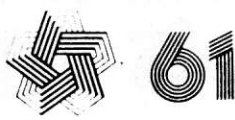


9. ACCESSOIRES

1. TRACTEUR EN CONTINU	903
1.1 Numéro de commande	903
1.2 Installation	903
1.3 Mise en place du papier	904
1.4 Démontage, montage, réglage	904
2. INTRODUCTEUR FEUILLE A FEUILLE	905
2.1 Numéro de commande	905
2.2 Installation et mise en place du papier	905
2.3 Démontage, montage et catalogue pièces	905

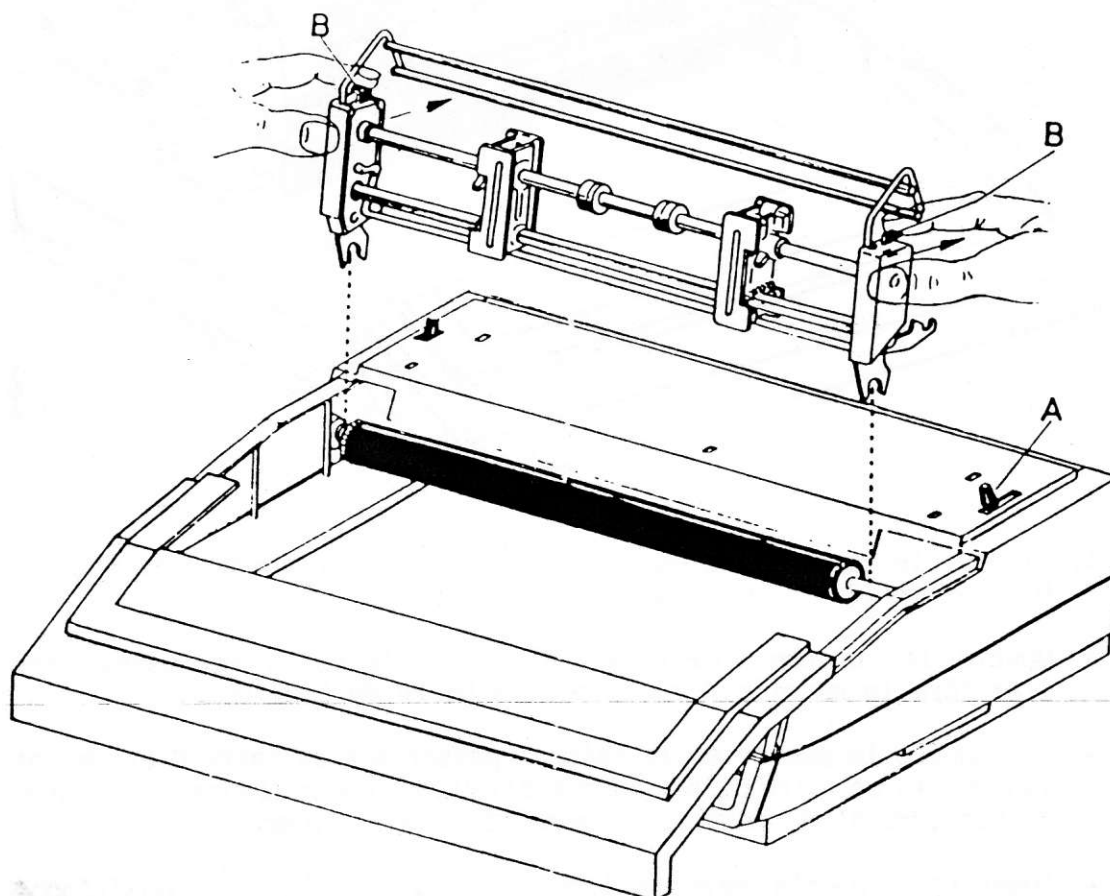


1. TRACTEUR EN CONTINU

1.1 Numéro de commande

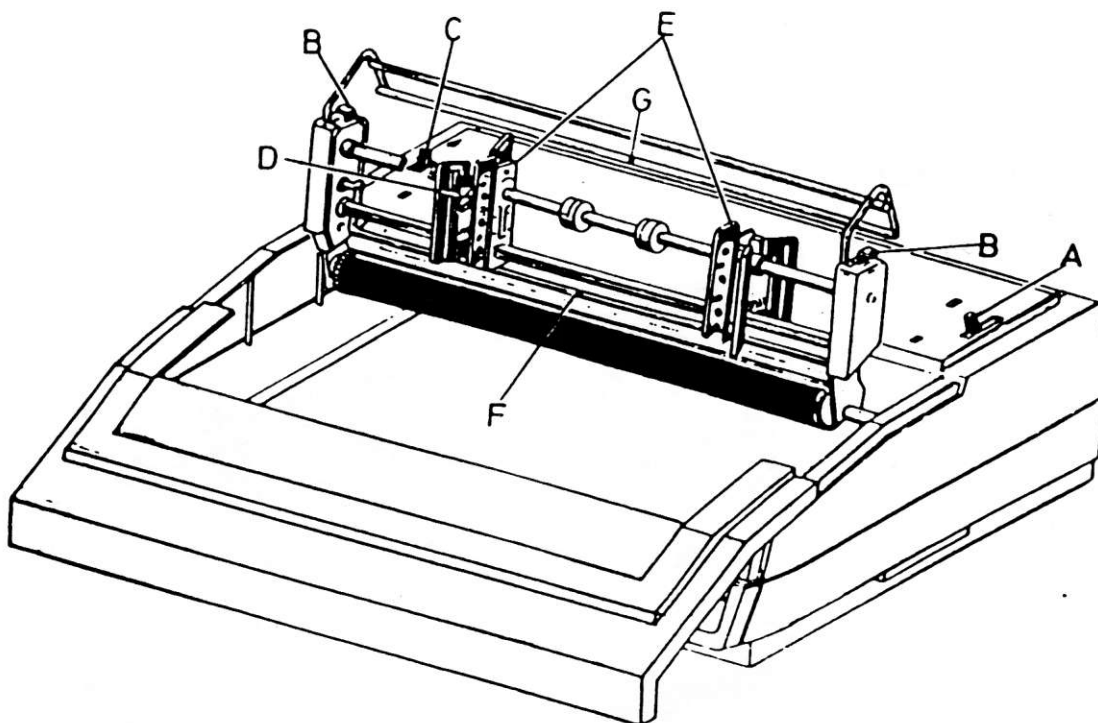
- 1 canal TR-14

1.2 Installation



1. Glisser le capot vers l'avant. Tirer la manette A vers l'avant de la machine de manière à dégager la règle presse-papier.
2. Introduire le tracteur verticalement en appuyant sur les boutons B. Pousser le tracteur vers l'arrière de la machine (flèches) et relâcher les boutons B. Cette position est la position de travail. La manette A doit rester dans la position indiquée sur le dessin.
3. Repousser le capot vers l'arrière

1.3 Mise en place du papier



1. Glisser le capot de la machine vers l'avant. Actionner les boutons B et verrouiller le tracteur en position relevée.
2. Ouvrir les quatre volets des blocs tracteurs E. Repousser vers l'arrière la manette A ainsi que la barre de tension F.
3. Introduire le papier en le faisant passer sur la barre G et devant la barre F. Le faire passer autour du cylindre en actionnant le bouton C vers l'arrière. Retirer la manette A vers l'avant.
4. Insérer les picots dans les trous du papier après avoir positionné les blocs tracteurs E grâce aux leviers D. Refermer les volets des blocs tracteurs en commençant par l'avant.
5. Repousser le tracteur vers l'arrière en agissant sur les boutons B. Tendre légèrement le papier en retirant vers l'avant la barre de tension F. Refermer le capot.

Attention : la manette A doit toujours se trouver comme indiqué sur le dessin pour pouvoir travailler.

1.4 Démontage, montage, réglage

Se référer à la vue éclatée du catalogue de pièces.

2. INTRODUCTEUR FEUILLE A FEUILLE

2.1 Numéros de commande

- 1 canal	SFM-31
- 1 canal + enveloppes	SFM-31-E
- 2 canaux	SFM-32
- 2 canaux + enveloppes	SFM-32-E
- Bac A4 vertical	HXE-1110-H
- Bac A4 horizontal	HXE-1120-H
- Bac US Standard vertical	HXE-1130-H
- Bac US Standard horizontal	HXE-1140-H
- Bac US Legal	HXE-1150-H

2.2 Installation et mise en place du papier

Voir PUB-SFM-32/66

2..3 Démontage, montage et catalogue pièces

Voir DOC-SF-31/32

10. C A T A L O G U E D E P I E C E S

<u>1. IMPRIMANTE ET PLAQUE ELECTRONIQUE PRINCIPALE</u>	<u>PAGES</u>
- Paroi droite	1004
- Paroi gauche	1006
- Cylindre / Rubans	1008
- Chariot d'impression	1010
- Câbles et détecteurs	1013
- Plaque distribution chariot	1014
- Plaque électronique principale	1016
- Plateau et blindage	1024
- Habillage principal	1026
 <u>2. ALIMENTATION</u>	
- Ensemble alimentation	1028
- Plaque alimentation	1030
 <u>3. MICRO FLOPPY DRIVE</u>	
- Kits drive 2½" et 3½"	1034
- Ensemble mécanique drive 2½"	1036
- Circuit contrôleur drive 2½"	1038
- Ensemble mécanique drive 3½"	1040
- Circuit contrôleur drives 3½"	1042
 <u>4. CLAVIER</u>	
- Circuit clavier	1046
- Touches communes	1049
- Tables de configuration clavier et CPU	1050
- Claviers nationaux	1052
 <u>5. ECRAN VIDEO</u>	
- Habillage	1074
- CRT	1076
- Plaque driver CRT	1078
 <u>6. OPTIONS</u>	
- Extension mémoire	1082
- V-24 / RS-232 C	1084
- Tracteur en continu	1088
- Introducteur feuille à feuille	1090



F R A N C A I S

E N G L I S H

D E U T S C H

GENERALITES

Toutes les pièces et composants électroniques livrables sont illustrés dans le présent catalogue.

Lorsque plusieurs variantes sont représentées, prendre garde de ne commander que les pièces concernées

MISCELLANEOUS

All parts and electronic components which are available are shown on the illustrations of this catalogue.

Whenever several variants are represented, make sure to order only the parts involved.

ALLGEMEINES

Alle lieferbaren Ersatzteile und elektronische Komponenten sind im vorliegenden Katalog abgebildet.

Wenn mehrere Ausführungen dargestellt sind, soll darauf geachtet werden, dass nur die für eine bestimmte Variante benötigten Teile bestellt werden.

PIECES DETACHEES

Chaque figure est accompagnée d'une liste de pièces comprenant 3 colonnes :

- REF NUMBER : numéro de référence de la pièce sur la figure.
- PART NUMBER : numéro de commande de la pièce.
- COMMENT : description complémentaire ou identification d'une variante.

SPARE PARTS

Each figure is covered by a list of parts showing 3 columns :

- REF NUMBER : reference number of the part on the figure.
- PART NUMBER : ordering number of the part.
- COMMENT : additional description or variant identification.

ERSATZTEILE

Jede Abbildung ist durch eine Teilliste ergänzt, die folgende Kolonnen aufweist :

- REF NUMBER : Referenznummer des Teils auf der Zeichnung
- PART NUMBER : Bestellnummer des Teils.
- COMMENT : Zusätzliche Beschreibung oder Varianteidentifizierung.

FRANCAIS

ENGLISH

DEUTSCH

La mention "ASSEMBLY", qui peut figurer dans cette colonne indique que qu'il s'agit d'un ensemble qui comprend également les pièces repérées par un POINT et listées immédiatement après.

The mention "ASSEMBLY" which may occasionally appear within this column stands for an assembly comprising also the parts marked with a POINT listed immediately thereafter.

Die Bezeichnung "ASSEMBLY", die eventuell in dieser Kolonne figurieren mag, dient zur Mitteilung, dass es sich hierbei um eine Baugruppe handelt, die ebenfalls die mit einem PUNKT markierten Teile enthält, die gleich danach aufgeführt sind.

PLAQUES ELECTRONIQUES
ELECTRONIC PRINTED CIRCUIT BOARDS
ELEKTRONISCHE LEITERPLATTEN

Les plaques électroniques peuvent être illustrées dans leurs différentes variantes. Seule la dernière variante est normalement livrable.

Electronic prints may be shown in their various versions. Only the latest version is normally available

Die elektronischen Platten werden gegebenenfalls in den verschiedenen Ausführungen illustriert. Es wird normalerweise nur die letzte Ausführung geliefert.

Le numéro de commande de chaque composant (PART NUMBER) figure dans la liste juxtaposée, en regard de la désignation correspondante.

The ordering number of every single component (PART NUMBER) figures on the attached list opposite to the corresponding designation.

Die Bestellnummer jedes Komponenten (PART NUMBER) ist in der nebenbei zusammengestellten Liste gegenüber der entsprechenden Bezeichnung angegeben.

Le type ou la puissance de l'élément considéré figure dans la troisième colonne.

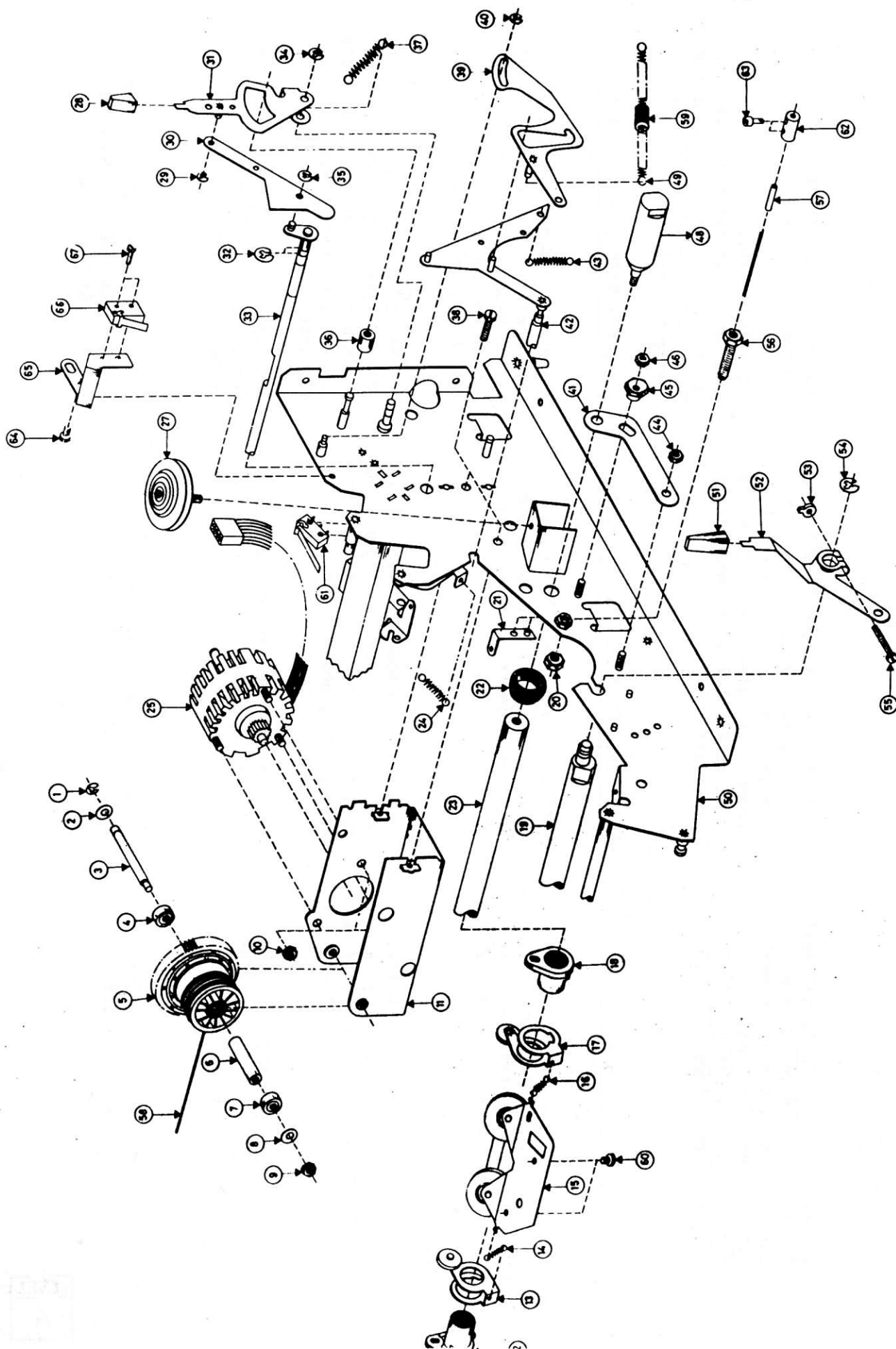
The type or power of the component involved is given in the 3rd column.

