

General Timing Chart / General Circuit Diagram

LBP2410 Series

Canon

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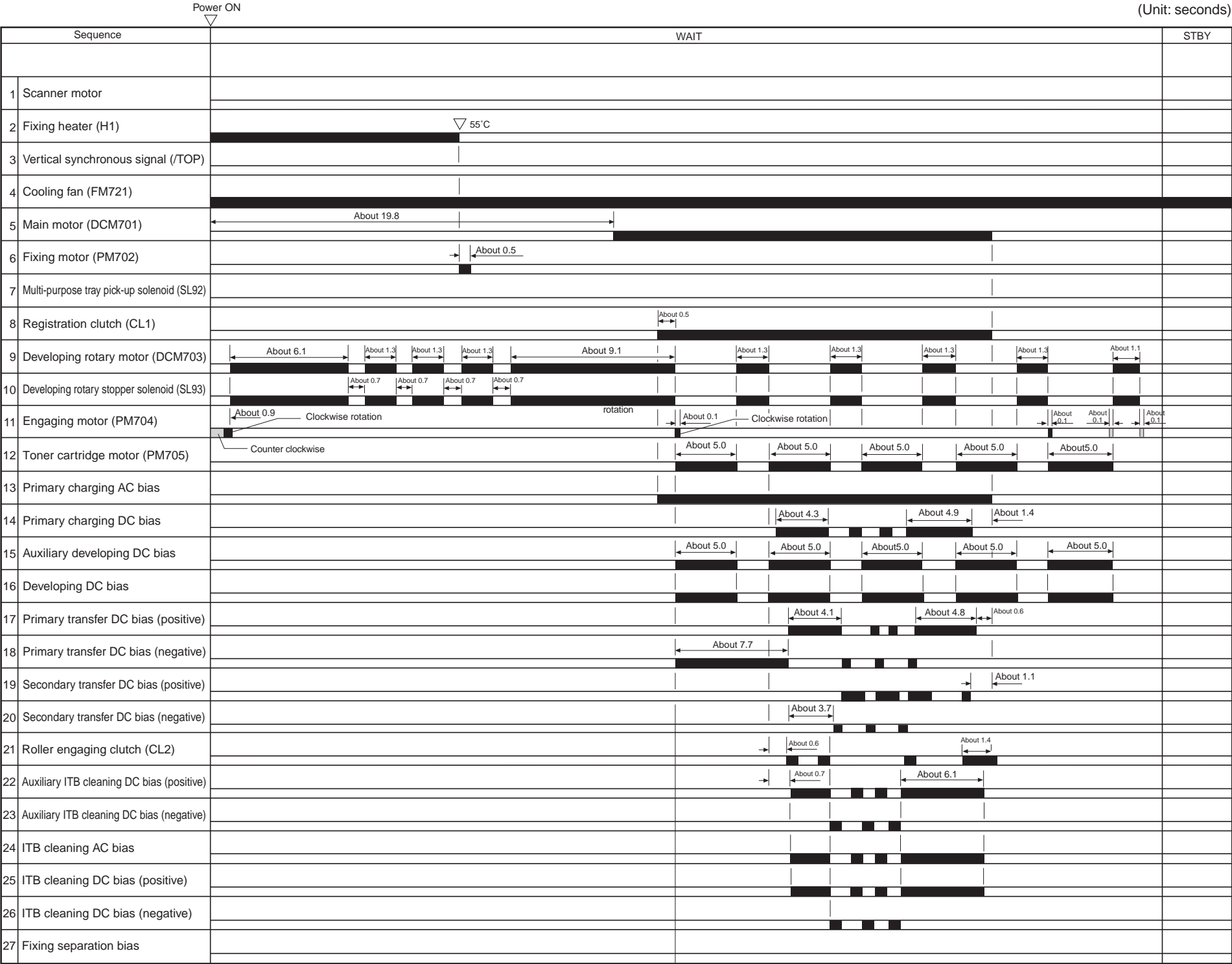
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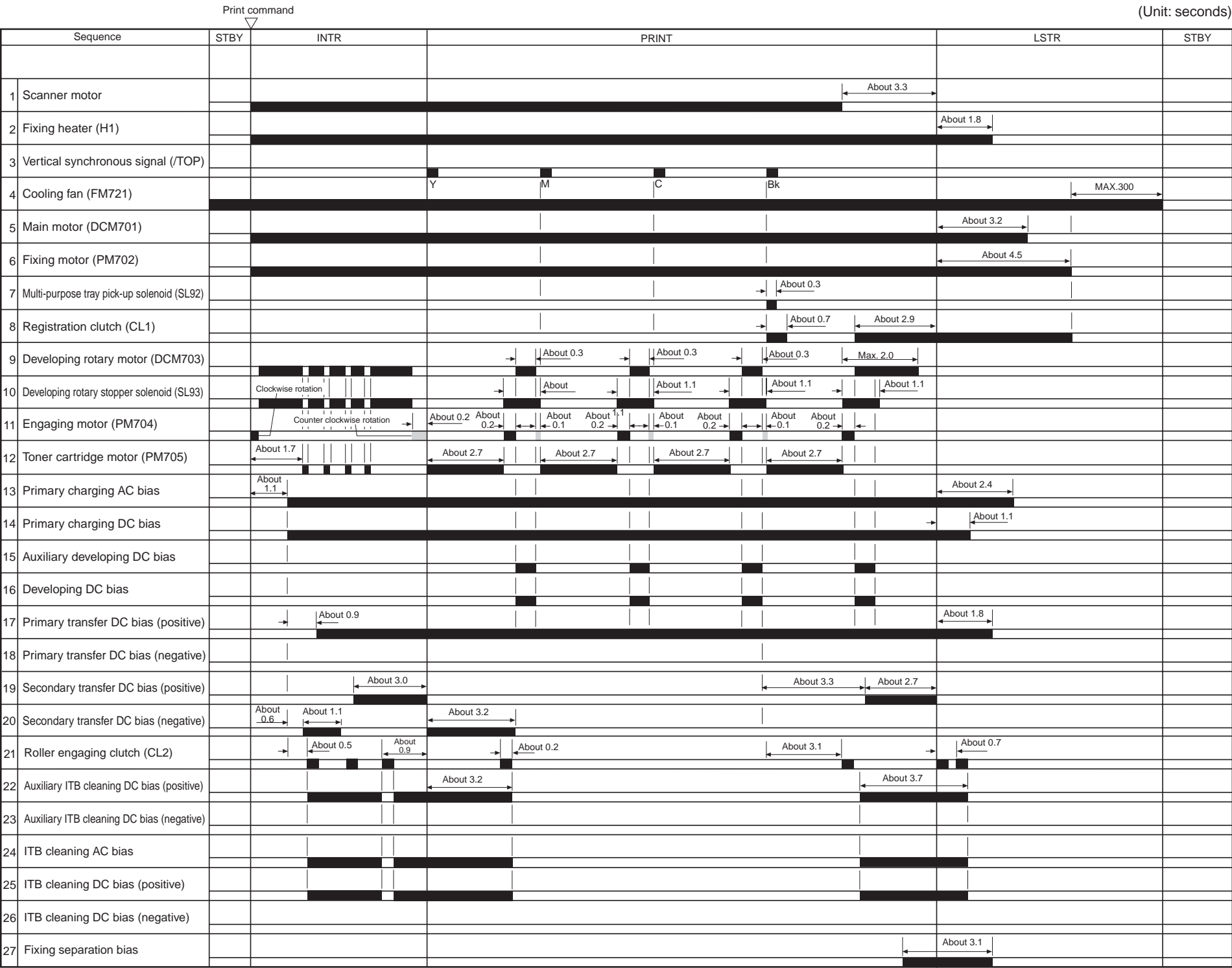
1 General Timing Chart

