PFAFF

3568 -1/22

-12/22

Service manual for control

Needle to center of folder is 650 mm Needle to center of the folder on the 3588 is 750 mm.

Max. sewing is 250 mm X and 220 mm Y.□

Max. sewing on tghe 3588 is 250 mm X and 250 mm Y

296-12-17 449
Service handbook controls and electrical diagrams engl. 09.95

Notes on safety

- The machine must only be commissioned in full knowledge of the instruction manual and operated by persons with appropriate training.

- Before putting into service also read the safety notes and the instruction manual of the motor supplier.

- The machine must be used only for the purpose intended.
  Use of the machine without the safety devices is not permitted.
  Observe all the relevant safety regulations.

- When gauge parts are exchanged (e.g. needle, presser foot, needle plate, feed dog and bobbin) when threading, when the workplace is left, and during service work, the machine must be disconnected from the mains by switching off the main switch or disconnecting the mains plug.

- On mechanically operated clutch motors without start inhibitor it is necessary to wait until the motor has stopped.

- General servicing work must be carried out only by appropriately trained persons.

- Repairs, conversion and special maintenance work must only be carried out by technicians or persons with appropriate training.

- For service or repair work on pneumatic systems the machine must be disconnected from the compressed air supply system.
  Exceptions to this are only adjustments and function checks made by appropriately trained technicians.

- Work on the electrical equipment must be carried out only by electricians or appropriately trained persons.

- Work on parts and systems under electric current is not permitted, except as specified in regulations EN 50110.

- Conversions or changes to the machine must be made only in adherence to all safety regulations.

- For repairs, only replacement parts approved by us must be used.

- Comissioning of the sewing head is prohibited until such time as the entire sewing unit is found to comply with EC regulations.

Meanings of the symbols:

Danger spot!

Items requiring special attention.

Danger of injury to operative

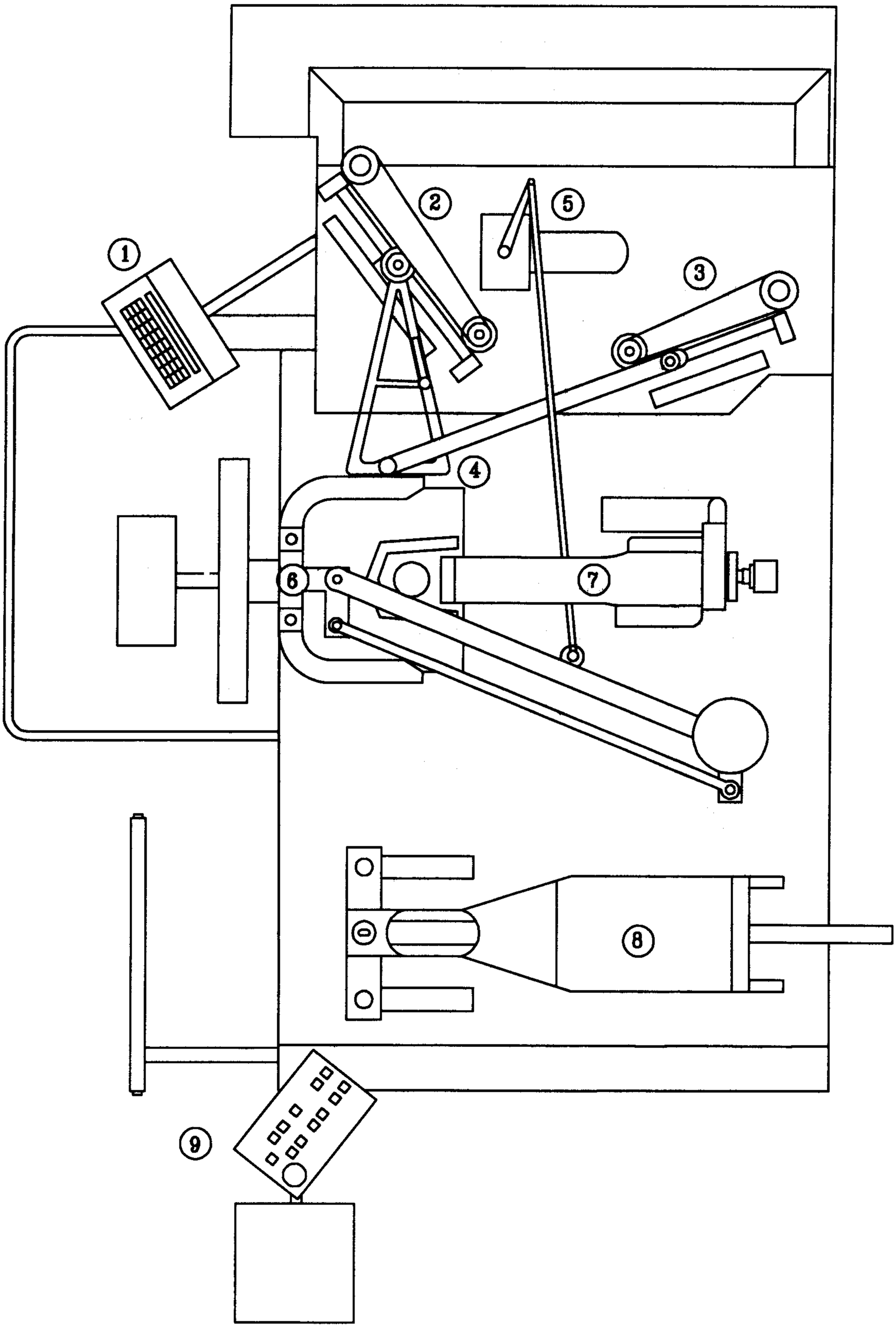
service staff.

Be sure to observe and adhere to these notes!

Contents:

1 General information

1.1 The machine



Number	Name
1	input control-panel
2	carriage drive X-axis
3	carriage drive Y-axis
4	switch to sewing
5	jig feed
6	switch to feed
7	sewing station
8	folding station
9	folder control-panel

(see diagram previous page)

1.2 The operating modes Automatic, Manual and Input

When operating the machine a distinction must be made between the operating modes Automatic, Manual and Input . You can change from operating mode to operating mode by pressing the relevant keys on the control panels (The Input operating mode is only possible on the input control-panel).
When working within an operating mode, only certain functions are permissable. You may have to change to another operating mode in order to carry out other functions.

1.2.1 Automatic operating mode:

- start
- stop
- home position X/Y carriages
- home position folder
- changing bobbins, stacker forward/back
- presser foot up/down
- cycling (seam construction)
- Error reset
- label feeder
- Program stations A and B

1.2.2 Manual operating mode:

In addition to the automatic operating mode

- step by step (folder)

is also possible.

The start keys start only the sewing operation

1.2.3 Input operating mode:

See Input - brief description

2 Control panels / Pictograms

2.1 Pictogram of the input control-panel

To optimize its operation, the machine is equipped with two different control panels. One control panel (folder control-panel) is situated at the folding station and contains all of the keys which are necessary for the normal sewing operations. A second control panel (input control-panel) is situated on the front of the machine and is mainly used for setting up the machine.

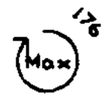
A second, separate control panel is necessary (program control-panel) for programming. The description of this control panel can be found in a separate booklet for programming.

Following is a list of pictograms of the individual control panels and their uses.

2.2 Input control-panel

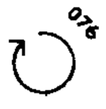
1 Statusline

Program number

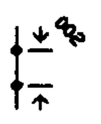


Maximum speed

Template code



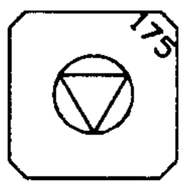
Actual speed



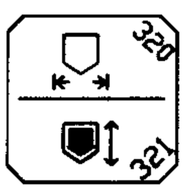
Stitch length

Unit counter

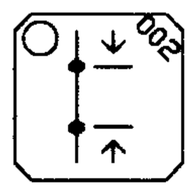
2 Buttons



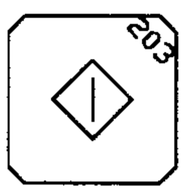
stop



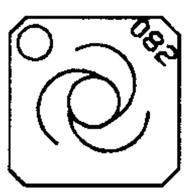
switch to sewing:
feed forward/back
switch to feed:
jig up/down



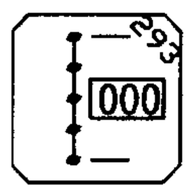
alter stitch



start

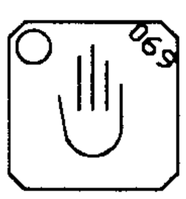


automatic mode

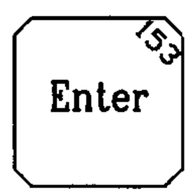


reset bobbin-thread
stitch-counter

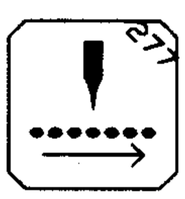
presser foot up/down



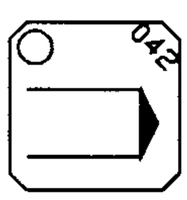
manual mode



confirm input

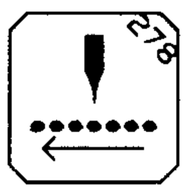


cycle forwards

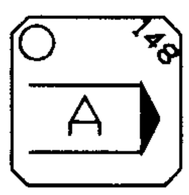


input mode

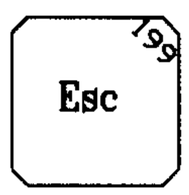
erase input



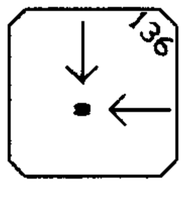
cycle back



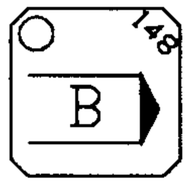
program-station A



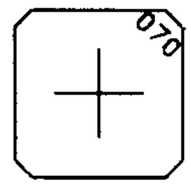
quit input



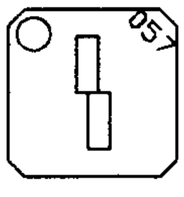
home position
carriages an sewing



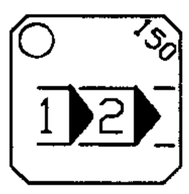
program-station B



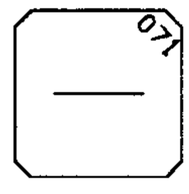
forward roll function



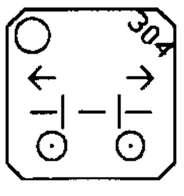
error reset



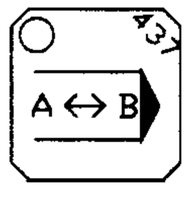
select program
numbers



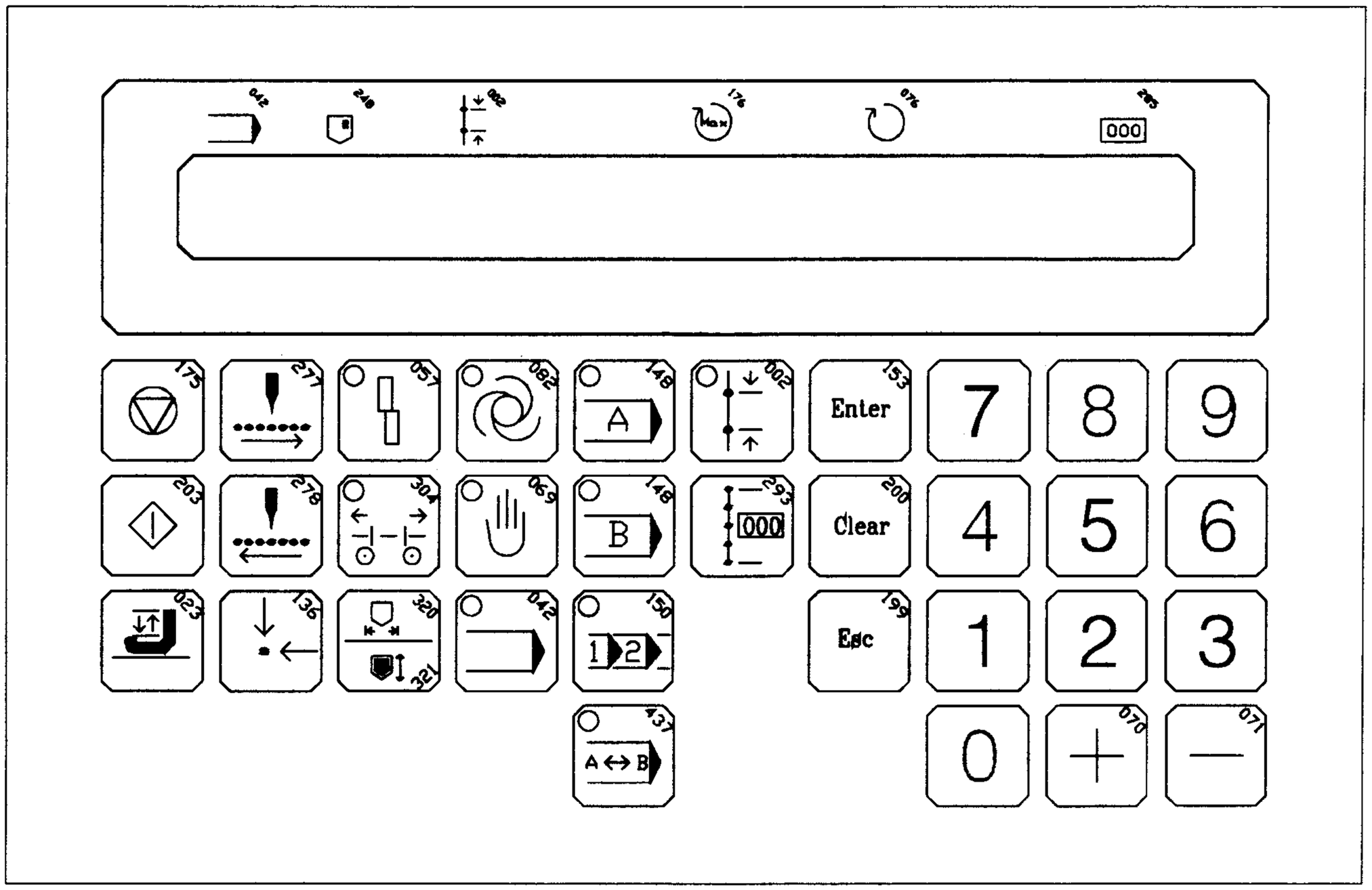
backward roll function



change bobbin from
above
or
stacker forwards/back



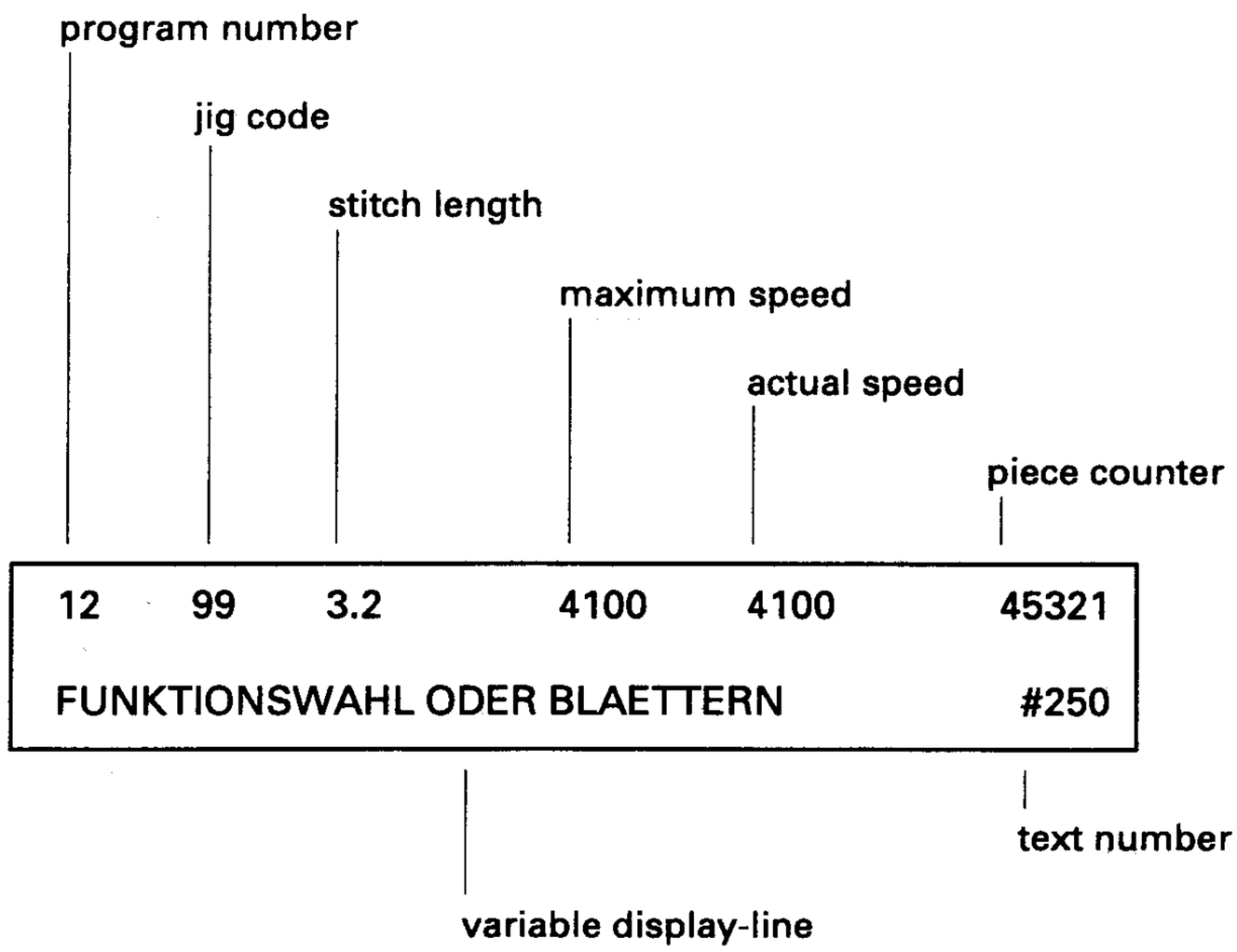
utomatic
program change
A - B


042
240
002
176
076
265
000
175
027
057
062
148
A
002
Enter
153
7
8
9
203
278
304
069
148
B
293
000
Clear
200
4
5
6
023
136
320
321
042
150
1
2
Esc
199
1
2
3
437
A ↔ B
0
070
+
071
—

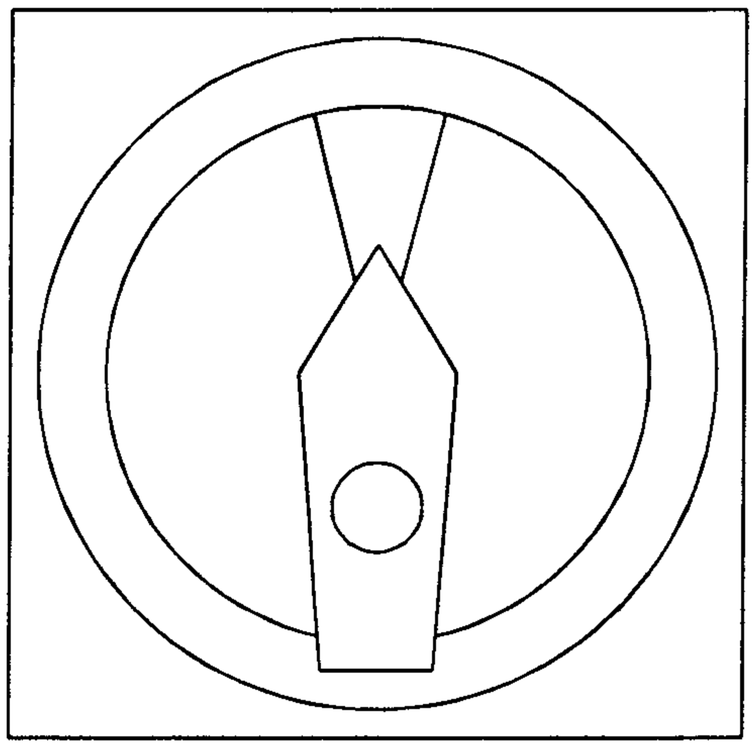
2.3 The display

The display consists of a two line LCD (Liquid Crystal Display). In the first line the various data-status indicators are displayed, such as: program number, jig code, stitch length, maximum speed, actual speed and unit counter. This status line remains displayed.
In the second line the various texts are displayed, such as for example error messages and the input cursor etc. This line has a text number which allows the clear classification of the display texts in the various languages.

