

Руководство
по сервисному обслуживанию
LK-B24

Настольный принтер этикеток

Версия : 01
Дата APRIL 25, 2016

PROPRIETARY NOTICE:

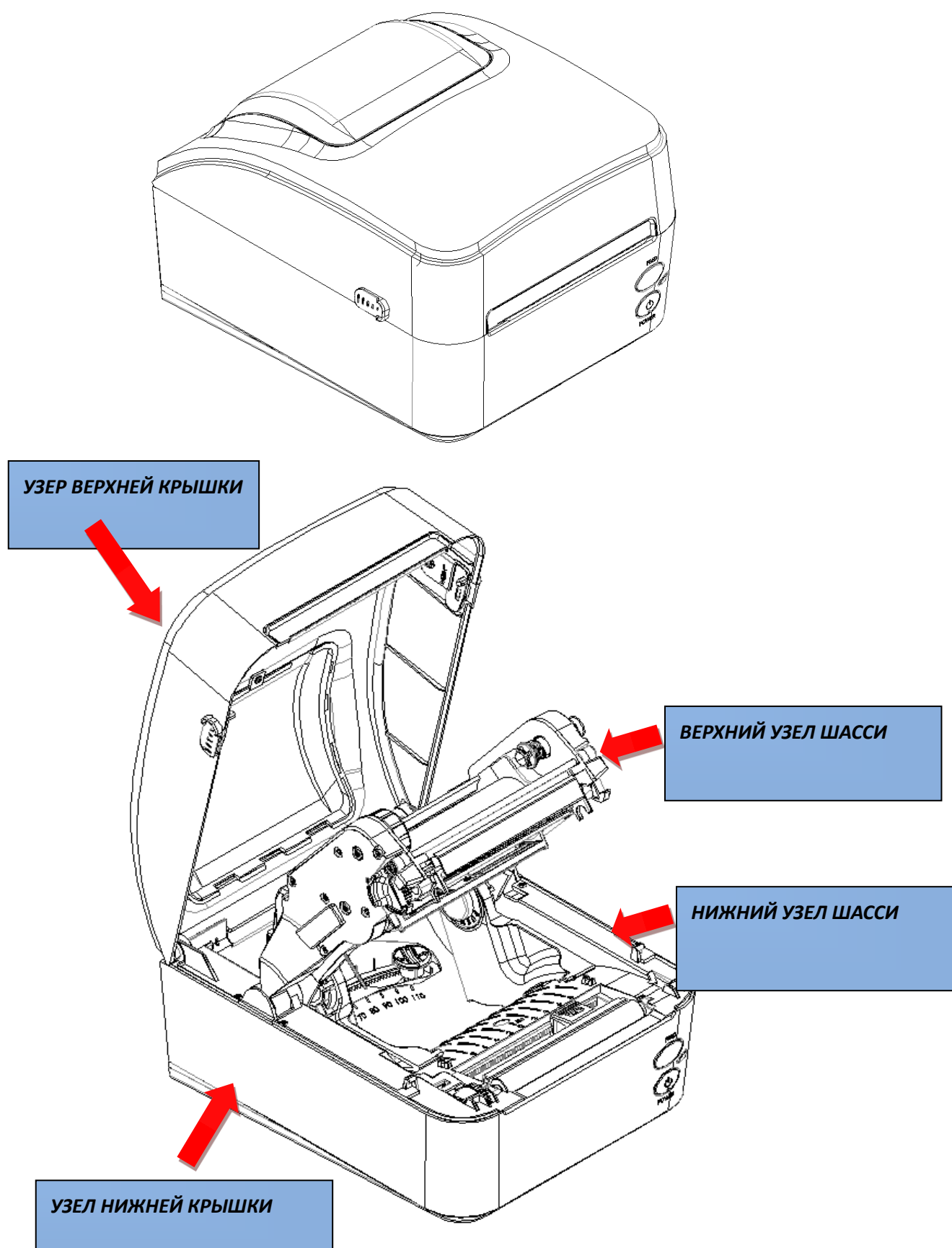
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Содержание:

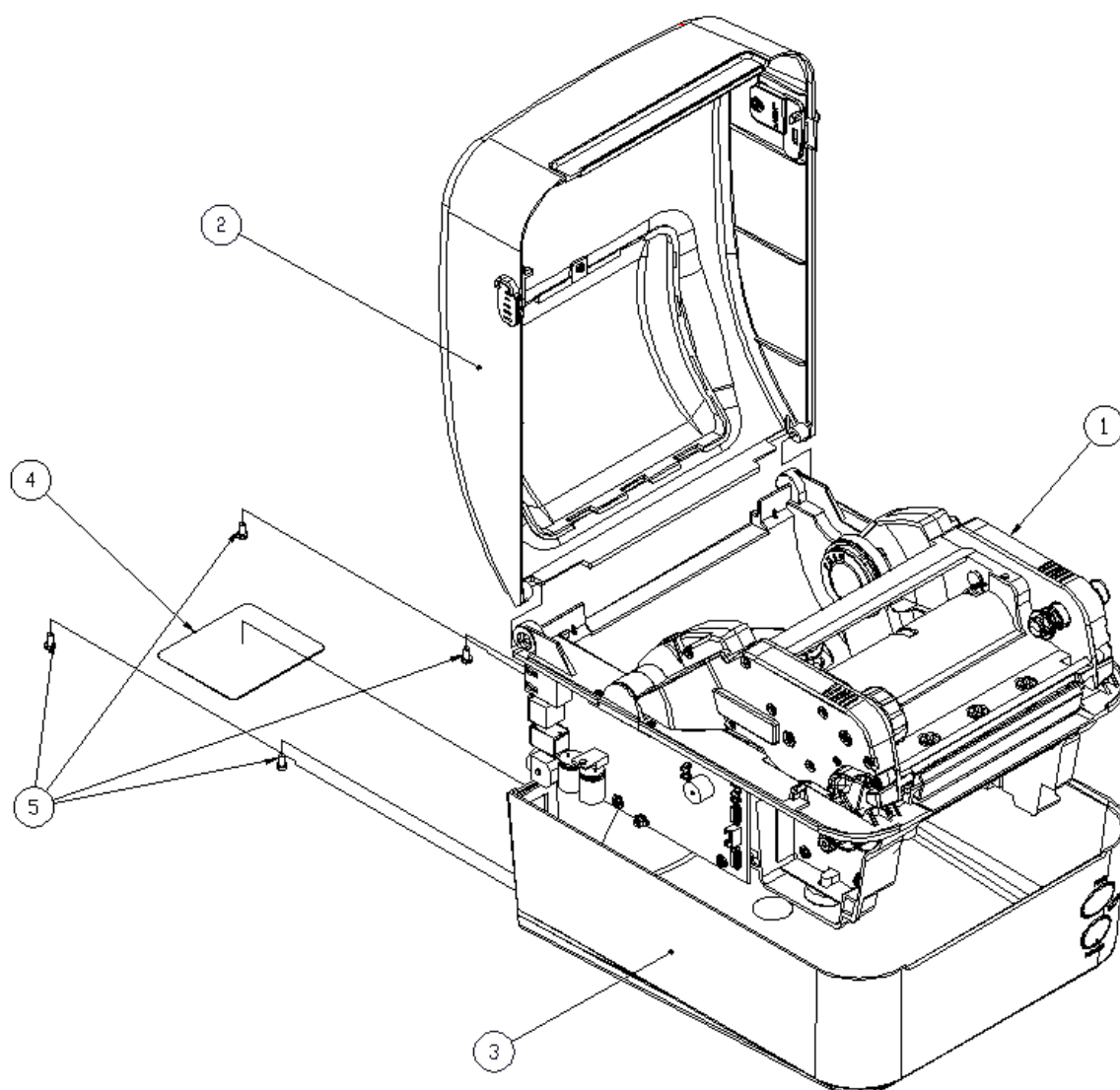
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1. Разборка и сборка устройства



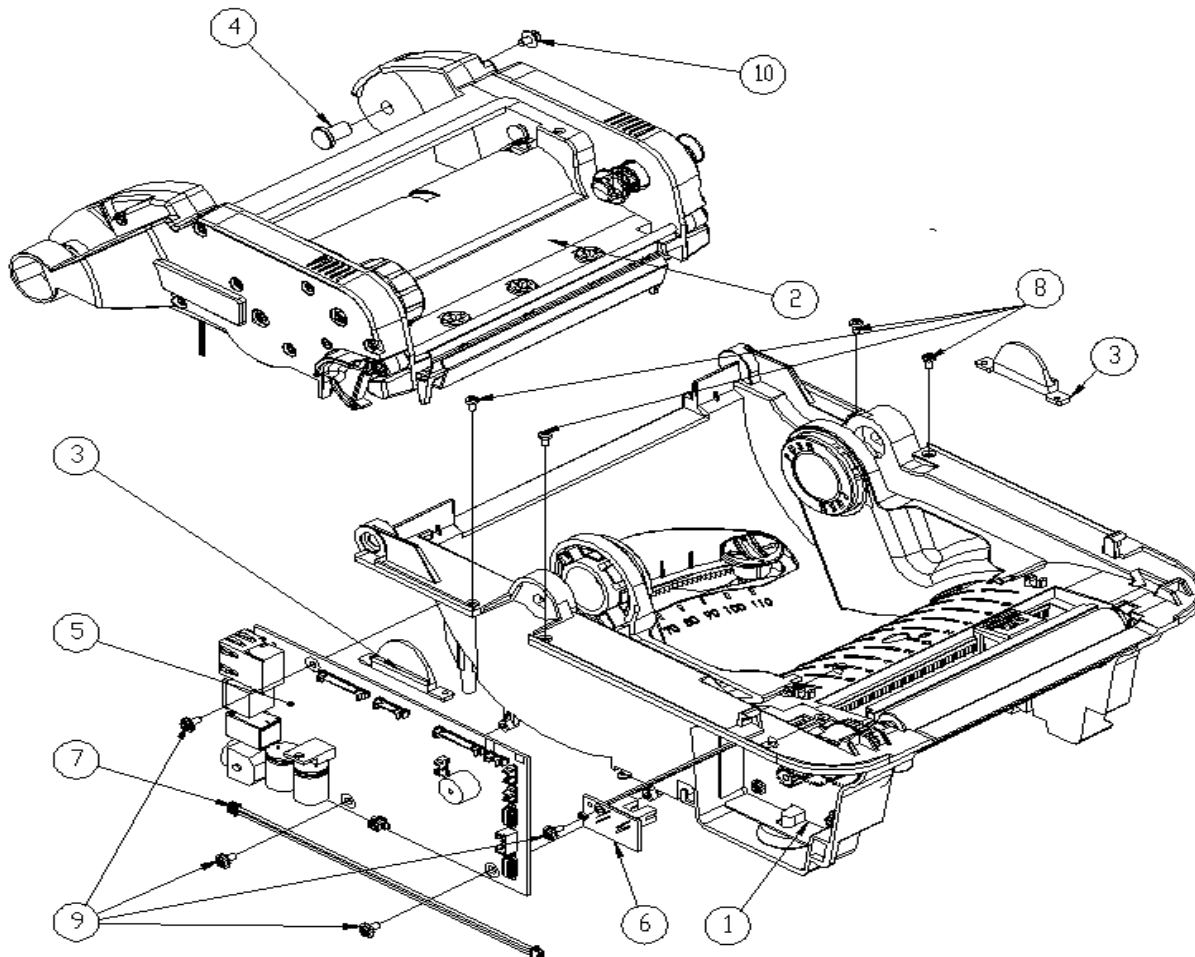
2. Список деталей и комплектующих

NO ITEM	EACH PIECES	NAME OF PART	CODE-NO	REMARK
1	1	ASS'Y_FRAME_(LK-B24)	SLP05-00AS-001X	1-1
2	1	ASS'Y_COVER_UPPER_(LK-B24)	SLP05-00AS-007X	1-2
3	1	ASS'Y_COVER_BOTTOM_(LK-B24)	SLP05-00AS-008X	1-3
4	1	LABEL_UNIT_(LK-B24)	SLP05-00LB-001X	
5	4	SCREW_T3.0X8.0_ZN_PH	T3.0X8.0_ZN_PH	



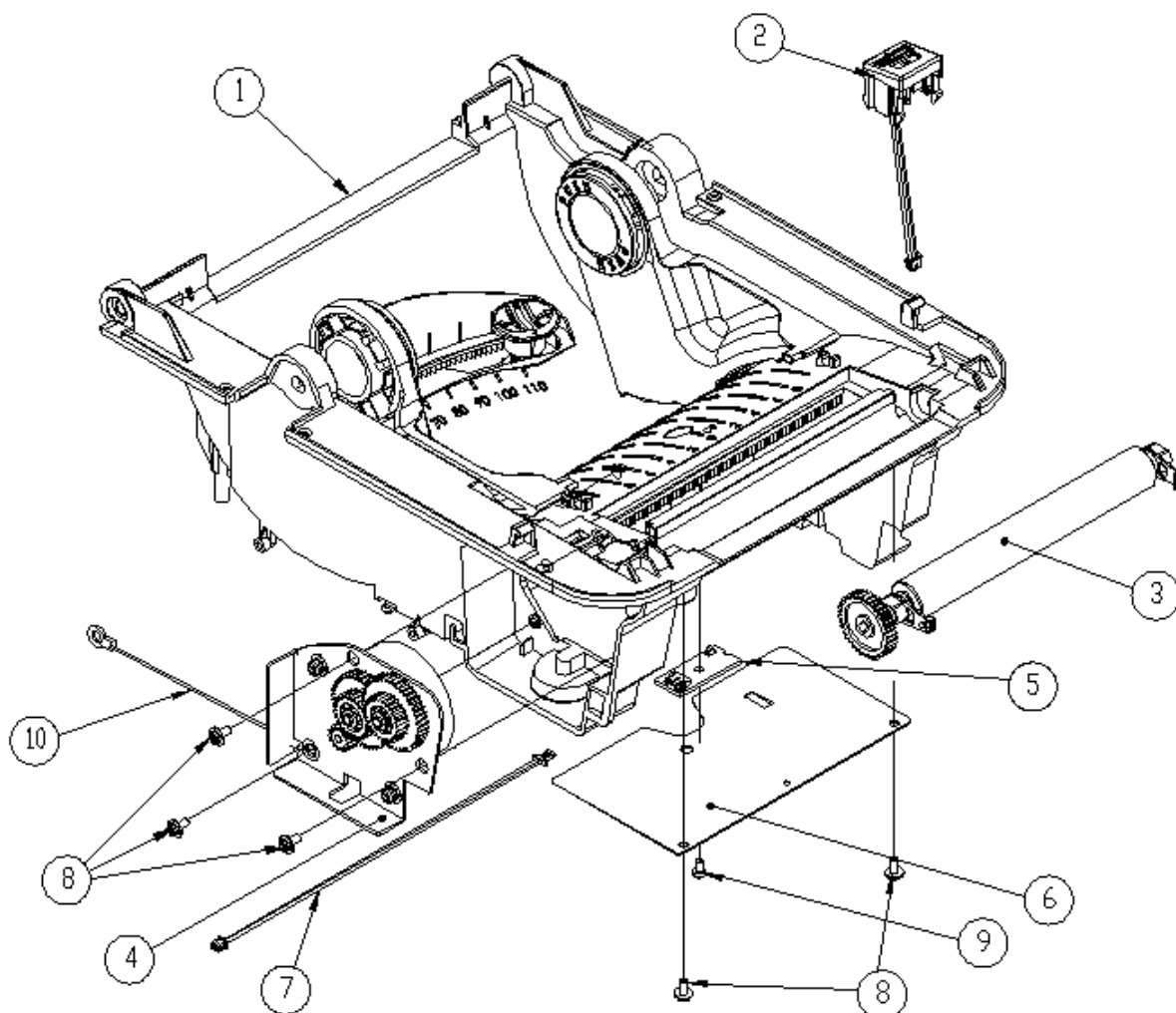
1-1. УЗЕЛ ШАССИ

NO ITEM	EACH PIECES	NAME OF PART	CODE-NO	REMARK
1	1	ASS'Y_FRAME_LOW_(LK-B24)	SLP05-00AS-002X	1-1-1
2	1	ASS'Y_FRAME_UPPER_(LK-B24)	SLP05-00AS-004X	1-1-2
3	2	COVER_HINGE_(LK-B24)	SLP05-00MD-018X	
4	1	SHAFT_HINGE_(LK-B24)	SLP05-00CT-001X	
5	1	ASS'Y_PCB_MAIN_(LK-B24)	SLP05-00PA-001X	1-1-5
6	1	ASS'Y_PCB_OPEN_SENSOR_(LK-B24)	SLP05-00PA-007X	
7	1	CABLE_COVER_OPEN_(LK-B24)	SLP05-00WH-004X	
8	4	SCREW_T2.6X4.0_BK_PH	T2.6X4.0_BK_PH	
9	4	SCREW T2.6X5.5_ZN_PH_SW+PBR	T2.6X5.5_ZN_PH_SW+PBR	
10	1	SCREW_M3.0X6.0_ZN_PW_SW+PBR	M3.0X6.0_ZN_PW_SW+PBR	