Timing chart for WAIT period



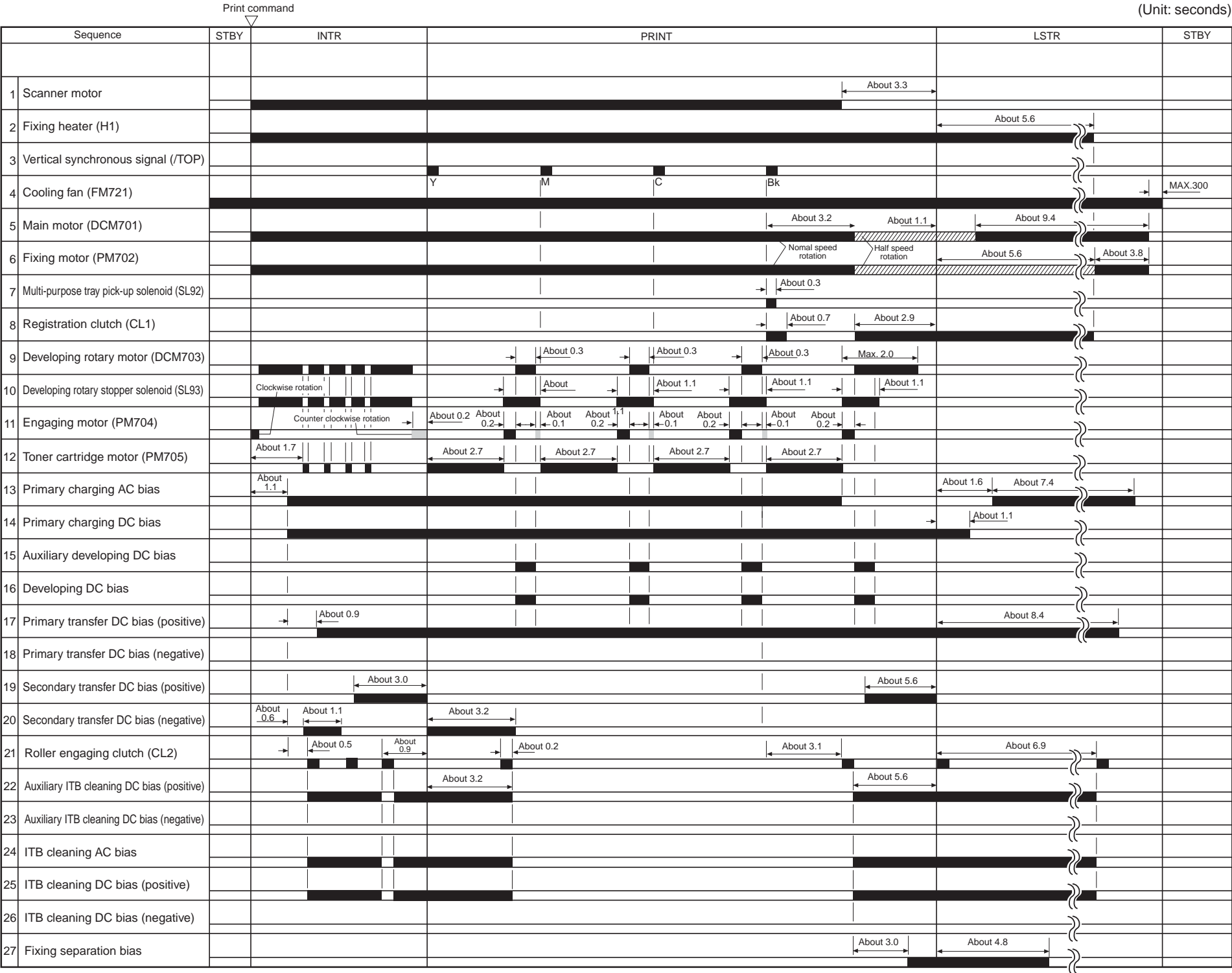
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Timing chart for printing on one normal paper in the full color mode (normal speed)