Der Typ oder die Leistung des in Frage stehenden Elements figuriert in der 3. Kolonne

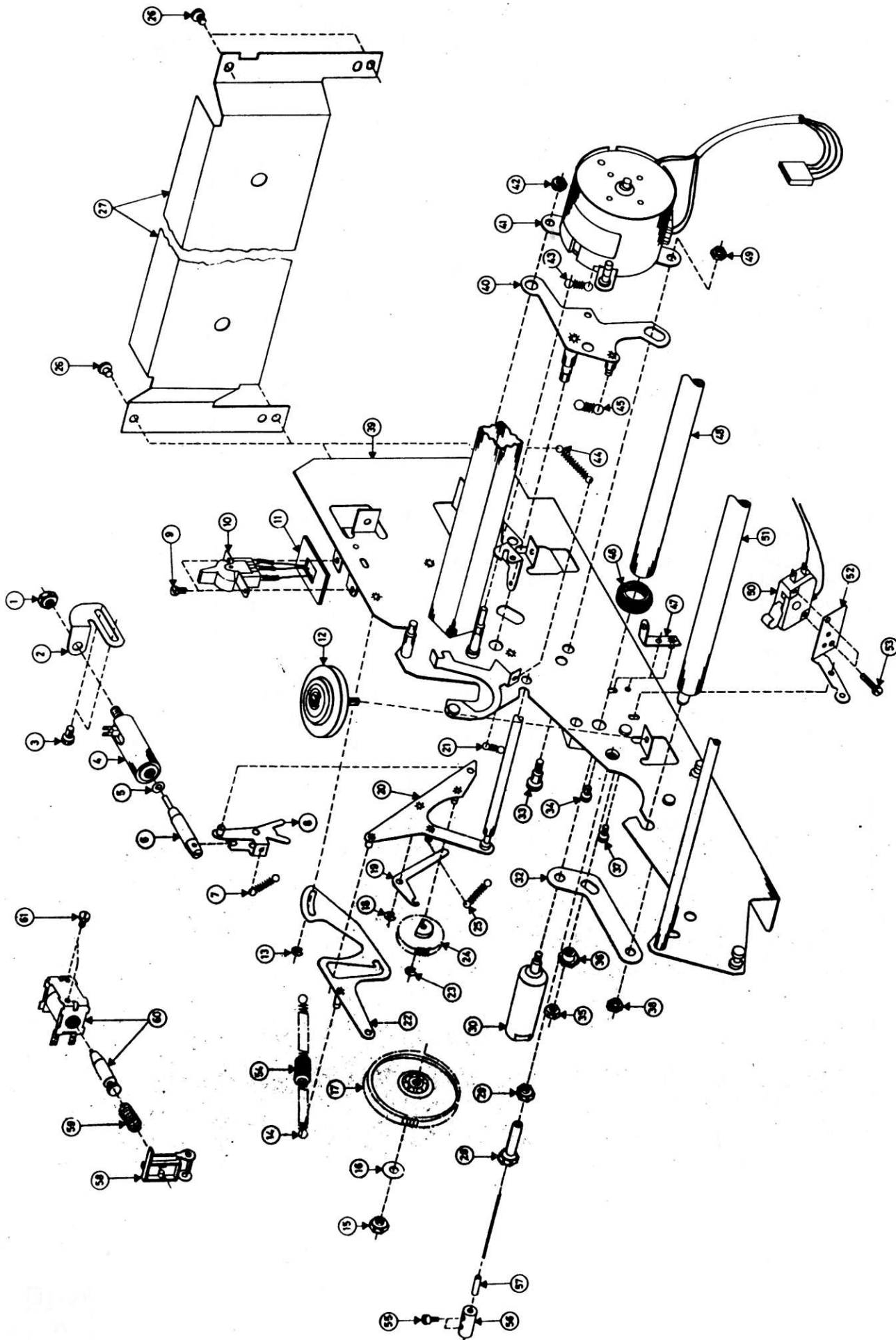
LES PIECES NON NUMEROTEES
NE SONT PAS LIVRABLES

PARTS WITHOUT NUMBER
ARE NOT AVAILABLE

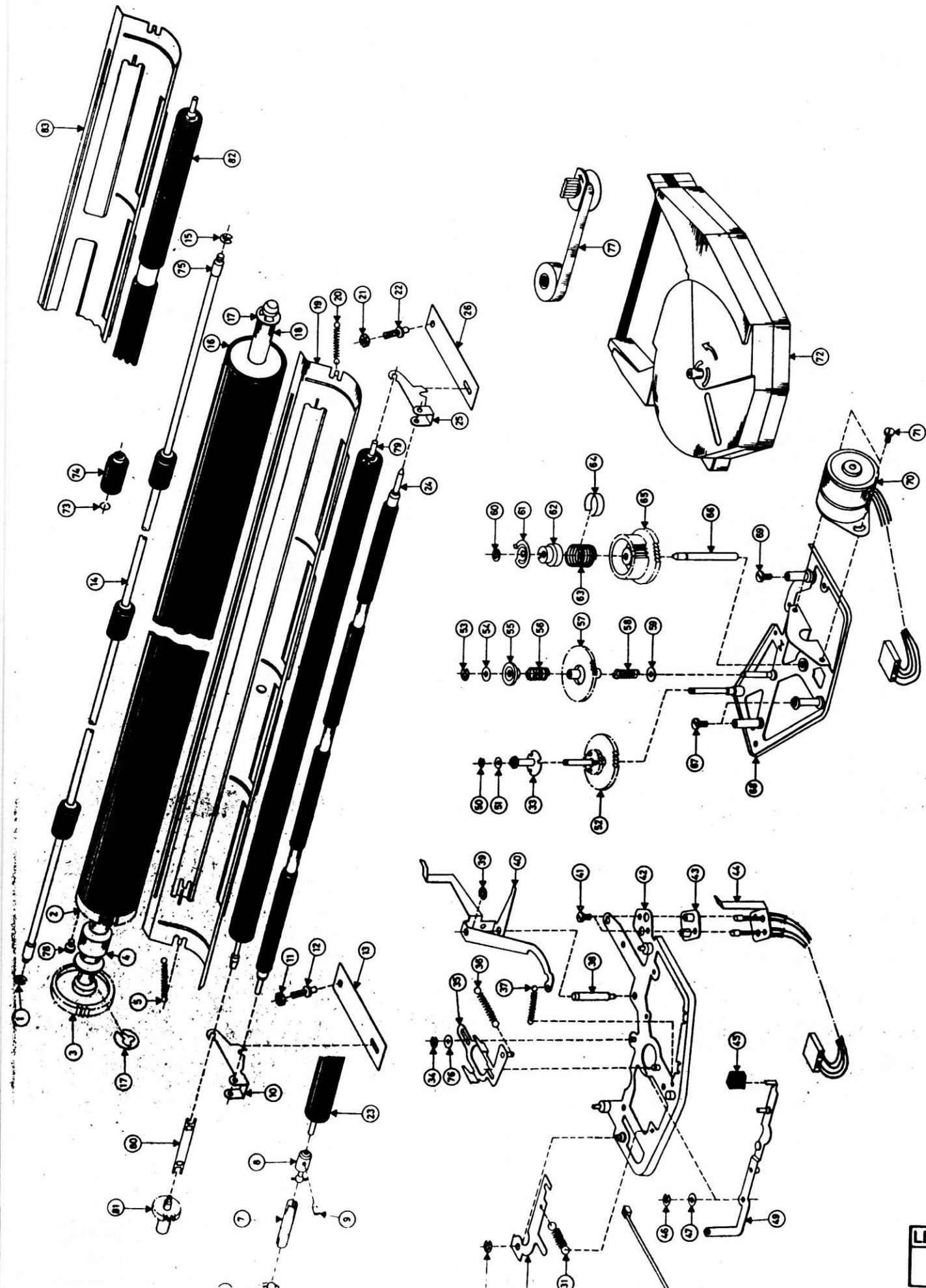
TEILE, DIE MIT KEINER NUMMER
VERSEHEN SIND, KOENNEN NICHT
GELIEFERT WERDEN



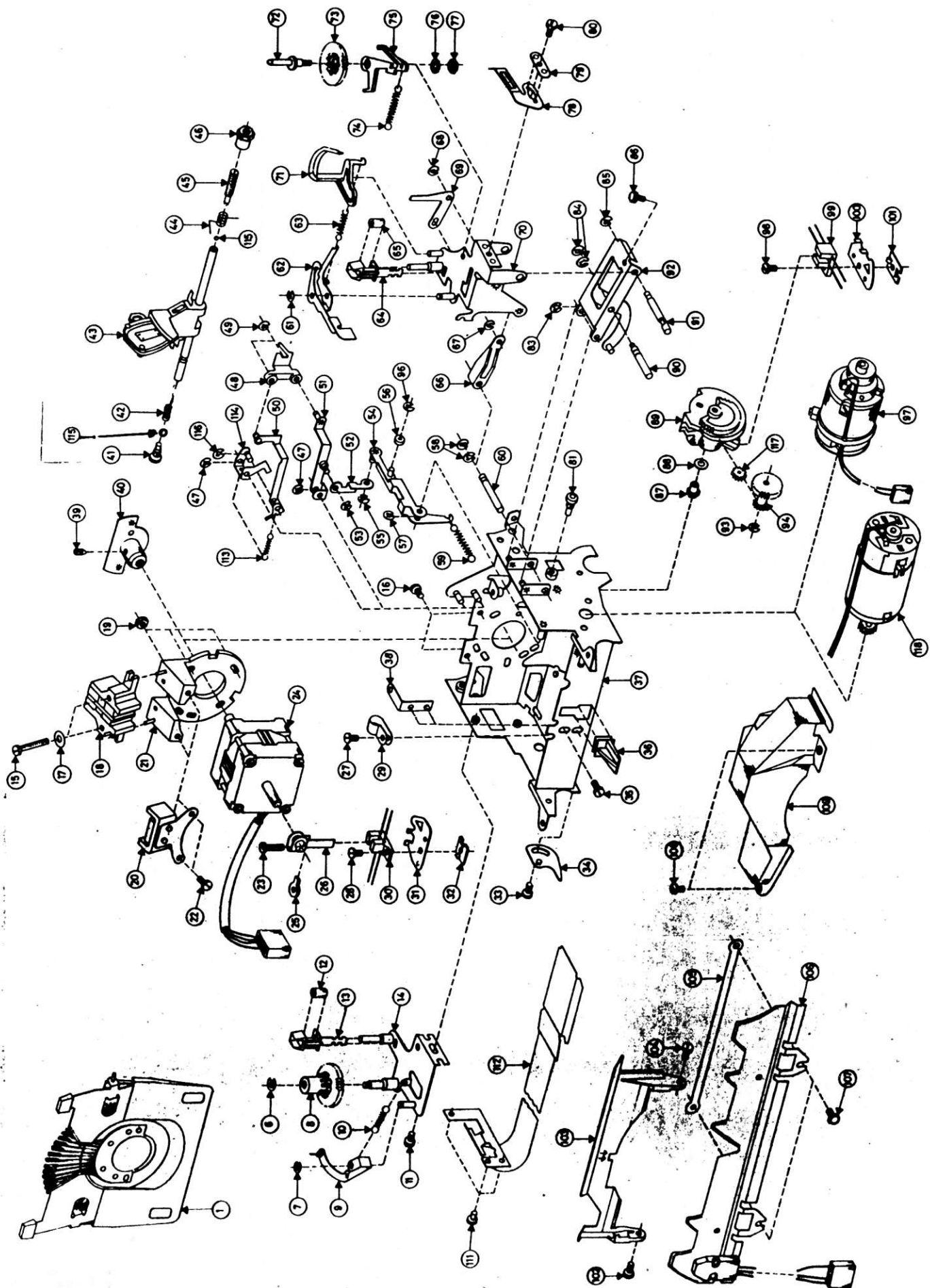
REF NUMBER	PART NUMBER	COMMENT	REF NUMBER	PART NUMBER	COMMENT
1	362. 32. 11		42	HTE-20468	
2	303. 41. 11		43	910. 30. 13	
3	HT -20260		44	200. 40. 11	
4	601. 40. 11		45	HT -14781	
5	HT -20259		46	200. 40. 11	
6	371. 40. 30		47		
7	601. 40. 11		48	HT-20274	
8	312. 32. 28		49	910. 50. 73	
9	200. 30. 11		50	not supplied	
10	200. 30. 11		51	HT -14842-H 91.1	
11	HTE-20250		52	HT -20279	
12	HT -20576		53	HP - 698	
13	HTE-20577-J		54	362. 60. 11	
14	910. 30. 38		55	100. 30. 281	
15	HTE-20280		56	149. 60.1003	
16	910. 30. 38		57	371. 15. 19	
17	HTE-20577-H		58	HT -20261	
18	HT -20576		59	371. 40.2001	
19	HT -20277		60	100. 30. 161	
20	200. 60. 11		61	671.302.1004	switch only
21	HT -20621		62	HT -20262	
22	371.140.2001		63	107. 30.4004	
23	HT -20276		64	100. 30. 161	
24	910. 50. 12		65	HT -20240	
25	MDE-14-AB		66	671.302.1003	switch only
26			67	100. 20. 221	
27	HT -20269				
28	HR - 2239-HB 144				
29	362. 12. 11				
30	HT -20448				
31	HTE-20440				
32	362. 50. 11				
33	HTE-20445				
34	362. 40. 11				
35	362. 23. 11				
36	371. 32. 159				
37	910. 60. 15				
38	100. 40. 241				
39	HTE-20463				
40	362. 23. 11				
41	HT -20275				