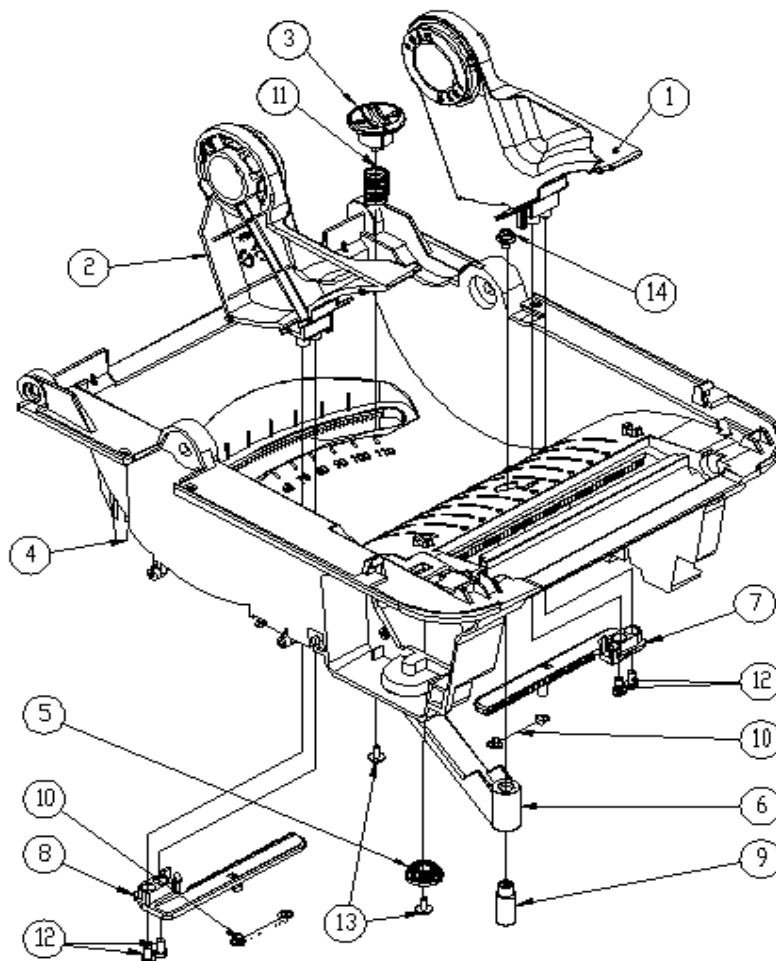
1-1-1. НИЖНИЙ УЗЕЛ ШАССИ

NO ITEM	EACH PIECES	NAME OF PART	CODE-NO	REMARK
1	1	ASS'Y_FRAME_LOW_PAPER_(LK-B24)	SLP05-00AS-003X	1-1-1-1
2	1	ASS'Y_BM_SENSOR_COVER_(LK-B24)	SLP05-00AS-011X	1-1-1-2
3	1	ASS'Y_ROLLER_PLATEN_(LK-B24)	SLP05-00AS-012X	1-1-1-3
4	1	ASS'Y_BRACKET_MOTOR_GEAR_(LK-B24)	SLP05-00AS-013X	1-1-1-4
5	1	ASS'Y_GAP_SENSOR_TX_(LK-B24)	SLP05-00PA-004X	
6	1	SHEET_SENSOR_(LK-B24)	SLP05-00ET-001X	
7	1	CABLE_GAP_DETECTOR_(LK-B24)	SLP05-00WH-008X	
8	5	SCREW T2.6X5.5_ZN_PH_SW+PBR	T2.6X5.5_ZN_PH_SW+PBR	
9	1	SCREW_T2.6X4.0_BK_PH	T2.6X4.0_BK_PH	
10	1	CABLE_MOTOR_EARTH_(LK-B24)	SLP05-00WH-010X	



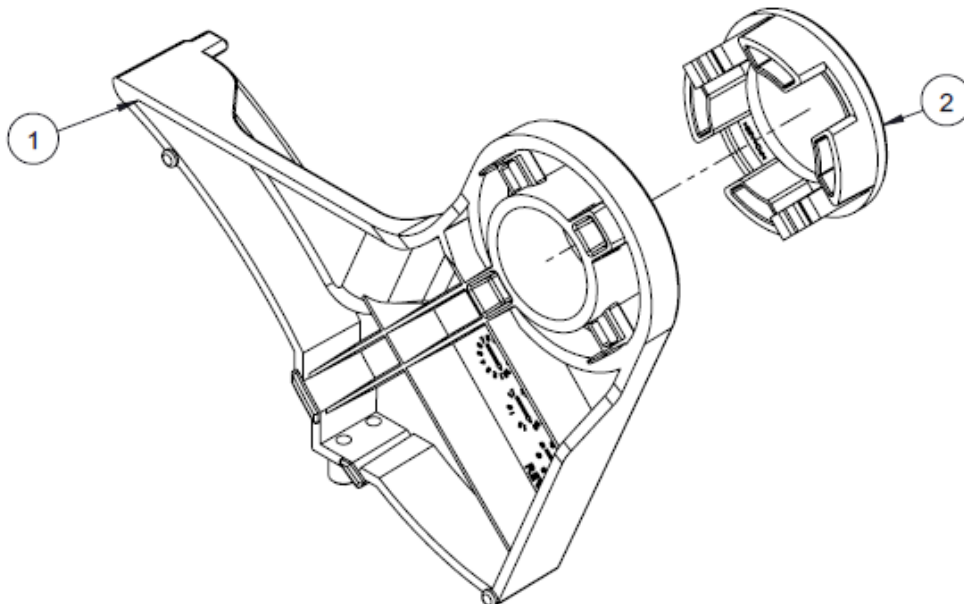
1-1-1-1. НИЖНИЙ УЗЕЛ ШАССИ – ПОДАТЧИК БУМАГИ

NO ITEM	EACH PIECES	NAME OF PART	CODE-NO	REMARK
1	1	ASS'Y_GUIDE_PAPER_LH_(LK-B24)	SLP05-00AS-015X	1-1-1-1-1
2	1	ASS'Y_GUIDE_PAPER_RH_(LK-B24)	SLP05-00AS-016X	1-1-1-1-2
3	1	BUTTON_GUIDE_PAPER_KNOB_(LK-B24)	SLP05-00MD-012X	
4	1	FRAME_PAPER_TRAY_(LK-B24)	SLP05-00MD-001X	
5	1	GEAR_CLUSTER_(LK-B24)_M05Z20	SLP05-00MD-004X	
6	1	LINK_GUIDE_PAPER_(LK-B24)	SLP05-00MD-032X	
7	1	RACK_GUIDE_PAPER_LH_(LK-B24)	SLP05-00MD-033X	
8	1	RACK_GUIDE_PAPER_RH_(LK-B24)	SLP05-00MD-034X	
9	1	SHAFT_LINK_BUSHING_(LK-B24)	SLP05-00CT-003X	
10	2	SPRING_GUIDE_PAPER_(LK-B24)	SLP05-00SP-002X	
11	1	SPRING_LINK_(LK-B24)	SLP05-00SP-010X	
12	4	SCREW_T3.0X8.0_ZN_PH	T3.0X8.0_ZN_PH	
13	2	SCREW_T2.6X5.5_ZN_PH_SW+PBR	T2.6X5.5_ZN_PH_SW+PBR	
14	1	SCREW_M3.0X6.0_ZN_PW_SW+PBR	M3.0X6.0_ZN_PW_SW+PBR	



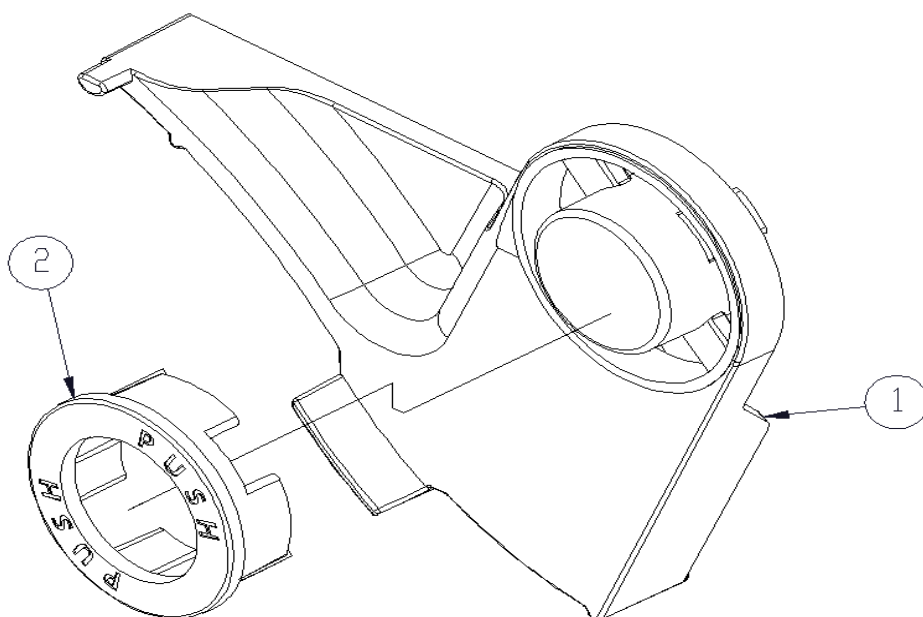
1-1-1-1. УЗЕЛ НАПРАВЛЯЮЩИХ БУМАГИ – ЛЕВАЯ СТОРОНА_LH (LK-B24)

NO ITEM	EACH PIECES	NAME OF PART	CODE-NO	REMARK
1	1	GUIDE_PAPER_LH_(LK-B24)	SLP05-00MD-008X	
2	1	GUIDE_LABEL_PAPER_CORE_(LK-B30S)	SLP02-00MD-033X	



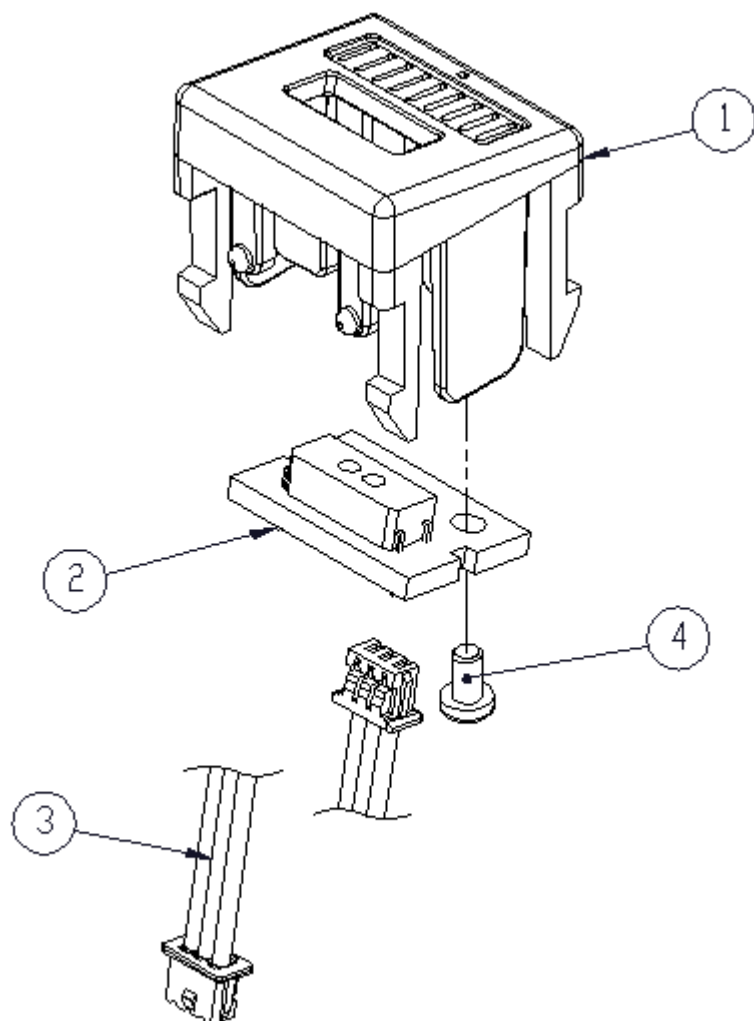
1-1-1-2. УЗЕЛ НАПРАВЛЯЮЩИХ БУМАГИ - ПРАВАЯ СТОРОНА (LK-B24)

NO ITEM	EACH PIECES	NAME OF PART	CODE-NO	REMARK
1	1	GUIDE_PAPER_LH_(LK-B24)	SLP05-00MD-008X	
2	1	GUIDE_LABEL_PAPER_CORE_(LK-B30S)	SLP02-00MD-033X	



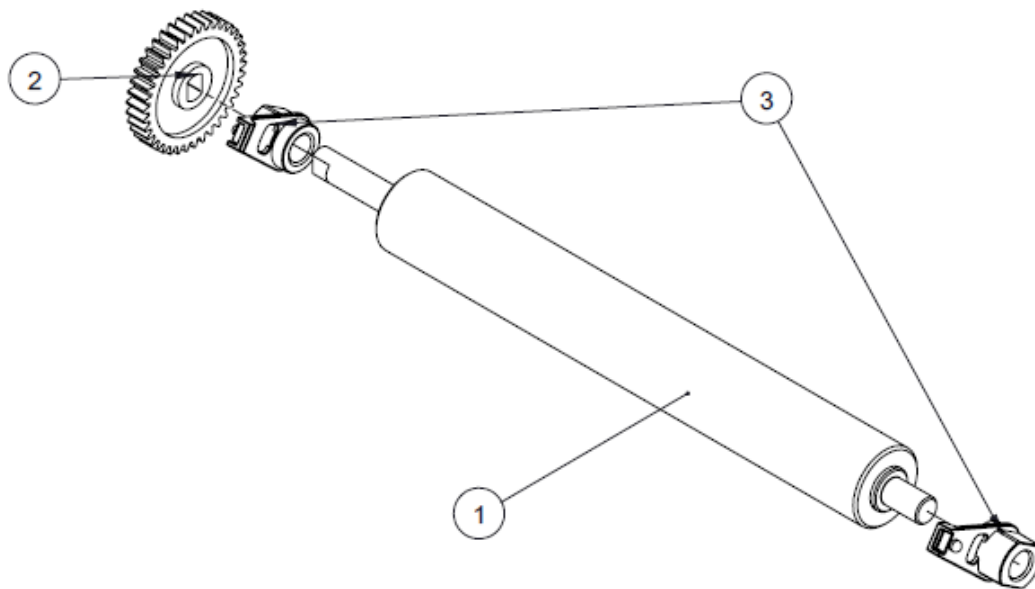
1-1-1-2. УЗЕЛ СЕНСОРА КРЫШКИ_(LK-B24)

NO ITEM	EACH PIECES	NAME OF PART	CODE-NO	REMARK
1	1	COVER_BM_SENSOR_(LK-B24)	SLP05-00MD-013X	
2	1	ASS'Y_BM_SENSOR_(LK-B24)	SLP05-00PA-006X	
3	1	CABLE_BM_SENSOR_(LK-B24)	SLP05-00WH-005X	
4	1	SCREW_T2.0X3.5_ZN_PH	T2.0X3.5_ZN_PH	



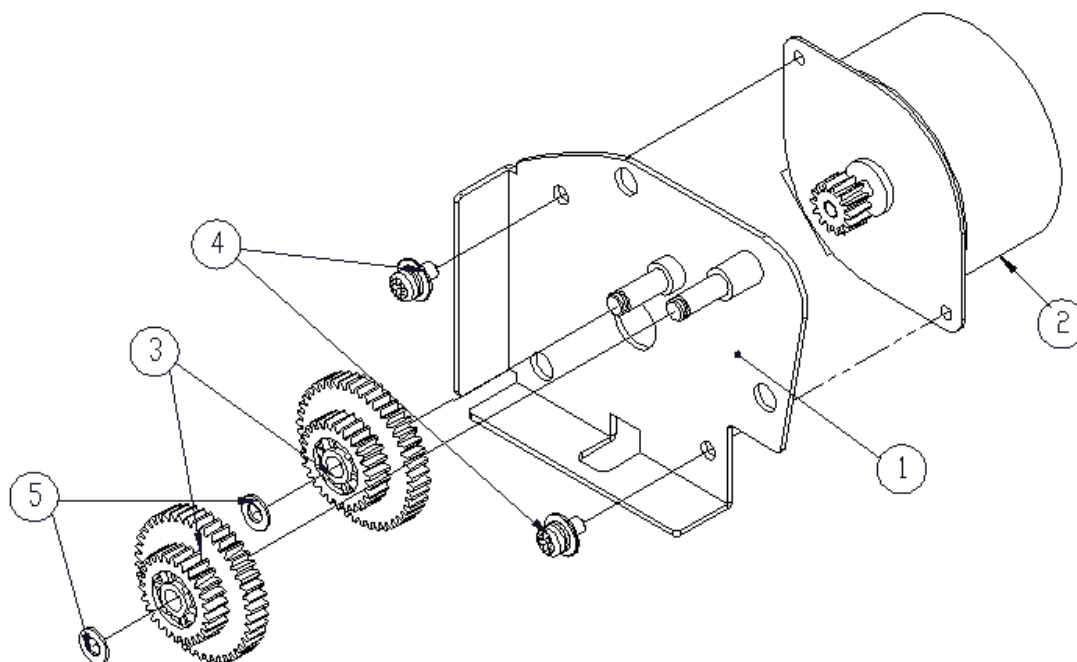
1-1-1-3. УЗЕЛ ПРОТЯЖНОГО РОЛИКА_(LK-B24)

