0)		9		
L	76	1	T-11		0		
Y	77	1	T-17/18		1		
L	78	1	T-17/18		1		
Y	79	1	T-20/21		6		
L	80	1	T-20/21		6		
Y	81	1	+ 0.0(3)		0		
Y	82	1	+ 0.0(3)		0		
Y	83	1	-10.0(0)		6		
Y	84	1	-10.0(0)		6		
L	85	1	F(- 5.8)		6		
L	86	1	T-15		6		
Y	91	1	+10.0(10)		8		
Y	92	1	+10.0(10)		8		
Y	93	1	+ 0.0(4)		0		
Y	94	1	+ 0.0(4)		0		
L	95	1	F(+ 5.8)		2		
L	96	1	T-13		2		

EL: 06 GROUND CHASSIS CONNECTION

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
LS	01	1	GROUND		4/5		

GR: 02 (CONTINUATION)
POWER SUPPLY ASSEMBLY

EL: 08 POWER SWITCH FEED, RECEPTACLE

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
F	01	1	LINE1		6		
F	02	1	LINE2		8		
F	03	1					
F	04	1	S-LINE2		9		
F	05	1	S-LINE1		2		

EL: 10 FUSE, SUPPLY MOTOR

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	1	F-M1(0)		4		
L	02	1	T-16		4		

EL: 11 FUSE, TAKE-UP MOTOR

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	1	F-M2(0)		5		
L	02	1	T-19		5		

EL: 12 FUSE, CAPSTAN

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	1	F-M3(0)		8		
L	02	1	T-22		8		

EL: 13 FUSE, - 5.8 V

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	1	F(- 5.8)		6		
L	02	1	T-14		6		

EL: 14 FUSE, + 5.8 V

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	1	F(+ 5.8)		2		
L	02	1	T-12		2		

EL: 15 FUSE, +24.0 V

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	1	F(+24.0)		9		
L	02	1	T-10		0		

GR: 02 (CONTINUATION)
POWER SUPPLY ASSEMBLY

EL: 16 CHARGE CAPACITOR, +24.0 V (1)

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	3*	+31.0(0)		9		
L	02	3*	+ 0.0(2)		0		

EL: 17 CHARGE CAPACITOR, +24.0 V (2)

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	1	+31.0(0)		9		
L	02	1	+ 0.0(2)		0		

EL: 18 CHARGE CAPACITOR, + 5.8 V

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	2*	+10.0(0)		8		
L	02	2*	+ 0.0(4)		0		

EL: 19 CHARGE CAPACITOR, - 5.8 V

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	2*	+ 0.0(3)		0		
L	02	2*	-10.0(0)		6		

EL: 20 AUDIO ELECTRONICS FEED CONNECTOR

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
F	01	1	AC1		6		
F	02	1	AC2		7		
M	03	1	AC3		4		
F	04	1	AC4		3		
F	05	1	0-AC1		6		
F	06	1	0-AC2		7		
F	07	1	0-AC3		4		
F	08	1	0-AC4		3		

EL: 21 TAPE DECK FEED CONNECTOR

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
M	01	1	+31.0		9		
M	02	1	+31.0(N)		9		
F	03	1	+10.0		8		
F	04	1	+10.0		8		
F	05	1	-10.0		6		
F	06	1@	+ 0.0		0		
F	07	1@	+ 0.0		0		
F	08	1@	+ 0.0		0		
M	09	1	+ 5.8		5		
	10	1					

GR: 02 (CONTINUATION)
POWER SUPPLY ASSEMBLY

EL: 21 (CONTINUATION)

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
	11	1					
	12	1					
	13	1					
	14	1					
	15	1					
	16	1					
	17	1					
	18	1					
F	19	1	F-M3		5		
F	20	1	T-M3		7(1)		
F	21	1	F-M2		9		
F	22	1	T-M2		6		
F	23	1	F-M1		4		
F	24	1	T-M1		1		

GR: 03 1.080.288.00
EXTENSION CABLE,PWR SUPPLY-MAINS SWITCH

EL: 01 EXTENSION CABLE, SUPPLY SIDE

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
M	01	1	LINE1		6		
M	02	1	LINE2		8		
M	03	1					
M	04	1	S-LINE2		9		
M	05	1	S-LINE1		2		

EL: 02 EXTENSION CABLE, SWITCH SIDE

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
F	01	1	LINE1		6		
F	02	1	LINE2		8		
F	03	1					
F	04	1	S-LINE2		9		
F	05	1	S-LINE1		2		

GR: 04 1.080.283.00
TAPE SPEED AND POWER SWITCH ASSEMBLY

EL: 01 POWER SWITCH FEED, JACK

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
M	01	1	LINE1		6		
M	02	1	LINE2		8		
	03	1					
M	04	1	S-LINE2		9		
M	05	1	S-LINE1		2		

EL: 02 POWER SWITCH, REAR

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	1	LINE1		6		
	02	1					
L	03	1	S-LINE1		2		

EL: 03 POWER SWITCH, FRONT

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	1	LINE2		8		
	02	1					
L	03	1	S-LINE2		9		

EL: 04 TAPE SPEED SELECTOR SWITCH

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	1	+ 0.0		0		
L	02	1	S-LOW		5		
L	03	1					

EL: 05 SPEED SELECTOR FEED, JACK

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
F	01	1	+ 0.0		0		
F	02	1	S-LW		5		
F	03	1					

GR: 05 1.080.421.00
 CONTROL UNIT, SPEED SELECTOR CABLE PLUG

EL: 01 SPEED SELECTOR, CABLE PLUG

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
M	01	1a	+ 0.0	0			
M	02	1	S-LCW	5			
M	03	1					

GR: 06 1.080.415.00
 PWR TRANSISTORS & PHASE SHIFT CAPACITORS

EL: 01 TAKE-UP MOTOR CAPACITOR, ADD.

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	2	M2-2	7			
L	02	2	C-M2-2	8			

EL: 03 DC CHASSIS CONNECTION

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
SL	01	1a	+ 0.0	0			

EL: 04 +24.0 V STABILIZER TRANSISTOR

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
H	01	2k	+24.0	2			
H	02	1	QPWR7-2	1			
L	03	2	+31.0	9			
L	03	2	+31.0(N)	9	ε		

EL: 05 TAKE-UP MOTOR TRANSISTOR PAIR

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	2	QPWR2-1	1			
L	02	2	QPWR2-2	4			
L	03	2	QPWR2-3	9			

EL: 06 SUPPLY MOTOR CAPACITOR, ADD.

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	2	M1-2	4			
L	02	2	C-M1-2	5			

EL: 08 +20.0 V STABILIZER TRANSISTOR

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
H	01	1	+20.0	3			
H	02	1	QPWR6-2	6			
L	03	1a	+24.0	2			

EL: 09 + 5.8 V STABILIZER TRANSISTOR

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
H	01	1	QPWR5-1	5			
H	02	1	QPWR5-2	7			
L	03	1	QPWR5-3	9			

GR: 06 (CONTINUATION)
 PWR TRANSISTORS & PHASE SHIFT CAPACITORS

EL: 10 - 5.8 V STABILIZER TRANSISTOR

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
H	01	1	QPWR4-1	1			
H	02	1	QPWR4-2	8			
L	03	1	QPWR4-3	6			

EL: 11 CAPSTAN MOTOR CONTROL TRANSISTOR

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
H	01	1	QPWR3-1	4			
H	02	1	QPWR3-2	9			
L	03	1	QPWR3-3	7			

EL: 12 SUPPLY MOTOR TRANSISTOR PAIR

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	2	QPWR1-1	2			
L	02	2	QPWR1-2	5			
L	03	2	QPWR1-3	8			

EL: 20 TAKE-UP MOTOR CAPACITOR, MAIN

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	1	M2-2	7			
L	02	1	C-M2-2	8			

EL: 21 CAPSTAN MOTOR CAPACITOR

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	1	T-M3	1			
L	02	1	C-M3-2	2			

EL: 22 SUPPLY MOTOR CAPACITOR, MAIN

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	1	M1-2	4			
L	02	1	C-M1-2	5			

GR: 07 1.080.421.00
 CONTROL UNIT, SUPPLY MOTOR CABLE PLUG

EL: 01 SUPPLY MOTOR (M1)

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
F	01	1	M1-1	1			
F	02	1					
F	03	1	M1-2	4			
F	04	1					
F	05	1	C-M1-2	5			

GR: 08 1.080.421.00
 FEED TO BRAKE LIFT SOLENOID LEFT

EL: 01 BRAKE LIFT SOLENOID, LEFT

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
F	01	1a	+24.0	2			
F	02	1a	K-BLIFT	3			
F	03	1					

GR: 09 1.080.421.00
 FEED TO BRAKE LIFT SOLENOID RIGHT

EL: 01 BRAKE LIFT SOLENOID, RIGHT

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
F	01	1a	+24.0	2			
F	02	1	K-BLIFT	3			
F	03	1					

GR: 10 1.080.421.00
 CONTROL UNIT, TAKE-UP MCTCR, CABLE PLUG

GR: 11 1.080.421.00
 FEED TO TAPE TENSION CONTROL LEFT

GR: 12 1.080.421.00
 FEED TO TAPE TENSION RIGHT

EL: 01 TAKE-UP MCTCR (M2)

EL: 01 TAPE TENSION CONTROL ASSY, LEFT

EL: 01 TAPE TENSION CONTROL ASSY, RIGHT

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
F	01	1	M2-1	6			
F	02	1					
F	03	1	C-M2-2	8			
F	04	1					
F	05	1	M2-2	7			

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
M	01	1a	+20.0	3			
M	02	1	R-TT1	1			
M	03	1a	+ 0.0	0			
M	04	1	K-TT1/2	7			
M	05	1a	+24.0	2			

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
M	01	1a	+20.0	3			
M	02	1	R-TT2	2			
M	03	1a	+ 0.0	0			
M	04	1	K-TT	9			
M	05	1	K-TT1/2	7			

GR: 13 1.080.421.00
 FEED TO OPTICAL TAPE SENSOR

GR: 15 1.080.421.00
 FEED TO TAPE MOVE & DIRECTION SENSOR

GR: 16 1.080.421.00
 FEED TO PRESSURE ROLLER ASSEMBLY

EL: 01 OPTICAL TAPE END SENSOR

EL: 01 TAPE MOVE AND DIR. SENSOR

EL: 01 PRESSURE ROLLER ASSEMBLY

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
M	01	1	+RP-TRSP	3			
M	02	1a	+ 0.0	0			
M	03	1	-RP-TRSP	8			
M	04	1					
F	05	1	B-TRSP	7			

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
P	01	0					
P	02	1a	+ 5.8	5			
P	03	1	CP-DIR2	7			
P	04	1a	+ 0.0	0			
P	05	1	CP-DIR1	8			
P	06	1a	+ 0.0	0			

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
F	01	1a	+24.0	2			
M	02	1a	K-PRESS	8			
M	03	1	Y-ACCEL	6			
M	04	1	K-CUT	5			
M	05	1R	S-TT	4			

GR: 18 1.080.421.00
 CONTROL UNIT, CAPSTAN MOTOR CABLE PLUG

GR: 19 1.080.421.00
 FEED TO LOCAL COMMAND SWITCHES

GR: 20 1.080.421.00
 FEED TO LOCAL TAPE TIMER

EL: 01 CAPSTAN MOTOR ASSEMBLY

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
M	01	1	M3-1	6			
M	02	1	T-M3	1			
M	03	1	C-M3-2	2			
M	04	1	0-YAC1	0			
M	05	1	YAC1-M3	4			
M	06	1a	- 5.8	6			
M	07	1	0-YAC2	0			
M	08	1	YAC2-M3	5			

EL: 01 COMMAND SWITCHES, LOCAL

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
P	01	1	B-INDIC	9			
P	02	1	B-CUT	6			
P	03	1	B-REC	5			
P	04	1a	B-STOP	1			
P	05	1	B-REPR	3			
P	06	1	B-FORW	4			
P	07	1	B-REW	2			
P	08	1	S-STOP	1			
P	09	1	S-REW	2			
P	10	1	S-FORW	3			
P	11	1	S-REPR	4			
P	12	1	S-REC	5			
P	13	1	S-CUT	6			
P	14	1a	+ 0.0	0			
P	15	1	LOC-IN	5			

EL: 01 TIMER FEED PC-CARD PLUG

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
P	01	1a	- 5.8	6			
P	02	1a	+ 0.0	0			
P	03	1	K-RESET	1			
P	04	1a	+24.0	2			
P	05	1	Y-CLK	3			
P	06	1	Y-REVRS	4			
P	07	1	Y-ICLK	5			
P	08	1	Y-FORW	6			
P	09	1a	+ 5.8	5			

GR: 21 1.080.421.00
 CONTROL UNIT, CUTTER CONTROL, CABLE PLUG

GR: 22 1.080.421.00
 FEED TO TAPE END SENSOR LEFT

GR: 23 1.080.421.00
 FEED TO TAPE END SENSOR RIGHT

EL: 01 CUTTER CONTROL ASSEMBLY

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
M	01	1	R-CUT-1	5			
M	02	1a	+20.0	3			
F	03	1	R-CUT-3	7			
M	04	1	S-CUTAUT	1			
M	05	1	LOC-IN	5			

EL: 01 TAPE END SENSOR LEFT

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
P	01	1a	+ 0.0	0			
P	02	1					
P	03	1a	- 5.8	6			
P	04	1	TT1-ACT	3			
P	05	1					
P	06	1					

EL: 01 TAPE END SENSOR RIGHT

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
P	01	1a	+ 0.0	0			
P	02	1					
P	03	1a	- 5.8	6			
P	04	1	TT2-ACT	8			
P	05	1					
P	06	1					

GR: 30 (CONTINUATION)
 CONTROL UNIT, CARD CHASSIS

GR: 35 1.081.417.00
 REAR PANEL ASSEMBLY, REMOTE CONTROL

GR: 36 1.081.417.00
 REAR PANEL ASSEMBLY, REMOTE CONTROL

EL: 15 BUSS BAR NO 3

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
W	01	9#	+ 5.8				

EL: 16 BUSS BAR NO 4

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
WL	01	9#	+24.0	2			

EL: 26 CAPSTAN SPEED CONTROL CONNECTOR

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	1a	+ 0.0	0			
L	02	1a	+24.0	2			
L	03	1a	+ 5.8	5			
L	04	1	S-CAPEXT	8			
L	05	1	R-SPLY-1	7			
L	06	1	Y-SYNC2	3			
L	07	1	Y-OUT1	4			
L	08	1a	+ 0.0	0			
L	09	1					
L	10	1a	- 5.8	6			
L	11	1	Y-SYNC1	3			
L	12	1	SPD-CTL1	9			
L	13	1	R-SPLY-0	7			
L	14	1	SPD-CTL2	1			

EL: 11 TIME ELAPSE METER FEED

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
G	01	1a	+24.0	2			
G	02	1	K-BLIFT	3			

EL: 27 MODE CONTROL CONNECTOR, REMOTE

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	1	B-INDIC	9			
L	02	1	B-REW	2			
L	03	1	B-FORW	3			
L	04	1	B-REPR	4			
L	05	1	B-STOP	1			
L	06	1	B-REC	5			
L	07	1	B-CUT	6			
L	08	1	B-MONO	7(3)			
L	09	1	YPS-MOVE	3			
L	10	1	B-FAD	1			
L	11	1	FAD-1	8			
L	12	1a	+24.0	2			
L	13	1	Y-MOVE-1	8			
L	14	1	Y-MOVE-D	9			
L	15	1a	- 5.8	6			
L	16	1	Y-REVR	4			
L	17	1	Y-FORW	6			
L	18	1a	+24.0	2			
L	19	1	LOC-IN*	5			
L	20	1	S-REW	2			
L	21	1	S-FORW	3			
L	22	1	S-REPR	4			
L	23	1	S-STOP	1			
L	24	1	S-REC	5			
L	25	1	S-CUT	6			
L	26	1	S-MONO	1			
L	27	1	Y-MUTE	4			
L	28	1	S-ZLOCAT	7			
L	29	1	FAD-2	9			
L	30	1a	+ 0.0	0			
L	31	1R	+0-TYPE	7			
L	32	1a	+ 5.8	5			
L	33	1	K-RESET	1			
L	34	1	Y-CLK	3			
L	35	1	Y-ICLK	5			
L	36	1a	+ 0.0	0			

GR: 37 1.081.417.00
 REAR PANEL ASSEMBLY, REMOTE CONTROL

EL: 28 EXTENDED MODE CONTROL, REMOTE

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	1	LCC-IN*	5			
L	02	1	K-PRESS	8			
L	03	1	MCD-2	8(1)			
L	04	1	MCD-1	3			
L	05	1					
L	06	1	Y-STOP	7			
L	07	1					
L	08	1	Y-RES3	4			
L	09	1	Y-LCW	5			
L	10	1	Y-MONO	9(2)			
L	11	1	S-RES2	3			
L	12	1					
L	13	1	CMD.EMB2	4			
L	14	1	R-CUT-1	5			
L	15	1	R-CUT-3	7			
L	16	1	S-CUTAUT	1			
L	17	1R	Y-REFLEX	2			
L	18	1	Y-TRSP	7			
L	19	1	TT1-ACT	3			
L	20	1	TT2-ACT	8			
L	21	1	S-LOW	5			
L	22	1	S-MCNC	1			
L	23	1	RECSTINH	9			
L	24	1a	+ 0.0	0			

