



# G80-1220

**Comfort Keyboard with  
serial asynchronous Interface.  
Changeable between  
IBM\*-Position- and ASCII-Codes.**

\* IBM is the registered trademark of the IBM Corporation.





### Main Advantages

- For Computers with serial asynchronous interface.
- Equipped with a serial RS 232 C interface.
- Changeable between IBM\* position- and ASCII-codes.
- Sliding switch for selection of different ASCII country codes.
- Excellent cost/performance ratio achieved by:
  - specific application of high quality materials, UL approved.
  - automated manufacturing procedures with integrated test stations.
  - most modern quality control systems defined by DIN ISO 9001.
- use of quality systems such as FMEA and SPC.
- fulfillment of the latest ergonomic requirements which for example meet ZH 1/618.
- 4 mm full-travel keyswitches.
- Use of Cherry MX keys with »Gold Crosspoint« contacts.
- Reliability: MCBF =  $1 \times 10^9$  operations.  
MTBF = 80.000 hours.
- Long life expectancy of individual keys:  $> 50 \times 10^6$  operations.

- Fatigue-free operation with minimal risk of multiple actuation, enabled by ergonomic »Cylindrical« key set.
- »Deep Dish« sculptured keys for F and J index finger locations and a dimple on the 5 in the numeric pad for quick and accurate homing when touch-typing.
- 2-shot moulded keycaps are non-reflecting and easy to clean.
- Wear resistant keycap legends.

● Safety:



● RFI/EMI:

Post Vfg. 1046 / 1984  
(VDE 0871, Klasse B)

CISPR 22





## Important Features

- The alphanumeric keylayout of the 102 key version conforms to DIN 2137, sheet 2, 10.88. The international characters use standard "ASCII" code in compliance with DIN 66003 and 66303.
- The 101 key version features "ASCII" international keylayout according to DIN 66003 and 66303.
- LED indicators show selected mode.
- Precision contacts eliminate input errors.
- The IBM\* overlay fits onto the housing.
- Full ASCII code.
- Linear feel. Additional versions (Soft tactile feedback, tactile "click") upon request.
- Low profile, minimum height.
- Height of 3rd keyrow is < 30 mm (measured from table top with keyboard in flat position), conforming to the most recent research results on ergonomic requirements for display workstations. 6° angled stems.
- Separate cursor pad.
- Asynchronous data format.
- N-Key-rollover.
- Available key layouts: US-English, German and French. Additional versions upon request.
- Electromagnetic compatibility (EMC):
  - ESD (in compliance with IEC 801-2): 15 kV.
  - RFI/EMI: - Post-Vfg. 1046 / 1984 (VDE 0871, Class B).
  - FCC Part 15, Subpart J, Class B.
  - CISPR 22

## Mechanical Data

Total travel: 4 - 0.4 mm.  
 Pretravel: 2 ± 0.6 mm.  
 Operating force: 60 ± 20 cN.  
 Storage temperature: -40° C (-40° F) to +70° C (+158° F).  
 Working temperature: 0° C (+32° F) to +50° C (+122° F).

## Electrical Data

### Power supply:

+ 5V/DC, current consumption 180 mA. typ.

### Interface:

Bidirectional (only IBM mode), serial asynchronous. The keyboard communicates with the system via the T x D respectively via the R x D data line.

### Data format:

Data format and transfer rate can be adjusted via wire lines.

### Dataoutput:

RS 232 C, asynchronous.

### Data buffer:

All codes are buffered prior to output (buffer capacity 16 bytes).

### Keyboard input sequence:

N-key-rollover.

### Autorepeat:

All keys are equipped with automatic repeat function, except function and shift keys. The delay time and rate of repetition are changeable through the system (IBM mode).

### Power-up reset:

The keyboard triggers an automatic power-up reset.

### Keyboard self-test:

Upon power-up or if requested by system, the keyboard performs a self-test routine. If no faults are detected, the keyboard transmits the hexadecimal code "AA". Any other code is interpreted to mean the keyboard is defective. LED status indication for NUM LOCK, CAPS LOCK and SCROLL LOCK.

Preparation of specifications on the components including their technical data, is performed due to internal Cherry tests in accordance with approved rules only.

### Notes for end users:

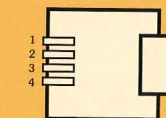
With respect to the variety of applications we suggest to consult an expert due to product modifications.

## Keyboard Cable

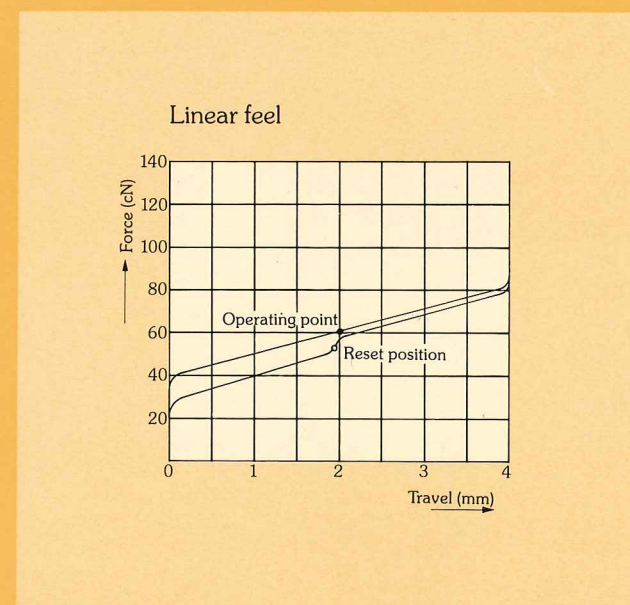
2 m coiled cable with 4 Pin Modular Plug  
 AMP Nr. **469268-2** or equivalent.