NO ITEM	EACH PIECES	NAME OF PART	CODE-NO	REMARK
1	1	ROLLER_PLATEN_(LK-B24)	SLP05-00RU-001X	
2	1	GEAR_PLATEN_(LK-B24)_M06Z38	SLP05-00MD-005X	
3	2	BUSH_PLATEN_(LK-B24)	SLP05-00MD-010X	



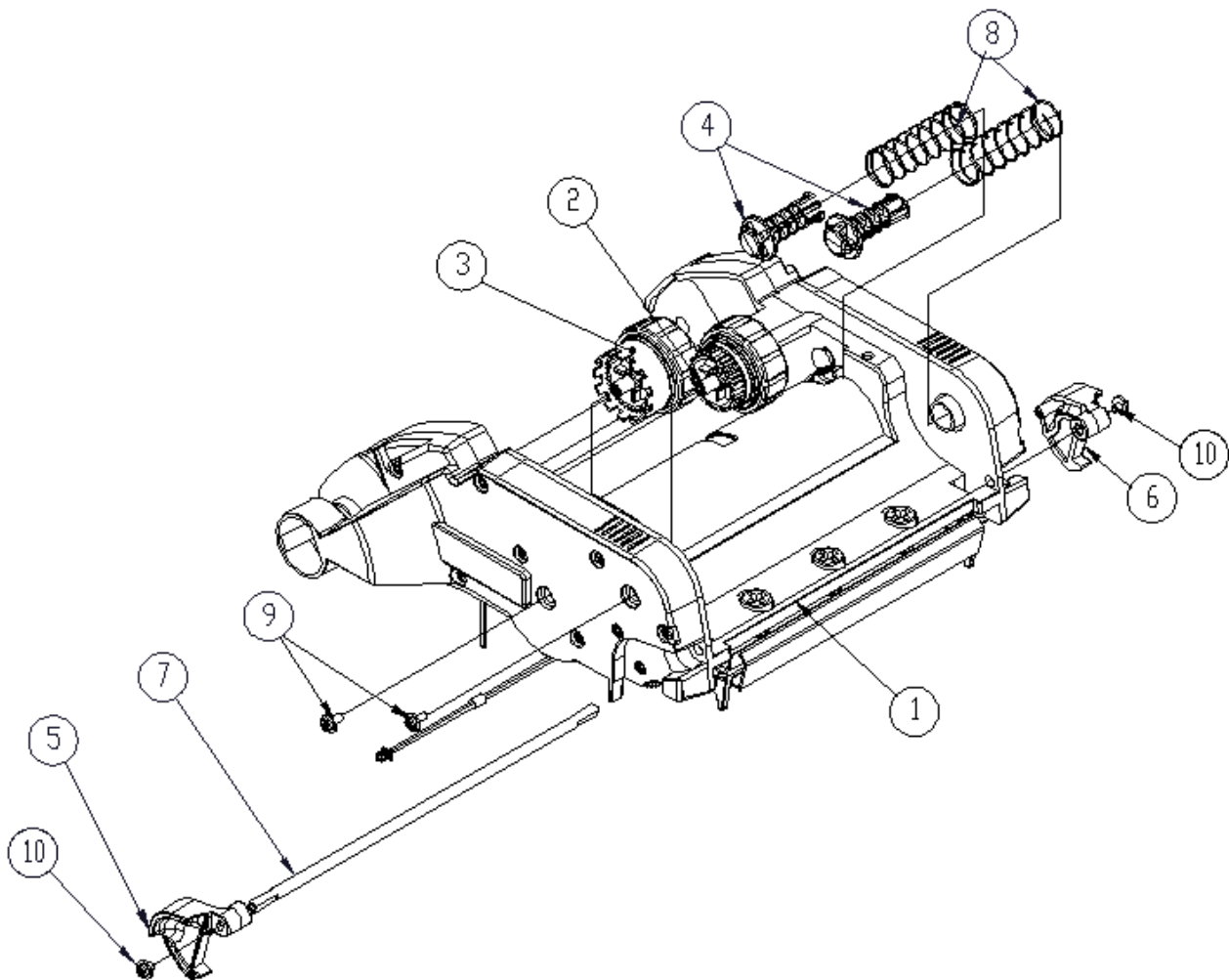
1-1-1-4. УЗЕЛ КРЕПЕЖА ПРОТЯЖНОГО МОТОРА_(LK-B24)

NO ITEM	EACH PIECES	NAME OF PART	CODE-NO	REMARK
1	1	ASS'Y_BRACKET_MOTOR_(LK-B24)	SLP05-00AS-020X	
2	1	MOTOR_42PHI_(LK-B24)	SLP05-00DG-001X	
3	2	GEAR_2ND_(LK-B24) M06Z26Z44	SLP05-00MD-003X	
4	2	SCREW_M3.0X6.0_ZN_PW_SW+PBR	M3.0X6.0_ZN_PW_SW+PBR	
5	2	WASHER_POLY_D3.4XD6.5XT0.5	D3.4XD6.5XT0.5	



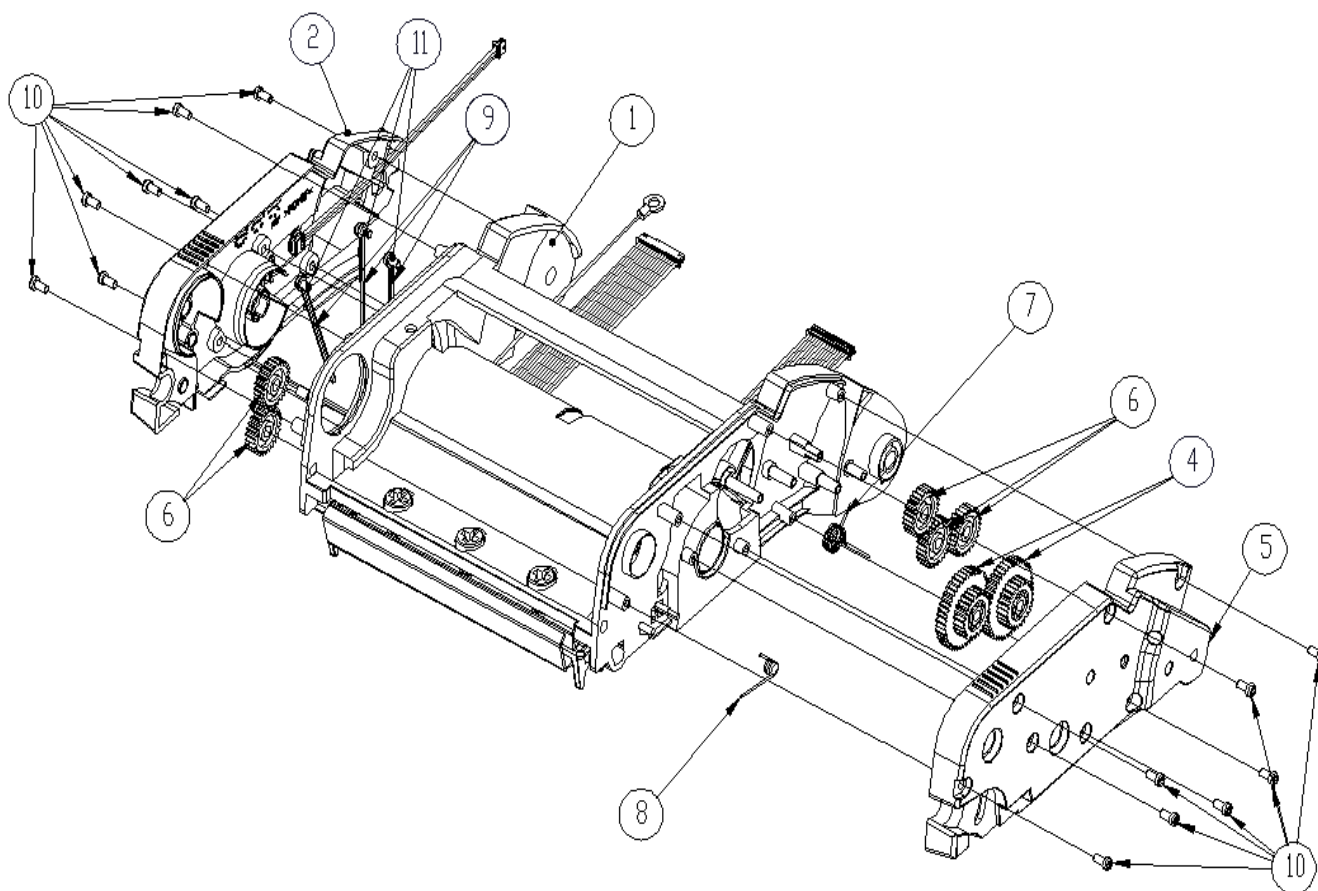
1-1-2 ВЕРХНИЙ УЗЕЛ ШАССИ_(LK-B24)

NO ITEM	EACH PIECES	NAME OF PART	CODE-NO	REMARK
1	1	ASS'Y_FRAME_UPPER_DRIVE_(LK-B24)	SLP05-00AS-005X	1-1-2-1
2	1	ASS'Y_RIBBON_SPLINE_REWIND_(LK-B24)	SLP05-00AS-018X	1-1-2-2
3	1	ASS'Y_RIBBON_SPLINE_SUPPLY_(LK-B24)	SLP05-00AS-019X	1-1-2-3
4	2	HOLDER_RIBBON_(LK-B24)	SLP05-00MD-025X	
5	1	LEVER_HEAD_RELEASE_LH_(LK-B24)	SLP05-00MD-028X	
6	1	LEVER_HEAD_RELEASE_RH_(LK-B24)	SLP05-00MD-029A	
7	1	SHAFT_LEVER_HEAD_(LK-B24)	SLP05-00CT-002X	
8	2	SPRING_HOLDER_RIBBON_(LK-B24)	SLP05-00SP-004X	
9	2	SCREW T2.6X5.5_ZN_PH_SW+PBR	T2.6X5.5_ZN_PH_SW+PBR	
10	2	SCREW M2.6X3.0_BK_PW	M2.6X3.0_BK_PW	



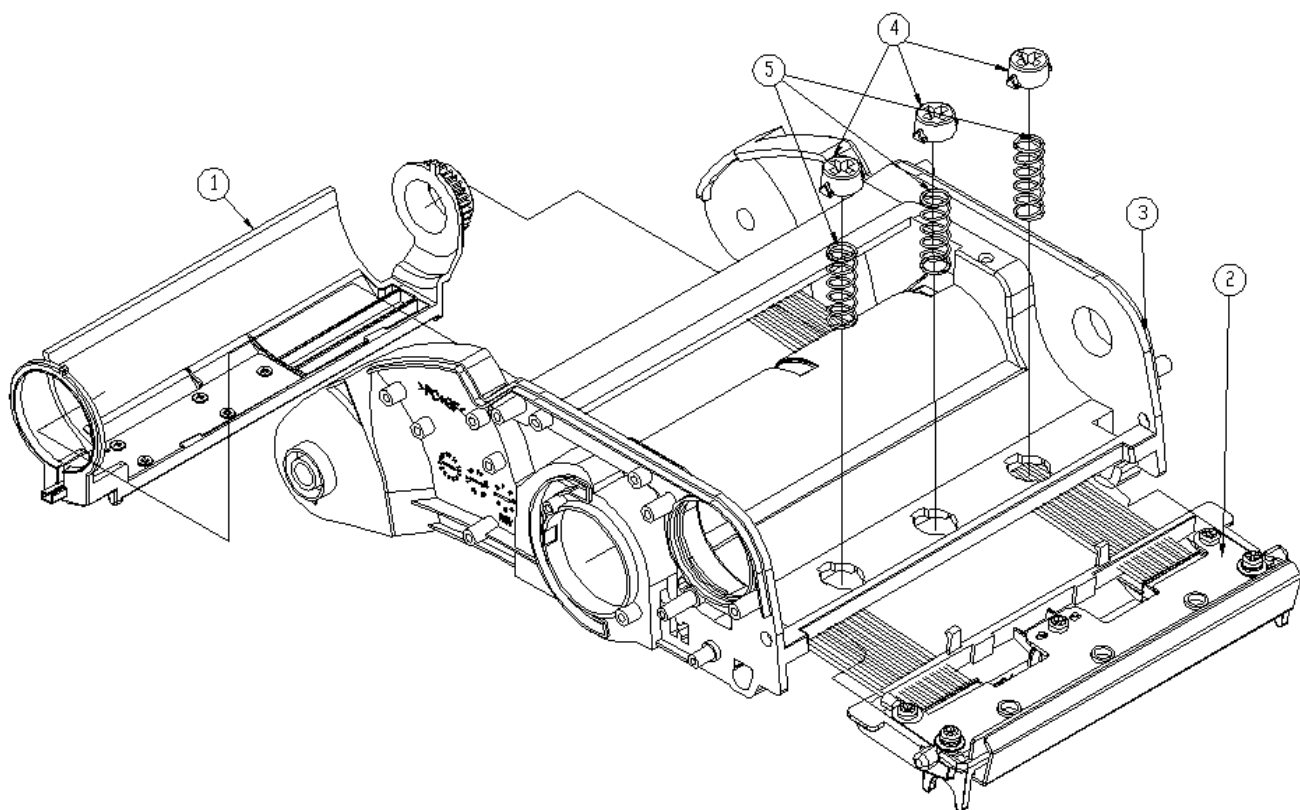
1-1-2-1 ВЕРЗНИЙ УЗЕЛ ШАССИ - МОТОР_(LK-B24)

NO ITEM	EACH PIECES	NAME OF PART	CODE-NO	REMARK
1	1	ASS'Y_FRAME_UPPER_HEAD_(LK-B24)	SLP05-00AS-006X	1-1-2-1-1
2	1	ASS'Y_COVER_FRAME_UPPER_LH_(LK-B24)	SLP05-00AS-009X	1-1-2-1-2
3	1	ASS'Y_COVER_GAP_SENSOR_(LK-B24)	SLP05-00AS-010X	
4	2	GEAR_2ND_(LK-B24) M06Z26Z44	SLP05-00MD-003X	
5	1	COVER_FRAME_UPPER_RH_(LK-B24)	SLP05-00MD-016X	
6	5	GEAR_RIBBON_IDLE_(LK-B10)	SLP01-00MD-014X	
7	1	SPRING_COVER_GAP_SENSOR_(LK-B24)	SLP05-00SP-001X	
8	1	SPRING_LEVER_HEAD_(LK-B24)	SLP05-00SP-005X	
9	3	CABLE_BAND_3.0X50	BAND 3.0X5.0	
10	14	SCREW_T2.6.0X5.0_BK_PH	T2.6.0X5.0_BK_PH	
11	3	SCREW_T2.6X4.0_BK_PH	T2.6X4.0_BK_PH	



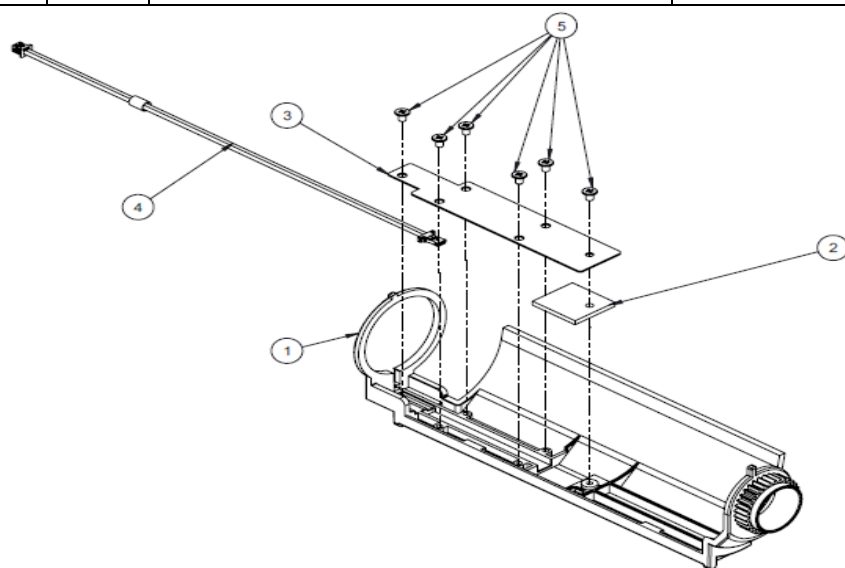
1-1-2-1-1. ВЕРХНИЙ УЗЕЛ ШАССИ - СЕНСОР_(LK-B24)

