Konica

FK-116

SERVICE HANDBOOK

KONICA CORPORATION
TECHNOLOGY SUPPORT CENTER
TOKYO JAPAN

SAFETY AND IMPORTANT WARNING ITEMS

Read carefully the Safety and Important Warning Items described below to understand them before doing service work.

IMPORTANT NOTICE

Because of possible hazards to an inexperienced person servicing this copier, as well as the risk of damage to the copier, Konica Corporation, strongly recommends that all servicing be performed only by Konica-trained service technicians.

Changes may have been made to this copier to improve its performance after this Service Handbook was printed. Accordingly, Konica Corporation, makes no representations or warranties, either expressed or implied, that the information contained in this Service Handbook is complete or accurate. It is understood that the user of this Service Handbook must assume all risks or personal injury and/or damage to the copier while servicing the copier for which this Service Handbook is intended.
Therefore, this Service Handbook must be read carefully before doing service work both in the course of the technical training and even after that, for keeping the correct maintenance and control of the copier. Keep the Service Handbook also for the future service. When it is impossible to read the description about safety and warning (due to contamination or tear), the relevant page should be replaced.

DESCRIPTION ITEMS FOR DANGER, WARNING AND CAUTION

In this Service Handbook, each of three expressions, "⚠DANGER", "⚠WARNING" and "⚠CAUTION" is defined as follows together with a symbol mark to be used in a limited meaning. When servicing, the relevant works (disassembling, assembling, adjustment, repair and maintenance) need to be conducted with utmost care.

⚠**DANGER:**	**Actions having a high possibility of suffering death or serious wound**
⚠**WARNING:**	**Actions having a possibility of suffering death or serious wound**
⚠**CAUTION:**	**Actions having a possibility of suffering a slight wound, medium trouble and material damage**

SAFETY WARNINGS

[1] MODIFICATIONS NOT AUTHORIZED BY Konica

Konica copiers are renowned for their high reliability. This reliability is achieved through high-quality design and a solid service network.

Photocopier design is a highly complicated and delicate process where numerous mechanical, physical, and electrical aspects have to be taken into consideration, with the aim of arriving at proper tolerances and safety factors. For this reason, unauthorized modifications involve a high risk of degrading performance and safety. Such modifications are therefore strictly prohibited. The points listed below are not exhaustive, but they illustrate the reasoning behind this policy.

⚠ PROHIBITED ACTIONS:

(1) Using extension cables or a different power cord than specified by Konica.
(2) Using other fuses than specified by Konica. Safety will not be assured, leading to a risk of fire and injury.
(3) Disabling fuses or bridging fuse terminals with wire, metal clips, solder or similar. (This applies also to thermal fuses.)
(4) Removing air filters (except for replacement).
(5) Disabling relay functions (such as wedging paper between relay contacts, etc.).
(6) Disabling safety functions (interlocks, safety circuits, etc.). Safety will not be assured, leading to a risk of fire and injury.
(7) Performing actions to copier not described in the instruction manual or the service handbook.
(8) Using parts other than specified by Konica.

[2] CHECKPOINTS WHEN PERFORMING ON-SITE SERVICE

Konica copiers are extensively tested before shipping, to ensure that all applicable safety standards are met, in order to protect the customer and customer engineer from the risk of injury. However, in daily use, any electrical equipment may be subject to parts wear and eventual failure. In order to maintain safety and reliability, the customer engineer must perform regular safety checks.

1. Advance Preparation for Safety Checks

⚠ CAUTION:

(1) Wear clothing that facilitates work and is designed for safety.
(2) Carry out all procedures carefully to prevent injury.
(3) Be sure to disconnect the power cord of the copier and all optional equipment from the AC outlet.
Simply turning off the power switch is not sufficient, because paper feed units or other electrical equipment may be powered also when the power switch is turned off.
(4) Proceed with special care when performing operation checks or adjustment while the unit is powered. When carrying out operation checks or adjustment while external covers are removed, the risk of electrical shock exists when touching parts which carry high voltage or electrical charge. The risk of injury exists when touching moving parts such as gears or chains.

2. Safety Checkpoints

The following list is not exhaustive, but it includes actions which must be carried out at every on-site service.

⚠CAUTION:

(1) Check external covers and the frame for sharp edges, burrs, or nicks.
(2) Check external covers and hinges for loosening or damage.
(3) Check wiring for squeezing or damage.
(4) Check power cord for insulation problems (conductor must not be exposed).
(5) Check power cord and cable ties etc. for loosening from frame.

⚠WARNING:

(1) Verify that the copier is properly grounded. If a problem is detected, establish a proper ground connection.
(2) Connecting the ground lead to an improper point such as listed below results in a risk of explosion and electric shock.
Unsuitable ground points:
a. Gas pipe
b. Lightning rod
c. Telephone line ground
d. Plastic water pipe or water pipe or faucet that has not been approved by authorities for grounding use

3. Precautions for on-site service

⚠CAUTION:

(1) Before performing safety check work, read all relevant documentation (service handbook, technical notices, etc.) and proceed according to the prescribed procedure, using only the prescribed tools. Do not carry out any adjustments not described in the documentation.
(2) If the power cord is damaged, replace it only with the specified power cord. If the power cord insulation has been damaged and there are exposed sections, short-circuits and overheating may occur, leading to a serious fire risk.
(3) Do not route the power cord so that it can be stepped on or pinched. Otherwise overheating may occur, leading to a serious fire risk.
(4) When disconnecting any cables, always grasp the connector and not the cable (especially in the case of AC and high-voltage leads).
(5) Carefully remove all toner remnants from electrical parts, electrodes, etc.
(6) Make sure that wiring cannot come into contact with sharp edges, burrs, or other pointed parts.
(7) Double-check to make sure that all screws, components, wiring, connectors, etc. that were removed for safety check maintenance have been reinstalled in the original location. (Pay special attention to forgotten connectors, pinched cables, forgotten screws, etc.)
(8) When installation and preventive maintenance, verify that the power cord has been securely plugged into the AC outlet. Contact problems may lead to increased resistance, overheating, and the risk of fire.

⚠WARNING:

(1) Before disassembling or adjusting the optical unit or any parts that use a laser, make sure that the power cord has been disconnected.
(2) Do not remove the main cover of the write unit. Direct exposure of the eye to laser beams may lead to blindness.
(3) Do not turn the copier on while the write unit is not installed in its normal position.
(4) Danger of explosion if battery is incorrectly replaced, replace only with the same or equivalent recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

⚠VORSICHT:
Expiosionsgefahr dei unsachegemäm Austausch der Battetie. Ersatz nur durch denselben oder einen vom. Hersteller empfohlenen gleichwertigen Typ. Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

[3] HANDLING OF MATERIALS FOR SERVICING

⚠CAUTION:
Drum cleaner (alcohol-based) and roller cleaner (acetone-based) are highly flammable and must be handled with care. When using these materials for cleaning of copier parts, observe the following precautions.

(1) Disconnect the power cord from the AC outlet.
(2) Use only a small amount of cleaner at a time and take care not to spill any liquid. If this happens, immediately wipe it off.
(3) Perform cleaning only in an environment where sufficient ventilation is assured. Breathing large quantities of organic solvents can lead to discomfort.
(4) Do not replace the cover or turn the unit on before any solvent remnants on the cleaned parts have fully evaporated.