REF NUMBER	PART NUMBER	COMMENT	REF NUMBER	PART NUMBER	COMMENT
1	(200. 50. 11)		42	200. 40. 11	
2	(HT -20476)		43	910. 60. 28	
3	(100. 40. 161)		44	910. 50. 12	
4	(KCE-1230-Px1)		45	910. 60. 28	
5	(314. 11. 119)		46	371.140.2001	
6	(KCE-1241x1)		47	HT -20621	
7	(910. 30. 26)		48	HT -20276	
8	(HTE-20478)		49	200. 40. 11	
9	100. 20. 161		50	HTE-20065	switch only
10	HTE-20062	switch only	51	HT -20277	
11	AE - 742-DB		52	HT -20224	
12	HT -20269		53	100. 30. 251	
13	362. 23. 11		54	371. 40.2001	
14	910. 50. 73		55	107. 30.4004	
15	200. 60. 11		56	HT -20262	
16	303. 62. 11		57	371. 15. 19	
17	HTE-20468		58	HT-20479X1	
18	362. 23. 11		59	900. 90. 19	
19	HT -20475		60	686.001.1001	
20	HTE-20468		61	100. 30. 161	
21	910. 60. 27				
22	HTE-20463				
23	362. 23. 11				
24	HT -20474				
25	910. 30. 13				
26	100. 40. 161				
27	HT-20339				
28	149. 60.1003				
29	200. 60. 11				
30	HT-20274				
31					
32	HT -20275				
33	170. 60. 23				
34	100. 30. 161				
35	200. 40. 11				
36	HT -14781				
37	100. 30. 181				
38	200. 40. 11				
39		not supplied			
40	HTE-20435				
41	MDE-12-BC	Platen motor			



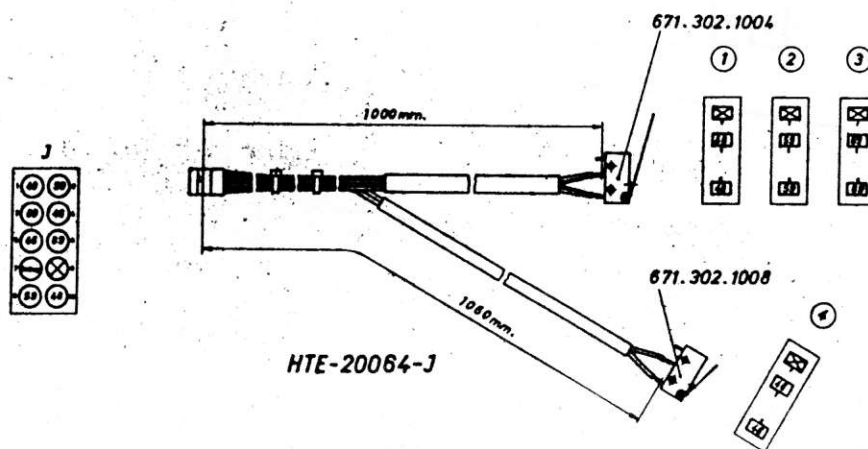
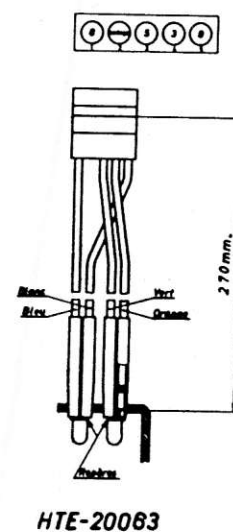
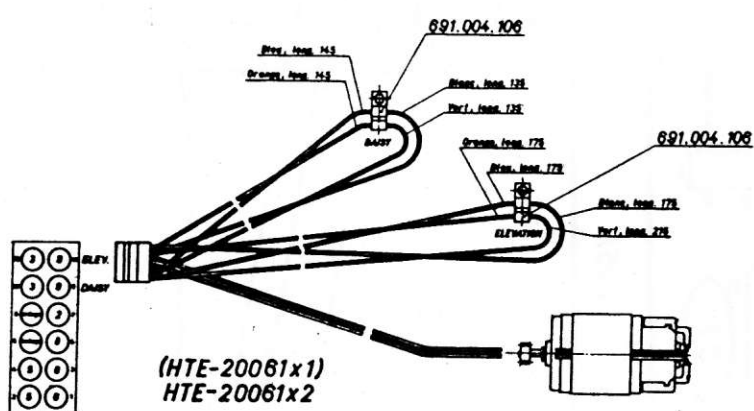
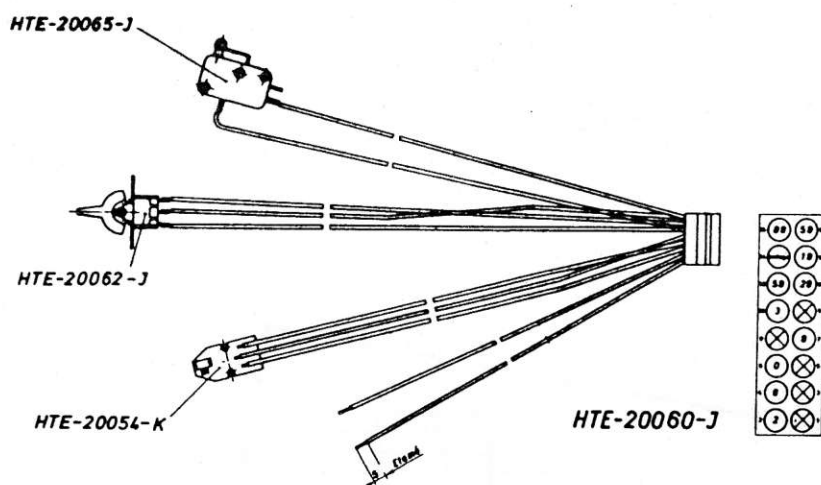
REF NUMBER	PART NUMBER	COMMENT	REF NUMBER	PART NUMBER	COMMENT
1	362. 32. 11		41	100. 30. 181	
2	HR - 2228		42	HTE-20666x1	
3	HT -20418		43	HT -20698	
4	HT -20416		44	HTE-20063	Assembly contains opto detectors
5	910. 35. 16		45	HT -14534	
6	(HRE- 2250)		46	362. 23. 11	
7	(HT -14761x1)		47	303. 31. 15	
8	(HTE-14756x1)		48	698. 65. 12	
9	(163. 30. 161)		49	HTE-20685	
10	HR - 2245-H		50	362. 15. 11	
11	200. 40. 11		51	312. 31. 13	
12	HR - 2254		52	HTE-20660	
13	HR - 2246		53	362. 23. 11	
14	HTE-20460		54	302. 32. 11	
15	362. 32. 11		55	HT -20656	
16	HTE-20402		56	900. 83. 12	
17	362. 80. 11		57	HT -20655	
18	HT -20417		58	900. 75. 13	
19	HR-2253 J		59	312. 41. 11	
20	910. 35. 16		60	362. 32. 11	
21	200. 40. 11		61	HT -20649	
22	HR - 2254		62	HT-20648	
23	(HRE- 2242)		63	HT -20646	
24	HRE- 2243		64	HT -20647	
25	HR - 2245-J		65	HT -20645	
26	HR - 2246		66	HT -20644	
27			67	100. 30. 161	
28			68	HTE-20630x1	
29	HT -20676x2		69	100. 30. 161	
30	362. 32. 11		70	MDE-15-AA	Ribbon motor
31	910. 50. 15		71	100. 30. 161	
32			72	507. 30. 101	Correct. carbon Non correct. carbon Multistrike
33				507. 30. 111	
34	362. 23. 11			507. 30. 121	
35	HTE-20690		73	HT -14919	
36	910. 40. 27		74	HTE-14915	
37	910. 35. 58		75	HT -18456	
38	269. 40.5045		76	303. 31. 15	
39	362. 32. 11		77	505. 71. 12	Lift of ribbon
40	HT -20696		78	100. 30. 201	
			79	HRE-2242 J	
			80	HR -2257	
			81	HRE-2250x1	
			82	(HRE-2242X1)	
			83	(HR-2253)	

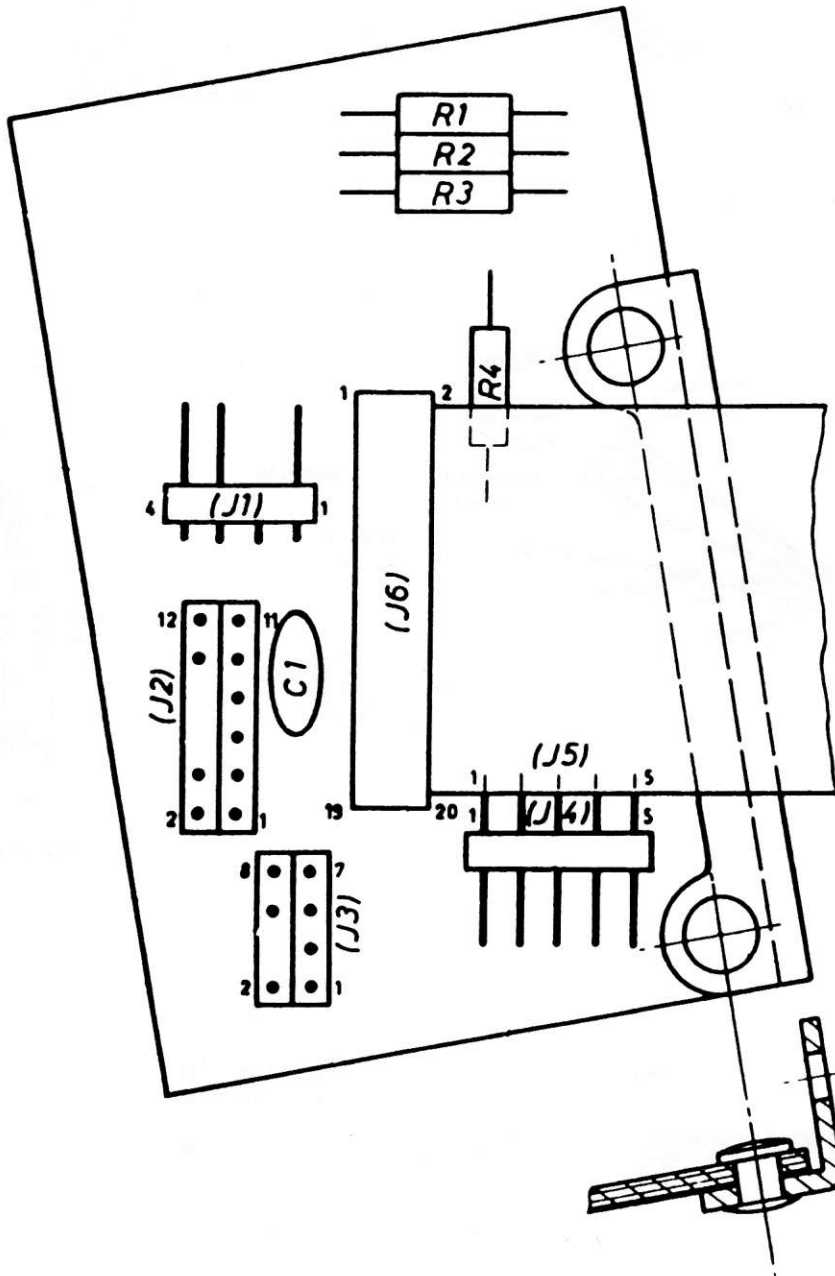


REF NUMBER	PART NUMBER	COMMENT	REF NUMBER	PART NUMBER	COMMENT
1	HXD-82...	see DOC-CAT-ACC	41	119. 40.5003	
2			42	900. 22. 11	
3			43	HTE-20551	
4			44	929. 56.1001	
5			45	169. 40.4003	
6	362. 32. 11		46	219. 40.1016	
7	362. 15. 11		47	362. 23. 11	
8	HT -18350		48	HTE-20606	
9	HTE-18348		49	362. 19. 11	
10	910. 30. 19		50	HTE-20596	
11	100. 30. 161		51	HTE-20604-H	
12	371. 20.2007		52	HT -20603	
13	HT -20715		53	362. 23. 11	
14	HTE-20710		54	HTE-20600	
15	100. 30. 301		55	362. 23. 11	
16	100. 30. 211	Daisy motor	56	371. 17. 13	
17	302. 32. 11		57	362. 23. 11	
18	HTE-20530		58	362. 23. 11	
19	200. 30. 11		59	910. 40. 32	
20	HTE-20535		60	HT -20731	
21	HTE-20525		61	362. 23. 11	
22	100. 30. 181		62	HT -20722	
23	100. 30. 251		63	910. 35. 15	
24	MDE-17-AA		64	HT -20715	
25	HP -698		65	371. 20.2007	
26	HT -20591		66	HT -20730	
27	100. 30. 181		67	362. 23. 11	
28	100. 30. 211		68	362. 23. 11	
29	AE -725-K		69	HT -20733	
30	691.004. 106		70	HTE-20740	
31	HT -20590	Not supplied	71	HT -20753	
32	219. 30.1018		72	HT -20752	
33	100. 30. 161		73	HT -20751	
34	HT -20584		74	910. 35. 15	
35	100. 30. 161		75	HT -20750	
36	HT -20582		76	321. 32. 11	
37			77	200. 30. 11	
38	HT -20621		78	HT -20754	
39	166. 40. 16		79	HT -20755	
40	HTE-20565		80	100. 30. 141	



REF NUMBER	PART NUMBER	COMMENT
81	HT -20612	
82	362. 23. 11	
83	362. 23. 11	
84	362. 23. 11	
85	362. 19. 11	
86	140. 30. 181	
87	207. 30.1001	
88	303. 31. 15	
89	HTE-20609	
90	HT -20731	
91	HT -20735	
92	HTE-20720	
93	362. 15. 11	
94	HT -20614x1	
95	100. 30. 181	
96		
97		
98	100. 30. 211	Sensor only
99	691.004. 106	
100	HT -20590	
101	219. 30.1018	
102	100. 20. 201	
103	HT -20570x1	
104	100. 20. 201	
105	HT -20574	
106	HTE-20571	
107	140. 30. 141	
108	100. 30. 211	
109	HT -20560	
110	929. 30.1003	
111	100. 30. 161	
112	HTE-20243	
113	910. 25. 14	
114	HTE-20598	
115	600. 25. 11	
116	362. 19. 11	
117	HT -20615	
118	HTE-20061X2	Ribbon height motor with sensor
119	371. 30. 20	





CARRIAGE INTERLOCK BOARD

Schéma HS-218 M2

PART NUMBER

PCB Complètement équipé
Fully equipped
vollausgeüstet

HTE- 20056

CAPACITORS

C1	641.223. 21	22 nf/50V
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RESISTORS

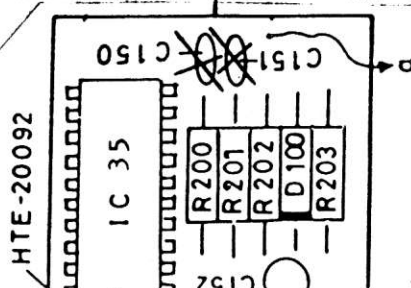
R1,R2,R3,R4	623.151. 15	150
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CONNECTORS