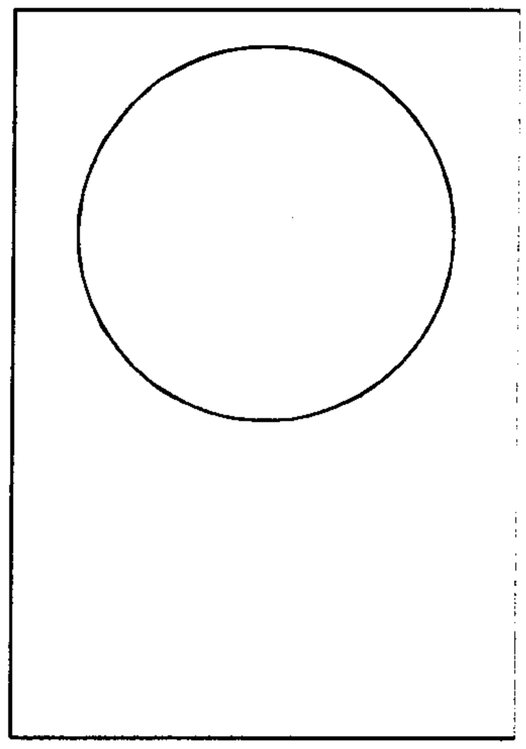
display diagram



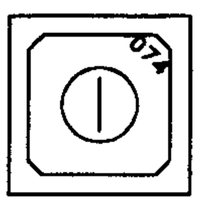
2.4 Folder control-panel



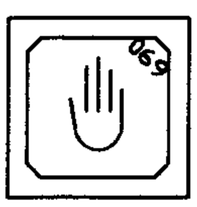
on/off switch (under the control panel)



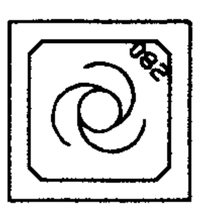
emergency stop



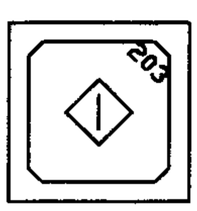
control on



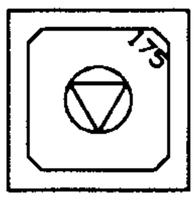
manual mode



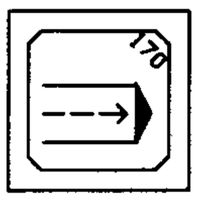
automatic mode



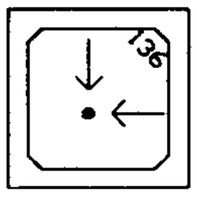
start



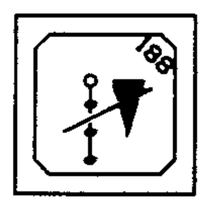
stop



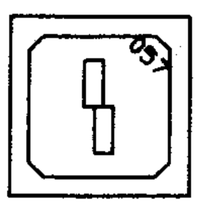
step-by-step folder



home position folder

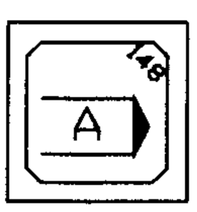


don't sew

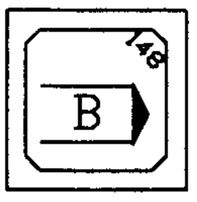


error reset

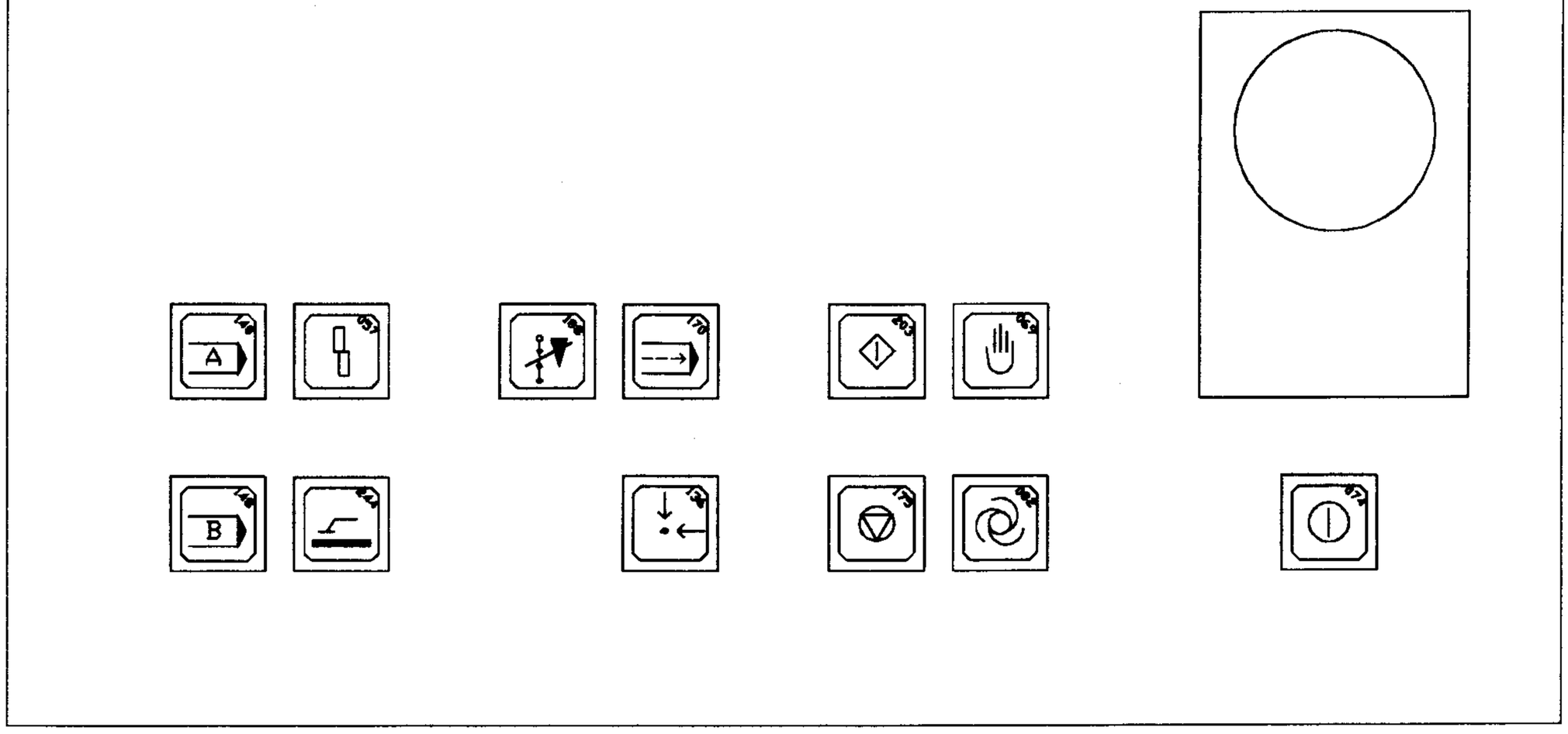
label



program station A



program station B


A
B

3 Input - brief description

In the input mode a distinction must be made between directly selectable functions and functions which can only be selected via the menu. Directly selectable functions have their own keys and can be selected by pressing these keys.

The directly selectable functions are:
- program station A
- program station B
- select program numbers (station programming)
- automatic program change
- alter stitch length
- reset bobbin-thread stitch-counter

Other functions can be selected via the menus (see overview of the menu functions). There are two menu levels.

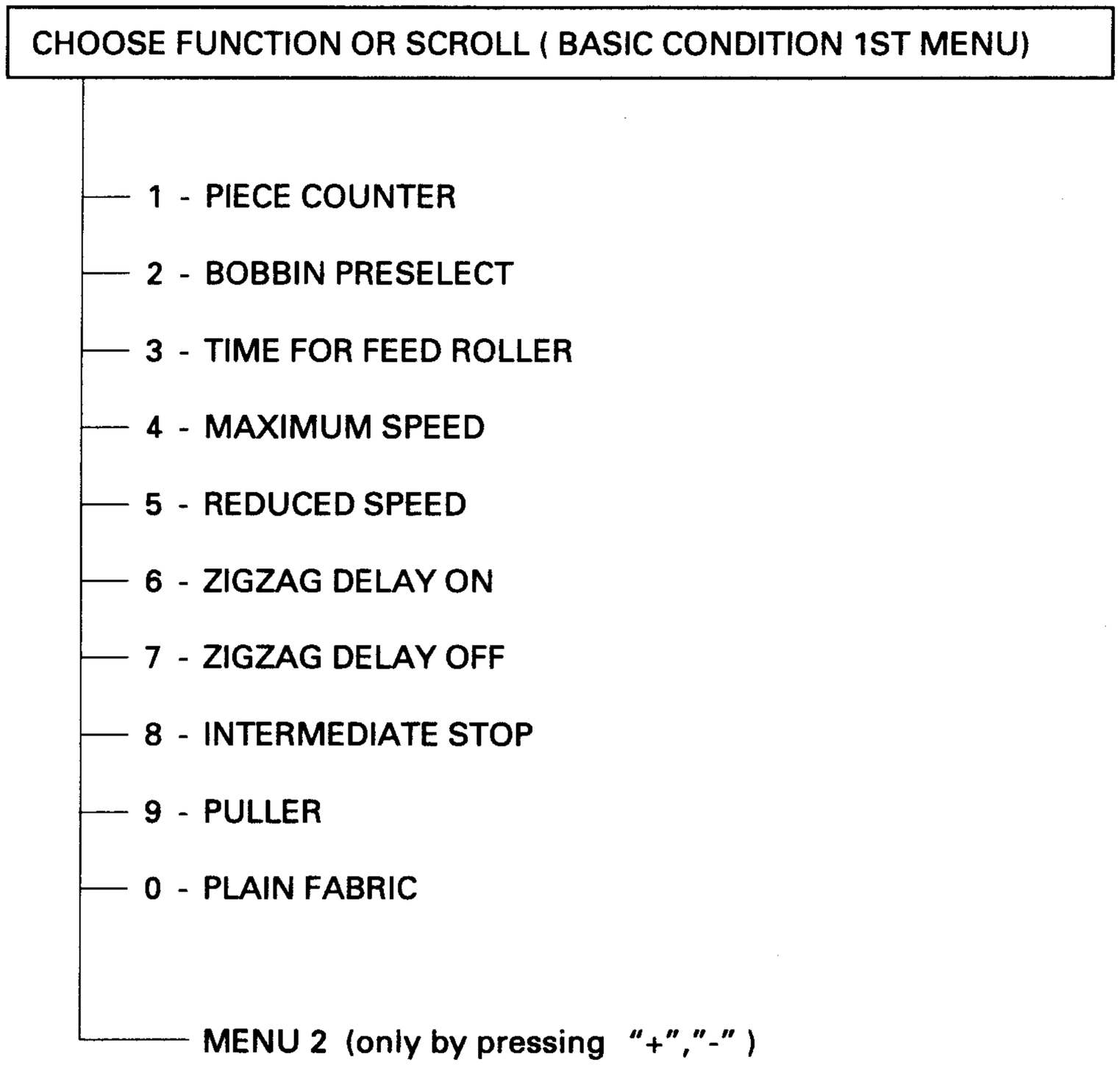
1. Menu level 1 (1st menu)

The frequently required functions are stored in this menu level. Sub functions cannot be selected from here (except entry into the 2nd menu level).

2. Menu level 2 (2nd menu)

The less frequently required functions are stored in this menu level. These functions are subdivided into main functions and sub functions.
Select function or scroll (Basic condition 1st menu)

3.1 Overview of the functions - Menu 1



3.2 Overview of the functions - Menus 1+2

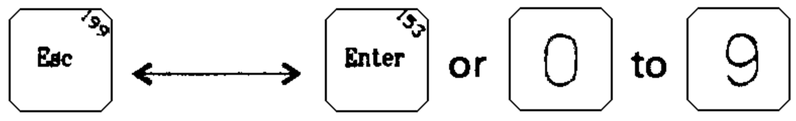
- CHOOSE FUNCTION OR SCROLL (BASIC CONDITION 1ST MENU)
  - 1 - PIECE COUNTER
  - 2 - BOBBIN PRESELECT
  - 3 - TIME FOR FEED ROLLER
  - 4 - MAXIMUM SPEED
  - 5 - REDUCED SPEED
  - 6 - ZIGZAG DELAY ON
  - 7 - ZIGZAG DELAY OFF
  - 8 - INTERMEDIATE STOP
  - 9 - PULLER
  - 0 - PLAIN FABRIC
  - 2. MENU (ONLY BY PRESSING "+","-")

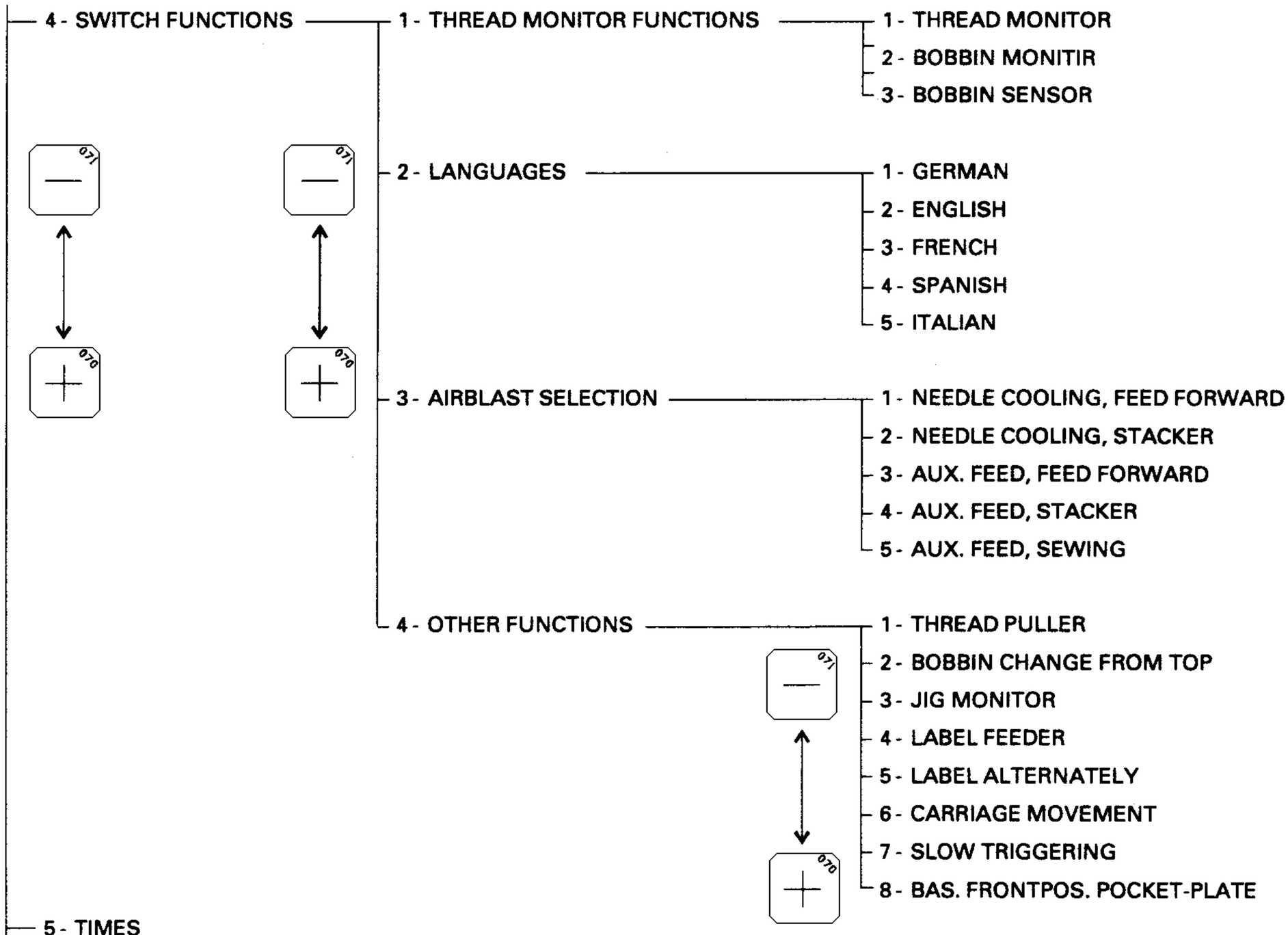
- 2. MENU
  - 1 PROGRAM MANAGEMENT
    - 1 - PROGRAM DIRECTORY
      - 1 - MEMORY DIRECTORY
      - 2 - DISK DIRECTORY
    - 2 - READ PROGRAM FROM DISK
      - 1 - READ ONE PROGRAM FROM DISK
      - 2 - READ ALL PROGRAMS FROM DISK
    - 3 - DELETE PROGRAM
      - 1 - DELETE ONE PROGRAM (MEMORY)
      - 2 - DELETE ALL PROGRAMS (MEMORY)
      - 3 - DELETE ONE PROGRAM (DISK)
      - 4 - DELETE ALL PROGRAMS (DISK)
    - 4 - WRITE PROGRAM ON DISK
      - 1 - WRITE ONE PROGRAM ON DISK
      - 2 - WRITE ALL PROGRAMS ON DISK
    - 5 - STATISTICAL PROGRAM DATA
    - 6 - FORMATTING DISK (DELETE)
    - 7 - DATA TRANSFER WITH PC
  - 2 - SEAM PATTERN PROGR. / CORRECTION
  - 3 - COUNTERS
    - 1 - REM. STITCH COUNT, NDL.THR. MON.
    - 2 - REM. STITCH COUNT, BOBBIN THR.MON
    - 3 - MONITORING STICHES, NDL.THR.MON.
    - 4 - AUTOMATIC STITCH REVERSE
    - 5 - SLOW STARTING STITCHES
    - 6 - CARRIAGE START (NIF)
  - 4 - SWITCH FUNCTIONS
    - 1 - THREAD MONITOR FUNCTIONS
      - 1 - THREAD MONITOR
      - 2 - BOBBIN MONITIR
      - 3 - BOBBIN SENSOR
    - 2 - LANGUAGES
      - 1 - GERMAN
      - 2 - ENGLISH
      - 3 - FRENCH
      - 4 - SPANISH
      - 5 - ITALIAN
    - 3 - AIRBLAST SELECTION
      - 1 - NEEDLE COOLING, FEED FORWARD
      - 2 - NEEDLE COOLING, STACKER
      - 3 - AUX. FEED, FEED FORWARD
      - 4 - AUX. FEED, STACKER
      - 5 - AUX. FEED, SEWING
    - 4 - OTHER FUNCTIONS
      - 1 - THREAD PULLER
      - 2 - BOBBIN CHANGE FROM TOP
      - 3 - JIG MONITOR
      - 4 - LABEL FEEDER
      - 5 - LABEL ALTERNATELY
      - 6 - CARRIAGE MOVEMENT
      - 7 - SLOW TRIGGERING
      - 8 - BAS. FRONTPOS. POCKET-PLATE
  - 5 - TIMES
    - 1 - TIME FOR STACKER AIRBLAST
    - 2 - TIME FOR FABRIC FEED COVER
    - 3 - TIME FOR PULLER DOWN
    - 4 - TIME AFTER TABLE UP
    - 5 - TIME FOR EDGE FOLDERS BACK
    - 6 - TIME FOR FEED FORWARD
    - 7 - TIME FOR THREAD PULLER
  - 6 - SERVICE
    - 1 - SEWING MOTOR FUNCTIONS
      - 1 - SEWING MOTOR RUNNING
      - 2 - TRIMMER SPEED SELECTION
      - 3 - THREAD TRIMMING SEQUENCE
    - 2 - STEPPING MOTORS
      - 1 - STEPPING MOTOR X-AXIS
      - 2 - STEPPING MOTOR Y-AXIS
    - 3 - DISPLAY INPUTS
    - 4 - SET / RESET OUTPUTS
    - 5 - SET ZERO POINT
    - 6 - SOFTWARE DATE
    - 7 - COLD START

3.3 Moving within the menus

With the help of the keys "+" and "-" you can display all of the main functions and their function numbers. If a valid function number is selected, the input function for this function number can begin. Similarly, the currently displayed function can be selected with the "Enter" key.
Main functions can be divided into several sub functions and these into still more sub functions. All sub functions can be displayed and selected in the same way as main functions.
A main function or sub function that has already been selected can be stopped with the "ESC" key. Thus the superordinate program is returned to.

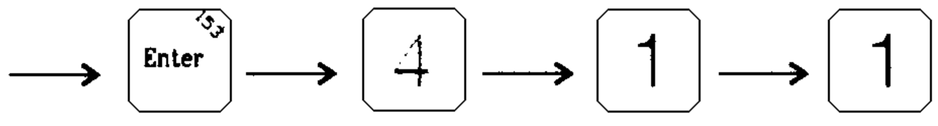
Diagram





E.G. Bobbin-thread-monitor selection from the home position

Press keys:



3.4 Menu 1

3.4.1 Piece counter

The piece counter informs as to the current daily production. The highest number which can be displayed is 65565. When this amount is surpassed, the counter recommences at 0. The current amount in the display can be zeroed by pressing the "CLEAR" key.

3.4.2 Bobbin preselect

The bobbin preselect allows the operator to stop the machine at the end of a seam pattern to change bobbins if the machines exceeds a given amount of stitches. When this function is selected, the current setting is displayed as a number of stitches. A new setting can then be selected.

3.4.3 Time for feed roller

This function selects the duration of the feed pull operation.

3.4.4 Maximum speed

This function sets the maximum speed level.

3.4.5 Reduced speed

This function sets the reduced speed level.

3.4.6 Zigzag delay on

This function allows the operator to delay the zigzag-on function. The input is made as a number of stitches for which the switching on of the valve is to be delayed.

3.4.7 Zigzag delay off

As for 3.4.6 but for zigzag-off.

3.4.8 Intermediate stop

This function allows the operator to interrupt the folding operation manually in order to carry out any corrections or applications etc. which may arise. This function can be switched on and off.

3.4.9 Puller

The Puller serves as a stacking aid for short pieces. If a puller is installed, it can be switched on and off with this function.

3.4.10 Plain fabric

If the plain fabric function is switched off, the pocket plate is disengaged by activating the foot switch and the folding process can be started by pressing the double start keys.
If the plain fabric function is on, the folding procedure is started directly by pressing the double start keys.

3.4.11 Menu 2

This function opens the 2nd menu level.

3.5 Menu 2

3.5.1 Program management

All of the sub functions which have to do with the organisation of sewing programs are listed under the main function "program management".

3.5.1.1 Program directory

This sub function calls up further sub functions in order to list the contents of the machine's memory or a disk.

3.5.1.1.1 Memory directory

This sub function lists the contents of the machine's memory.

3.5.1.1.2 Disk directory

This sub function lists the contents of a disk.

3.5.1.2 Read program from disk

This sub function allows further sub functions to be called up in order to load sewing programs from a disk into the machine's memory.

3.5.1.2.1 Read one program from disk

A selected program is copied into the machine's memory. Existing programs can be deleted if desired.

3.5.1.2.2 Read all programs from disk

All programs are copied from a disk into the machine's memory. Existing programs can be deleted if desired.

3.5.1.3 Delete program

This sub function, calls up further sub functions in order to delete programs.

3.5.1.3.1 Delete one program (memory)

This sub function deletes one selected program in the machine's memory.

3.5.1.3.2 Delete all programs (memory)

This sub function deletes all of the functions in the memory.

3.5.1.3.3 Delete one program (disk)

This sub function erases one program on disk.

3.5.1.3.4 Delete all programs (disk)

This sub function erases all of the programs on the disk (the disk is reformatted)

3.5.1.4 Write program on disk

This sub function calls up further sub functions in order to copy sewing programs from the machine memory onto disk.

3.5.1.4.1 Write one program on disk

A selected program is copied from the machine memory onto disk. Existing programs can be erased if desired.

3.5.1.4.2 Write all programs on disk

All programs are copied from the machine memory onto disk. Existing programs can be erased if desired.

3.5.1.5 Statistical program-data

The following statistical program-data are displayed:
- Number of stitches and program size in bytes
- Stitch length and obstacles
- Template code

3.5.1.6 Formatting disk (delete)

This sub function formats disks. All the data on the disk are thus erased.

3.5.1.7 Data transfer with PC

This sub function prepares the machine to communicate directly with a PC (personal computer) and the software SYS3000. For detailed information see the description System 3000.

3.5.2 Seam pattern progr./correction

This main function allows programs to be written or modified on the machine itself. A separate control panel is necessary. The programming is described in more detail in a separate booklet.

3.5.3 Counters

The main function "counters" allows the operator to program various function counters to suit his requirements. The various function counters are divided into sub functions.

3.5.3.1 Rem. stitch count, ndl.thr. mon.

The number of stitches can be entered for which the thread monitor is not considered when sewing on.

3.5.3.2 Rem. stitch count, bobbin thr. mon

The number of stitches can be entered for which the bobbin monitor is not considered when sewing on.

3.5.3.3 Monitoring stitches, ndl.thr.mon.

The number of stitches which must be completed before a needle-thread disturbance is recognized can be entered. A smaller number of stitches means a higher sensitivity level of the thread monitor and a larger number of stitches means a less sensitive needle-thread monitor.