GR #	USED PINS	UNUSED PINS	TOTAL PINS	COD-KEYS	ELE-MNTS	DESCRIPTION OF GROUP	PART # OF GR
01	14	5	19	0	5	REAR PANEL ASSEMBLY, POWER SECTION	1.080.305.81
02	152	31	183	0	19	POWER SUPPLY ASSEMBLY	1.081.320.00
03	8	2	10	0	2	EXTENSION CABLE, PWR SUPPLY-MAINS SWITCH	1.080.288.00
04	12	5	17	0	5	TAPE SPEED AND POWER SWITCH ASSEMBLY	1.080.283.00
05	2	1	3	0	1	CONTROL UNIT, SPEED SELECTOR CABLE PLUG	1.080.421.00
06	33	0	33	0	13	PWR TRANSISTORS & PHASE SHIFT CAPACITORS	1.080.415.00
07	3	2	5	0	1	CONTROL UNIT, SUPPLY MOTOR CABLE PLUG	1.080.421.00
08	2	1	3	0	1	FEED TO BRAKE LIFT SOLENOID LEFT	1.080.421.00
09	2	1	3	0	1	FEED TO BRAKE LIFT SOLENOID RIGHT	1.080.421.00
10	3	2	5	0	1	CONTROL UNIT, TAKE-UP MOTOR, CABLE PLUG	1.080.421.00
11	5	0	5	0	1	FEED TO TAPE TENSION CONTROL LEFT	1.080.421.00
12	5	0	5	0	1	FEED TO TAPE TENSION RIGHT	1.080.421.00
13	4	1	5	0	1	FEED TO OPTICAL TAPE SENSOR	1.080.421.00
15	5	1	6	0	1	FEED TO TAPE MOVE & DIRECTION SENSOR	1.080.421.00
16	5	0	5	0	1	FEED TO PRESSURE ROLLER ASSEMBLY	1.080.421.00
18	8	0	8	0	1	CONTROL UNIT, CAPSTAN MOTOR CABLE PLUG	1.080.421.00
19	15	0	15	0	1	FEED TO LOCAL COMMAND SWITCHES	1.080.421.00
20	9	0	9	0	1	FEED TO LOCAL TAPE TIMER	1.080.421.00
21	5	0	5	0	1	CONTROL UNIT, CLUTTER CONTROL, CABLE PLUG	1.080.421.00
22	3	3	6	0	1	FEED TO TAPE END SENSOR LEFT	1.080.421.00
23	3	3	6	0	1	FEED TO TAPE END SENSOR RIGHT	1.080.421.00
24	46	16	62	2	4	ZERO LOCATOR WIRING	1.081.971.00
25	15	9	24	0	1	POWER FEED FROM SUPPLY, CABLE PLUG	1.081.418.00
29	36	12	48	0	2	CONTROL UNIT, INTERNAL CONNECTORS	1.080.400.93
30	235	74	309	7	11	CONTROL UNIT, CARD CHASSIS	1.080.405.00
35	13	1	14	0	1	REAR PANEL ASSEMBLY, REMOTE CONTROL	1.081.417.00
36	38	0	38	0	2	REAR PANEL ASSEMBLY, REMOTE CONTROL	1.081.417.00
37	21	3	24	0	1	REAR PANEL ASSEMBLY, REMOTE CONTROL	1.081.417.00
TOT.	702	173	875	9	82	DISTRIBUTED IN 28 GROUPS	

SIG-NAME	COLOR	TYPE	GR	EL	PT	S	DESCRIPTION OF ELEMENT	SIG-NAME	COLOR	TYPE	GR	EL	PT	S	DESCRIPTION OF ELEMENT
0-AC1	6	Y	02	05	3E		RECTIFIER & CONNECTOR PC CARD	(CONT.)	WT	30	04	02B		COMMAND DECODER	
		F	02	20	05		AUDIO ELECTRONICS FEED CONNECTOR		WT	30	04	05B		COMMAND DECODER	
0-AC2	7	Y	02	05	35		RECTIFIER & CONNECTOR PC CARD		WT	30	05	01A		CAPSTAN SERVO PC CARD	
		F	02	20	06		AUDIO ELECTRONICS FEED CONNECTOR		WT	30	05	02A		CAPSTAN SERVO PC CARD	
0-AC3	4	Y	02	05	42		RECTIFIER & CONNECTOR PC CARD		WT	30	06	01A		SPOOLING MOTOR CONTROL PC CARD	
		F	02	20	07		AUDIO ELECTRONICS FEED CONNECTOR		WT	30	06	02A		SPOOLING MOTOR CONTROL PC CARD	
0-AC4	3	Y	02	05	43		RECTIFIER & CONNECTOR PC CARD		WT	30	07	01A		CONTACTOR PC CARD	
		F	02	20	08		AUDIO ELECTRONICS FEED CONNECTOR		W	30	07	02A		CONTACTOR PC CARD	
0-YAC1	0	M	18	01	04		CAPSTAN MOTOR ASSEMBLY		L	30	13	01	#	BUSS BAR NO 1	
		WT	30	05	06A		CAPSTAN SERVO PC CARD		L	35	26	01		CAPSTAN SPEED CONTROL CONNECTOR	
0-YAC2	0	M	18	01	07		CAPSTAN MOTOR ASSEMBLY	+ 0.0(1) 0	L	35	26	08		CAPSTAN SPEED CONTROL CONNECTOR	
		WT	30	05	05A		CAPSTAN SERVO PC CARD		L	36	27	30		MODE CONTROL CONNECTOR, REMOTE	
+ 0.0	0	L	02	05	12	@	RECTIFIER & CONNECTOR PC CARD	+ 0.0(2) 0	L	36	27	36		MODE CONTROL CONNECTOR, REMOTE	
		L	02	05	13	@	RECTIFIER & CONNECTOR PC CARD		L	37	28	24		EXTENDED MODE CONTROL, REMOTE	
		L	02	05	14	@	RECTIFIER & CONNECTOR PC CARD		Y	02	05	73		RECTIFIER & CONNECTOR PC CARD	
		F	02	21	06	@	TAPE DECK FEED CONNECTOR		Y	02	05	74		RECTIFIER & CONNECTOR PC CARD	
		F	02	21	07	@	TAPE DECK FEED CONNECTOR	+ 0.0(3) 0	L	02	16	02	*	CHARGE CAPACITOR, +24.0 V (1)	
		F	02	21	08	@	TAPE DECK FEED CONNECTOR		L	02	17	02	*	CHARGE CAPACITOR, +24.0 V (2)	
		L	04	04	01	@	TAPE SPEED SELECTOR SWITCH		Y	02	05	81		RECTIFIER & CONNECTOR PC CARD	
		M	04	05	01	@	SPEED SELECTOR FEED, JACK		Y	02	05	82		RECTIFIER & CONNECTOR PC CARD	
		SL	06	03	01	@	DC CHASSIS CONNECTION	+ 0.0(4) 0	L	02	19	01	*	CHARGE CAPACITOR, - 5.8 V	
		M	11	01	03	@	TAPE TENSION CONTROL ASSY, LEFT		Y	02	05	93		RECTIFIER & CONNECTOR PC CARD	
		M	12	01	03	@	TAPE TENSION CONTROL ASSY, RIGHT		Y	02	05	94		RECTIFIER & CONNECTOR PC CARD	
		M	13	01	02	@	OPTICAL TAPE END SENSOR	+ 0.0(5) 0	L	02	18	02	*	CHARGE CAPACITOR, + 5.8 V	
		P	15	01	04	@	TAPE MOVE AND DIR. SENSOR		WT	30	04	05B		COMMAND DECODER	
		P	15	01	06	@	TAPE MOVE AND DIR. SENSOR		WT	30	04	06A		COMMAND DECODER	
		P	19	01	14	@	COMMAND SWITCHES, LOCAL		WT	30	04	11A		COMMAND DECODER	
		P	20	01	02	@	TIMER FEED PC-CARD PLUG		WT	30	04	13A		COMMAND DECODER	
		P	22	01	01	@	TAPE END SENSOR LEFT	+ 0.0(6) 0	WT	24	05	02A		CONNECTOR TO ZERO-LOCATOR	
		P	23	01	01	@	TAPE END SENSOR RIGHT		F	24	07	24		FEED TO ZERO-LOCATOR-SYSTEM	
		M	25	01	06	@	POWER FEED FROM SUPPLY		M	29	02	24		CONNECTOR TO ZERO-LOCATOR	
		M	25	01	07	@	POWER FEED FROM SUPPLY		WT	30	07	01A		CONTACTOR PC CARD	
		M	25	01	08	@	POWER FEED FROM SUPPLY								
		F	29	01	13	@	CONNECTOR TO AUDIO SECTION	+ 0.0(7) 0	WT	24	05	02A		CONNECTOR TO ZERO-LOCATOR	
		WT	30	01	01A	@	+24/+20/+6/-6V STABIL. PC CARD		M	24	07	24		FEED TO ZERO-LOCATOR-SYSTEM	
		WT	30	01	02A	@	+24/+20/+6/-6V STABIL. PC CARD		F	29	02	24		CONNECTOR TO ZERO-LOCATOR	
		WT	30	01	19A	@	+24/+20/+6/-6V STABIL. PC CARD		WT	30	07	02A		CONTACTOR PC CARD	
		WT	30	01	20A	@	+24/+20/+6/-6V STABIL. PC CARD								
		WT	30	02	01A	@	MOVE STATUS PC CARD	+ 5.8 5	L	02	05	20		RECTIFIER & CONNECTOR PC CARD	
		WT	30	02	01B	@	MOVE STATUS PC CARD		M	02	21	09	@	TAPE DECK FEED CONNECTOR	
		WT	30	02	02A	@	MOVE STATUS PC CARD		P	15	01	02	@	TAPE MOVE AND DIR. SENSOR	
		WT	30	02	02B	@	MOVE STATUS PC CARD		P	20	01	09	@	TIMER FEED PC-CARD PLUG	
		WT	30	03	01A	@	COMMAND RECEIVER		F	24	03	03	@	TIMER FEED 3-POLE MOLEX PLUG	
		WT	30	03	01B	@	COMMAND RECEIVER		WT	24	05	25A	@	CONNECTOR TO ZERO-LOCATOR	
		WT	30	03	02A	@	COMMAND RECEIVER		M	24	07	02	@	FEED TO ZERO-LOCATOR-SYSTEM	
		WT	30	03	02B	@	COMMAND RECEIVER		F	25	01	09	@	POWER FEED FROM SUPPLY	
		WT	30	04	01A	@	COMMAND DECODER		M	29	01	06	@	CONNECTOR TO AUDIO SECTION	
		WT	30	04	01B	@	COMMAND DECODER		F	29	02	02	@	CONNECTOR TO ZERO-LOCATOR	
		WT	30	04	02A	@	COMMAND DECODER		WT	30	01	25A	@	+24/+20/+6/-6V STABIL. PC CARD	

SIG-NAME	COLOR	TYPE	GR EL PT	S	DESCRIPTION OF ELEMENT	SIG-NAME	COLOR	TYPE	GR EL PT	S	DESCRIPTION OF ELEMENT
F(+ 5.8) 2	L	L	02 05 95 02 14 01		RECTIFIER & CONNECTOR PC CARD FUSE, + 5.8 V	K-BLIFT 3	F	F	08 01 02 09 01 02	@	BRAKE LIFT SOLENOID, LEFT BRAKE LIFT SOLENOID, RIGHT
F(+24.0) 9	L	L	02 05 75 02 15 01		RECTIFIER & CONNECTOR PC CARD FUSE, +24.0 V	WT	G	30 04 18B 30 06 14A 36 11 02			COMMAND DECODER SPOOLING MOTOR CONTROL PC CARD TIME ELAPSE METER FEED
F(- 5.8) 6	L	L	02 05 85 02 13 01		RECTIFIER & CONNECTOR PC CARD FUSE, - 5.8 V	K-BRAKE	WT	30 04 09B 30 07 15A			COMMAND DECODER CONTACTOR PC CARD
F-LINE2 7	L	Z	01 04 01 01 05 02		MAIN FUSE, TAPE DECK * MAINS FILTER	K-CUT 5	M	16 01 04 WT 30 04 19B			PRESSURE ROLLER ASSEMBLY COMMAND DECODER
F-M1 4	L	F	02 05 10 02 21 23 M 25 01 23 WT 30 07 13A		RECTIFIER & CONNECTOR PC CARD TAPE DECK FEED CONNECTOR POWER FEED FROM SUPPLY CONTACTOR PC CARD	K-CUT-2	WT	30 04 17B	R		COMMAND DECODER
F-M1(0) 4	L	L	02 05 61 02 10 01		RECTIFIER & CONNECTOR PC CARD FUSE, SUPPLY MOTOR	K-PRESS 8	M	16 01 02 M 29 01 23 WT 30 04 09A WT 30 05 05B WT 30 06 10A L 37 28 02	@		PRESSURE ROLLER ASSEMBLY CONNECTOR TO AUDIO SECTION COMMAND DECODER CAPSTAN SERVO PC CARD SPOOLING MOTOR CONTROL PC CARD EXTENDED MODE CONTROL, REMOTE
F-M2 9	L	F	02 05 09 02 21 21 M 25 01 21 WT 30 07 07A		RECTIFIER & CONNECTOR PC CARD TAPE DECK FEED CONNECTOR POWER FEED FROM SUPPLY CONTACTOR PC CARD	K-RESET 1	P	20 01 03 L + 30 06 13B L 36 27 33			TIMER FEED PC-CARD PLUG SPOOLING MOTOR CONTROL PC CARD MODE CONTROL CONNECTOR, REMOTE
F-M2(0) 5	L	L	02 05 66 02 11 01		RECTIFIER & CONNECTOR PC CARD FUSE, TAKE-UP MOTOR	K-TT 9	M	12 01 04 WT 30 04 20B			TAPE TENSION CONTROL ASSY, RIGHT COMMAND DECODER
F-M3 5	L	F	02 05 15 02 21 19 M 25 01 19 WT 30 05 17A		RECTIFIER & CONNECTOR PC CARD TAPE DECK FEED CONNECTOR POWER FEED FROM SUPPLY CAPSTAN SERVO PC CARD	K-TT1/2 7	M	11 01 04 M 12 01 05 WT + 30 06 18B #	#		TAPE TENSION CONTROL ASSY, LEFT TAPE TENSION CONTROL ASSY, RIGHT SPOOLING MOTOR CONTROL PC CARD
F-M3(0) 8	L	L	02 05 68 02 12 01		RECTIFIER & CONNECTOR PC CARD FUSE, CAPSTAN	LINE1 6	Z	01 05 01* F 01 08 01 M 02 01 01 F 02 08 01 M 03 01 01 F 03 02 01 M 04 01 01 L 04 02 01			MAINS FILTER POWER FEED CONNECTOR, MAINS POWER INPUT FEED CONNECTOR POWER SWITCH FEED, RECEPTACLE EXTENSION CABLE, SUPPLY SIDE EXTENSION CABLE, SWITCH SIDE POWER SWITCH FEED, JACK POWER SWITCH, REAR
FAD-1 8	WT	L	30 04 20A L 36 27 11		COMMAND DECODER MODE CONTROL CONNECTOR, REMOTE	LINE2 8	Z	01 05 02* F 01 08 03 M 02 01 03 F 02 08 02 M 03 01 02 F 03 02 02 M 04 01 02 L 04 03 01			MAINS FILTER POWER FEED CONNECTOR, MAINS POWER INPUT FEED CONNECTOR POWER SWITCH FEED, RECEPTACLE EXTENSION CABLE, SUPPLY SIDE EXTENSION CABLE, SWITCH SIDE POWER SWITCH FEED, JACK POWER SWITCH, FRONT
FAD-2 9	WT	L	30 04 21A L 36 27 29		COMMAND DECODER MODE CONTROL CONNECTOR, REMOTE	LOC-IN 5	P	19 01 15 M 21 01 05 WT + 30 06 11B # WT + 30 06 12B	#		COMMAND SWITCHES, LOCAL CUTTER CONTROL ASSEMBLY SPOOLING MOTOR CONTROL PC CARD SPOOLING MOTOR CONTROL PC CARD
FL-LINE1 6	Z	L	01 05 01 L 01 09 01		MAINS FILTER POWER INPUT CONNECTOR	LOC-IN* 5	WT +	30 06 12B #	#		SPOOLING MOTOR CONTROL PC CARD
FL-LINE2 7	L	L	01 04 02 L 01 09 02		MAIN FUSE, TAPE DECK POWER INPUT CONNECTOR						
GND MAIN 4/5	L		01 09 03		POWER INPUT CONNECTOR						
GROUND 4/5	L	K	01 02 01 K 01 05 03 F 01 08 05 M 02 01 05 LS 02 06 01	*	GROUND PCST, EXTERNAL MAINS FILTER POWER FEED CONNECTOR, MAINS POWER INPUT FEED CONNECTOR GROUND CHASSIS CONNECTION						

