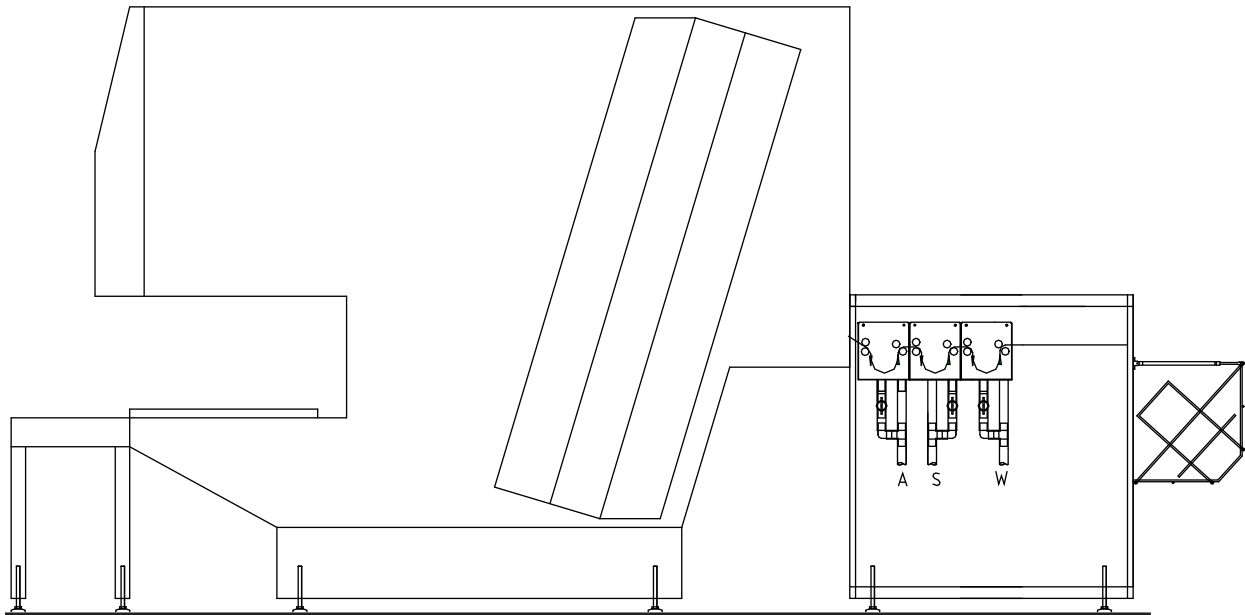


Important

Your off-line processor has a built in exhaust blower. Even if the main switch is switched off, the blower will still be on. This is to prevent chemical fumes exiting from the feedtray. If a timer is connected in series with the main power cable, the processor has to be modified, so that the exhaust blower is always running.

**Hope / Carnfeldt EP 1140 CP Multi 1100 Camera****8.1 General**

This section contains the processor's basic operating instructions for working on/off-line.

Before operating the processor on-line, the procedures in section three Installation must be performed. Read this entire section and section four (Operation) before attempting to operate the processor.

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Edition: 11 January 2002

Product numbers:

330810

SECTION 8

8.2 Off-Line Processing

When using your Hope/Carnfeldt processor as off-line processor please observe the following symbols on the panel:



Ready for off-line feed



Off-line feed. (A film is under the inlet sensor).

For setting up the processor in general please revert to section 4.9 Panel Operations.

Using the Processor Off-Line

When inserting film please ensure that the film is centred. An arrow indicates the centre of the processor. See fig.

Processing Polyester Plates

High-quality printwork and uniform results are only possible if the processing conditions are absolutely consistent. Scratch-free, uniform processing is essential. You can check whether or not your processor processes uniformly with the aid of an unexposed silver plate.

Process an unexposed silver plate at 20, 25 and 30 sec. Then look for the best compromise of the brightest silver image. The one with the most uniform colour over the printing area usually has the best development. Remember that the first end (up to 60mm) and the last end (up to 30mm) is used for clamping in the press and will not be printed. On some of these parts you can expect scratches due to the transport in the processor (see drawing of plate page 93).

Please follow these guidelines to ensure unproblematic operation with polyester. Note the following, when working with Mitsubishi material and chemistry:

Plate material

- Polyester plate should be stored in dry and stable temperature conditions.
- The plate should not be stored more than one year.

Activator SLM-AC

- Activator temperature should be between 28-31°C.
- Processing time should be between 20 to 30 sec.
- pH value approximately 13,7. Replace it if less than 12,8.
- Replenishment rate about 150 cc/sqm.

Stabilizer SLM-ST

- Stabilizer temperature should be about room temperature.
- Processing time should be between 20 to 30 sec.
- pH value approximately 6,0 – Replace if more than 7,0.
- Replenishment rate about 200 cc/sqm.

Wash

- Ensure that the wash section is clean from algae.
- Drain the wash tank and let it stay dry over weekends.
- Do not use chlorine (bleach) for cleaning.

Dryer

- The drying temperature should be about 40-50 °C.

General use

The result will change in case of abnormal conditions such as:

- Long time where the chemistry has not been used. If it has not been used, the result can change (it might not be visible). A complete change of the chemistry is advisable every month.
- If there are problems, you may benefit by adding a little old chemistry to the new fresh chemistry (the new can be too active on the first 5-8 sheets).
- High evaporation will cause changes of the final result.
- If the laser intensity is adjusted too low, longer processing time cannot correct the quality of the overall result (density numbers of prints eg.).

- Different batches of plate material may have different emulsion. A calibration of exposure and processing should therefore be performed when changing batch.

If one or more of the conditions are not correct, you can sometimes see problems such as:

- Transport problems: Scratches, white lines on the silver part.
- Reduced print capacity, e.g. only 5000 prints.
- Increased sensitivity: Fingerprints are easily seen on the silver part of the plate (the plates are always sensitive).
- Problems with density.

These are only a few of the parameters that will influence the work with polyester plate. Echo Graphic only has influence on the developing part. Basically, only the manufacturers of the plate can evaluate the result. When using materials not mentioned here please contact the manufacturer for developing parameters. More information about the entire process with Silver Digiplate can be obtained in the technical guide from Mitsubishi.

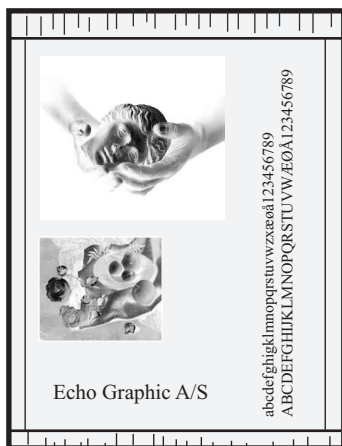
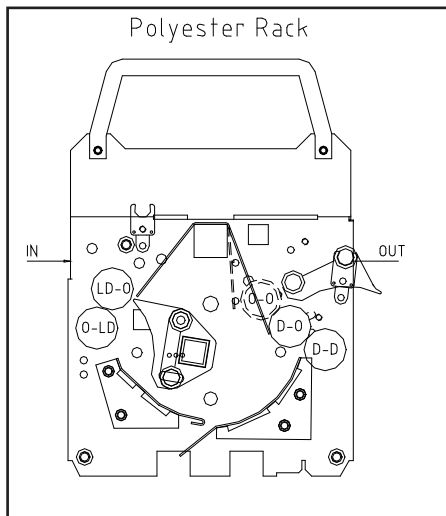