3.5.3.4 Automatic stitch-reverse

The number of stitches which are to be reversed automatically in case of a needle-thread disturbance can be entered.

3.5.3.5 Slow starting stitches

The number of stitches which are to be carried out at a lower speed speed can be entered.

3.5.3.6 Carriage start (NIF)

The exact point in time of the carriage start (stepping motors) can be entered. This input is made in degrees after the needle t.d.c.

3.5.4 Switch functions

The main function "switch functions" switches a selection of machine functions on and off. The machine must of course be equipped with the required options.

3.5.4.1 Thread-monitor functions

Further sub functions are listed under this sub function in order to select the thread monitors.

3.5.4.1.1 Thread monitor

The thread monitor can be turned on and off.

3.5.4.1.2 Bobbin monitor

The bobbin monitor can be turned on and off. Here it is immaterial if the bobbin-thread monitor is reached via the stitch counting or the sensor.

3.5.4.1.3 Bobbin sensor

There are two types of bobbin monitor to choose from:
1. The bobbin monitor with stitch counter (Bobbin sensor off).
2. The bobbin monitor with sensor (Bobbin sensor on).

3.5.4.2 Languages

There are various languages which can be selected at any time by the operator. The languages available can be seen in the overview of the menu functions.

3.5.4.3 Airblastselection

There are a number of compressed air options to choose from which can be switched on and off.

3.5.4.3.1 Needle cooling, feed forward

3.5.4.3.2 Needle cooling, stacker

3.5.4.3.3 Aux. feed, feed forward

3.5.4.3.4 Aux. feed, stacker

3.5.4.3.5 Aux. feed, sewing

3.5.4.4 Other functions

This sub function contains a list of all of the sub functions which cannot be attributed to any of the above mentioned functions.

3.5.4.4.1 Thread puller

The thread puller option can be switched on or off.

3.5.4.4.2 Bobbin change from top

The bobbin change from top option can be switched on or off.

3.5.4.4.3 Jig monitor

The jig-monitor option can be switched on and off.

3.5.4.4.4 Label feeder

The label feeder option can be switched on and off.

3.5.4.4.5 Label alternately

When working within the label feeder mode, the process can be altered so that only every second pocket receives a label. This requires that the alternating label feeder mode be switched on.

3.5.4.4.6 Carriage movement

The type of carriage movement (stepping motors) can be set.
1. Carriage movement intermittent (continuous off)
2. Carriage movement continuous (continuous on)

3.5.4.4.7 Slow triggering

The movement speed from the machine's zero point to the sewing position can be set at slow or normal.

3.5.4.4.8 Bas. frontpos. pocket-plate

Either the basic front position can be selected for the pocket-plate (basic front postion pocket-plate on), or the basic back position (basic position pocket-plate off).

3.5.5 Times

The sub functions of the times which the operator can alter are listed under the main function "times".

3.5.5.1 Time for stacker airblast

The blast duration for the blast nozzles can be entered at the stacker.

3.5.5.2 Time for fabric feed cover

The time from folder on to folder off can be entered.

3.5.5.3 Time for puller down

The delay time between feed reverse (feed no longer forward) and puller off can be entered.

3.5.5.4 Time after table up

The duration of the delay of the folding process after switching to table on and the signal table at top being displayed.

3.5.5.5 Time for edge folders back

The duration of the delay between withdrawal of the slide and folder on can be entered.

3.5.5.6 Time for feed forward

The delay time between the pocket plate no longer being at the front and feed forward can be entered.

3.5.5.7 Time for thread puller

The switching time of the thread puller can be entered.

3.5.6 Service

Further sub functions are available under the main function service for testing the control and the machine. The service functions can be selected at any time.

3.5.6.1 Sewing motor functions

Further sub functions for testing the sewing motor are available under this sub function.

Attention:
Care must be taken to ensure that the needle can enter freely into the needle hole while this function is being carried out.
No locks are considered!

3.5.6.1.1 Sewing motor running

This function starts the sewing motor and stops it again. The speed can be preset and also altered while the motor is turning over.

3.5.6.1.2 Trimmer speed selection

This function presets the trimmer speed

3.5.6.1.3 Thread trimming sequence

The thread-trimmer cycle is triggered off by this function.

3.5.6.2 Stepping motors

Further sub functions for testing the stepping motors are available under this sub function.
The stepping motors are driven with a slow, constant frequency.

Attention:
Care must be taken to ensure that the movement of the carriage is not obstructed while this function is being carried out.
No locks are considered!

3.5.6.2.1 Stepping motor X-axis

The step-by-step motor of the X-axis can be driven. The motor rotates clockwise when the "+" key is pressed (seen on the motor flange).

3.5.6.2.2 Stepping motor Y-axis

The step-by-step motor of the Y-axis can be driven. The motor rotates clockwise when the "+" key is pressed (seen on the motor flange).

3.5.6.3 Display of inputs

The states of the inputs of the individual circuit boards are displayed from left to right.
The order corresponds to the LED layout on the terminal strips of the back panels.

The displays mean:

1=LED bright (low-signal)
0=LED dark (high-signal)

Terminal	Input card	Input	Operated When>>>>>>
1	A26	E 1	>Presser foot is up.
2	"	IN 1	Programmable input 1
3	"	E 28.5	>Template change/over for transfer is off (right).
4	"	E 20.2	>Pocket plate is forward.
5	"	E 20.1	>Pocket plate is back.
6	"	E 114	Manual push button for PROGRAM A.
7	"	E 23.2	>Folding unit is down.
8	"	E 23.1	>Folding unit is up.
9	"	KIPP	Signal that sewing head lift for bobbin change has been installed.
10	"	OPTINP	Options entr. card entered.
11	"	E 26.2	>Template is up.
12	"	E 26.1	>Template is down.
13	"	E 27.2	>Template transfer is back (folding station position).
14	"	E 27.1	>Template transfer is forward (sewing position).
15	"	E 28.1	>Template change/over for sewing is on.
16	"	E 28.4	>Template change/over for transfer is on.
17	"	E 28.2	>Template change/over for sewing is off.
18	"	E 37	>Sinking table is up.
19	"	E 31.2	>Template transfer moves to slow speed position, (folding station end).
20	"	E 31.1	>Template transfer moves to slow speed position, (sewing end.)
21	"	E 107	Foot operated switch for pocket plate down (stripe mode).
22	"	E 108A	Push button for starting folding cycle.
23	"	E 108B	Push button for starting folding cycle.
24	"	E 28.3	>Template change/over for transfer is off (left).

Terminal	Input card	Input	Operated When>>>>
1	A 27	E 41.2	>Puller is down.
2	"	E 41.1	>Puller is up.
3	"	E 42	>Stacker clamping bar is forward.
4	"	E 50.1	>Sewing head is down.
5	"	E 51.1	>X stepper motor is in home position.
6	"	E 50.2	>Sewing head is up.
7	"	E 51.3	>Limit sensor for X stepper motor.
8	"	E 52.1	>Y stepper motor is in home position.
9	"	E 104	Manual push button for AUTOMATIC.
10	"	E 106	Manual push button for ERROR RESET.
11	"	E 111	Manual push button for STEPPING machine through cycle.
12	"	E 112	Manual push button for folding unit go to HOME position.
13	"	E 98	>Safety bar is out.
14	"	E 99	>Cover for stepper drive area is closed.
15	"	E 115	Manual push button for PROGRAM B.
16	"	SPGTST	>Signal that +12 volt ext is OK.
17	"	E 101	Manual push button for START.
18	"	E 113	Manual push button for NO SEW.
19	"	E 102	Manual push button for STOP.
20	"	E 9	>Thread monitor is activated. (check spring)
21	"	E 103	Manual push button for MANUAL.
22	"	SMOKPR	>Stepper motor drives OK, air pressure OK.
23	"	E 29.1	>Folding unit in front position.
24	"	E 29.2	>Folding unit in back position.

Terminal	Input card	Input	Operated When>>>>>>
1	A 28	JIGCODE	JIGCODE BIT 0 (operated by magnet in plate).
2	"	"	JIGCODE BIT 1 (operated by magnet in plate).
3	"	"	JIGCODE BIT 2 (operated by magnet in plate).
4	"	"	JIGCODE BIT 3 (operated by magnet in plate).
5	"	"	JIGCODE BIT 4 (operated by magnet in plate).
6	"	"	JIGCODE BIT 5 (operated by magnet in plate).
7	"	"	JIGCODE BIT 6 (operated by magnet in plate).
8	"	"	JIGCODE BIT 7 (operated by magnet in plate).
9	"		Free.
10	"		Free.
11	"		Free.
12	"		Free.
13	"		Free.
14	"		Free.
15	"		Free.
16	"		Free.
17	"	BOBERR	Bobbin thread disturbance.
18	"	ET	Label feeder installed.
19	"	E 120	Manual push button for loading a label.
20	"	ETRDY	Manual push button label finished.
21	"	ETINKL	>Label feeder is in brackets.
22	"	ETERR	>Label feeder error.
23	"	JIGCODE	Jig monitor is installed.
24	"		Free

3.5.6.4 Set / reset outputs

After selecting the code number, the appropriate output can be set with the digit "1" or reset with the digit "0".
If an output cannot be set, there will be an error message. If there is an "S" next to the code number in the table, the output can only/also be actuated via a special function (see end of table).

Terminal	Output card	Output	Function	Code no.
1	A22	Y 1	Presser foot off, thread nipper on.	8
2	"	K 2	thread trimmer on.	9
3	"	Y 3	compressed air, needle cooler on.	10
4	"	Y 20.2	pocket plate forward.	11
5	"	Y20.1	pocket plate back.	12
6	"	Y 70	Positioning clamp pressure on	13
7	"	ETSRART	start label feeder	14
8	"	K 22	positioning magnet folder on	15
9	"	Y 23.2	folder and table down.	16
10	"	Y 23.1	folder and table up.	17
11	"	Y 24.2	edge folders forward	18
12	"	Y 24.1	edge folders backward	19
13	"	H 120	label feeder lamp	20
14	"	Y 26.2	template up.	21
15	"	Y 26.2	template down.	22
16	"	H 115	indicator light program B on.	23
17	"	H 114	indicator light program A on.	0
18	"	Y 28.1	template change over for sewing on.	1
19	"	Y 28.2	template change over for transfer on.	2
20	"	Y 29.1	folding unit forward.	3
21	"	Y 5	thread puller on.	4 (S)
22	"	Y 31	pocket plate number 1 up.	5
23	"	Y 45	compressed air material aid on	6
24	"	Y 29.2	folding unit back.	7

Terminal	Output card	Output	Function	Code no.
1	A 23	Y 40	Vacuum stacker roller on	32
2	"	Y 41	Puller down	33
3	"	Y 42	Stacker forward	34
4	"	Y 43	Compressed air stacker on	35
5	"	K 44	Stacker roller on	36
6	"	Y 50.1	Sewing head down.	37
7	"	Y 50.2	Sewing head up.	38
8	"	SPWOUT	Bobbin change.	39
9	"	OUT 1	Programmable output 1	40
10	"	OUT 2	Programmable output 2	41
11	"	Y 10	Zig Zag on. (programmable out 3).	42
12	"	Y 11	Extra tension control on.	43
13	"	REF	Reference output for NIF. (NIS)	44
14	"	BOBRES	Reset for bobbin monitor.	45
15	"		free	46
16	"		free	47
17	"	H 103	Indicator light (manual) on.	24
18	"	H 104	Indicator light (automatic) on.	25
19	"	Y 6	Hook lubrication on.	26
20	"	H 106	indicator light (error reset) on.	27
21	"	STR	Template transfer motor moves right.	28 (S)
22	"	STL	Template transfer motor moves left.	29 (S)
23	"	S 1	Template transfer motor frequency 1.	30 (S)
24	"	S 2	Template transfer motor frequency 2.	31 (S)
			Special orders	
21	A 22	Y 5	Thread puller function	48
		Y 27.1	Template transfer forward (to sewing position).	49
		Y 27.2	Template transfer backward. (to folding position).	50

3.5.6.5 Set zero points

Before using the machine for the first time, the X-,Y carriage must be set with the help of the zero-point jig. The setting is not effected by moving the proximity switches, but rather by saving a correction value to the machine's zero point (proximity switches).

The adjustment is controlled by the menu and is carried out as follows:

1. call up the menu-point adjust zero-point.

2. press home-position key.

3. Mount the zero-point jig and confirm the command with the "ENTER" key.

4. find the zero point by moving the X-,Y carriage in the various directions with keys "4","6","2","8". Press "ENTER".

The correction values are in the machine's memory under CPU and will not be erased by a cold start.

Attention:
The zero point must be set again if the CPU or a zeroing proximity switch of the X-,Y carriage is changed.

3.5.6.6 Software data

The date on which the control software is written (CPU) can be displayed.

3.5.6.7 Cold start

A cold start can be initiated by calling up this function. A cold start sets all of the settings back to their initial values. All programs are erased.

4 Error numbers - brief description

In the machine, modules with their own controls are used. Some of these controls have their own error messages which are displayed on the machine's control panel.

4.1 Sewing motor

If there is an error in the sewing motor during an operation, the operation is stopped and an error message appears. The error message is produced by the motor's automatic control system M-MR-3. The message "error sew motor ()" appears in the display. The number/letter in brackets is an aid to correcting the error.

Number:	Comment
1	timeout command sequence
2	communication error
3	overheat motor
4	wrong command
5	overheat final stage (LD 17)
6	overcurrent
7	volt surge intermediate circuit
8	error 15V
9	motor won't turnover - no synchronizer pulse - no electricity LD 17 - no armature-status pulse
A	synchronizer pulses confused

4.2 Disk error

If there is an error at the disk station during an operation, the operation is stopped and an error message appears. The error message is produced by the disk station.
Some errors will be displayed as text and others as numbers. In the latter case the message "disk error (No.)" will appear in the control-panel display. The number in brackets is an aid to correcting the error.

Number:	Comment
1	transmission error serial interface
2	wrong command
3	syntax error
4	invalid character in data field
5	
6	disk unnamed
7	sector not found
8	error in file-link table
9	sector has wrong audit total
10	file not found
11	type error
12	disk/file write protected
13	disk full
14	disk directory full
15	write over existing file (warning)
16	drive not ready/no drive selected
17	read-error disk
18	wrong disk format
19	format error

4.3 Feed motor

In some cases there can be a disturbance during an operation with the feed motor which is not recognized by the control.
In such a case, the frequency requlator may display an error message in the form of a blinking LED.
The following is a list of the possible blink-signals.

	H1(yellow) blinks	status/reason	Solution/comment
▮_____▮_____	1 x	computer error	turn mains off and on again (reset)
▮▮_____▮▮_____	2 x	mains off, under voltage	blinks until UZK < 65V reset automatic
▮▮▮_____▮▮▮_____	3 x	over-voltage switch-off I > 180% I_N, short circuit	check drive / motor cable
▮▮▮▮_____▮▮▮▮_____	4 x	over voltage or motor per generator	check mains check drive
▮▮▮▮▮_____▮▮▮▮▮_____	5 x	Ixt Abschaltung Motor	motor overloaded check drive
▮▮▮▮▮▮_____▮▮▮▮▮▮_____	6 x	Ixt switch-off converter	converter overloaded check drive
▮▮▮▮▮▮▮_____▮▮▮▮▮▮▮_____	7 x	overheat motor	check bridge X5/10-11 motor overloaded
▮▮▮▮▮▮▮▮_____▮▮▮▮▮▮▮▮_____	8 x	overheat converter	converter overloaded converter overloaded
▮▮▮▮▮▮▮▮▮_____▮▮▮▮▮▮▮▮▮_____	9 x	error in EEPROM	turn mains off and on again (reset)

Further details about the frequency converter can be found in its own instruction manual.

5 Lock list

The lock helps localize disturbances in the machine which are caused by wrongly adjusted or defective transmitter or servo components. There are two basic types of errors:

-feedback errors
-locking errors

Feedback errors occur when a function (output command) is given by the control and the expected feedback from the transmitter (input device) is not received.

Locking errors occur when a function should be actuated but may not be actuated due to the current machine status. (therefore damage to the machine might occur is the funtion is actuated).

Due to the error messages in the display, the signals in the lock list by the corresponding functions and the corresponding columns must be controlled.
In order to simplify the allocation of functions and columns, the text numbers in the lock list are repeated in columns lock or feedback.

The LED states mentioned are target values.

Function	Position of the machine	Input	Card/ Wire #	LED	Output	LED	Feedback	LED
	"...#009" press dual start switches	E108A	A26/22	on				
		E108B	A26/23	on				
Err: S M Amplifier or Comprd: air	"...#024"						A27/22	on
Err: Power Supply 12 V	"...#025"						A27/16 check middle screws on X 16	on
Change at input (KIPP)	"...#026" top side bobbin change installed						A26/9	on
Feed	"...#057"							
	Needle at top dead center	.....						
	Template change/over for sewing on	E28.1	A26/15	on				
	Template change/over for transfer (left) off	E28.3	A26/24	off				
	Template change/over for transfer (right) off	E28.5	A26/3	off				
	Template down	E26.1	A26/12	on				
	Puller up	E41.1	A27/2	on				
	Sewing head down	E50.1	A27/4	on				
	Presser foot up	E 1	A26./1	on				
Sew	"...#058"							
	Template change/over for sewing on	E28.1	A26/15	on	A22/10	on	E23.1 A26/2	on
	Template change/over for transfer (left) off	E28.3	A26/24	off				
	Template change/over for transfer (right) off	E28.5	A26/3	off				
	Template down	E26.1	A26/12	on				
	Puller up	E41.1	A27/2	on				
	Sewing head down	E50.1	A27/4	on				
	Presser foot up	E 1	A26/1	off				
	"...#059" Check to see if motor controller board A4 has an E-PROM # 79-0011-0091/001 If it does change to E-PROM # 79-0011-0091/003 and also change D21 if it does not have the number D21/0043/003 on the white label.							
Go to machine zero point	"...#060" (CHECK IF)							
	Template change/over for transfer is on and	E28.4	A26/16	off				
	Template change/over for sewing is off	E28.2	A26/17	on				
	(OTHERWISE CHECK)							
	Needle is at top dead center	.....						
	Template change/over for sewing on	E28.1	A26/15	on				
	Template change/over for transfer (left) off	E28.3	A26/24	off				
	Template change/over for transfer (right) off	E28.5	A26/3	off				
	(AND)							
	Template down	E26.1	A26/12	on				
	Puller up	E41.1	A27/2	on				
	Sewing head down	E50.1	A27/4	on				
	Presser foot up	E 1	A26/1	on				

Function	Position of machine	Input	Card Wire #	LED	Output	LED	Feedback	LED
Cycling (manually moves template forward or backward for aligning	**"...#064"**							
	Needle is out of template	.....						
	Template change/over for sewing on	E28.1	A26/15	on				
	Template change/over for transfer (left) off	E28.3	A26/24	off				
	Template change/over for transfer (right) off	E28.5	A26/3	off				
	Template down	E26.1	A26/12	on				
	Puller up	E41.1	A27/2	on				
	Sewing head down	E50.1	A27/4	on				
	Presser foot up	E 1	A26/1	off				
Y 1 on Presser foot down Thread clamp open					A22/1	on	**"...#100"** E 1 A26/1	on
Y1 off Presser foot up Thread clamp closed	**"...#102"** During seam pattern program correction Needle out of material...				A22/1	off	**"...#101"** E 1 A26/1	on
K 2 on Thread trimmer on					A22/2	on		
K2 off Thread trimmer off					A22/2	off		
Y 3 on Compressed-air Needle cooling on					A22/3	on		
Y3 off Compressed-air Needle cooling off					A22/3	off		
Y 5 on Thread puller on					A22/21	on		
Y 5 off Thread puller off					A22/21	off		
Y 6 on Lubrication on					A23/19	on		
Y 6 off Lubrication off					A23/19	off		
Y 10 on Zigzag on					A23/11	on		
Y 10 off Zigzag off					A23/11	off		
Y 11 on Extra thread tension on					A23/12	on		
Y 11 off Extra thread tension off					A23/12	off		
Y 20.1 on Pocket plate back	**"...#104"** Folding unit up Opposite solenoid Y 20.2 de-energized if	E23.1	A26/8 A22/4 is	on off	A22/5	on	**"...#103"** E20.1 A26/5 E20.2 A26/4	on off

Function	Position of machine	Input	Card Wire #	LED	Output	LED	Feedback		LED
	"...#106"						**"...#105"**		
Y 20.2 on	Folding unit up	E23.1	A26/8	on	A22/4	on	E20.1	A26/5	off
Pocket plate	Opposite solenoid Y 20.1 de-energized if		A22/5 is	off			E20.2	A26/4	on
forward	**(IF)**								
	Template has changed over for sewing								
		E28.1	A26/15	on					
		E28.3	A26/24	off					
		E28.5	A26/3	off					
	(OTHERWISE CHECK)								
	Template transfer forward position	E27.1	A26/14	off					
K 22 on Positioning magnet folder on					A22/8	on			
K 22 off Positioning magnet folder off					A22/8	off			
	"...#108"						**"...#107"**		
Y 23.1 on	Opposite solenoid Y 23.2 de-energized if		A22/9 is	off	A22/10	on	E23.1	A26/8	on
Folder and							E23.2	A26/7	off
table up							E 37	A26/18	on
	"...#110"						**"...#109"**		
Y 23.2 on	Template transfer at forward position	E27.1	A26/14	off	A22/9	on	E23.1	A26/8	off
Folder and	Opposite solenoid Y 23.1 de-energized if		A22/10 is	off			E23.2	A26/7	on
table down	Folding unit not at back position	E29.2	A27/24	off			E 37	A26/18	off
	Pocket plate down Y 31 solenoid de-energized if		A22/22 is	off					
	"...#111"								
Y 24.1 on	Opposite solenoid Y 24.2 de-energized if		A22/11 is	off	A22/10	on			
Folder-feed back									
	"...#113"						**"...#112"**		
Y 24.2 on	Opposite solenoid Y 24.1 de-energized if		A22/12 is	off	A22/11	on	E 37	A26/18	on
Folder-feed forward									
	"...#115"						**"...#114"**		
Y 26.1 on	Template transfer at front position	E27.1	A26/14	off	A22/15	on	E26.1	A26/12	on
Template down	**(OR)**						E26.2	A26/11	off
	Template transfer at back position	E27.2	A26/13	off					
	Opposite solenoid Y 26.2 de-energized if		A22/14 is	off					
	IF Template transfer is in forward position	E27.1	A26/14	off					
	Sewing head down	E50.1	A27/4	on					
	IF Template transfer is in back position	E27.1	A26/14	on					
	and Template change/over for transfer on	E28.2	A26/17	on					
		E28.4	A26/16	off					
	Pocket plate down Y 31 de-energized if		A22/22 is	off					
	"...#117"						**"...#116"**		
Y 26.2 on	Template change/over for transfer on				A22/14	on	E26.1	A26/12	off
Template up		E28.2	A26/17	on			E26.2	A26/11	on
		E28.4	A26/16	off					
	Aux puller up	E41.1	A27/2	on					
	Opposite solenoid Y 26.1 de-energized if		A22/15 is	off					
	X and Y carriage movement in home position								