## Pin Assignment

Pin	Assignment
1	Logic Ground
2	+ 5V
3	T x D
4	R x D



## Force/Travel Diagram



## Operation Mode Switch

	SW 1	SW 2
IBM AT-, PS/2 format	OFF	OFF
ASCII format "US-English"	OFF	ON
ASCII format "German"	ON	OFF
ASCII format "French"	ON	ON





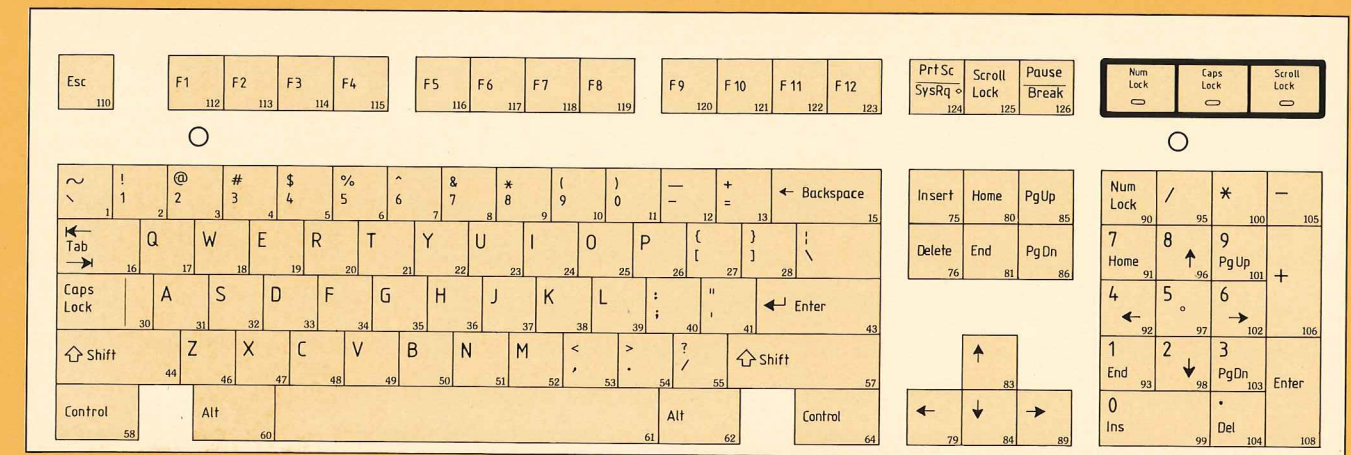
### IBM\* Position Codes

Key	SET 1	SET 2	SET 3	Taste	SET 1	SET 2	SET 3
1	29	0E	0E	53	33	41	41
2	02	16	16	54	34	49	49
3	03	1E	1E	55	35	4A	4A
4	04	26	26	57	36	59	59
5	05	25	25	58	1D	14	11
6	06	2E	2E	60	38	11	19
7	07	36	36	61	39	29	29
8	08	3D	3D	62	E0, 38	E0, 11	39
9	09	3E	3E	64	E0, 1D	E0, 14	58
10	0A	46	46	75	E0, 52	E0, 70	67
11	0B	45	45	76	E0, 53	E0, 71	64
12	0C	4E	4E	79	E0, 4B	E0, 6B	61
13	0D	55	55	80	E0, 47	E0, 6C	6E
15	0E	66	66	81	E0, 4F	E0, 69	65
16	0F	0D	0D	83	E0, 48	E0, 75	63
17	10	15	15	84	E0, 50	E0, 72	60
18	11	1D	1D	85	E0, 49	E0, 7D	6F
19	12	24	24	86	E0, 51	E0, 7A	6D
20	13	2D	2D	89	E0, 4D	E0, 74	6A
21	14	2C	2C	90	45	77	76
22	15	35	35	91	47	6C	6C
23	16	3C	3C	92	4B	6B	6B
24	17	43	43	93	4F	69	69
25	18	44	44	95	E0, 35	E0, 4A	77
26	19	4D	4D	96	48	75	75
27	1A	54	54	97	4C	73	73
28	1B	5B	5B	98	50	72	72
29*	2B	5D	5C	99	52	70	70
30	3A	58	14	100	37	7C	7E
31	1E	1C	1C	101	49	7D	7D
32	1F	1B	1B	102	4D	74	74
33	20	23	23	103	51	7A	7A
34	21	2B	2B	104	53	71	71
35	22	34	34	105	4A	7B	84
36	23	33	33	106	4E	79	7C
37	24	3B	3B	108	E0, 1C	E0, 5A	79
38	25	42	42	110	01	76	08
39	26	4B	4B	112	3B	05	07
40	27	4C	4C	113	3C	06	0F
41	28	52	52	114	3D	04	17
42**	2B	5D	53	115	3E	0C	1F
43	1C	5A	5A	116	3F	03	27
44	2A	12	12	117	40	0B	2F
45**	56	61	13	118	41	83	37
46	2C	1A	1A	119	42	0A	3F
47	2D	22	22	120	43	01	47
48	2E	21	21	121	44	09	4F
49	2F	2A	2A	122	57	78	56
50	30	32	32	123	58	07	5E
51	31	31	31	124	E0, 2A, E0, 37	E0, 12, E0, 7C	57
52	32	3A	3A	125	46	7E	5F
				126	E1, 1D, 45, E1, 9D, C5	E1, 14, 77, E1, F0, 14, F0, 77	62