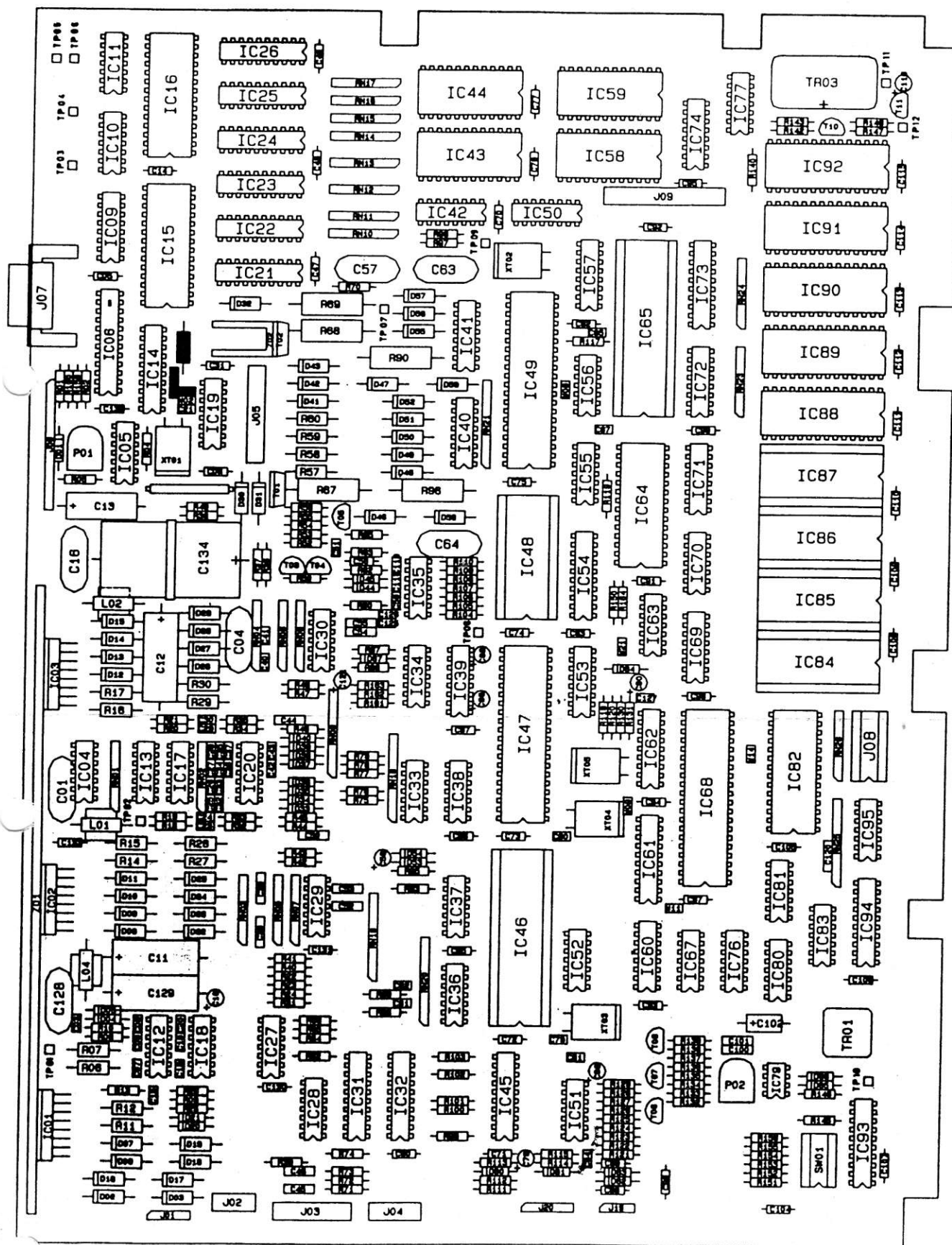
J1	774.312.1004	Berg 4P
J2 (2x)	774.311.1006	Berg 6P
J3 (2x)	774.311.1004	Berg 4P
J4	774.312.1005	Berg 5P
J5	774.313.1005	Berg 5P
J6	HTE-20058	Flat cable

MECHANICAL PARTS

Support	HT -20587
Rivet	250. 30. 23



LEVEL
A



100

1

2

3

4

100

MAIN BOARD

Schémas HS-230, 231

PCB sans ICs enfichables
without pluggable ICs
ohne einsteckbare

HTE- 20044

PART NUMBER

IC

IC1, IC2, IC3	694. 12 1015	L298
IC4, IC28, IC52, IC83	694. 22. 32	SN 74LS32
IC5	964. 12. 60	SN 7417 N
IC6	AE-1604-MO	PAL 20R6 A
IC9	694. 22. 166	SN 74LS166A
IC10, IC11	694. 22. 02	SN 74LS02
IC12, IC29, IC30, IC35	694. 15. 23	LM 339 N
IC13, IC27	694. 22. 09	SN 74LS09
IC14, IC21, IC26	694. 22. 377	SN 74LS377
IC17, IC18, IC95	694. 22. 14	SN 74LS14
IC19	694. 19. 12	P-8224
IC20	694. 15.9023	LM 339 AN
IC22, IC25, IC31, IC45, IC93	694. 22. 244	SN 74LS244
IC23, IC24	694. 22. 245	SN 74LS245
IC32	694. 22. 374	SN 74LS374
IC33	694. 22. 05	SN 74LS05
IC34	694. 12. 59	SN 7416 N
IC36, IC81	694. 22. 08	SN 74LS08
IC37	694. 15. 25	4066
IC38	694. 22. 393	SN 74LS393
IC39	694. 22 123	SN 74LS123
IC40, IC41	694. 12.1018	L293-B
IC42, IC50, IC57, IC74	694. 22. 157	SN 74LS157
IC43, IC44, IC58, IC59	694. 16. 32	HM-6116 P4
IC49	694. 17. 122	8031
IC51	694. 15. 15	LM 324
IC53, IC60, IC71, IC72	694. 22. 138	SN 74LS138
IC54, IC61, IC73	694. 22. 373	SN 74LS373
IC55, IC56, IC80	694. 22. 00	SN 74LS00
IC62	694. 19. 13	8284-A
IC63, IC77	694. 22. 04	SN 74LS04
IC64	694. 18. 12	P-8251-A
IC67, IC76	694. 22. 74	SN 74LS74
IC69	694. 22. 139	SN 74LS139
IC70	694. 22. 27	SN 74LS27
IC79	694. 15. 14	NE 555 V
IC82	694. 20. 12	P-8259-A
IC88, IC89, IC90, IC91, IC92	694. 16. 30	TC-5565 PL-1
IC94	694. 22. 273	SN 74LS273



MAIN BOARD (continued)

PART NUMBERCAPACITORS

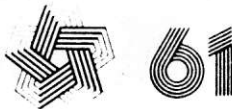
C1, C1A, C4, C16, C57, C63, C64	649.683.1003	68nF/250V
C3, C15, C23, C24, C29, C30, C51, C61, C62, C100	651.472. 12	4,7nF/63V/C
C4A, C5, C6, C14, C31, C47, C48, C49, C56, C60, C65, C66, C67, C70, C71, C72, C73, C74, C75, C76, C77, C82, C83, C88, C89, C91, C92, C93, C94, C95, C96, C97, C98, C99, C104, C105, C106, C107, C108, C109, C110, C111, C112, C113, C114, C115	652.104. 14	100nF/50V/C
C7, C20, C25, C26, C27, C28	651.102. 12	1nF/63V/C
C8, C18, C32, C33, C34, C35, C59, C81	651.681. 12	680pF/63V/C
C9, C19, C36, C37, C42, C43	651.470. 12	47pF/63V/C
C10, C58, C69, C86	653.105. 11	1uF/35V/T
C11, C11A, C12	655.686. 18	68uF/63V/E
C13	655.337. 14	330uF/63/E
C21	651.100. 12	10pF/63V/C
C38, C39	641.333. 21	33nF/50V/P
C40, C41	651.222. 12	2,2nF/63V/C
C44	641.223. 21	22nF/50V/P
C45, C46, C52, C53, C54, C55, C101, C120	641.103. 21	10nF/50V/P
C50	641.473. 21	47nF/50V/P
C69A	653.156. 11	15uF/20V/T
C68	653.226. 11	22uF/16V/T
C78	653.474. 11	0,47uF/35V/T
C79, C80	651.220. 12	22pF/63V/C
C84	651.330. 12	33pF/63V/C
C85, C87	651.332. 12	3,3nF/63V/C
C90	653.106. 11	10uF/20V/T
C102	655.106. 18	10uF/63V/E
C116	653.336. 11	33uF/10V/T
C118, C119	651.101. 12	100pF/63V/C
C134	655.158. 18	1500uF/63V/E
C152	653.156. 11	15uF

MAIN BOARD (continued)

PART NUMBER

RESISTORS

R1	623.121.	15	120
R2, R88, R89	623.101.	15	100
R4, R5, R50	623.181.	15	180
R6, R7, R11, R12	625.109.	12	1/0,5W
R8, R13, R18, R19, R20, R21, R55, R70, R150A, R203	623.331.	15	330
R9, R23, R26, R62, R65, R80, R85A, R97, R98, R118, R129 R143, R200	623.102.	15	1K
R10, R25, R32, R33, R34, R35, R124, R145	623.682.	15	6,8K
R14, R15, R27, R28	625.189.	12	1,8/0,5W
R16, R29, R57, R58, R59, R60	629.109.2001		1/0,5W/1%
R17, R30	629.229.2001		2,2/0,5W/1%
R22, R123, R146	623.333.	15	33K
R24, R45, R54, R86, R93, R125	623.332.	15	3,3K
R31, R86A, R202	623.122.	15	1,2K
R36, R37, R40, R43, R53, R56, R133, R139	623.222.	15	2,2K
R38, R136	623.183.	15	18K
R39, R132	623.151.	15	150
R41, R42, R47, R48	623.182.	15	1,8K
R44, R104, R107, R110, R120, R126, R87A, R201	623.473.	15	47K
R46	623.242.	15	2,4K
R49	623.564.	15	560K
R52	623.393.	15	39K
R64, R66, R87, R99, R100, R101, R102, R103, R106, R111	623.472.	15	4,7K
R67, R90, R96	631.560.	12	56/4W
R68	631.681.	11	680/4W
R69	626.102.	12	1K/1,6W
R71, R72, R73, R74, R85, R95, R113, R121, R127, R150	623.471.	15	470
R75	623.123.	15	12K
R76	623.273.	15	27K
R77	623.153.	15	15K
R78	623.363.	15	36K
R79, R109	623.753.	15	75K
R82, R83, R112, R114, R151, R152, R153, R154, R155, R156	623.103.	15	10K
R105	623.223.	15	22K
R108, R115	623.224.	15	220K
R117, R119	623.221.	15	220



MAIN BOARD (continued)

PART NUMBER

RESISTORS

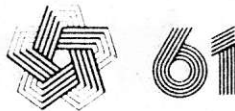
R122	623.184.	15	180K
R128	623.271.	15	270
R130, R131	623.561.	15	560
R134	623.104.	15	100K
R135, R137	623.562.	15	5,6K
R138	623.220.	15	22
R140	623.680.	15	68
R142	623.392.	15	3,9K
R147	623.152.	15	1,5K
R148	623.391.	15	390
R168	631.010.	11	1/4W
RN1	629.472.7002		4xR-4,7K
RN2, RN7, RN8	629.102.7002		4xR-1K
RN3, RN4, RN5, RN6	629.103.7002		4xR-10K
RN9, RN18, RN21	629.103.7001		9xR-10K
RN10, RN11, RN12, RN13, RN14, RN15, RN16, RN17, RN23, RN24, RN26	629.680.7002		4xR-68
RN19, RN20	629.472.7001		9xR-4,7K
RN25	629.222.7001		9xR-2,2K
P1	682.471.	11	Pot. 470
P2	682.104.	11	Pot. 100K

TRANSISTORS

T1, T2	693.081.	102	BDX-33A
T3, T4, T7, T8, T10	693.051.	121	BC 237 B
T5, T11	693.051.	161	MPS-A55
T6	693.051.	131	BC 307 B

DIODES

D1	692.011.	111	ZF/6,8V
D2, D3, D6, D7, D8, D9, D10, D11, D12, D13, D14, D15, D16, D17, D18, D19, D22, D23, D24, D25, D26, D27, D28, D29, D30, D32, D41, D42, D43, D46, D47, D48, D49, D50, D51, D52, D55, D56, D58, D59	692.002.	146	1N4934
D4, D5, D20, D21, D33, D34, D35, D36, D37, D38, D39, D40, D44, D44A, D45, D53, D54, D60, D61, D62, D63, D64, D65, D66, D100	692.002.	101	1N914
D31	692.013.	1360	1N5334
D57	692.012.	126	ZD/30V/1,3W



MAIN BOARD (continued)PART NUMBERCRYSTALS

XT1	697. 11. 15	18 MHz
XT2	697. 11. 27	12MHz
XT3, XT4	697. 11. 18	6 MHz
XT5	697. 11. 28	15 MHz

BATTERIES

TR3	AE- 836-CB	2,4V/100mAH
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INDUCTORS

L1, L2, L1A	636.099. 11	
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BUZZER

TR1	699. 11. 12	QMB-06
-----	-------------	--------

TP, SWITCHES BRIDGES

SW1	AE- 865-F	6 switches
W2, W8, W9, W11, W14, W21	AE- 877-H	Jumper
W2, W8, W9, W11, W14, W21	774.311.1002	Berg 2 poles
TP1, TP2, TP3, TP4, TP5,		
TP6, TP7, TP8, TP9, TP10,		
TP11, TP12		

SOCKETS

IC15, IC16, IC48, IC84,	AE- 803-0	28 Pins
IC85, IC86, IC87		
IC46, IC47, IC65, IC68	AE- 803-P	40 Pins

CONNECTORS

J1, J4	774.311.1005	Berg 5-P
J2	774.311.1004	Berg 4-P
J3	774.311.1008	Berg 8-P
J5	774.311.1010	Berg 10-P (Power supply)
J6	774.301.1012	Maxi Berg 12-P
J7	773.514.1509	Cannon 9-P (CRT)
J8	773.113.9416	Berg 16-P (Keyboard)
J9	774.311.1013	Berg 13-P (FD 2½")
J19	774.312.1004	Berg 4-P
J20	774.312.1002	Berg 2-P

MECHANICAL PARTS

(T1, XT2, XT3, XT4, XT5)	KC-2584-JS	Bridle
(C134)	698. 65. 11	Bridle
(Z1)	HT-20087	Main heatsink
(Z1)	698. 12. 12	3x clip Sot 112
(Z2)	HT-20067-B	Main hatsink
(Z1, Z2)	100. 30. 201	1x Screw M3
	100. 30. 211	2x Screw M3
	200. 30. 11	3x Nut



MAIN BOARD (continued)

PCB Complètement équipé pour machine avec drive 2 ½"
 Fully equipped for machine with 2 ½" drive
 Vollständig ausgerüstet für Maschinen mit 2 ½" Drive

Avec / with / mit :