Function	Position of machine	Input	Card Wire #	LED	Output	LED	Feedback	LED
	"...#119" (**)						**"...#118" (**)**	
Y27.1 on	Aux puller up	E41.1	A27.2	on	A23/21	on	E27.1 A26/14	off
Feed forward	Folding unit up	E23.1	A26/8	on	A23/22	off	E27.2 A26/13	on
	Sewing head down	E50.1	A27/4	on	motor runs to move			
(**)					transfer forward			
check all sensors					(IF)			
in the X Y drive area	**(IF)**				A23/23	off		
	Template change/over for sewing is on	E28.1	A26/15	on	A23/24	off		
		E28.3	A26/24	off	template transfer			
		E28.5	A26/3	on	moves fast			
					(WHEN)		IF MOTOR READY	
	(OTHERWISE CHECK)				B31.1		A23/21	off
	Carriage in home position	???			is covered		A23/22	off
	Template is not at the highest position	E26.2	A26/11	on	A23/23	off	A23/23	on
	Pocket plate not at the front position	E20.2	A26/4	off	A23/24	off	A23/24	off
	Presser foot up	E 1	A26/1	on	template transfer		Template transfer	
	Stacker not at the front (out) position	E 42	A27/3	off	moves slowly		is in the home	
	Needle at top dead center	.....					(forward) position	
	"...#121 (**)						**"...#120" (**)**	
Y 27.2 on	Folding unit up	E23.1	A26/8	on	A23/21	off	E27.1 A26/14	on
Feed back	**(IF)**				A23/22	on	E27.2 A26/13	off
(**)	Template change/over for sewing is on	E28.1	A26/15	on	motor runs to move			
check sensors		E28.3	A26/24	off	transfer backward			
in X Y drive area		E28.5	A26/3	off	(IF)			
					A23/23	on		
	(OTHERWISE CHECK)				A23/24	on		
	Template up	E26.2	A26/11	on	template transfer			
	Pocket plate down Y 31 de-energized if		A22/22	off	moves fast		IF MOTOR READY	
					(WHEN)		A23/21	off
	Before transfer motor starts (motor still)				B31.2		A23/22	off
	STL		A23/22	on	is covered		A23/23	on
	STR		A23/21	off	A23/23	off	A23/24	off
	(THEN)				A23/24	on	Template transfer	
	Aux puller up	E41.1	A27/2	on	template transfer		is in the back	
					moves slowly		(folder) position	
	"...#123"						**"...#122"**	
Y 28.1 on	Template transfer forward	E27.1	A26/14	off	A22/18	on	E28.1 A26/15	on
Change sew	Template down	E26.1	A26/12	on			E28.2 A26/17	off
	Opposite solenoid Y28.2 de-energized if		A22/19	is off			E28.3 A26/24	off
							E28.4 A26/16	on
	Carriage is at home position	...					E28.5 A26/3	off
	"...#125"						**"...#124"**	
Y 28.2 on	Template transfer forward	E27.1	A26/14	off	A22/19	on	E28.1 A26/15	off
Change feed	Template down	E26.1	A26/12	on			E28.2 A26/17	on
	Opposite solenoid Y28.1 de-energized if		A22/18	is off			E28.3 A26/24	on
							E28.4 A26/16	off
	Carriage is at home position	...					E28.5 A26/3	on
	"...#127"						**"...#126"**	
Y 29.1 on	Folding unit up	E23.1	A26/8	on	A22/20	on	E29.1 A27/23	on
Folder forward	Opposite solenoid Y 29.2 de-energized if		A22/24	is off			E29.2 A27/24	off

Function	Position of machine	Input	Card Wire #	LED	Output	LED	Feedback		LED
	"...#129"						**"...#128"**		
Y 29.2 on	Folding unit up	E23.1	A26/8	on	A22/24	on	E29.1	A27/23	off
Folder back	Opposite solenoid Y 29.1 de-energized if		A22/20 is	off			E29.2	A27/24	on
	"...#130"								
Y 31 on	Folding unit up	E23.1	A26/8	on	A22/22	on			
Pocket plate on	**(IF)**								
	Template change/over for sewing is on	E28.1	A26/15	on					
		E28.3	A26/24	off					
		E28.5	A26/3	off					
	(OTHERWISE CHECK)								
	Template transfer forward	E27.1	A26/14	off					
Y 40 on					A23/1	on			
Vacuum stacker roller on									
Y 40 off					A23/1	off			
Vacuum stacker roller off									
Y 41 on	**"...#132"**						**"...#131"**		
Puller off	Template transfer not at forward position	E27.1	A26/14	on	A23/2	on	E41.1	A27/2	off
							E41.2	A27.1	on
Y 41 off							**"...#133"**		
Puller on					A23/2	off	E41.1	A27/2	on
							E41.2	A27/1	off
Y 42 on					A23/3	on	**"...#134"**		
Stacker forward							E 42	A27/3	on
							"...#135"		
Y 42 off					A23/3	off	E 42	A27/3	off
Stacker back									
Y 43 on					A23/4	on			
Compressed air stacker on									
Y 43 off					A23/4	off			
Compressed air stacker off									
K 44 on					A23/5	on			
Stacker roller on									
K 44 off					A23/5	off			
Stacker roller off									
Y 45 on					A22/23	on			
Compressed air material feed aid on									
Y 45 off					A22/23	off			
Compressed air material feed aid off									
	"...#137"						**"...#136"**		
Y 50.1 on	Carriage in home position								
Head off	Opposite solenoid Y 50.2 de-energized if	A23/7	is	off					

Function	Position of machine	Input	Card Wire #	LED	Output	LED	Feedback		LED
	"...#139"						"...#138"		
Y 50.2 on	Sew in home position				A23/7	on	E50.1	A27/4	off
Head on	Template transfer back	E27.2	A26/13	off			E50.2	A27/6	on
	Template change/over for transfer	E28.2	A26/17	on					
		E28.4	A26/16	off					
	Opposite solenoid Y 50.1 de-energized if		A23/6 is	off					
H 103 on Manual lamp on					A23/17	on			
H 103 off Manual lamp off					A23/17	off			
H 104 on Automatic lamp on					A23/18	on			
H 104 off Automatic lamp off					A23/18	off			
H 106 on Fix error lamp on					A23/20	on			
H106 off Fix error lamp off					A23/20	off			
H 114 on Lamp program A on					A22/17	on			
H 114 off Lamp program A off					A22/17	off			
H 115 on Lamp program B on					A22/16	on			
H 115 Lamp program B off					A22/16	off			
H 120 on Lamp labeling on					A22/13	on			
H 120 off Lamp labeling off					A22/13	off			
REF on Reference output for NIF on					A23/13	on			
REF off Reference output for NIF on					A23/13	off			
BOBRES on Reset for bobbin thread monitor on					A23/14	on			
BOBRES off Reset for bobbin-thread monitor off					A23/14	off			
SPWOUT on Bobbin change on					A23/8	on			
SPWOUT OFF Bobbin change off					A23/8	off			
OUT 1 on Program output 1 on					A23/9	on			
OUT 1 off Program output 1 off					A23/9	off			

LOCK LIST FOR 3568-12/22

Function	Position of machine	Input Card Wire #	LED	Output	LED	Feedback	LED
OUT 2 on Program output 2 on				A23/10	on		
OUT 2 off Program output 2 off				A23/10	off		

INPUT A28 PIN	BOARD	INPUT A27 PIN	BOARD	INPUT A26 PIN	BOARD	INTERFACE A25 PIN	BOARD	OUTPUT A24 PIN	BOARD	OUTPUT A23 PIN	BOARD	OUTPUT A22 PIN	BOARD	INPUT A21 PIN	BOARD
24		24	E29.2	24	E28.3	24		24		24	S2	24	Y29.2	24	
23	JIGCTR	23	E29.1	23	E108B	23		23		23	S1	23	Y45	23	
22	ETERR	22	SMOKPR	22	E108A	22		22		22	STL	22	Y31	22	
21	ETINKL	21	E103	21	E107	21		21		21	STR	21	Y5	21	
20	ETRDY	20	E9	20	E31.1	20		20		20	H106	20	Y29.1	20	
19	E120	19	E102	19	E31.2	19		19		19		19	Y28.2	19	
18	ET	18	E113	18	E37	18		18		18	H104	18	Y28.1	18	
17	BOBERR	17	E101	17	E28.2	17		17		17	H103	17	H114	17	
16		16	SPGTST	16	E28.4	16		16		16		16	H115	16	
15		15	E115	15	E28.1	15		15		15		15	Y26.1	15	
14		14	E99	14	E27.1	14		14		14	BOBRES	14	Y26.2	14	
13		13	E98	13	E27.2	13		13		13	REF	13	H120	13	
12		12	E112	12	E26.1	12		12		12	Y11	12	Y24.1	12	
11		11	E111	11	E26.2	11		11		11	Y10	11	Y24.2	11	
10		10	E106	10	OPTINP	10		10		10	OUT2	10	Y23.1	10	
9		9	E104	9	KIPP	9		9		9	OUT1	9	Y23.2	9	
8	JIGCODE BIT7	8	E52.1	8	E23.1	8		8		8	SPWOUT	8	K22	8	
7	JIGCODE BIT6	7	E51.3	7	E23.2	7		7		7	Y50.2	7	ETSTART	7	
6	JIGCODE BIT5	6	E50.2	6	E114	6		6		6	Y50.1	6	Y70	6	
5	JIGCODE BIT4	5	E51.1	5	E20.1	5		5		5	K44	5	Y20.1	5	
4	JIGCODE BIT3	4	E50.1	4	E20.2	4		4		4	Y43	4	Y20.2	4	
3	JIGCODE BIT2	3	E42	3	E28.5	3		3		3	Y42	3	Y3	3	
2	JIGCODE BIT1	2	E41.1	2	IN	2		2		2	Y41	2	K2	2	
1	JIGCODE BIT0	1	E41.2	1	E1	1		1		1	Y40	1	Y1	1	

Nr.	Art der Aenderung	Aenderung Nr.	Datum	Bearb.
4				
3				
2				
1				
0	Eingefuehrt lt.			

CAD

	Datum	Name	
1994			
Gezeichnet	31.01		Ersatz fuer:
Gepr./Genehm.	31.01		Ersetzt durch:
Normgepr.			Ausf. lt. Aend.-Nr.

Benennung

STP 3568-1/22

Typ 3568-1/22

PFAFF

Zeichnungs-Nr.
91-191 317-95

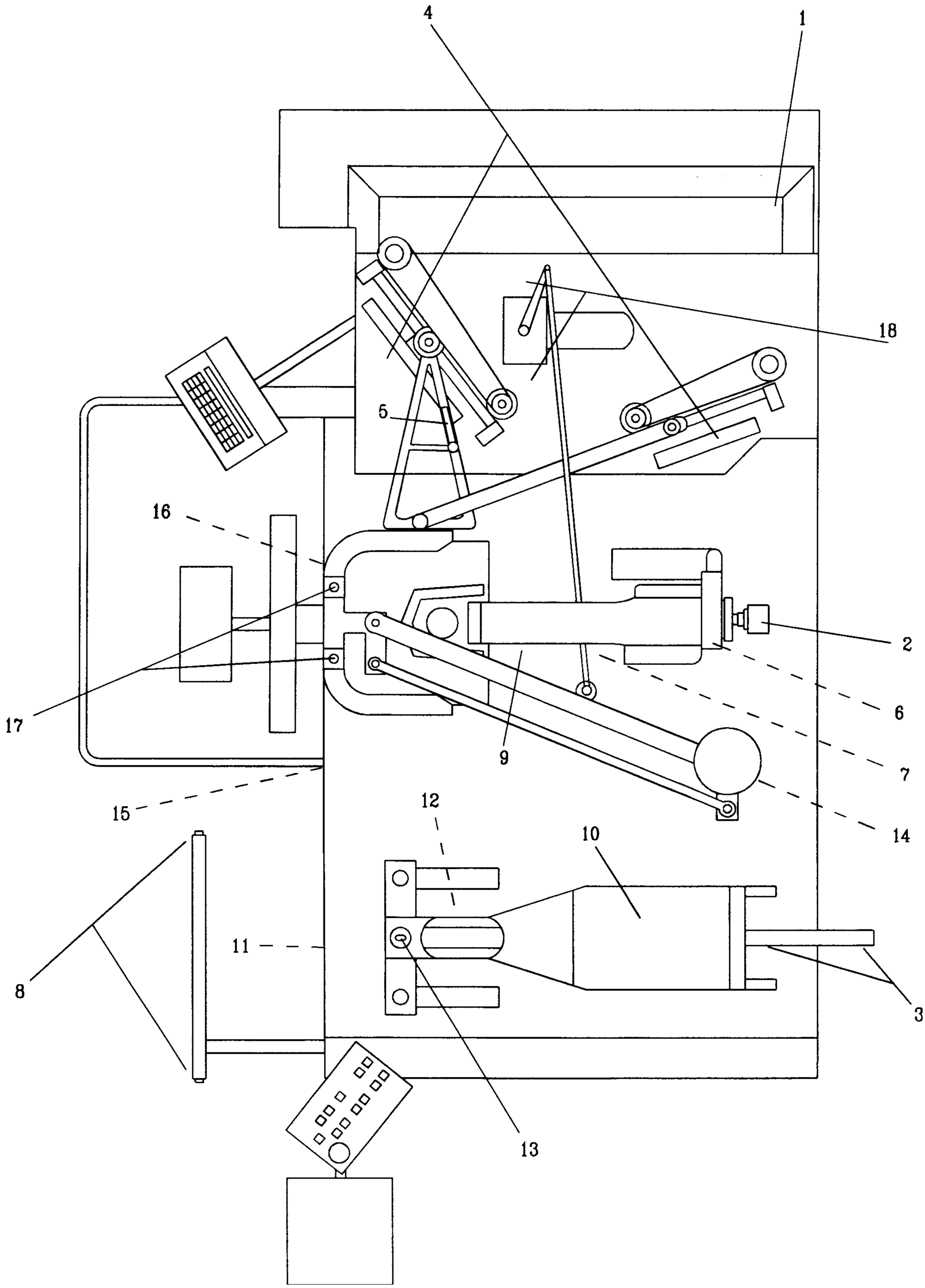
Blattzahl: Blatt:

6 Overview of the switches / proximity switches

To simplify the search for the individual transmitters (switches etc.) the layout can be seen in the following diagram.
Solid lines -> mean that the transmitter is above the table top and broken lines —> mean that the transmitter is under the table top.

Transmitter	Number in the diagram
B31.1 B31.2 B27.1 B27.2	18
B28.3 B28.4 B28.5	17
Position transmitter	2
B51.1 B51.3 B52.1	4

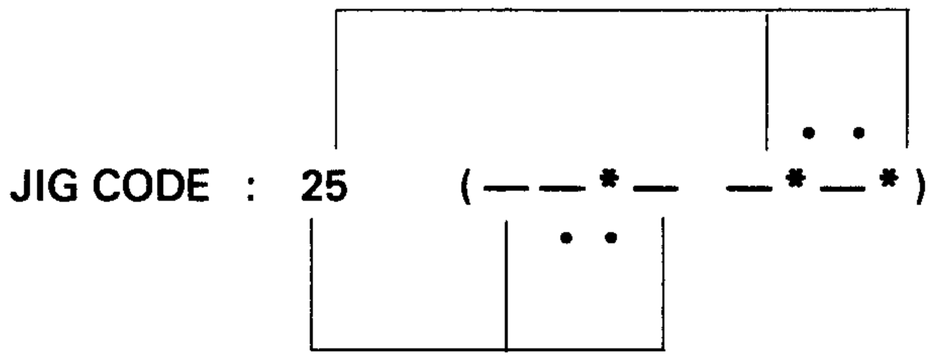
Transmitter	Number in the diagram
S1	6
S107	11
S9	9
S20.1 S20.2	3
S23.1 S23.2	13
S26.1 S26.2	14
S28.1 S28.2	5
S37	12
S29.1 S29.2	10
S42	16
S50.1 S50.2	7
S98	15
S99	1
S108A S108B	8

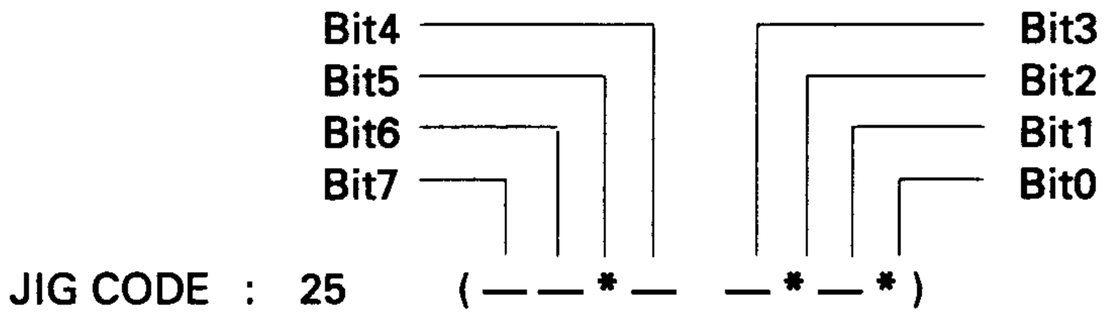

4
1
18
5
16
17
2
6
9
7
15
12
14
10
11
8
3
13

7 Monitoring the jigs / - code

The machine carries with it the option of installing a jig monitor. Here the sewing jig is marked with a magnetic code number which can be read by an additional device. The jig code must be programmed in the sewing program if it is required. If the jig monitor is on (c.f. switch functions) and the jig code does not coincide with that of the sewing program, the sewing operation will be stopped and the corresponding error message will be displayed.

The jig code has a value from 0 - 99. The order of the magnets appears in brackets in binary code behind the corresponding value. The last four figures represent the unit's place and the front four figures represent the tens.





compound table:

Value (unit's place)	Bit3 (Bit7)	Bit2 (Bit6)	Bit1 (Bit5)	Bit0 (Bit4)
0	-	-	-	-
1	-	-	-	*
2	-	-	*	-
3	-	-	*	*
4	-	*	-	-
5	-	*	-	*
6	-	*	*	-
7	-	*	*	*
8	*	-	-	-
9	*	-	-	*

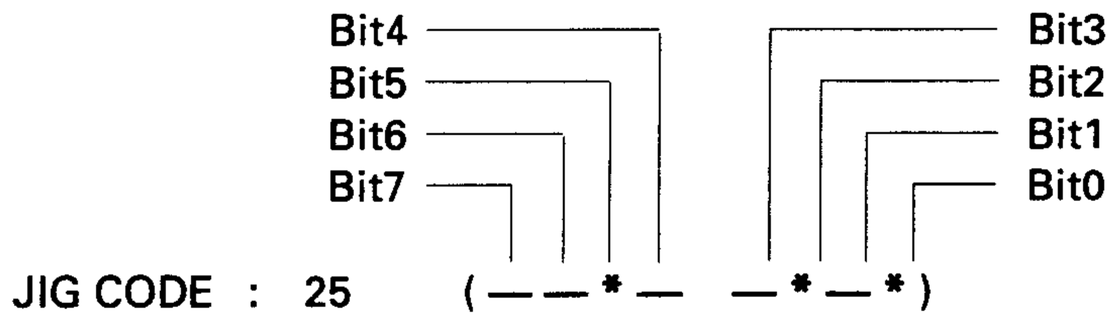
(The same table also applies for the tens with Bits 4 - 7)

Example of a templade code

jig code = 25.

Display of the magnet position at the input of the jig code:

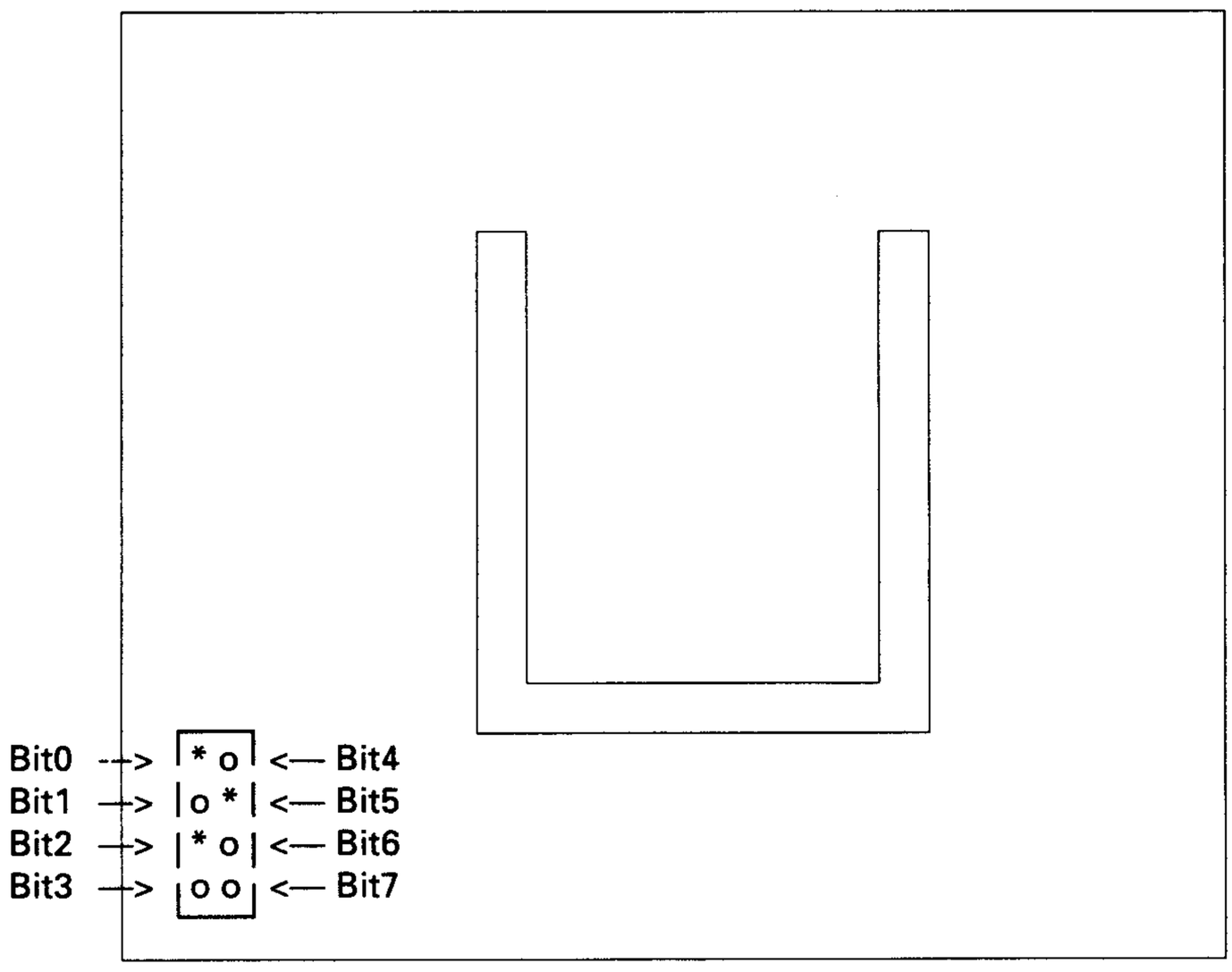
— = no magnet in the jig
* = magnet in the jig



Order of the magnets on the sewing jig:

o = do not adhere magnet
* = adhere magnet

(the diagram shows the magnets as seen through the sewing jig. i.e. the magnets are on the underside of the jig).