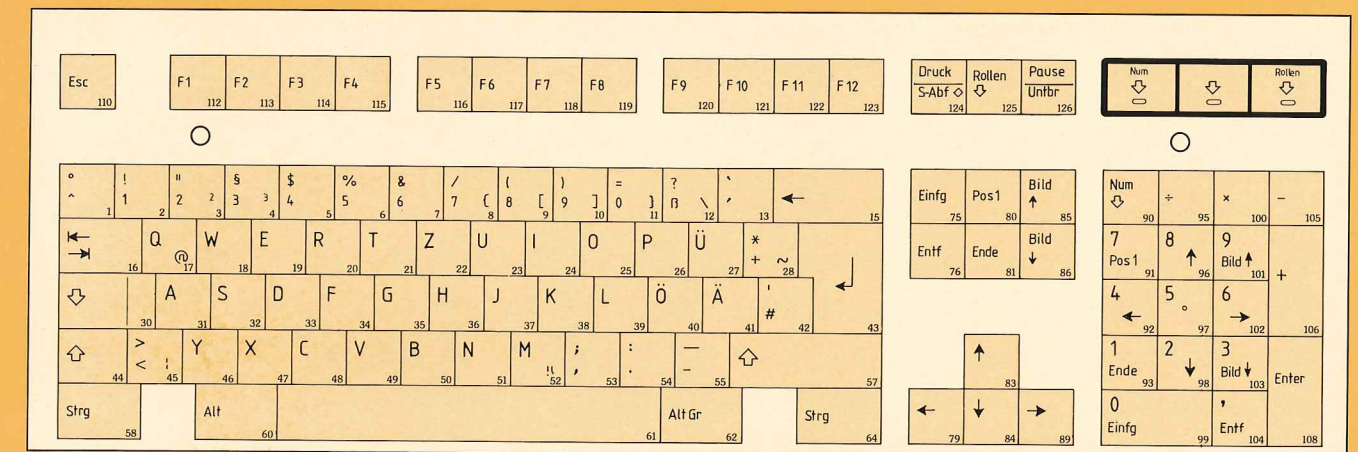
\*Keyboard with 101 keys only

\*\* Keyboard with 102 key only

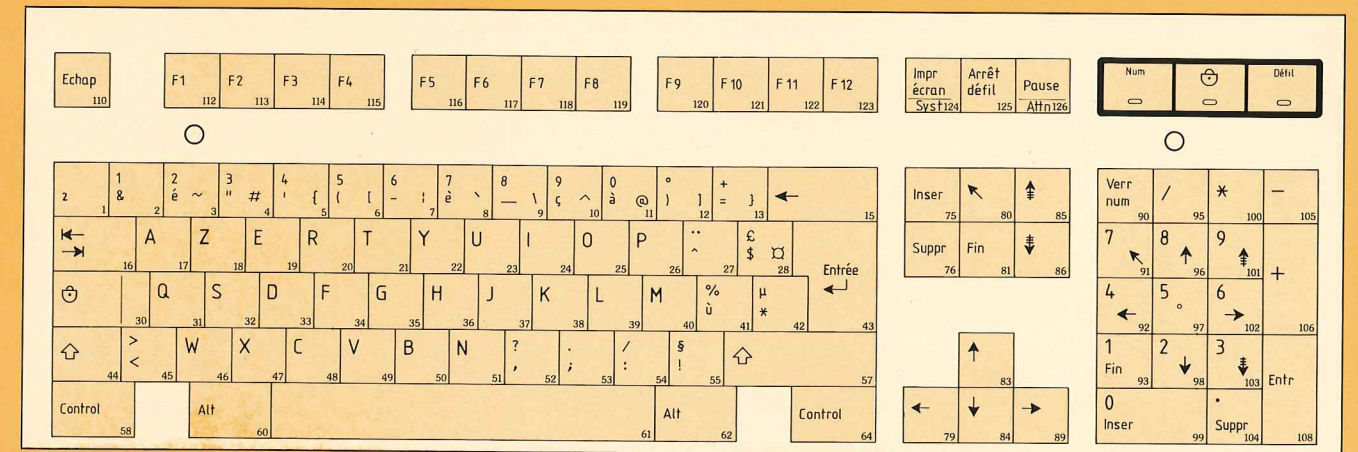
### US-English Layout



### German Layout



### French Layout





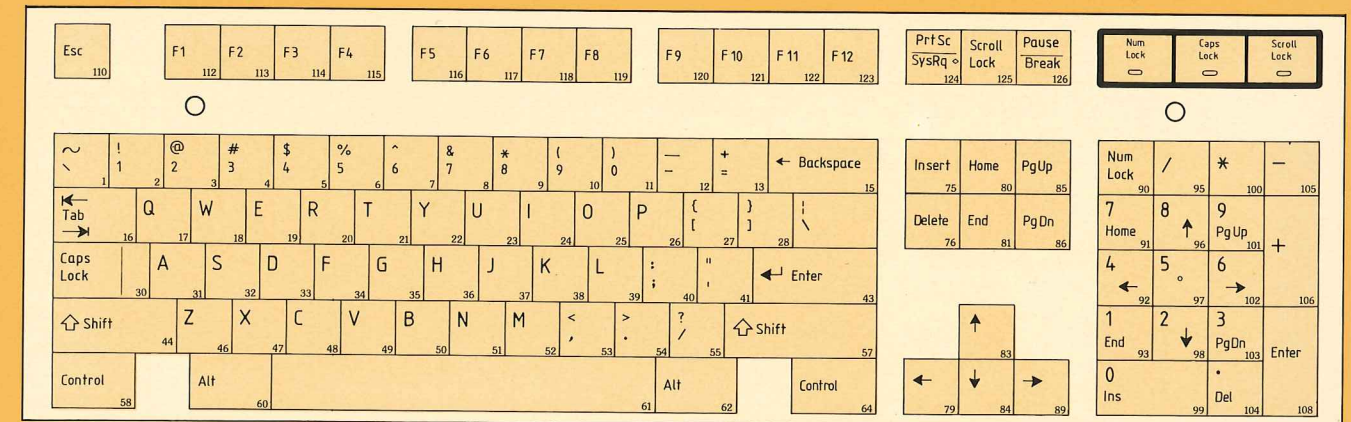


### ASCII-Codes "US-English"

Key	Unsh	Shift	Ctrl	ShCo	Num	NumSh	Caps	CapSh	CaNum	CaNuSh
1	60	7E	60	FE	60	7E	60	7E	60	7E
2	31	21	31	FB	31	21	31	21	31	21
3	32	40	32	FD	32	40	32	40	32	40
4	33	23	33	FC	33	23	33	23	33	23
5	34	24	34	FA	34	24	34	24	34	24
6	35	25	35	F9	35	25	35	25	35	25
7	36	5E	36	F8	36	5E	36	5E	36	5E
8	37	26	37	7B	37	26	37	26	37	26
9	38	2A	38	5B	38	2A	38	2A	38	2A
10	39	28	39	5D	39	28	39	28	39	28
11	30	29	30	7D	30	29	30	29	30	29
12	2D	5F	2D	5C	2D	5F	2D	5F	2D	5F
13	3D	2B	3D	F7	3D	2B	3D	2B	3D	2B
14	---	---	---	---	---	---	---	---	---	---
15	08	08	08	F6	08	08	08	08	08	08
16	09	0B	09	F5	09	0B	09	0B	09	0B
17	71	51	11	40	71	71	51	71	51	71
18	77	57	17	F4	77	77	57	77	57	77
19	65	45	05	F3	65	65	45	65	45	65
20	72	52	12	F2	72	72	52	72	52	72
21	74	54	14	F1	74	74	54	74	54	74
22	79	59	1A	F0	79	79	59	79	59	79
23	75	55	15	EF	75	75	55	75	55	75
24	69	49	09	EE	69	69	49	69	49	69
25	6F	4F	0F	ED	6F	6F	4F	6F	4F	6F
26	70	50	10	EC	70	70	50	70	50	70
27	5B	7B	1D	EB	5B	7B	5B	7B	5B	7B
28	5D	7D	2B	7E	5D	7D	5D	7D	5D	7D
29	5C	7C	00	7C	5C	7C	5C	7C	5C	7C
30	---	---	---	---	---	---	---	---	---	---
31	61	42	01	EA	61	61	41	61	41	61