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Timing chart for printing on one special paper in the full color mode (half speed)



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2 General Circuit Diagram

Signal Names

List Of Signals

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Connector	Pin	Abbreviation	I/O	Logic	Signal name
J101	1	+5V			
	2	GND			
	3	VDI1	I	H	VIDEO signal 1
	4	/VDI1	I	L	VIDEO signal 1
	5	GND			
	6	VDI2	I	H	VIDEO signal 2
	7	/VDI2	I	L	VIDEO signal 2
	8	GND			
	9	GND			
	10	/CCRT	O	L	STATUS CHANGE NOTIFY signal
	11	/TOP	O	L	VERTICAL SYNCHRONOUS signal
	12	SCLK	I	Clock	SERIAL CLOCK signal
	13	SC	I/O		STATUS COMMAND signal
	14	GND			
	15	/BDO	O	L	HORIZONTAL SYNCHRONOUS signal
J102	1	N.C			
	2	VDO1	O	H	VIDEO signal 1
	3	GND			
	4	/VDO1	O	L	VIDEO signal 1
	5	CNT0	O	H	LASER CONTROL signal 0
	6	CNT1	O	H	LASER CONTROL signal 1
	7	CNT2	O	H	LASER CONTROL signal 2
	8	VDO2	O	H	VIDEO signal 2
	9	GND			
	10	/VDO2	O	L	VIDEO signal 2
	11	PDOUT	I	Analog	LASER CURRENT MONITOR signal
	12	GND			

Connector	Pin	Abbreviation	I/O	Logic	Signal name
	13	+5V	O		
J103	1	+24VB	O		
	2	/ACC	O	L	SCANNER MOTOR ACCELERATION signal
	3	/DEC	O	L	SCANNER MOTOR DECELERATION signal
	4	24VGND			
	5	+5V	O		
	6	/BDI	I	Pulse	BD INPUT signal
	7	GND			
J104	1	+24VA	O		
	2	/RHLDSLD	O	L	DEVELOPING ROTARY STOPPER SOLENOID DRIVE signal
J105	1	GND			
	2	ENCSNS2	I		ROTARY MOTOR ROTATION DETECTION signal 2
	3	ENCSNS1	I		ROTARY MOTOR ROTATION DETECTION signal 1
	4	+5V	O		
	5	ROTMA	O		DEVELOPING ROTARY MOTOR DRIVE signal
	6	/ROTMA	O		DEVELOPING ROTARY MOTOR DRIVE signal
	7	ROTMB	O		DEVELOPING ROTARY MOTOR DRIVE signal
	8	/ROTMB	O		DEVELOPING ROTARY MOTOR DRIVE signal
J106	1	SLVMOUTA	O		TONER CARTRIDGE MOTOR DRIVE signal
	2	/SLVMOUTA	O		TONER CARTRIDGE MOTOR DRIVE signal
	3	SLVMOUTB	O		TONER CARTRIDGE MOTOR DRIVE signal
	4	/SLVMOUTB	O		TONER CARTRIDGE MOTOR DRIVE signal
J107	1	+P3.3V	O		
	2	GND			
	3	REGS	I	H	REGISTRATION PAPER DETECTION signal

Connector	Pin	Abbreviation	I/O	Logic	Signal name
J108	1	P3.3V	O		
	2	GND			
	3	WASTONS	I	H	WASTE TONER DETECTION signal
J109	1	DENSREF	O		LED EMISSION DRIVE signal
	2	GND			
	3	+5V	O		
	4	DENSS	I		DENSITY DETECTION signal S
	5	DENSP	I		DENSITY DETECTION signal P
	6	+5V	O		
	7	TOPLED	O	H	LED EMISSION DRIVE signal
	8	GND			
	9	TOPSNS	I	H	ITB HOME POSITION DETECTION signal
	10	+3.3V			
	11	/TESTP	I	L	TEST PRINT EXECUTION signal
J110	1	+3.3V	O		
	2	GND			
	3	MPPAS	I	H	MULTI-PURPOSE TRAY PAPER DETECTION signal
	4	+24VGND			
	5	/MAIMACC	O	L	MAIN MOTOR ACCELERATION signal
	6	/MAIMDEC	O	L	MAIN MOTOR DECELERATION signal
	7	MAIMFG	I	Pulse	MAIN MOTOR SPEED DETECTION signal
	8	+24VB	O		
J112	1	+24VA	O		
	2	/MPSLD	O	L	MULTI-PURPOSE TRAY PICK-UP SOLENOID DRIVE signal
J113	1	+24VA	O		
	2	/REGCLD	O	L	REGISTRATION CLUTCH DRIVE signal
J114	1	+24VA	O		
	2	/TR2CLD	O	L	ROLLER ENGAGING CLUTCH DRIVE signal