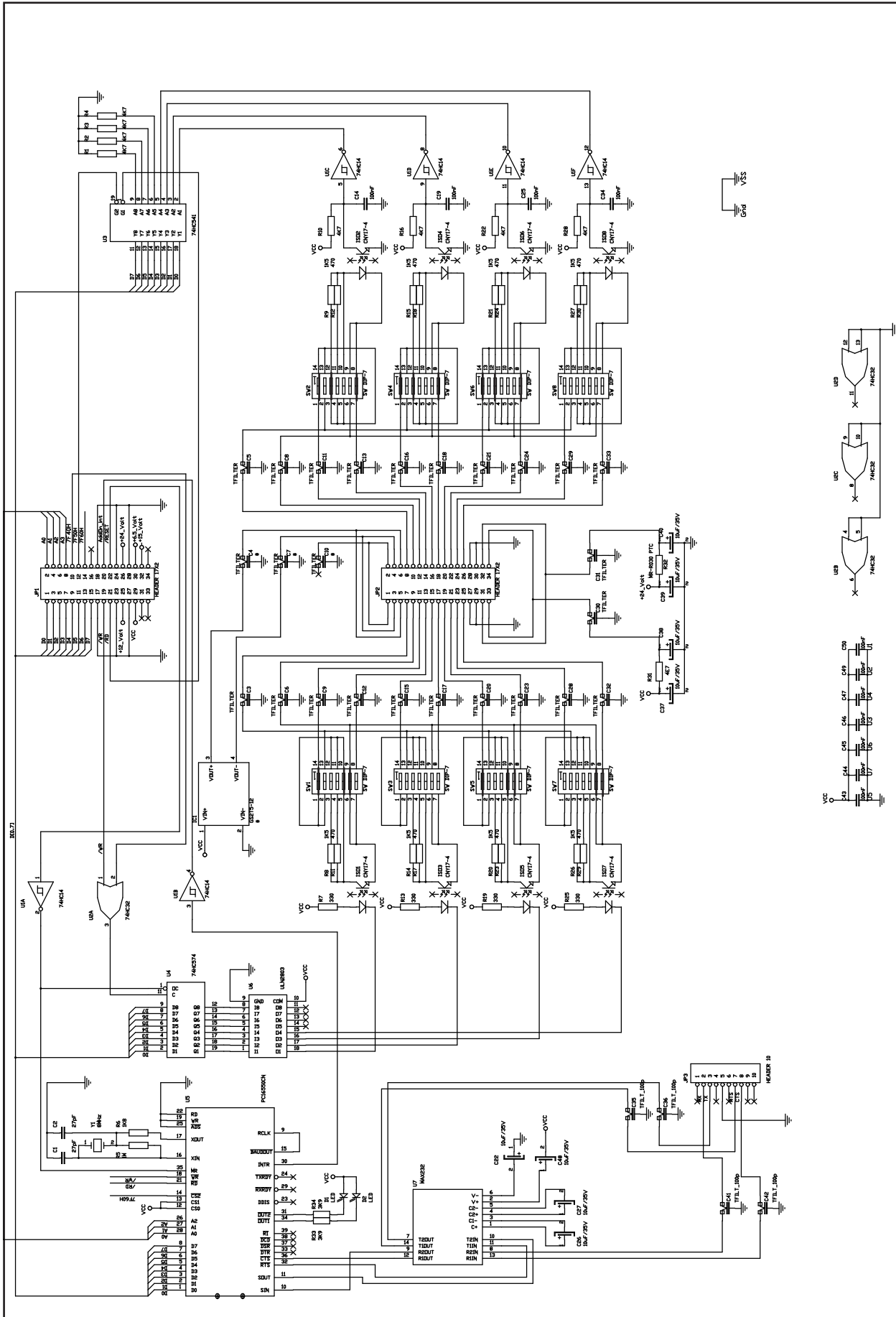
Plate drawing

↓ Direction through processor



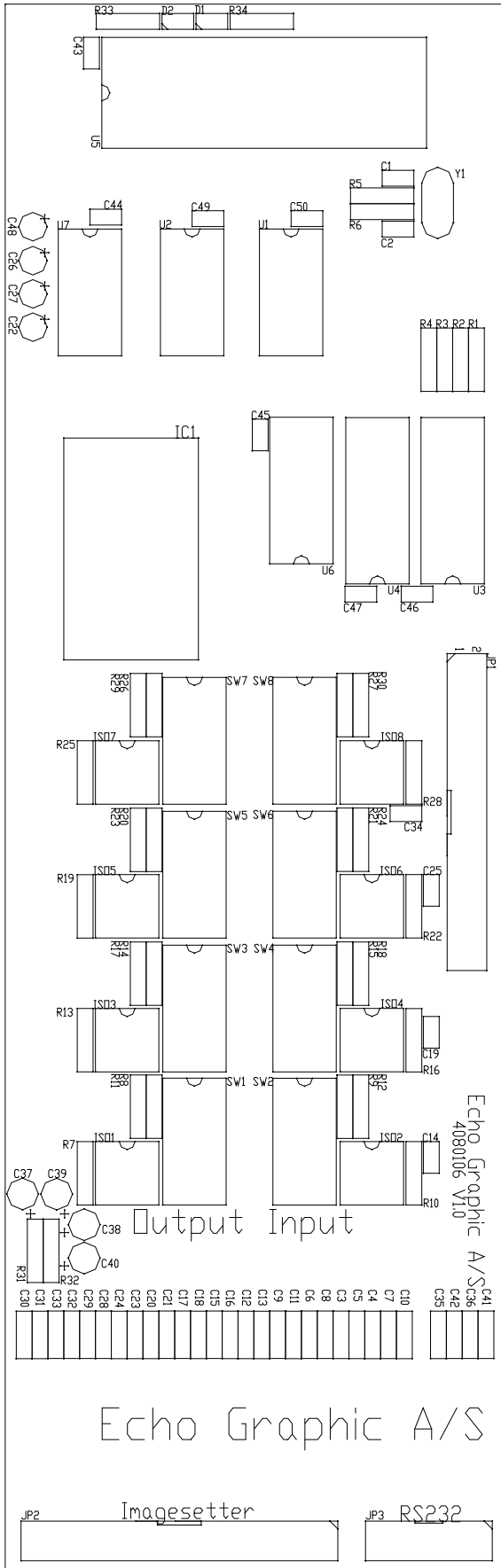
Side view of the newest version of polyester racks with blade guides. Imagesetters with a feed where the emulsion is down can be different (like the conventional rack).

SECTION EIGHT: Off-Line Description EP 1140 CP Multi 1100 Camera



SECTION 8

Interface Diagram, Drawing 4080106a

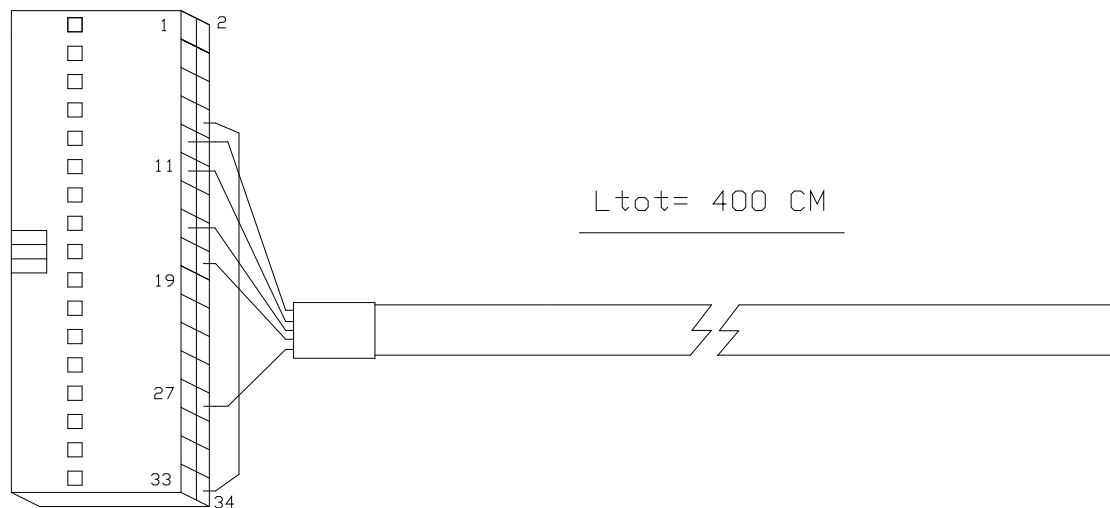


Jumper Settings with Camera

SWITCH	POS 1	POS 2	POS 3	POS 4	POS 5	POS 6	POS 7
SW1	ON			ON	ON	ON	
SW2		ON					
SW3			ON		ON	ON	
SW4				ON			ON
SW5							
SW6							
SW7							
SW8							

Interface Board Location Drawing 4080106b

SECTION EIGHT: Off-Line Description EP 1140 CP Multi 1100 Camera



J17

- 8 - Red
- 9 - White
- 11- Brown
- 15- Green
- 18- Yellow
- 28- Grey
- 34- Red

- 1 - Yellow - 8N
- 2 - Grey - GND
- 3 - Green - B
- 4 - White - A
- 5 - Brown - C

SECTION 8

On-line cable , Drawing 330811

Installation of Repl./overflow sensors

INSTRUCTIONS

1. Turn off the processor and remove the wall plug.
2. Remove the front cover placed in front of the main board on the side plate. See fig. 1.
3. All cables from the container are equipped with a silver label explaining the use of the container. Use this information to mount the sensors on the main PCB. See fig. 5 on the next page.
4. Turn on the processor and revert to the service menu. See page 2 for information about how to gain access to the service menu. Revert to ^{SEN-}SOR .
5. Use the left and right arrows until level sensor appears (see fig. 3 and 4). Use +/- to enable the following sensors: DEV REPL. SOURCE, FIX REPL. SOURCE (sensor in repl. container), DEV SINK OVERFLOW and FIX SINK OVERFLOW.

When upgrading your software you must repeat the installation of the sensors.



Fig. 1 The main board

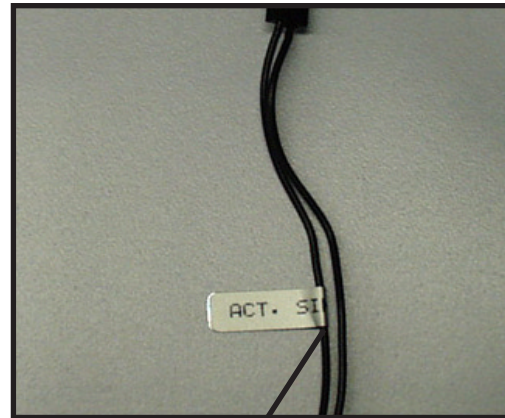


Fig. 2 Name of sensor

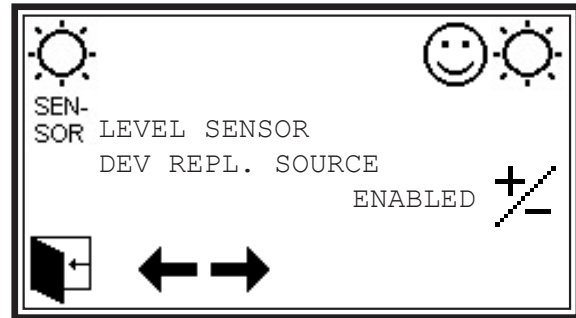


Fig 3.