32	73	53	13	E9	73	73	53	73	53	73
33	64	44	04	E8	64	64	44	64	44	64
34	66	46	06	E7	66	66	46	66	46	66
35	67	47	07	E5	67	67	47	67	47	67
36	68	48	08	E4	68	68	48	68	48	68
37	6A	4A	0A	E3	6A	6A	4A	6A	4A	6A
38	6B	4B	0B	E2	6B	6B	4B	6B	4B	6B
39	6C	4C	0C	E1	6C	6C	4C	6C	4C	6C
40	3B	3A	1C	E0	3B	3B	3B	3A	3B	3A
41	27	22	1B	AF	27	27	27	22	27	22
42	---	---	---	---	---	---	---	---	---	---
43	0D	0D	0D	AC	0D	0D	0D	0D	0D	0D
44	---	---	---	---	---	---	---	---	---	---
45	---	---	---	---	---	---	---	---	---	---
46	7A	5A	19	AB	7A	5A	5A	7A	5A	7A
47	78	58	18	9F	78	58	58	78	58	78
48	63	43	03	9E	63	43	43	63	43	63
49	76	56	16	9D	76	56	56	76	56	76
50	62	42	02	9C	62	42	42	62	42	62
51	6E	4E	0E	9B	6E	4E	4E	6E	4E	6E
52	6D	4D	0D	E6	6D	4D	4D	6D	4D	6D
53	2C	3C	2C	3B	2C	3C	2C	3C	2C	3C
54	2E	3E	2E	3A	2E	3E	2E	3E	2E	3E
55	2F	3F	1F	1F	2F	3F	2F	3F	2F	3F
56	---	---	---	---	---	---	---	---	---	---
57	---	---	---	---	---	---	---	---	---	---
58	---	---	---	---	---	---	---	---	---	---
59	---	---	---	---	---	---	---	---	---	---
60	---	---	---	---	---	---	---	---	---	---
61	20	20	20	20	20	20	20	20	20	20
62	---	---	---	---	---	---	---	---	---	---
63	---	---	---	---	---	---	---	---	---	---
64	---	---	---	---	---	---	---	---	---	---
75	B0	B0	B0	B0	B0	B0	B0	B0	B0	B0
76	7F	7F	7F	7F	7F	7F	7F	7F	7F	7F
77	---	---	---	---	---	---	---	---	---	---
78	---	---	---	---	---	---	---	---	---	---