Connector	Pin	Abbreviation	I/O	Logic	Signal name
J115	1	+3.3V	O		
	2	GND			
	3	ICLRSNS	I	H	SECONDARY TRANSFER ROLLER HOME POSITION DETECTION signal
J118	1	N.C			
	2	N.C			
	3	N.C			
	4	N.C			
	5	N.C			
	6	GND			
	7	+24VB	O		
	8	GND			
	9	+3.3V	O		
	10	GND			
	11	OP1PAS	I	H	250-SHEET PAPER FEEDER PAPER DETECTION signal
	12	OP1SNS	I	H	250-SHEET PAPER FEEDER CASSETTE DETECTION signal
	13	OP1RTRY5	I	H	OPTION PAPER FEED DETECTION signal
	14	OP1SLD	O	H	250-SHEET PAPER FEEDER PICK-UP SOLENOID DRIVE signal
J119	1	+P3.3V	O		
	2	GND			
	3	FSROUTS	I	H	FIXING DELIVERY PAPER DETECTION signal
	4	FSRTH1	I	Analog	FIXING ROLLER TEMPERATURE DETECTION signal 1
	5	GND			
	6	FSRTH2	I	Analog	FIXING ROLLER TEMPERATURE DETECTION signal 2
	7	+3.3V	O		
J121	1	+24VA	I		
	2	+24VB	O		
J122	1	FSRMOUTA	O		FIXING MOTOR DRIVE signal
	2	/FSRMOUTA	O		FIXING MOTOR DRIVE signal

Connector	Pin	Abbreviation	I/O	Logic	Signal name
	3	FSRMOUTB	O		FIXING MOTOR DRIVE signal
	4	/FSRMOUTB	O		FIXING MOTOR DRIVE signal
J123	1	FAN1D	O	H	FAN MOTOR DRIVE signal
	2	/FAN1S	I	L	FAN MOTOR LOCK DETECTION
					signal
	3	24VGND			
	4	DEVMOA	O		ENGAGING MOTOR DRIVE signal
	5	/DEVMOA	O		ENGAGING MOTOR DRIVE signal
	6	DEVMOB	O		ENGAGING MOTOR DRIVE signal
	7	/DEVMOB	O		ENGAGING MOTOR DRIVE signal
J125	1	+P3.3V	O		
	2	GND			
	3	DEVINIS	I	H	DEVELOPING ROTARY ENGAGING DETECTION signal
J126	1	+P3.3V	O		
	2	GND			
	3	TONS	I	H	TONER LEVEL DETECTION signal
	4	ROTHPS	I	H	DEVELOPING ROTARY HOME POSITION DETECTION signal
J127	1	TAGCRGA	I/O	Pulse	TONER CARTRIDGE COMMUNICATION signal 1
	2	TAGCRGB	I/O	Pulse	TONER CARTRIDGE COMMUNICATION signal 2
	3	GND			
J128	1	TAGIOA	I/O	Pulse	DRIVE CARTRIDGE COMMUNICATION signal 1
	2	TAGIOB	I/O	Pulse	DRIVE CARTRIDGE COMMUNICATION signal 2
	3	GND			
J133	1	+5V	I		
	2	GND			
	3	+3.3V	I		
	4	GND			

Connector	Pin	Abbreviation	I/O	Logic	Signal name
	5	FSRD	O	H	FIXING HEATER DRIVE signal
	6	RLD+	O	H	RELAY DRIVE signal +
	7	RLD-	O	H	RELAY DRIVE signal -
	8	ZEROX	I	Pulse	ZERO CROSS DETECTION signal
J134	1	GND			
	2	GND			
	3	GND			
	4	GND			
	5	+24VB	I		
	6	+24VB	I		
	7	+24VB	I		
	8	+24VB	I		
J135	1	TR2S	I	Analog	SECONDARY TRANSFER CURRENT DETECTION signal
	2	+3.3V	O		
	3	RVTR2DCD	O	H	SECONDARY TRANSFER DC (NEGATIVE) BIAS DRIVE signal
	4	DEVPWM	O	Pulse	DEVELOPING DC BIAS VALUE CONTROL signal
	5	DEVDCD	O	H	DEVELOPING DC BIAS DRIVE signal
	6	RSVDCD2	O	H	Auxiliary ITB CLEANING DC (NEGATIVE) BIAS DRIVE signal
	7	ICLDCD	O	H	ITB CLEANING DC (POSITIVE) BIAS DRIVE signal
	8	RVICLDCD	O	H	ITB CLEANING DC (NEGATIVE) BIAS DRIVE signal
	9	ICLCLK	O	H	ITB CLEANING AC BIAS DRIVE signal
	10	GND			
	11	24VGND			
	12	24VGND			
	13	ICLDCPWM	O	Pulse	ITB CLEANING DC BIAS VALUE CONTROL signal