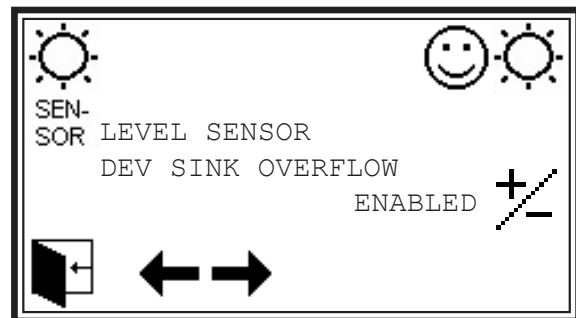


Fig 4.

SECTION EIGHT: Off-Line Description EP 1140 CP Multi 1100 Camera

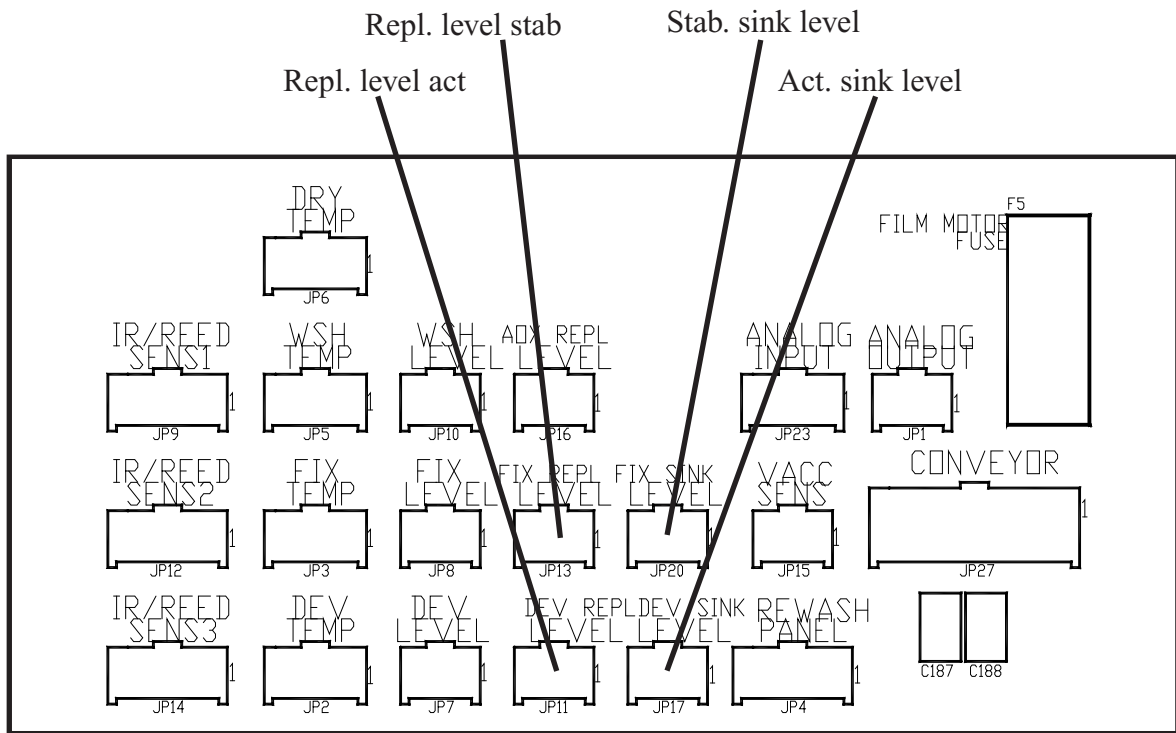


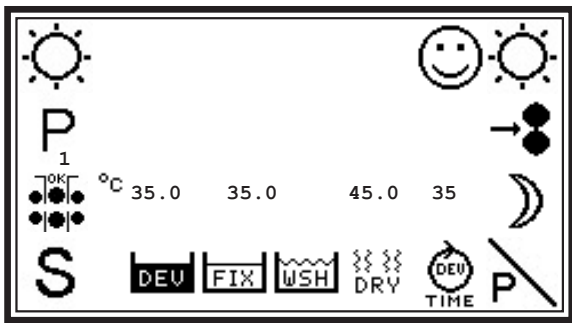
Fig. 5 Mounting of sensors

Accessing the Configuration Utility

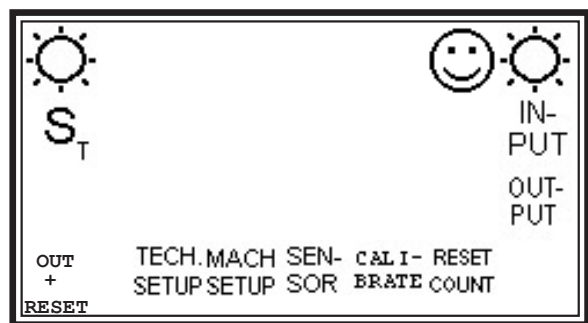
Access to the Service Menu

Switch off and on the processor and press **S** when the processor is in stand-by mode.

The service menu appears:

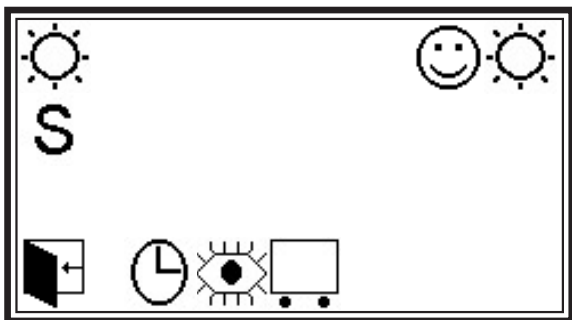


Stand-by mode



Service menu

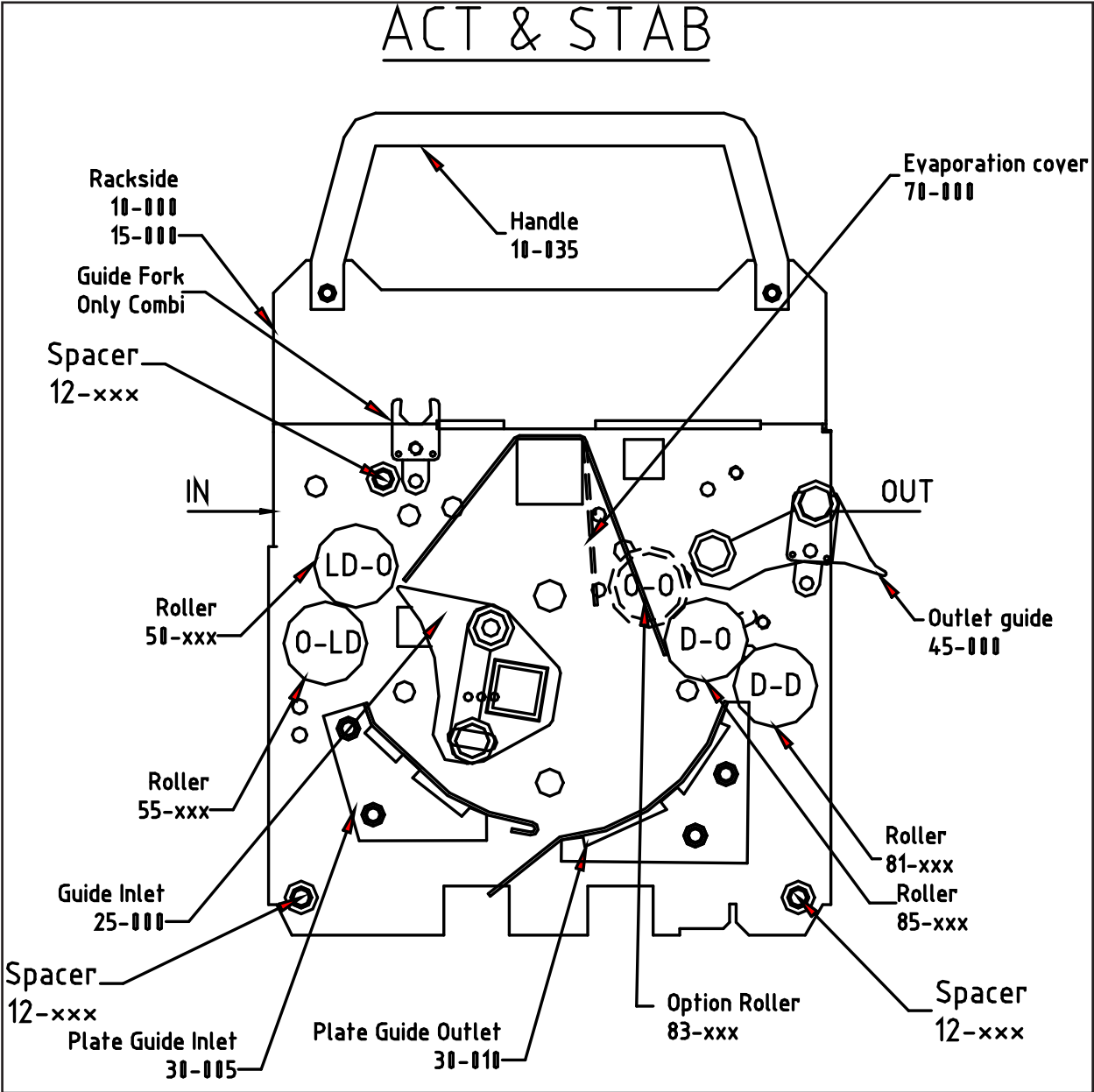
SECTION 8



When the setup menu appears press the three right buttons in the following order: Top, middle and bottom.