⚠CAUTION:
Toner and developer are not harmful substances, but care must be taken not to breathe excessive amounts or let the substances come into contact with eyes etc. If the substances get in the eye, rinse it with plenty of water immediately. When symptoms are noticeable, consult a physician.

[4] MEASURES TO TAKE IN CASE OF AN ACCIDENT

(1) It an accident has occurred, the distributor who has been notified first must immediately take emergency measures to provide relief to affected persons and to prevent further damage.
(2) It a report of a serious accident has been received from a customer, an on-site evaluation must be carried out quickly and Konica Corporation must be notified.
(3) To determine the cause of the accident, conditions and materials must be recorded through direct on-site checks, in accordance with instructions issued by Konica Corporation.
(4) For reports and measures concerning accidents, consult your superior, and follow the regulations set in “Standards for the Control Program for Measures Against Electrical Equipment Accidents”.

[5] CONCLUSION

(1) Safety of users and customer engineers depends highly on accurate maintenance and administration. Therefore, safety can be maintained by the appropriate by the proper daily service work conducted by the customer engineer.
(2) When performing service, each copier on the site must be tested for safety. The customer engineer must verify the safety of parts and ensure appropriate management of the equipment.

Safety Precautions for Inspection and Service

When performing inspection and service procedures, observe the following precautions to prevent accidents and ensure utmost safety.

* Depending on the model, some of the precautions given in the following do not apply.

Different markings are used to denote specific meanings as detailed below.

WARNING Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

The following graphic symbols are used to give instructions that need to be observed.



Used to call the service technician's attention to what is graphically represented inside the marking (including a warning).



Used to prohibit the service technician's from doing what is graphically represented inside the marking.



Used to instruct the service technician's to do what is graphically represented inside the marking.

WARNING

1. Always observe precautions.



- Parts requiring special attention in this product will include a label containing the mark shown on the left plus precautionary notes. Be sure to observe the precautions.
- Be sure to observe the "Safety Information" given in the Operator's Manual.

2. Before starting the procedures, be sure to unplug the power cord.



- This product contains a high-voltage unit and a circuit with a large current capacity that may cause an electric shock or burn.
- The product also contains parts that can jerk suddenly and cause injury.
- If this product uses a laser, laser beam leakage may cause eye damage or blindness.

3. Use the specified parts.



- For replacement parts, always use the genuine parts specified in the manufacturer's parts manual. Installing a wrong or unauthorized part could cause dielectric breakdown, overload, or undermine safety devices resulting in possible electric shock or fire.
- Replace a blown electrical fuse or thermal fuse with its corresponding genuine part

specified in the manufacturer's parts manual. Installing a fuse of a different make or rating could lead to a possible fire. If a thermal fuse blows frequently, the temperature control system may have a problem and action must be taken to eliminate the cause of the problem.

4. Handle the power cord with care and never use a multiple outlet.



- Do not break crush or otherwise damage the power cord. Placing a heavy object on the power cord, or pulling or bending it may damage it, resulting in a possible fire or electric shock.
- Do not use a multiple outlet to which any other appliance or machine is connected.
- Be sure the power outlet meets or exceeds the specified capacity.

5. Be careful with the high-voltage parts.



- A part marked with the symbol shown on the left carries a high voltage. Touching it could result in an electric shock or burn. Be sure to unplug the power cord before servicing this part or the parts near it.

6. Do not work with wet hands.



- Do not unplug or plug in the power cord, or perform any kind of service or inspection with wet hands. Doing so could result in an electric shock.

7. Do not touch a high-temperature part.



- A part marked with the symbol shown on the left and other parts such as the exposure lamp and fusing roller can be very hot that while the machine is energized.
  Touching them may result in a burn.
- Wait until these parts have cooled down before replacing them or any surrounding parts.

8. Maintain a grounded connection at all times. (This item may not apply in the USA.)



- Be sure to connect the ground wire to the ground terminal even when performing an inspection or repair. Without proper grounding, electrical leakage could result in an electric shock or fire.
- Never connect the ground wire to a gas pipe, water pipe, telephone ground wire, or a lightning conductor.

9. Do not remodel the product.



- Modifying this product in a manner not authorized by the manufacturer may result in a fire or electric shock. If this product uses a laser, laser beam leakage may cause eye damage or blindness.

10. Restore all parts and harnesses to their original positions.



- To promote safety and prevent product damage, make sure the harnesses are returned to their original positions and properly secured in their clamps and saddles in order to avoid hot parts, high-voltage parts, sharp edges, or being crushed.
- To promote safety, make sure that all tubing and other insulating materials are returned to their original positions. Make sure that floating components mounted on the circuit boards are at their correct distance and position off the boards.

CAUTION

1. Precautions for Service Jobs

- A toothed washer and spring washer, if used originally, must be reinstalled. Omitting them may result in contact failure, which could cause an electric shock or fire.
- When reassembling parts, make sure that the correct screws (size, type) are used in the correct places. Using the wrong screw could lead to stripped threads, poorly secured parts, poor insulating or grounding, and result in a malfunction, electric shock or injury.
- Take great care to avoid personal injury from possible burrs and sharp edges on the parts, frames and chassis of the product.
- When moving the product or removing an option, use care not to injure your back or allow your hands to be caught in mechanisms.

2. Precautions for Servicing with Covers and Parts Removed

- Wherever feasible, keep all parts and covers mounted when energizing the product?
- If energizing the product with a cover removed is absolutely unavoidable, do not touch any exposed live parts and use care not to allow your clothing to be caught in the moving parts. Never leave a product in this condition unattended.
- Never place disassembled parts or a container of liquid on the product. Parts falling into, or the liquid spilling inside, the mechanism could result in an electric shock or fire.
- Never use a flammable spray near the product. This could result in a fire.
- Make sure the power cord is unplugged before removing or installing circuit boards or plugging in or unplugging connectors.
- Always use the interlock switch actuating jig to actuate an interlock switch when a cover is opened or removed. The use of folded paper or some other object may damage the interlock switch mechanism, possibly resulting in an electric shock, injury or blindness.

3. Precautions for the Working Environment

- The product must be placed on a flat, level surface that is stable and secure.
- Never place this product or its parts on an unsteady or tilting workbench when servicing.
- Provide good ventilation at regular intervals if a service job must be done in a confined space for a long period of time.
- Avoid dusty locations and places exposed to oil or steam.
- Avoid working positions that may block the ventilation ports of the product.

4. Precautions for Handling Batteries

- Replace a rundown battery with the same type as specified in the manufacturer's parts manual.
- Before installing a new battery, make sure of the correct polarity of the installation or the battery could burst.
- Dispose of used batteries according to the local regulations. Never dispose of them at the user's premises or attempt to try to discharge one.

5. Precautions for the Laser Beam (Only for Products Employing a Laser)

- Removing the cover marked with the following caution label could lead to possible exposure to the laser beam, resulting in eye damage or blindness. Be sure to unplug the power cord before removing this cover.
- If removing this cover while the power is ON is unavoidable, be sure to wear protective laser goggles that meet specifications.
- Make sure that no one enters the room when the machine is in this condition.
- When handling the laser unit, observe the “Precautions for Handling laser Equipment.”