8 Important settings

8.1 Initial loading values after cold start:

piece counter	0
bobbin preselect	10000 stitches
time for feed roller	200 ms
maximum speed	4100 RPM
reduced speed	4100 RPM
zigzag delay on	0 stitches
delay zigzag-off	0 stitches
pause off	off
puller	off
uni - material	off
end stitches for thread monitor	5 stitches
end stitches for bobbin monitor	5 stitches
monitoring stitches for thread monitor	5 stitches
automatic stitch	10 stitches
slow start stitches	2 stitches
carriage start (NIF)	90°
thread monitor	on
bobbin monitor	on
bobbin sensor	off
language	German
compressed air needle cooling feed forward	off
compressed air needle cooling stacker	off
material-feed aid feed-forward	off
material-feed aid stacker	off
material-feed aid sewing	off
thread puller	on
if tip-head installed	
- bobbin change from top	on
- otherwise	
- bobbin change from top	off
if jig monitor installed	
- jig monitor	on
- otherwise	
- jig monitor	off
labelling	off
alternate labelling	off
carriage movement(cont)	off (doesn't change at cold start)
slow insert	off (doesn't change at cold start)
Basic frontposition pocket-plate	on
time for stacker airblast	300 ms
time for folder	1 s
time for puller	400 ms
time after table up	250 ms
time for edge folders back	250 ms
time for feed forward	200 ms
time for thread puller	500 ms

8.2 Synchronizer home setting

If the synchronizer is replaced, the home value must be reset. To do this perform or check as necessary the following points in the order given.

1. **Important!**
   the needle must be able to rotate freely when the machine is switched on. Check and adjust if necessary.
   The synchronizer screws must be tight to avoid an uncontrolled racing of the motor.

2. Turn machine on (the needle positions itself automatically).

3. Now check if the needle has in fact positioned itself in t.d.c.
   if so - ready.
   if not - loosen synchronizer screws and hold the synchronizer in position. Turn hand wheel until the needle is in the desired position. Retighten synchronizer screws.

4. Now a new positioning can be carried out by turning the machine off and then on again or by selecting the service function sewing-motor and completing one rotation. Then repeat points 3 and 4 until the needle reaches the desired position.

8.3 Feed speeds

The feed speed from the folding station to the sewing station can be influenced via the potentiometer on the frequency converter.
The feed speed from the sewing station to the folding station cannot be changed.

Circuit diagrams

91-191 317-95	STP 3568 * /22 terminal connections
91-291 310-95	Adhesive foil - placements
91-191 333-95	modular mimic display
91-191 327-95 Bl.1	STP power supply 220V/24V
91-191 327-95 Bl.2	STP power supply 220V/24V
91-191 328-95	STP 3568 * /22 (A22)
91-191 329-95	STP 3568 * /22 (A23)
91-191 330-95	STP 3568 * /22 (A26)
91-191 331-95	STP 3568 * /22 (A27)
91-191 312-95	STP 3568 * /22 (A28)
91-291 295-71/893 Bl.1	Control-panel folding station
91-291 295-71/893 Bl.2	Control-panel folding station
91-191 325-95	Connection-plan control panel of control unit
91-191 326-95	STP frequency converter
91-191 340-95	STP sewing drive
91-191 344-95	STP stepping motor
91-191 319-95	STP connection serial interface

INPUT A28 PIN	BOARD	INPUT A27 PIN	BOARD	INPUT A26 PIN	BOARD	INTERFACE A25 PIN	BOARD	OUTPUT A24 PIN	BOARD	OUTPUT A23 PIN	BOARD	OUTPUT A22 PIN	BOARD	INPUT A21 PIN	BOARD
24		24	E29.2	24	E28.3	24		24		24	S2	24	Y29.2	24	
23	JIGCTR	23	E29.1	23	E108B	23		23		23	S1	23	Y45	23	
22	ETERR	22	SMOKPR	22	E108A	22		22		22	STL	22	Y31	22	
21	ETINKL	21	E103	21	E107	21		21		21	STR	21	Y5	21	
20	ETRDY	20	E9	20	E31.1	20		20		20	H106	20	Y29.1	20	
19	E120	19	E102	19	E31.2	19		19		19		19	Y28.2	19	
18	ET	18	E113	18	E37	18		18		18	H104	18	Y28.1	18	
17	BOBERR	17	E101	17	E28.2	17		17		17	H103	17	H114	17	
16		16	SPGTST	16	E28.4	16		16		16		16	H115	16	
15		15	E115	15	E28.1	15		15		15		15	Y26.1	15	
14		14	E99	14	E27.1	14		14		14	BOBRES	14	Y26.2	14	
13		13	E98	13	E27.2	13		13		13	REF	13	H120	13	
12		12	E112	12	E26.1	12		12		12	Y11	12	Y24.1	12	
11		11	E111	11	E26.2	11		11		11	Y10	11	Y24.2	11	
10		10	E106	10	OPTINP	10		10		10	OUT2	10	Y23.1	10	
9		9	E104	9	KIPP	9		9		9	OUT1	9	Y23.2	9	
8	JIGCODE BIT7	8	E52.1	8	E23.1	8		8		8	SPWOUT	8	K22	8	
7	JIGCODE BIT6	7	E51.3	7	E23.2	7		7		7	Y50.2	7	ETSTART	7	
6	JIGCODE BIT5	6	E50.2	6	E114	6		6		6	Y50.1	6	Y70	6	
5	JIGCODE BIT4	5	E51.1	5	E20.1	5		5		5	K44	5	Y20.1	5	
4	JIGCODE BIT3	4	E50.1	4	E20.2	4		4		4	Y43	4	Y20.2	4	
3	JIGCODE BIT2	3	E42	3	E28.5	3		3		3	Y42	3	Y3	3	
2	JIGCODE BIT1	2	E41.1	2	IN	2		2		2	Y41	2	K2	2	
1	JIGCODE BIT0	1	E41.2	1	E1	1		1		1	Y40	1	Y1	1	

Nr.	Art der Aenderung	Aenderung Nr.	Datum	Bearb.
4				
3				
2				
1				
0	Eingefuehrt lt.			

CAD

1994	Datum	Name	
Gezeichnet	31.01		Ersatz fuer:
Gepr./Genehm.	31.01		Ersetzt durch:
Normgepr.			Ausf. lt. Aend.-Nr.

Benennung

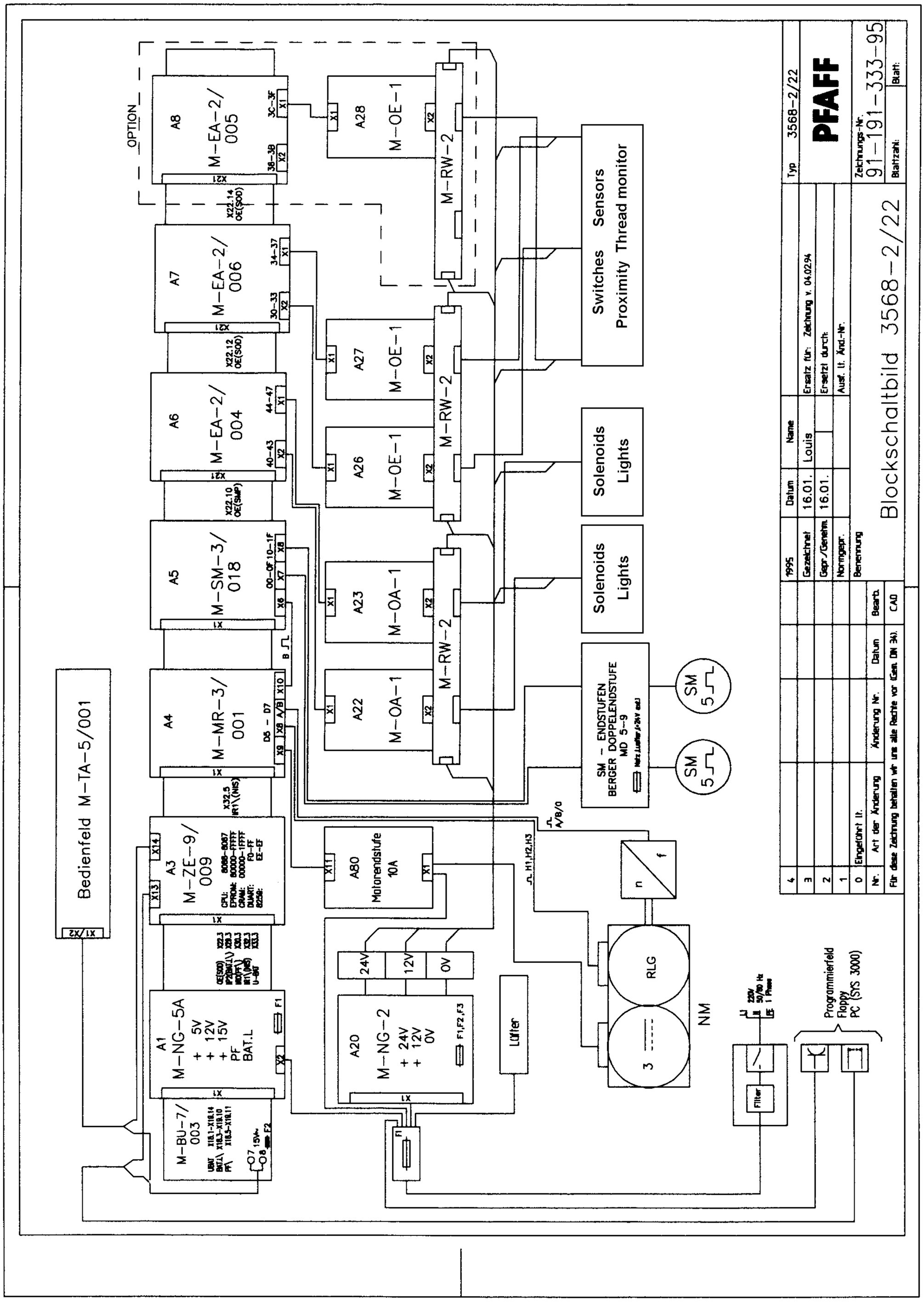
STP 3568-1/22

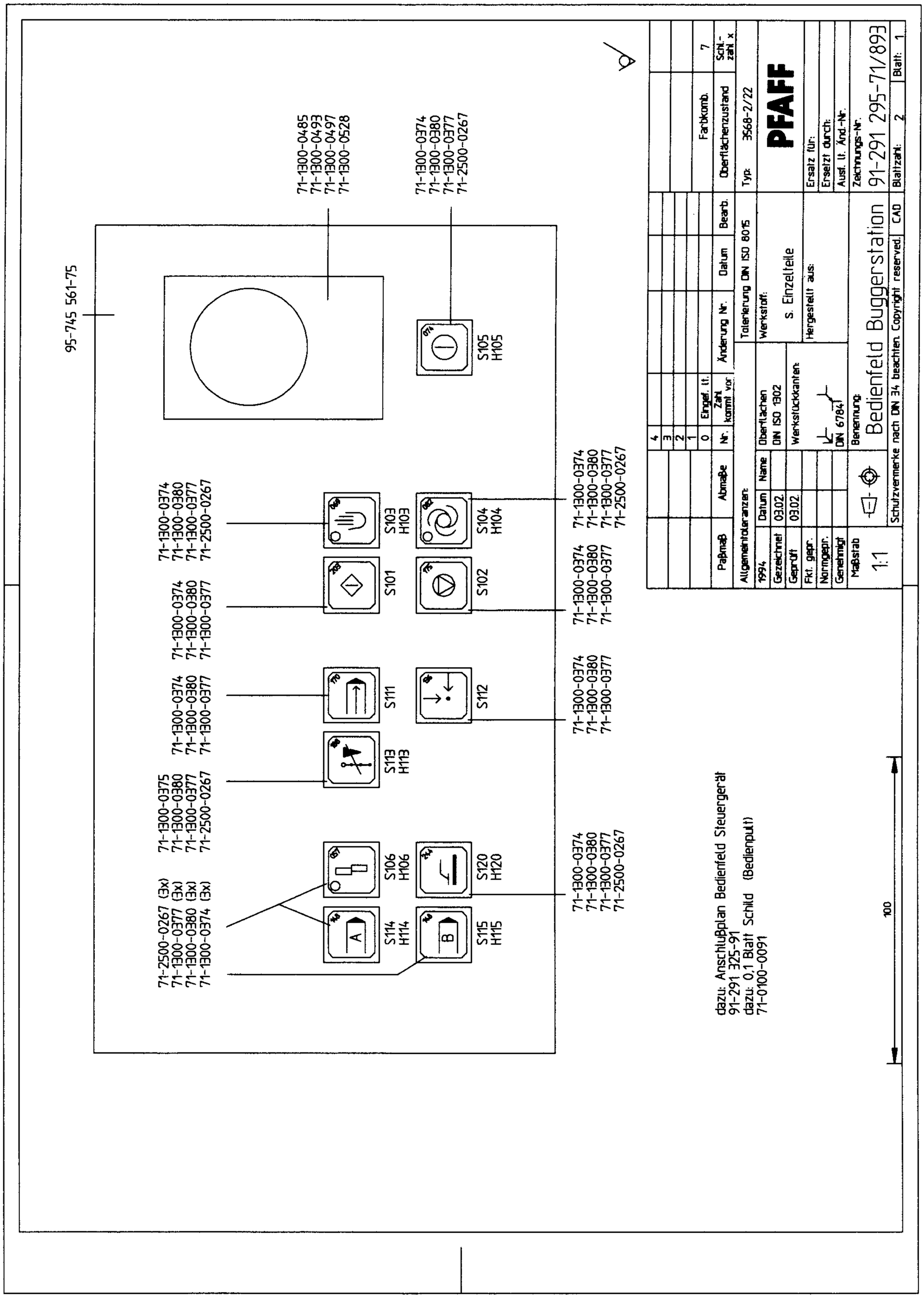
Typ 3568-1/22

PFAFF

Zeichnungs-Nr.
91-191 317-95

Blattzahl: Blatt:


Blockschaltbild 3568-2/22
PFAFF
Typ 3568-2/22
Zeichnungs-Nr. 91-191-333-95
Bedienfeld M-TA-5/001
OPTION
A8 M-EA-2/005
A7 M-EA-2/006
A6 M-EA-2/004
A5 M-SM-3/018
A4 M-MR-3/001
A3 M-ZE-9/009
A80 Motorendstufe 10A
A1 M-NG-5A
M-BU-7/003
A28 M-OE-1
A27 M-OE-1
A26 M-OE-1
A23 M-OA-1
A22 M-OA-1
M-RW-2
A20 M-NG-2
SM - ENDSTUFEN BERGER DOPPELENDSTUFE MD 5-9
Switches Sensors Proximity Thread monitor
Solenoids Lights
Solenoids Lights
Lüfter
RLG
NM
Filter
Programmierfeld Floppy PC (SYS 3000)
Name Datum
Gezeichnet Louis 16.01.
Gepr./Genehm. 16.01.
Normgepr.
Benennung
Bearb.
CAD


95-745 561-75
71-1300-0485
71-1300-0493
71-1300-0497
71-1300-0528
71-1300-0374
71-1300-0380
71-1300-0377
71-2500-0267
S105
H105
71-1300-0374
71-1300-0380
71-1300-0377
71-2500-0267
S101
S103
H103
S102
S104
H104
71-1300-0374
71-1300-0380
71-1300-0377
71-2500-0267
S111
S113
H113
S112
71-1300-0374
71-1300-0380
71-1300-0377
71-2500-0267
71-2500-0267 (3x)
71-1300-0377 (3x)
71-1300-0380 (3x)
71-1300-0374 (3x)
71-1300-0375
71-1300-0380
71-1300-0377
71-2500-0267
S106
H106
S120
H120
S114
H114
S115
H115
71-1300-0374
71-1300-0380
71-1300-0377
71-2500-0267
dazu: Anschlußplan Bedienfeld Steuergerät
91-291 325-91
dazu: 0,1 Blatt Schild (Bedienpult)
71-0100-0091
100
Bedienfeld Buggerstation
91-291 295-71/893
PFAFF
Typ: 3568-2/22
Werkstoff:
S. Einzelteile
Hergestellt aus:
Farbkomb. 7
Oberflächenzustand
Schl.-zahl x
Talerlerung DIN ISO 8015
Änderung Nr.
Datum
Bearb.
Ersatz für:
Ersetzt durch:
Ausf. lt. Änd.-Nr.
Zeichnungs-Nr.
Blatt: 1
Blattzahl: 2
CAD
Copyright reserved.
Schutzvermerke nach DIN 34 beachten.
Allgemeintoleranzen:
Maßstab
1:1
Maßbe
Abmaße
Name
Datum
1994
Gezeichnet
Geprüft
Fkt. gepr.
Normgepr.
Genehmigt
03.02.
03.02.

STP NETZVERSORGUNG 220V / 24V

PFAFF

Typ 3568-2/22

Zeichnungs-Nr. 91-191 327-95

Blattzahl: 2 | Blatt: 1

Name

Ersatz für:

Ersetzt durch:

Ausf. lt. Änd.-Nr.

Teile auf Montageplatte

Emergency stop switch

Sewing template transfer motor

Opto-couplers

Transformer for cross light for position panel (optional)

Stepper motor control for both X and Y axis

Sewing motor

220 volt AC outlet

24V Un-stablized voltage

cooling fan motor

Stablized +5V +12V +15V voltage

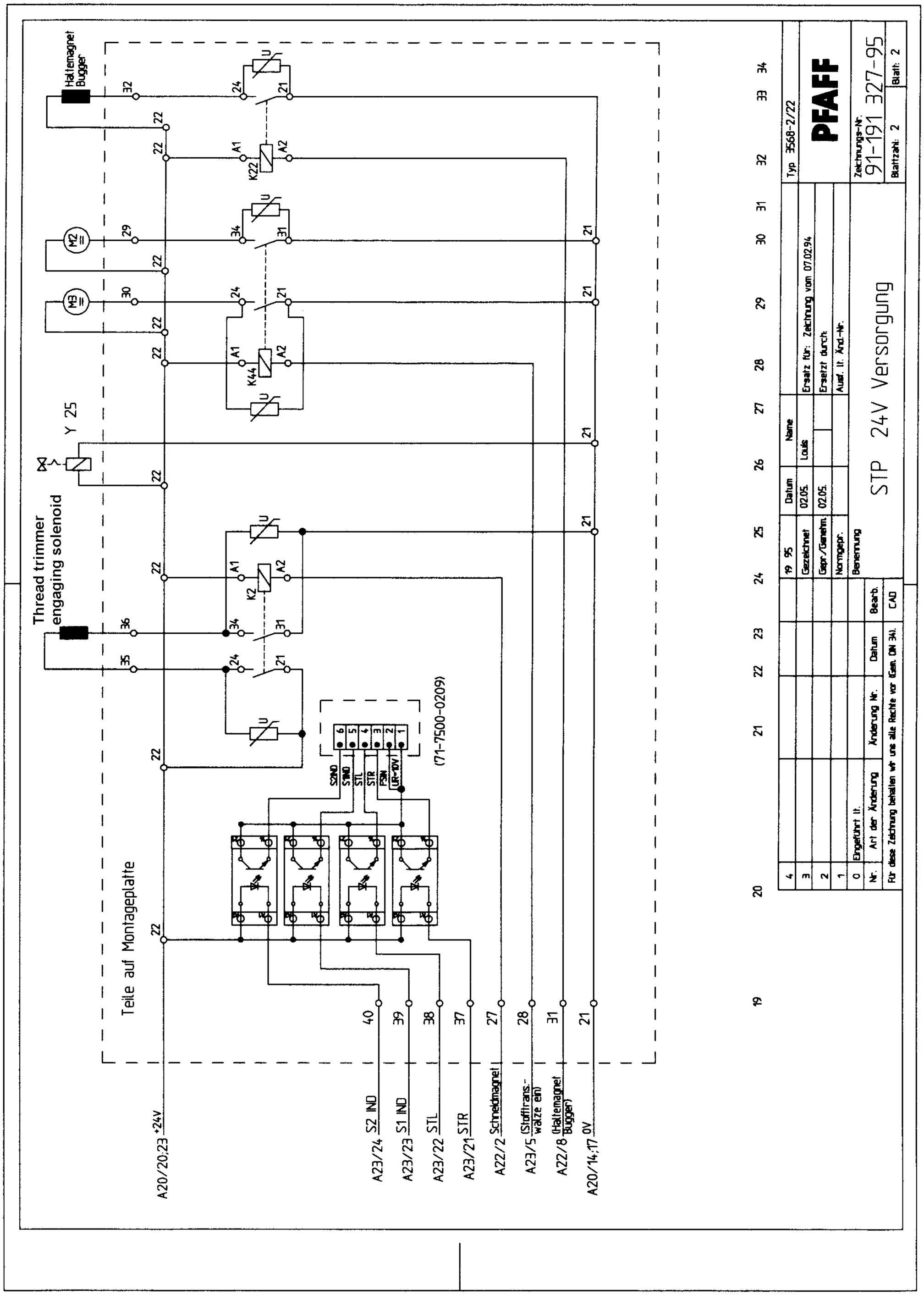
circuit diagram for 24 Volt DC Page 51

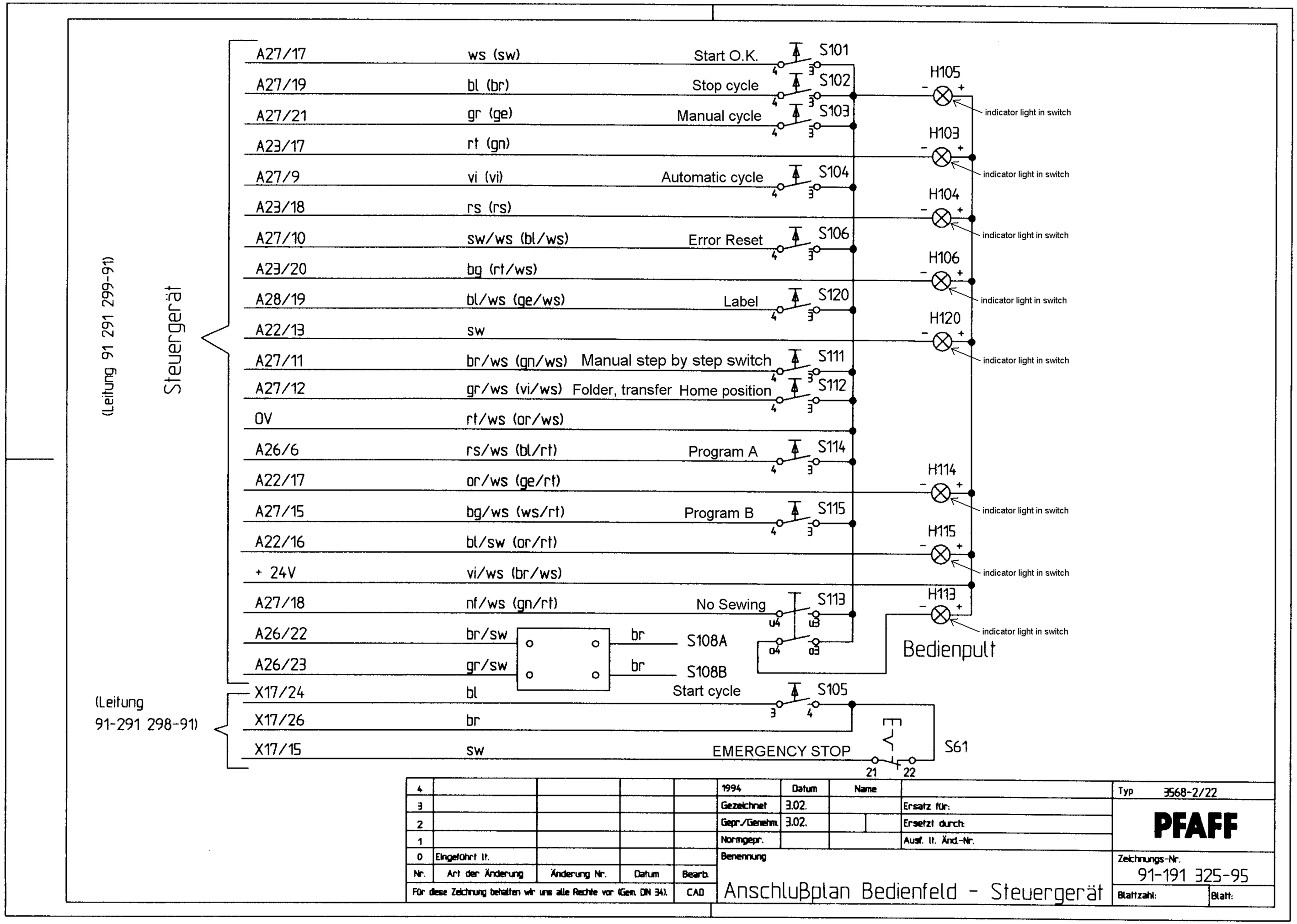
Motorend-stufe 10A

Nr.	Änderung	Datum	Name
4			
3			
2			
1			
0	Eingeführt lt.		
Nr.	Art der Änderung	Änderung Nr.	Datum	Bearb.
			19 94	07.02.	
			Gezeichnet	07.02.	
			Gepr./Genehm.		
			Normgepr.		
			Benennung		