Empty page

8.3 Rack Drawings Off-Line



SECTION 8

ACT / STAB Rack, Drawing 5980a

SECTION EIGHT: Off-Line Description EP 1140 CP Multi 1100 Camera

Act rack 114cm R18
330946

Revised: 06/12/2001

Revision:

Bill of Materials Current Date: 06/12/2001 Drawing Ref:

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Item	Quantity	Reference Part	Partno	Partdescription
1	1	ST 10-000	SU 305345	Rackside L Gear R18 camera
2	2	ST 10-035	233054	Handle For Rack
3	3	ST 12-000	330004	Spacer >10x1x1168mm
4	6	ST 12-005	88061	Screw WG 6x30 A4 Din 571
5	6	ST 12-010	65633	Plug S8
6	6	ST 12-015	88203	Spring Washer 6MM A4 Din 127B
7	1	ST 12-100	324050	Evaporation cover
8	1	ST 15-000	SU 305365	Rackside R. Gear R18 camera
9	8	CM 15-007	68669	Tape (Act)
10	1	ST 25-000	SU 330627	Guide inlet 217154 2xM5
11	1	ST 30-005	324906	Inlet plate Guide EP1140
12	1	ST 30-010	324907	Outlet plate Guide EP1140
13	8	ST 30-015	88023	Screw Mg 4x10 A4 Din 84
14	8	ST 30-020	88201	Spring Washer 4MM A4 Din 127B
15	1	ST 45-000	SU 330825	Guide outlet 217154 M5 /white
16	1	ST 50-000	330354	Roller soft EPDM 1"X1143
17	1	ST 50-001	235184	Axle- ø1/4" x 47.8 Long
18	1	ST 50-002	276074	Axle-D, Long F.1 Gear Wheel
19	1	ST 55-000	330354	Roller soft EPDM 1"X1143
20	1	ST 55-001	235184	Axle- ø1/4" x 47.8 Long
21	1	ST 55-002	276084	Axle-D, Long F.2 Gear Wheel
22	1	ST 70-000	330165	Evaporation Cover R18 1166mm
23	1	ST 81-000	330354	Roller soft EPDM 1"X1143
24	1	ST 81-001	235184	Axle- ø1/4" x 47.8 Long
25	1	ST 81-002	276044	Axle D
26	1	ST 83-000	330034	Roller SR 13/16"x1143mm
27	2	ST 83-005	276034	Axle-ø
28	1	ST 85-000	330354	Roller soft EPDM 1"X1143
29	1	ST 85-001	235184	Axle- ø1/4" x 47.8 Long
30	1	ST 85-002	276084	Axle-D, Long F.2 Gear Wheel
31	1	ST 90-000	SU 330596	Drive axle1143 >14 80T/24T PP

SECTION EIGHT: Off-Line Description EP 1140 CP Multi 1100 Camera

Guide inlet 217154 2xM5 Revised: 06/12/2001

330627 Revision:

Bill of Materials Current Date: 06/12/2001 Drawing Ref:

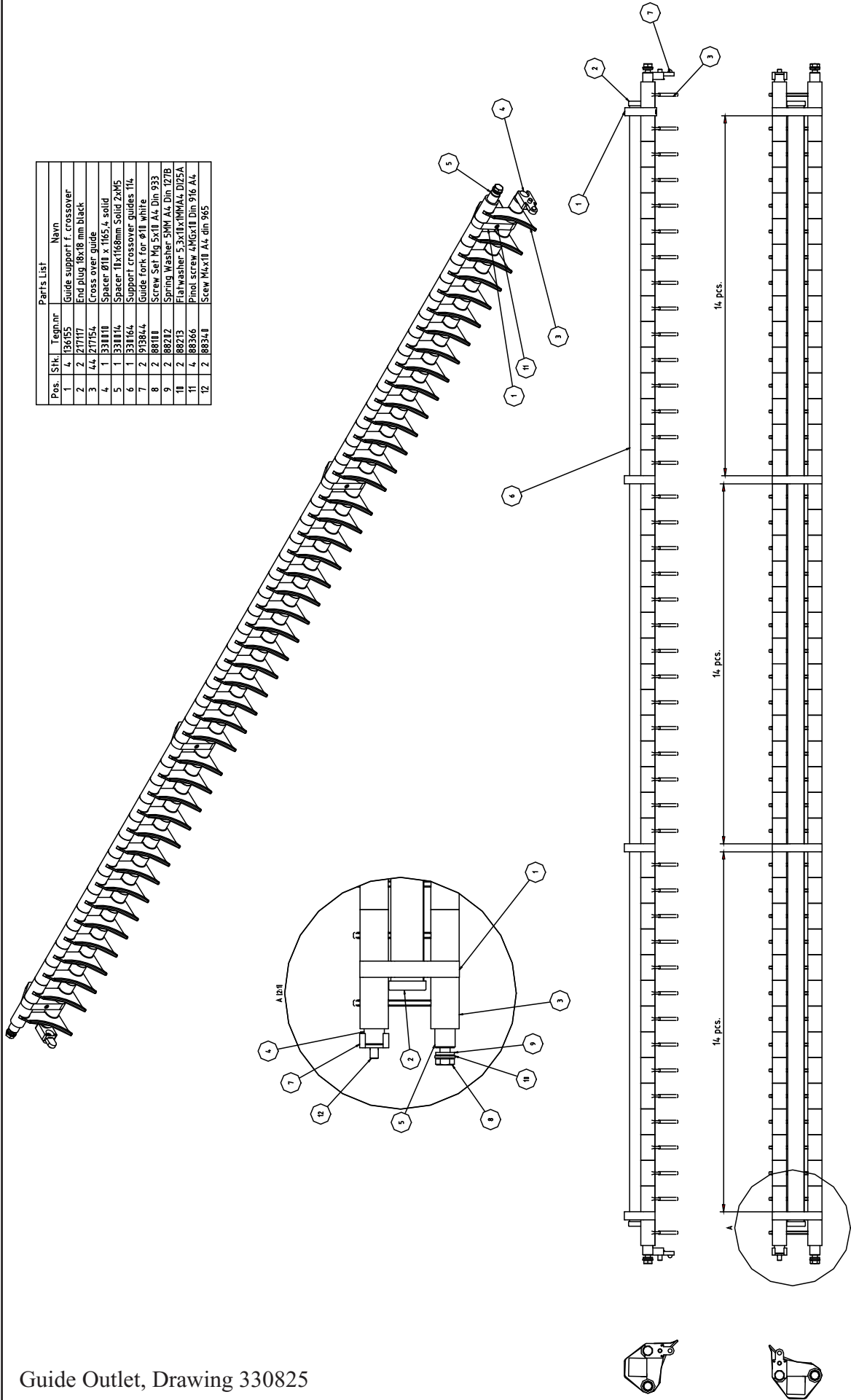
Page 1

Item	Quantity	Reference Part	Partno	Partdescription
1	6 ST		136155	Guide Support 8mmm stainless
2	2 ST		217117	End plug 18x18 mm black
3	45 ST		217154	Cross Over Guide
4	2 ST		330014	Spacer >10x1168mm solid 2xM5
5	1 ST		330164	Support crossover guides 114
6	4 ST		88100	Screw Set Mg 5x10 A4 Din 933
7	4 ST		88202	Spring Washer 5MM A4 Din 127B
8	4 ST		88213	Flatwasher 5,3x10x1MMA4 DI25A
9	6 ST		88366	Pinol screw 4MGx10 Din 916 A4

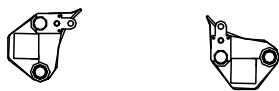
SECTION EIGHT: Off-Line Description EP 1140 CP Multi 1100 Camera

SECTION 8

Parts List			
Pos.	Stk.	Teghnr	Navn
1	4	136155	Guide support f. crossover
2	2	271117	End plug 18x18 mm black
3	44	27154	Cross over guide
4	1	331111	Spacer Ø11 x 1165,4 solid
5	1	331114	Spacer 18x1168mm Solid 2xM5
6	1	331164	Support crossover guides 114
7	2	193844	Guide fork for Ø11 white
8	2	186111	Screw Set M4 5x11 A4 Din 933
9	2	186212	Spring Washer 5MM A4 Din 127B
10	2	186213	Flat Washer 5,3x11x1MM A4 D125A
11	4	186366	Pincl screw 4x10x11 Din 916 A4
12	2	186341	Screw M4x11 A4 din 905