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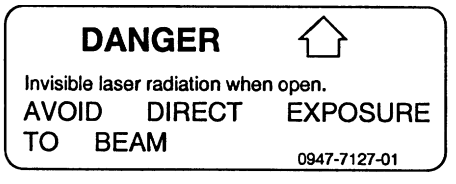

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Other Precautions

- To reassemble the product, reverse the order of disassembly unless otherwise specified.
- While the product is energized, do not unplug or plug connectors into the circuit boards or harnesses.
- The magnet roller generates a strong magnetic field. Do not bring it near a watch, floppy disk, magnetic card, or CRT tube.
- An air gun and vacuum cleaner generates a strong electrostatic charge that can destroy the ATDC sensor and other sensors. Before cleaning a component with one of these devices, be sure to remove all the sensors. Otherwise, use a blower brush and cloth when cleaning parts.
- When handling circuit boards with MOS ICs, observe the “INSTRUCTIONS FOR HANDLING THE PWBs WITH MOS ICs” (applicable only to the products using MOS ICs).
- The PC Drum is a very delicate component. Observe the precautions given in “HANDLING OF THE PC DRUM” because mishandling may result in serious image problems.
- Note that replacement of a circuit board may call for readjustments or resetting of particular items, or software installation.
- After completing a service job, perform a safety check. Made sure that all parts, wiring and screws are returned to their original positions.
- Check the area surrounding the service site for any signs of damage, wear or need of repair.
- Do not pull out the toner hopper while the toner bottle is turning. This could result in a damaged hopper motor or locking mechanism.
- If the product is to be run with the front door open, make sure that the toner hopper is in the locked position.

Used Batteries Precautions

ALL Areas

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the manufacturer.
Dispose of used batteries according to the manufacturer's instructions.

Germany

VORSICHT!

Explosionsgefahr bei unsachgemäßen Austausch der Batterie.
Ersatz nur durch denselben oder einen vom Hersteller empfohlenen ähnlichen typ.
Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

France

ATTENTION

Lly a danger d'explosion s'ily a remplacement incorrect de la batterie.
Remplacer uniquement avec une batterie du meme type ou d'un type équivalent recommande par le constructueur.
Mettre au rebut les batteries usageés conformément aux instructions du fabricant.

Denmark

ADVARSEL!

Lithiumbatteri – Eksplosionsfare ved fejlagtig håndtering Udskiftning må kun ske med batteri af samme fabrikat og type.
Lavér det brugte batteri tilbage til leverandøren.

Norway

ADVARSEL

Eksplosjonsfare ved feilaktig skifte av batteri.
Benytt samme batteritype eller en tilsvarende type anbefalt av apparatfabrikanten.
Brukte batterier kasseres i henhold til fabrikantens instruksjoner.

Sweden

VARNING

Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt fabrikantens instrukion.

Finland

VAROITUS

Paristo voi räjähtää, los se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin. Hävitä Käytetty paristo valmistajan ohjeiden mukaisesti.

CAUTION:

Danger of explosion if “lithium battery” is incorrectly replaced.

Replace only with the same or equivalent type:

Type Designation	:	CR2450
Nominal voltage	:	3V
Typical capacity	:	550Mh
Supplier	:	FUJI

Dispose of used batteries attention:

Make sure the polarity on battery is in right position in the PCB BOARD before insert and soldering.

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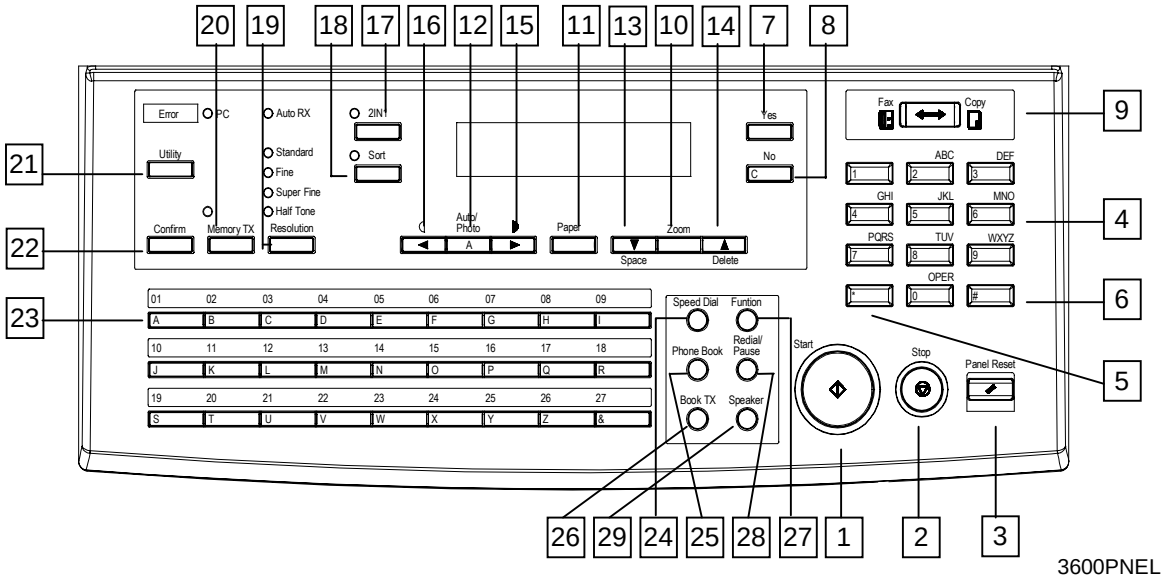
1. GENERAL SPECIFICATION

ITEM/MODE	Specification	Remark
General		
Compatibility	G3	
Multi access	Possible	
Applicable line	PSTN, PABX	
Modem Board Speed (bps)	33.6 kbps, Automatically fall back	
Coding Scheme	MH/MR/MMR/JBIG	
Error Correction Mode (ECM)	Yes	
Memory (pages)		
Std.	3 MB	
Option	4 MB	
Max.	7 MB	
Warming-UP Time	34 seconds or less (with FAX Kit)	
Transmission		
Transmission Speed	3.0 second or less ITU-T No.1, 33.6 k with JBIG	
Broadcasting	143 locations per session	
	Function / Location One touch Key 27 Speed Dial 100 On the fly (Ten key) 16 Total 143	
Memory TX	Yes	
Quick memory TX	Yes	
ADF TX	Yes	
Manual TX	Yes	
Timer TX	Yes	
Polling TX	Yes – 50 files	
Mailbox TX	Yes	
Closed Network TX	Yes	
Relay Initiate	Yes	
Relay Broadcast	Yes	
Batch TX	Yes.	
TX Resolution	203 x 98 dpi 203 x 196 dpi 203 x 392 dpi	
Receiving		
Mailbox RX	Yes	
Polling Rx	Yes	
Closed Network RX	Yes	
Memory RX	Yes	
Memory RX mode	Yes	
RX reduction	Yes	
RX mode	Auto/Manual	