Für diese Zeichnung behalten wir uns alle Rechte vor (Gem. DIN 34). CAD

* 4x Optokoppler siehe Blatt 2 oder 91-191 326-95


Haltemagnet Bügger
M2
M3
Y 25
Thread trimmer engaging solenoid
Teile auf Montageplatte
(71-7500-0209)
S2ND
S1ND
STL
STR
FSW
UP-DW
A20/20;23 +24V
A23/24 S2 IND
A23/23 S1 IND
A23/22 STL
A23/21 STR
A22/2 Schneidmagnet
A23/5 (Stofftrans.-walze ein)
A22/8 (Haltemagnet Bügger)
A20/14;17 0V
K22
K44
K2
U
A1
A2
PFAFF
Typ 3568-2/22
Ersatz für: Zeichnung vom 07.02.94
Ersetzt durch:
Ausf. lt. Änd.-Nr.
Zeichnungs-Nr.
91-191 327-95
Blattzahl: 2
Blatt: 2
24V Versorgung
STP
Gezeichnet 02.05. Louis
Gepr./Genehm. 02.05.
Normgepr.
Benennung
Eingeführt lt.
Nr. Art der Änderung Änderung Nr. Datum Bearb.
CAD
Für diese Zeichnung behalten wir uns alle Rechte vor (Gem. DIN 34).



Nr.	Art der Änderung	Änderung Nr.	Datum	Bearb.
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3				
2				
1				
0	Eingeführt lt.			

Für diese Zeichnung behalten wir uns alle Rechte vor (Gem. DIN 34). CAD

1994	Datum	Name	
Gezeichnet	3.02.		Ersatz für:
Gepr./Genehm.	3.02.		Ersetzt durch:
Normgepr.			Ausf. lt. Änd.-Nr.

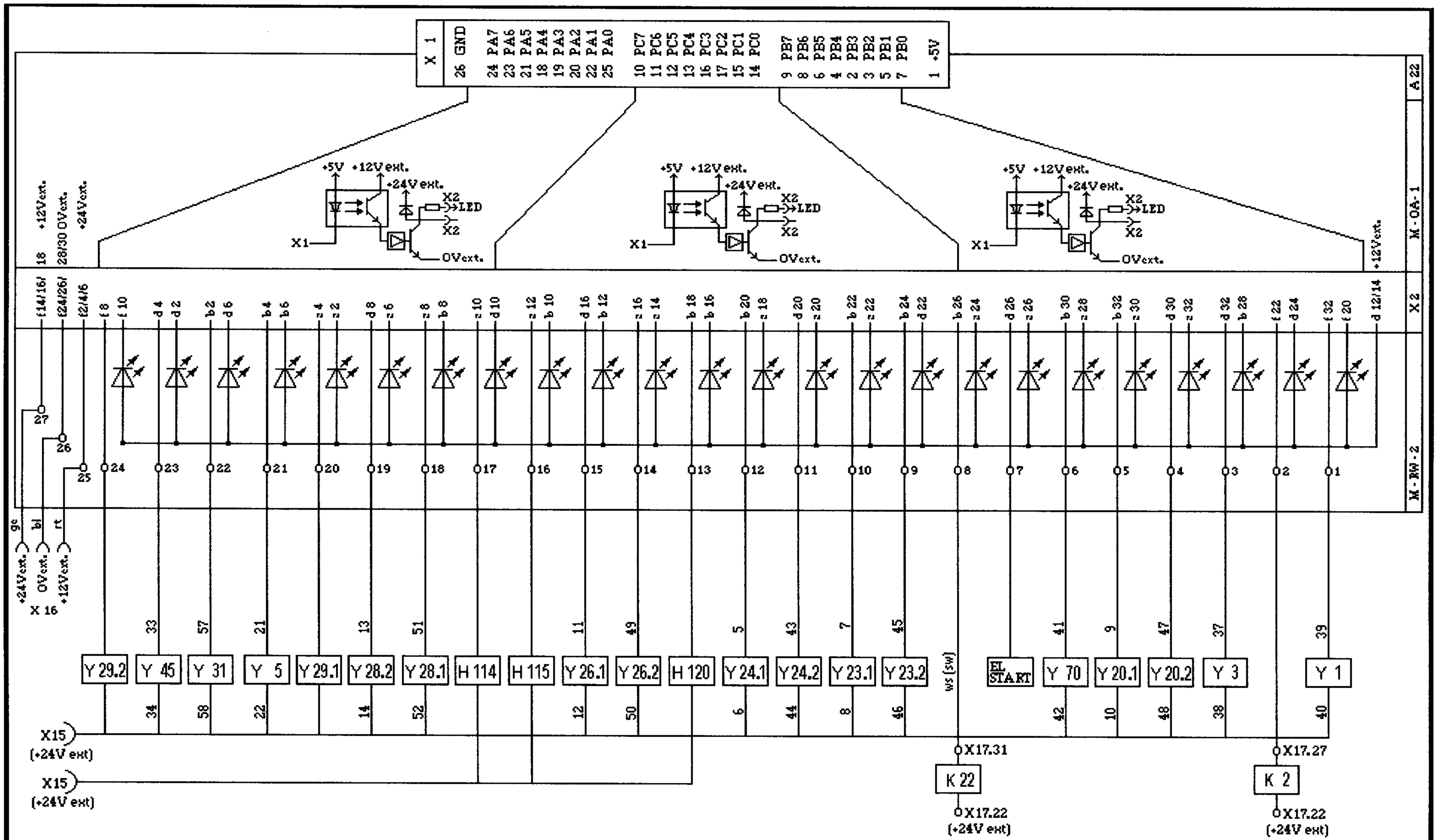
Benennung: AnschluBplan Bedienfeld - Steuergerät

Typ 3568-2/22

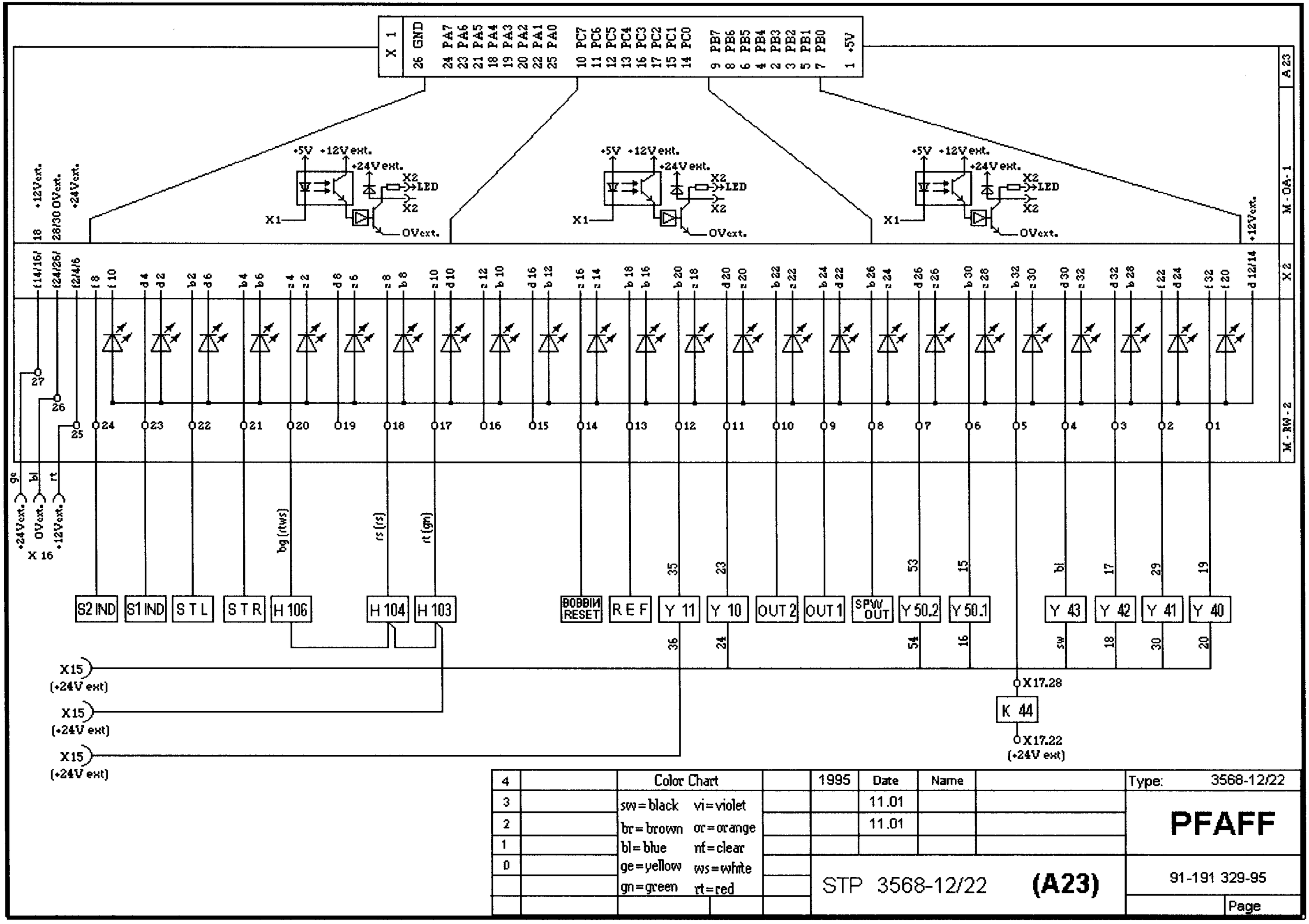
PFAFF

Zeichnungs-Nr. 91-191 325-95

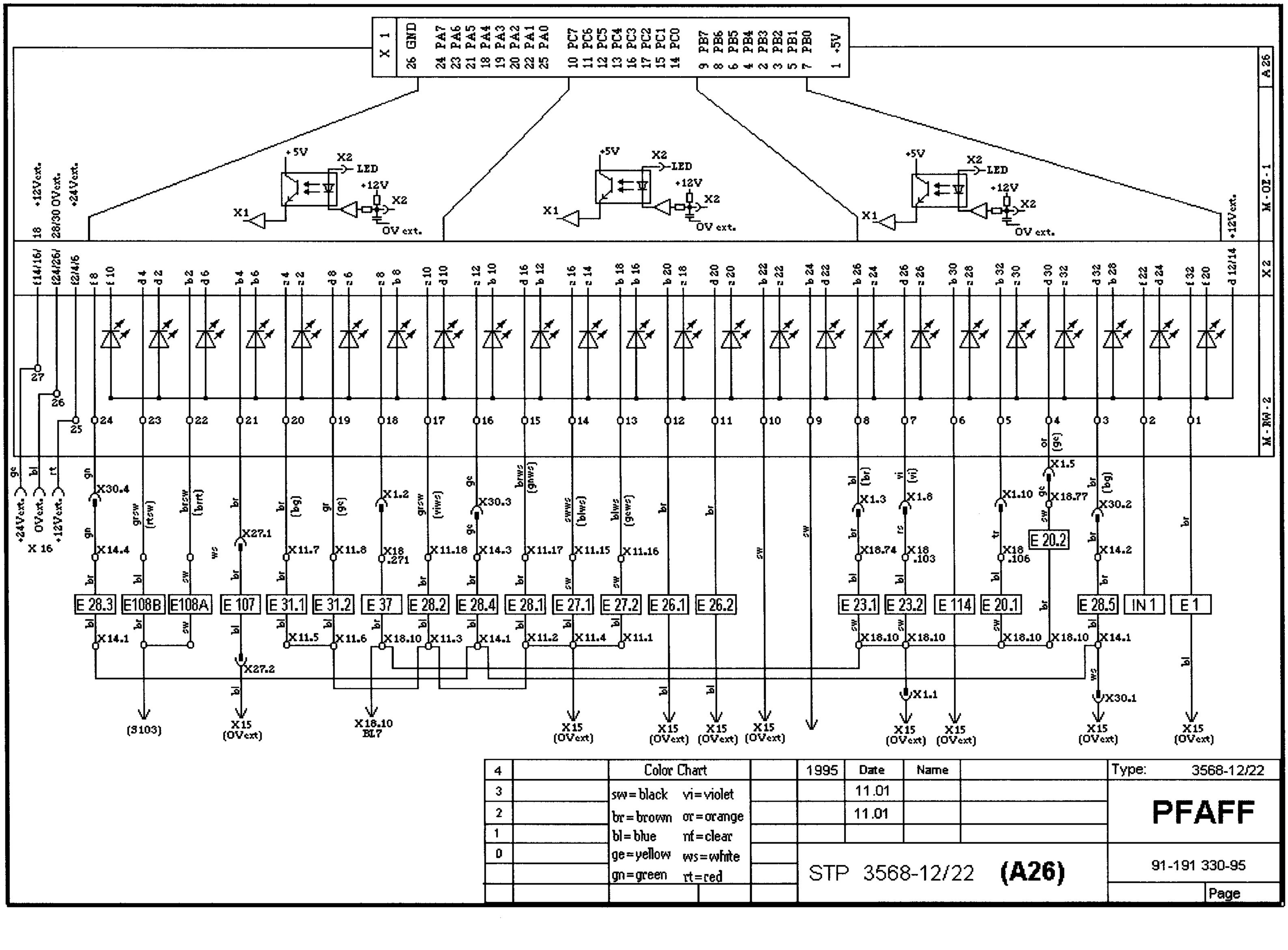
Blattzahl: Blatt:



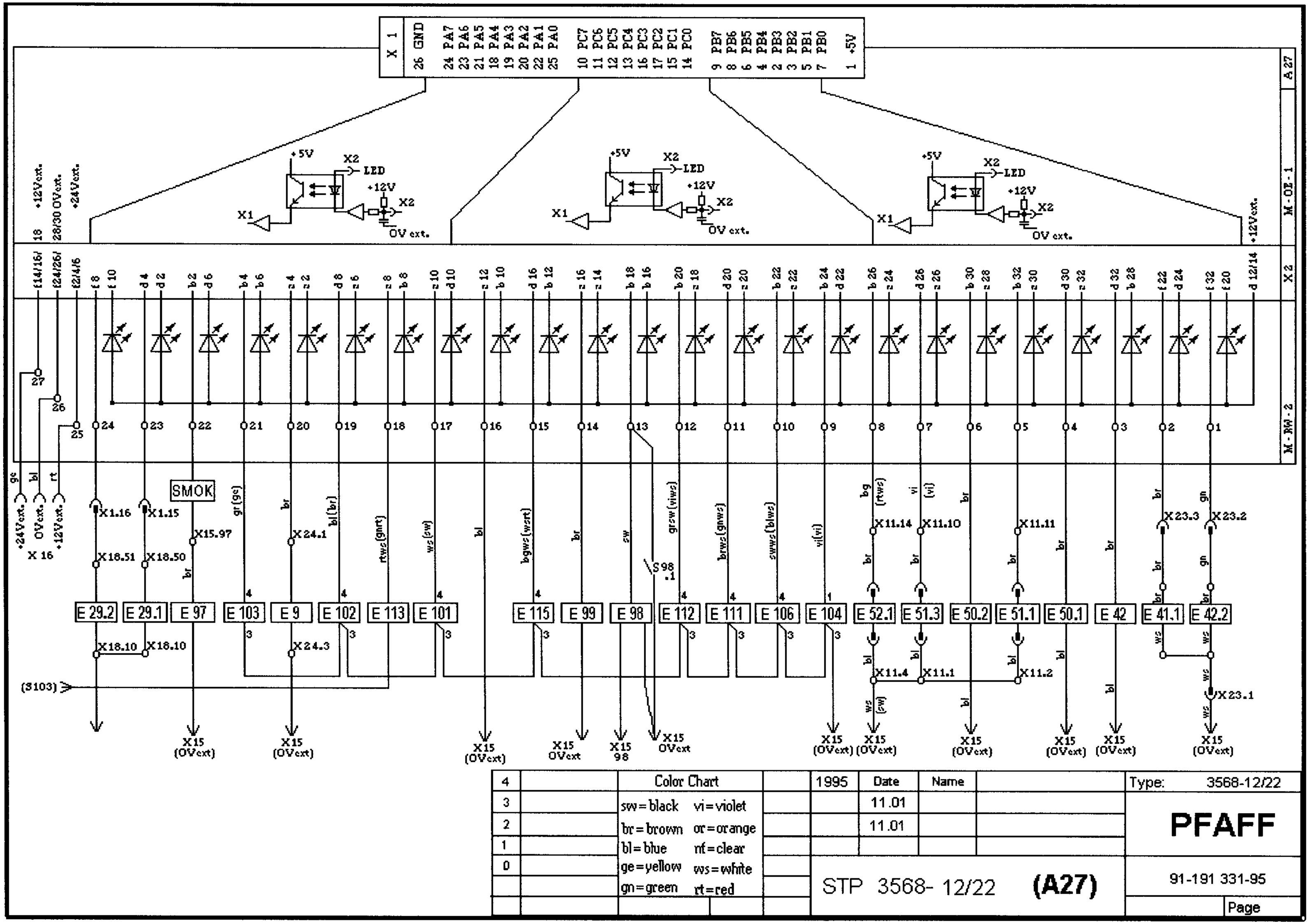
4		Color Chart		1995	Date	Name		Type: 3568-12/22
3		sw = black vi = violet			11.01			PFAFF
2		br = brown or = orange			11.01			
1		bl = blue nt = clear						
0		ge = yellow ws = white		STP 3568-12/22			(A22)	91-191 328-95
		gn = green rt = red						Page



4		Color Chart		1995	Date	Name	Type: 3568-12/22
3		sw = black	vi = violet		11.01		PFAFF
2		br = brown	or = orange		11.01		
1		bl = blue	nf = clear				
0		ge = yellow	ws = white	STP 3568-12/22		(A23)	91-191 329-95
		gn = green	rt = red				Page



4		Color Chart		1995	Date	Name	Type: 3568-12/22
3		sw = black vi = violet			11.01		PFAFF
2		br = brown or = orange			11.01		
1		bl = blue rt = clear					
0		ge = yellow ws = white		STP 3568-12/22 **(A26)**			91-191 330-95
		gn = green rt = red					Page



Color Chart			
sw = black	vi = violet		
br = brown	or = orange		
bl = blue	nf = clear		
ge = yellow	ws = white		
gn = green	rt = red		