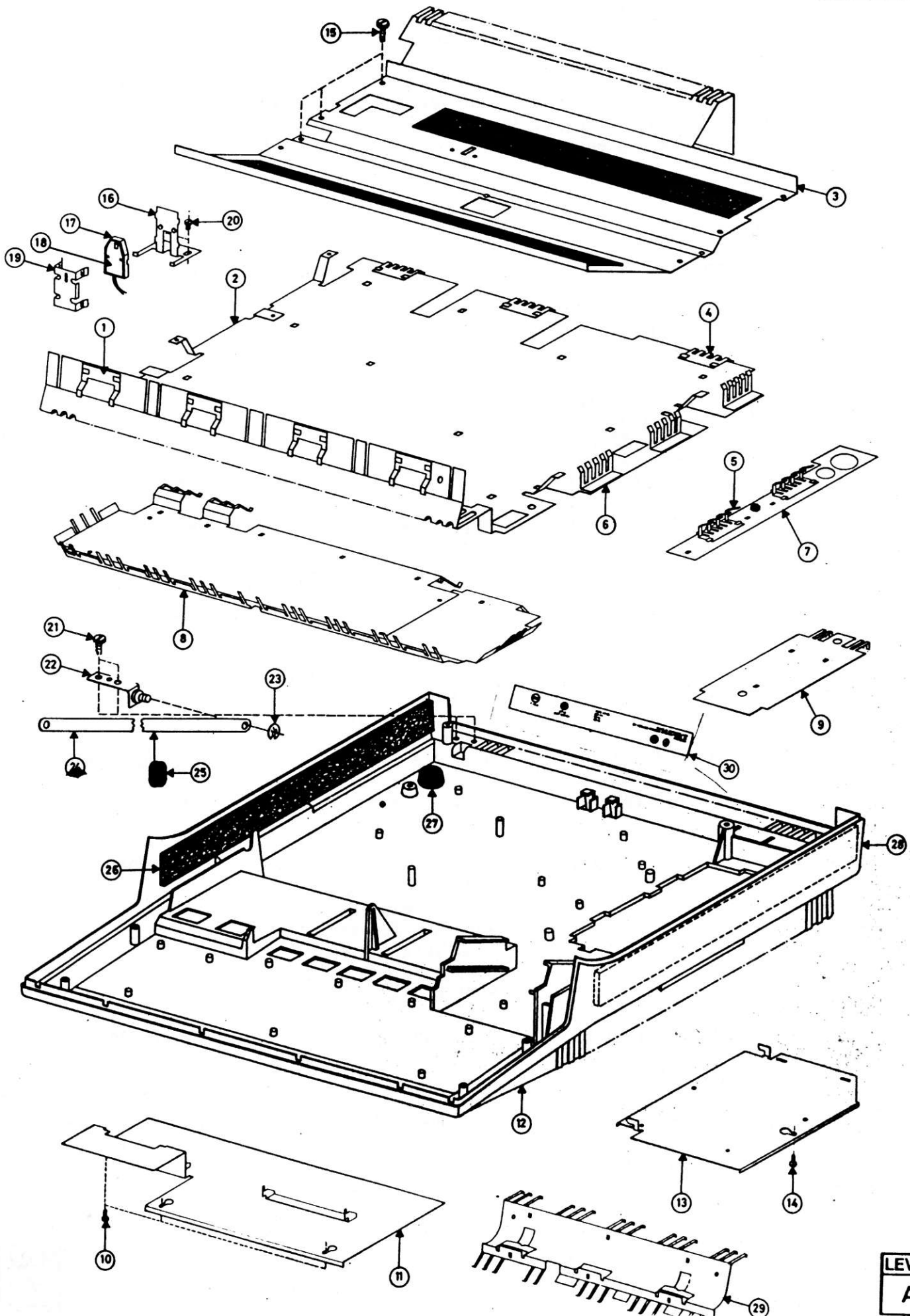
<u>IC</u>	<u>EPROM N°</u>	<u>KEYBOARD N°</u>	<u>PCB N°</u>
15	AE-1601 (2764)	all	all
16	AE-1600 (2764)	"	"
46	AE-1482 (8041)	"	"
47	AE-1483 (8041)	"	"
48	AE-1710 (2764)	"	"
68	694.17.123 (uP8088)	"	"
84	AE-1625 (27128)	"	"
85	AE-1624 (27128)	"	"
86	AE-1623 (27128)	"	"
87	AE-1611 (27128)	9113 Suisse - Français	HTE-20044-AA
		9120 Deutsch./Oesterr.	"
		9121 Deutsch./Oesterr.	"
		9130 CSSR - TCH	"
		9135 CSSR - Slovak	"
		9210 Japan -Latin	"
		9250 New-Zealand	"
		9291 Canadien-Français	"
		9103 Schweizer deutsch	HTE-20044-AB
		9450 Italiano	"
	AE-1613 (27128)	9200 Holland	HTE-20044-AC
		9270 South-Africa	"
		9400 France-Belgique	"
	AE-1614 (27128)		
	AE-1615 (27128)	9260 International	HTE-20044-AE
		9280 Philippines	"
		9296 USA - Australian	"
	AE-1616 (27128)	9230 Danish	HTE-20044-AF
		9240 Norvegian	"
	AE-1617 (27128)	9235 Finnish	HTE-20044-AG
		9245 Swede I	"
		9246 Swede II	"

MAIN BOARD (continued)

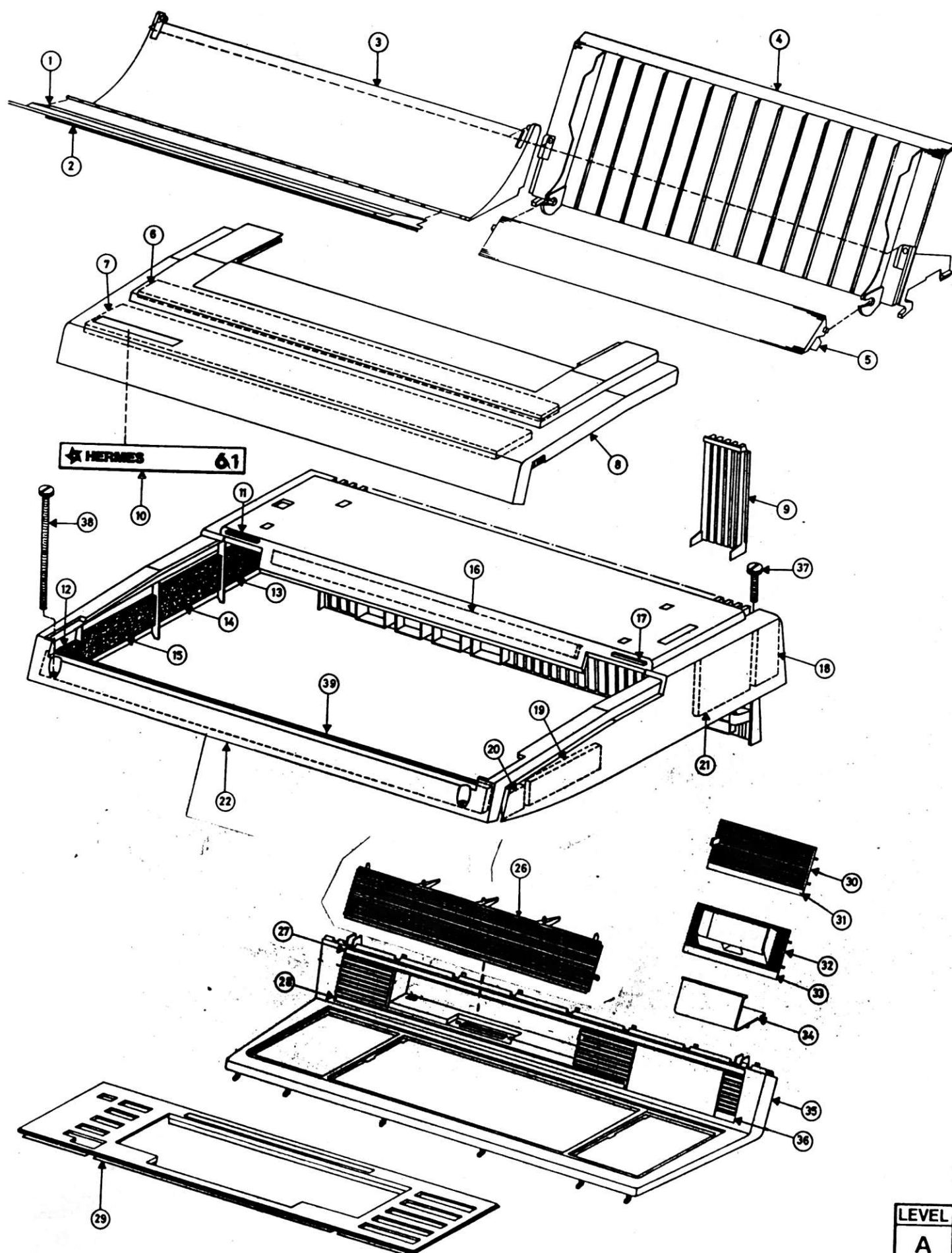
PCB Complètement équipé pour machine avec drive 3 ½"
Fully equipped for machine with 3 ½" drive
Vollständig ausgerüstet für Maschinen mit 3 ½" Drive

Avec / with / mit :

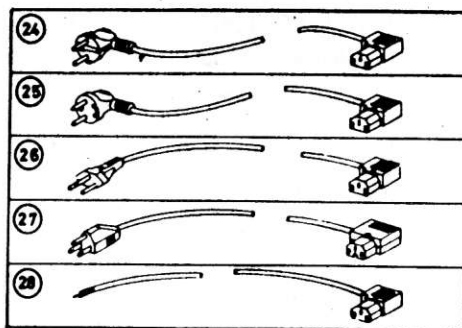
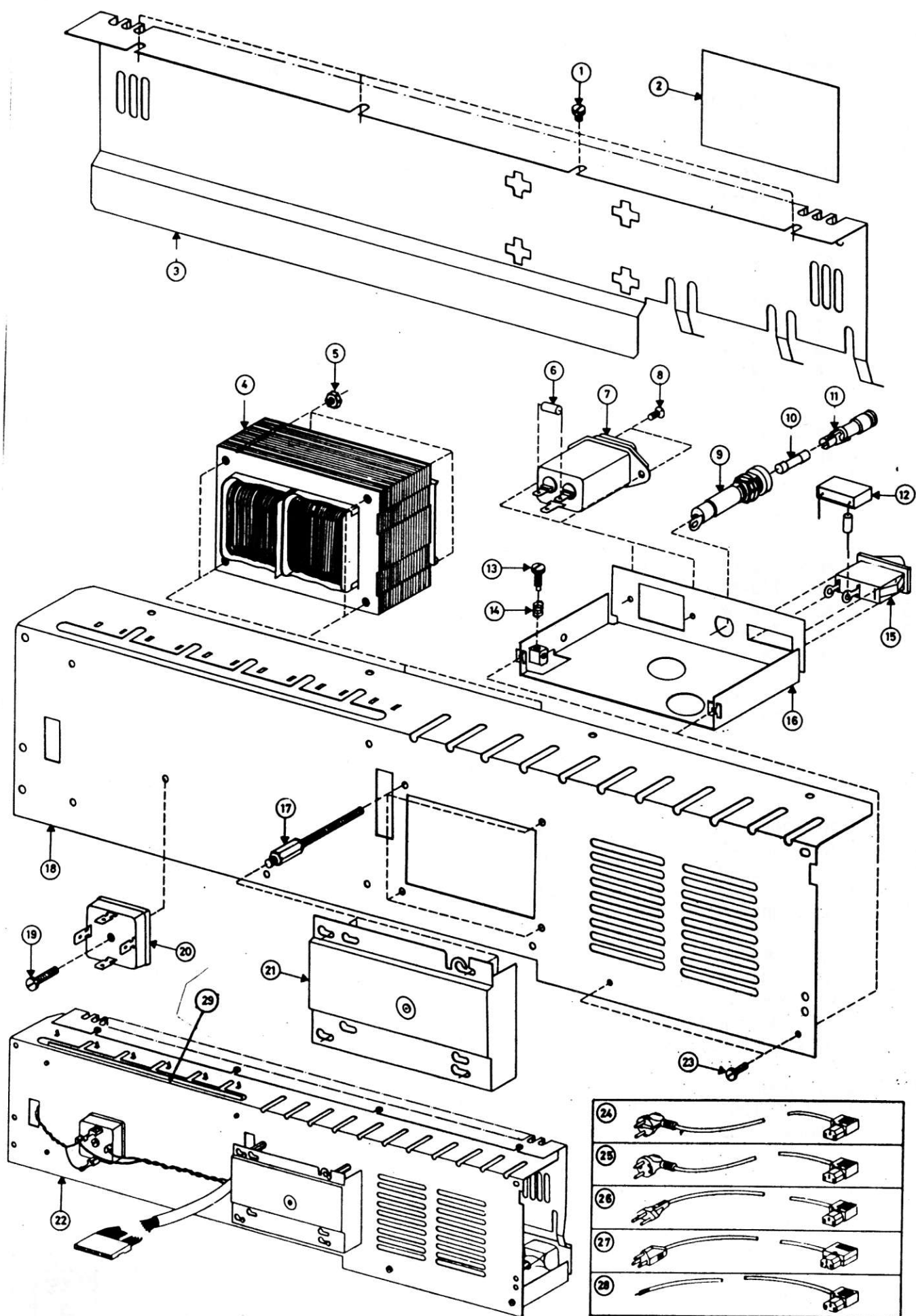
IC	EPROM N°	KEYBOARD N°	PCB N°
15	AE-1601 (2764)	all	all
16	AE-1600 (2764)	"	"
46	AE-1482 (8041)	"	"
47	AE-1483 (8041)	"	"
48	AE-1710 (2764)	"	"
68	694.17.123 (uP8088)	"	"
84	AE-1645 (27128)	"	"
85	AE-1644 (27128)	"	"
86	AE-1643 (27128)	"	"
87	AE-1631 (27128)	9113 Suisse - Français 9291 Canadien - Français 9400 France - Belgique	HTE-20044-BA " "
	AE-1632 (27128)		
	AE-1633 (27128)	9120 Deutsch./Oesterr. 9121 Deutsch./Oesterr. 9130 CSSR - TCH 9135 CSSR - Slovak	HTE-20044-BC " " "
	AE-1634 (27128)	9450 Italiano	HTE-20044-BD
	AE-1635 (27128)	9200 Holland 9270 South-Africa	HTE-20044-BE "
	AE-1636 (27128)	9210 Japan - Latin 9221 Hispano-Americano 9226 Venezuela 9250 New-Zealand 9260 International 9280 Philippines 9296 USA-Australian	HTE-20044-BF " " " " " "
	AE-1638 (27128)	9230 Danish	HTE-20044-BH
	AE-1639 (27128)	9235 Finnish	HTE-20044-BI
	AE-1640 (27128)	9240 Norwegian	HTE-20044-BJ
	AE-1641 (27128)	9245 Swede I 9246 Swede II	HTE-20044-BK "