SIG-NAME	COLOR	TYPE	GR EL PT	S	DESCRIPTION OF ELEMENT	SIG-NAME	COLOR	TYPE	GR EL PT	S	DESCRIPTION OF ELEMENT
(CONT.)	L	L	36 27 19 L 37 28 01		MODE CONTROL CONNECTOR, REMOTE EXTENDED MODE CONTROL, REMOTE	QPWR3-2 9	H	H	06 11 02 WT 30 05 21A		CAPSTAN MOTOR CONTROL TRANSISTOR CAPSTAN SERVO PC CARD
MOD-1 3	F	WT +	29 01 08 L + 30 06 15B L 37 28 04		CONNECTOR TO AUDIO SECTION SPOOLING MOTOR CONTROL PC CARD EXTENDED MODE CONTROL, REMOTE	QPWR3-3 7	L	L	06 11 03 WT 30 05 20A		CAPSTAN MOTOR CONTROL TRANSISTOR CAPSTAN SERVO PC CARD
MOD-2 8	F	WT +	29 01 16 L + 30 06 16B L 37 28 03		CONNECTOR TO AUDIO SECTION SPOOLING MOTOR CONTROL PC CARD EXTENDED MODE CONTROL, REMOTE	QPWR4-1 1	H	H	06 10 01 WT 30 01 17A		- 5.8 V STABILIZER TRANSISTOR +24/+20/+6/-6V STABIL. PC CARD
M1-1 1	F	WT	07 01 01 WT 30 07 12A		SUPPLY MOTOR (M1) CONTACTOR PC CARD	QPWR4-2 8	H	H	06 10 02 WT 30 01 16A		- 5.8 V STABILIZER TRANSISTOR +24/+20/+6/-6V STABIL. PC CARD
M1-2 4	L	L	06 06 01 L 06 22 01 F 07 01 03 WT 30 07 1CA #		SUPPLY MOTOR CAPACITOR, ADD. SUPPLY MOTOR CAPACITOR, MAIN SUPPLY MOTOR (M1) CONTACTOR PC CARD	QPWR4-3 6	L	L	06 10 03 WT 30 01 15A		- 5.8 V STABILIZER TRANSISTOR +24/+20/+6/-6V STABIL. PC CARD
M2-1 6	F	WT	10 01 01 WT 30 07 08A		TAKE-UP MOTOR (M2) CONTACTOR PC CARD	QPWR5-1 5	H	H	06 09 01 WT 30 01 24A		+ 5.8 V STABILIZER TRANSISTOR +24/+20/+6/-6V STABIL. PC CARD
M2-2 7	L	L	06 01 01 L 06 20 01 F 10 01 05 WT 30 07 06A #		TAKE-UP MOTOR CAPACITOR, ADD. TAKE-UP MOTOR CAPACITOR, MAIN TAKE-UP MOTOR (M2) CONTACTOR PC CARD	QPWR5-2 7	H	H	06 09 02 WT 30 01 23A		+ 5.8 V STABILIZER TRANSISTOR +24/+20/+6/-6V STABIL. PC CARD
M3-1 6	M	WT	18 01 01 WT 30 05 18A		CAPSTAN MOTOR ASSEMBLY CAPSTAN SERVO PC CARD	QPWR5-3 9	L	L	06 09 03 WT 30 01 22A		+ 5.8 V STABILIZER TRANSISTOR +24/+20/+6/-6V STABIL. PC CARD
QP-DIR1 8	P	WT	15 01 05 WT 30 02 03A		TAPE MOVE AND DIR. SENSOR MOVE STATUS PC CARD	QPWR6-2 6	H	H	06 08 02 WT 30 01 03A		+20.0 V STABILIZER TRANSISTOR +24/+20/+6/-6V STABIL. PC CARD
QP-DIR2 7	P	WT	15 01 03 WT 30 02 04A		TAPE MOVE AND DIR. SENSOR MOVE STATUS PC CARD	QPWR7-2 1	H	H	06 04 02 WT 30 01 07A WT 30 01 08A		+24.0 V STABILIZER TRANSISTOR +24/+20/+6/-6V STABIL. PC CARD +24/+20/+6/-6V STABIL. PC CARD
QPWR1-1 2	L	WT	06 12 01 WT 30 06 22A		SUPPLY MOTOR TRANSISTOR PAIR SPOOLING MOTOR CONTROL PC CARD	R-CUT-1 5	M	M	21 01 01 WT 30 06 15A L 37 28 14		CUTTER CONTROL ASSEMBLY SPOOLING MOTOR CONTROL PC CARD EXTENDED MODE CONTROL, REMOTE
QPWR1-2 5	L	WT	06 12 02 WT 30 06 21A		SUPPLY MOTOR TRANSISTOR PAIR SPOOLING MOTOR CONTROL PC CARD	R-CUT-3 7	F	F	21 01 03 WT 30 06 13A L 37 28 15		CUTTER CONTROL ASSEMBLY SPOOLING MOTOR CONTROL PC CARD EXTENDED MODE CONTROL, REMOTE
QPWR1-3 8	L	WT	06 12 03 WT 30 06 20A		SUPPLY MOTOR TRANSISTOR PAIR SPOOLING MOTOR CONTROL PC CARD	R-SPLY-0 7	WT	L	30 05 07A L 35 26 13		CAPSTAN SERVO PC CARD CAPSTAN SPEED CONTROL CONNECTOR
QPWR2-1 1	L	WT	06 05 01 WT 30 06 03A		TAKE-UP MOTOR TRANSISTOR PAIR SPOOLING MOTOR CONTROL PC CARD	R-SPLY-1 7	WT	L	30 05 13A L 35 26 05		CAPSTAN SERVO PC CARD CAPSTAN SPEED CONTROL CONNECTOR
QPWR2-2 4	L	WT	06 05 02 WT 30 06 04A		TAKE-UP MOTOR TRANSISTOR PAIR SPOOLING MOTOR CONTROL PC CARD	R-TT1 1	M	M	11 01 02 WT 30 06 16A		TAPE TENSION CONTROL ASSY, LEFT SPOOLING MOTOR CONTROL PC CARD
QPWR2-3 9	L	WT	06 05 03 WT 30 06 08A		TAKE-UP MOTOR TRANSISTOR PAIR SPOOLING MOTOR CONTROL PC CARD	R-TT2 2	M	M	12 01 02 WT 30 06 09A WT 30 07 18A		TAPE TENSION CONTROL ASSY, RIGHT SPOOLING MOTOR CONTROL PC CARD CONTACTOR PC CARD
QPWR3-1 4	H	WT	06 11 01 WT 30 05 22A		CAPSTAN MOTOR CONTROL TRANSISTOR CAPSTAN SERVO PC CARD	RECSTINH 9	F	F	29 01 07 WT 30 03 14A L 37 28 23		CONNECTOR TO AUDIO SECTION COMMAND RECEIVER EXTENDED MODE CONTROL, REMOTE

SIG-NAME	COLOR	TYPE	GR	EL	PT	S	DESCRIPTION OF ELEMENT	SIG-NAME	COLOR	TYPE	GR	EL	PT	S	DESCRIPTION OF ELEMENT
Y-ICLK	5	P	2C	C1	07		TIMER FEED PC-CARD PLUG	(CONT.)		WT	3C	05	04A		CAPSTAN SERVO PC CARD
		WT	30	02	14A		MOVE STATUS PC CARD	YAC2-M3	5	M	18	01	08		CAPSTAN MOTOR ASSEMBLY
		L	36	27	35		MODE CONTROL CONNECTOR, REMOTE			WT	3C	05	03A		CAPSTAN SERVO PC CARD
Y-LOW	5	F	29	01	19		CONNECTOR TO AUDIO SECTION	YAN-M1		WT	30	06	19A		SPOOLING MOTOR CONTROL PC CARD
		WT	30	02	19A		MOVE STATUS PC CARD			WT	3C	07	11A		CONTACTOR PC CARD
		WT	3C	C5	11A		CAPSTAN SERVO PC CARD	YAN-M2		WT	30	06	07A		SPOOLING MOTOR CONTROL PC CARD
		L	37	28	09		EXTENDED MODE CONTROL, REMOTE			WT	30	07	05A		CONTACTOR PC CARD
Y-MONO	9	F	29	01	01		CONNECTOR TO AUDIO SECTION	YBI-CAUT		WT	30	04	15A		COMMAND DECODER
		WT	30	06	03B		SPOOLING MOTOR CONTROL PC CARD			WT	3C	06	12A		SPOOLING MOTOR CONTROL PC CARD
		L	37	28	10		EXTENDED MODE CONTROL, REMOTE	YBI-CUT		WT	30	03	13B		COMMAND RECEIVER
Y-MOVE-D	9	WT	30	02	21B		MOVE STATUS PC CARD			WT	30	04	18A		COMMAND DECODER
		L	36	27	14		MODE CONTROL CONNECTOR, REMOTE	YBI-END		WT	30	02	07B		MOVE STATUS PC CARD
Y-MOVE-1	8	WT	30	02	16A		MOVE STATUS PC CARD			WT	30	03	15B		COMMAND RECEIVER
		L	36	27	13		MODE CONTROL CONNECTOR, REMOTE			WT	30	07	19A		CONTACTOR PC CARD
Y-MUTE	4	F	29	01	2C		CONNECTOR TO AUDIO SECTION	YBI-FAD		WT	30	03	12B		COMMAND RECEIVER
		WT	30	01	13A		+24/+20/+6/-6V STABIL. PC CARD			WT	30	04	12A		COMMAND DECODER
		L	36	27	27		MODE CONTROL CONNECTOR, REMOTE	YBI-FF0		WT	30	03	05A		COMMAND RECEIVER
Y-OUT1	4	F	29	01	04		CONNECTOR TO AUDIO SECTION			WT	30	04	03B		COMMAND DECODER
		WT	30	05	09A		CAPSTAN SERVO PC CARD	YBI-FF1		WT	30	03	06A		COMMAND RECEIVER
		L	35	26	07		CAPSTAN SPEED CONTROL CONNECTOR			WT	30	04	04A		COMMAND DECODER
Y-REC	6	F	29	01	11		CONNECTOR TO AUDIO SECTION	YBI-FF2		WT	30	03	07A		COMMAND RECEIVER
		WT	3C	C4	07A		COMMAND DECODER			WT	3C	04	05A		COMMAND DECODER
Y-REFLEX	2	L	37	28	17	R	EXTENDED MODE CONTROL, REMOTE	YBI-FF3		WT	30	03	08A		COMMAND RECEIVER
Y-RES3	4	WT	3C	04	21B		COMMAND DECODER			WT	3C	04	04B		COMMAND DECODER
		L	37	28	08		EXTENDED MODE CONTROL, REMOTE	YBI-FF3		WT	30	03	08A		COMMAND RECEIVER
Y-REVR5	4	P	24	01	06		TIMER FEED PC-CARD PLUG			WT	3C	04	04B		COMMAND DECODER
		WT	30	02	15A		MOVE STATUS PC CARD	YBI-FORW		WT	30	02	12A	N	MOVE STATUS PC CARD
		WT	30	07	16A		CONTACTOR PC CARD			WT	30	02	12B		MOVE STATUS PC CARD
		L	36	27	16		MODE CONTROL CONNECTOR, REMOTE	YBI-INTT		WT	30	03	12A		COMMAND RECEIVER
Y-STOP	7	WT	30	03	20A		COMMAND RECEIVER	YBI-LCAD		WT	30	02	16A	N	MOVE STATUS PC CARD
		L	37	28	06		EXTENDED MODE CONTROL, REMOTE	YBI-MOVD		WT	30	02	05B		MOVE STATUS PC CARD
Y-SYNC1	3	WT	30	05	19A		CAPSTAN SERVO PC CARD			WT	3C	03	04A		COMMAND RECEIVER
		L	35	26	11		CAPSTAN SPEED CONTROL CONNECTOR	YBI-MOVI		WT	30	02	05A		MOVE STATUS PC CARD
Y-SYNC2	3	WT	30	05	03B		CAPSTAN SERVO PC CARD			WT	3C	04	03A		COMMAND DECODER
		L	35	26	06		CAPSTAN SPEED CONTROL CONNECTOR	YBI-PLS2		WT	30	02	09B		MOVE STATUS PC CARD
Y-TACH-D	WT	30	05	04B	N		CAPSTAN SERVO PC CARD	YBI-PULS		WT	30	02	20A		MOVE STATUS PC CARD
Y-TRSP	7	F	29	01	14		CONNECTOR TO AUDIO SECTION	YBI-RES3		WT	30	04	19A		COMMAND DECODER
		WT	30	02	21A		MOVE STATUS PC CARD	YBI-SAFE		WT	30	07	22A	N	CONTACTOR PC CARD
		L	37	28	18		EXTENDED MODE CONTROL, REMOTE								
YAC1-M3	4	M	18	01	05		CAPSTAN MOTOR ASSEMBLY								

SIG-NAME	COLOR	TYPE	GR	EL	PT	S	DESCRIPTION OF ELEMENT
YPS-MOVE	3	WT	24	05	12A		CONNECTOR TO ZERC-LCCATCR
		F	24	07	04		FEED TO ZERO-LOCATOR-SYSTEM
		M	29	01	18		CONNECTOR TO AUDIO SECTION
		M	29	02	04		CONNECTOR TO ZERC-LCCATCR
		WT	30	02	20B	*	MOVE STATUS PC CARD
		L	36	27	09		MODE CONTROL CONNECTOR, REMOTE
YPS-REC	3	F	29	01	12		CONNECTOR TO AUDIO SECTION
		WT	30	03	10A		COMMAND RECEIVER
Y2-SIGN	5	N	24	02	01		TIMER FEED 11-POLE CIS PLUG
		WT	24	05	15A		CONNECTOR TO ZERO-LOCATOR
ZERO-OUT	6	N	24	02	06		TIMER FEED 11-POLE CIS PLUG
		WT	24	05	19A		CONNECTOR TO ZERO-LOCATOR

GR: 51 (CONTINUATION)
BASIS BOARD

EL: 32 CONN. MONITOR REPROD. SIGNALS J32

TYPE PT LV SIG. NAME COLOR F X Y

D 01 0 REP1 9
D 02 0 REP2 9
D 03 0 REP1-0.0 4
D 04 0 REP2-0.0 4
D 05 0 -12.0 6
D 06 0 +12.0 2

EL: 33 BASIS BOARD FIELD E33

TYPE PT LV SIG. NAME COLOR F X Y

L 01 0 MOD1 3
L 02 0 MOD2 8
03 0
04 0

EL: 34 CONN. MODULATION LEVEL MONIT. J34

TYPE PT LV SIG. NAME COLOR F X Y

01 0 CHASSIS
02 0
03 0
04 0
05 0
06 0
07 0
08 0
09 0 OUT1-4
10 0 REP1
11 0
12 0 OUT2-4
13 0 REP2
14 0 0.0
15 0 -12.0
16 0 +12.0
17 0 MOD1
18 0 MOD2
19 0
20 0

EL: 35 CONN. FEED VU PANEL J35

TYPE PT LV SIG. NAME COLOR F X Y

D 01 0 OUT2-2 9
D 02 0 OUT2-1 2
D 03 0 OUT2-0.0 4

GR: 51 (CONTINUATION)
BASIS BOARD

EL: 36 BASIS BOARD FIELD E36

TYPE PT LV SIG. NAME COLOR F X Y

L 01 0 0-REP2 8
L 02 0 H-REP2 6
L 03 0 SCREEN

EL: 37 CONN. REP. AMPL. CH2 J37

TYPE PT LV SIG. NAME COLOR F X Y

01 0 CHASSIS
02 0 0-REP2
03 0 H-REP2
04 0 SCREEN
05 0
06 0 CROSCOM1
07 0 CROSCOM2
08 0
09 0
10 0 OUT2-4
11 0 REP2
12 0 OUT2-2
13 0 OUT2-1
14 0 OUT2-0.0
15 0 -12.0
16 0 +12.0
17 0 Y-SPEED
18 0
19 0
20 0 Y-MUTE

EL: 38 BASIS BOARD FIELD E38

TYPE PT LV SIG. NAME COLOR F X Y

L 01 0 OUT2-2 9
L 02 0 OUT2-1 6
L 03 0 OUT2-0.0
L 04 0 Y-MUTE 4

EL: 39 CONN. FEED VU PANEL J39

TYPE PT LV SIG. NAME COLOR F X Y

D 01 0 OUT1-2 9
D 02 0 OUT1-1 2
D 03 0 OUT1-0.0 4

GR: 51 (CONTINUATION)
BASIS BOARD

EL: 40 BASIS BOARD FIELD E40

TYPE PT LV SIG. NAME COLOR F X Y

L 01 0 0-REP1 8
L 02 0 H-REP1 6
L 03 0 SCREEN
L 04 0 OUT1-2 9
L 05 0 OUT1-1 6
L 06 0 OUT1-0.0

EL: 41 CONN. REP. AMPL. CH1 J41

TYPE PT LV SIG. NAME COLOR F X Y

01 0 CHASSIS
02 0 0-REP1
03 0 H-REP1
04 0 SCREEN
05 0
06 0 CROSCOM2
07 0 CROSCOM1
08 0
09 0
10 0 OUT1-4
11 0 REP1
12 0 OUT1-2
13 0 OUT1-1
14 0 OUT1-0.0
15 0 -12.0
16 0 +12.0
17 0 Y-SPEED
18 0
19 0
20 0 Y-MUTE

EL: 44 CONN. INPUT CH1 P44

TYPE PT LV SIG. NAME COLOR F X Y

N 01 0 INP1-1 6
02 0 KEY
N 03 0
N 04 0 INP1-2 9

EL: 45 CONN. INPUT CH2 P45

TYPE PT LV SIG. NAME COLOR F X Y

N 01 0 INP2-1 6
02 0 KEY
N 03 0
N 04 0 INP2-2 9

GR: 51 (CONTINUATION)
BASIS BOARD

EL: 46 CONN. OUTPUT CH1 P46

TYPE PT LV SIG. NAME COLOR F X Y

N 01 0 OUT1-1 6
02 0 KEY
N 03 0
N 04 0 OUT1-2 9

EL: 47 CONN. OUTPUT CH2 P47

TYPE PT LV SIG. NAME COLOR F X Y

N 01 0 OUT2-1 6
02 0 KEY
N 03 0
N 04 0 OUT2-2 9

EL: 48 CONN. HEAD BLOCK P48

TYPE PT LV SIG. NAME COLOR F X Y

01 0 0-REP1 2
02 0 H-REP1 6
03 0 SCREEN
04 0 Y-REC 2
05 0 S-REC1 7
06 0 H-REC1 6
07 0 L-REC1 9
08 0 H-PILOT1 9
09 0 L-PILOT1 6
10 0 B-MONO 5
11 0 L-ERAS 9
12 0 H-ERAS1 6
13 0 0-REP2 2
14 0 H-REP2 6
15 0 SCREEN
16 0 +24.0 4
17 0 S-REC2 3
18 0 H-REC2 6
19 0 L-REC2 9
20 0 L-PILOT2 9
21 0 H-PILOT2 6
22 0 Y-MONO 1
23 0 0.0 0
24 0 H-ERAS2 2

GR: 52 1.C80.297.00
AUDIO CONNECTOR FIELD

EL: 44 CONN. LINE INPUT CH1 J44

TYPE PT LV SIG. NAME COLOR F X Y

N 01 0 INP1-1 6
02 0 KEY
N 03 0
N 04 0 INP1-2 9

EL: 45 CONN. LINE INPUT CH2 J45

TYPE PT LV SIG. NAME COLOR F X Y

N 01 0 INP2-1 6
02 0 KEY
N 03 0
N 04 0 INP2-2 9

EL: 46 CONN. LINE OUTPUT CH1 J46

TYPE PT LV SIG. NAME COLOR F X Y

N 01 0 OUT1-1 6
02 0 KEY
N 03 0
N 04 0 OUT1-2 9

EL: 47 CONN. LINE OUTPUT CH2 J47

TYPE PT LV SIG. NAME COLOR F X Y

N 01 0 OUT2-1 6
02 0 KEY
N 03 0
N 04 0 OUT2-2 9

GR: 53 1.081.920.00
MONITOR FACEPLATE

EL: 27 MONITOR FACEPLATE FIELD E27

TYPE PT LV SIG. NAME COLOR F X Y

L 01 0 INP1-3 9
L 02 0 INP1-0.0 4
L 03 0 INP2-3 9
L 04 0 INP2-0.0 4
L 05 0 REP1 9
L 06 0 REP1-0.0 4
L 07 0 REP2 9
L 08 0 REP2-0.0 4
L 09 0 -12.0 6
L 10 0 +12.0 2

GR: 54 1.081.908.00
 MONITOR AMPLIFIER

EL: 29 CONN. MONITOR AMPL. J29

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
N	01	0	H-INPM	9			
N	02	0					
N	03	0	0-INPM	4			
N	04	0	0-OUTM	9			
N	05	0	H-OUTM	5			
N	06	0	-12.0	6			
N	07	0	+12.0	2			