NO ITEM	EACH PIECES	NAME OF PART	CODE-NO	REMARK
1	1	ASS'Y_COVER_GAP_SENSOR_(LK-B24)	SLP05-00AS-010X	1-1-2-1-1-1
2	1	ASS'Y_HEAD_(LK-B24)	SLP05-00AS-017X	1-1-2-1-1-2
3	1	FRAME_UPPER_(LK-B24)	SLP05-00MD-002X	
4	3	HOLDER_HEAD_TENSION_(LK-B24)	SLP05-00MD-024A	
5	3	SPRING_HEAD_(LK-24)	SLP05-00SP-003X	



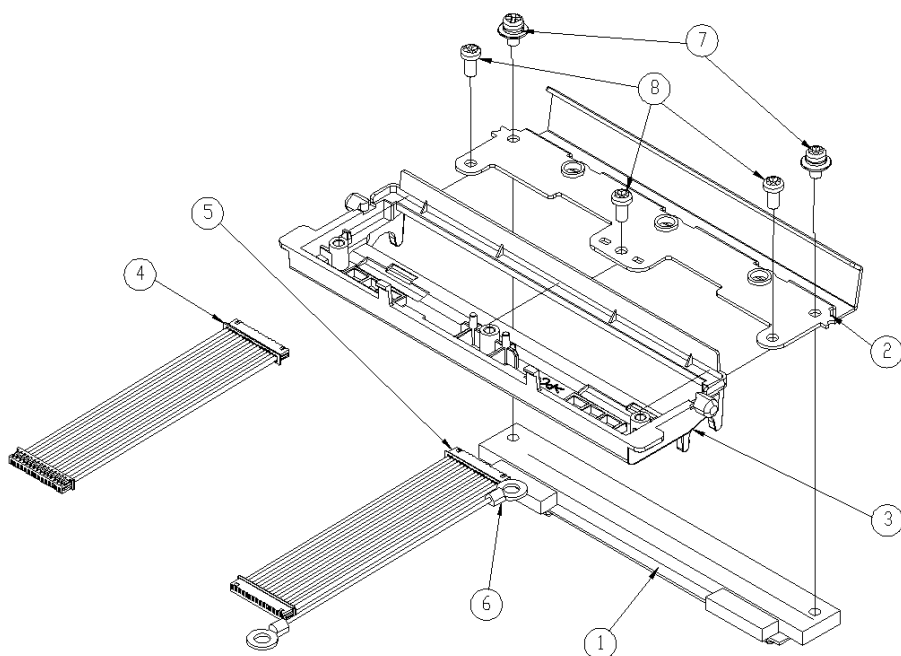
1-1-2-1-1-1. УЗЕЛ ДАТЧИКА ПРОСВЕТА (LK-B24)

NO ITEM	EACH PIECES	NAME OF PART	CODE-NO	REMARK
1	1	COVER_GAP_SENSOR_(LK-B24)	SLP05-00MD-017X	
2	1	ASS'Y_GAP_SENSOR_RX_(LK-B24)	SLP05-00PA-003X	
3	1	SHEET_GAP_SENSOR_CLOAK_(LK-B24)	SLP05-00ET-002X	
4	1	CABLE_GAP_EMITTER_(LK-B24)	SLP05-00WH-007X	
5	6	SCREW_T2.0×3.0_BK_CH	T2.0×3.0_BK_CH	



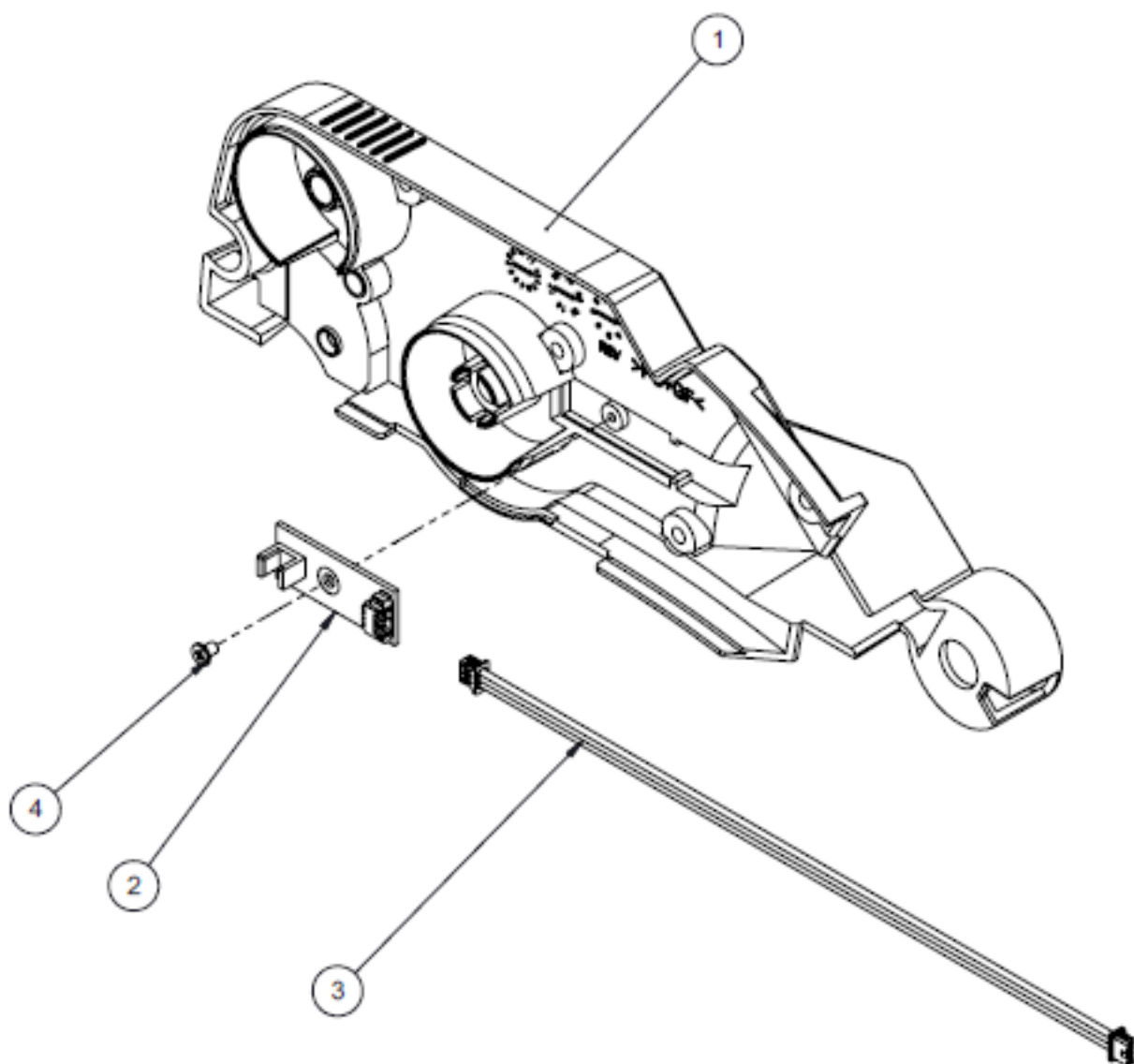
1-1-2-1-1-2. УЗЕЛ ПЕЧАТНОЙ ГОЛОВКИ (LK-B24)

NO ITEM	EACH PIECES	NAME OF PART	CODE-NO	REMARK
1	1	HEAD_SHEC_4INCH_LA_(LK-B30)	SLP02-00DG-001X	
2	1	BRACKET_HEAD_(LK-B24)	SLP05-00PS-001X	
3	1	GUIDE_HEAD_(LK-B24)	SLP05-00MD-007X	
4	1	CABLE_HEAD_BLACK_(LK-B24)	SLP05-00WH-001X	
5	1	CABLE_HEAD_RED_(LK-B24)	SLP05-00WH-002X	
6	1	CABLE_HEAD_EARTH_(LK-B24)	SLP05-00WH-009X	
7	2	SCREW_M3.0X6.0_ZN_PW_SW+PBR	M3.0X6.0_ZN_PW_SW+PBR	
8	3	SCREW_T3.0X8.0_ZN_PH	T3.0X8.0_ZN_PH	



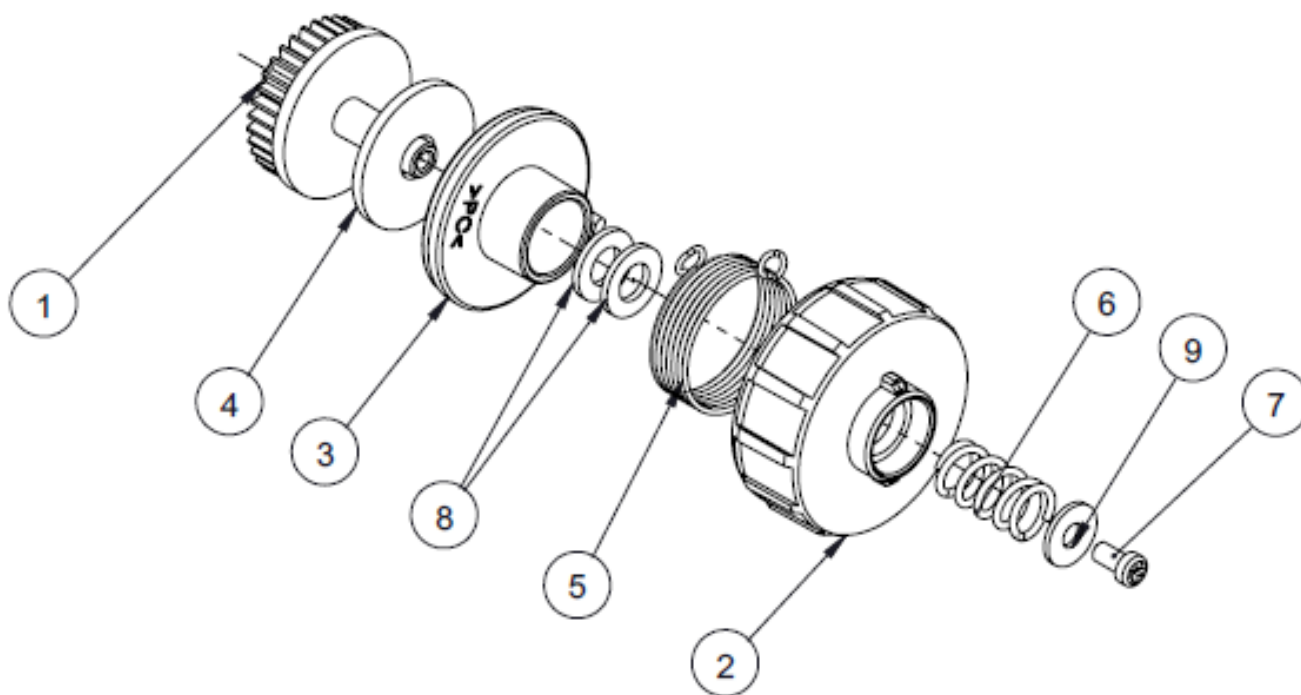
1-1-2-1-2. УЗЕЛ ЗАЩИТНОЙ КРЫШКИ (ЛЕВАЯ СТОРОНА) (LK-B24)

NO ITEM	EACH PIECES	NAME OF PART	CODE-NO	REMARK
1	1	COVER_FRAME_UPPER_LH_(LK-B24)	SLP05-00MD-015X	
2	1	ASS'Y_ENCODER_SENSOR_(LK-B24)	SLP05-00PA-002X	
3	1	CABLE_ENCODER_(LK-B24)	SLP05-00WH-006X	
4	1	SCREW_T2.0×3.0_BK_CH	T2.0×3.0_BK_CH	



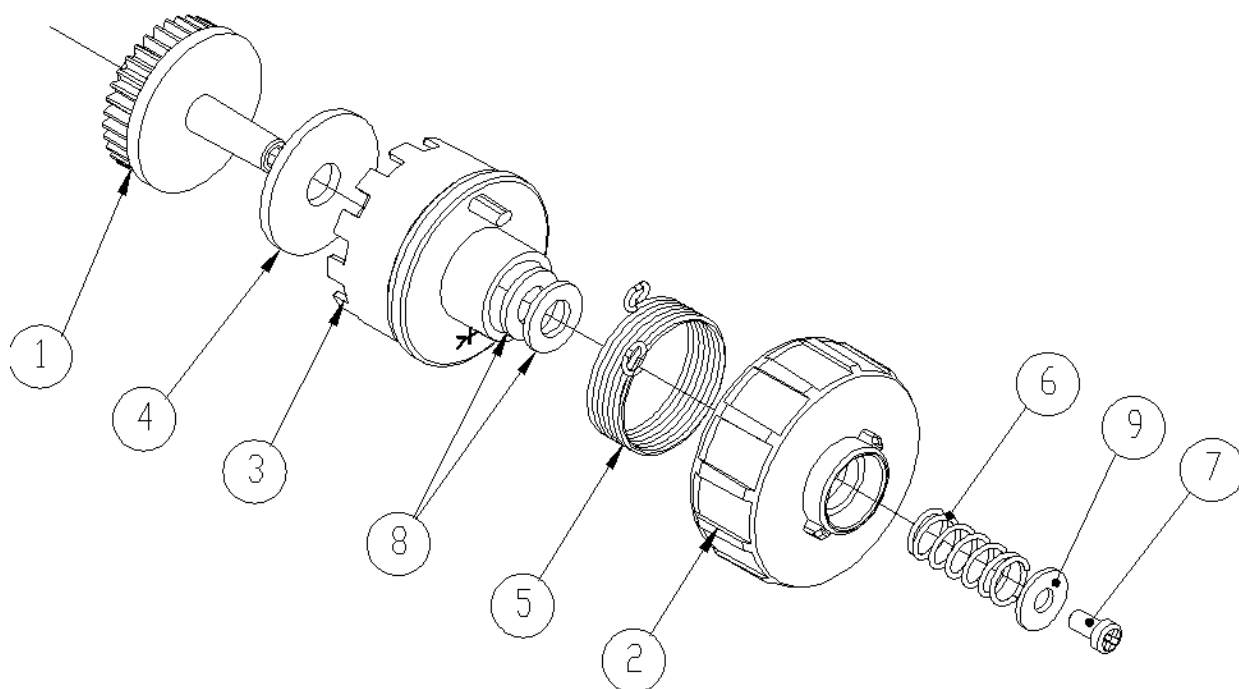
1-1-2-2. УЗЕЛ СМОТКИ ЛЕНТЫ (LK-B24)

NO ITEM	EACH PIECES	NAME OF PART	CODE-NO	REMARK
1	1	GEAR_RIBBON_SPLINE_(LK-B24)_M06Z34	SLP05-00MD-006X	
2	1	COVER_RIBBON_SPLINE_(LK-B24)	SLP05-00MD-020X	
3	1	HOLDER_RIBBON_SPLINE_(LK-B24)	SLP05-00MD-026A	
4	1	SLEEP_FELT_(LK-B24)	SLP05-00ET-003X	
5	1	SPRING_REWIND_BACKFEED_(LK-B24)	SLP05-00SP-006X	
6	1	SPRING_SPLINE_REWIND_(LK-B24)	SLP05-00SP-008X	
7	1	SCREW_T3.0X8.0_BKZN_PH	T3.0X8.0_BKZN_PH	
8	2	WASHER_05-10-1.0		
9	1	WASHER_3.5-9-0.8		