	Date	Name	
1995	11.01		
	11.01		

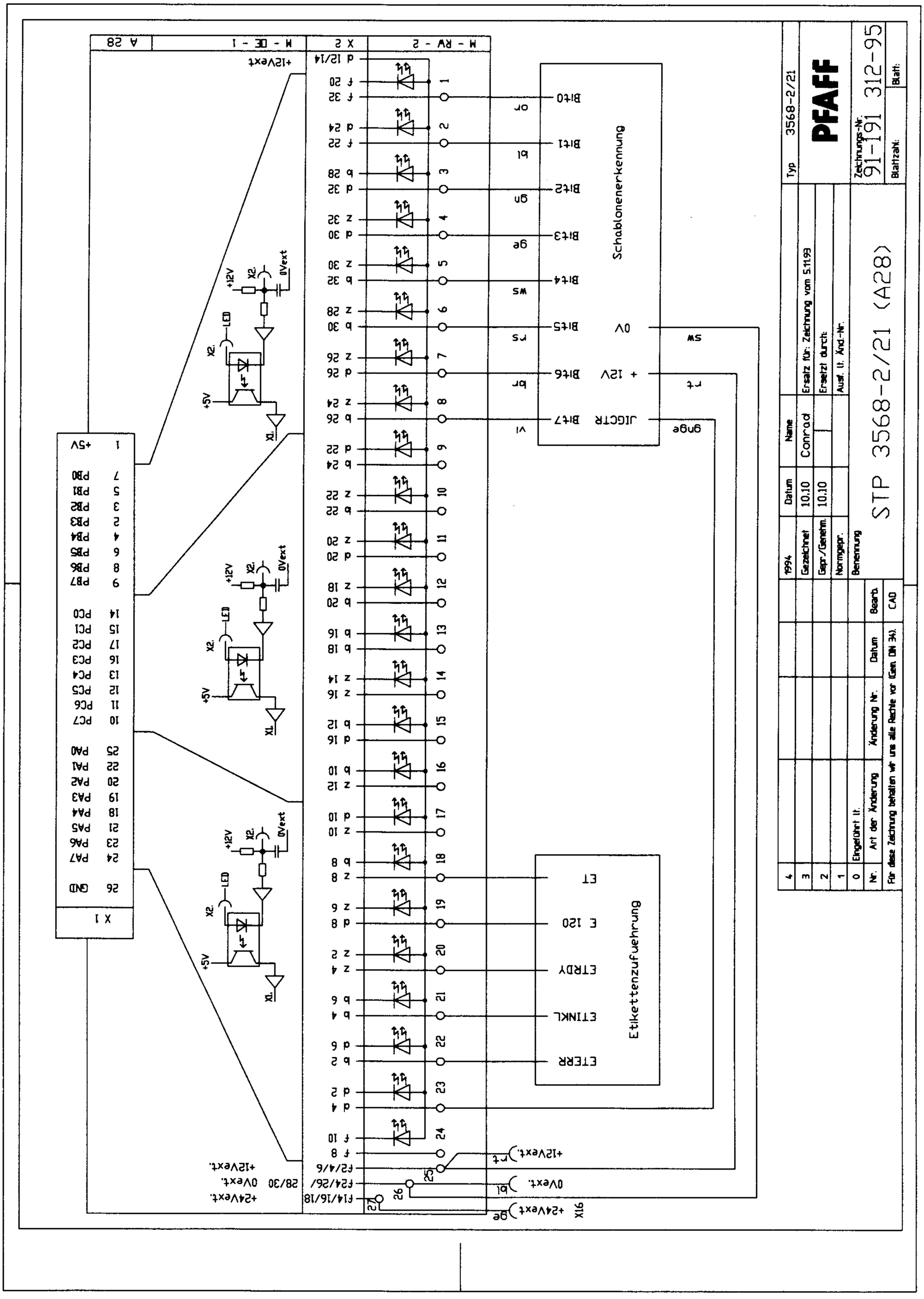
Type: 3568-12/22

PFAFF

STP 3568- 12/22 **(A27)**

91-191 331-95

Page


M - RW - 2
M - DE - 1
A 28
X 2
+12Vext
Schablonenerkennung
Bit0
Bit1
Bit2
Bit3
Bit4
Bit5
Bit6
Bit7
0V
+ 12V
JIGCTR
sw
rt
ge
bl
gn
ge
ws
rs
br
ge
vi
ge
ET
E 120
ETRDY
ETINKL
ETERR
Etikettenzufuehrung
X 1
+5V
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
PC0
PC1
PC2
PC3
PC4
PC5
PC6
PC7
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
GND
+12V
0Vext
LED
X2.
X1.
+5V
+12Vext.
0Vext.
+24Vext.
28/30
f2/4/6
f24/26/
f14/16/18
91X
Typ 3568-2/21
PFAFF
Zeichnungs-Nr.
91-191 312-95
Blattzahl:
Blatt:
Ersatz für: Zeichnung vom 5.11.93
Ersetzt durch:
Ausf. lt. Änd.-Nr.
68-2/21 (A28)
STP 3568
1994
Gezeichnet
10.10
Conrad
Gepr./Genehm.
10.10
Normgepr.
Benennung
Name
Datum
Eingeführt lt.
Art der Änderung
Änderung Nr.
Datum
Bearb.
CAD
Nr.
Für diese Zeichnung behalten wir uns alle Rechte vor (Gem. DIN 34).

A1	Netzgerät	M-NG-5A	91-290 435-91
A3	Best.Ltp.	M-ZE-9/009	91-290 587-93/009
A4	Best.Ltp.	M-MR-3/001	91-290 060-93/001
A5	Best.Ltp.	M-SM-3/018	91-093 459-93/018
A6	Best.Ltp.	M-EA-2/004	91-092 767-93/004
A7	Best.Ltp.	M-EA-2/006	91-092 767-93/006
A8	Best.Ltp.	M-EA-2/005	91-092 767-93/005
A20	Best.Ltp.	M-NG-2	91-093 329-91
A22	Best.Ltp.	M-OA-1	91-092 323-91
A23	Best.Ltp.	M-OA-1	91-092 323-91
A26	Best.Ltp.	M-OE-1	91-092 321-91
A27	Best.Ltp.	M-OE-1	91-092 321-91
A28	Best.Ltp.	M-OE-1	91-092 321-91
A80	Motorendstufe 10A		91-290 343-91

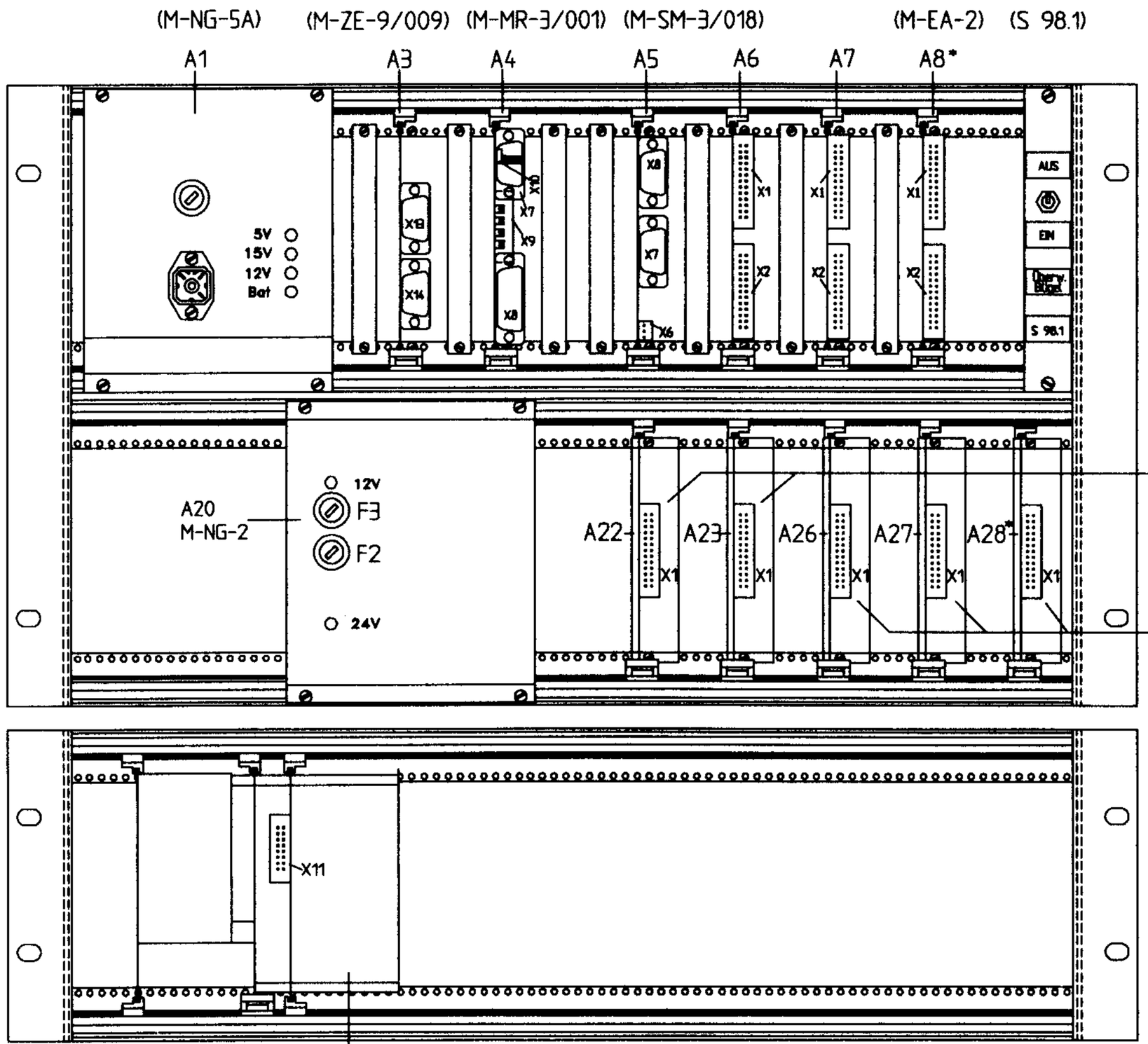
100

Schrift schwarz,Hintergrund transparent.

ähnlich 91 093 854-95

		4						
		3						
		2						
		1						
		0	Eingef. lt.					9
Paßmaß	Abmaße	Nr.	Zahl kommt vor	Änderung Nr.	Datum	Bearb.	Oberflächenzustand	Schl.-zahl x

Allgemeintoleranzen:				Tolerierung DIN ISO 8015	Typ: 3568-2/22
1994	Datum	Name	Oberflächen DIN ISO 1302	Werkstoff: Klebefolie (transparent)	PFAFF
Gezeichnet	04.02.				
Geprüft	04.02.		Werkstückkanten:		
Fkt. gepr.				Hergestellt aus:	Ersatz für:
Normgepr.					Ersetzt durch:
Genehmigt			DIN 6784		Ausf. lt. Änd.-Nr.
Maßstab 1:1			Benennung: Klebefolie (Nummerierung)		Zeichnungs-Nr. 91-291 309-X5
	Schutzvermerke nach DIN 34 beachten. Copyright reserved.			CAD	Blattzahl: / Blatt:



Verkabelung
wireing

von: from:	nach: to:
A3/X13	Programmierfeld
A3/X14	Bedienfeld
A4/X8 A/B	Rotorlagegeber
	Synchronisator
A4/X9	A80/X11
A4/X10	A5/X6
A5/X7	SM Endstufe X
A5/X8	SM Endstufe Y
A6/X1	A23/X1
A6/X2	A22/X1
A7/X1	A27/X1
A7/X2	A26/X1
A8/X1	A28/X1

* A8 M-EA-2 und
A28 M-OA-1 optional
bei Schablonenerkennung

Schrift schwarz , Hintergrund transparent

Nr.	Art der Änderung	Änderung Nr.	Datum	Bearb.
4				
3				
2				
1				
0	Eingeführt lt.			

CAD

	Datum	Name	
1994			
Gezeichnet	15.12.	Conrad	Ersatz für: Zeichnung v. 03.02.94
Gepr./Genehm.	15.12.		Ersetzt durch:
Normgepr.			Ausf. lt. Änd.-Nr.

Benennung

Klebefolie - Bestückung

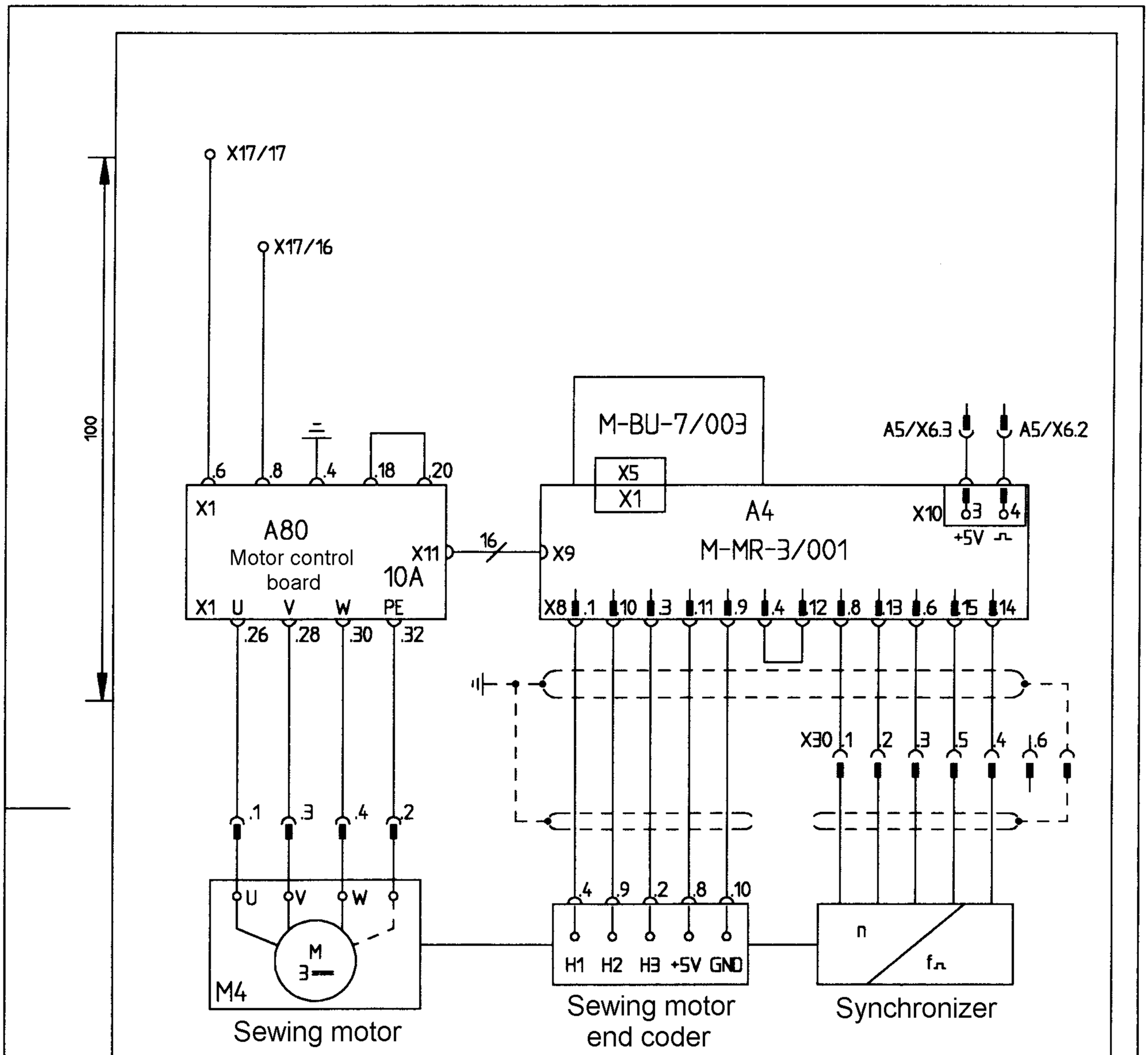
Typ 3568-12/22

PFAFF

Zeichnungs-Nr.
91-291 310-95

Blattzahl: Blatt:

ähnlich 91-094 054-95



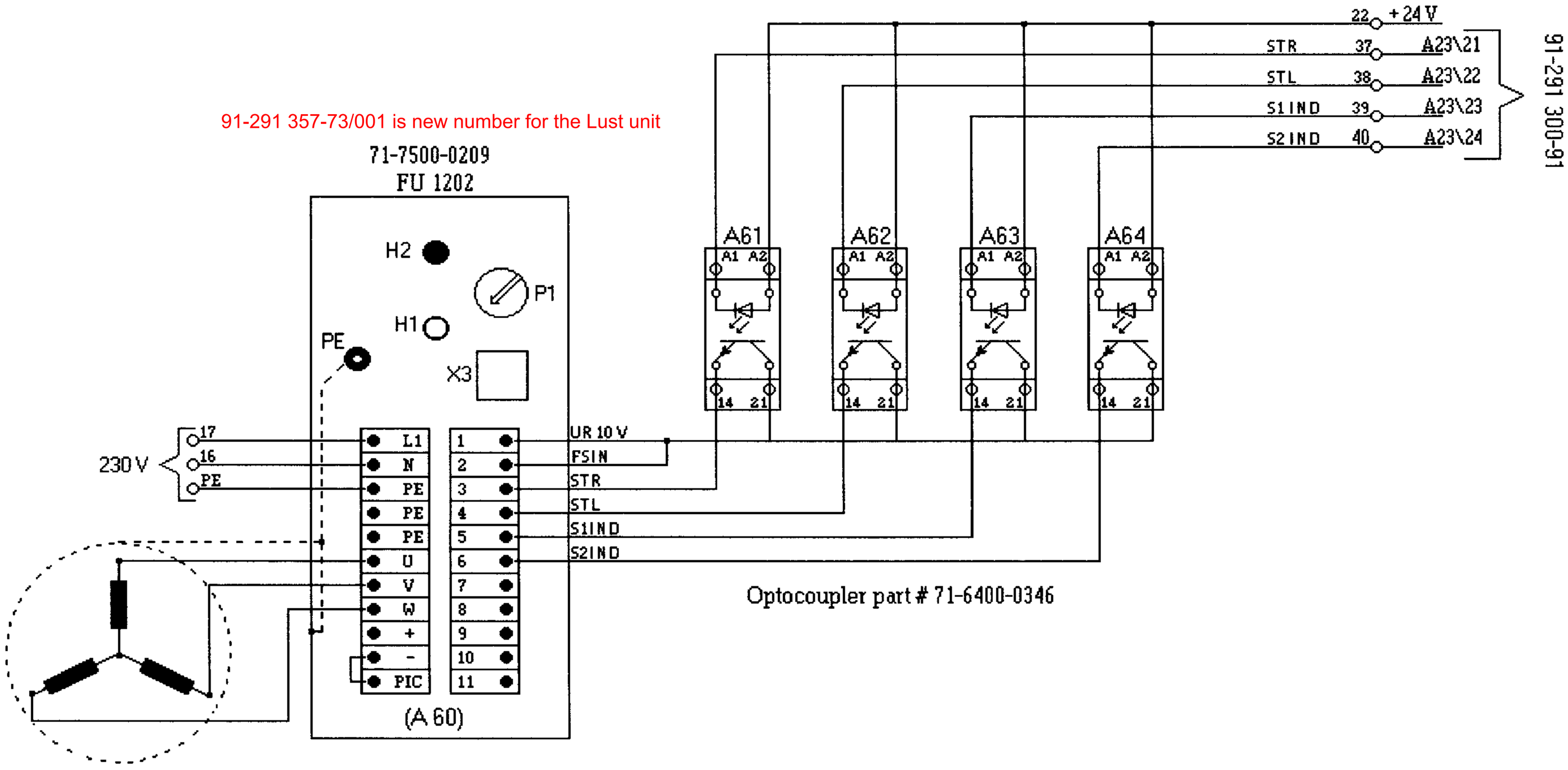
		4						
		3						
		2						
		1					Farbkomb.	
		0	Eingef. lt.					
Paßmaß	Abmaße	Nr.	Zahl kommt vor	Änderung Nr.	Datum	Bearb.	Oberflächenzustand	Schl.-zahl x

ähnlich

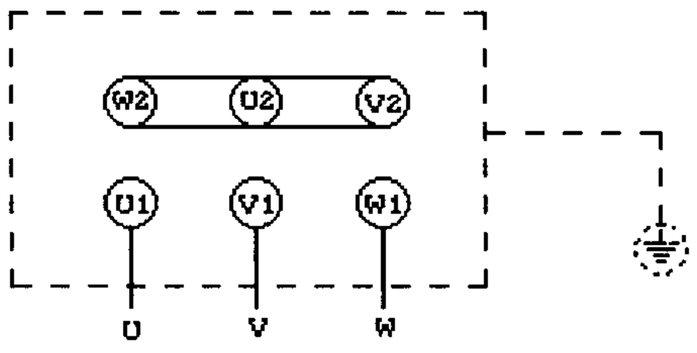
Allgemeintoleranzen:				Tolerierung DIN ISO 8015	Typ: 3568-12/21, /22
1994	Datum	Name	Oberflächen DIN ISO 1302	Werkstoff:	PFAFF
Gezeichnet	22.04	Louis			
Geprüft	22.04		Werkstückkanten:		
Fkt. gepr.				Hergestellt aus:	Ersatz für:
Normgepr.					Ersetzt durch:
Genehmigt	22.04		DIN 6784		Ausf. lt. Änd.-Nr.
Maßstab 1:1			Benennung: STP Sewing motor		Zeichnungs-Nr. 91-191 340-95
	Schutzvermerke nach DIN 34 beachten. Copyright reserved.			CAD	Blattzahl: / Blatt:

91-291 357-73/001 is new number for the Lust unit

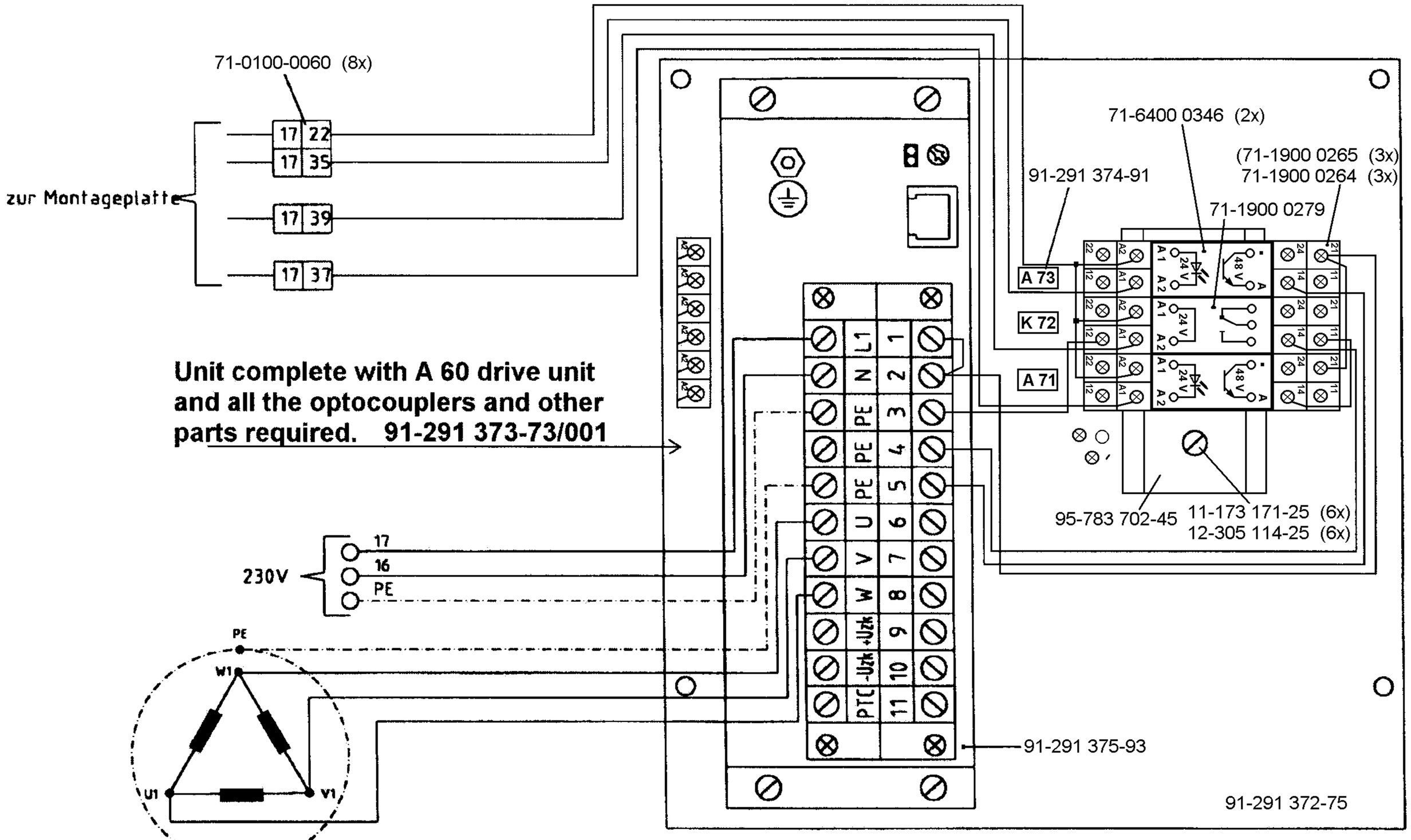
71-7500-0209
FU 1202



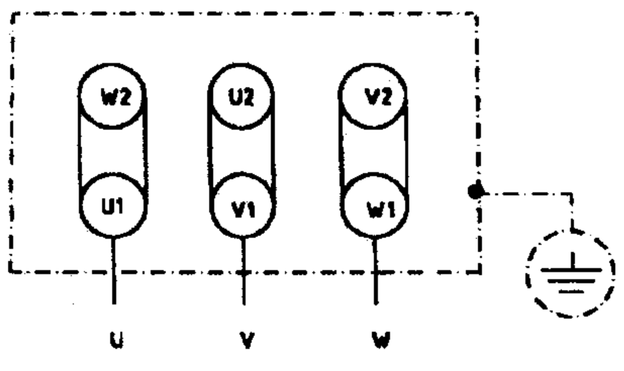
Optocoupler part # 71-6400-0346



1981		Date	Name		3568-12/22
					PFAFF
				STP Frequency Converter	91-191 326-95
					Page of



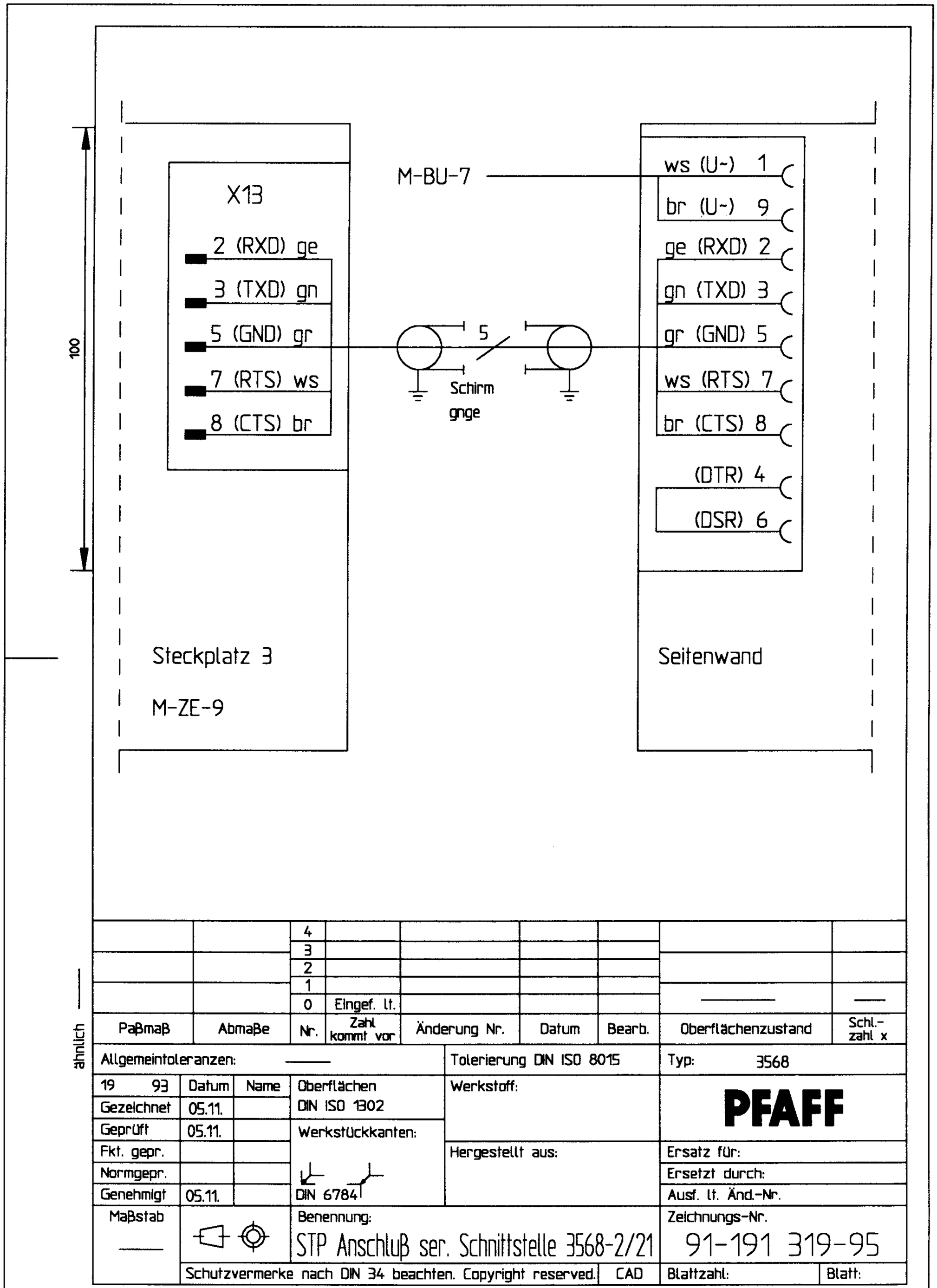
Motoranschluákasten

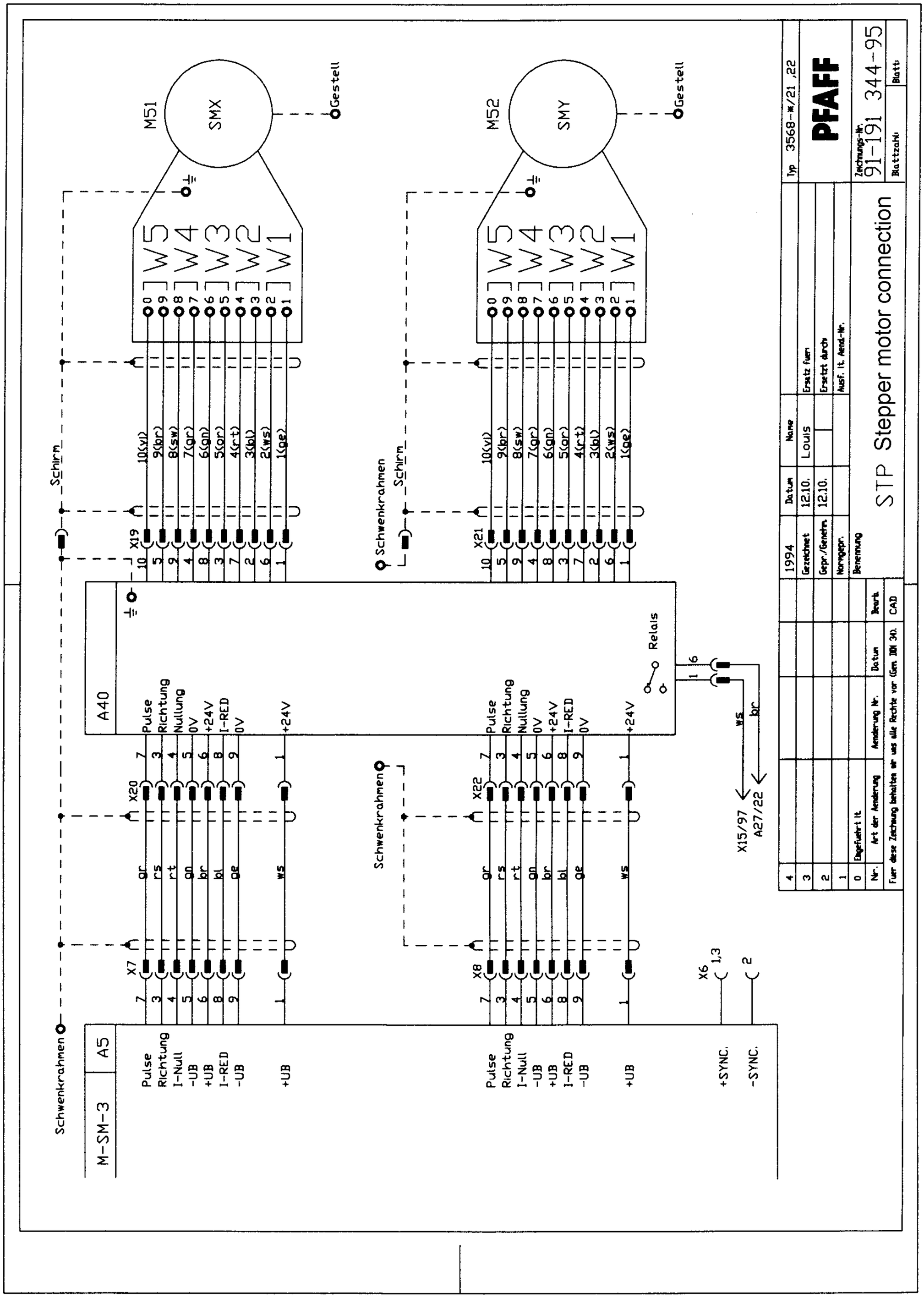


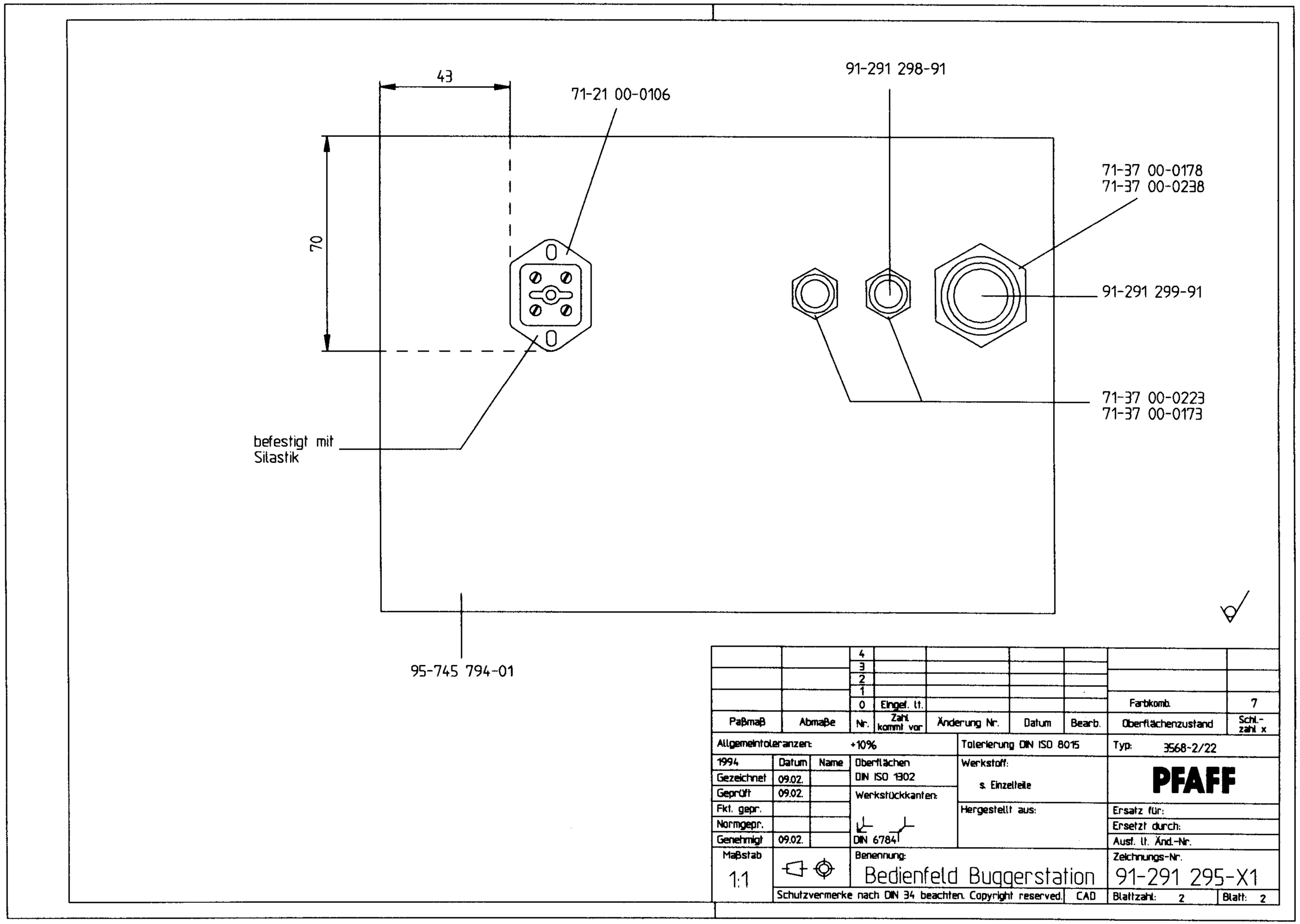
(11-173 171-25 (4x))
(12-305 114-25 (4x))
(11-724 300-55 (4x))
(12-024 151-25 (4x))
(71-3700-0217 (6x))
(71-3700-0353 (3x))
71-3100-0006 (5x)
71-3100-0008 (4x)
71-3100-0009 (3x)
71-3100-0010
71-0100-0141

Dazu STP91-191 346-95

		4						
		3						
		2						
		1						
		0	Eingef. lt.	1-36 518				
Paámaá	Abmaße	Nr.	Zahl kennt ver	?nderung Nr.	Datum	Bearb.	Oberfl?chenzustand	Schl.-zahl x
Allgemeintoleranzen:				Tolerierung DIN ISO 8015			Typ: 3588-=/12	
1997	Datum	Name	Oberfl?chen	Werkstoff:			PFAFF	
Gezeichnet	06.11.	Louis	DIN ISO 1302					
Gepr?ft	06.11.		Werkst?ckkanten:					
Fkt. gepr.				Hergestellt aus:			Ersatz f?r: zeichn. v. 5.12.94	
Normgepr.			DIN 6784	siehe Einzelteile			Ersetzt durch:	
Genehmigt	06.11.						Ausf. lt. ?nd.-Nr. 1-36 921	
Maástab			Benennung: Montageplatte Frequenzumrichte				Zeichnungs-Nr. 91-291 373-95	
			Schutzvermerke nach DIN 34 beachten. Copyright reserved.CAD				Blattzahl:	Blatt:

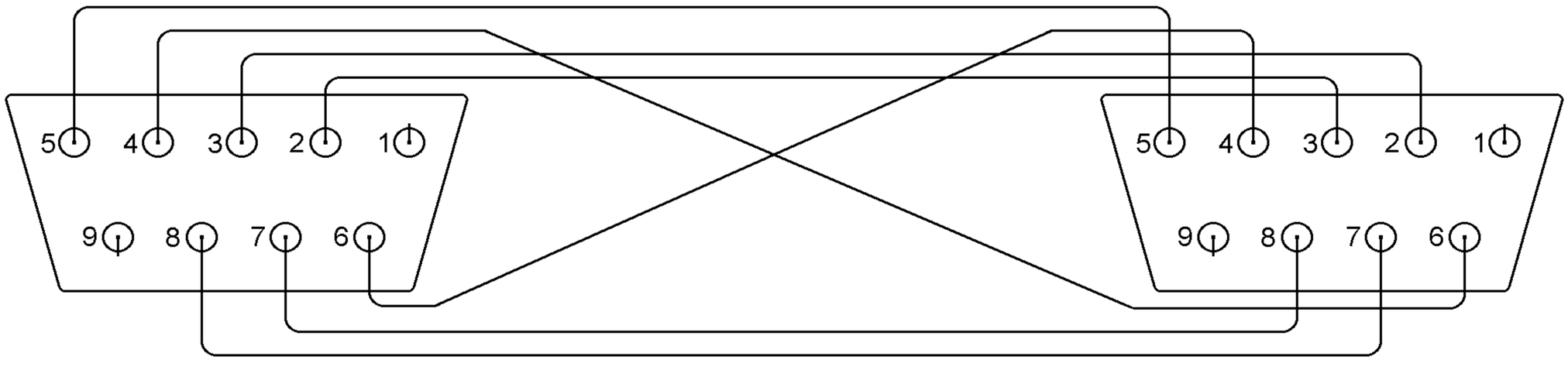

M-BU-7
X13
2 (RXD) ge
3 (TXD) gn
5 (GND) gr
7 (RTS) ws
8 (CTS) br
5
Schirm
gnge
ws (U~) 1
br (U~) 9
ge (RXD) 2
gn (TXD) 3
gr (GND) 5
ws (RTS) 7
br (CTS) 8
(DTR) 4
(DSR) 6
100
Steckplatz 3
M-ZE-9
Seitenwand
ähnlich
4
3
2
1
0
Eingef. lt.
Paßmaß
Abmaße
Nr.
Zahl kommt vor
Änderung Nr.
Datum
Bearb.
Oberflächenzustand
Schl.-zahl x
Allgemeintoleranzen:
Tolerierung DIN ISO 8015
Typ: 3568
19 93
Datum
Name
Gezeichnet 05.11.
Geprüft 05.11.
Fkt. gepr.
Normgepr.
Genehmigt 05.11.
Oberflächen DIN ISO 1302
Werkstückkanten:
DIN 6784
Werkstoff:
Hergestellt aus:
PFAFF
Ersatz für:
Ersetzt durch:
Ausf. lt. Änd.-Nr.
Maßstab
Benennung:
STP Anschluß ser. Schnittstelle 3568-2/21
Zeichnungs-Nr.
91-191 319-95
Schutzvermerke nach DIN 34 beachten. Copyright reserved.
CAD
Blattzahl:
Blatt:


M51
SMX
Gestell
M52
SMY
Gestell
W5
W4
W3
W2
W1
0 9 8 7 6 5 4 3 2 1
U
Schirm
X19
10 5 9 4 8 3 7 2 6 1
10(vi)
9(br)
8(sw)
7(gr)
6(gn)
5(or)
4(rt)
3(bl)
2(ws)
1(ge)
Schwenkrahmen
X21
A40
Pulse
Richtung
Nullung
0V
+24V
I-RED
0V
+24V
X20
7 3 4 5 6 8 9 1
gr rs rt gn br bl ge ws
Relais
1 6
ws
br
X15/97
A27/22
X22
X7
X8
M-SM-3
A5
Pulse
Richtung
I-Null
-UB
+UB
I-RED
-UB
+UB
X6
1,3
2
+SYNC.
-SYNC.
PFAFF
Typ 3568-*/21 ,22
Zeichnungs-Nr.
91-191 344-95
Blattzahl
Blatt
Ersatz fuer
Ersetzt durch
Ausf. lt. Aend.-Nr.
STP Stepper motor connection
1994
Datum
Name
Gezeichnet
12.10.
Louis
Gepr./Genehm.
12.10.
Normgepr.
Benennung
Nr.
Art der Aenderung
Aenderung Nr.
Datum
Beurb.
Dieser Zeichnung behalten wir uns alle Rechte vor (Gem. DIN 34).
CAD



		4							
		3							
		2							
		1							
		0	Eingef. lt.					Farbkomb.	7
Paßmaß	Abmaße	Nr.	Zahl kommt vor	Änderung Nr.		Datum	Bearb.	Oberflächenzustand	Schl.-zahl x

Allgemeintoleranzen: +10%				Tolerierung DIN ISO 8015	Typ: 3568-2/22
1994	Datum	Name	Oberflächen DIN ISO 1302	Werkstoff: s. Einzelteile	PFAFF
Gezeichnet	09.02.				
Geprüft	09.02.		Werkstückkanten: DIN 6784	Hergestellt aus:	Ersatz für:
Fkt. gepr.					Ersetzt durch:
Normgepr.					Ausf. lt. Änd.-Nr.
Genehmigt	09.02.				
Maßstab 1:1			Benennung: Bedienfeld Buggerstation		Zeichnungs-Nr. 91-291 295-X1
			Schutzvermerke nach DIN 34 beachten. Copyright reserved.	CAD	Blattzahl: 2 Blatt: 2



Wireing connections for the interface cable
used on the Pfaff System 3000 program unit

1.4.2 Steuerkarte D 650.0X

1.4.2.1 Betriebsdaten

Betriebsspannung	70 - 130 VDC ± 10%
Phasenströme einstellbar	2,0 - 5,0 A
Boost einstellbar	1,0 - 1,9xI_N (max.6A)
Anzeige für Bereitschafts- und Störungsanzeigen	LEDs
Drehschalter zur Einstellung des Boost	
Drehschalter zur Einstellung des Phasenstroms	

1.4.2.2 Anzeige und Programmierschalter

1.4.2.3 Boost (Grenzwert I_{Boost} = 6 A max.)

I_{Boost}	$1,0xI_N$	$1,1xI_N$	$1,2xI_N$	$1,3xI_N$	$1,4xI_N$	$1,5xI_N$	$1,6xI_N$	$1,7xI_N$	$1,8xI_N$	$1,9xI_N$
Stellung	0	1	2	3	4	5	6	7	8	9

top rotary dial switch must poiont to the 0 position

1.4.3.3 Phasenstrom (Angabe in A)

I (A)	2,0	2,2	2,4	2,6	2,8	3,0	3,2	3,4	3 6	3,8
Stellung	0	1	2	3	4	5	6	7	8	9

I (A)	4,0	4,2	4,4	4,6	4,8	5,0				
Stellung	A	B	C	D	E	F				

bottom rotary dial switch must point to the F position

1.4.3.4 Stromabsenkung

Schalterstellung	OFF		ON	
Pulsfrequenz	< 10 Hz	> 10 Hz	< 10 Hz	> 10 Hz
Motorstrom I	$I_{Nenn} \times 0,6$	I_{Nenn}	I_{Nenn}	I_{Nenn}

1.4.3.5 Schrittwinkel

Schalterstellung	OFF	ON
Schrittwinkel	Halbschritt 1000 Schritte pro Umdrehung	Vollschritt 500 Schritte pro Umdrehung

switch # 3 | Half step | Full step