GR: 55 1.081.912.00
 VU-METER PANEL

EL: 39 CONN. VU-METER PANEL J39

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
B	01	0	KEY				
B	02	0	CHASSIS	0			
B	03	0	REP2M	2			
B	04	0	INP2-0.0	9			
B	05	0	REC2	5			
B	06	0					
B	07	0	REC1	5			
B	08	0	INP1-0.0	9			
B	09	0	REP1M	2			
B	10	0					
B	11	0					
B	12	0					
B	13	0	OUT1-1	2			
B	14	0	OUT2-0.0	9			
B	15	0	OUT2-2	9			
B	16	0	+24.0	4			
B	17	0	+12.0	2			
B	18	0	S-RECD1	8			
B	19	0	S-RECD1	9			
B	20	0	OUT2-4	2			
B	21	0	OUT2-0.0	9			
B	22	0	REP2-0.0	9			
B	23	0	INP2-3	2			
B	24	0					
B	25	0					
B	26	0	INP1-3	2			
B	27	0	REP1-0.0	9			
B	28	0	OUT1-0.0	9			
B	29	0	OUT1-4	2			
B	30	0	0.0	0			
B	31	0	OUT1-2	9			
B	32	0	OUT1-0.0	4			
B	33	0	KEY				
B	34	0	OUT2-1	2			
B	35	0	-12.0	6			
B	36	0	S-RECD2	3			
B	37	0	S-RECD2	7			

GR: 56 1.081.296.00
 CONN. FIELD PILOT AND FOLLOW-UP SYSTEM

EL: 16 CONN. PILOT SYSTEM J16

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
L	01	0	INP3-1	6			
L	02	0	INP3-2	9			
L	03	0	0.0	0			
L	04	0	OUT3-3	4			
L	05	0	OUT3-2	2			
L	06	0	B-PINLEV	5			

EL: 17 CONN.FOLLOW-UP SYST.EXT.REF. J17

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
N	01	0	EX.REF-1	6			
N	02	0	KEY				
N	03	0					
N	04	0	EX.REF-2	9			

EL: 18 CONN.FOLLOW-UP SYST. OUTPUT J18

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
N	01	0	OUT3-2	6			
N	02	0	KEY				
N	03	0					
N	04	0	OUT3-3	9			

EL: 19 CONN.FOLLOW-UP SYST. INPUT J19

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
N	01	0	INP3*1	6			
N	02	0	KEY				
N	03	0					
N	04	0	INP3*2	9			

GR: 57 1.081.913.00
 PILOT FOLLOW-UP SYSTEM

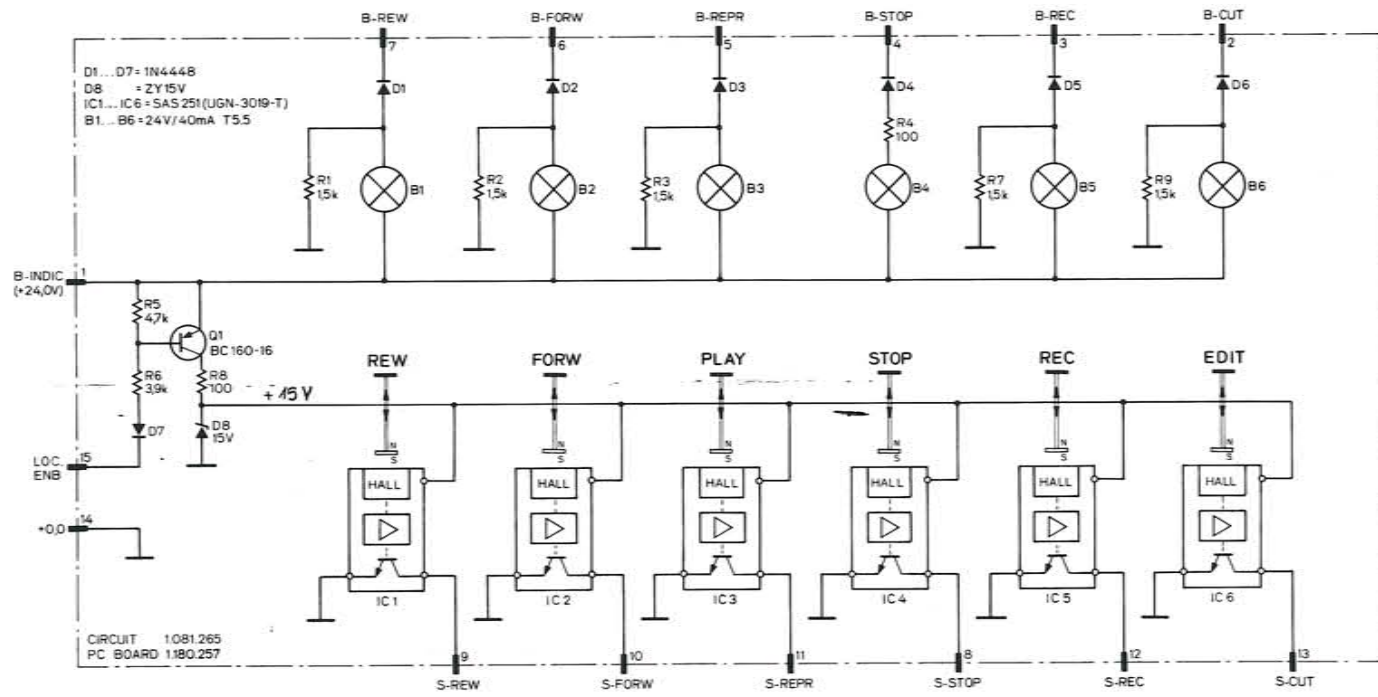
EL: 20 CONN. PILOT FOLLOW-UP SYST. J20

TYPE	PT	LV	SIG.NAME	COLOR	F	X	Y
B	01	0	CHASSIS	0			
B	02	0	AC2	7			
B	03	0	0.0	0			
B	04	0	KEY				
B	05	0	OUT3-2	2			
B	06	0	OUT3-3	4			
B	07	0	INP3-2	9			
B	08	0	INP3-1	6			
B	09	0	B-PINLEV	5			
B	10	0	EX.REF-1	6			
B	11	0	EX.REF-2	9			
B	12	0	OUT3-2	6			
B	13	0	OUT3-3	9			
B	14	0	INP3*1	6			
B	15	0	INP3*2	9			
B	16	0					
B	17	0					
B	18	0					
B	19	0					
B	20	0					
B	21	0					
B	22	0					
B	23	0	Y-REC	6			
B	24	0	S-CAPEXT	8			
B	25	0	SPD-CTL1	9			
B	26	0	K-PRESS	8			
B	27	0	B-STOP	1			
B	28	0	Y-OUT1	4			
B	29	0	Y-TRSP	7			
B	30	0	Y-END	3			
B	31	0	0.0	0			
B	32	0	+24.0	4			
B	33	0	+5.8	5			
B	34	0	-5.8	6			
B	35	0	KEY				
B	36	0	+12.0	2			
B	37	0	-12.0	7			

SIG-NAME	COLOR	TYPE	GR	EL	PT	S	DESCRIPTION OF ELEMENT	SIG-NAME	COLOR	TYPE	GR	EL	PT	S	DESCRIPTION OF ELEMENT
(CONT.)	L		51	24	05		BASIS BOARD FIELD E24	(CONT.)			51	30	17B		CONN. MONO-STEREO SWITCH J30
	L		51	36	03		BASIS BOARD FIELD E36				51	37	17		CONN. REP. AMPL. CH2 J37
			51	37	04		CONN. REP. AMPL. CH2 J37				51	41	17		CONN. REP. AMPL. CH1 J41
	L		51	40	03		BASIS BOARD FIELD E40								
			51	41	04		CONN. REP. AMPL. CH1 J41	Y-TRSP	7	M		51	01	14	CONN. TAPE DECK P01
			51	48	03		CONN. HEAD BLOCK P48		7	L		51	07	13	BASIS BOARD FIELD E07
			51	48	15		CONN. HEAD BLOCK P48		7	D		51	08	13	CONN. FEED FOLLOW-UP SYSTEM J08
									7	B		57	20	29	CONN. PILOT FOLLOW-UP SYST. J20
SPD-CTL1	9	M		51	01	05	CONN. TAPE DECK P01	YPS-MOVE	3	F		51	01	18	CONN. TAPE DECK P01
	9	L		51	07	03	BASIS BOARD FIELD E07		3	L		51	19	15	BASIS BOARD FIELD E19
	9	D		51	08	03	CONN. FEED FOLLOW-UP SYSTEM J08					51	21	18B	CONN. OSCILLATOR J21
	9	B		57	20	25	CONN. PILOT FOLLOW-UP SYST. J20								
Y-END	3	M		51	01	15	CONN. TAPE DECK P01	YPS-REC	3	M		51	01	12	CONN. TAPE DECK P01
	3	L		51	07	14	BASIS BOARD FIELD E07					51	19	01	R BASIS BOARD FIELD E19
	3	D		51	08	14	CONN. FEED FOLLOW-UP SYSTEM J08					51	19	04	R BASIS BOARD FIELD E19
	3	B		57	20	30	CONN. PILOT FOLLOW-UP SYST. J20								
Y-LOW	5	M		51	01	19	CONN. TAPE DECK P01	0.0	0	M		51	01	13	CONN. TAPE DECK P01
				51	03	13	CONN. STABILIZER J03		0	L		51	07	12	BASIS BOARD FIELD E07
	5	L		51	04	03	BASIS BOARD FIELD E04		0	D		51	14	03	CONN. FEED FOLLOW-UP SYSTEM J14
	5	L		51	04	04	BASIS BOARD FIELD E04		0	D		51	15	02	CONN. TO PILOT CONN. FIELD J15
	5	L		51	19	08	BASIS BOARD FIELD E19					51	16	14A	CONN. PILOT AMP. J16
				51	21	20A	CONN. OSCILLATOR J21					51	16	14B	CONN. PILOT AMP. J16
Y-MONO	9	M		51	01	01	CONN. TAPE DECK P01					51	21	14A	CONN. OSCILLATOR J21
	9	L		51	19	02	BASIS BOARD FIELD E19		0	D		51	21	14B	CONN. OSCILLATOR J21
	9	L		51	19	03	BASIS BOARD FIELD E19					51	22	07	CONN. FEED VU PANEL J22
	1			51	48	22	CONN. HEAD BLOCK P48					51	23	14	CONN. REC. AMPL. CH2 J23
Y-MUTE	4	M		51	01	20	CONN. TAPE DECK P01					51	27	14	CONN. REC. AMPL. CH1 J27
	4	L		51	37	20	CONN. REP. AMPL. CH2 J37					51	28	04	CONN. FEED VU PANEL J28
	4	L		51	38	04	BASIS BOARD FIELD E38					51	28	05	CONN. FEED VU PANEL J28
	4	L		51	41	20	CONN. REP. AMPL. CH1 J41					51	30	08A	CONN. MONO-STEREO SWITCH J30
Y-OUT1	4	M		51	01	04	CONN. TAPE DECK P01					51	30	08B	CONN. MONO-STEREO SWITCH J30
	4	L		51	07	06	BASIS BOARD FIELD E07					51	30	09A	CONN. MONO-STEREO SWITCH J30
	4	D		51	08	06	CONN. FEED FOLLOW-UP SYSTEM J08					51	30	09B	CONN. MONO-STEREO SWITCH J30
	4	B		57	20	28	CONN. PILOT FOLLOW-UP SYST. J20		0	B		51	30	14A	CONN. MONO-STEREO SWITCH J30
Y-REC	6	M		51	01	11	CONN. TAPE DECK P01		0	L		51	30	14B	CONN. MONO-STEREO SWITCH J30
	6	L		51	07	01	BASIS BOARD FIELD E07		0	B		51	34	14	CONN. MODULATION LEVEL MONI. J34
	6	D		51	08	01	CONN. FEED FOLLOW-UP SYSTEM J08		0	B		51	48	23	CONN. HEAD BLOCK P48
	6	L		51	19	05	BASIS BOARD FIELD E19		0	B		55	39	30	CONN. VU-METER PANEL J39
	6	L		51	19	06	BASIS BOARD FIELD E19		0	L		56	16	03	CONN. PILOT SYSTEM J16
	6	L		51	19	07	BASIS BOARD FIELD E19	0.0.0	0	D		57	20	31	CONN. PILOT FOLLOW-UP SYST. J20
	2			51	48	04	CONN. HEAD BLOCK P48					57	20	31	CONN. PILOT FOLLOW-UP SYST. J20
	6	B		57	20	23	CONN. PILOT FOLLOW-UP SYST. J20					51	08	12	CONN. FEED FOLLOW-UP SYSTEM J08
Y-SPEED				51	03	17	CONN. STABILIZER J03	0-AC1	4	M		51	02	05	CONN. POWER SUPPLY P02
				51	16	18A	CONN. PILOT AMP. J16		4	L		51	03	10	CONN. STABILIZER J03
				51	19	18	BASIS BOARD FIELD E19					51	04	01	BASIS BOARD FIELD E04
				51	21	17A	CONN. OSCILLATOR J21	0-AC2	7	M		51	02	06	CONN. POWER SUPPLY P02
				51	23	17	CONN. REC. AMPL. CH2 J23		7	L		51	13	08	BASIS BOARD FIELD E13
				51	27	17	CONN. REC. AMPL. CH1 J27	0-AC4	3	M		51	02	08	CONN. POWER SUPPLY P02
				51	30	17A	CONN. MONO-STEREO SWITCH J30		3	L		51	03	20	CONN. STABILIZER J03
							./.					51	04	06	BASIS BOARD FIELD E04

SIG-NAME	COLOR	TYPE	GR	EL	PT	S	DESCRIPTION OF ELEMENT
0-BIAS1				51	21	09A	CONN. OSCILLATOR J21
				51	27	04	CONN. REC. AMPL. CH1 J27
0-BIAS2				51	21	05A	CONN. OSCILLATOR J21
				51	23	04	CONN. REC. AMPL. CH2 J23
0-INPM	4	N		54	29	03	CONN. MONITOR AMPL. J29
0-OUTM	9	N		54	29	04	CONN. MONITOR AMPL. J29
0-REP1	8	L		51	40	01	BASIS BOARD FIELD E40
				51	41	02	CONN. REP. AMPL. CH1 J41
				51	48	01	CONN. HEAD BLOCK P48
0-REP2	8	L		51	36	01	BASIS BOARD FIELD E36
				51	37	02	CONN. REP. AMPL. CH2 J37
				51	48	13	CONN. HEAD BLOCK P48

COMMAND SWITCHES 1.081.265 GR 19 EL 1



INDI POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
B 01	51.02.0145	24V,	0,04A T 5,5	
B 02	51.02.0145	24V,		
B 03	51.02.0145	24V,		
B 04	51.02.0145	24V,		
B 05	51.02.0145	24V,		
B 06	51.02.0145	24V,		
D 01	50.04.0125	1N4448	75V 100mA S1	
D 02	50.04.0125	1N4448		
D 03	50.04.0125	1N4448		
D 04	50.04.0125	1N4448		
D 05	50.04.0125	1N4448		
D 06	50.04.0125	1N4448		
D 07	50.04.0125	1N4448		
D 08	50.04.1512	ZY 15V	5% 1,3W	
IC 1	50.99.0127	SAS 251	HALL-EFFECT-SWITCH UGN-3019T	SP, S
IC 2	50.99.0127	SAS 251		
IC 3	50.99.0127	SAS 251		
IC 4	50.99.0127	SAS 251		
IC 5	50.99.0127	SAS 251		
IC 6	50.99.0127	SAS 251		
Q 01	50.03.0315	BC 160-16		
R 01	57.02.5152	1,5 k	10% .25W CMA	
R 02	57.02.5152	1,5 k		

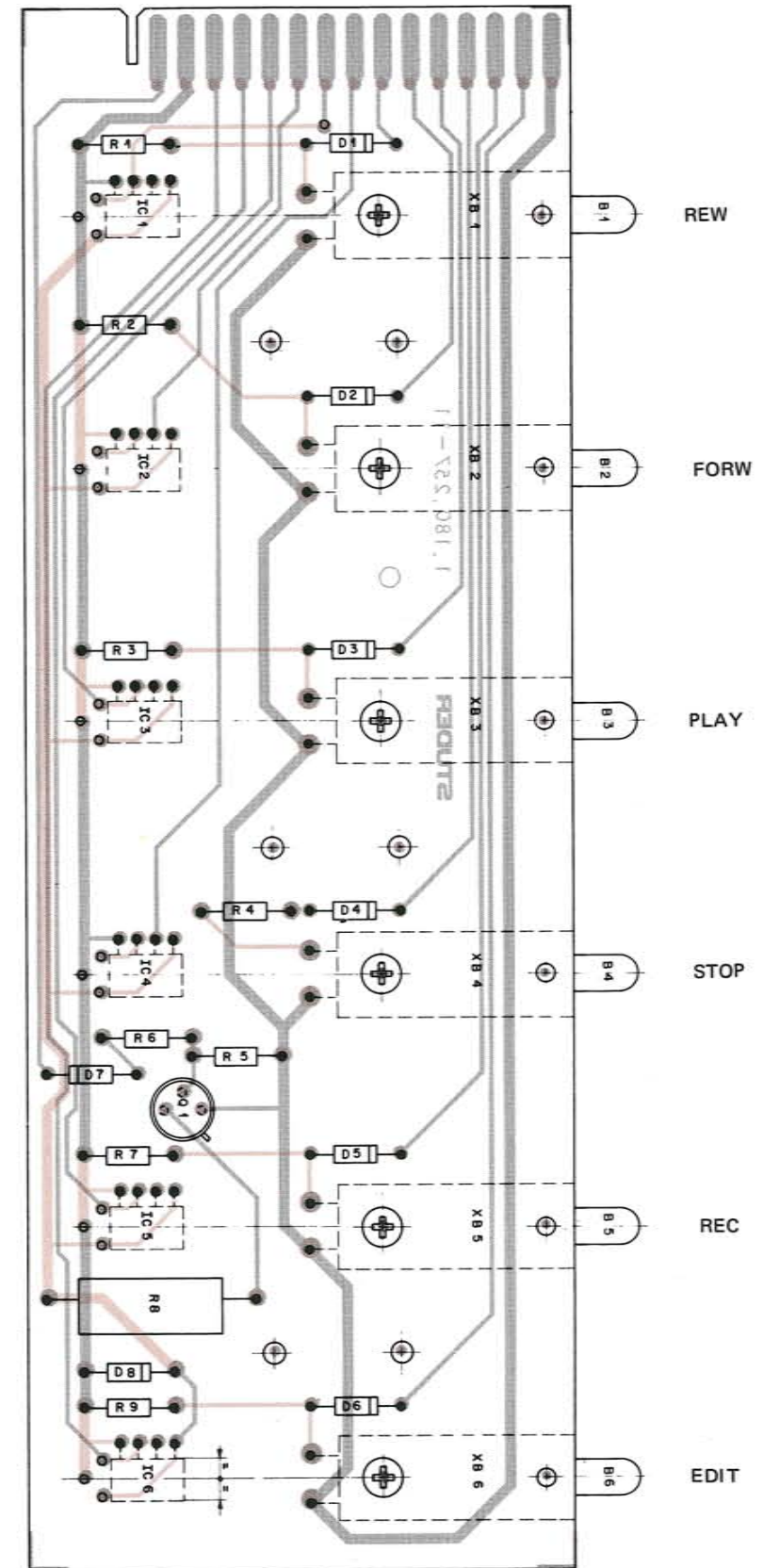
INDI	DATE	NAME
⑥		SP = Sprague
⑤		S = Siemens
④		
③		
②		
①		
⑦	26.4.78	Schn/gv