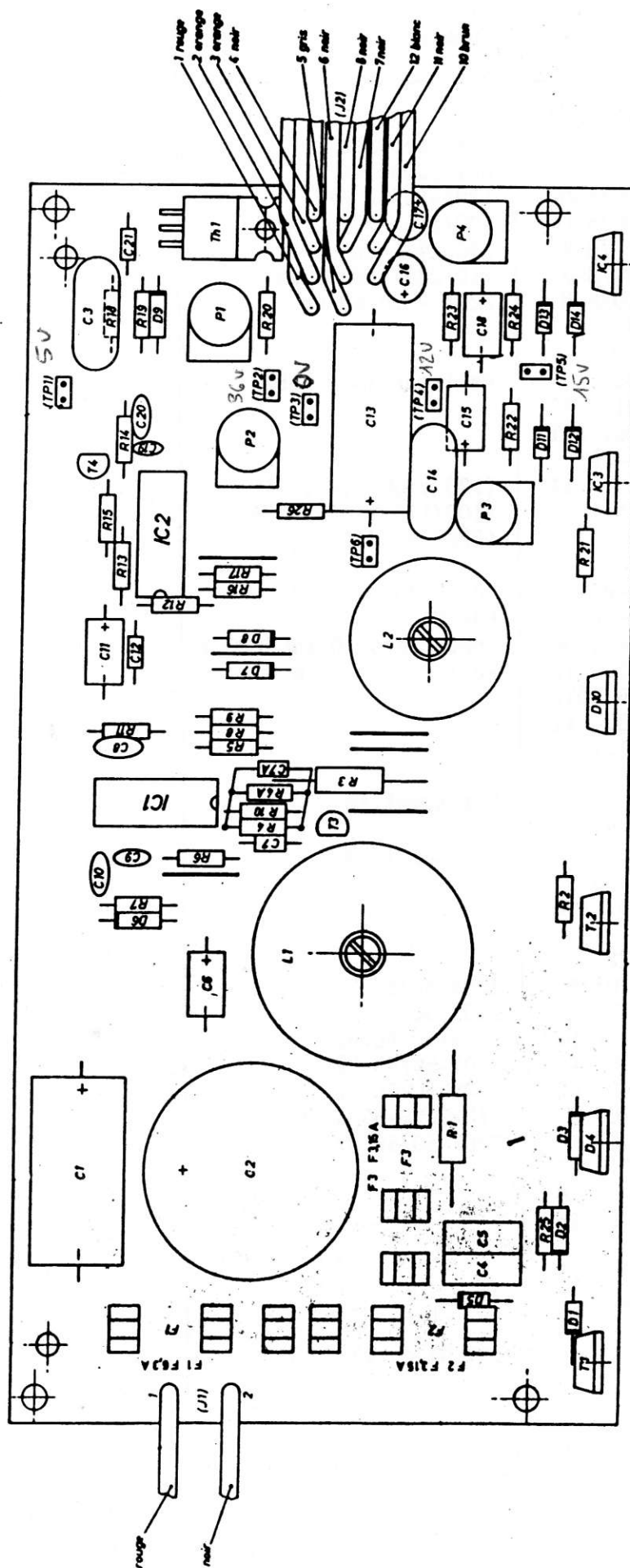
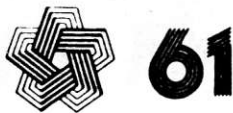
REF NUMBER	PART NUMBER	COMMENT	
1	HT -20352		
2	HTE-20380		
3	HTE-20394		
4	HT -20382		
5	HT -20386		
6	HT -20344		
7	HTE-20383		
8	HT -20392		
9	HT -20389		
10	189.35.1014		
11	HTE-20374		
12	HTE-20852-HL	145	
13	HT -20097-H		
14	100.40.221		
15	100.30.141		
16	HT -20270		
17	HT -20573		
18	HTE-20054-J		
19	HT -20822		
20	140.30.181		
21	189.35.1014		
22	HTE-20354		
23	362.32.11		
24	HT -20347		
25	371.48.2001		
26	AE- 742-C0		
27	HR- 2133		
28	AE- 742-C0		
29	HT-20391		
30	HA-501-HM	220V/50Hz	
	HA-501-HN	115V/50-60 Hz	
	HA-501-HO	240V/50-60 Hz	
	HA-501-HP	230V/50-60 Hz	
	HA-501-HQ	100V/50-60 Hz	
	HA-501-HR	120V/60 Hz	
	HA-501-HS	110-120V/50-60 Hz	
	HA-501-HT	120V/60 Hz	



REF NUMBER	PART NUMBER	COMMENT	
1	HTE-20828-H 142		
2	AE - 740-DJ		
3	HT -20826-H 146		
4	HTE-20824-H 146		
5	HTE-20830-H 145		
6	AE - 742-CR		
7	AE - 742-CQ		
8	HTE-20815-HL 145		
9	HT -20812-H 145		
10	HA - 494-HC	HERMES	
	HA - 494-JD	JAPY	
	HA - 494-PD	PRECISA	
11	AE - 740-DK		
12	AE - 742-CJ		
13	AE - 742-CL		
14	AE - 742-CL		
15	AE - 742-CK		
16	AE - 742-CS		
17	AE - 740-DK		
18	AE - 742-CN		
19	AE - 740-DK		
20	AE - 742-CJ		
21	AE - 742-CM		
22	HTE-20810-H 145		
23			
24			
25			
26	HT -20863-H 145		
27	HT -20822-B		
28	HT -20822-D		
29		See page 1050	
30	HT -20865-H 145		
31	HT -20822-E		
32	HT -20866-H 145		
33	HT -20822-E		
34	HT -20869-H 145		
35	HT -20856-HLx1 145		
36	HT -20822-F		
37	107.40.1001		
38	100.40. 301		



REF NUMBER	PART NUMBER	COMMENT
1	100. 30. 211	
2		Not supplied
3		Not supplied
4	HTE-20078-M	120V-50/60 Hz
	HTE-20078-L	100/115V-50/60 Hz
	HTE-20078-K	230/240V-50/60 Hz
	HTE-20078-J	110/220V-50/60 Hz
	HTE-20078-H	220V - 50/60 Hz
5	200. 40. 11	
6	625.105. 12	Resistor 1M / 0,5W
7	636.001. 22	
8	120. 30. 201	
9	AE-558-BA	
10	611.315. 14	(120 V-UL)/T-3,15A
	611.315. 12	(100/115 V)/T-3,15A
	611.160. 12	(220/240 V)/T-1,6A
11	AE-558-BB	For European fuse
	AE-558-BC	For UL fuse
12	649.104.1006	Condensator 0,1uF/250 V
	626.101. 12	Resistor 100/1,6 W
13	189. 35.1012	
14	900. 53. 11	
15	672.101.1001	
16		Not supplied
17	HT-20329	
18	HT-20336	Not supplied
19	100.40. 301	
20	692.006. 106	
21	HT-20328	
22	HTE-20207-M	120V-50/60 Hz
	HTE-20207-LA	100V-50/60 Hz
	HTE-20207-LB	115V-50/60 Hz
	HTE-20207-KA	230V-50/60 Hz
	HTE-20207-KB	240V-50/60 Hz
	HTE-20207-J	110/220V-50/60 Hz
	HTE-20207-H	220V-50/60 Hz
23	100. 30. 221	
24	752. 10. 18	
25	752. 10. 26	
26	752. 10. 25	
27	752. 10. 24	
28	767. 11. 24	
29		See page 1031



LEVEL
A

POWER SUPPLY

Schéma HS-232 M4

PART NUMBER

PCB Complètement équipé
Fully equipped
Vollausgerüstet

HTE-20046

IC

IC1, IC2	696. 11. 32	SG 3524
IC3, IC4	696. 11. 28	LM 317 T

CAPACITORS

C1	655.228. 14	2200 uF/10V
C2	659.688.3063	6800 uF/63V
C3, C14	649.683.1003	68 nF/250V
C4, C5	641.104. 22	100 nF/100V
C6, C11, C15, C18	655.106. 18	10 uF/63V
C7, C7A, C12, C21	652.104. 14	100 nF/50V
C8	641.223. 21	22 nF/50V
C9	641.222. 21	2,2 nF/50V
C10, C20	641.103. 21	10 nF/50V
C13	655.477. 17	470 uF/40V
C16, C17	657.685.1025	6,8 uF/25V
C19	651.471. 12	470 pF/63V

RESISTORS

P1	682.222. 11	2,2K
P2	682.103. 11	10K
P3, P4	682.102. 11	1K
R1	626.102. 12	1K/1,6W
R2	623.271. 15	270
R3	626.681. 12	680 /1,6W
R4, R4A	623.681. 15	680
R5, R8, R9, R12, R16, R17	623.472. 15	4,7K
R6, R11, R13	623.272. 15	2,7K
R7, R14	623.273. 15	27K
R10, R15, R18	623.102. 15	1K
R19	623.100. 15	10
R20	623.392. 15	3,9K
R21, R23	623.152. 15	1,5K
R22, R24	623.221. 15	220
R25	623.103. 15	10K
R26	623.183. 15	18K

TRANSISTORS

T1	693.099. 108	MTP10 N05
T2	693.081. 112	BDX 34A
T3	693.051. 191	BF 391
T4	693.051. 141	MPS-A05
TH1	693.091. 101	TIC 116B



POWER SUPPLY (continued)

PART NUMBER

DIODES

D1	692.012. 131	ZD 47
D2, D3	692.011. 119	ZF 15
D4, D10	692.009. 112	BYM 29-50
D5	692.002. 101	1 N 914
D6	692.011. 105	ZF 3,9
D7, D8	692.011. 111	ZF 6,8
D9	692.011. 109	ZF 5,6
D11, D12, D13, D14	692.002. 121	1 N 4003

INDUCTORS

L1	HTE-18940 x 1
L2	HRE- 2032

CONNECTORS

J1	HRE- 1642-DE
J1	HRE- 1642-DF
J2	HTE-20074

FUSE

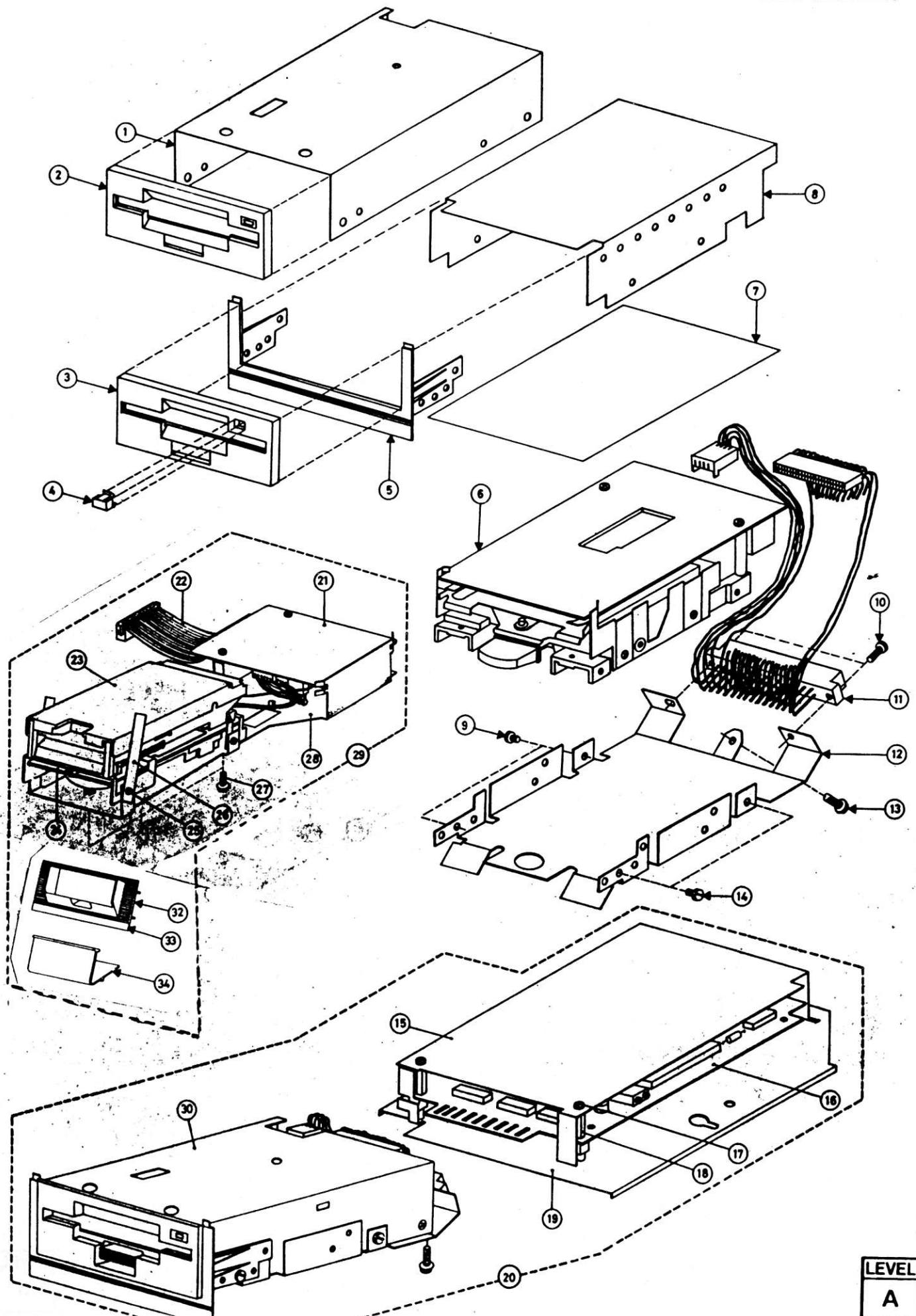
F1	611.630. 111	F6,3 A
F2, F3	611.315. 111	F3,15 A

TP

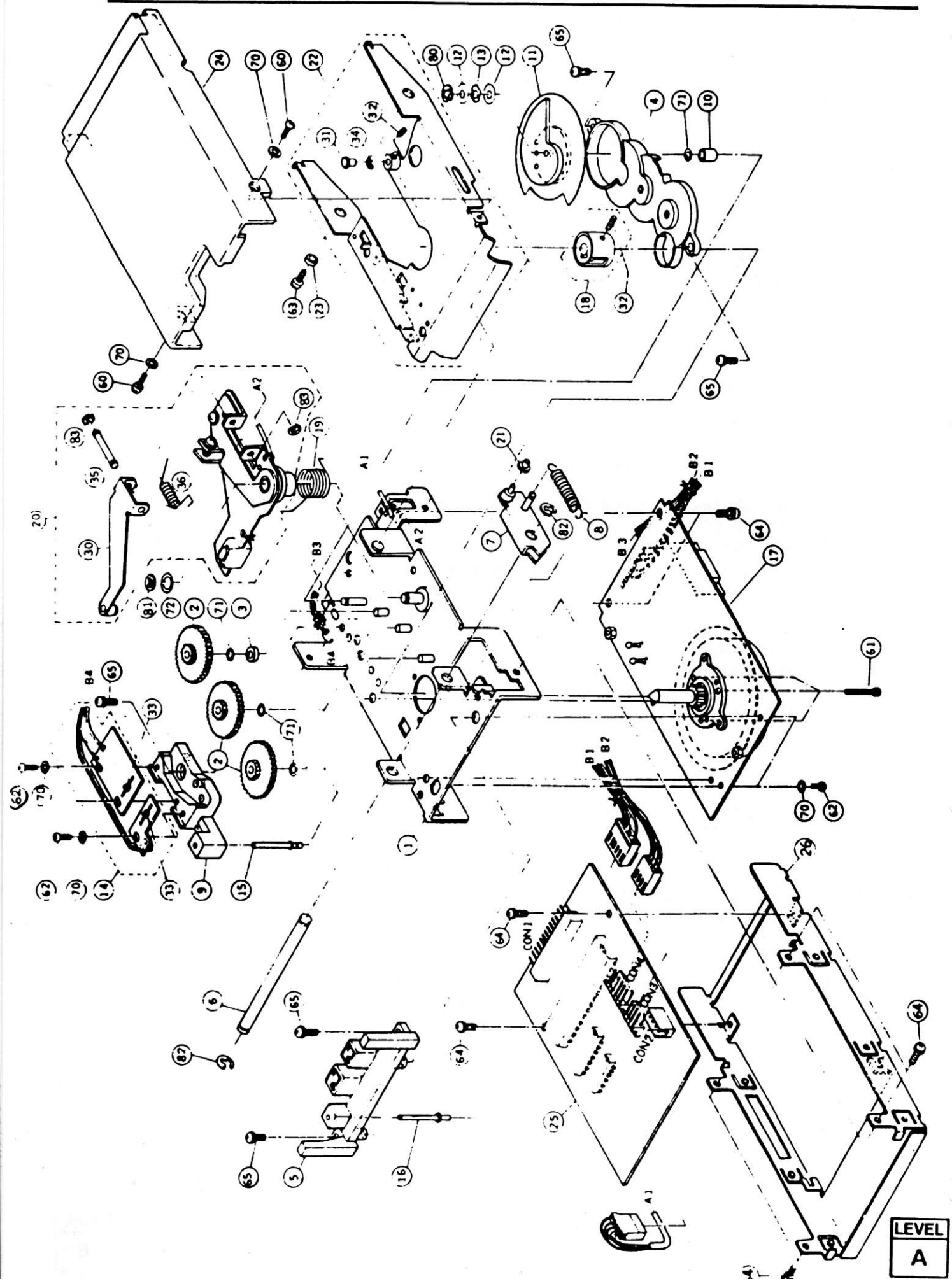
TP1, TP2, TP3, TP4, TP5, TP6	774.311.1002
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MECHANICAL PARTS