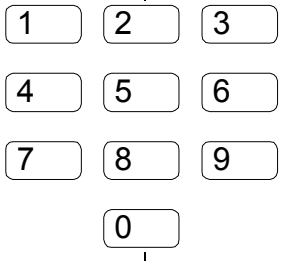
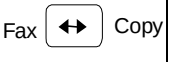
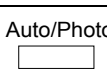
ITEM/MODE		Specification	Remark
Printing mode		100 % Bottom cut Auto reduction (70 % ~ 100 %)	
Header		Yes	
Footer		Yes	
RX Resolution		203 x 98 dpi 203 x 196 dpi 203 x 392 dpi	
Dialing			
Auto Dial	One-Touch	27 key	
	Speed Dial	100	
	Programming Dial	4 keys (last 4 keys)	
	Group Dial	27	
Auto redial		Yes	
Last Redial		Yes	
Chain dial		Yes	
Combination dial		Yes	
Phone Book		Yes	
On-hook Dial		Yes	
Reports			
TX confirmation report		Yes	
TX error report		Yes	
RX Result report		Yes	
G3 Protocol dump report		Yes	
Activity report		Yes	
Memory data list		Yes	
Key setting list		Yes	
Broadcast Result report		Yes	
Relay broadcast report		Yes	
Mailbox RX report		Yes	
Machine status list		Yes	
Consumable order report		Yes	
Power Lost report		Yes	
Backup RAM lost report		Yes	
Service data list		Yes	
Speaker		Yes	
RTC backup		2.5 years	
Multi-copy		100 pages	
Substitute	No toner	Yes	
Receiving	No paper	Yes	
	Paper jam	Yes	

2.Panel Description

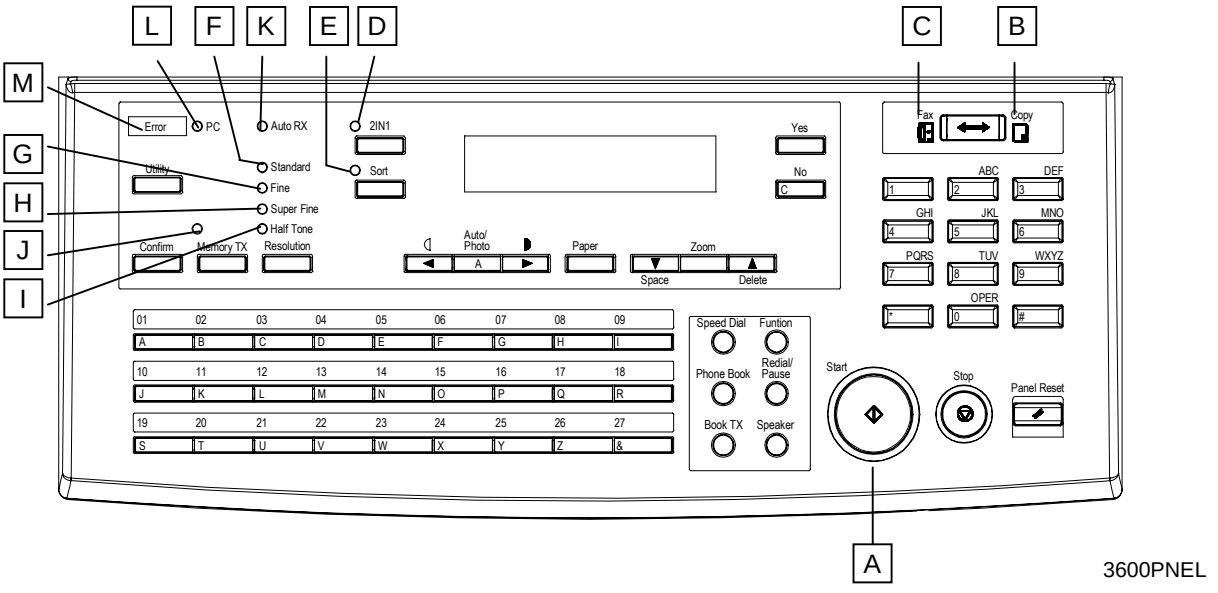


3600PNEL

	Key		Function
1		Start key	Start copying Start transmission or Reception Others : Depend on LCD message.
2		Stop key	Cancel copying Cancel transmission or reception
3		Panel Reset key	Return to the initial setting Initial : Copy mode Number of Copies : 1 Zoom ratio : Equal Copy Function : Initial setting by user Density : Initial setting by user Copy mode : Initial setting by user Paper source : Initial setting by user Initial : Fax mode Standby : Date, Time, Memory volume, Message of set document Under communication : Communication status, Remote station's ID, Memory volume, Message of set document RX in Memory : Number of RX pages, Memory volume, Message of set document RX in Mailbox : Display of Mailbox RX, Memory volume, Message of set document Machine Error : Error message Substitute RX in Memory : Display of memory RX, Number of RX pages, Content of error Timer TX in Memory : Display of standby and **T** Polling TX in Memory : Display of standby and **P**

	Key		Function
4		Numeric key	Input the number of copies. Input zoom ratio. In setting custom size for bypass copy, input paper size. Input Fax number Input numeral in registration of name Input speed dial number Specify Fax function or utility item
5		* key	Send tone signal Input European font in registration of name.
6		# key	External/Internal function
7		Yes key	Fix the selected item and inputted number or character. Others : Depend on LCD message.
8		No/Clear key	Clear inputted number or character. Back to the previous display. Others : Depend on LCD message.
9		Copy⇔Fax Switching key	Switch to Fax mode from Copy mode. Switch to Copy mode from Fax mode.
10		Zoom key	Enter setting zoom ratio by numeric key Select the fixed zoom ratio
11		Paper Source key	Select paper source
12		Auto/Photo key	Switch Text auto density / Photo manual density / Text manual density
13		up arrow key	In setting the zoom ratio, increase the ratio by 0.01. Display items or contents by rotation. In inputting number or character, insert a space in the place with cursor.
14		down arrow key	In setting the zoom ratio, decrease the ratio by 0.01. Display items or contents by rotation. In inputting number or character, delete the character of the place with cursor.
15		right arrow key	In adjusting the manual density, change the density to darker level. In inputting number or character, move the cursor to the right. In selecting item, move the mark to the right.
16		left arrow key	In adjusting the manual density, change the density to lighter level. In inputting number or character, move the cursor to the left. In selecting item, move the mark to the left.

	Key		Function
17	2in1	2 in 1 key	Select 2 in 1 copy.
18	Sort	Sort key	Select sort copy. In case ADF is not installed, this key is not effective.
19	Resolution	Resolution key	Choice the resolution and the image mode for transmission.
20	Memory TX	Memory TX key	Switch memory TX/ADF TX. In case ADF is not installed, this key is not effective.
21	Utility	Utility key	Set machine status, initial setting for copy, Fax operations and register dials.
22	Confirm	Confirm key	Display communication result Display machine counter Print report
23	01 A	One-touch key	One-touch dial 01 - 27 Group dial 01 - 27 Program dial 24 - 27 Input alphabet and symbol in registration of name. Input +/- in registration dial number.
24	Speed Dial	Speed Dial key	Speed dial
25	Phone Book	Phone Book key	Retrieval and call registered dial.
26	Book TX	Book TX key	Call book TX function.
27	Function	Function key	Call Fax communication function.
28	Redial/ Pause	Redial/Pause key	Call the last dialing number. In inputting dial number, insert pause function in the place with cursor.
29	Speaker	Speaker key	Off hook for manual TX/RX