STUDER Command switches, Local Print 1.180.257 PAGE 1 OF 2

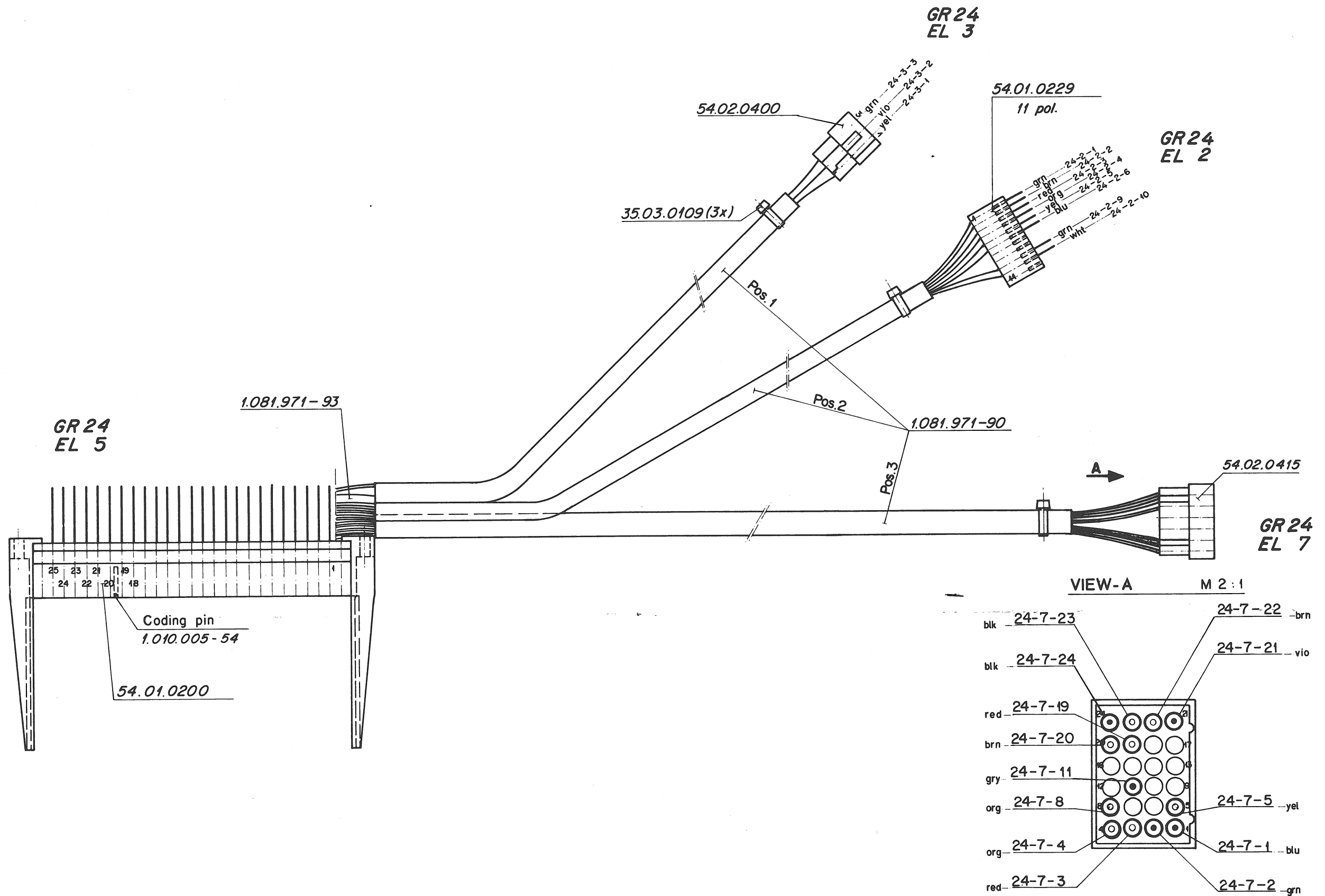
INDI POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
R 03	57.02.5152	1,5 k	5% .25W CMA	
R 04	57.02.5101	100		
R 05	57.02.5472	4,7 k		
R 06	57.02.5392	3,9 k		
R 07	57.02.5152	1,5 k		
R 08	57.56.4101	100	5% 4 W	
R 09	57.02.5152	1,5 k	5% .25W CMA	

INDI	DATE	NAME
⑥		
⑤		
④		
③		
②		
①		
⑦	26.4.78	Schn/gv

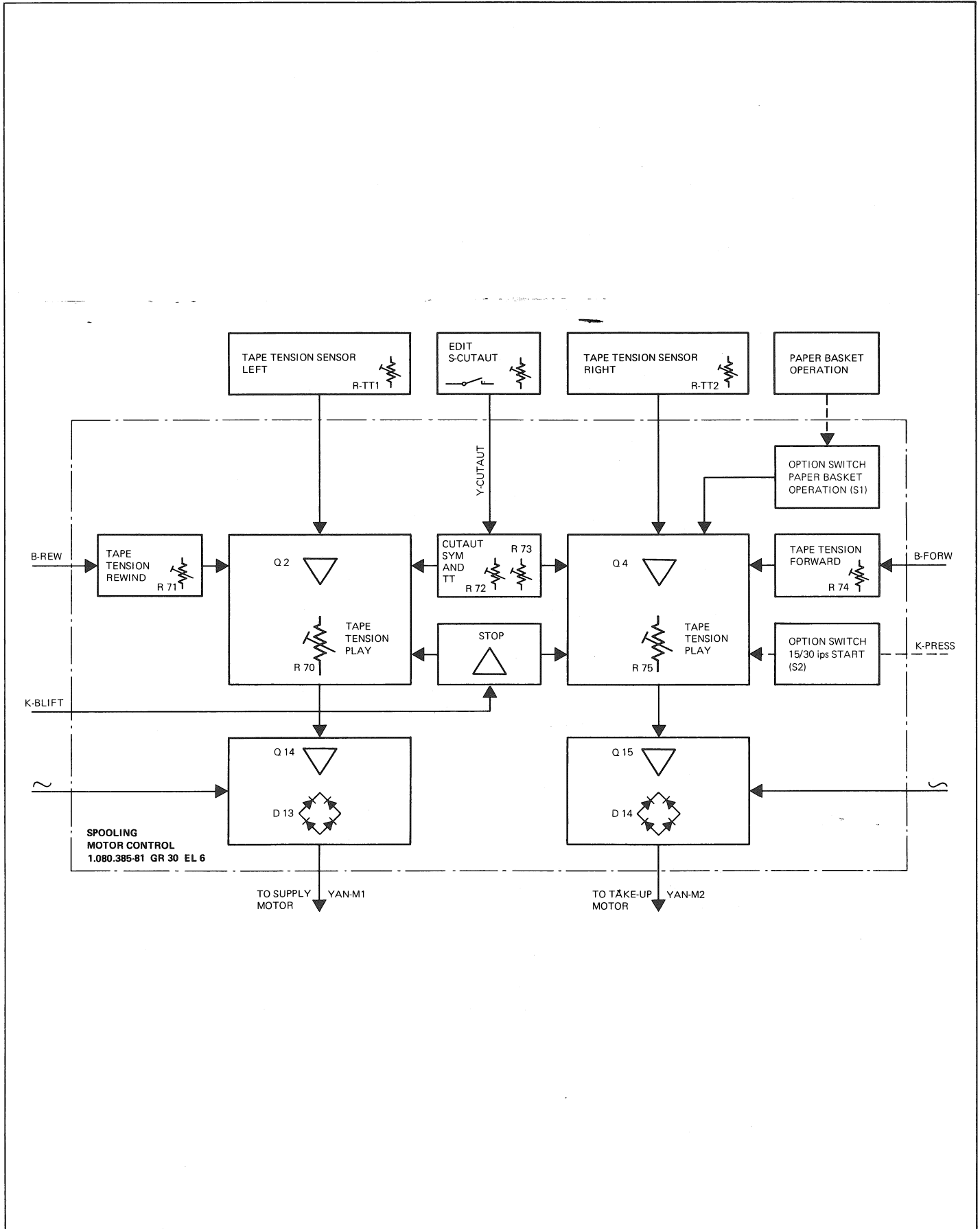
STUDER Command switches, Local Print 1.180.257 PAGE 2 OF 2



WIRE HARNESS TO ZERO LOCATOR 1.081.971



SPOOLING MOTOR CONTROL 1.080.385-81 GR 30 EL 6



SPOOLING MOTOR CONTROL 1.080.385-81 GR 30 EL 6

PLAY
SUPPLY MOTOR

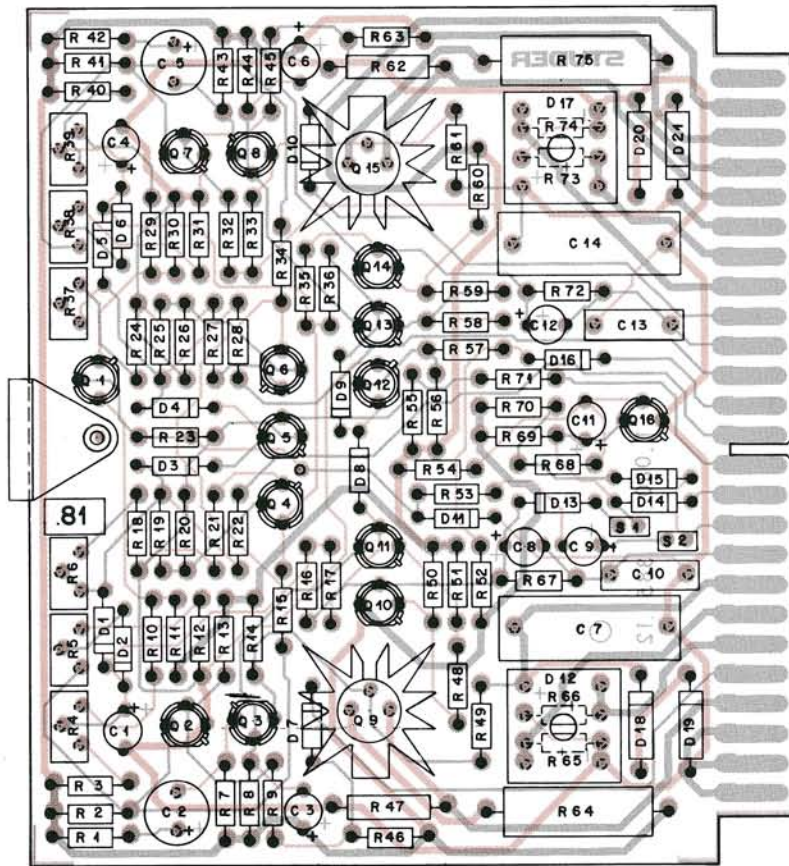
REW

CUT
(EDIT)

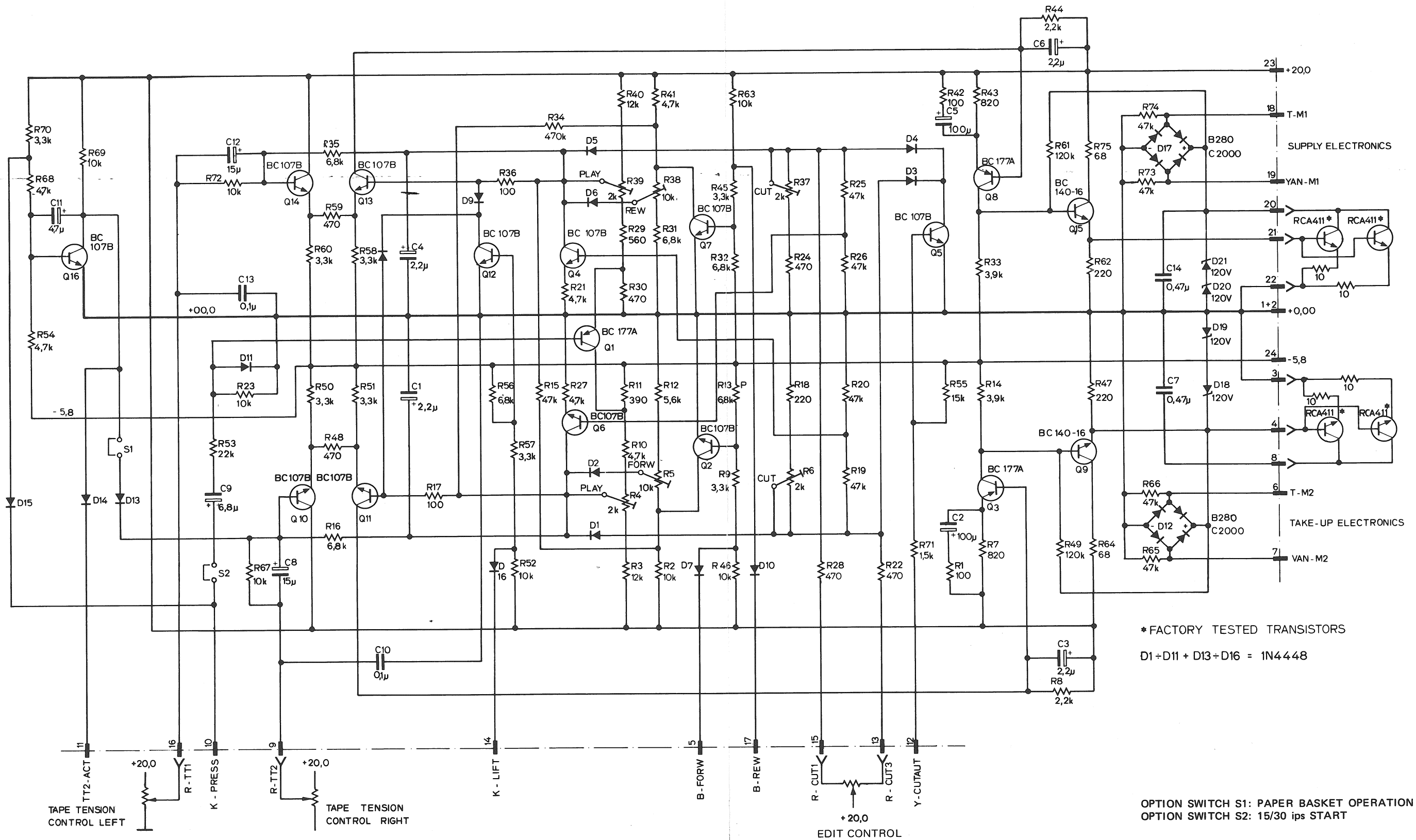
CUT
(EDIT)

FORW

PLAY
TAKE-UP MOTOR



SPOOLING MOTOR CONTROL 1/4" + 1/2" 1.080.385-81 GR 30 EL 6



* FACTORY TESTED TRANSISTORS

D1 + D11 + D13 = 1N4448

OPTION SWITCH S1: PAPER BASKET OPERATION
OPTION SWITCH S2: 15/30 ips START

SPOOLING MOTOR CONTROL 1/4" + 1/2" 1.080.385-81 GR 30 EL 6

INDI POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
C 01	59.36.4229	22 μ F	25V 20% TA	
C 02	59.22.3101	100 μ F	10V -10% EL	
C 03	59.36.4229	2.2 μ F	25V 20% TA	
C 04	59.36.4229	2.2 μ F	25V 20% TA	
C 05	59.22.3101	100 μ F	10V -10% EL	
C 06	59.36.4229	2.2 μ F	25V 20% TA	
C 07	59.99.0450	0.47 μ F	150V 10% MP	
C 08	59.30.5150	15 μ F	20V 20% TA	
C 09	59.30.6689	6.8 μ F	35V 20% TA	
C 10	59.05.2104	0.1 μ F	100V 10% MFC	
C 11	59.36.4479	4.7 μ F	25V 20% TA	
C 12	59.30.5150	15 μ F	20V 20% TA	
C 13	59.05.2104	0.1 μ F	100V 10% MPC	
C 14	59.99.0450	0.47 μ F	150V 10% MP	
D 01	50.04.0125	1N4448	75V 100mA	
D 02				
D 03				
D 04				
D 05				
D 06				
D 07				
D 08				
D 09				
D 10				
D 11	50.04.0125			
D 12	70.01.0226	2A	280V Rectifier	
D 13	50.04.0125	1N4448	75V 100mA	
D 14	50.04.0125			

INDI	DATE	NAME
④		
③		
②		
①		
○	16.8.79	lll

TA = Tantal
EL = Electrolytic

STUDER Spooling Motor Control 1.080.385-81 PAGE 1 OF 5

INDI POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
R 04	58.01.7202	2 k	10% 0.5W Lin. C	
R 05	58.01.7103	10 k		
R 06	58.01.7202	2 k		
R 07	57.41.4821	820 Ω	5% 0.25W CF	
R 08	57.41.4222	2.2 k		
R 09	57.41.4332	3.3 k		
R 10	57.41.4472	4.7 k		
R 11	57.41.4391	390 Ω		
R 12	57.41.4562	5.6 k		
R 13	57.41.4682	6.8 k		
R 14	57.41.4392	3.9 k		
R 15	57.41.4473	4.7 k		
R 16	57.41.4682	6.8 k		
R 17	57.41.4101	100 Ω		
R 18	57.41.4221	220 Ω		
R 19	57.41.4473	4.7 k		
R 20	57.41.4473	4.7 k		
R 21	57.41.4472	4.7 k		
R 22	57.41.4471	470 Ω		
R 23	57.41.4103	10 k		
R 24	57.41.4471	470 Ω		
R 25	57.41.4473	4.7 k		
R 26	57.41.4473	4.7 k		
R 27	57.41.4472	4.7 k		
R 28	57.41.4471	470 Ω		
R 29	57.41.4561	560 Ω		
R 30	57.41.4471	470 Ω		
R 31	57.41.4682	6.8 k		
R 32	57.41.4682	6.8 k		
R 33	57.41.439	3.9 k		

