3. Dip Switches

Circuit diagrams&Service manuals

- Main Board -

DIP 101

DIP SWITCH	NORMAL	FUNCTION
101-1	---	Lead edge registration adjustment
101-2	---	Lead edge registration adjustment
101-3	---	Lead edge registration adjustment
101-4	---	Lead edge registration adjustment
101-5	---	Lead edge blank margin adjustment
101-6	---	Lead edge blank margin adjustment
101-7	---	Lead edge blank margin adjustment
101-8	---	Lead edge blank margin adjustment

(Lead edge regist./blank margin adjustment interval = 1.0 mm per step. See the adjustment procedure.)

DIP 102

DIP SWITCH	NORMAL	FUNCTION
102-1	OFF	Scanner free run
102-2	---	Vertical magnification adjustment
102-3	---	Vertical magnification adjustment
102-4	---	Vertical magnification adjustment

(Vertical magnification adjustment interval = 0.2% per step. See the vertical magnification adjustment procedure.)

DIP 201

DIP SWITCH	NORMAL	FUNCTION
201-1	OFF	Toner supply mode (ON: fixed, OFF: detect)
201-2	ON	Toner supply amount (Note 1)
201-3	OFF	Toner supply amount (Note 1)
201-4	OFF	Image density adjustment (Note 2)
201-5	ON	Image density adjustment (Note 2)
201-6	OFF	Increase bias (+30 V; Color)
201-7	OFF	Increase bias (+90 V)
201-8	OFF	ID sensor LED ON

NOTE 1: Dip SW 201-1, 2, 3

201-2	201-3	Detect Mode (201-1 OFF)	Fixed Mode (201-1 ON)
OFF	OFF	15%	3.5%
ON	OFF	30%	7.0%
OFF	ON	45%	10.5%
ON	ON	60%	14.0%

NOTE 2: Dip SW 201-4, 5

201-4	201-5	Image Density	ID sensor Bias
OFF	OFF	Light (least toner)	470V
ON	OFF	Lighter (less toner)	440V
OFF	ON	Normal	500V
ON	ON	Dark {more toner)	530V

DIP 202

DIP SWITCH	NORMAL	FUNCTION
102-1	OFF	Sorter instructions
102-2	OFF	Auto cassette shift disable
102-3	OFF	Not used
102-4	OFF	Not used

- Operation Panel -

DIP 1

DIP SWITCH	NORMAL	FNUCTION
1-1	OFF	Drum conditioning
1-2	OFF	Free run
1-3	OFF	Jam detection disable
1-4	OFF	Auto reset disable
1-5	OFF	Beeper sound disable
1-6	OFF	Copy counter count up/down (ON: down, OFF: up)
1-7	OFF	Manual image density mode priority (ON: manual mode, OFF: ADS mode)
1-8	OFF	SP Mode

- DF Main Board -

DIP 101

101-1	101-2	101-3	101-4	FUNCTION
ON	OFF	OFF	OFF	Normal mode
ON	OFF	OFF	OFF	Free run
ON	ON	OFF	ON	Belt speed adjustment (VR103)
ON	ON	ON	ON	All indicator on

4. Service Program Mode (SP Mode) Operation

The service program mode is used to check and change electrical data or adjustment values by the service engineer.

- DATA CHANGE MODE -

1. Remove the DIP SW cover and turn on DIP SW1-8 on the operation panel. (The Service Call indicator will start blinking.)
2. Enter the desired SP Mode No. using the numeral keys.
   (The entered No. is displayed in the copy counter.)
3. Press the Enter key.
   (The SP Mode No. is shifted into the Magnification indicator and the actual data is displayed in the copy counter.)
4. If the data is correct, press the Enter key.
5. Enter the desired data using numeral keys.
   (The data entered is displayed in the copy counter.)
6. Press the Enter key to memorize the new data.
   (The copy counter indicates “1”, the Ready indicator turns on and the Start key turns green.)
7. Turn off the DIP SW1-8.
   (The Service Call indicator goes off.)

- DATA CHECK MODE -

1. Perform the steps 1 and 2 of the data change mode.
2. Press the Enter key.
   (The data is displayed in the Magnification indicator.)
3. Perform the adjustment procedure for the SP Mode No.55 and 56. if necessary.
4. Turn off the DIP SW 1-8.

NOTE: - The SP Mode can be cleared by pressing the Clear mode key or turning off the main switch.