Connector	Pin	Abbreviation	I/O	Logic	Signal name
	14	RSVDCD1	O	H	Auxiliary ITB CLEANING DC (POSITIVE) BIAS DRIVE signal
J136	1	ICLACPWM	O	Pulse	ITB CLEANING AC BIAS VALUE CONTROL signal
	2	FSRPWM	O	Pulse	FIXING SEPARATION BIAS DRIVE signal
	3	+24VA	I		
	4	+24VA	I		
	5	CHGDCPWM	O	Pulse	PRIMARY CHARGING DC BIAS VALUE CONTROL signal
	6	CHGACPWM	O	Pulse	PRIMARY CHARGING AC BIAS VALUE CONTROL signal
	7	CHGSFT	O		PRIMARY CHARGING DC BIAS VALUE SWITCHING signal
	8	CRGD CD	O	Pulse	PRIMARY CHARGING CLOCK signal
	9	CHGCLK	O	H	PRIMARY CHARGING AC BIAS DRIVE signal
	10	TR1PWM	O	Pulse	PRIMARY TRANSFER BIAS VALUE CONTROL signal
	11	TR1DCD	O	H	PRIMARY TRANSFER DC (POSITIVE) BIAS DRIVE signal
	12	RVTR1DCD	O	H	PRIMARY TRANSFER DC (NEGATIVE) BIAS DRIVE signal
	13	TR1S	I	Analog	PRIMARY TRANSFER CURRENT DETECTION signal
	14	TR2PWM	O	Pulse	SECONDARY TRANSFER BIAS
					VALUE CONTROL signal
	15	TR2DCD	O	H	SECONDARY TRANSFER DC
					(POSITIVE) BIAS DRIVE signal
J137	1	SLVTH	I	Analog	INTERNAL TEMPERATURE
					DETECTION THERMISTOR DETECTION signal
	2	GND			

Connector	Pin	Abbreviation	I/O	Logic	Signal name
J138	1	+P3.3V	I		
	2	GND			
	3	FSRBSNS	O	H	FRONT FIXING PAPER DETECTION signal

List Of Signals

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Connector	Pin	Abbreviation	I/O	Logic	Signal name
J101	1	+5V			
	2	GND			
	3	VDI1	I	H	VIDEO signal 1
	4	/VDI1	I	L	VIDEO signal 1
	5	GND			
	6	VDI2	I	H	VIDEO signal 2
	7	/VDI2	I	L	VIDEO signal 2
	8	GND			
	9	GND			
	10	/CCRT	O	L	STATUS CHANGE NOTIFY signal
	11	/TOP	O	L	VERTICAL SYNCHRONOUS signal
	12	SCLK	I	Clock	SERIAL CLOCK signal
	13	SC	I/O		STATUS COMMAND signal
	14	GND			
	15	/BDO	O	L	HORIZONTAL SYNCHRONOUS signal
J102	1	N.C			
	2	VDO1	O	H	VIDEO signal 1
	3	GND			
	4	/VDO1	O	L	VIDEO signal 1
	5	CNT0	O	H	LASER CONTROL signal 0
	6	CNT1	O	H	LASER CONTROL signal 1
	7	CNT2	O	H	LASER CONTROL signal 2
	8	VDO2	O	H	VIDEO signal 2
	9	GND			
	10	/VDO2	O	L	VIDEO signal 2

Connector	Pin	Abbreviation	I/O	Logic	Signal name
	11	PDOUT	I	Analog	LASER CURRENT MONITOR signal
	12	GND			
	13	+5V	O		
J103	1	+24VB	O		
	2	/ACC	O	L	SCANNER MOTOR ACCELERATION signal
	3	/DEC	O	L	SCANNER MOTOR DECELERATION signal
	4	24VGND			
	5	+5V	O		
	6	/BDI	I	Pulse	BD INPUT signal
	7	GND			
J104	1	+24VA	O		
	2	/RHLDSLD	O	L	DEVELOPING ROTARY STOPPER SOLENOID DRIVE signal
J105	1	GND			
	2	ENCSNS2	I		ROTARY MOTOR ROTATION DETECTION signal 2
	3	ENCSNS1	I		ROTARY MOTOR ROTATION DETECTION signal 1
	4	+5V	O		
	5	ROTMA	O		DEVELOPING ROTARY MOTOR DRIVE signal
	6	/ROTMA	O		DEVELOPING ROTARY MOTOR DRIVE signal
	7	ROTMB	O		DEVELOPING ROTARY MOTOR DRIVE signal
	8	/ROTMB	O		DEVELOPING ROTARY MOTOR DRIVE signal
J106	1	SLVMOUTA	O		TONER CARTRIDGE MOTOR DRIVE signal
	2	/SLVMOUTA	O		TONER CARTRIDGE MOTOR DRIVE signal
	3	SLVMOUTB	O		TONER CARTRIDGE MOTOR DRIVE signal
	4	/SLVMOUTB	O		TONER CARTRIDGE MOTOR DRIVE signal
J107	1	+P3.3V	O		