Key	Unsh	Shift	Ctrl	ShCo	Num	NumSh	Caps	CapSh	CaNum	CaNuSh
79	12	12	12	12	12	12	12	12	12	12
80	B7	B7	B7	B7	B7	B7	B7	B7	B7	B7
81	B1	B1	B1	B1	B1	B1	B1	B1	B1	B1
82	---	---	---	---	---	---	---	---	---	---
83	11	11	11	11	11	11	11	11	11	11
84	14	14	14	14	14	14	14	14	14	14
85	89	89	89	89	89	89	89	89	89	89
86	B3	B3	B3	B3	B3	B3	B3	B3	B3	B3
87	---	---	---	---	---	---	---	---	---	---
88	---	---	---	---	---	---	---	---	---	---
89	13	13	13	13	13	13	13	13	13	13
90	---	---	---	---	---	---	---	---	---	---
91	87	37	B7	---	37	B7	B7	37	37	B7
92	12	34	12	---	34	12	12	34	34	12
93	B1	31	B1	---	31	B1	B1	31	31	B1
94	---	---	---	---	---	---	---	---	---	---
95	2F	2F	2F	---	2F	2F	2F	2F	2F	2F
96	11	38	11	---	38	11	11	38	38	11
97	00	35	00	---	35	00	00	35	35	00
98	14	32	14	---	32	14	14	32	32	14
99	B0	30	B0	---	30	B0	B0	30	30	B0
100	2A	2A	2A	---	2A	2A	2A	2A	2A	2A
101	89	39	89	---	39	89	89	39	39	89
102	13	36	13	---	36	13	13	36	36	13
103	B3	33	B3	---	33	B3	B3	33	33	B3
104	7F	2E	7F	---	2E	7F	7F	2E	2E	7F
105	2D	2D	2D	---	2D	2D	2D	2D	2D	2D
106	2B	2B	2B	---	2B	2B	2B	2B	2B	2B
107	---	---	---	---	---	---	---	---	---	---
108	0D	0D	0D	---	0D	0D	0D	0D	0D	0D
109	---	---	---	---	---	---	---	---	---	---
110	1B	1B	1B	1B	1B	1B	1B	1B	1B	1B
111	---	---	---	---	---	---	---	---	---	---
112	D0	D0	D0	D0	D0	D0	D0	D0	D0	D0
113	D1	D1	D1	D1	D1	D1	D1	D1	D1	D1
114	D2	D2	D2	D2	D2	D2	D2	D2	D2	D2
115	D3	D3	D3	D3	D3	D3	D3	D3	D3	D3
116	D4	D4	D4	D4	D4	D4	D4	D4	D4	D4
117	D5	D5	D5	D5	D5	D5	D5	D5	D5	D5
118	D6	D6	D6	D6	D6	D6	D6	D6	D6	D6
119	D7	D7	D7	D7	D7	D7	D7	D7	D7	D7
120	D8	D8	D8	D8	D8	D8	D8	D8	D8	D8
121	D9	D9	D9	D9	D9	D9	D9	D9	D9	D9
122	DA	DA	DA	DA	DA	DA	DA	DA	DA	DA
123	DB	DB	DB	DB	DB	DB	DB	DB	DB	DB
124	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA
125	8B	8B	8B	8B	8B	8B	8B	8B	8B	8B
126	00	00	00	00	00	00	00	00	00	00