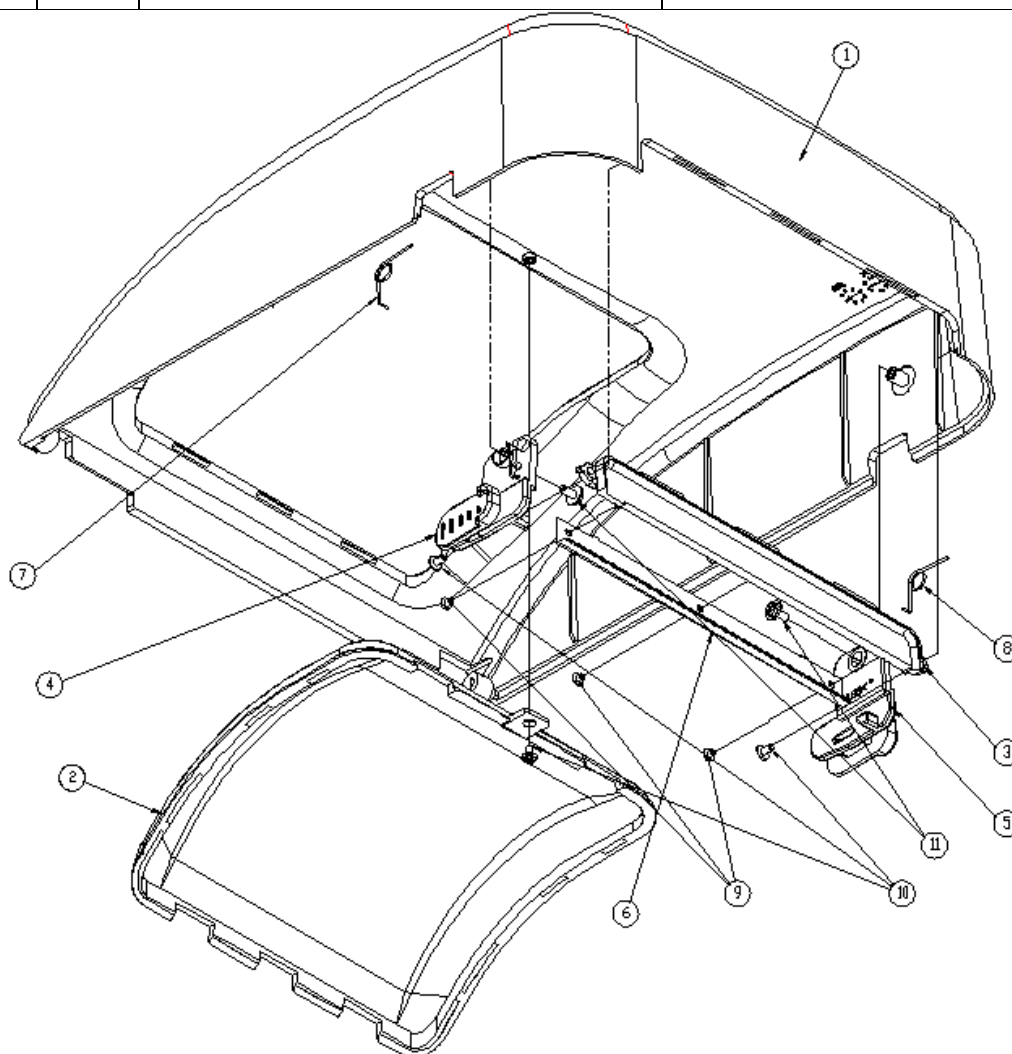
1-1-2-3. УЗЕЛ ПОДАТЧИКА ЛЕНТЫ (LK-B24)

NO ITEM	EACH PIECES	NAME OF PART	CODE-NO	REMARK
1	1	GEAR_RIBBON_SPLINE_(LK-B24)_M06Z34	SLP05-00MD-006X	
2	1	COVER_RIBBON_SPLINE_(LK-B24)	SLP05-00MD-020X	
3	1	ENCODER_RIBBON_SPLINE_(LK-B24)	SLP05-00MD-023X	
4	1	SLEEP_FELT_(LK-B24)	SLP05-00ET-003X	
5	1	SPRING_SPLINE_BACKFEED_(LK-B24)	SLP05-00SP-007X	
6	1	SPRING_SPLINE_SUPPLY_(LK-B24)	SLP05-00SP-009X	
7	1	SCREW_T3.0X8.0_BKZN_PH	T3.0X8.0_BKZN_PH	
8	2	WASHER_05-10-1.0		
9	1	WASHER_3.5-9-0.8		



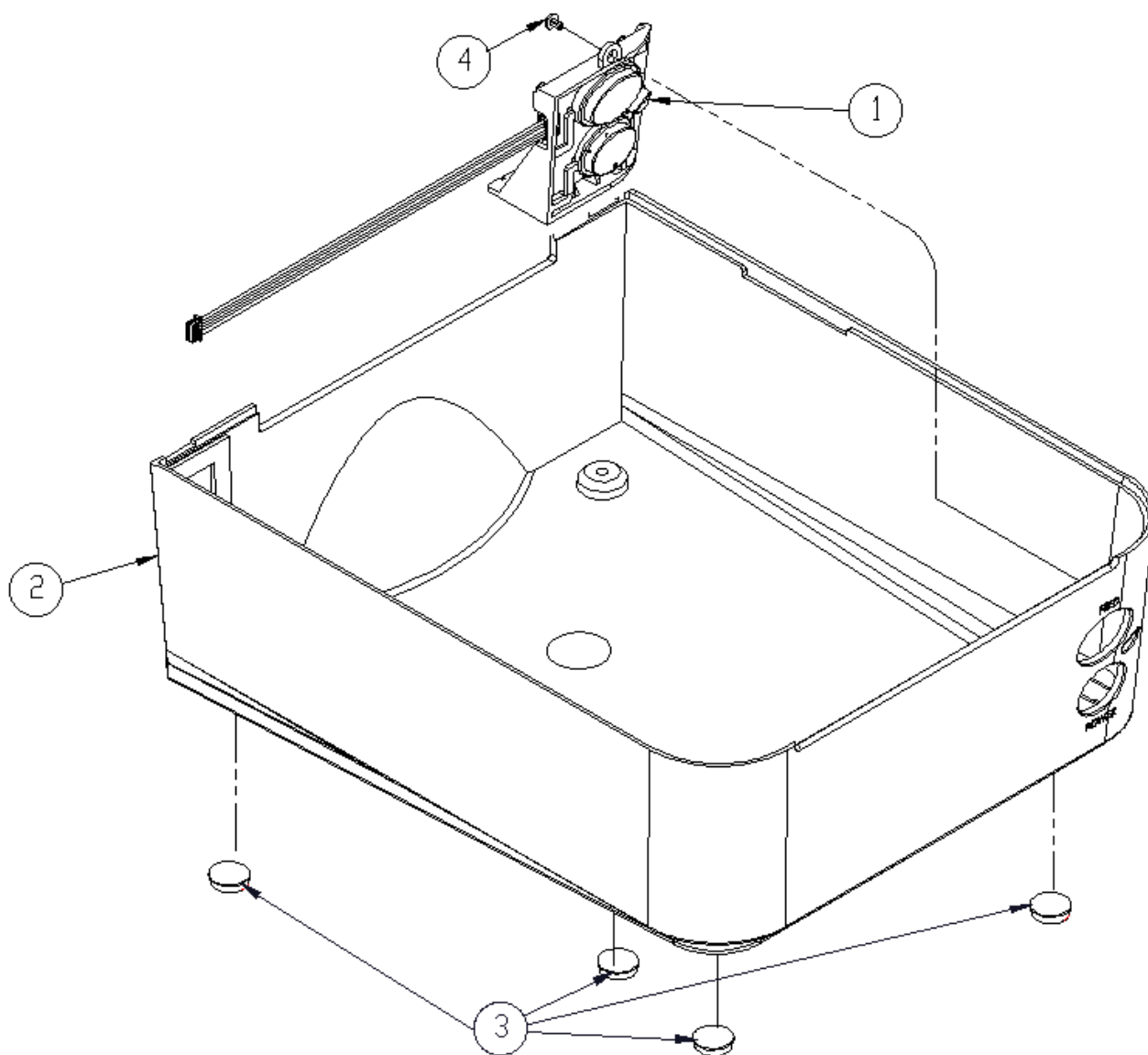
1-2. УЗЕЛ ВЕРХНЕЙ КРЫШКИ (LK-B24)

NO ITEM	EACH PIECES	NAME OF PART	CODE-NO	REMARK
1	1	COVER_UPPER_(LK-B24)	SLP05-00MD-021X	
2	1	COVER_UPPER_WINDOW_(LK-B24)	SLP05-00MD-022X	
3	1	HOLDER_TEAR_BAR_(LK-B24)	SLP05-00MD-027X	
4	1	LEVER_UPPER_COVER_LH_(LK-B24)	SLP05-00MD-030X	
5	1	LEVER_UPPER_COVER_RH_(LK-B24)	SLP05-00MD-031X	
6	1	BRACKET_TEAR_BAR_(LK-B10)	SLP01-00PS-009X	
7	1	SPRING_COVER_KNOB_LH_(LK-B10)	SLP01-00SP-011X	
8	1	SPRING_COVER_KNOB_RH_(LK-B10)	SLP01-00SP-012X	
9	3	SCREW_T2.0x2.0_NI_CH	T2.0x2.0_NI_CH	
10	3	SCREW_T2.0x4.0_ZN_PW	T2.0x4.0_ZN_PW	
11	2	SCREW T2.6X5.5_ZN_PH_SW+PBR	T2.6X5.5_ZN_PH_SW+PBR	



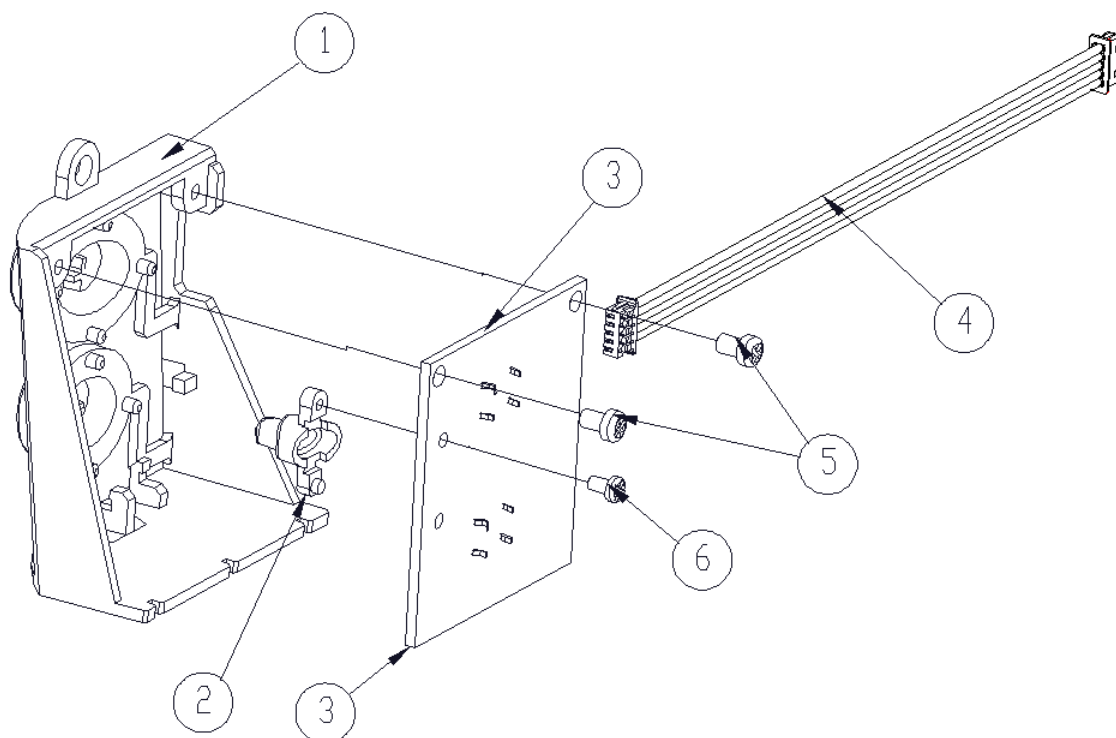
1-3. УЗЕЛ НИЖНЕЙ КРЫШКИ (LK-B24)

NO ITEM	EACH PIECES	NAME OF PART	CODE-NO	REMARK
1	1	ASS'Y_FUNCTION_(LK-B24)	SLP05-00AS-014X	1-3-1
2	1	COVER_BOTTOM_(LK-B24)	SLP05-00MD-014X	
3	4	PAD_RUBBER_FOOT_(SLK-D10)	APM00-00RU-001X	
4	1	SCREW_T2.0X4.0_ZN_PW	T2.0X4.0_ZN_PW	



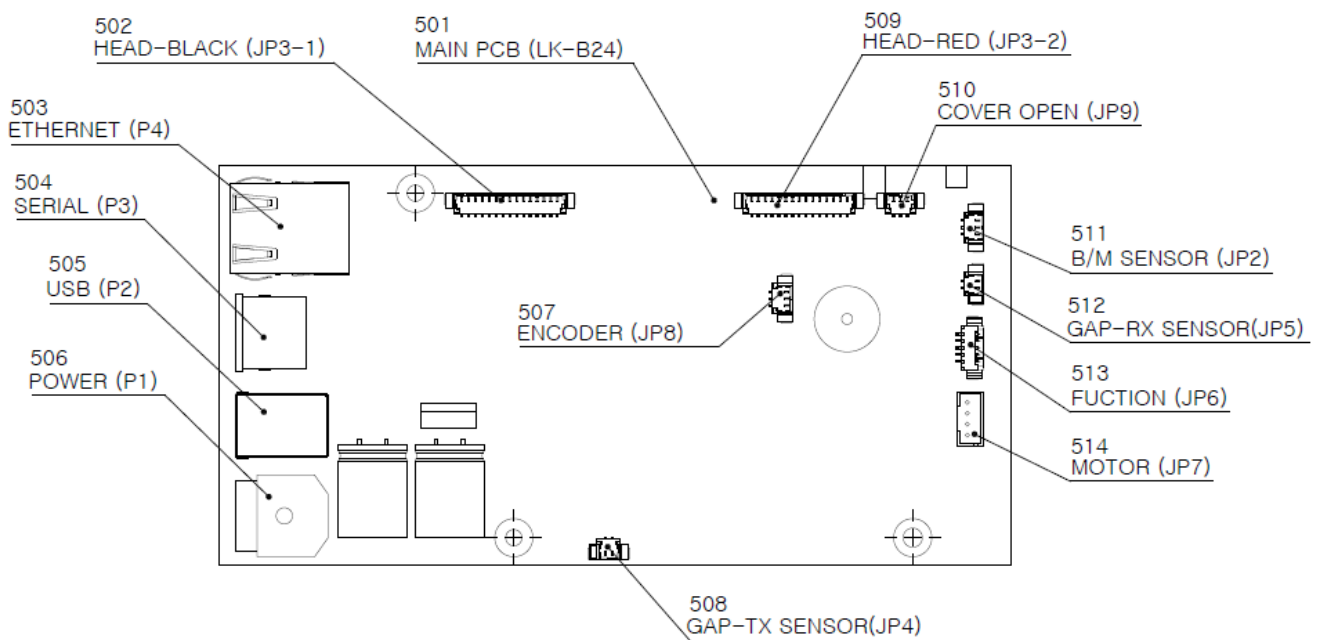
1-3-1. УЗЕЛ КНОПОК УПРАВЛЕНИЯ И ИНДИКАЦИИ (LK-B24)

NO ITEM	EACH PIECES	NAME OF PART	CODE-NO	REMARK
1	1	BUTTON_FUNCTION_(LK-B24)	SLP05-00MD-011X	
2	1	COVER_LED_(LK-B24)	SLP05-00MD-019X	
3	1	PCBA_FUNCTION (LK-B24)	SLP05-00PA-005X	
4	1	CABLE_FUNCTION_(LK-B24)	SLP05-00WH-003X	
5	2	SCREW_T2.6X4.0_BK_PH	T2.6X4.0_BK_PH	
6	1	SCREW_T2.0X3.5_ZN_PH	T2.0X3.5_ZN_PH	



1-1-5. УЗЕЛ КОННЕКТОРОВ ПЛАТЫ УПРАВЛЕНИЯ (LK-B24)

NO ITEM	EACH PIECES	NAME OF PART	CODE-NO	REMARK
501	1	MAIN PCB (LK-B24)	SLP02-00PB-C001	
502	1	HEAD-BLACK	GDMR-9S(RIGHT ANGLE, FEMALE)	
503	1	ETHERNET	57RE-40360-830B	
504	1	SERIAL	67068	
505	1	USB	LA2004-03,3PIN	
506	1	POWER CONNECTOR (2PIN)	12512WS-02B	
507	1	ENCODER	12512WS-15B	
508	1	GAP-TX SENSOR	12512WS-15B	
509	1	HEAD-RED	SW0500-06	
510	1	COVER SW CONNECTOR	ALP1205	
511	1	B/M SENSOR	12512WS-03B	
512	2	GAP-RX SENSOR	SW0500-04	
513	1	FUNCTION	SW0500-04	
514	1	MOTOR CONNECTOR	SW0500-02	