Connector	Pin	Abbreviation	I/O	Logic	Signal name
	2	GND			
	3	REGS	I	H	REGISTRATION PAPER DETECTION signal
J108	1	P3.3V	O		
	2	GND			
	3	WASTONS	I	H	WASTE TONER DETECTION signal
J109	1	DENSREF	O		LED EMISSION DRIVE signal
	2	GND			
	3	+5V	O		
	4	DENSS	I		DENSITY DETECTION signal S
	5	DENSP	I		DENSITY DETECTION signal P
	6	+5V	O		
	7	TOPLED	O	H	LED EMISSION DRIVE signal
	8	GND			
	9	TOPSNS	I	H	ITB HOME POSITION DETECTION signal
	10	+3.3V			
	11	/TESTP	I	L	TEST PRINT EXECUTION signal
J110	1	+3.3V	O		
	2	GND			
	3	MPPAS	I	H	MULTI-PURPOSE TRAY PAPER DETECTION signal
	4	+24VGND			
	5	/MAIMACC	O	L	MAIN MOTOR ACCELERATION signal
	6	/MAIMDEC	O	L	MAIN MOTOR DECELERATION signal
	7	MAIMFG	I	Pulse	MAIN MOTOR SPEED DETECTION signal
	8	+24VB	O		
J112	1	+24VA	O		
	2	/MPSLD	O	L	MULTI-PURPOSE TRAY PICK-UP SOLENOID DRIVE signal
J113	1	+24VA	O		

Connector	Pin	Abbreviation	I/O	Logic	Signal name
	2	/REGCLD	O	L	REGISTRATION CLUTCH DRIVE signal
J114	1	+24VA	O		
	2	/TR2CLD	O	L	ROLLER ENGAGING CLUTCH DRIVE signal
J115	1	+3.3V	O		
	2	GND			
	3	ICLRSNS	I	H	SECONDARY TRANSFER ROLLER HOME POSITION DETECTION signal
J118	1	N.C			
	2	N.C			
	3	N.C			
	4	N.C			
	5	N.C			
	6	GND			
	7	+24VB	O		
	8	GND			
	9	+3.3V	O		
	10	GND			
	11	OP1PAS	I	H	250-SHEET PAPER FEEDER PAPER DETECTION signal
	12	OP1SNS	I	H	250-SHEET PAPER FEEDER CASSETTE DETECTION signal
	13	OP1RTRY5	I	H	OPTION PAPER FEED DETECTION signal
	14	OP1SLD	O	H	250-SHEET PAPER FEEDER PICK-UP SOLENOID DRIVE signal
J119	1	+P3.3V	O		
	2	GND			
	3	FSROUTS	I	H	FIXING DELIVERY PAPER DETECTION signal
	4	FSRTH1	I	Analog	FIXING ROLLER TEMPERATURE DETECTION signal 1
	5	GND			
	6	FSRTH2	I	Analog	FIXING ROLLER TEMPERATURE DETECTION signal 2

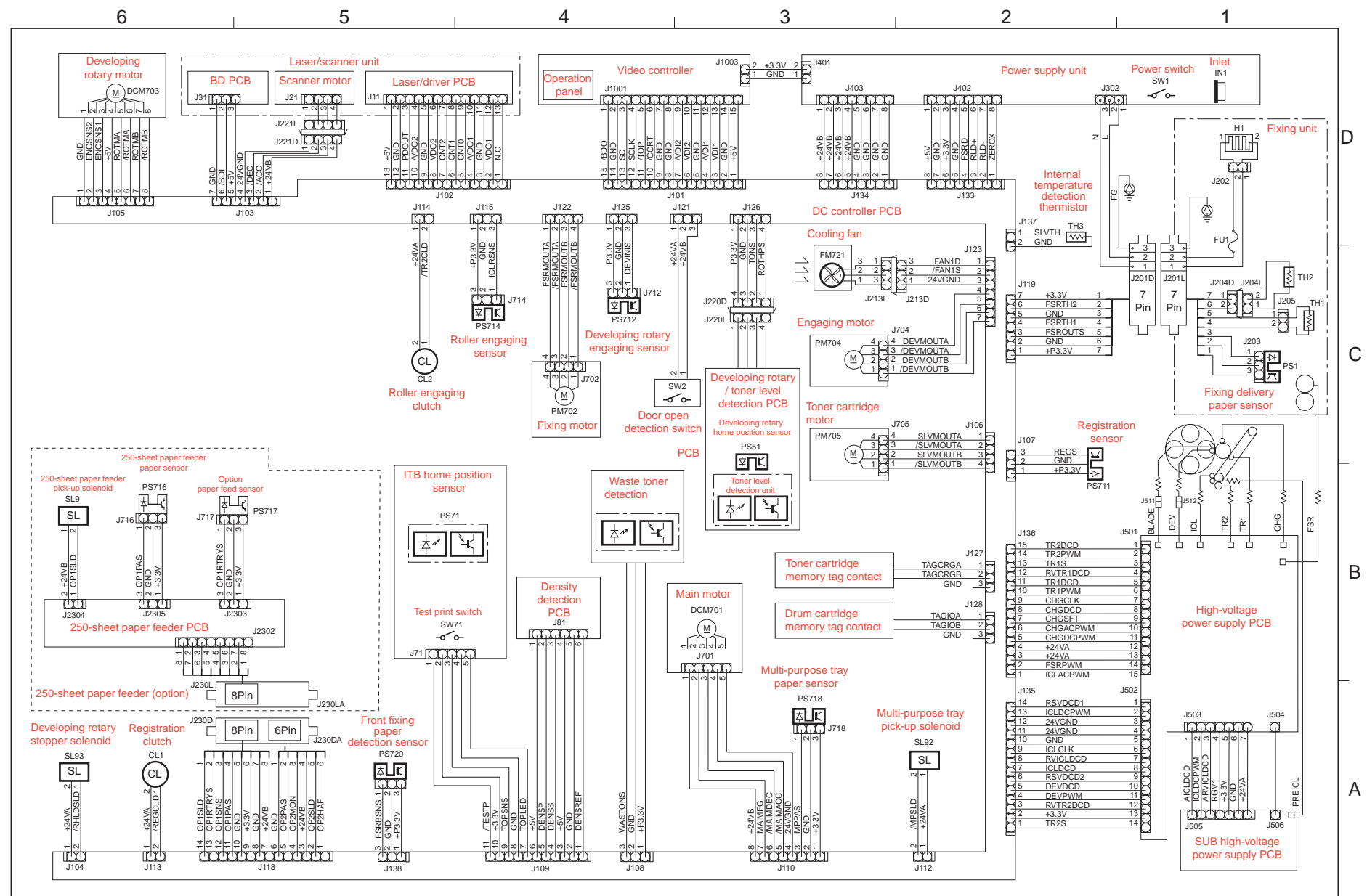
Connector	Pin	Abbreviation	I/O	Logic	Signal name
	7	+3.3V	O		
J121	1	+24VA	I		
	2	+24VB	O		
J123	1	FAN1D	O	H	FAN MOTOR DRIVE signal
	2	/FAN1S	I	L	FAN MOTOR LOCK DETECTION
					signal
	3	24VGND			
	4	DEVMOA	O		ENGAGING MOTOR DRIVE signal
	5	/DEVMOA	O		ENGAGING MOTOR DRIVE signal
	6	DEVMOB	O		ENGAGING MOTOR DRIVE signal
	7	/DEVMOB	O		ENGAGING MOTOR DRIVE signal
J125	1	+P3.3V	O		
	2	GND			
	3	DEVINIS	I	H	DEVELOPING ROTARY ENGAGING DETECTION signal
J126	1	+P3.3V	O		
	2	GND			
	3	TONS	I	H	TONER LEVEL DETECTION signal
	4	ROTHPS	I	H	DEVELOPING ROTARY HOME POSITION DETECTION signal
J127	1	TAGCRGA	I/O	Pulse	TONER CARTRIDGE COMMUNICATION signal 1
	2	TAGCRGB	I/O	Pulse	TONER CARTRIDGE COMMUNICATION signal 2
	3	GND			
J128	1	TAGIOA	I/O	Pulse	DRIVE CARTRIDGE COMMUNICATION signal 1
	2	TAGIOB	I/O	Pulse	DRIVE CARTRIDGE COMMUNICATION signal 2
	3	GND			
J134	1	GND			
	2	GND			
	3	GND			