### US-English Layout



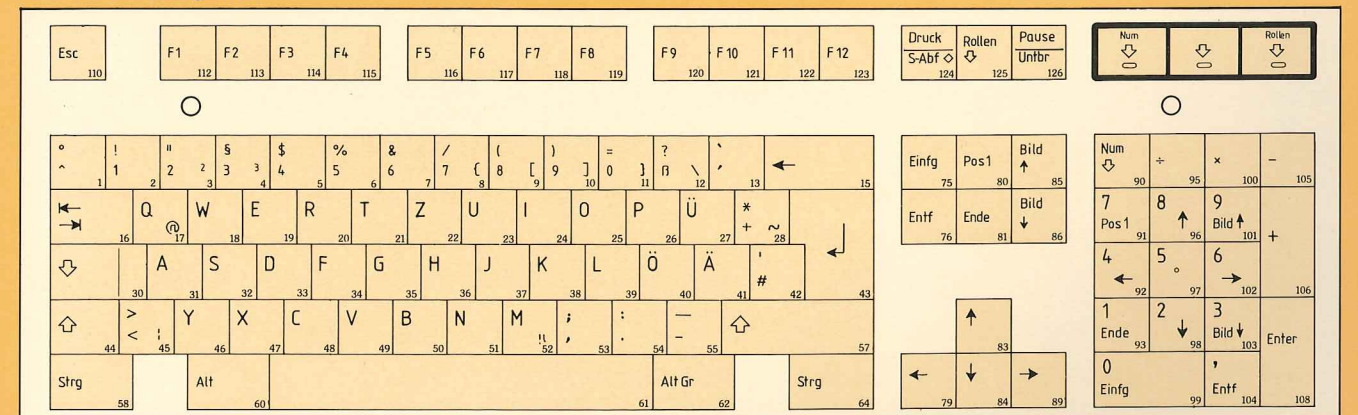


### ASCII-Codes "German"

Key	Unsh	Shift	Ctrl	ShCo	Num	NumSh	Caps	CapSh	CaNum	CaNuSh		
1	5E	F8	5E	FE	5E	F8	5E	F8	5E	F8		
2	31	21	31	FB	31	21	31	21	31	21		
3	32	22	32	FD	32	22	32	22	32	22		
4	33	15	33	FC	33	15	33	15	33	15		
5	34	24	34	FA	34	24	34	24	34	24		
6	35	25	35	F9	35	25	35	25	35	25		
7	36	26	36	F8	36	26	36	26	36	26		
8	37	2F	37	7B	37	2F	37	2F	37	2F		
9	38	28	38	5B	38	28	38	28	38	28		
10	39	29	39	5D	39	29	39	29	39	29		
11	30	3D	30	7D	30	3D	30	3D	30	3D		
12	E1	3F	E1	5C	E1	3F	E1	3F	E1	3F		
13	27	60	27	F7	27	60	27	60	27	60		
14	---	---	---	---	---	---	---	---	---	---		
15	08	08	08	F6	08	08	08	08	08	08		
16	09	0B	09	F5	09	0B	09	0B	09	0B		
17	71	51	11	40	71	51	51	71	51	71		
18	77	57	17	F4	77	57	57	77	57	77		
19	65	45	05	F3	65	45	45	65	45	65		
20	72	52	12	F2	72	52	52	72	52	72		
21	74	54	14	F1	74	54	54	74	54	74		
22	7A	5A	1A	F0	7A	5A	5A	7A	5A	7A		
23	75	55	15	EF	75	55	55	75	55	75		
24	69	49	09	EE	69	49	49	69	49	69		
25	6F	4F	0F	ED	6F	4F	4F	6F	4F	6F		
26	70	50	10	EC	70	50	50	70	50	70		
27	81	9A	1D	EB	81	9A	9A	81	9A	81		
28	2B	2A	2B	7E	2B	2A	2B	2A	2B	2A		
29	---	---	---	---	---	---	---	---	---	---		
30	---	---	---	---	CAPS LOCK						---	---
31	61	41	01	EA	61	41	41	61	41	61		
32	73	53	13	E9	73	53	53	73	53	73		
33	64	44	04	E8	64	44	44	64	44	64		
34	66	46	06	E7	66	46	46	66	46	66		
35	67	47	07	E5	67	47	47	67	47	67		
36	68	48	08	E4	68	48	48	68	48	68		
37	6A	4A	0A	E3	6A	4A	4A	6A	4A	6A		
38	6B	4B	0B	E2	6B	4B	4B	6B	4B	6B		
39	6C	4C	0C	E1	6C	4C	4C	6C	4C	6C		
40	94	99	1C	E0	94	99	99	94	99	94		
41	84	8E	1B	AF	84	8E	8E	84	8E	84		
42	23	27	1E	AE	23	27	27	23	27	23		
43	0D	0D	0D	AC	0D	0D	0D	0D	0D	0D		
44	---	---	---	---	SHIFT LEFT						---	---
45	3C	3E	00	7C	3C	3E	3E	3C	3E	3C		
46	79	59	19	AB	79	59	59	79	59	79		
47	78	58	18	9F	78	58	58	78	58	78		
48	63	43	03	9E	63	43	43	63	43	63		
49	76	56	16	9D	76	56	56	76	56	76		
50	62	42	02	9C	62	42	42	62	42	62		
51	6E	4E	0E	9B	6E	4E	4E	6E	4E	6E		
52	6D	4D	0D	E6	6D	4D	4D	6D	4D	6D		
53	2C	3B	2C	3B	2C	3B	2C	3B	2C	3B		
54	2E	3A	2E	3A	2E	3A	2E	3A	2E	3A		
55	2D	5F	1F	1F	2D	5F	2F	5F	2D	5F		
56	---	---	---	---	---	---	---	---	---	---		
57	---	---	---	---	SHIFT RIGHT						---	---
58	---	---	---	---	CONTROL LEFT						---	---
59	---	---	---	---	---	---	---	---	---	---		
60	---	---	---	---	ALT LEFT						---	---
61	20	20	20	20	20	20	20	20	20	20		
62	---	---	---	---	ALT RIGHT						---	---
63	---	---	---	---	---	---	---	---	---	---		
64	---	---	---	---	CONTROL RIGHT						---	---
75	B0	B0	B0	B0	B0	B0	B0	B0	B0	B0		
76	7F	7F	7F	7F	7F	7F	7F	7F	7F	7F		
77	---	---	---	---	---	---	---	---	---	---		
78	---	---	---	---	---	---	---	---	---	---		

Key	Unsh	Shift	Ctrl	ShCo	Num	NumSh	Caps	CapSh	CaNum	CaNuSh		
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81	B1	B1	B1	B1	B1	B1	B1	B1	B1	B1		
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84	14	14	14	14	14	14	14	14	14	14		
85	89	89	89	89	89	89	89	89	89	89		
86	B3	B3	B3	B3	B3	B3	B3	B3	B3	B3		
87	---	---	---	---	---	---	---	---	---	---		
88	---	---	---	---	---	---	---	---	---	---		
89	13	13	13	13	13	13	13	13	13	13		
90	---	---	---	---	NUM LOCK						---	---
91	87	37	B7	---	37	B7	B7	37	37	B7		
92	12	34	12	---	34	12	12	34	34	12		
93	B1	31	B1	---	31	B1	B1	31	31	B1		
94	---	---	---	---	---	---	---	---	---	---		
95	2F	2F	2F	---	2F	2F	2F	2F	2F	2F		
96	11	38	11	---	38	11	11	38	38	11		
97	00	35	00	---	35	00	00	35	35	00		
98	14	32	14	---	32	14	14	32	32	14		
99	B0	30	B0	---	30	B0	B0	30	30	B0		
100	2A	2A	2A	---	2A	2A	2A	2A	2A	2A		
101	89	39	89	---	39	89	89	39	39	89		
102	13	36	13	---	36	13	13	36	36	13		
103	B3	33	B3	---	33	B3	B3	33	33	B3		
104	7F	2C	7F	---	2C	7F	7F	2C	2C	7F		
105	2D	2D	2D	---	2D	2D	2D	2D	2D	2D		
106	2B	2B	2B	---	2B	2B	2B	2B	2B	2B		
107	---	---	---	---	---	---	---	---	---	---		
108	0D	0D	0D	---	0D	0D	0D	0D	0D	0D		
109	---	---	---	---	---	---	---	---	---	---		
110	1B	1B	1B	1B	1B	1B	1B	1B	1B	1B		
111	---	---	---	---	---	---	---	---	---	---		
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114	D2	D2	D2	D2	D2	D2	D2	D2	D2	D2		
115	D3	D3	D3	D3	D3	D3	D3	D3	D3	D3		
116	D4	D4	D4	D4	D4	D4	D4	D4	D4	D4		
117	D5	D5	D5	D5	D5	D5	D5	D5	D5	D5		
118	D6	D6	D6	D6	D6	D6	D6	D6	D6	D6		
119	D7	D7	D7	D7	D7	D7	D7	D7	D7	D7		
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123	DB	DB	DB	DB	DB	DB	DB	DB	DB	DB		
124	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA		
125	8B	8B	8B	8B	8B	8B	8B	8B	8B	8B		
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### German Layout