LK-B24 ПЛАТА УПРАВЛЕНИЯ

Q'ty	Description	Location No.	Parts No.	Remark
	LK-B24 MAIN PCB		MAIN PCB ASS'Y	
	ASSEMBLY / DRAWING		SLP05-00PA-006A	
	CIRCUIT / DIAGRAM		SLP05-00SH-006A	
	CARD / DESIGN		SLP05-00BP-006A	
1	PCB		SLP05-00BP-006A	
1	IC / CPU	U1	STM32F427ZGT6	
1	IC / FLASH MEMORY	U2	EN25QH64-104HIP	
1	IC / SDRAM	U3	M12L128168A-6TG2N	
1	IC / EEPROM	U4	M24C16-RMN6TP	
1	IC / Ethernet PY	U5	LAN8720Ai	
1	IC / USB ESD Protection	U6	RClamp0504FA	
1	IC / Switching Regulator	U7	A4447	
1	IC / MOTOR DRV	U8	A4988	
2	IC / COMPARATOR	U9,U12	LM393DRG2	
1	IC / RS232 DRV	U10	SP3232ECN	
2	CRYSTAL	X1,X2	25MHz SX-1	
1	DIODE / ZENER	ZD1	BZT52C30	
1	DIODE / ZENER	ZD2	BZT52C15	
1	TR ARRAY / SMALL-SIG	QA1	SUT485J	
6	TR / SMALL-SIG	Q1,Q2,Q3,Q6,Q8,Q11	MMBT3904LT1G	
2	TR / SMALL-SIG	Q4,Q12	DTC143ZUA	
2	FET POW-MOS / P-CH	Q5,Q9	IRF4905L	

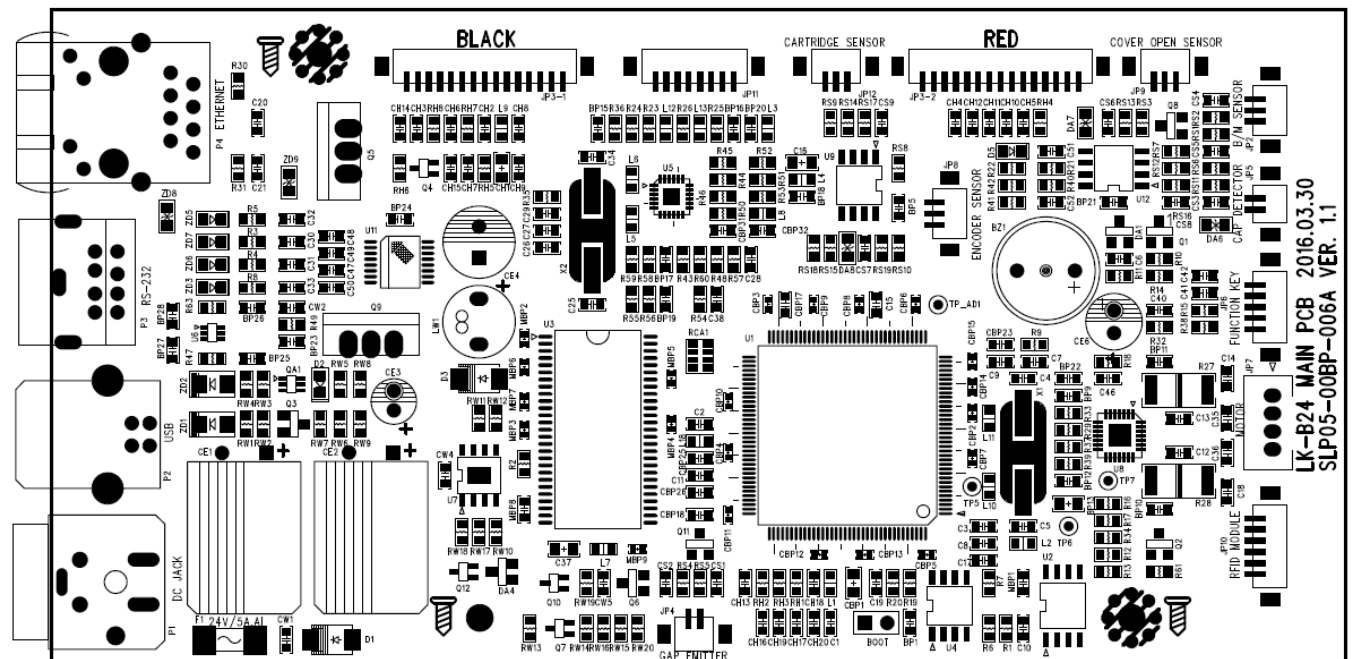
Q'ty	Description	Location No.	Parts No.	Remark
2	TR / SMALL-SIG	Q7,Q10	DTA143ZUA	
1	DIODE / Dual Silicon	DA1	KDS226	
1	DIODE / SMALL-SIG	DA4	KDS184	
1	DIODE / SCHOTTKY	D1	S1M	
1	DIODE / SMALL-SIG	D2	KDS160	
1	DIODE / SCHOTTKY	D3	SS16	
2	DIODE / ESD Protection	DA6,DA7	PG24EBUSC-RTK/H	
1	BUZZER	BZ1	ALP1205	
1	FUSE / TIME LAG	F1	S6125-H2-5.0A	
2	CAPACITOR / ALU	CE1-2	1000uF/35V	
1	CAPACITOR / ALU	CE3	10uF/50V	
1	CAPACITOR / ALU	CE4	470uF/16V	
1	CAPACITOR / ALU	CE6	47uF/50V	
10	BEAD / CHIP	L1,L2,L3,L4,L5,L6,L7,L9,L12,L13	HB-1M1608-102J/1608	
2	BEAD / CHIP	L8,L18	HB-1M1608-221J/1608	
4	BEAD / CHIP	L10,L11,R47,R63	HB-1M1608-600J/1608	
1	RESISTOR / CHIP ARRAY	RCA1	RP164J471/470 Ω 3216	
2	RESISTOR / CHIP	R27,R28	0.36 Ω /1W 6432(F)	
5	RESISTOR / CHIP	R23,R24,R25,26,R50	49.9 Ω (F) 1608	
1	RESISTOR / CHIP	RW12	910 Ω (F) 1608	
1	RESISTOR / CHIP	R42	2K Ω (F) 1608	
1	RESISTOR / CHIP	RW11	2.87K Ω (F) 1608	

Q'ty	Description	Location No.	Parts No.	Remark
2	RESISTOR / CHIP	R36,R40	12.1KΩ(F) 1608	
3	RESISTOR / CHIP	R16,R21,R41	30KΩ(F) 1608	
1	RESISTOR / CHIP	RW10	121KΩ(F) 1608	
1	RESISTOR / CHIP	RS3	470KΩ(F) 1608	
3	RESISTOR / CHIP	RS2,RS5,R11	10Ω 1608	
2	RESISTOR / CHIP	RS11,RS13	47Ω 1608	
6	RESISTOR / CHIP	RS1,RS4,RH7,RW8,R12,R39	100Ω 1608	
12	RESISTOR / CHIP	RH1,RH2,RH3,R14,R32,R44,R45, R46,R57,R58,R59,R60	150Ω 1608	
2	RESISTOR / CHIP	R30,R31	270Ω 1608	
6	RESISTOR / CHIP	R3,R4,R5,RW7,R8,R15	330Ω 1608	
5	RESISTOR / CHIP	RS7,RS8,RS19,R20	470Ω 1608	
7	RESISTOR / CHIP	RW1,RW4,RH5,R10,R17,R22,R61	1KΩ 1608	
1	RESISTOR / CHIP	R48	1.5KΩ 1608	
5	RESISTOR / CHIP	R38,R43,R54,R55,R56	4.7KΩ 1608	
2	RESISTOR / CHIP	RH4,RW17	5.6KΩ 1608	
26	RESISTOR / CHIP	R1,R2,RW2,RW3,RW5,RS6, R6,R7,R9,RS12,RS13,RW13, RS15,RS16,RW16,R18,RS18, RW18,R19,R29,R34,R35, R37,R51,R52,R53	10KΩ 1608	
4	RESISTOR / CHIP	RS10,RW14,RW19,RW20	47KΩ 1608	
5	RESISTOR / CHIP	RH6,RW6,RW9,RW15,R33	100KΩ 1608	

Q'ty	Description	Location No.	Parts No.	Remark
21	CAPACITOR / CHIP	MBP2,MBP3,MBP4,MBP5 MBP6,MBP7,MBP9,CBP2,CBP3, CBP4,CBP5,CBP6,CBP7,CBP8, CBP9,CBP10,CBP11,CBP12, CBP13,CBP14,CBP15	0.1uF/16V 1005	
11	CAPACITOR / CHIP	C2,C4,C5,CH6,CH7,C17,C20, C21,C25,CBP25,C34	20pF 1608	
4	CAPACITOR / CHIP	CH16,CH19,CH20,CBP32	33pF 1608	
5	CAPACITOR / CHIP	CH8,CH9,CH10,CH11,CH12	47pF 1608	
4	CAPACITOR / CHIP	BP25,BP26,BP27,BP28	68pF 1608	
6	CAPACITOR / CHIP	C9,C15,CH18,C19,C28,C38	100pF 1608	
6	CAPACITOR / CHIP	CH13,C26,C30,C31,C32,C33	470pF 1608	
3	CAPACITOR / CHIP	C12,C13,CH17	1nF 1608	
9	CAPACITOR / CHIP	CW4,CS6,C14,C18,BP19,C35, C51,C52	0.01uF 1608	
33	CAPACITOR / CHIP	MBP1,BP1,CW1,CS1,CW2,CS2, CH2,C3,CH3,CS4,CH4,CS5,C6, C7,MBP8,BP10,BP11,BP12, CH15,BP15,BP16,BP17,BP18, BP20,BP21,BP22,BP23,C40, C41,C42,C46	0.1uF 1608	
5	CAPACITOR / CHIP	CS3,CH5,CW5,CH7,BP9	0.22uF 1608	
5	CAPACITOR / CHIP	CS8,BP24,C27,C47,C50	1uF/16V 1608	
2	CAPACITOR / CHIP	CBP17,CBP18	2.2uF/25V 1608	
2	CAPACITOR / CHIP	CH1,CBP1,BP13,C16,C37	10uF/6.3V 2012	
2	CONNECTOR / WAFER	JP4,JP5	12505WS-02B	
3	CONNECTOR / WAFER	JP2,JP8,JP9	12505WS-03B	
1	CONNECTOR / WAFER	JP6	12505WS-05B	
2	CONNECTOR / WAFER	JP8,JP9	12505WS-15B	

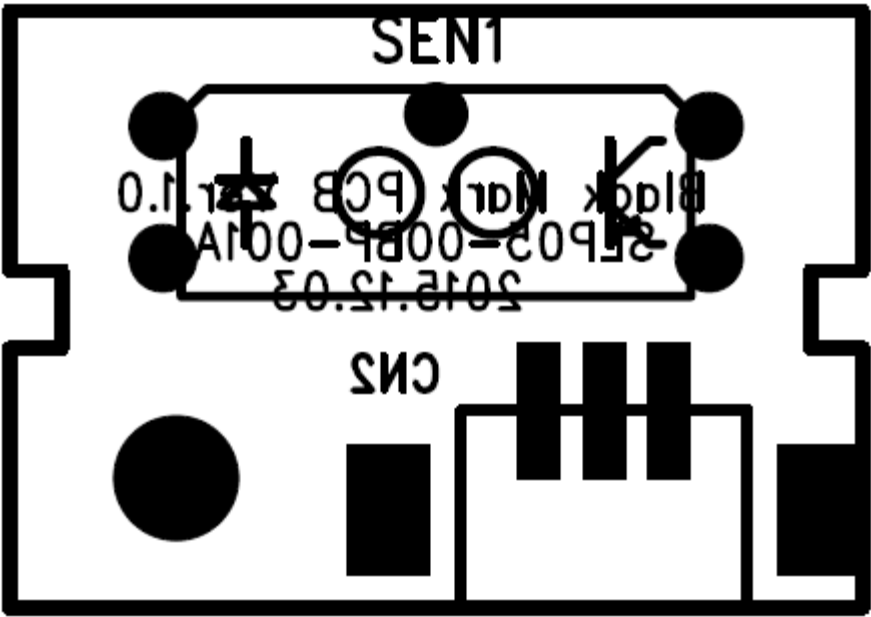
Q'ty	Description	Location No.	Parts No.	Remark
1	CONNECTOR / WAFER	JP7	SW0500-04	
1	POWER JACK	P1	AC00093-12-3-S-X1	
1	CONNECTOR/USB "B" TYPE	P2	2075S	
1	MINIDIN JACK	P3	DIN 8P	
1	CONNECTOR / Ethernet	P4	RD-125BAG1A	

LK-B24 ПЛАТА УПРАВЛЕНИЯ



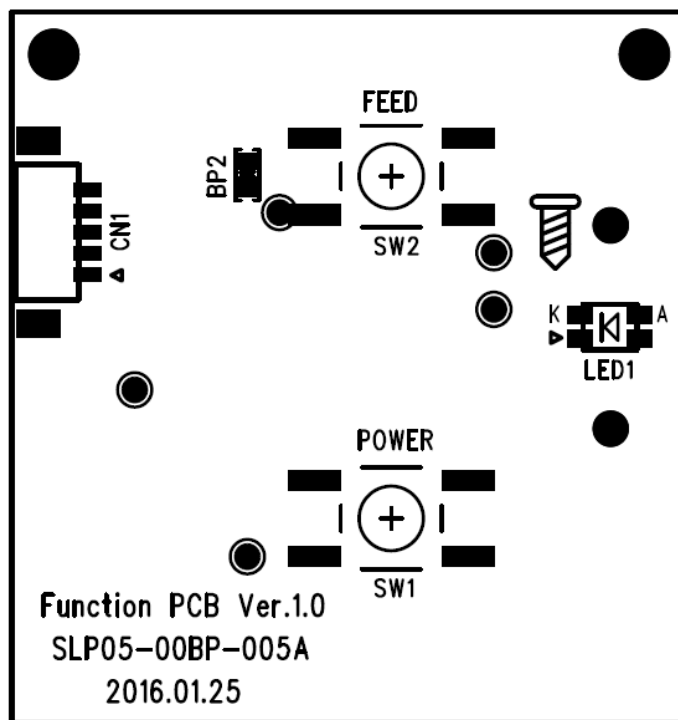
LK-B24 ПЛАТА СЕНСОРА ЧЕРНОЙ МЕТКИ

Q'ty	Description	Location No.	Parts No.	Remark
			BM SENSOR PCB ASS'Y	
	ASSEMBLY DRAWING		SLP05-00PA-001A	
	CIRCUIT DIAGRAM		SLP05-00SH-001A	
	CARD DESIGN		SLP05-00PB-001A	
1	PCB		SLP05-00BP-001A	
1	PHOTO INTTERRUTER	SEN1	SG112-SD-B	
1	CONNECTOR / WAFER	CN2	12505WS-03B	



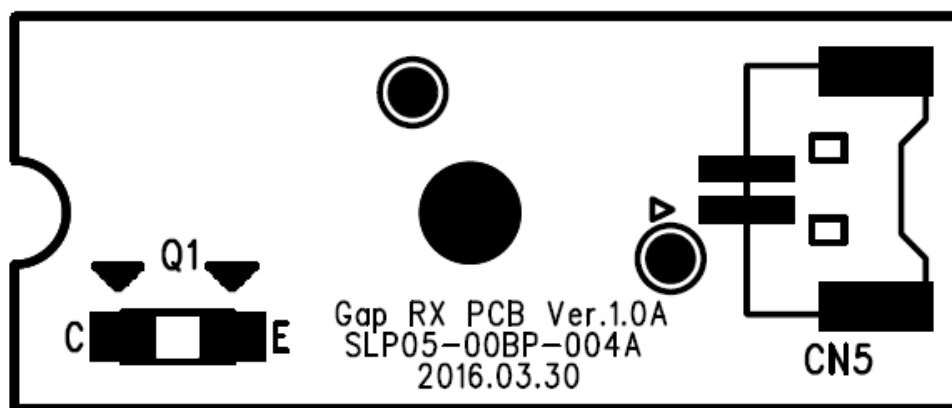
ЛК-В30 ФУНКЦИОНАЛЬНАЯ ПЛАТА

Q'ty	Description	Location No.	Parts No.	Remark
			FUNCTION PCB ASS'Y	
	ASSEMBLY DRAWING		SLP05-00PA-005A	
	CIRCUIT DIAGRAM		SLP05-00SH-005A	
	CARD DESIGN		SLP05-00BP-005A	
1	PCB		SLP05-00BP-005A	
2	SWITCH / TACT	SW1,SW2	JPT-1102SAP-2	
1	LED / Dual-Color	LED1	15-22/R6G6C-A32/2T	
1	CONNECTOR / WAFER	CN1	12505WR-06B	
1	CAPACITOR / CHIP	BP2	0.1nF 1608	