5. Service Program Mode Table

Mode No.	Function	Data	Factory Setting	Remarks
5 Exposure Lamp OFF	Exposure lamp ON/OFF	0: ON 1: OFF	0	
9 ADS	ADS voltage adjustment	-	-	For use with SP Mode "56". Refer to the ADS adjustment procedure.
11 All Indicators ON	Turns on allindicators on the operation panel.	-	-	
15 Auto Reset Time	Selects auto reset of 1 or 3 minutes.	0: 1 min. 1: 3 min.	0	Auto Reset time can be switched OFF by DIP SW 1-40N.
20 Feed Station Priority (LCT)	Selects feed station priority.	0: LCT 1: SP 22	0	Refer to the NOTE 1.
21 APS Priority	Selects APS or manual.	0: APS 1: Manual	0	If DF is installed.
22 Feed Station Priority (1st, 2nd, and 3rd cassette)	selects feed station priority.	0: 1st 1: 2nd 2: 3rd	0	Refer to the NOTE 1.
23 DF Original Size	Enables originals of various sizes to be fed from the same stack.	0: OFF 1: ON	0	ADF Mode only.

Mode No.	Function	Data	Factory Setting	Remarks
28 Auto Sort Mode	Selects Sort Mode automatically in ADF mode.	0: Manual 1: Auto	0	Sorter and DF must be installed.
29 Fusing Unit Idle	Selects fusing unit idling mode	0: No idling 1: idling	0	Copier will idle for 10 seconds. Refer to the NOTE 3.
35 Toner Supply	Changes toner supply interval. a) ID sensor checks every 5 copies. b) Toner end level changes to 0.65V.	0: Standard 1: Increase	0	Standard: Every 10 copies, 0.75V.
49 Fusing Temperature Change	Changes fusing temp.	0: Standard 1: Low 2: Higher 3: Highest	0	178 - 184° 174 - 180° 182 - 188° 186 - 192°
52 Fusing Temperature	Displays the fusing temperature.	-	-	
55 VSG, VSP Voltage	Displays VSG, VSP voltage	-	-	Press the enter key twice to Display Vsp.
56 ADS Input Referrence Voltage	Displays ADS voltage	-	-	For use with SP Mode "9". Refer to the ADS adjustment procedure.
59 Bias Voltage	Displays bias voltage	-	-	Press the Start key to indicate the voltage.
60 Toner Supply Recovery	Recover toner volume if the Vsp is above 0.5V. a) Press Start key. b) Toner supply clutch turns on. c) Free run starts. d) Vsp becomes less than 0.5V. e) Free run stops.	-	-	Use this mode if the image density is low. (Black toner only). Refer to the NOTE 2 for color toner

Mode No.	Function	Data	Factory Setting	Remarks
70 Color Toner Supply Amount	Selects the color toner supply ratio.	0: 14% 1: 7% 2: 21% 3: 28% 4: 35% 5: 42% 6: 49% 7: 56%	0	
73 Color Toner Copy Count	Shows the number of color copies made	0: Red 1: Green 2: Blue		Multiply number by 100. Example: 24 = 2400 sheets
76 Sorter Bin Capacity	Set the stack mode quantity limit.	0: No limit 1: Limit	0	Limit is determined by paper size. Refer to the NOTE 4.
93 Maximum Copy Quantity	Limits the maximum copy quantity that can be entered.	-	0 (999)	The limit quantity is displayed in the copy counter. (Refer to the NOTE 5.)
99 Clear All Memory	Clear All counters and returns all modes to factory setting.	0: Memory 1: Clear	0	DIP SW 1-1 must be ON.

NOTE 1: SP Mode No.20 and 22.

Feed Station Priority

	LCT Not Installed			LCT Installed			
SP Mode 20	x	x	x	0	1	1	1
SP Mode 22	0	1	2	x	0	1	2
First Priority	1st	2nd	3rd	2nd	1st	2nd	3rd
Second Priority	2nd	3rd	1st	3rd	2nd	3rd	1st
Third Priority	3rd	1st	2nd	1st	3rd	1st	2nd

- **If no cassettes are installed, the machine returns to the first priority setting.**
- **The "X" mark means "don't care".**
- **If a cassette is not installed or the cassette is empty, the machine selects the next priority.**

NOTE 2: SP Mode No.60.

For the color toner supply recovery, the following procedure is required:

1. Turn off the main switch and turn on DIP switch 1-2.
2. Turn on the main switch, then press the start key.
3. While pressing the enter key and the "0" key, the toner supply clutch turns on.
4. Press the Clear/Stop key and turn off the main switch, then turn off DIP switch 1 - 2.

NOTE 3: SP Mode No.29

The idling mode may be necessary if the copier has been installed in an environment with low temperature place.
The idling mode will warm up the fusing rollers enough to ensure the fusing ability at initial copy run.

Idling Mode: The copier will idle for 10 seconds only when the main switch turned on and the Start key turned on.

NOTE 4: SP Mode No.76

Paper Size	Limit Capacity
A3/DLT	10 sheets
A4/LT	30 sheets
A5/HLT	30 sheets

NOTE 5: SP Mode No.93

To change the limit quantity, perform the following:

1. Turn the DIP SW 1-8.
2. Enter “93” using the numeral keys.
3. Press the Enter key.
4. Enter a desired number using numeral keys.
5. Press the Enter key.