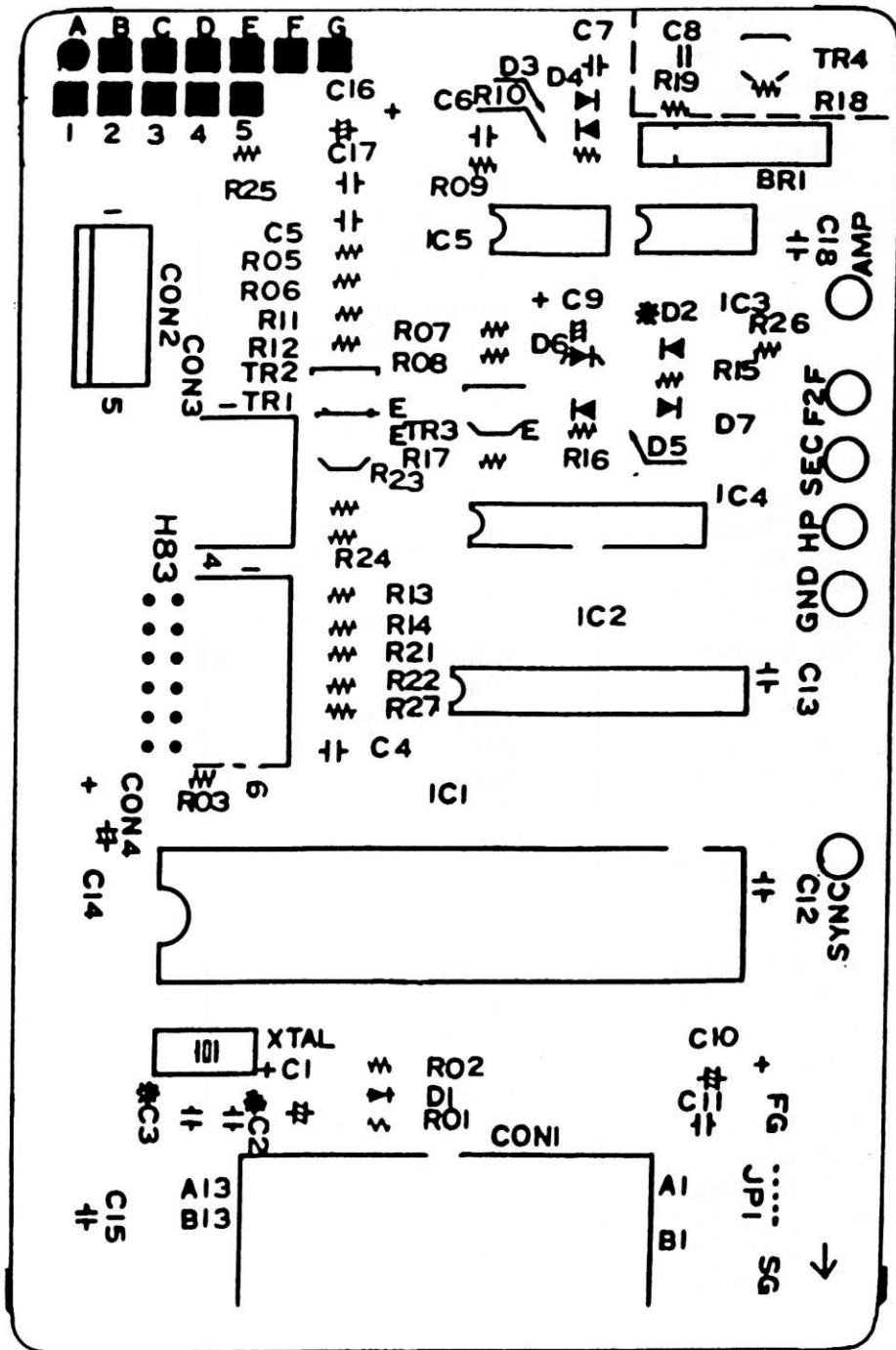
Screw	100. 30. 351	(L1)
Nut	200. 30. 11	(L1, L2)
Washer	698. 51. 14	(L1, L2)
Screw	100. 30. 321	(L2)
Mica	698. 41. 15	(T1, T2, D4, IC3, IC4)
Clips	698. 12. 11	(T1, T2, D4, IC3, IC4)
Screw	100. 30. 181	(HTE-20046)
Fuse support	AE- 721	(F1, F2, F3)
Washer	KC-964-Q	(HTE-20046)



REF NUMBER	PART NUMBER	COMMENT
1		Not supplied
2		Not supplied
3		Not supplied
4	AE- 409-AA	
5	HT-20868-H 145	
6	AE- 906-BB	Drive Ass'y 3 ½" Sankyo
7	HT-20371	
8		Not supplied
9	149.35.1001	
10	100.30.281	
11	HTE-20048-B	
12		Not supplied
13	187.40.1001	
14	149.35.1001	
15		Not supplied
16	HTE-20038-AA	PCB Controller 3 ½"
17	100.30.181	
18	KC- 964-HL	
19	HTE-20095	Controller Ass'y 3 ½"
20	HTD-6035-B	Comple kit 3 ½" Sankyo
21	SY-SBP-004105	PCB Ass'y 2 ½"
22	HXE- 486-J	
23	AE- 906-AK	Drive + PCB Ass'y 2 ½"
24	SY-SBE-008901	Motor Ass'y
25	100.30.181	
26	HT-20379	
27	187.40.1001	
28		Not supplied
29	HTD-6025	Comple kit 2 ½"
30	HTE-20100-HB	Drive Ass'y 3 ½" Sankyo
31	312.32.12	
32	HT-20866-H 145	
33	HT-20822-E	
34	HT-20869-H 145	
35	HT-20822-E	
36	HT-20865-H 145	



REF NUMBER	PART NUMBER	COMMENT
1	SY-SBM-012801	Base Plate Ass'y
2	SY-MGSMC-00781	Gear
3	SY-M4MRE-204902	Collar
4	SY-M2MYB-205101	G Cover
5	SY-SBM-014201	Protector Ass'y
6	SY-M4MRF-203901	Shaft
7	SY-SMB-013401	Lever Ass'y
8	SY-MST-201701	Spring
9	SY-MYB-210101	Sensor Block
10	SY-M4MRE-204901	Collar
11	SY-SBM-013701	Cas Ass'y
12	SY-MFA-205801	Plate Washer
13	SY-M4KWS-200101	Wave Washer
14	SY-SBE-008701	Sensor Ass'y
15	SY-SBM-014401	WPT Pin Ass'y
16	SY-SBM-014301	CLD Pin Ass'y
17	SY-SBE-008901	Motor Ass'y
18	SY-SBM-013301	Center Collar Ass'y
19	SY-MSY-201802	Coil Spring H
20	SY-SBE-012001	Head Ass'y
21	SY-MRE-210301	Collar
22	SY-SBM-022301	Cover Plate Ass'y
23	SY-M4MRE-205101	Collar
24	SY-SBM-022101	Upper Cover Ass'y
25	SY-SBP-004105	PCB Ass'y
26	SY-MBC-201401	Plate
30	SY-SBM-023501	Felt Ass'y
31	SY-MRE-213401	Pin
32	SY-KAH-60264690	Screw
33	SY-ESPMC-0006	TP. TP606
34	SY-KWS-200201	Washer
35	SY-M4MRB-200801	Shaft
36	SY-MSYMC-0131	Sprint P
60	SY-KSP-12004010	Screw
61	SY-KSP-12018010	Screw
62	SY-KTB-40200810	Tap-Screw
63	SY-KSP-12504010	Screw
64	SY-KDP-12300410	Screw
65	SY-KDP-12300610	Screw
70	SY-KWP-10201010	Plain Washer
71	SY-KWP-10309800	Plain Washer
72	SY-KWP-10409801	Plain Washer
80	SY-KRE-02504120	E-Ring
81	SY-KRE-03006120	E-Ring
82	SY-KRE-04006120	E-Ring
83	SY-KRE-01504120	E-Ring