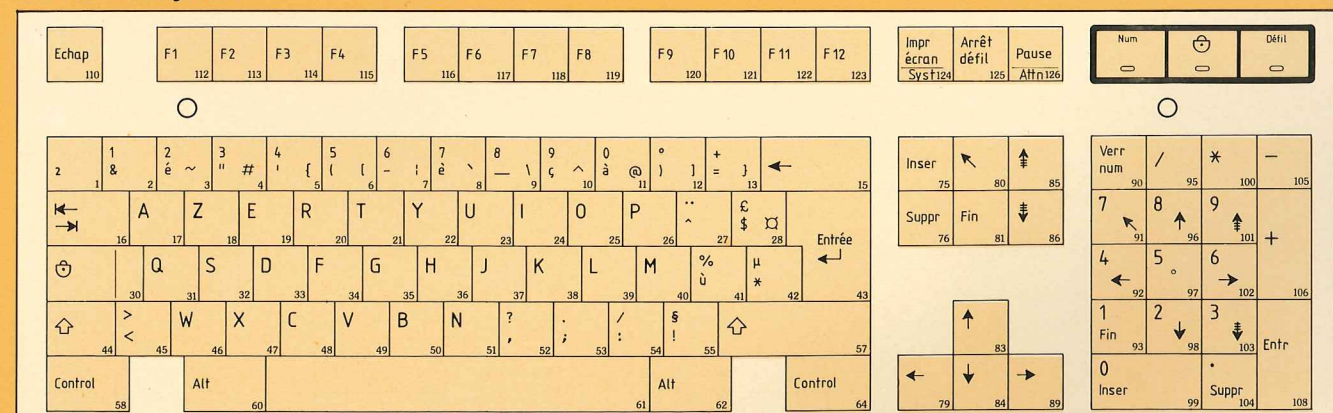


### ASCII-Codes "French"

Key	Unsh	Shift	Ctrl	ShCo	Num	NumSh	Caps	CapSh	CaNum	CaNuSh		
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2	26	31	31	FE	26	31	26	31	26	31		
3	82	32	32	7E	82	32	82	32	82	32		
4	22	33	33	23	22	33	22	33	22	33		
5	27	34	34	7B	27	34	27	34	27	34		
6	28	35	35	5B	28	35	28	35	28	35		
7	2D	36	36	76	2D	36	2D	36	2D	36		
8	8A	37	37	27	8A	37	8A	37	8A	37		
9	5F	38	38	5C	5F	38	5F	38	5F	38		
10	80	39	39	5E	80	39	80	39	80	39		
11	85	30	30	40	85	30	85	30	85	30		
12	29	F8	F8	5D	29	F8	29	F8	29	F8		
13	3D	2B	2B	7D	3D	2B	3D	2B	3D	2B		
14	---	---	---	---	---	---	---	---	---	---		
15	08	08	08	FC	08	08	08	08	08	08		
16	09	0B	09	FB	09	0B	09	0B	09	0B		
17	61	41	01	FA	61	41	61	41	61	41		
18	7A	5A	1A	F9	7A	5A	7A	5A	7A	5A		
19	65	45	05	F8	65	45	65	45	65	45		
20	72	52	12	F7	72	52	72	52	72	52		
21	74	54	14	F6	74	54	74	54	74	54		
22	79	59	19	F5	79	59	79	59	79	59		
23	75	55	15	F4	75	55	75	55	75	55		
24	69	49	09	F3	69	49	69	49	69	49		
25	6F	4F	0F	F2	6F	4F	6F	4F	6F	4F		
26	70	50	10	F1	70	50	70	50	70	50		
27	5E	7E	1D	F0	5E	7E	5E	7E	5E	7E		
28	24	9C	1F	EF	24	9C	24	9C	24	9C		
29	---	---	---	---	---	---	---	---	---	---		
30	---	---	---	---	CAPS LOCK						---	---
31	71	51	11	ED	71	51	71	51	71	51		
32	73	53	13	EC	73	53	73	53	73	53		
33	64	44	04	EB	64	44	64	44	64	44		
34	66	46	06	EA	66	46	66	46	66	46		
35	67	47	07	E9	67	47	67	47	67	47		
36	68	48	08	E8	68	48	68	48	68	48		
37	6A	4A	0A	E7	6A	4A	6A	4A	6A	4A		
38	6B	4B	0B	E6	6B	4B	6B	4B	6B	4B		
39	6C	4C	0C	E5	6C	4C	6C	4C	6C	4C		
40	6D	4D	0D	E4	6D	4D	6D	4D	6D	4D		
41	97	25	1C	E3	97	25	97	25	97	25		
42	2A	E6	1E	E2	2A	E6	2A	E6	2A	E6		
43	0D	0D	0D	EE	0D	0D	0D	0D	0D	0D		
44	---	---	---	---	SHIFT LEFT						---	---
45	3C	3E	00	E1	3C	3E	3C	3E	3C	3E		
46	77	57	17	E0	77	57	77	57	77	57		
47	78	58	18	AF	78	58	78	58	78	58		
48	63	43	03	AE	63	43	63	43	63	43		
49	76	56	16	AD	76	56	76	56	76	56		
50	62	42	02	AC	62	42	62	42	62	42		
51	6E	4E	0E	AB	6E	4E	6E	4E	6E	4E		
52	2C	3F	2C	9E	2C	3F	2C	3F	2C	3F		
53	3B	2E	3B	9D	3B	2E	3B	2E	3B	2E		
54	3A	2F	3A	9C	3A	2F	3A	2F	3A	2F		
55	21	15	33	9B	21	15	21	15	21	15		
56	---	---	---	---	---	---	---	---	---	---		
57	---	---	---	---	SHIFT RIGHT						---	---
58	---	---	---	---	CONTROLL LEFT						---	---
59	---	---	---	---	---	---	---	---	---	---		
60	---	---	---	---	ALT LEFT						---	---
61	20	20	20	20	20	20	20	20	20	20		
62	---	---	---	---	ALT RIGHT						---	---
63	---	---	---	---	---	---	---	---	---	---		
64	---	---	---	---	CONTROL RIGHT						---	---
75	B0	B0	B0	B0	B0	B0	B0	B0	B0	B0		
76	7F	7F	7F	7F	7F	7F	7F	7F	7F	7F		
77	---	---	---	---	---	---	---	---	---	---		
78	---	---	---	---	---	---	---	---	---	---		