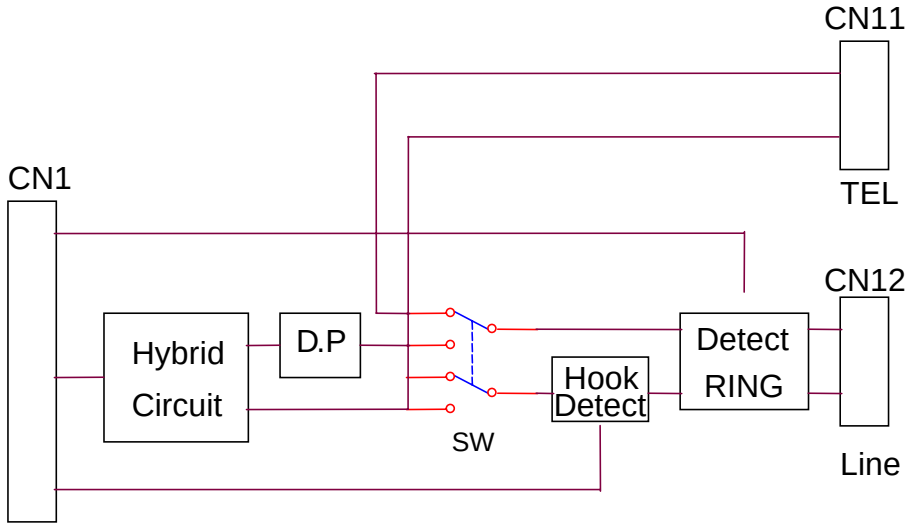


LED

	LED		Function
A	◇	Ready	Copy mode : Lights green when the copy can be started or the scan is possible. Lights orange when the copy cannot be started or the scan is impossible. Fax mode : Lights green when the transmission or reception operation is possible. Lights orange when the transmission reservation is impossible.
B	○ Copy	Copy	Lights in copy mode.
C	○ Fax	Fax	Lights in Fax mode.
D	○ 2in1	2 in 1 copy	Lights when 2 in 1 copy is selected.
E	○ Sort	Sort copy	Lights when sort copy is selected. In case ADF is not installed, LED is always off.
F	○ Standard	Standard	Lights when the document for transmission is scanned in standard resolution.
G	○ Fine	Fine	Lights when the document for transmission is scanned in fine resolution.
H	○ Super Fine	Super Fine	Lights when the document for transmission is scanned in super fine resolution.
I	○ Half Tone	Half Tone	Lights when the document for transmission is scanned in half tone mode.
J	○ Memory TX	Memory TX	Lights when memory TX is selected. In case ADF is not installed, LED is always on.
K	○ Auto RX	Auto RX Mode	Lights when auto RX is selected in utility.
L	○ PC	PC	Blink when the machine receives data from PC and prints PC data.
M	Error	Error	Lights when error occurs.

3.NCU Board

NCU (Network Control Unit) functions as the network interface between FAX machine & Telephone line.



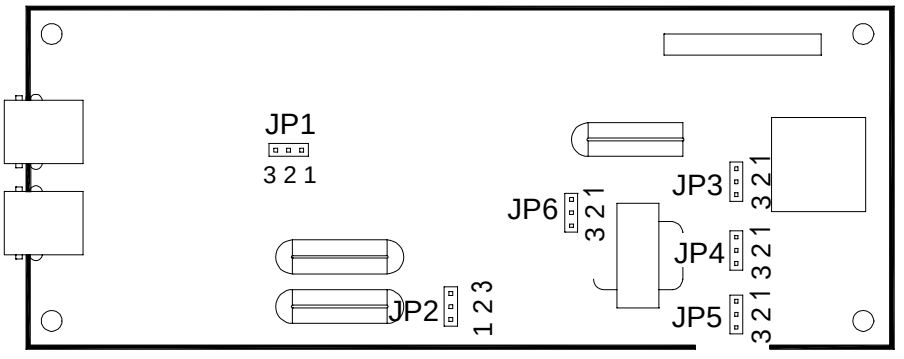
Ring Detect: The Circuit detects the ring signal of telephone line. CPU Board will check this status.

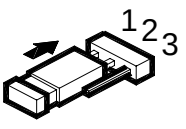
Hook Detect: It detects the telephone's hook status as communicating. CPU board can check this status.

D.P: As performing Pulse Dial function.

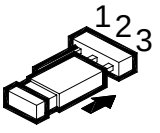
4.JUMPER SWITCH ON NCU BOARD

There are 6 Jumpers on NCU board. Each Jumper has position 1,2 and 3





Setting --- 1,2



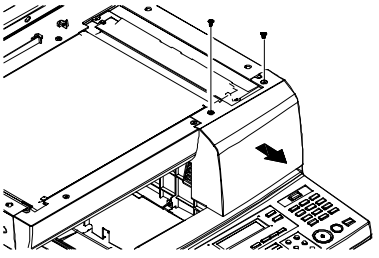
Setting --- 2,3

You can adjust the 6 Jumpers for every marketing area, the Jumpers position as below table list.

* Country Classification Jumper Switch Setting

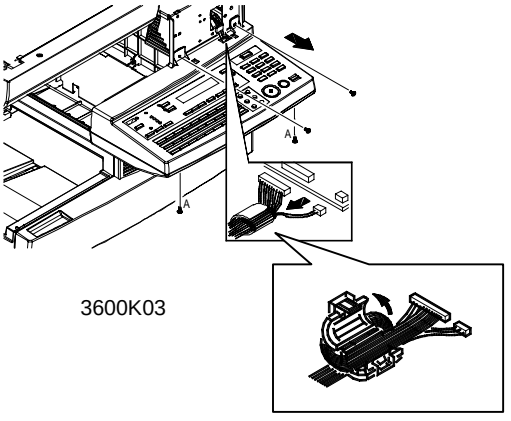
Type	JP1 ~ JP6	Marketing Area
STD	12,12,12,12,23,23	USA, Canada, Singapore, Malaysia, Hong Kong Russia, Iran, Bahrain, Qatar Czech, Poland, Hungary Slovakia, Croatia, Slovenia, Baltic, Romania, Ukraine Kuwait, New Zealand
CTR-21	12,23,23,23,12,12	Finland, Iceland, Liechtenstein, Luxembourg, Norway Sweden, Belgium, Cyprus, Denmark, France, Greece Ireland, Italy, Netherlands, Switzerland, Germany U. K., Austria
Australia	12,23,12,12,23,23	Australia
South Africa	23,23,12,12,23,23	South Africa

5.1 Disassembly of Fax Panel



3600k01

1. Remove the 2 screws to remove the front upper cover.

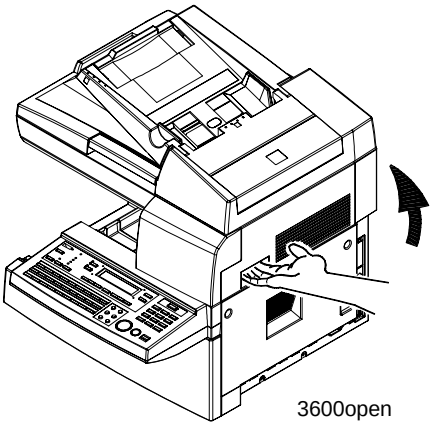


3600K03

2. Remove the 4 screw and two connectors, cut the cable tie before remove the core and control panel.

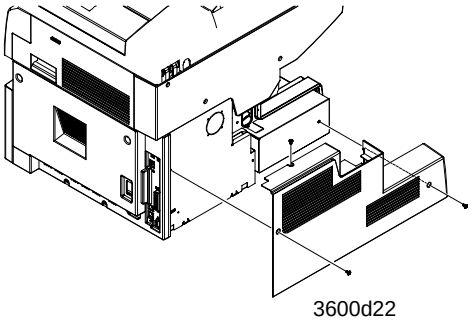
Note:
*A long screwdriver should be used to access the screws under panel.