PART NUMBER

PCB

SY-SBP004105

IC

IC1

SY-401

MBL 8042-N 140

IC2

SY-402

MB 14107

IC5

SY-313

NJM 4560 D

IC3

SY-314

NJM 2903 D

IC4

SY-404

HD 14584 BP

TRANSISTORS

TR1, TR2, TR3

SY-406

2 SC 2458-Y GR

TR4

SY-407

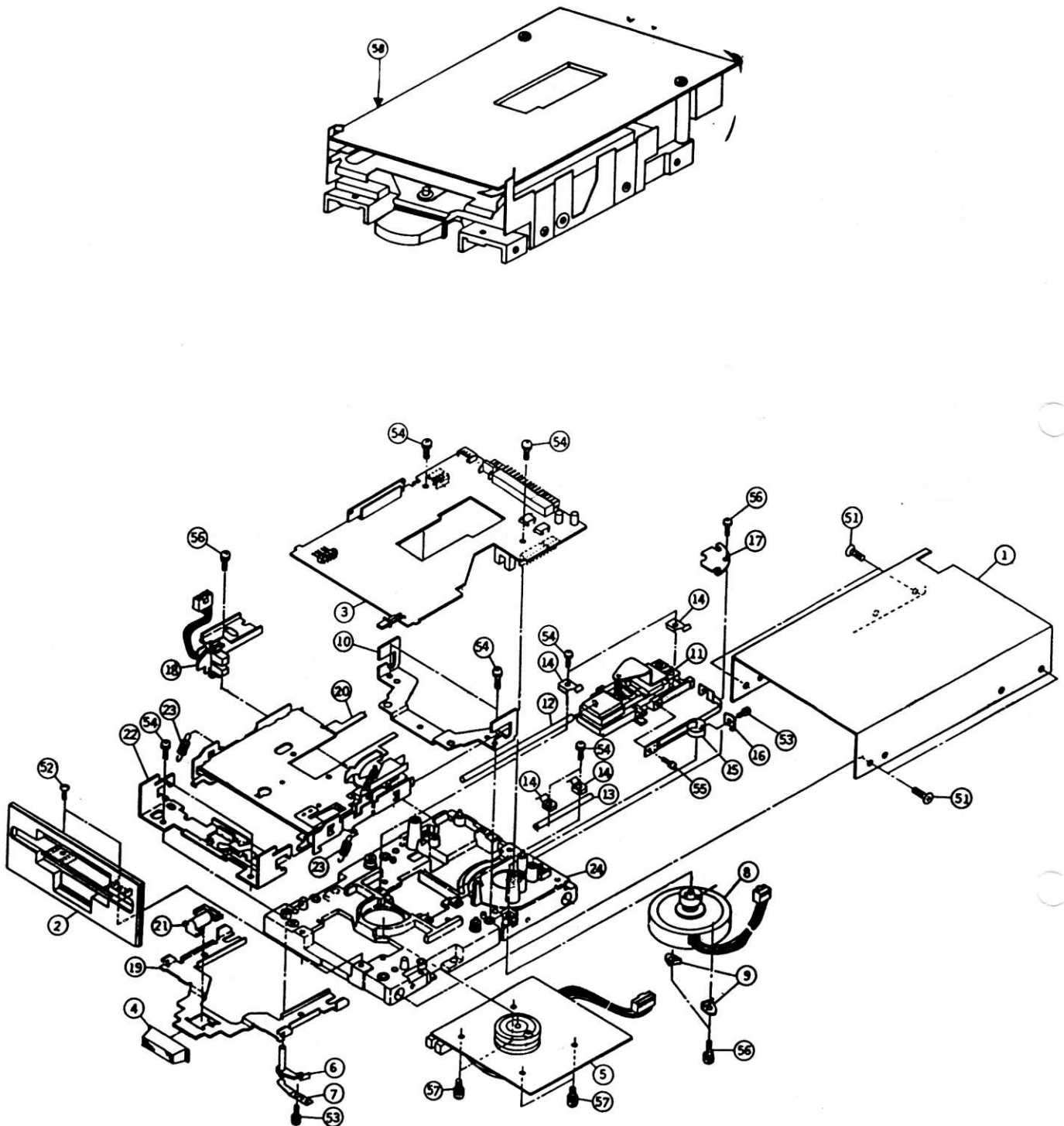
FET 2 SJ 74 Y, GR, BL

CRYSTAL

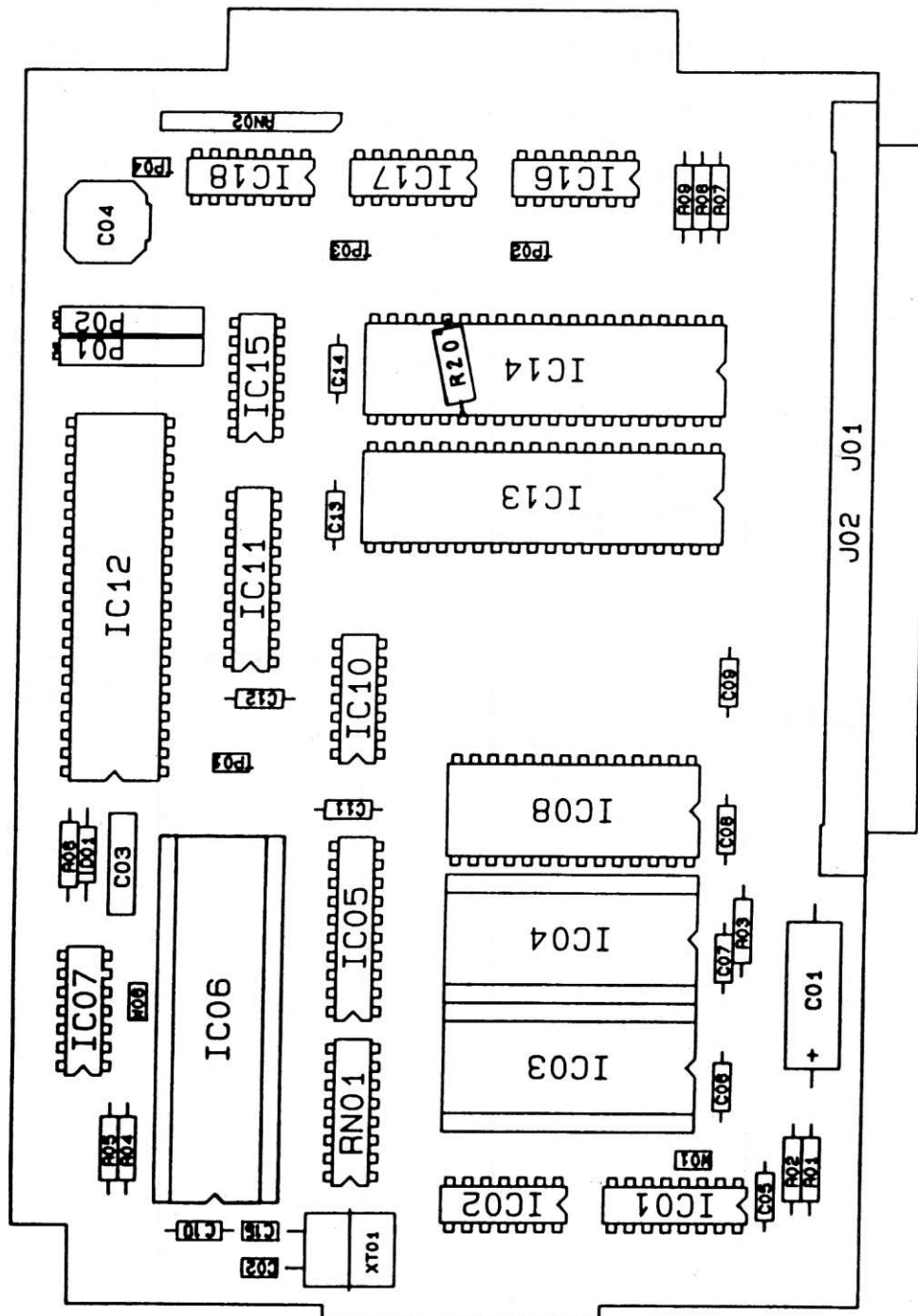
XTAL

SY-410

HC 49/UL 12 mHz



REF NUMBER	PART NUMBER	COMMENT	REF NUMBER	PART NUMBER	COMMENT
1		not supplied	41		not supplied
2		"	42		"
3	SY-SBP-074101	Ass'y, PWB	43		"
4		not supplied	44		"
5	SY-SBE-017601	Ass'y spindle Motor	45		"
			46		"
6		"	47		"
7		"	48		"
8		"	49		"
9		"	50		"
10		"			
			51		"
11	SY-SBW-006101	Ass'y Head carriage	52		"
12		not supplied	53		"
13		"	54		"
14		"	55		"
15		"			
			56		"
16		"	57		"
17		"	58	AE-906-BB	Drive Ass'y
18	SY-SBE-018001	Ass'y			3½ Sankyo
19		TR00 sensor			
20		not supplied			
		"			
21		"			
22		"			
23		"			
24		"			
25		"			
26		"			
27		"			
28		"			
29		"			
30		"			
31		"			
32		"			
33		"			
34		"			
35		"			
36		"			
37		"			
38		"			
39		"			
40		"			



3½" FD CONTROLLER

Schéma HS-227 MØ

PCB Sans ICs enfichables
Without pluggable ICs
Ohne einsteckbare ICs

HTE-20038

PART NUMBER

IC

IC1	694. 22. 138	SN74LS138
IC2, IC18	694. 22. 14	SN74LS14
IC5	694. 22. 373	SN74LS373
IC7	694. 22. 92	SN74LS92
IC8	694. 16. 35	8Kx8 (200ns)
IC10	694. 22. 08	SN74LS08
IC11	694. 22. 377	SN74LS377
IC12	694. 20. 19	WD-2793 PL 02
IC13, IC14	694. 20. 16	8255A-5
IC15	694. 22. 04	SN74LS04
IC16, IC17	694. 12. 66	SN7438N

CAPACITORS

C1	655.227. 14	220 uF/10V
C2	651.479. 12	4,7 pF/63V
C3	641.224. 22	0,22 uF/100V
C4	642.650. 11	5,5 - 6,5 pF
Cd, C5 to C14	652.104. 14	100 nF/50V

RESISTORS

R1, R2, R4, R7, R8, R9,	623.473. 15	47K
R3, R5	623.471. 15	470
R6	623.102. 15	1K
RN1	629.680.5002	8 x 68
RN2	629.151.7001	9 x 150
P1	682.503. 13	Pot. 50K
P2	682.103. 13	Pot. 10K

DIODES

D1	692.002. 101	1N914
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CRYSTALS

XT1	697. 11. 18	6,000 MHz
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3½" FD CONTROLLERPART NUMBERSOCKETS(IC3, IC4)
(IC6)AE-803-0
AE-803-P28 pins
40 pinsCONNECTORS

J1, J2

772.204.1144

TCCD22D63601

TP, JUMPERSTP1 to TP4
Bridges W1, W6
JUMPER774.311.1002
774.311.1002
AE- 877-H

3½" FD CONTROLLER (continued)

PCB Complètement équipé
Fully equipped
Vollausgerüstet

HTE-20038 AA

PART NUMBER

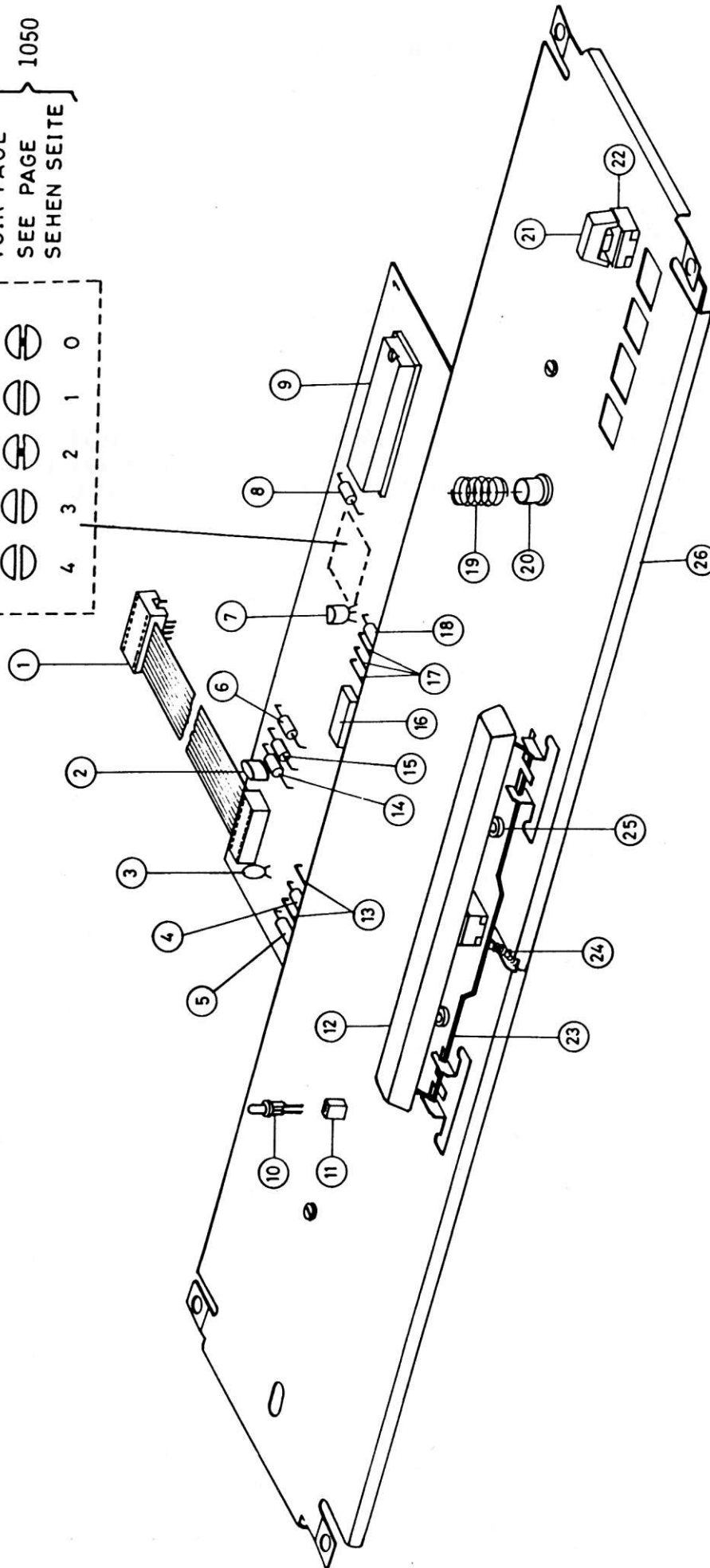
Avec / mit / with :

IC3	AE- 1648	27128(694.13.53)
IC4	AE- 1649	27128(694.13.53)
IC6	694. 20. 19	WD 2793.02

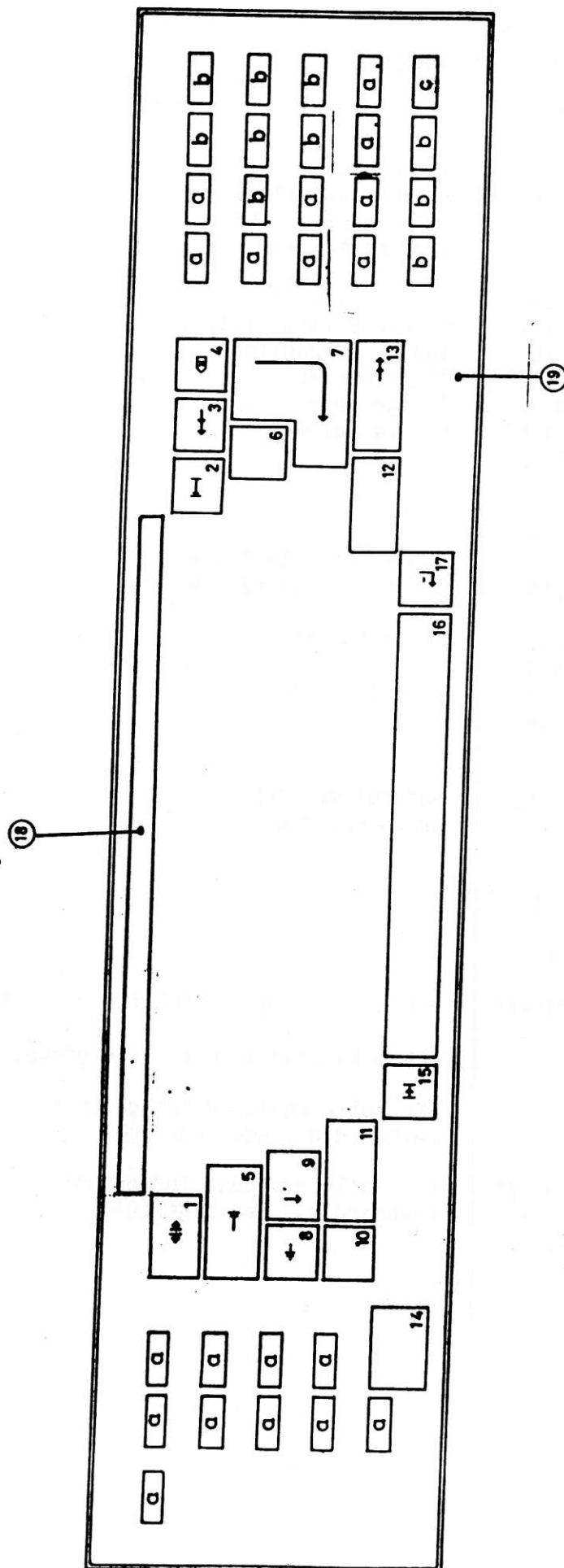
KEYBOARD CODE

0	0	1	0	1	
					0
4	3	2	1	0	

VOIR PAGE 1050
SEE PAGE
SEHEN SEITE



REF NUMBER	PART NUMBER	COMMENT
1	AE-858-L	
2	651.472.12	4,7 nF (capacitor)
3	653.106.11	10 uF (capacitor)
4	652.104.14	100 nF (capacitor)
5	623.151.15	150 (resistor)
6	623.221.15	220 (resistor) $\frac{1}{4}$ W
7	693.051.121	BC 237 B (transistor)
8	652.104.14	100 nF (capacitor)
9	AE- 1607	IC (group AB)
	AE- 1609	IC (group BC)
10	691.002.110	CQY 54 (diode)
11	HC- 1052	
12	450.31 11	
13	KC- 2584-T	
14	623.332.15	3,3 K (resistor) $\frac{1}{4}$ W
15	623.562.15	5,6 K (resistor) $\frac{1}{4}$ W
16	694.22.145	SN 74 LS 145
17	KC- 2584-T	
18	623.273.15	27 K (resistor) $\frac{1}{4}$ W
19	900.110.14	
20	HC- 1053	
21	419.14.1601	natural key top
	419.15.1601	brown key top
22	675.101.1002	
23	450. 21. 112	
24	910.30.24	
25	HT-18714	
26	HTE-20032-AA	PCB with pluggable ICS for group AB, without key tops.
	HTE-20032-AB	PCB with pluggable ICS for group CD, without key tops
	HTD-20032-AA	PCB fully equipped for group AB. Please specify keyboard n°, see page 1050
	HTD-20032-AB	PCB fully equipped for group CD, Please specify keyboard n°, see page 1050



REF NUMBER	PART NUMBER	COMMENT
1	AE-858-L	
2	651.472.12	4,7 nF (capacitor)
3	653.106.11	10 uF (capacitor)
4	652.104.14	100 nF (capacitor)
5	623.151.15	150 (resistor)
6	623.221.15	220 (resistor) $\frac{1}{4}$ W
7	693.051.121	BC 237 B (transistor)
8	652.104.14	100 nF (capacitor)
9	AE- 1607	IC (group AB)
	AE- 1609	IC (group BC)
10	691.002.110	CQY 54 (diode)
11	HC- 1052	
12	450.31 11	
13	KC- 2584-T	
14	623.332.15	3,3 K (resistor) $\frac{1}{4}$ W
15	623.562.15	5,6 K (resistor) $\frac{1}{4}$ W
16	694.22.145	SN 74 LS 145
17	KC- 2584-T	
18	623.273.15	27 K (resistor) $\frac{1}{4}$ W
19	900.110.14	
20	HC- 1053	
21	419.14.1601	natural key top
	419.15.1601	brown key top
22	675.101.1002	
23	450. 21. 112	
24	910.30.24	
25	HT-18714	
26	HTE-20032-AA	PCB with pluggable ICS for group AB, without key tops.
	HTE-20032-AB	PCB with pluggable ICS for group CD, without key tops
	HTD-20032-AA	PCB fully equipped for group AB. Please specify keyboard n°, see page 1050
	HTD-20032-AB	PCB fully equipped for group CD, Please specify keyboard n°, see page 1050