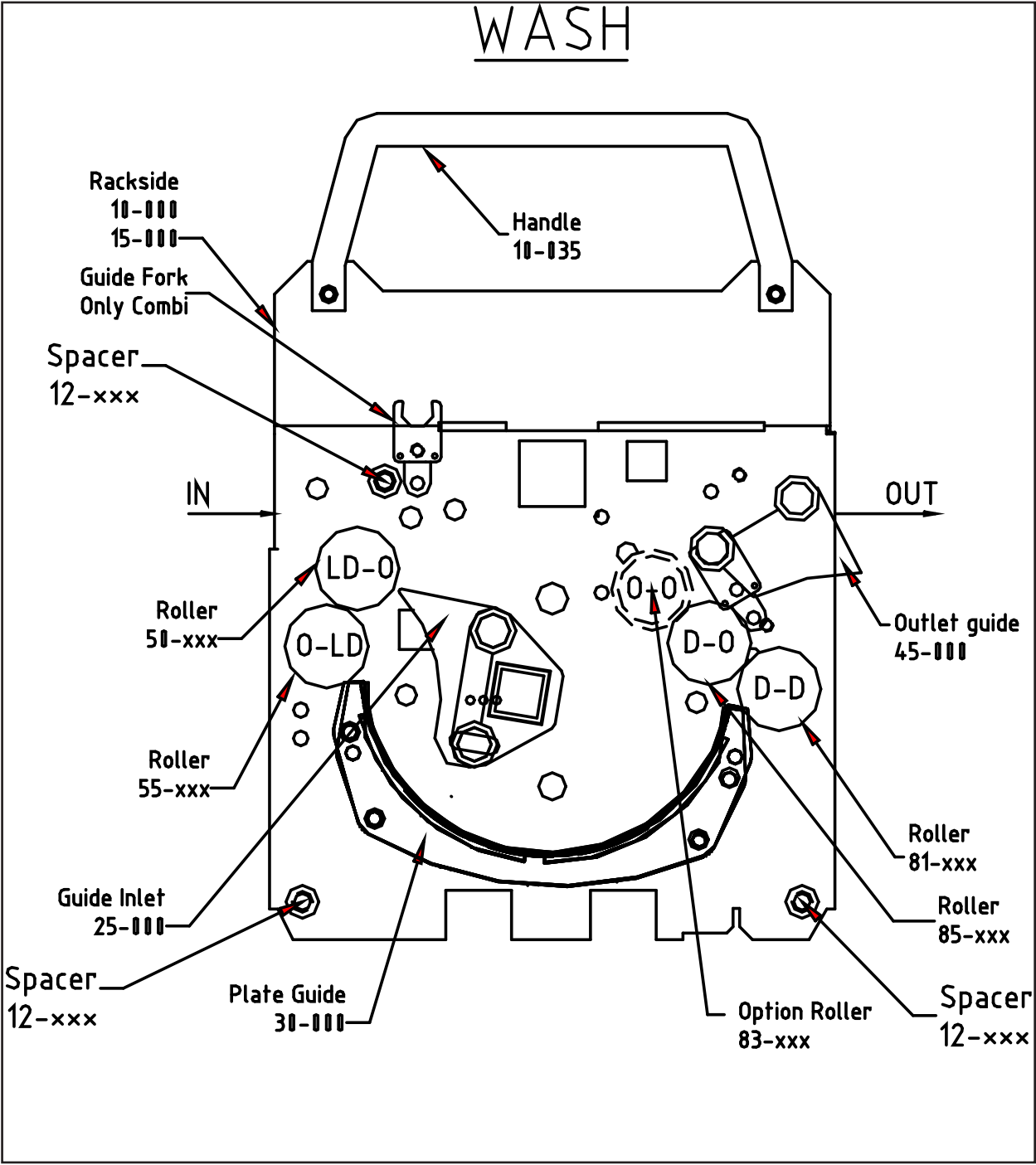
Guide Outlet, Drawing 330825



SECTION EIGHT: Off-Line Description EP 1140 CP Multi 1100 Camera

Guide outlet 217154 M5 Revised: 06/12/2001
 330825 Revision:
 Bill of Materials Current Date: 06/12/2001 Drawing Ref:
 Page 1

Item	Quantity	Reference Part	Partno	Partdescription
1	6 ST		136155	Guide Support 8mmm stainless
2	2 ST		217117	End plug 18x18 mm black
3	45 ST		217154	Cross Over Guide
4	1 ST		330010	Spacer \varnothing 10 x 1165,4 solid
5	1 ST		330014	Spacer \varnothing 10x1168mm solid 2xM5
6	1 ST		330164	Support crossover guides 114
7	2 ST		88004	Screw Mg 3x12 A4 Din 84
8	2 ST		88100	Screw Set Mg 5x10 A4 Din 933
9	2 ST		88151	Nut M3 A4 Din 934
10	2 ST		88200	Spring Washer 3MM A4 Din 127B
11	2 ST		88202	Spring Washer 5MM A4 Din 127B
12	2 ST		88213	Flatwasher 5,3x10x1MMA4 DI25A
13	6 ST		88366	Pinol screw 4MGx10 Din 916 A4
14	2 ST		913844	Guide Fork short F. \varnothing 10 white



SECTION 8

Wash Rack, Drawing 5980b

SECTION EIGHT: Off-Line Description EP 1140 CP Multi 1100 Camera

Wash rack 114cm R18
330962

Revised: 06/12/2001
Revision:

Bill of Materials Current Date: 06/12/2001 Drawing Ref:

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Item	Quantity	Reference Part	Partno	Partdescription
1	1	ST 10-000	SU 305345	Rackside L Gear R18 camera
2	2	ST 10-035	233054	Handle For Rack
3	3	ST 12-000	330004	Spacer >10x1x1168mm
4	6	ST 12-005	88061	Screw WG 6x30 A4 Din 571
5	6	ST 12-010	65633	Plug S8
6	6	ST 12-015	88203	Spring Washer 6MM A4 Din 127B
7	1	ST 15-000	SU 305365	Rackside R. Gear R18 camera
8	8	CM 15-007	82022	Tape "Water" - White
9	1	ST 25-000	SU 330627	Guide inlet 217154 2xM5
10	1	ST 30-005	324906	Inlet plate Guide EP1140
11	1	ST 30-010	324907	Outlet plate Guide EP1140
12	8	ST 30-015	88023	Screw Mg 4x10 A4 Din 84
13	8	ST 30-020	88201	Spring Washer 4MM A4 Din 127B
14	1	ST 45-000	SU 330635	Guide Out 217144 Wash 114X M5
15	1	ST 50-000	330354	Roller soft EPDM 1"X1143
16	1	ST 50-001	235184	Axle- ø1/4" x 47.8 Long
17	1	ST 50-002	276074	Axle-D, Long F.1 Gear Wheel
18	1	ST 55-000	330354	Roller soft EPDM 1"X1143
19	1	ST 55-001	235184	Axle- ø1/4" x 47.8 Long
20	1	ST 55-002	276084	Axle-D, Long F.2 Gear Wheel
21	0	ST 70-000	330165	Evaporation Cover R18 1166mm
22	1	ST 81-000	330354	Roller soft EPDM 1"X1143
23	1	ST 81-001	235184	Axle- ø1/4" x 47.8 Long
24	1	ST 81-002	276044	Axle D
25	1	ST 83-000	330034	Roller SR 13/16"x1143mm
26	2	ST 83-005	276034	Axle-ø
27	1	ST 85-000	330354	Roller soft EPDM 1"X1143
28	1	ST 85-001	235184	Axle- ø1/4" x 47.8 Long
29	1	ST 85-002	276084	Axle-D, Long F.2 Gear Wheel
30	1	ST 90-000	SU 330596	Drive axle1143 >14 80T/24T PP