5.2 Disassembly of Fax CPU Board and NCU Board



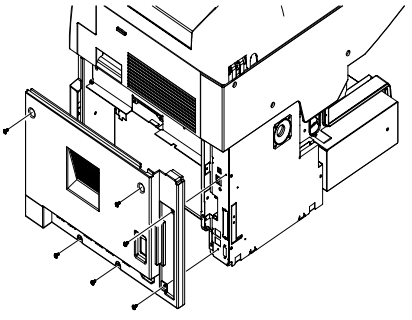
3600open

1. Open the Upper Half of the machine.



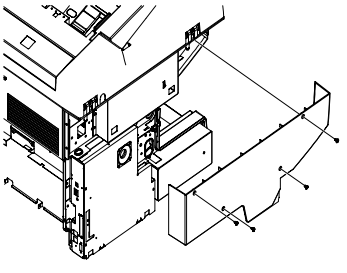
3600d22

2. Remove the 3 screws to remove the Rear lower cover and Close the Upper Half of the machine.



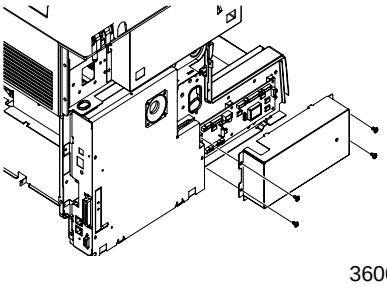
3600d47

3. Remove the 6 screws to remove the Right cover and IO Cover.



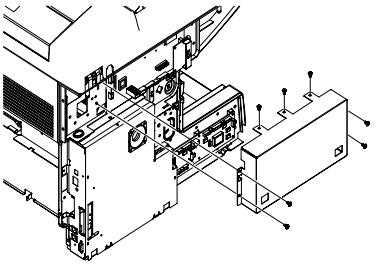
3600d46

4. Remove the 4 screws to remove the Rear upper cover.



3600d32

5. Remove the 4 screws to remove the PWB-A cover.

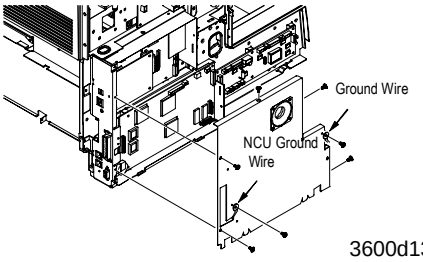


3600d33

6. Open the Original Cover.

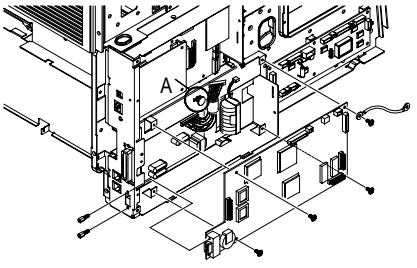
7. Remove the 7 screws.
   Slightly lift up the PWB-I Cover, and then remove it.

8. Close the Original Cover.



3600d13

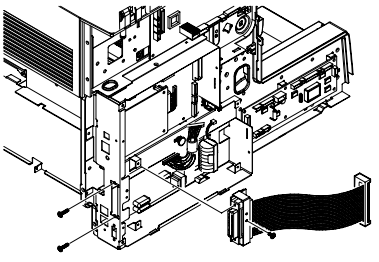
9. Remove the 7 screws to remove the OP. Box cover, ground wires and then remove the speaker cable from the connector CN4 of the Fax Controller Board.



3600d11

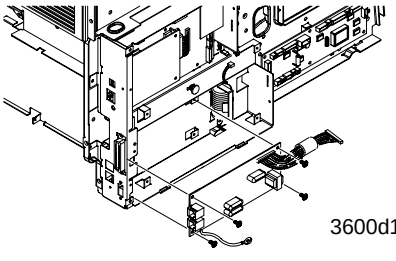
10. Remove the 6 screws to remove the Fax Controller Board and Ground wire to the OP Box Assy.

Note:
* Remove the cable from CN1 of the NCU Controller Board to CN5 of the Fax Controller Board. (Put the cable to right of the A as shown.)
* Remove the 26 Pins cable from JP3 of the Fax Controller Board to JP12 of the PWB-I.
* Remove the 5Pins cable from JP2 of the Fax Controller Board to PJ19 of the PWB-A.
* Remove the Battery cable to CN3 of the Fax Controller Board.



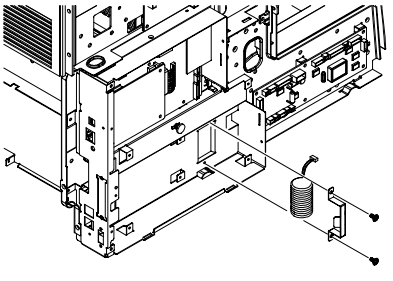
3600d63

11. Remove the 3 screws to remove the Centronic Jack Assy to OP. Box Assy.



3600d14

12. Remove the 4 screws to remove the NCU Control Board to OP. Box Assy.



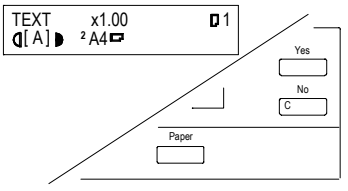
3600d15

13. Remove the 2 screws to remove the Battery fix plate to OP. Box Assy as shown.

5.3 Adjustment

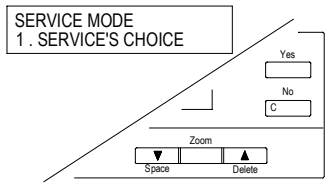
(1) Paper Feed Unit (2nd Paper Tray)

■ Checking for skewed Feed (with Fax Unit)



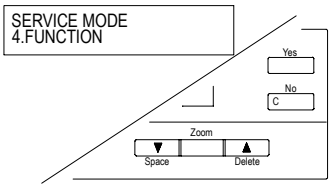
3600w01

1. Using the 2nd paper tray selection key, select “PAPER” key and press Yes key.



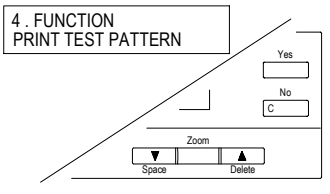
3600w01

2. Access the service mode screen. (Refer to the service manual.)



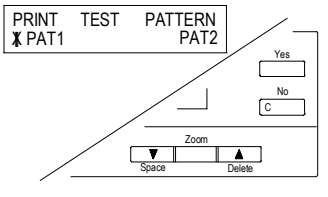
3600w02

3. Pressing ▼ or ▲ key, select “4.FUNCTION” and press Yes key.



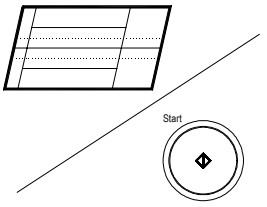
3600w03

4. Pressing ▼ or ▲ key, select “PRINT TEST PATTEN” and press yes.



3600w24

5. Pressing ▼ or ▲ key, select “PAT1” and press Yes key.

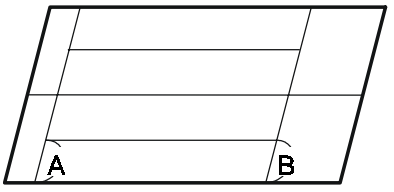


3600W04

6. Press the Start key to output the test chart. And press the Stop key three times to terminate the PRINT PATTERN TEST I.