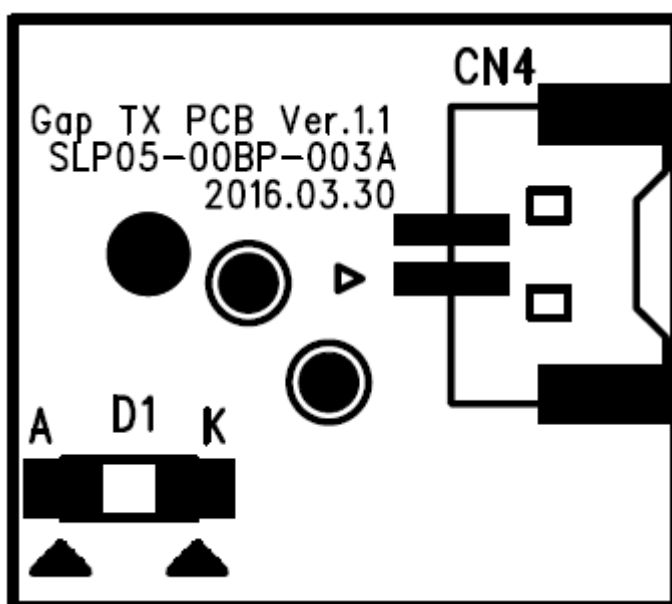
ЛК-В30 ПЛАТА ДАТЧИКА ПРОСВЕТА (ПРЕМНИК)

Q'ty	Description	Location No.	Parts No.	Remark
			GAP RX PCB ASS'Y	
	ASSEMBLY DRAWING		SLP05-00PA-004A	
	CIRCUIT DIAGRAM		SLP05-00SH-004A	
	CARD DESIGN		SLP05-00BP-004A	
1	PCB		SLP05-00BP-004A	
1	PHOTO TR	Q1	KST-0315A	
1	CONNECTOR / WAFER	CN5	12513WR-02B	



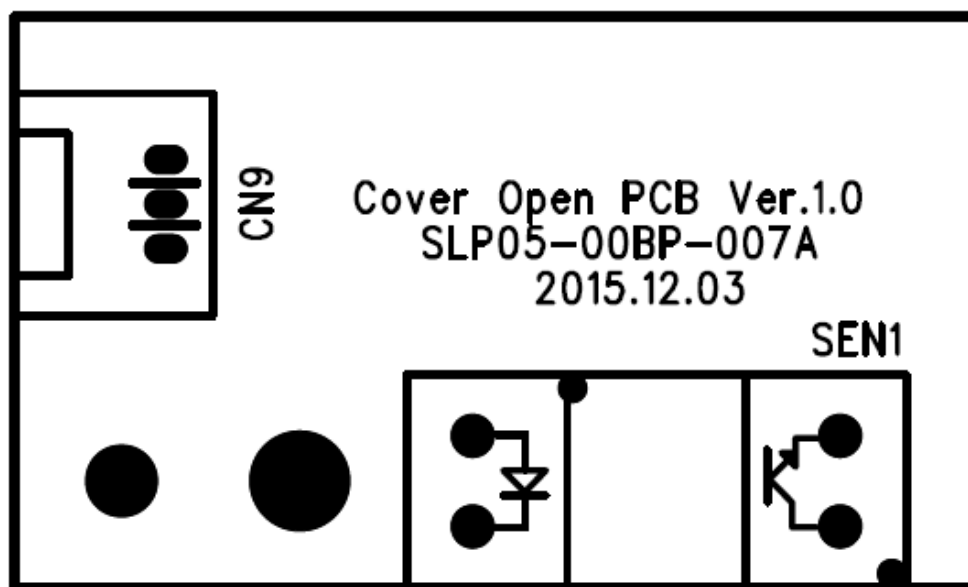
ЛК-В30 ПЛАТА ДАТЧИКА ПРОСВЕТА (ПЕРЕДАТЧИК)

Q'ty	Description	Location No.	Parts No.	Remark
			GAP TX PCB ASS'Y	
	ASSEMBLY DRAWING		SLP05-00PA-003A	
	CIRCUIT DIAGRAM		SLP05-00SH-003A	
	CARD DESIGN		SLP05-00BP-003A	
1	PCB		SLP05-00BP-003A	
1	PHOTO DIODE	D1	KEL-0315C	
1	CONNECTOR / WAFER	CN4	12513WR-02B	



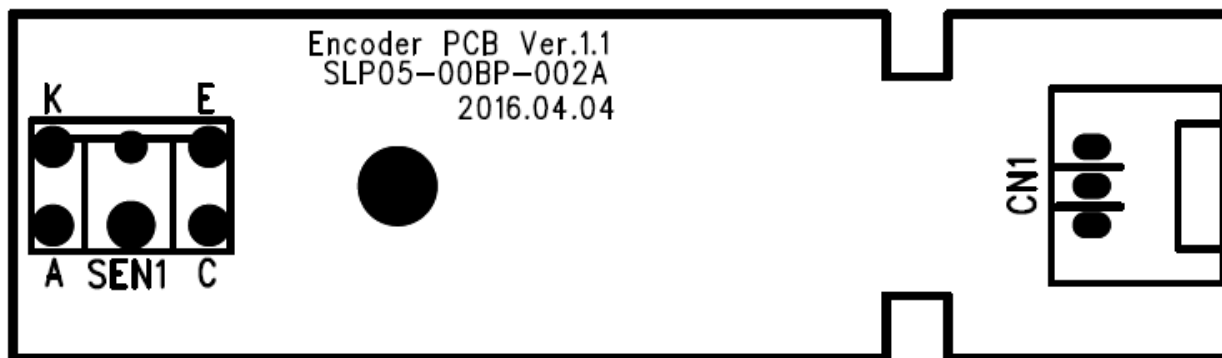
ЛК-В24 ПЛАТА ДАТЧИКА ОТКРЫТИЯ КРЫШКИ

Q'ty	Description	Location No.	Parts No.	Remark
			COVER OPEN SENSOR PCB ASS'Y	
	ASSEMBLY DRAWING		SLP05-00PA-007A	
	CIRCUIT DIAGRAM		SLP05-00SH-007A	
	CARD DESIGN		SLP05-00PB-007A	
1	PCB		SLP05-00BP-007A	
1	PHOTO INTTERRUTER	SEN1	SG207	
1	CONNECTOR / WAFER	CN9	12512WR-02B	

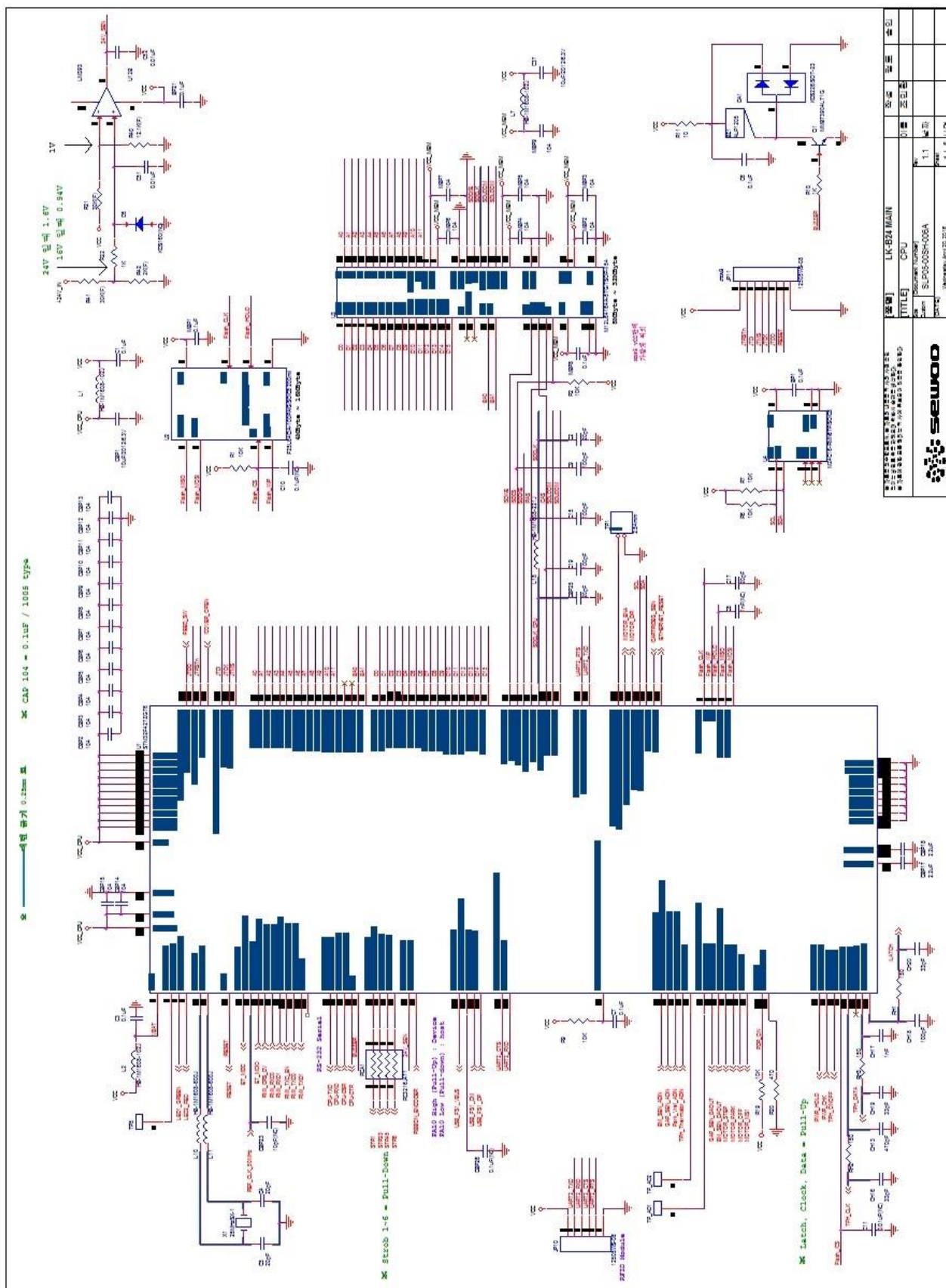


ЛК-В24 ПЛАТА УПРАВЛЕНИЯ ПЕЧАТАЮЩЕЙ ГОЛОВКОЙ

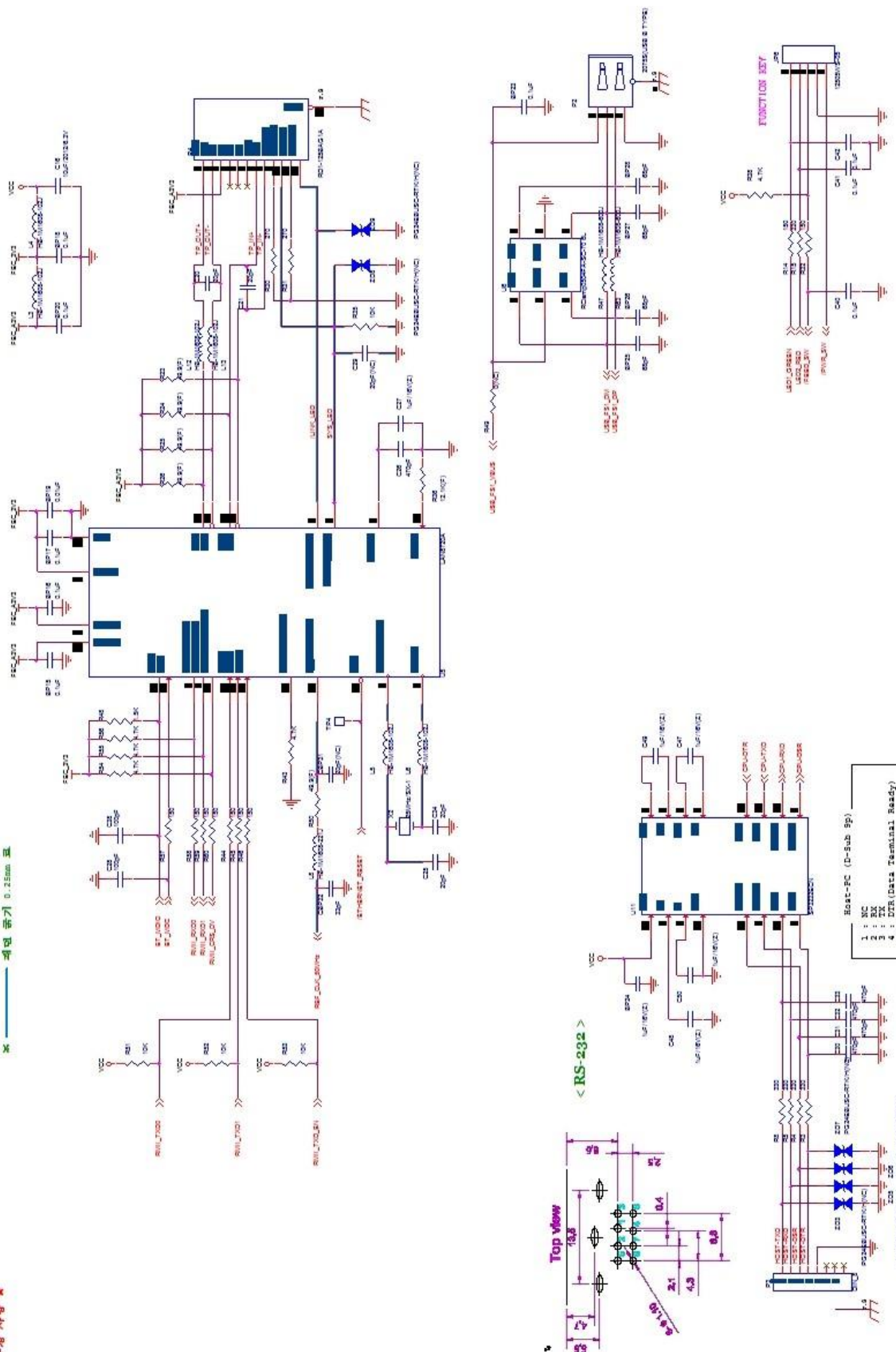
Q'ty	Description	Location No.	Parts No.	Remark
			RIBBON ENCODER SENSOR PCB ASS'Y	
	ASSEMBLY DRAWING		SLP05-00PA-002A	
	CIRCUIT DIAGRAM		SLP05-00SH-002A	
	CARD DESIGN		SLP05-00PB-002A	
1	PCB		SLP05-00BP-002A	
1	PHOTO INTTERRUTER	SEN1	SG233	
1	CONNECTOR / WAFER	CN1	12512WR-02B	



3. Принципиальная электрическая схема



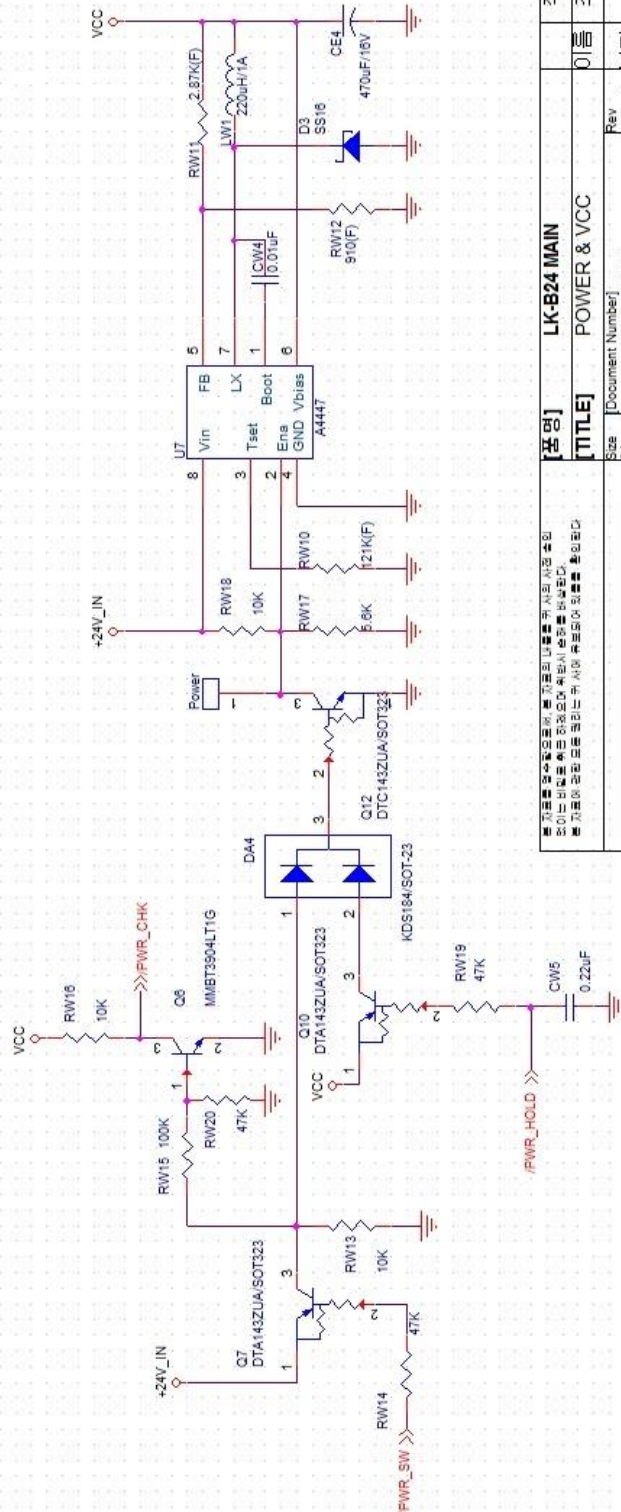
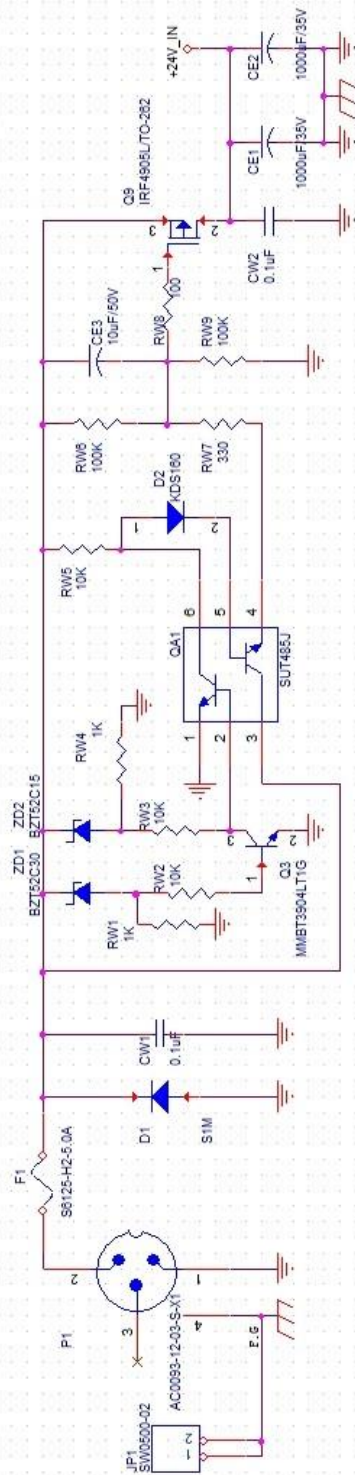
< ПЛАТА УПРАВЛЕНИЯ 1>