INDI	DATE	NAME
④		
③		
②		
①		
○	16.8.79	lll

C = Carbon
CF = Carbon-Film

STUDER Spooling Motor Control 1.080.385-81 PAGE 3 OF 5

INDI POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
R 64	57.56.4680	68 Ω	5% 4W WW	
R 65	57.41.4473	4.7 k	5% 0.25W CF	
R 66	57.41.4473	4.7 k		
R 67	57.41.4103	10 k		
R 68	57.41.4472	4.7 k		
R 69	57.41.4103	10 k		
R 70	57.41.4332	3.3 k		
R 71	57.41.4152	15 k		
R 72	57.41.4103	10 k		
R 73	57.41.4473	4.7 k		
R 74	57.41.4473	4.7 k		
R 75	57.56.4680	68 Ω	5% 4W WW	

INDI	DATE	NAME
④		
③		
②		
①		
○	16.8.79	lll

WW = Wirewound
CF = Carbon Film

STUDER Spooling Motor Control 1.080.385-81 PAGE 5 OF 5

INDI POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
D 15	50.04.0125	1N4448	75V 100mA	
D 16	50.04.0125	1N4448		
D 17	70.01.0226	2A	280V Rectifier	
D 18	50.04.1505	120V	Z-Diode 5% 1.3W	
D 19				
D 20				
D 21	50.04.1505			
Q 01	50.03.0307	BC177A	PNP	
Q 02	50.03.0408	BC107B	NPN	
Q 03	50.03.0307	BC177A	PNP	
Q 04	50.03.0408	BC107B	NPN	
Q 05				
Q 06				
Q 07	50.03.0408			
Q 08	50.03.0307	BC177A	PNP	
Q 09	50.03.0316	BC100-16	NPN	
Q 10	50.03.0408	BC107B	NPN	
Q 11				
Q 12				
Q 13				
Q 14	50.03.0408			
Q 15	50.03.0316	BC100-16	NPN	
Q 16	50.03.0408	BC107B	NPN	
R 01	57.41.4101	100 Ω	5% 0.25W CF	
R 02	57.41.4103	10 k		
R 03	57.41.4123	12 k		

INDI	DATE	NAME
④		
③		
②		
①		
○	16.8.79	lll

CF = Carbon Film

STUDER Spooling Motor Control 1.080.385-81 PAGE 2 OF 5

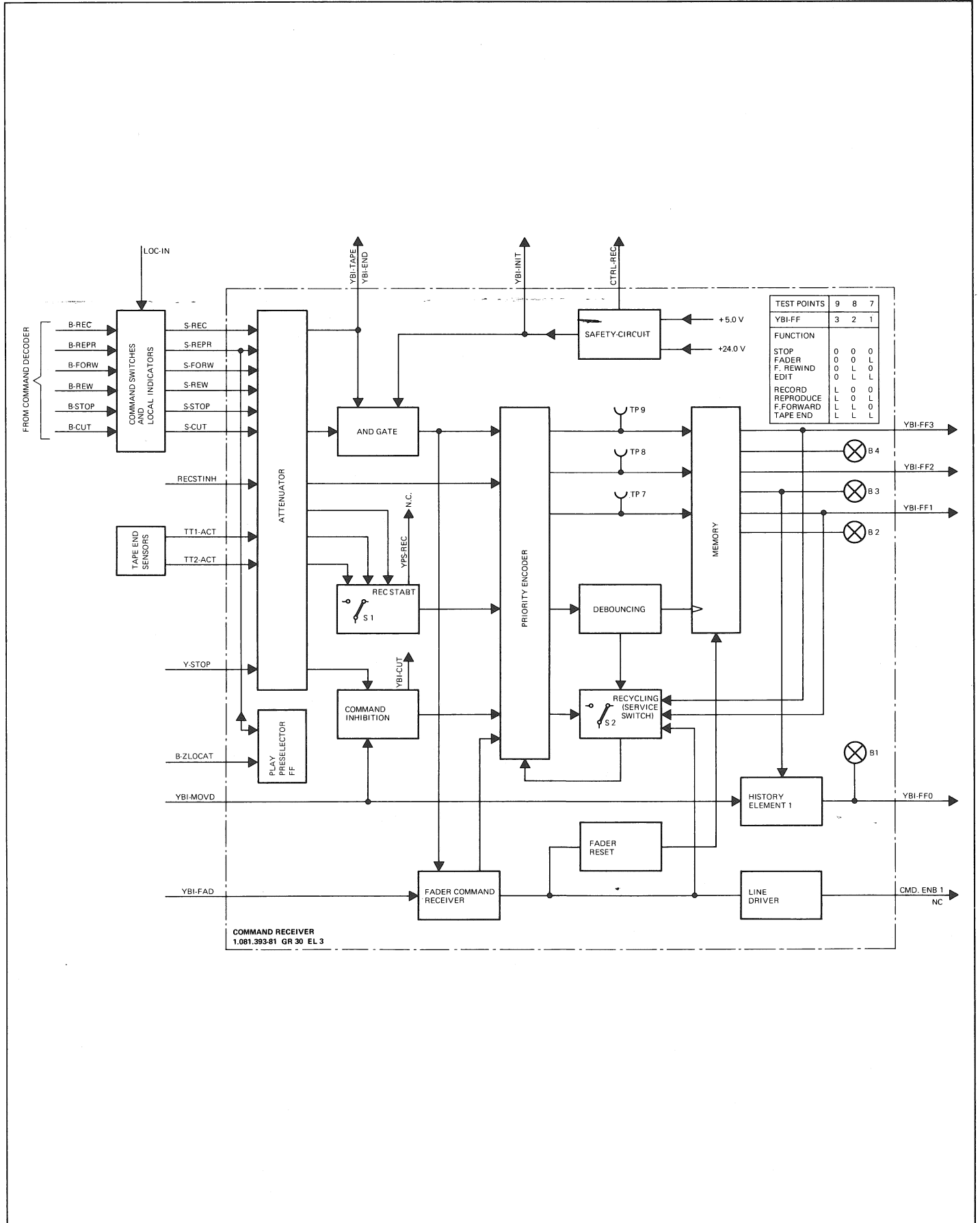
INDI POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
R 34	57.41.4474	470 k		
R 35	57.41.4682	6.8 k		
R 36	57.41.4101	100 Ω		
R 37	58.01.7202	2 k	10% 0.5W Lin. C	
R 38	58.01.7103	10 k		
R 39	58.01.7202	2 k		
R 40	57.41.4123	12 k	5% 0.25W CF	
R 41	57.41.4472	4.7 k		
R 42	57.41.4101	100 Ω		
R 43	57.41.4821	820 Ω		
R 44	57.41.4222	2.2 k		
R 45	57.41.4332	3.3 k		
R 46	57.41.4103	10 k		
R 47	57.42.4221	220 Ω	5% 0.35W CF	
R 48	57.41.4471	470 Ω	5% 0.25W CF	
R 49	57.41.4124	120 k		
R 50	57.41.4332	3.3 k		
R 51	57.41.4332	3.3 k		
R 52	57.41.4103	10 k		
R 53	57.41.4223	22 k		
R 54	57.41.4472	4.7 k		
R 55	57.41.4153	15 k		
R 56	57.41.4682	6.8 k		
R 57	57.41.4332	3.3 k		
R 58	57.41.4332	3.3 k		
R 59	57.41.4471	470 Ω		
R 60	57.41.4332	3.3 k		
R 61	57.41.4124	120 k		
R 62	57.42.4221	220 Ω	5% 0.35W CF	
R 63	57.41.4103	10 k	5% 0.25W CF	

INDI	DATE	NAME
④		
③		
②		
①		
○	16.8.79	lll

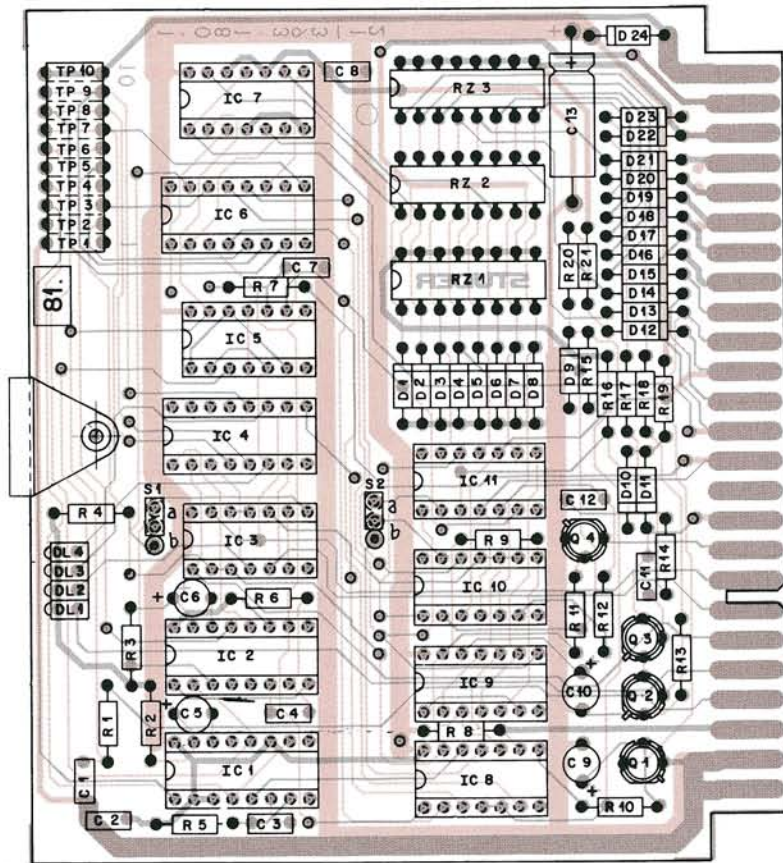
C = Carbon
CF = Carbon Film

STUDER Spooling Motor Control 1.080.385-81 PAGE 4 OF 5

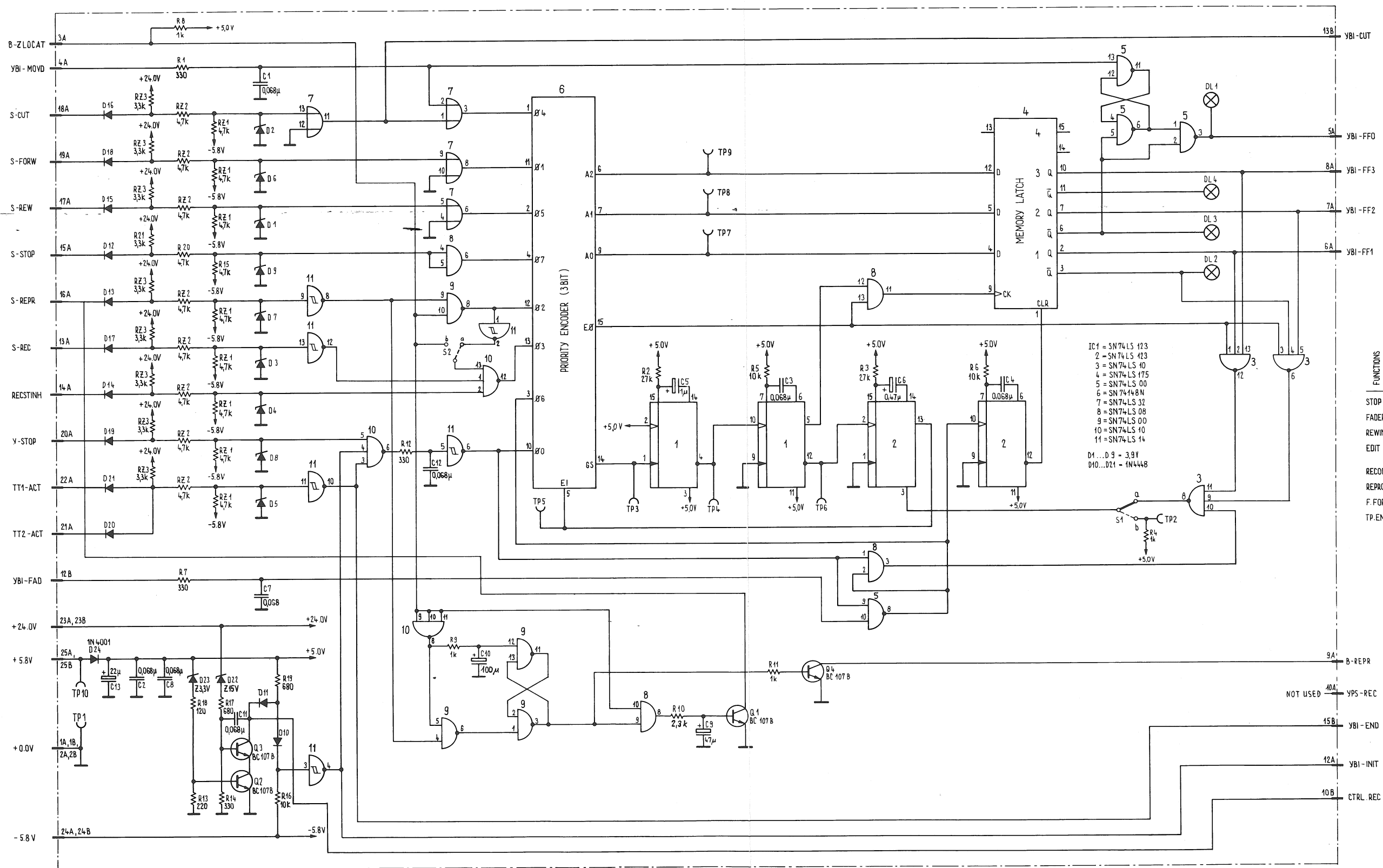
COMMAND RECEIVER 1.081.393-81 GR 30 EL 3



COMMAND RECEIVER 1.081.393-81 GR 30 EL 3



COMMAND RECEIVER 1.081.393-81 GR 30 EL 3



- IC1 = SN74LS 123
- 2 = SN74LS 423
- 3 = SN74LS 40
- 4 = SN74LS 175
- 5 = SN74LS 00
- 6 = SN74448N
- 7 = SN74LS 32
- 8 = SN74LS 08
- 9 = SN74LS 00
- 10 = SN74LS 10
- 11 = SN74LS 14

FUNCTIONS	YBI-FF3	YBI-FF2	YBI-FF1
STOP	0	0	0
FADER	0	0	1
REWIND	0	1	0
EDIT	0	1	1
RECORD	1	0	0
REPRO	1	0	1
F.FORW	1	1	0
TP.END	1	1	1

S2 for RECORD Mode:
 Pos. A: Press PLAY and REC
 Pos. B: Press REC only

S1 for factory test purpose only.

COMMAND RECEIVER 1.081.393-81 GR 30 EL 3

INDI POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
C 01	59.99.0205	0,068 uF	63 V CER	
C 02	59.99.0205	0,068 uF		
C 03	59.99.0205	0,068 uF		
C 04	59.99.0205	0,068 uF		
C 05	59.36.4109	1,0 uF	25 V 20 % TA	
C 06	59.36.5478	0,47 uF	35 V 20 % TA	
C 07	59.99.0205	0,068 uF	63 V CER	
C 08	59.99.0205	0,068 uF		
C 09	59.36.1470	47 uF	6,3 V 20 % TA	
C 10	59.22.3101	100 uF		
C 11	59.99.0205	0,068 uF	63 V CER	
C 12	59.99.0205	0,068 uF		
C 13	59.25.5220	22 uF	40 V -10 % EL	
D 01	50.04.1101	3,9 V	5 % 0,4 W S1	
D 02	50.04.1101	3,9 V		
D 03	50.04.1101	3,9 V		
D 04	50.04.1101	3,9 V		
D 05	50.04.1101	3,9 V		
D 06	50.04.1101	3,9 V		
D 07	50.04.1101	3,9 V		
D 08	50.04.1101	3,9 V		
D 09	50.04.1101	3,9 V		
D 10	50.04.0125	1 N 4448	75 V 100 mA S1	
D 11	50.04.0125	1 N 4448		
D 12	50.04.0125	1 N 4448		
D 13	50.04.0125	1 N 4448		
D 14	50.04.0125	1 N 4448		
D 15	50.04.0125	1 N 4448		

INDI	DATE	NAME	
④			CER = Ceramic
③			EL = Electrolytic
②			TA = Tantal
①			
○	11.7.79	Schneider/al	

STUDER Command Receiver 1.081.393.81 PAGE 1 OF 3

INDI POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
Q 01	50.03.0408	BC 107 B	NPN	
Q 02	50.03.0408	BC 107 B		
Q 03	50.03.0408	BC 107 B		
Q 04	50.03.0408	BC 107 B		
R 01	57.02.5331	330 Ohm	10 % 0,25 W CF	
R 02	57.02.5273	27 k		
R 03	57.02.5273	27 k		
R 04	57.02.5102	1 k		
R 05	57.02.5103	10 k		
R 06	57.02.5103	10 k		
R 07	57.02.5331	330 Ohm		
R 08	57.02.5102	1 k		
R 09	57.02.5102	1 k		
R 10	57.02.5222	2,3k		
R 11	57.02.5102	1 k		
R 12	57.02.5331	330 Ohm		
R 13	57.02.5221	220 Ohm		
R 14	57.02.5331	330 Ohm		
R 15	57.02.5472	4,7 k		
R 16	57.02.5103	10 k		
R 17	57.02.5681	680 Ohm		
R 18	57.02.5121	120 Ohm		
R 19	57.02.5681	680 Ohm		
R 20	57.02.5472	4,7 k		
R 21	57.02.5332	3,3 k		
RZ 01	57.88.3472	8x 4,7 k	2 % 0,25/1,5 W	
RZ 02	57.88.3472	8x 4,7 k		
RZ 03	57.88.3332	8x 3,3 k	2 % 0,25/1,5 W	