Note:
This test chart is used for adjustment later.
Before printing the test printout, A4 (Letter) paper in the 2nd Paper Tray Unit on the machine.

Copy



3600U027CB

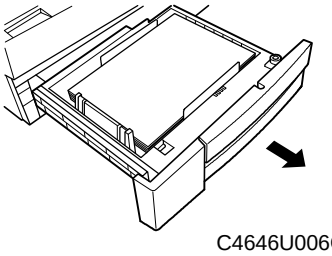
7. Measure widths A and B the ejected copy.

Reference value:
Width A-B: ±1.6mm.

* If the measured widths are not within the standard values, adjust the tilt using the following procedure.

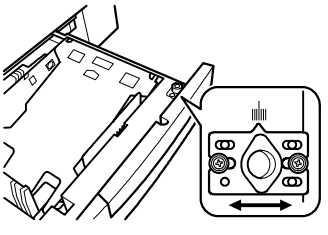
(2) Paper Feed Unit (2nd Paper Tray)

■ Adjustment for Registration



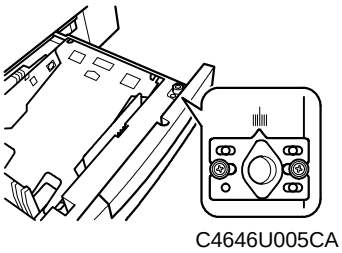
C4646U006CA

1. Pull out the tray of the Paper Feed Unit.



C4646U004CA

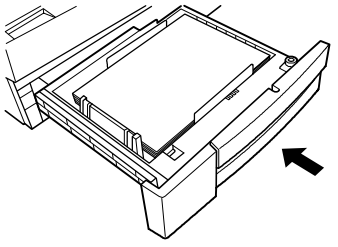
2. Loosen the 2 screws securing the tilt adjustment knob shown in the diagram, and slide the knob in the direction in which the tilt is to be adjusted.



C4646U005CA

3. Tighten the 2 screws to secure the tilt adjustment knob in place.

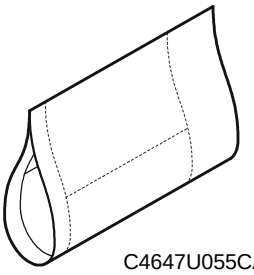
* After adjusting the tilt, check once again to make sure it has been adjusted correctly, by measuring widths A and B and making sure the measured value is within the reference value.



C40070121CA

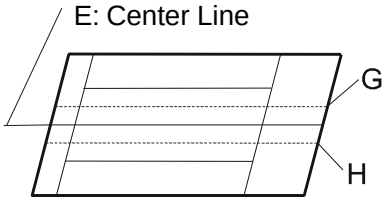
4. Return the tray to its original position.

(3) Checking for Registration (with Fax Unit)



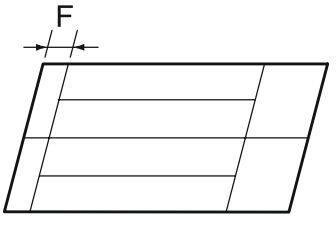
C4647U055CA

1. Fold the copy in half, correctly aligning both edges as shown



C4647U056CA

2. Check the fold line and the Center Line on the copy.
* If the fold line appears like G, raise the setting value.
* If the fold line appears like H, lower the setting value.



C4647U057CA

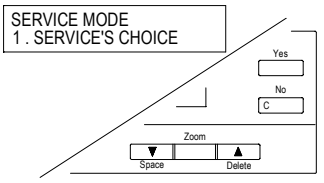
3. Check to make sure that the value of “F” is within the allowable range.

Reference value:
Width F: 20±2.0mm

* If the length of “F” is outside the allowable range. Adjust until it is within the range.

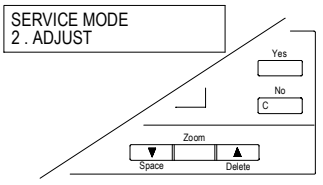
(4) Paper Feed Unit (2nd Paper Tray)

■ Adjustment for Registration



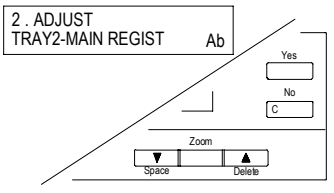
3600w01

1. Access the service mode screen.



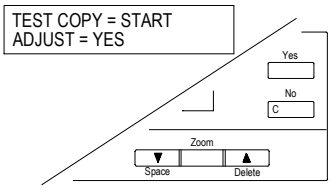
3600w05

2. Pressing ▼ or ▲ key, select "2. ADJUST" and press Yes key.



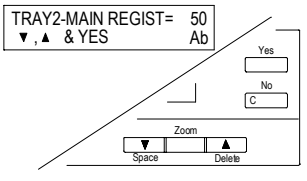
3600w21

3. Pressing ▼ or ▲ key, select "TRAY2-MAIN REGIST" and press Yes key.
Ab: Centerline (Main scan) Adjust.



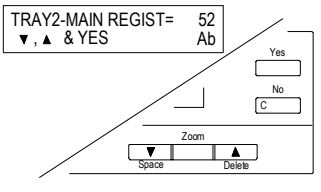
3600W07

4. Press Yes key.



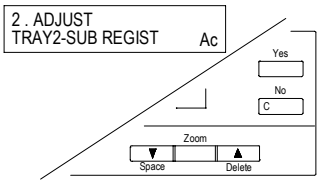
3600W22

5. Preferring to the table in page 8, Press the ▼ or ▲ to adjust the offset.
* If E on the copied sheet is longer than the standard line, adjust to a negative (-) value.
* If E on the copied sheet is shorter than the standard line, adjust to a negative (+)



3600W23

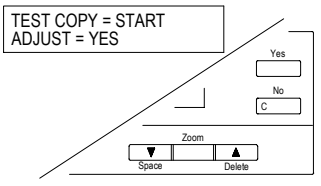
6. Press Yes key and press No Key to terminate the "TRAY2-MAIN REGIST" Adjustment.



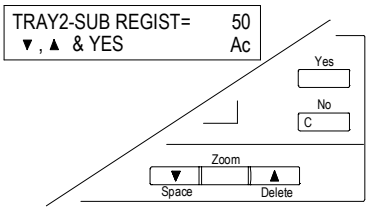
3600w25

7. Pressing ▼ or ▲ key, select ”TRAY2-SUB REGIST” and press Yes key.

Ac: F (Auxiliary scan) Adjust.

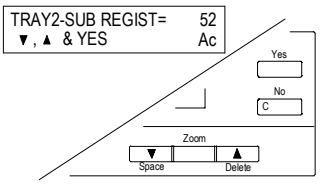


8. Press Yes key.



3600w26

9. Preferring to the table below, Press the, ▼ to ▲ adjust the offset.
* If F on the copied sheet is longer than the standard line, adjust to a negative (-) value.
* If F on the copied sheet is shorter than the standard line, adjust to a negative (+) value.