	세우 세우주식회사 서울특별시 강남구 테헤란로15길 15, 12층 TEL: 02-556-0084 FAX: 02-556-0085 E-MAIL: sewoo@sewoo.co.kr www.sewoo.co.kr	주요 LK-B24 MAIN		2011년 1월 11일	2011년 1월 11일	2011년 1월 11일
		[TITLE] INTERFACE		1.1	1.1	1.1
(Document Number) SLP0-009A-008A		2011년 1월 11일		2011년 1월 11일	2011년 1월 11일	2011년 1월 11일
(Version) Ver. 1.1		2011년 1월 11일		2011년 1월 11일	2011년 1월 11일	2011년 1월 11일

★ 수정 사항 ★

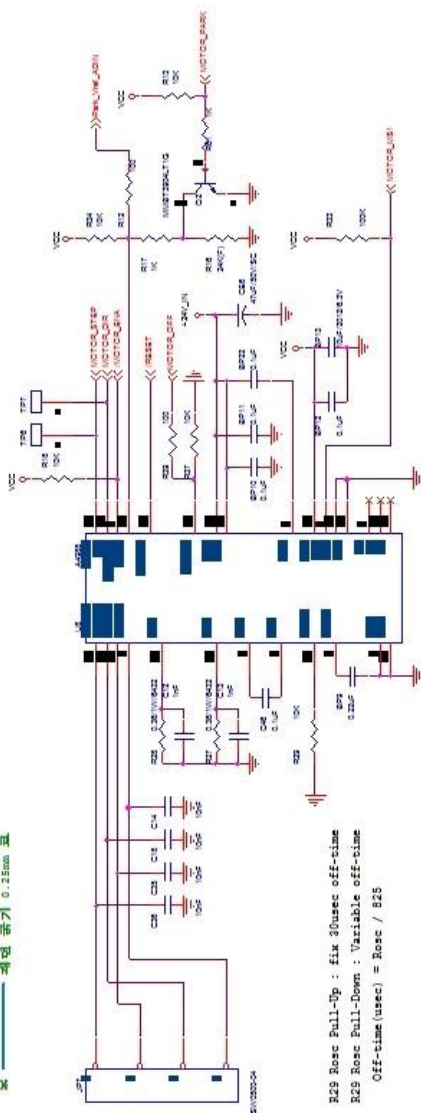
※ 패던 굵기 0.25mm 보



< ПЛАТА УПРАВЛЕНИЯ 3 >

[부명] LK-B24 MAIN		이름	조명	수입
[TITLE] POWER & VCC		Rev	날짜	
Size 44		1.1		
[Document Number] SLP05-00SH-006A		Sheet	3 / 5	서명
[DATE] Wednesday, April 20, 2016				





```
R29 Rosc Pull-Up : fix 30usec off-time
R29 Rosc Pull-Down : Variable off-time
Off-time(usec) = Rosc / R25
```

```

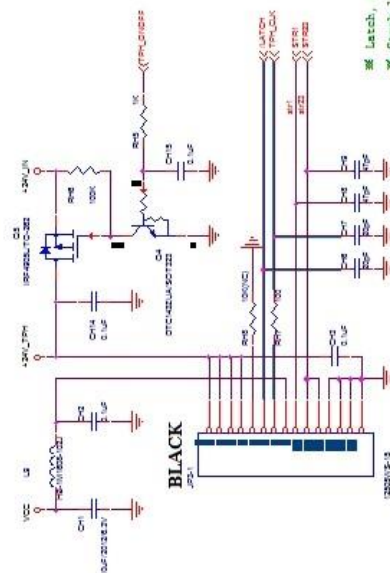
% Itrip(max) = Vref / (8 * Rs)
% Rs is sense resistor (R28,29)

MOTOR_PARK = HIGH

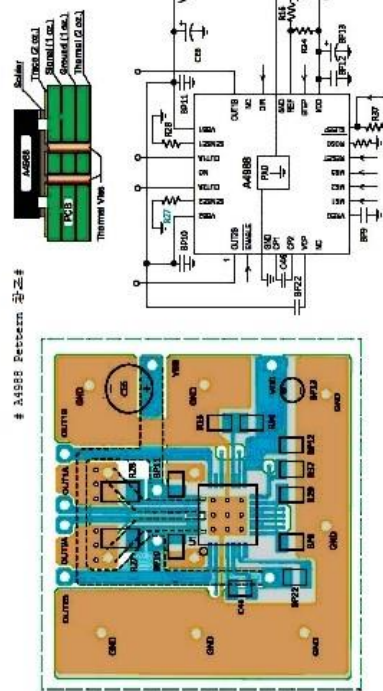
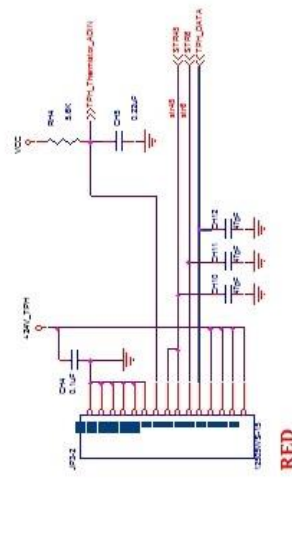
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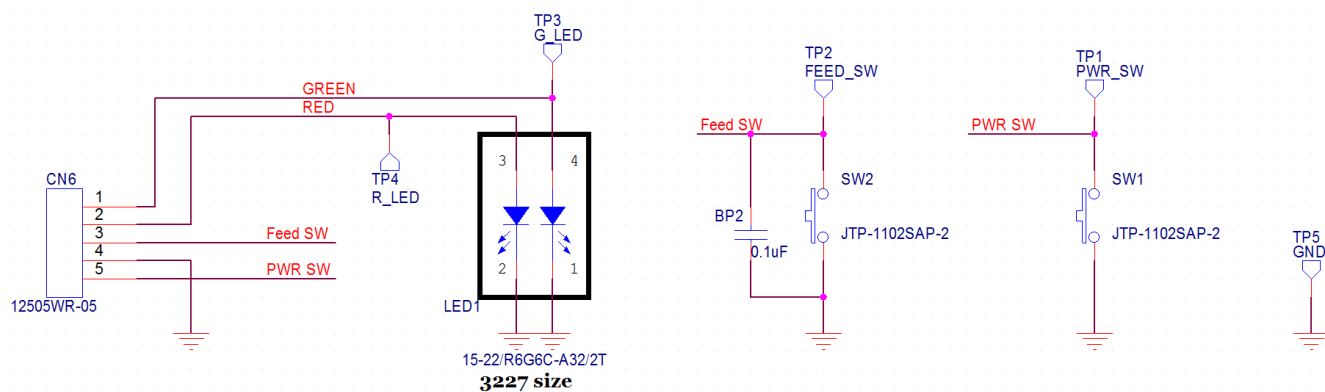
```
MOTOR_PARK = HIGH
Vref = 1 / (10+1) * 3 = 0.3
Itrip(max) = 0.3 / (8 + 0.36) = 0.104 (A)
```

MOTOR_PARK = LOW

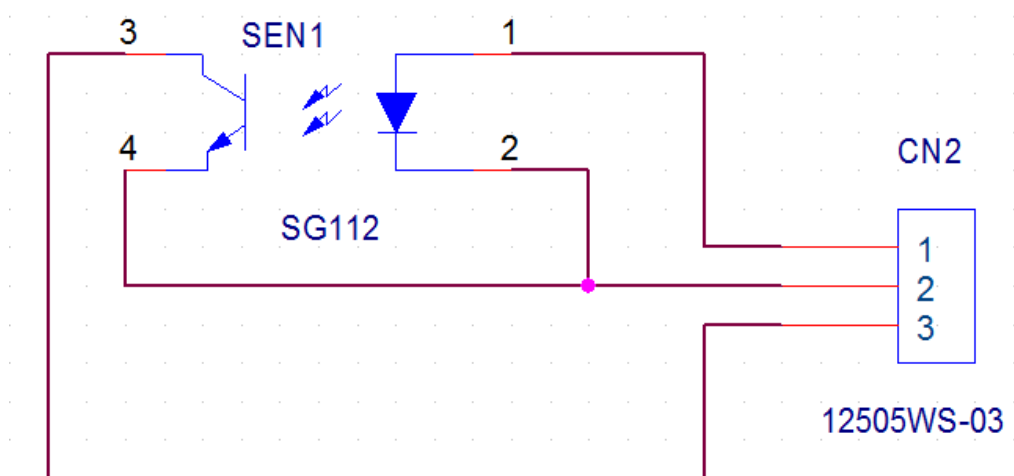
$$\begin{aligned} V_{ref} &= (1+24) / (10+1+24) + 3.3 = 2.357 \\ I_{trip(max)} &= 2.357 / (8 + 0.36) = 0.81 \end{aligned}$$


- ⌘ Latch, Clock, Data = Pull-Up
- ⌘ Strob 1~6 = Pull-Down

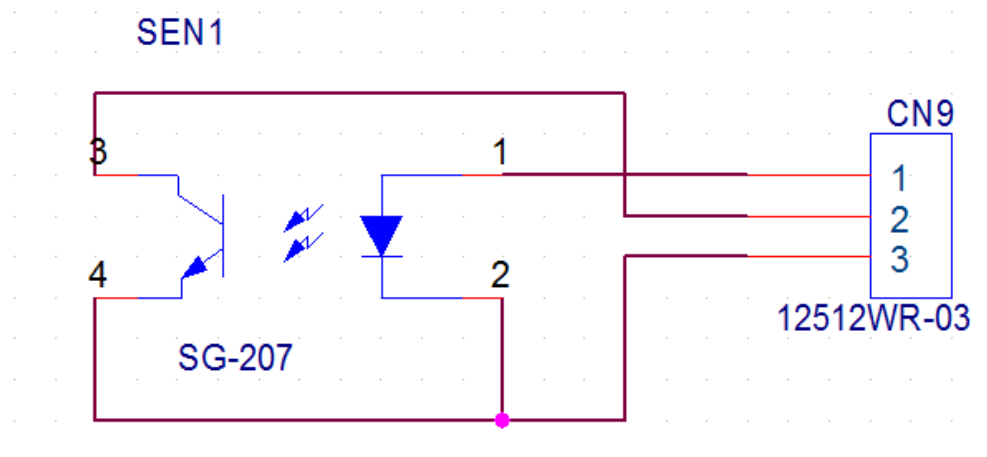
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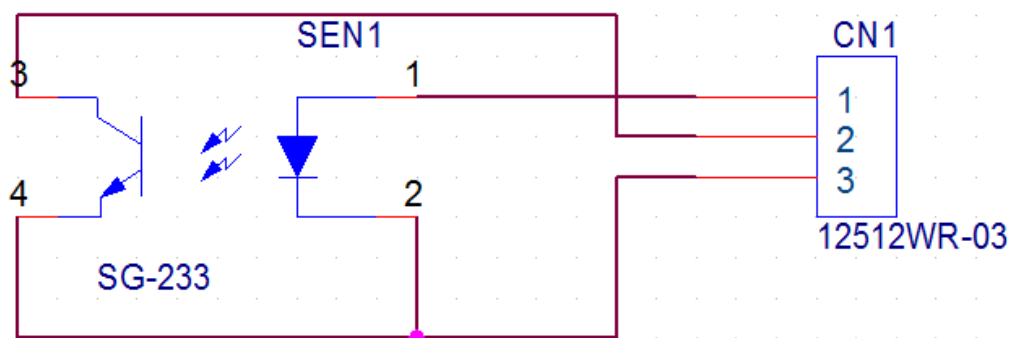
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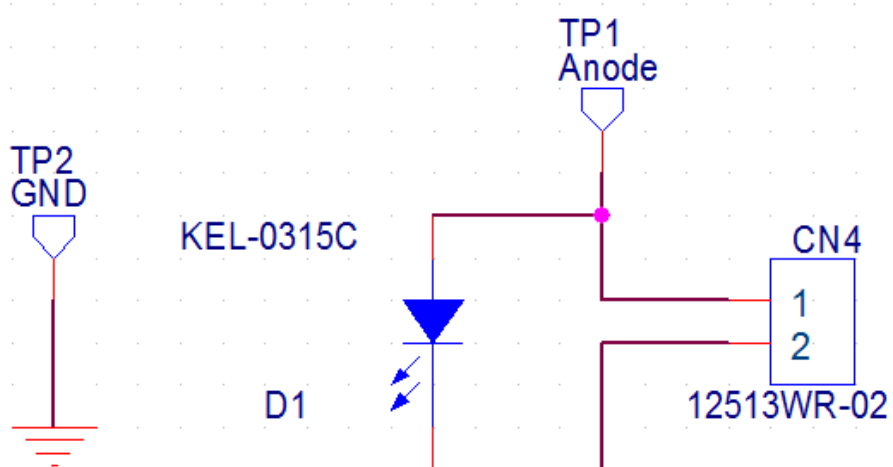
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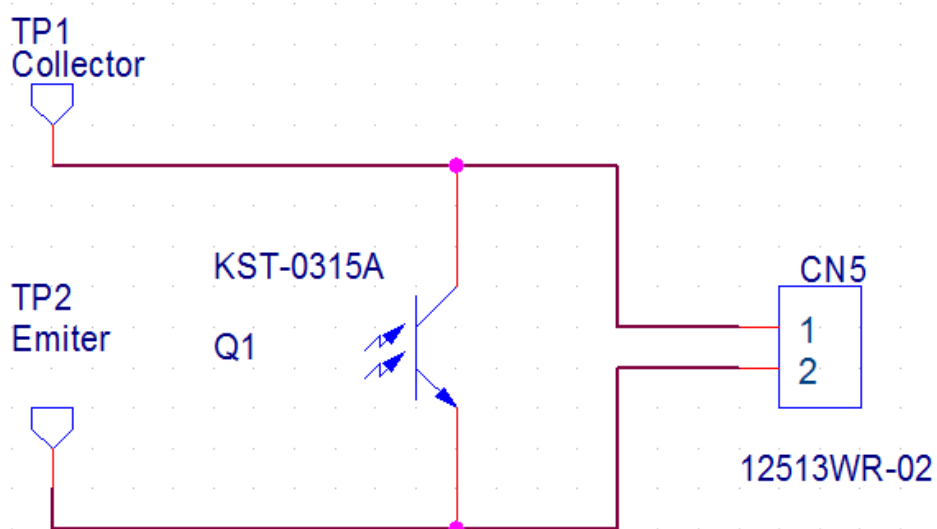
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