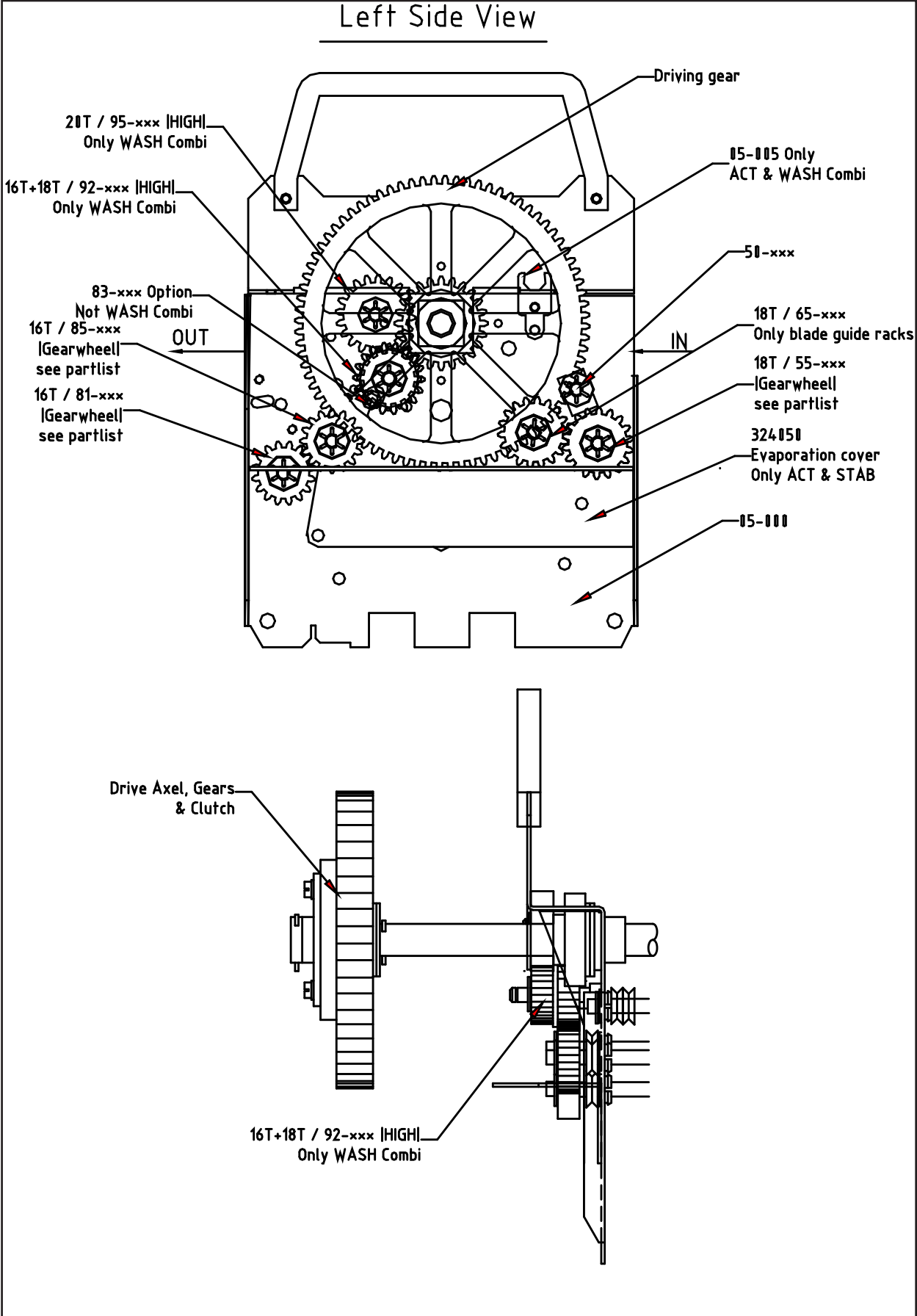
SECTION EIGHT: Off-Line Description EP 1140 CP Multi 1100 Camera

Guide Out 217144 Wash Revised: 06/12/2001
 330635 Revision:
 Bill of Materials Current Date: 06/12/2001 Drawing Ref:
 Page 1

Item	Quantity	Reference Part	Partno	Partdescription
1	7	ST	136074	Guide Sup. Crossover f.217144
2	2	ST	217117	End plug 18x18 mm black
3	45	ST	217144	Crossover Guide Water Dry 4G
4	1	ST	330010	Spacer \varnothing 10 x 1165,4 solid
5	1	ST	330014	Spacer \varnothing 10x1168mm solid 2xM5
6	1	ST	330164	Support crossover guides 114
7	2	ST	88004	Screw Mg 3x12 A4 Din 84
8	2	ST	88021	Screw PHRX 4x6 A4 Din 7985
9	2	ST	88100	Screw Set Mg 5x10 A4 Din 933
10	2	ST	88151	Nut M3 A4 Din 934
11	2	ST	88200	Spring Washer 3MM A4 Din 127B
12	2	ST	88202	Spring Washer 5MM A4 Din 127B
13	2	ST	88213	Flatwasher 5,3x10x1MMA4 DI25A
14	2	ST	913844	Guide Fork short F. \varnothing 10 white

SECTION 8

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SECTION 8

Rack Side Left R1 W.Gears Uni., Drawing 305615

SECTION EIGHT: Off-Line Description EP 1140 CP Multi 1100 Camera

Rackside L Gear R18
305615

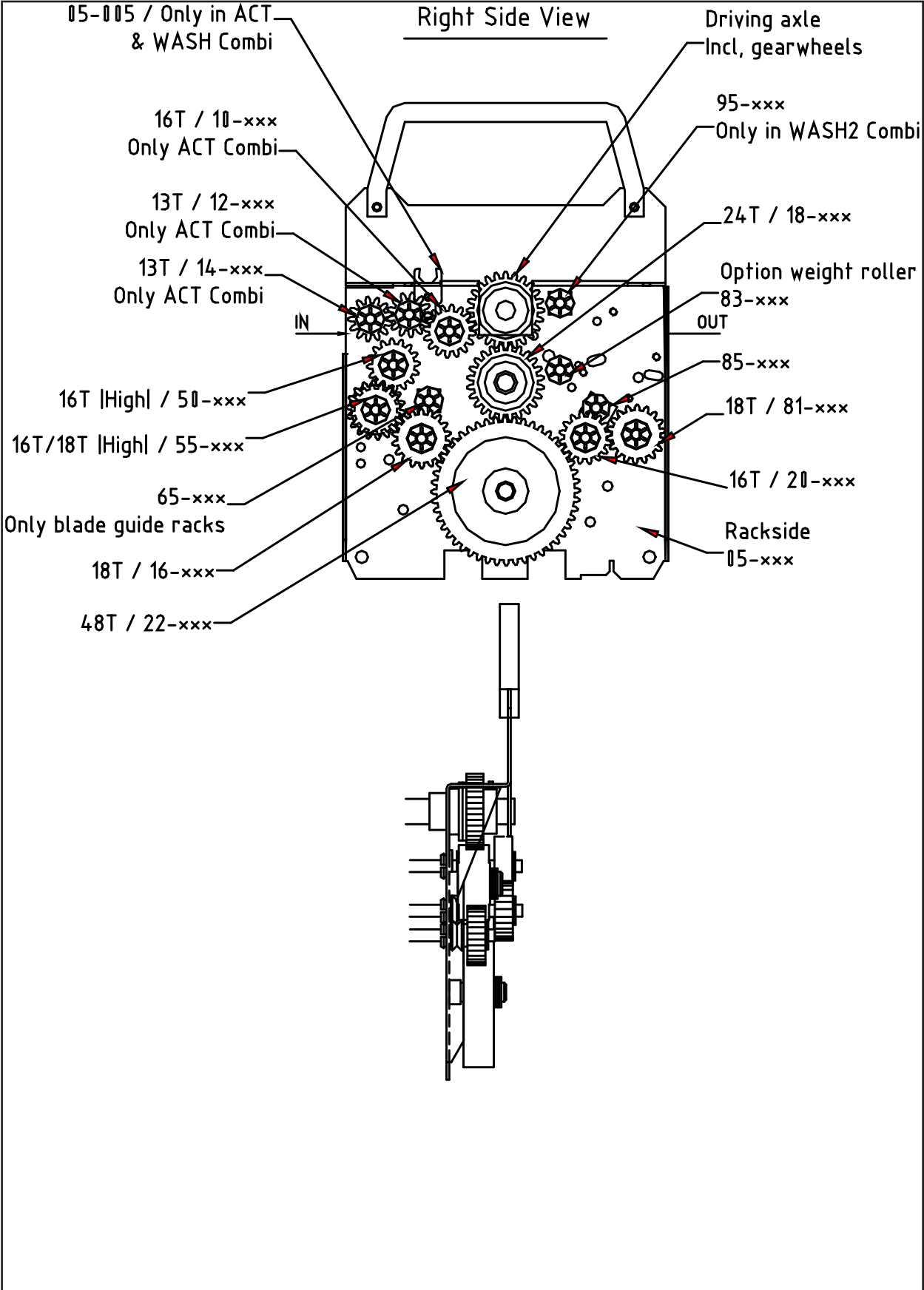
Revised: 13/11/2001
Revision: A

Bill of Materials Current Date: 06/12/2001 Drawing Ref:

Page 1 305615

Item	Quantity	Reference Part	Partno	Partdescription
1	1	ST 05-000	305462	R18-poly short,Racks.L. Combi
2	0	ST 05-005	913933	Guide fork long f. ø10 black
3	1	ST 50-010	117337	Starlock 1/4" stainless
4	2	ST 50-015	65274	Pulleys 1/4IN ø
5	1	ST 50-020	217184	Bearing ø1/4" 12x12 mm -Brown
6	1	ST 55-000	217474	Gearwheel 18-T 1/4" D PP
7	1	ST 55-010	117337	Starlock 1/4" stainless
8	1	ST 55-015	65274	Pulleys 1/4IN ø
9	1	ST 55-020	217184	Bearing ø1/4" 12x12 mm -Brown