INDI	DATE	NAME	
④			CF = Carbon Film
③			
②			
①			
○	11.7.79	Schneider/al	

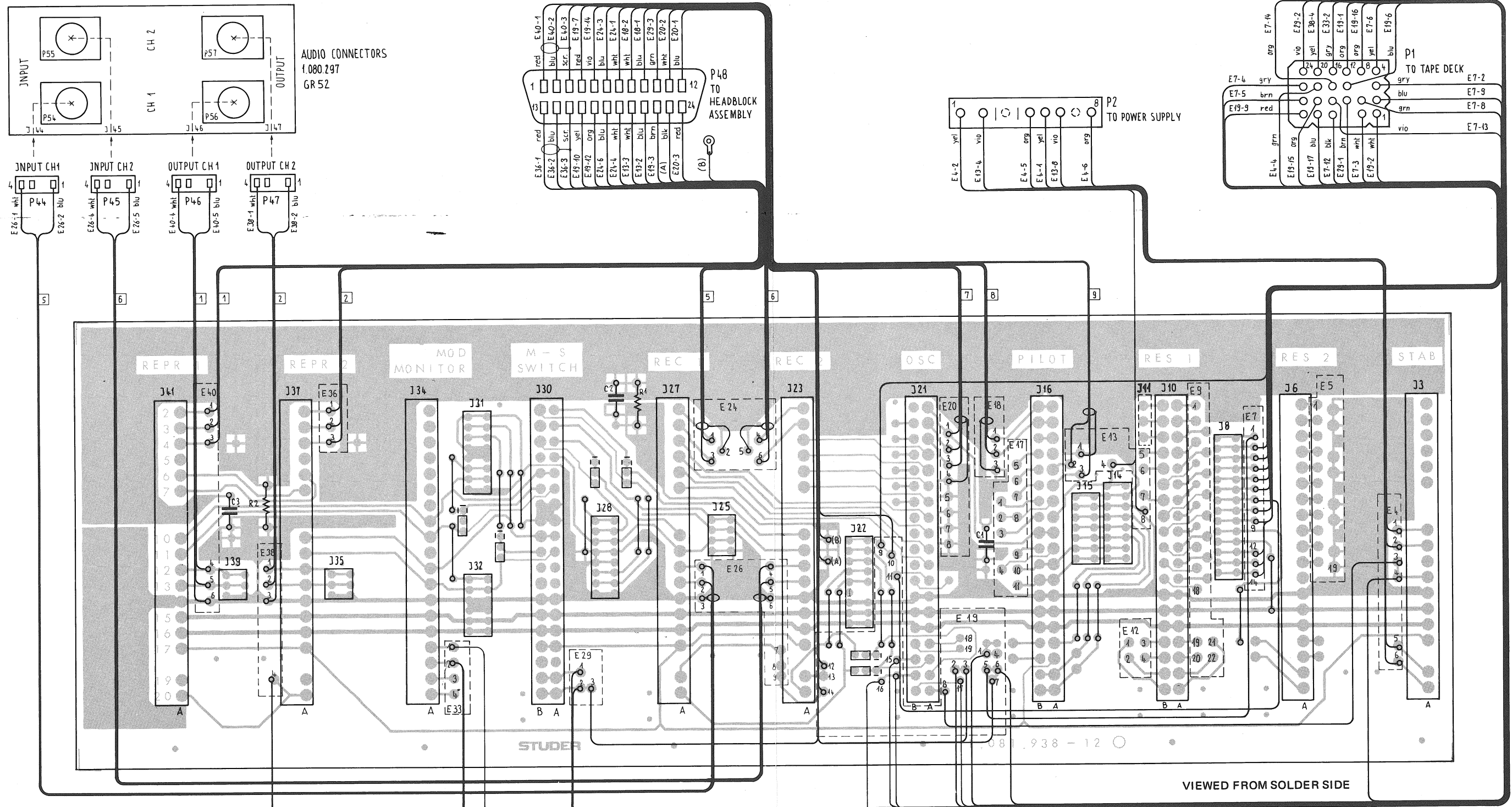
STUDER Command Receiver 1.081.393.81 PAGE 3 OF 3

INDI POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
D 16	50.04.0125	1 N 4448	75 V 100 mA S1	
D 17	50.04.0125	1 N 4448		
D 18	50.04.0125	1 N 4448		
D 19	50.04.0125	1 N 4448		
D 20	50.04.0125	1 N 4448		
D 21	50.04.0125	1 N 4448		
D 22	50.04.1119	15 V	5 % 0,4 W S1	
D 23	50.04.1107	3,3 V		
D 24	50.04.0122	1 N 4001	50 V 1 A 1 N 4002	
DL 01	50.04.2107	LED red	5 V 3 mA GaAs 555-207	D
DL 02	50.04.2107	LED red		
DL 03	50.04.2107	LED red		
DL 04	50.04.2107	LED red		
IC 01	50.06.0123	SN74LS123	Dual retr. MMV	
IC 02	50.06.0123	SN74LS123		
IC 03	50.06.0010	SN74LS10	Triple 3-Input NAND	
IC 04	50.06.0175	SN74LS175	Memory Latch	
IC 05	50.06.0000	SN74LS00	4x 2-Input NAND	
IC 06	50.05.0202	SN74148N	Priority Encoder	
IC 07	50.06.0032	SN74LS32	4x 2-Input OR	
IC 08	50.06.0008	SN74LS08	4x 2-Input AND	
IC 09	50.06.0000	SN74LS00	4x 2-Input NAND	
IC 10	50.06.0010	SN74LS10	Triple 3-Input NAND	
IC 11	50.06.0014	SN74LS14	Hex Schmitt-Trig. INV.	

INDI	DATE	NAME	
④			D = Dialco
③			
②			
①			
○	11.7.79	Schneider/al	

STUDER Command Receiver 1.081.393.81 PAGE 2 OF 3

BASIS BOARD/AUDIO 1.081.938-81 GR 51

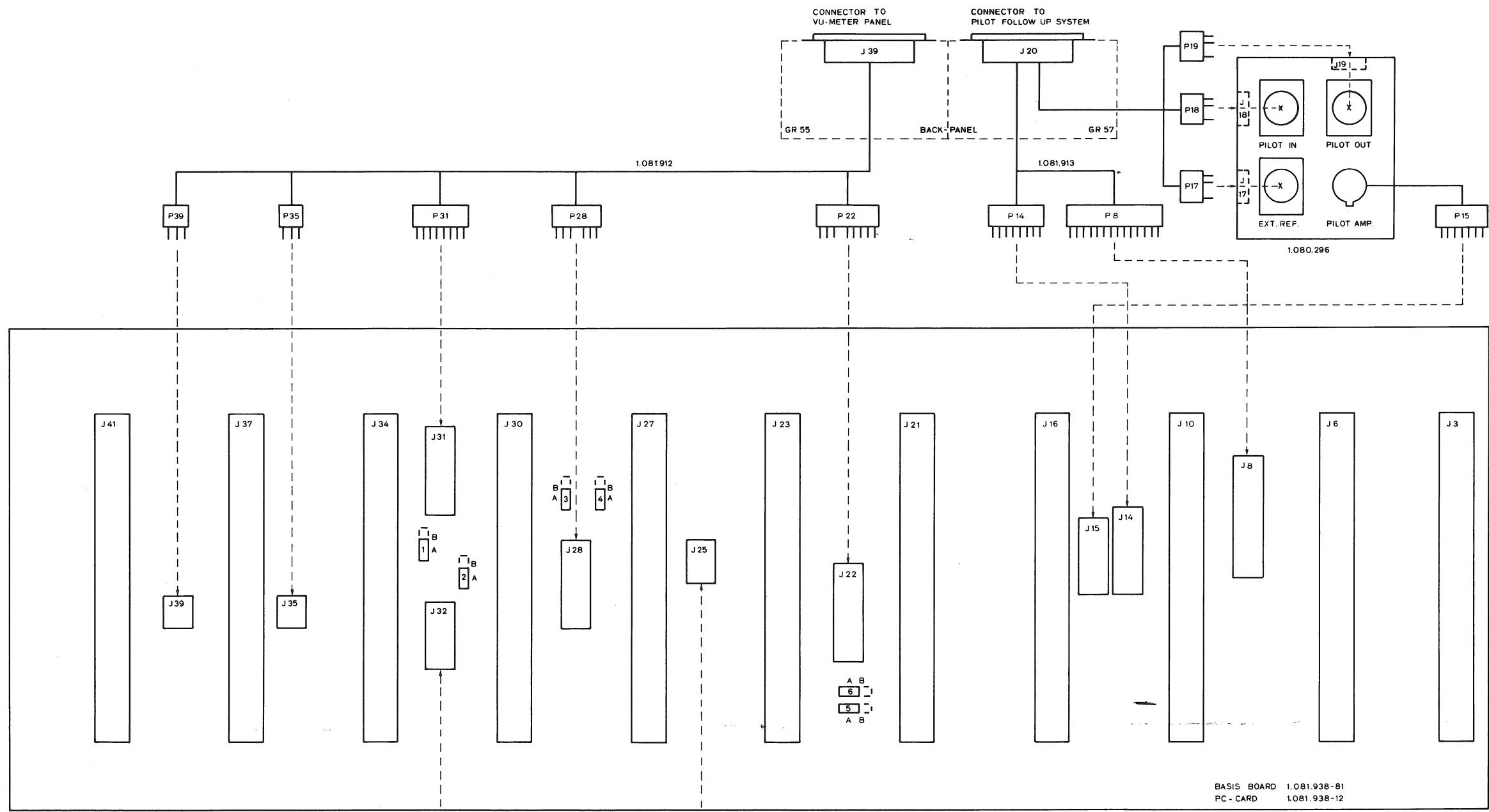


INDI POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
C 1	59.32.3104	100nF	+80% 25V=	KER
C 2	59.32.3104	100nF	+80% 25V=	KER
C 3	59.32.3104	100nF	+80% 25V=	KER
R 1	57.41.4101	100	5% .25W	CSCH
R 2	57.41.4101	100	5% .25W	CSCH
11.4.79	Schlatter			

STUDER BASIS BOARD A80 RC 1.081.938-81 PAGE 1 OF 1

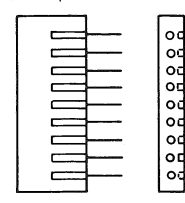
VALID FOR LOCATION PIN LIST
STUDER A80 RC AUDIO SECTION INDEX 1
FOR JUMPER POSITIONS SEE PAGE 6/12

LAYOUT OF OPTION CONNECTORS

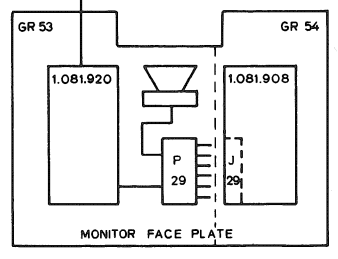


BASIS BOARD 1.081.938-81
PC - CARD 1.081.938-12

VIEWED FROM SOLDER SIDE

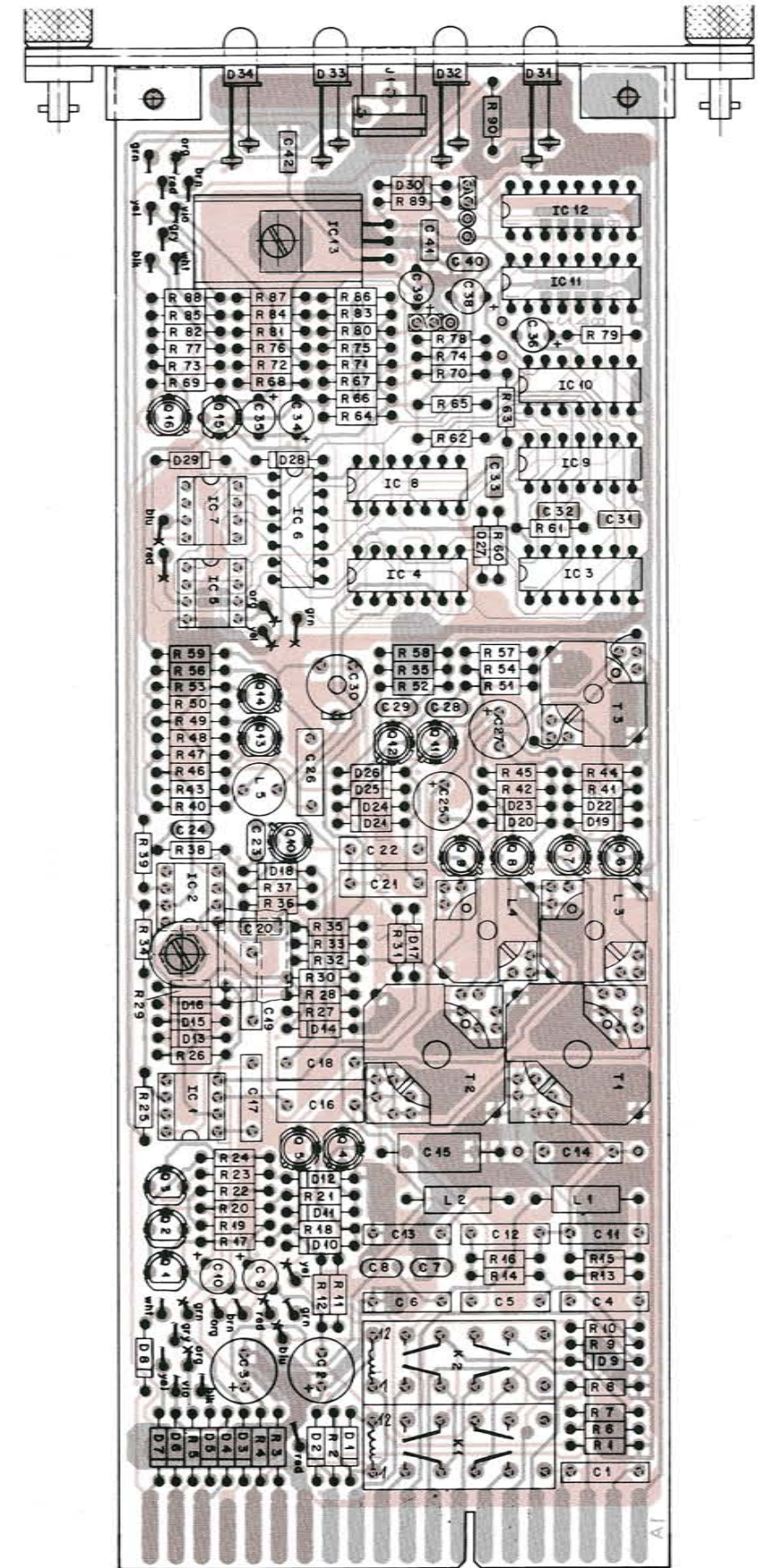
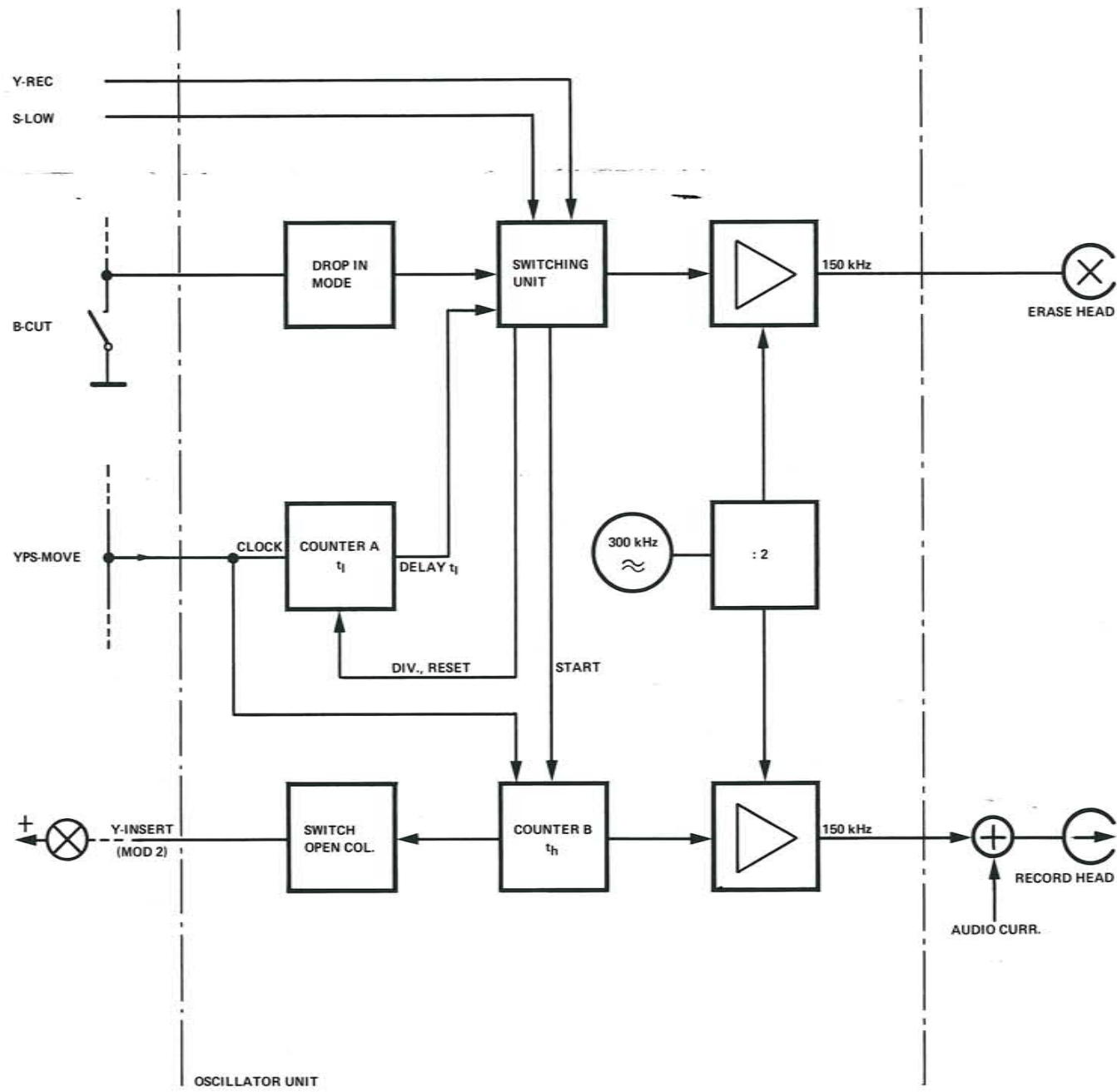


INSERT ALL PERIPHERAL PLUGS WITH SLOTTED SIDE TOWARDS RIGHT!