Connector	Pin	Abbreviation	I/O	Logic	Signal name
	4	GND			
	5	+24VB	I		
	6	+24VB	I		
	7	+24VB	I		
	8	+24VB	I		
J135	1	TR2S	I	Analog	SECONDARY TRANSFER CURRENT DETECTION signal
	2	+3.3V	O		
	3	RVTR2DCD	O	H	SECONDARY TRANSFER DC (NEGATIVE) BIAS DRIVE signal
	4	DEVPWM	O	Pulse	DEVELOPING DC BIAS VALUE CONTROL sigal
	5	DEVDCD	O	H	DEVELOPING DC BIAS DRIVE signal
	6	RSVDCD2	O	H	Auxiliary ITB CLEANING DC (NEGATIVE) BIAS DRIVE signal
	7	ICLDCD	O	H	ITB CLEANING DC (POSITIVE) BIAS DRIVE signal
	8	RVICLDCD	O	H	ITB CLEANING DC (NEGATIVE) BIAS DRIVE signal
	9	ICLCLK	O	H	ITB CLEANING AC BIAS DRIVE signal
	10	GND			
	11	24VGND			
	12	24VGND			
	13	ICLDCPWM	O	Pulse	ITB CLEANING DC BIAS VALUE CONTROL signal
	14	RSVDCD1	O	H	Auxiliary ITB CLEANING DC (POSITIVE) BIAS DRIVE signal
J136	1	ICLACPWM	O	Pulse	ITB CLEANING AC BIAS VALUE CONTROL signal
	2	FSRPWM	O	Pulse	FIXING SEPARATION BIAS DRIVE signal
	3	+24VA	I		
	4	+24VA	I		

Connector	Pin	Abbreviation	I/O	Logic	Signal name
	5	CHGDCPWM	O	Pulse	PRIMARY CHARGING DC BIAS VALUE CONTROL signal
	6	CHGACPWM	O	Pulse	PRIMARY CHARGING AC BIAS VALUE CONTROL signal
	7	CHGSFT	O		PRIMARY CHARGING DC BIAS VALUE SWITCHING signal
	8	CRGD CD	O	Pulse	PRIMARY CHARGING CLOCK signal
	9	CHGCLK	O	H	PRIMARY CHARGING AC BIAS DRIVE signal
	10	TR1PWM	O	Pulse	PRIMARY TRANSFER BIAS VALUE CONTROL signal
	11	TR1DCD	O	H	PRIMARY TRANSFER DC (POSITIVE) BIAS DRIVE signal
	12	RVTR1DCD	O	H	PRIMARY TRANSFER DC (NEGATIVE) BIAS DRIVE signal
	13	TR1S	I	Analog	PRIMARY TRANSFER CURRENT DETECTION signal
	14	TR2PWM	O	Pulse	SECONDARY TRANSFER BIAS
					VALUE CONTROL signal
	15	TR2DCD	O	H	SECONDARY TRANSFER DC
					(POSITIVE) BIAS DRIVE signal
J137	1	SLVTH	I	Analog	INTERNAL TEMPERATURE
					DETECTION THERMISTOR DETECTION signal
	2	GND			
J138	1	+P3.3V	I		
	2	GND			
	3	FSRBSNS	O	H	FIXING PAPER DETECTION signal
J139	1	GND			
	2	FSRLOCK	I	H	FIXING MOTOR LOCK DETECTION signal