Key	Unsh	Shift	Ctrl	ShCo	Num	NumSh	Caps	CapSh	CaNum	CaNuSh		
79	12	12	12	12	12	12	12	12	12	12		
80	B7	B7	B7	B7	B7	B7	B7	B7	B7	B7		
81	B1	B1	B1	B1	B1	B1	B1	B1	B1	B1		
82	---	---	---	---	---	---	---	---	---	---		
83	11	11	11	11	11	11	11	11	11	11		
84	14	14	14	14	14	14	14	14	14	14		
85	89	89	89	89	89	89	89	89	89	89		
86	B3	B3	B3	B3	B3	B3	B3	B3	B3	B3		
87	---	---	---	---	---	---	---	---	---	---		
88	---	---	---	---	---	---	---	---	---	---		
89	13	13	13	13	13	13	13	13	13	13		
90	---	---	---	---	NUM LOCK						---	---
91	87	37	B7	---	37	B7	B7	37	37	B7		
92	12	34	12	---	34	12	12	34	34	12		
93	B1	31	B1	---	31	B1	B1	31	31	B1		
94	---	---	---	---	---	---	---	---	---	---		
95	2F	2F	2F	---	2F	2F	2F	2F	2F	2F		
96	11	38	11	---	38	11	11	38	38	11		
97	00	35	00	---	35	00	00	35	35	00		
98	14	32	14	---	32	14	14	32	32	14		
99	B0	30	B0	---	30	B0	B0	30	30	B0		
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101	89	39	89	---	39	89	89	39	39	89		
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103	B3	33	B3	---	33	B3	B3	33	33	B3		
104	7F	2E	7F	---	2E	7F	7F	2E	2E	7F		
105	2D	2D	2D	---	2D	2D	2D	2D	2D	2D		
106	2B	2B	2B	---	2B	2B	2B	2B	2B	2B		
107	---	---	---	---	---	---	---	---	---	---		
108	0D	0D	0D	---	0D	0D	0D	0D	0D	0D		
109	---	---	---	---	---	---	---	---	---	---		
110	1B	1B	1B	1B	1B	1B	1B	1B	1B	1B		
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112	D0	D0	D0	D0	D0	D0	D0	D0	D0	D0		
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120	D8	D8	D8	D8	D8	D8	D8	D8	D8	D8		
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122	DA	DA	DA	DA	DA	DA	DA	DA	DA	DA		
123	DB	DB	DB	DB	DB	DB	DB	DB	DB	DB		
124	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA		
125	8B	8B	8B	8B	8B	8B	8B	8B	8B	8B		
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### French Layout

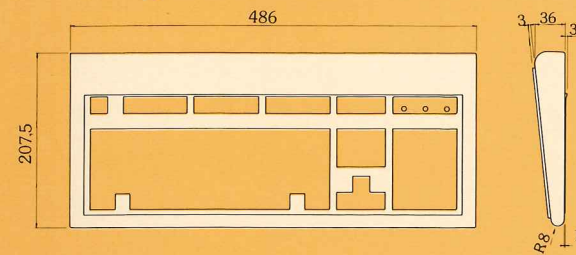




## Ordering Code

US-English	German	French
G80-1220 HAU	G80-1220 HAD	G80-1220 HAF

## Housing Dimensions



## Housing



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(Esquina Roger de Flor)  
Barcelona 25  
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Telefax: 032074835

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Taipei  
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Telex: 14046  
Telefax: 2 - 507 - 9101

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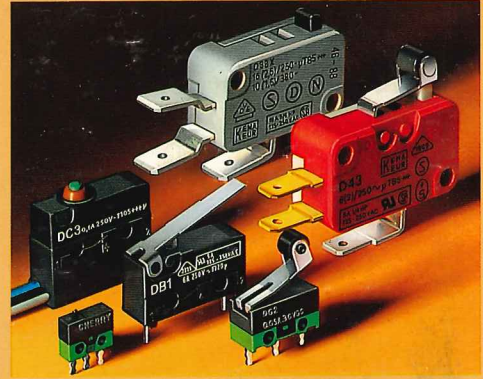
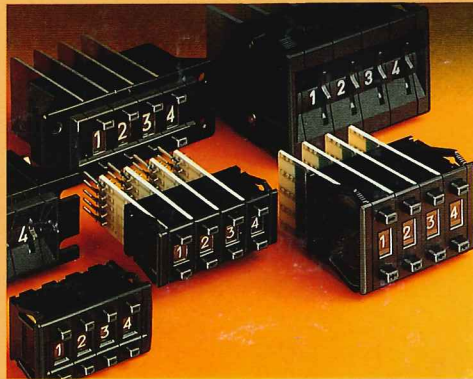
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