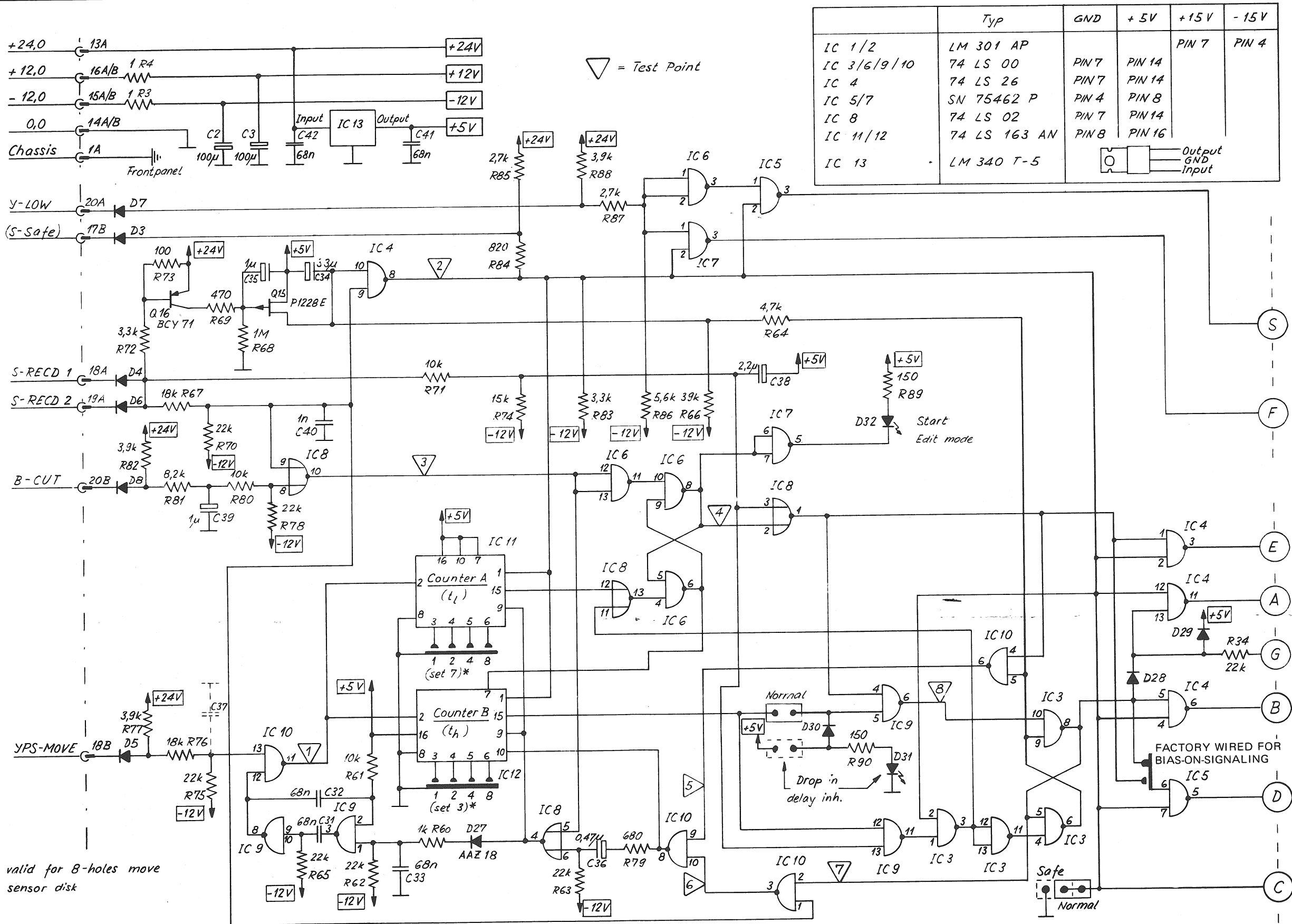


JUMPER POSITIONS	
SET JUMPER 1 ... 6 INTO POS. A	FOR NORMAL OPERATION
SET JUMPER 1 ... 4 INTO POS. B	FOR SIMULTANEOUS OPERATION WITH MONO-STEREO SWITCH 1.081.940 AND VU-PANEL.
SET JUMPER 5 + 6 INTO POS. B	FOR OPERATION OF SAFE/READY SWITCH ON VU-PANEL. ALSO FOR MONO-MACHINES

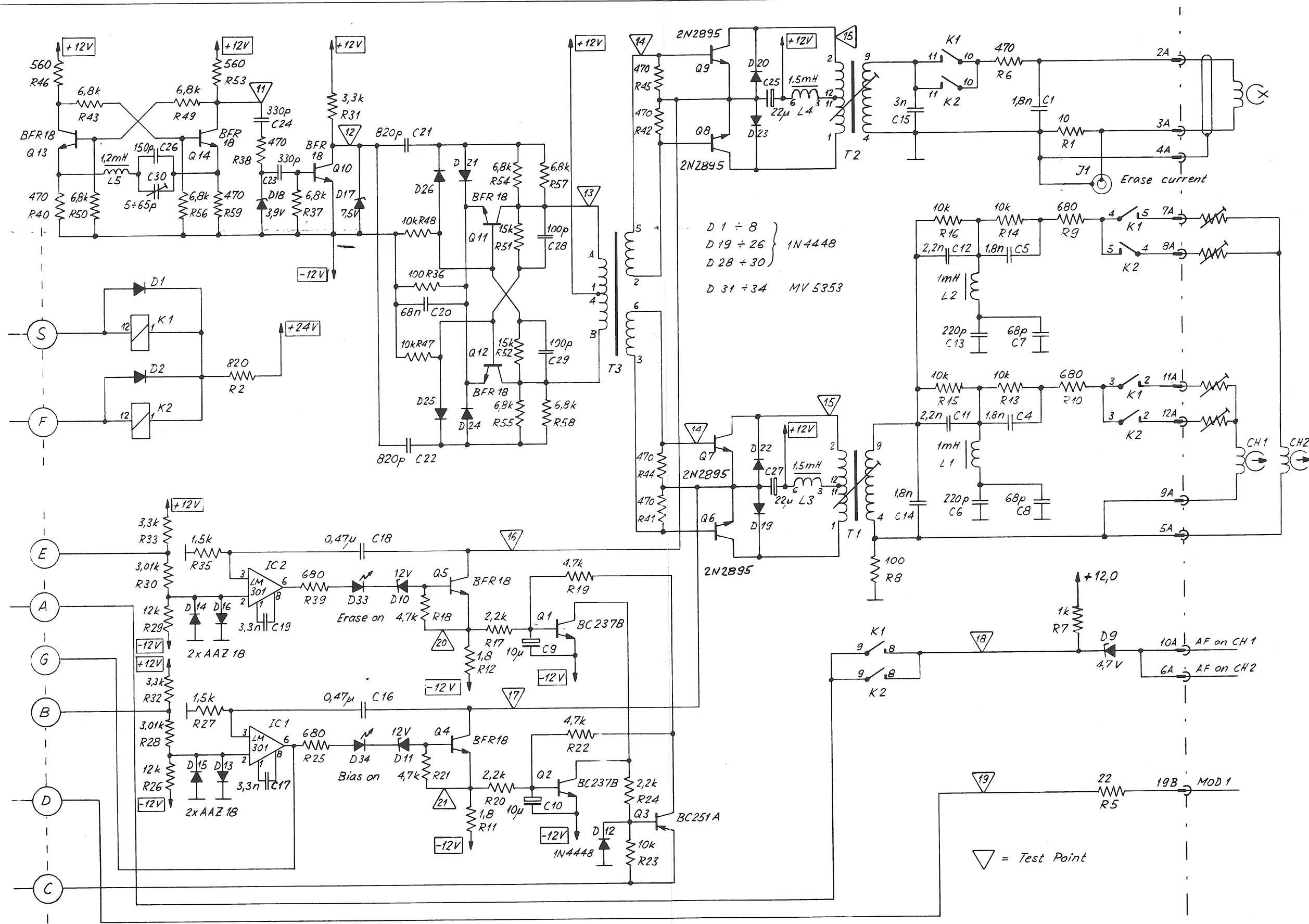
OSCILLATOR 1.081.984 GR 28 EL 7



OSCILLATOR 1.081.984 GR 28 EL 7



OSCILLATOR 1.081.984 GR 28 EL 7



D 1 ÷ 8
D 19 ÷ 26 } 1N4448
D 28 + 30
D 31 + 34 MV 5353

▽ = Test Point

OSCILLATOR 1.081.984 GR 28 EL 7

Table with 5 columns: INDI POS NO, PART NO, VALUE, SPECIFICATIONS/EQUIVALENT, MFR. Rows include components like C 01, C 02, C 03, etc.

Table with 3 columns: INDI, DATE, NAME. Includes a legend for abbreviations like P, Tr, M, TI, N.

Table with 5 columns: INDI POS NO, PART NO, VALUE, SPECIFICATIONS/EQUIVALENT, MFR. Rows include components like D 14, D 15, D 16, etc.

Table with 3 columns: INDI, DATE, NAME. Includes a legend for abbreviations like P, Tr, M, TI, N.

Table with 5 columns: INDI POS NO, PART NO, VALUE, SPECIFICATIONS/EQUIVALENT, MFR. Rows include components like Q 01, Q 02, Q 03, etc.

Table with 3 columns: INDI, DATE, NAME. Includes a legend for abbreviations like P, S, M, H, TI, SA.

Table with 5 columns: INDI POS NO, PART NO, VALUE, SPECIFICATIONS/EQUIVALENT, MFR. Rows include components like R 41, R 42, R 43, etc.

Table with 3 columns: INDI, DATE, NAME. Includes a legend for abbreviations like P, S, M, H, TI, SA.

Table with 5 columns: INDI POS NO, PART NO, VALUE, SPECIFICATIONS/EQUIVALENT, MFR. Rows include components like C 31, C 32, C 33, etc.

Table with 3 columns: INDI, DATE, NAME. Includes a legend for abbreviations like P, Tr, M, TI, N.

Table with 5 columns: INDI POS NO, PART NO, VALUE, SPECIFICATIONS/EQUIVALENT, MFR. Rows include components like IC 05, IC 06, IC 07, etc.

Table with 3 columns: INDI, DATE, NAME. Includes a legend for abbreviations like TI, S, M, N, TDE.

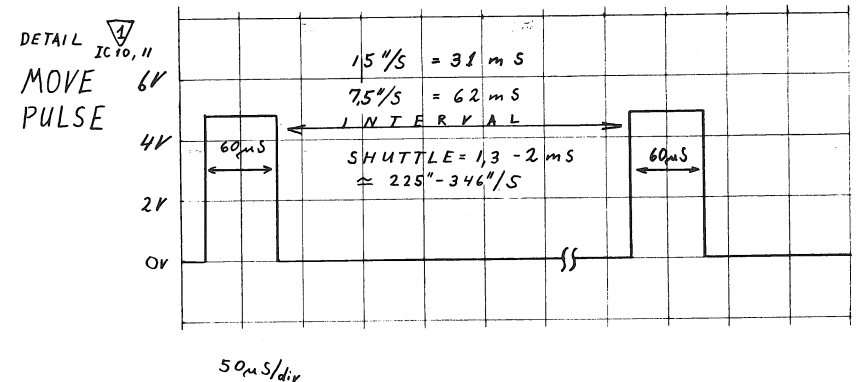
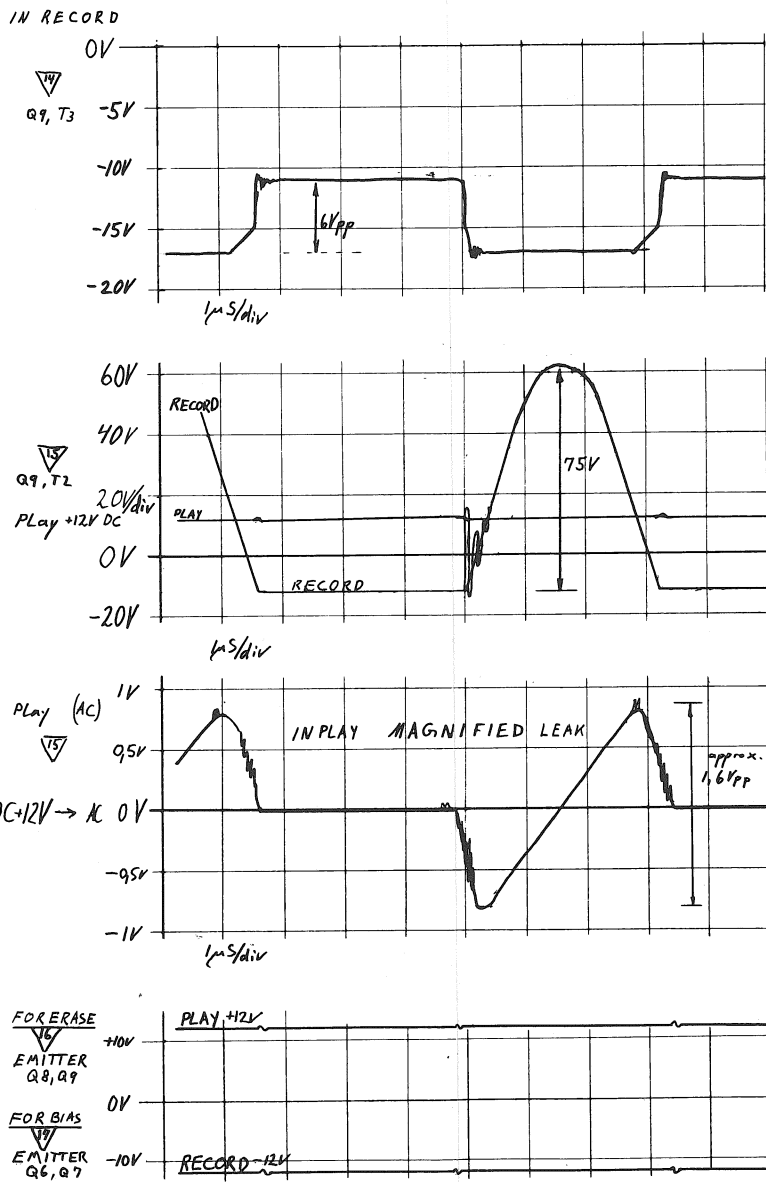
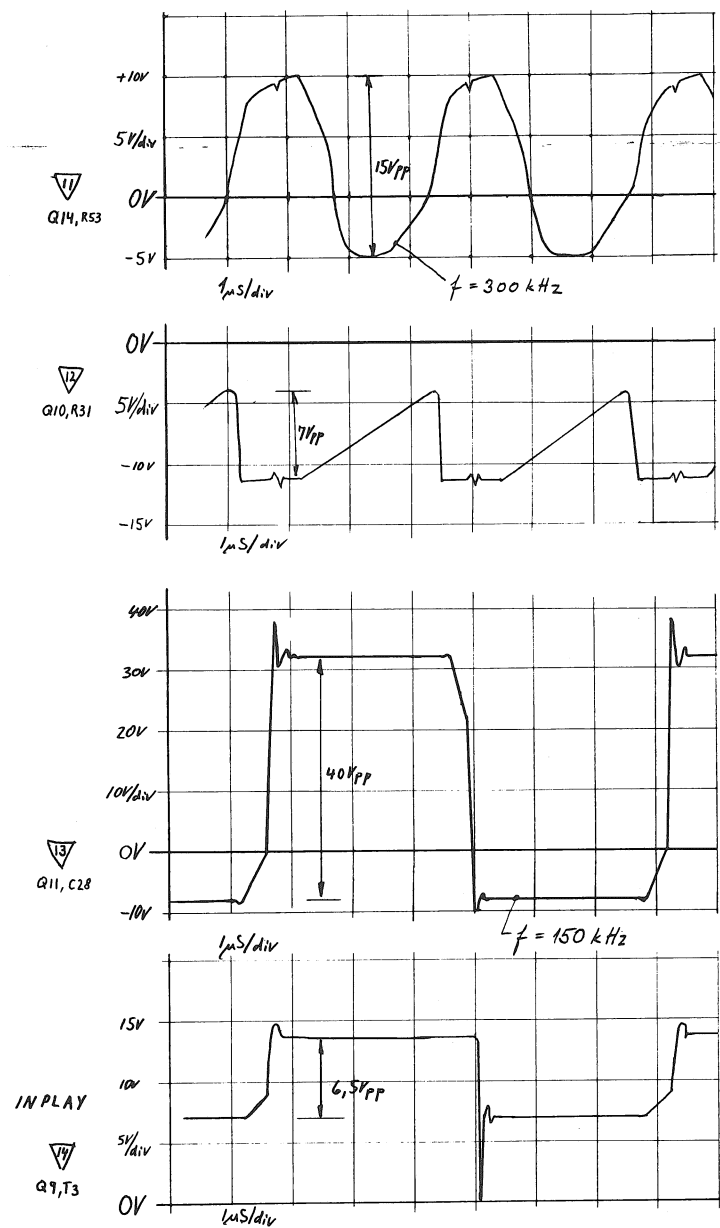
Table with 5 columns: INDI POS NO, PART NO, VALUE, SPECIFICATIONS/EQUIVALENT, MFR. Rows include components like R 11, R 12, R 13, etc.

Table with 3 columns: INDI, DATE, NAME. Includes a legend for abbreviations like P, S, M, H, TI, SA.

Table with 5 columns: INDI POS NO, PART NO, VALUE, SPECIFICATIONS/EQUIVALENT, MFR. Rows include components like R 71, R 72, R 73, etc.

Table with 3 columns: INDI, DATE, NAME. Includes a legend for abbreviations like P, S, M, H, TI, SA.

OSCILLATOR 1.081.984 GR 28 EL 7 / WAVE FORMS AND TIMING



K1, 8: AUDIO DROP-IN COMMAND FOR RECORD AMPLIFIER LOW FOR AUDIO INSERT
DROP IN POINT → ∇
DROP OUT POINT → ∇ , end of drop out ramp

IC5, S, R5: STATUS BIAS LOW FOR BIAS ON (300mA sink current capability, 24V)
OPTIONAL:
STATUS ERASE LOW FOR ERASE ON
WIRED FOR: STATUS BIAS

OSCILLATOR 1.081.984 GR 28 EL 7 / WAVE FORMS AND TIMING