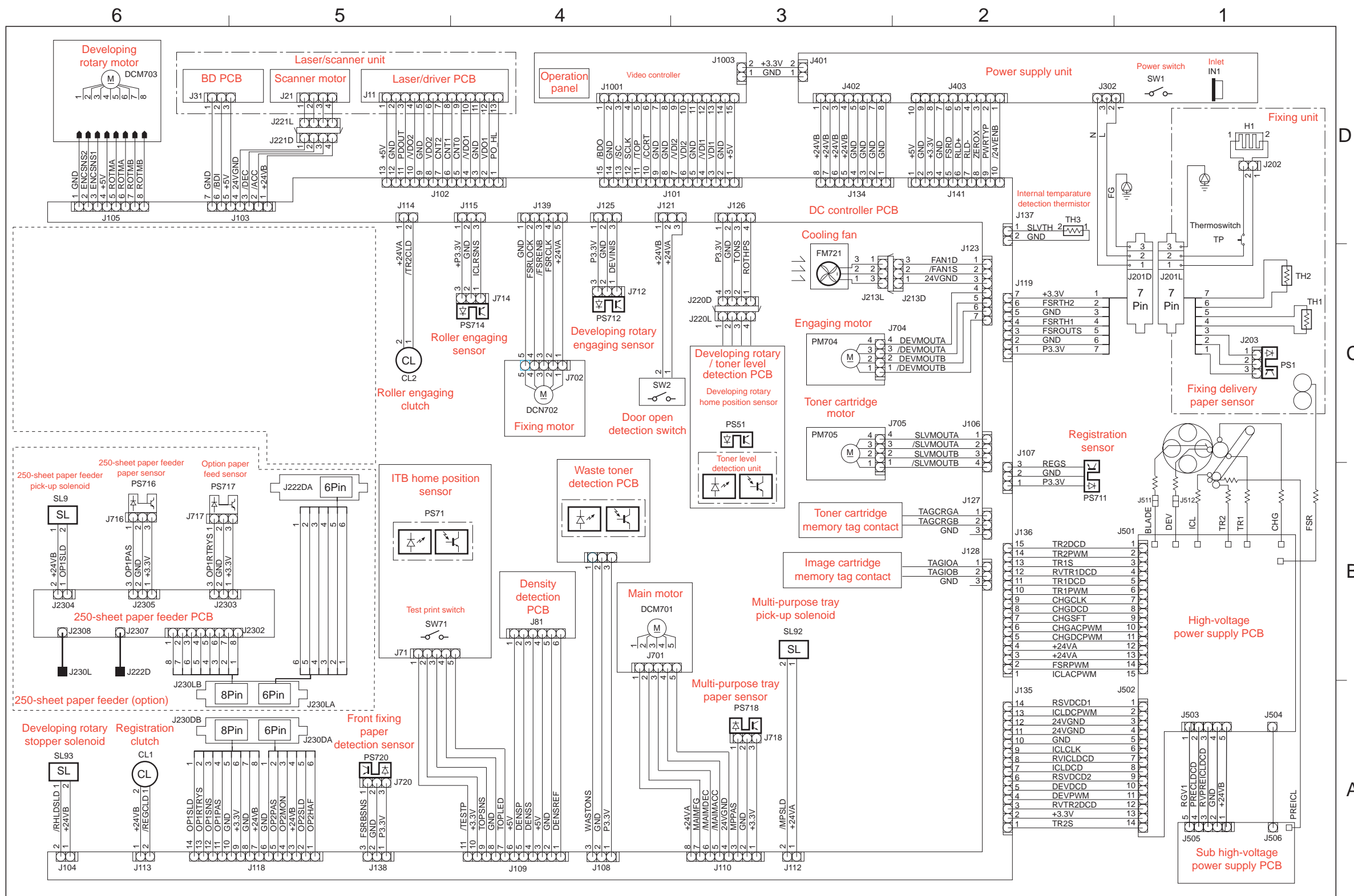
Connector	Pin	Abbreviation	I/O	Logic	Signal name
	3	/FSRENB	O		FIXING MOTOR ENABLE signal
	4	FSRCLK	O		FIXING MOTOR CLOCK signal
	5	+24VB			
J141	1	+5V			
	2	GND			
	3	+3.3V			
	4	GND			
	5	FSRD	O	H	FIXING HEATER DRIVE signal
	6	RLD+	O	H	RELAY DRIVE signal+
	7	RLD-	O	H	RELAY DRIVE signal-
	8	ZEROX	I	Pulse	ZERO CROSS DETECTION signal
	9	PWRTYP	I	H	POWER SUPPLY TYPE signal
	10	/24VENB	I	L	24V ENABLE signal

General Circuit Diagram
GENERAL CIRCUIT DIAGRAM



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GENERAL CIRCUIT DIAGRAM



F-2-2

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