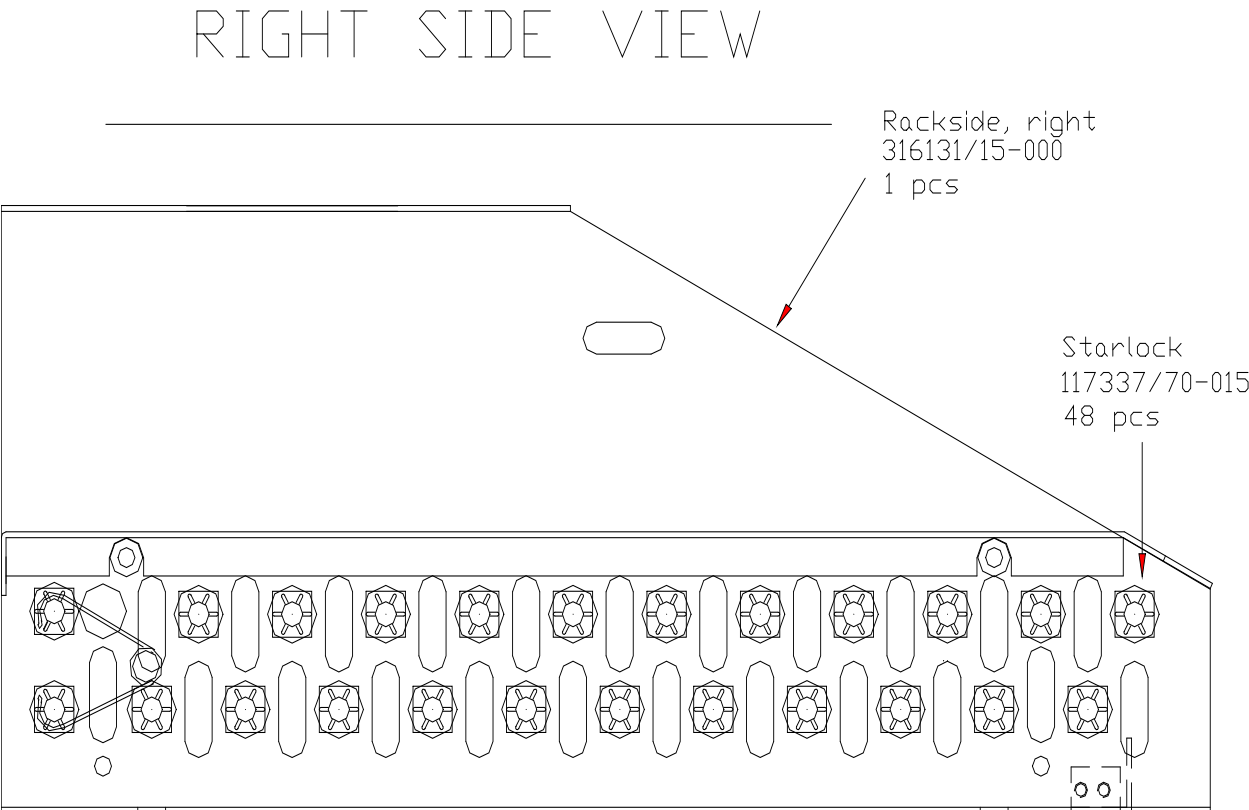
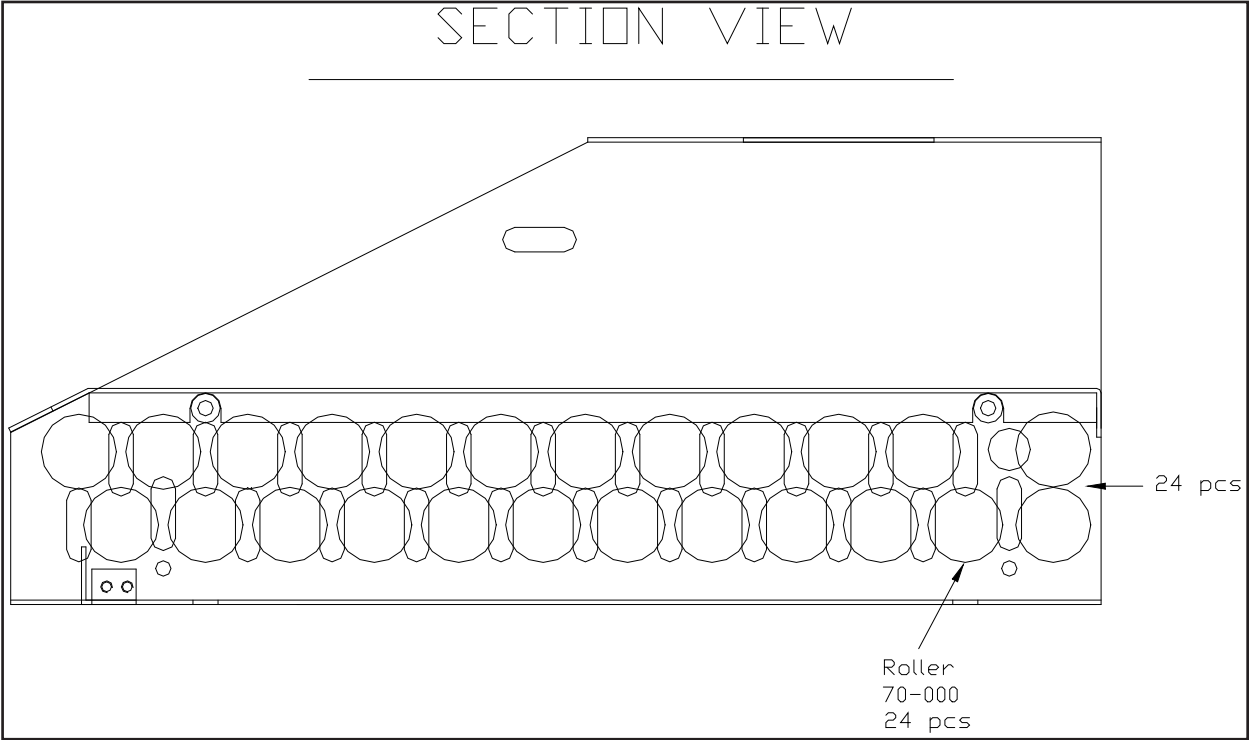
SECTION EIGHT: Off-Line Description EP 1140 CP Multi 1100 Camera



SECTION 8

Rack Side Right R1 W.Gears Uni, Drawing 305625

SECTION EIGHT: Off-Line Description EP 1140 CP Multi 1100 Camera



Dry Rack R38 HTD Drive EG 1140, Drawing 316108b

SECTION EIGHT: Off-Line Description EP 1140 CP Multi 1100 Camera

Dry rack 22+2 roll R38

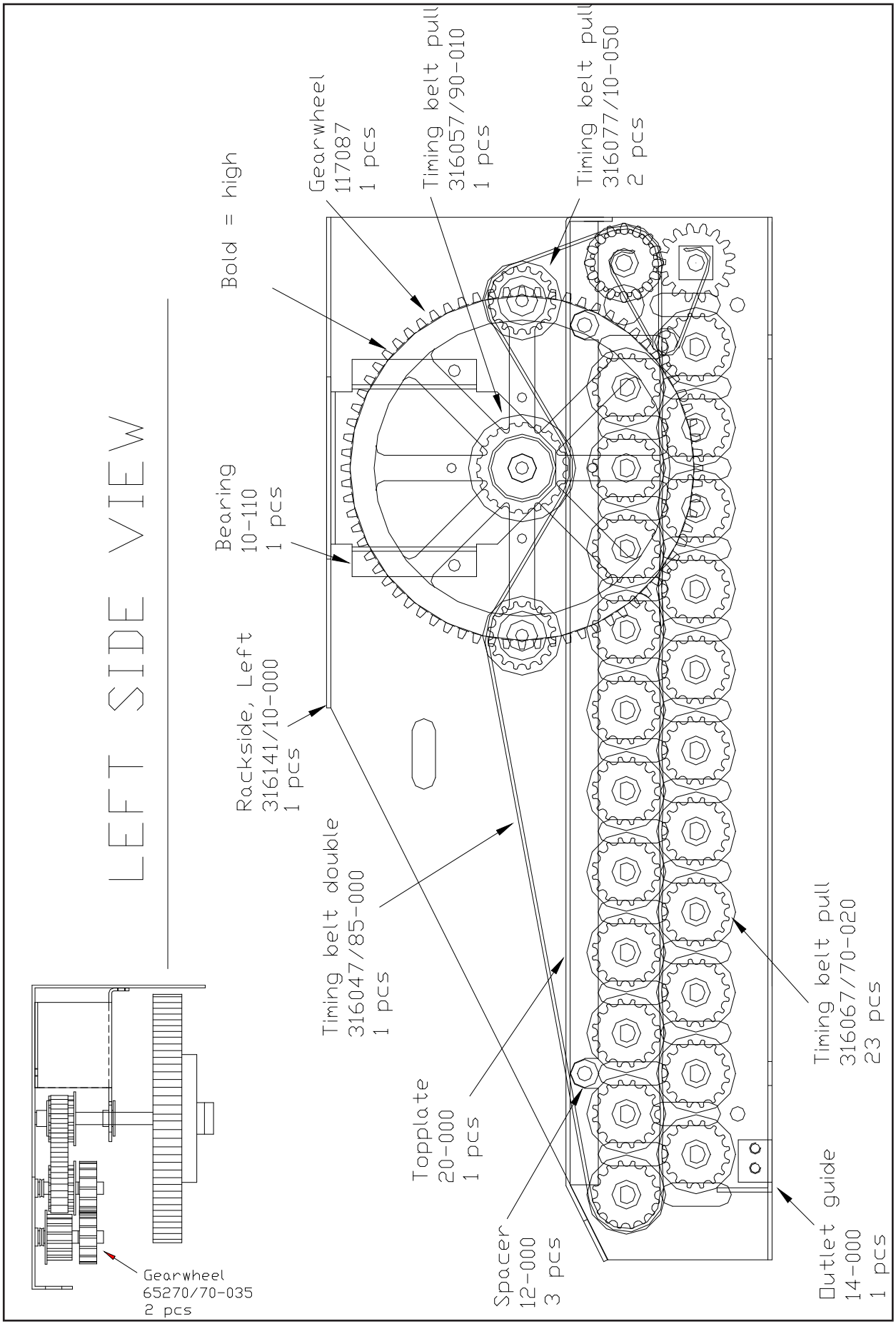
Revised: 12/11/20

Bill of Materials Current Date:

Revision: Drawing Ref:

Item	Quantity	Reference	Part	Partno	Partdescr
1		ST 10-00		316141	Rackside left Dry
2		ST 10-00		217184	Bearing ø1/4" 12x1
3		ST 10-01		65274	Pulleys 1/4IN ø
4		ST 10-05		316077	Timing belt pull.H
5		ST 10-05		305020	Axle f.gearwheel
6		ST 10-06		88126	Screw Set 4x30 A4
7		ST 10-06		88201	Spring Washer 4MM
8		ST 10-10		316142	Bearing angle f.dr
9		ST 12-00		330014	Spacer >10x1168mm
10		ST 12-00		88100	Screw Set Mg 5x10
11		ST 12-01		88202	Spring Washer 5MM
12		ST 15-00		316131	Rackside right Dry
13		ST 15-00		217184	Bearing ø1/4" 12x1
14		ST 20-00		330305	Topplate dry rack
15		ST 30-00		330013	Inlet guide, inner
16		ST 70-00		330012	Roller PU 1"x1143m
17		ST 70-00	SU	330275	Roller 25.4x1143
18		ST 70-00		276034	Axle-ø
19		ST 70-01		276044	Axle D
20		ST 70-01		117337	Starlock 1/4"
21		ST 70-02		316067	Timing belt pull.H
22		ST 70-10		117865	Foam disc ø25x10 f
23		ST 85-00		316047	Timing belt double
24		ST 90-00		316064	Drive axle ø10x100
25		ST 90-00	SU	155349	Torque Clutch 79T/
26		ST 90-01		316057	Timing belt pulley
27		ST 90-01		65188	Cotter Pins 2.5 ø
28		ST 90-02		217040	Bearing ø
29		ST 90-02		65557	Disc 10øx16x1 Nylon

SECTION 8



Dry Rack R38 HTD Drive EG 1140, Drawing 316108a

SECTION EIGHT: Off-Line Description EP 1140 CP Multi 1100 Camera

Torque Clutch 79T/10ø

Revised: 07/01/19

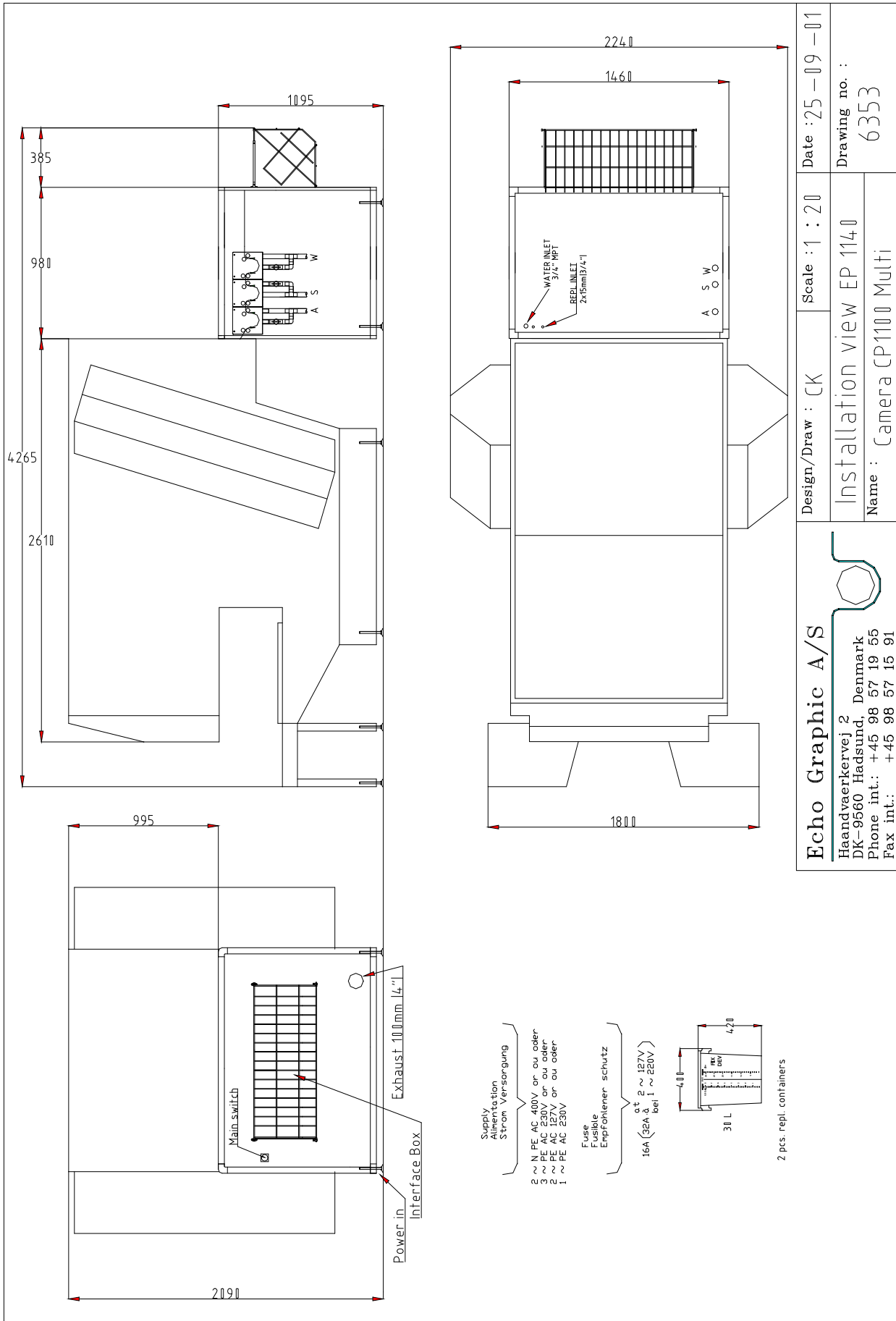
Bill of Materials Current Date:

Revision: Drawing Ref:

Item	Quantity	Reference	Part	Partno	Partdescr
1	ST			117087	Gearwheel 79T, ø10
2	ST			65188	Cotter Pins 2.5 ø
3	ST			65557	Disc 10øx16x1 Nylo
4	ST			68006	Cover F.Gear wheel
5	ST			68322	Torque Clutch Base
6	ST		SU	68323	Torque Lever F.Saf
7	ST			68324	Torque Cl.Adjustme
8	ST			88023	Screw Mg 4x10 A4 D
9	ST			88201	Spring Washer 4MM
10	ST			88212	Flatwasher 4.3x9x0
11	ST			88257	Screw 3/8INx6 A4 D
12	ST			88283	Screw PHx

SECTION EIGHT: Off-Line Description EP 1140 CP Multi 1100 Camera

SECTION 8



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Design/Draw : CK Scale : 1 : 20 Date : 25 - 09 - 01

Installation view EP 1140 Drawing no. : 6353

Name : Camera CP1100 Multi

Installationview 6353

Hope / Carnfeldt EP 1140 CP Multi 1100 Camera

	EP 1140, poly
Dimensions of on-line system	
Length	275 cm / 108.3"
Width	202 cm / 79.5"
Height	110 cm / 43.3"
Shipping dimensions	
Length	175 cm / 68.9"
Width	142 cm / 55.9"
Height	129 cm / 50.8"
Weight	
Net	370 kg / 816 lb.
Gross	470 kg / 1036 lb.
Specifications	
Inlet width	114 cm / 45"
Tank capacity	18 l / 7.1 US gal.
Rack length dev.	20 cm / 7.9"
Developing time min.-max.	15 – 90 sec.
Speed at 30 sec. dev. time	-
Speed at 20 sec. dev. time	60 cm/min./ 23.6"/min.
Max. film length off-line	2 m / 32.8 ft
Min. film size off-line	30x42 cm / 11.8x16.5"
Max. format (set by imagesetter)	108x86 cm / 42.5x33.9"
Dev./fix./wash temperature range	20-45°C/68-113°F
Exhaust blower	Built in
Exhaust connection	Ø 10 cm
Circulation rate dev., fix.	10 l/min./2.7 US gal
Water consumption (operate)	3.5 l/min. / 0.9 US gal.
Emission of heat to room (operate)	3000 W / 879 BTU/hr.
Water connection	¾" pipe thread
Drain connection	3 x 1" hose nipple
Replenishment containers	Dev./fix. 30 l / 8 US gal.
Max. power consumption	5900 VA
Average power consumption:	
Operate	5000 W
Power save	1000 W
Night mode	600 W
Power supply:	
1x230ACV+/-10% / 50/60Hz	40 amp
3x230ACV+/-10% / 50/60Hz	3 x 16 amp

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