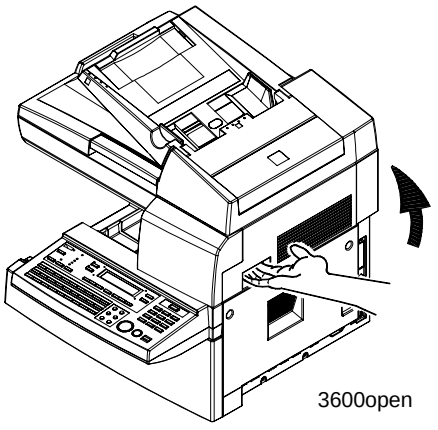


3600w27

10. Press Yes key and press No Key three times to terminate the “TRAY2-SUB REGIST” Adjustment.

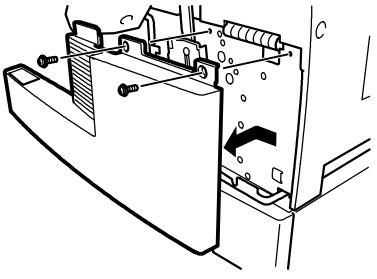
Set value	Amount of offset	Set value	Amount of offset
43	-3.5 mm	51	+0.5 mm
44	-3.0 mm	52	+1.0 mm
45	-2.5 mm	53	+1.5 mm
46	-2.0 mm	54	+2.0 mm
47	-1.5 mm	55	+2.5 mm
48	-1.0 mm	56	+3.0 mm
49	-0.5 mm	57	+3.5 mm
50	0 mm		

(5) Filling out the Adjust Table



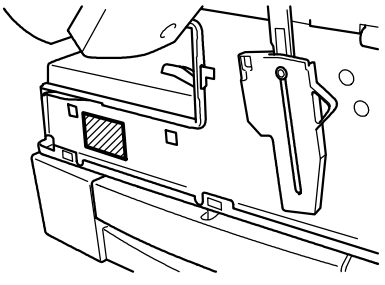
3600open

1. Open Upper Half of the machine.



C4647U049CA

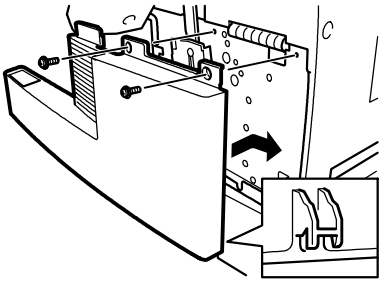
2. Remove the 2 screws. And slide the front cover in direction of the arrow to remove it as shown.



C4647U050CA

3. Record the displayed values on the adjustment label.

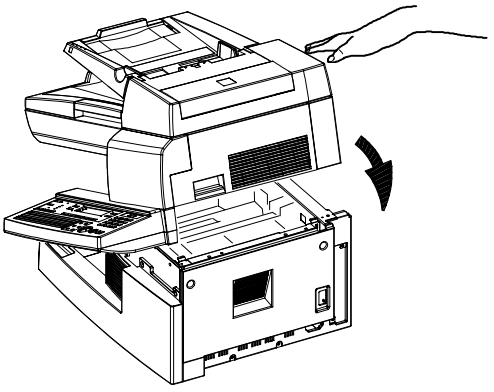
Note:
Make sure the values are recorded in the correct locations.



C4647U051CA

4. Line up the three tabs on the front lower cover. And attach the cover in the direction indicated by the arrow. Securing it with two screws.

5. Close the Upper Half of the machine.



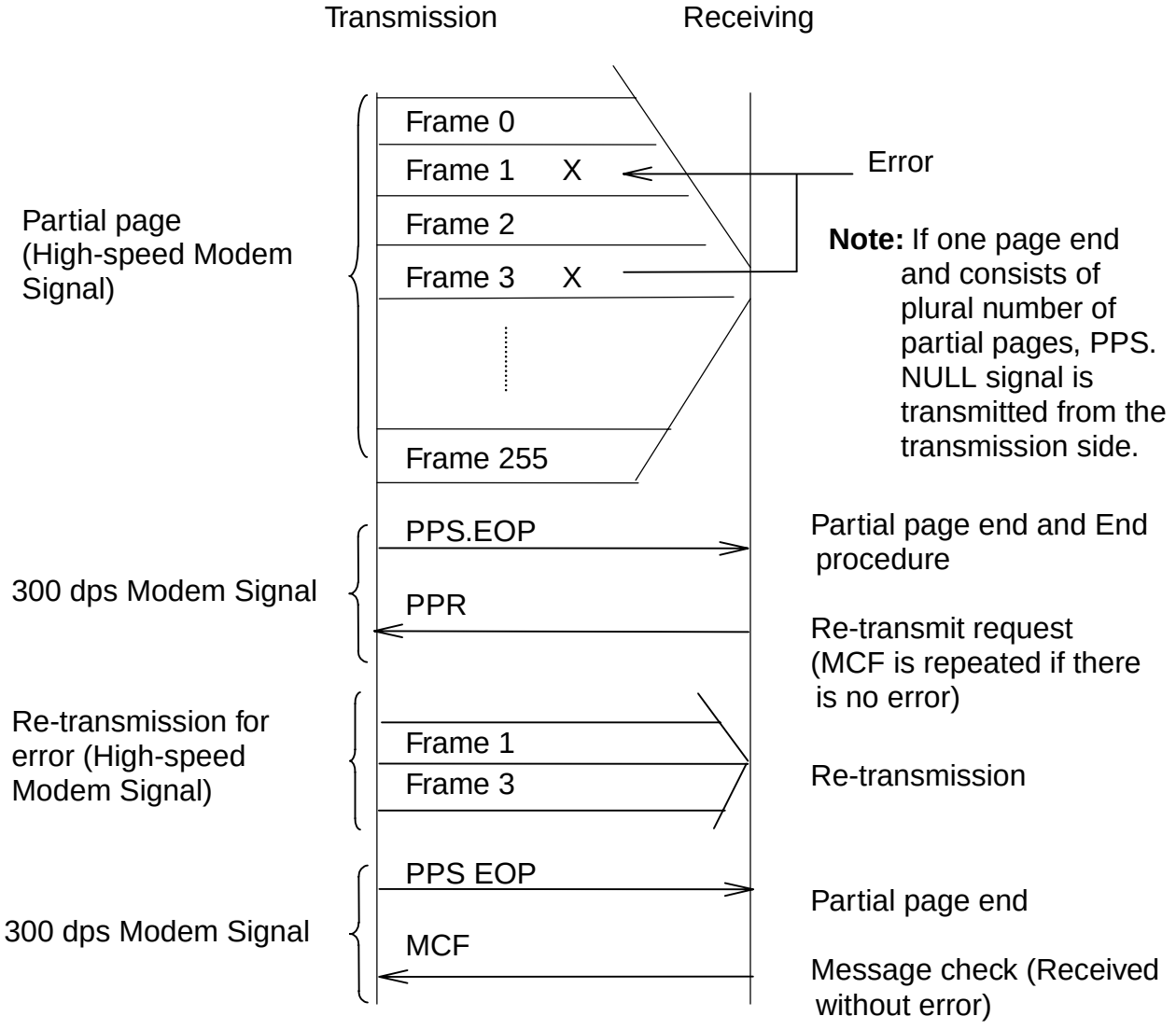
3600CLOSE

6. Fax protocols

6.1 G3 ECM (G3 Error Correction Mode)

G3 ECM is the error correction system newly recommended by Consultative Committee of International Telephone & Telegraph of 1988.

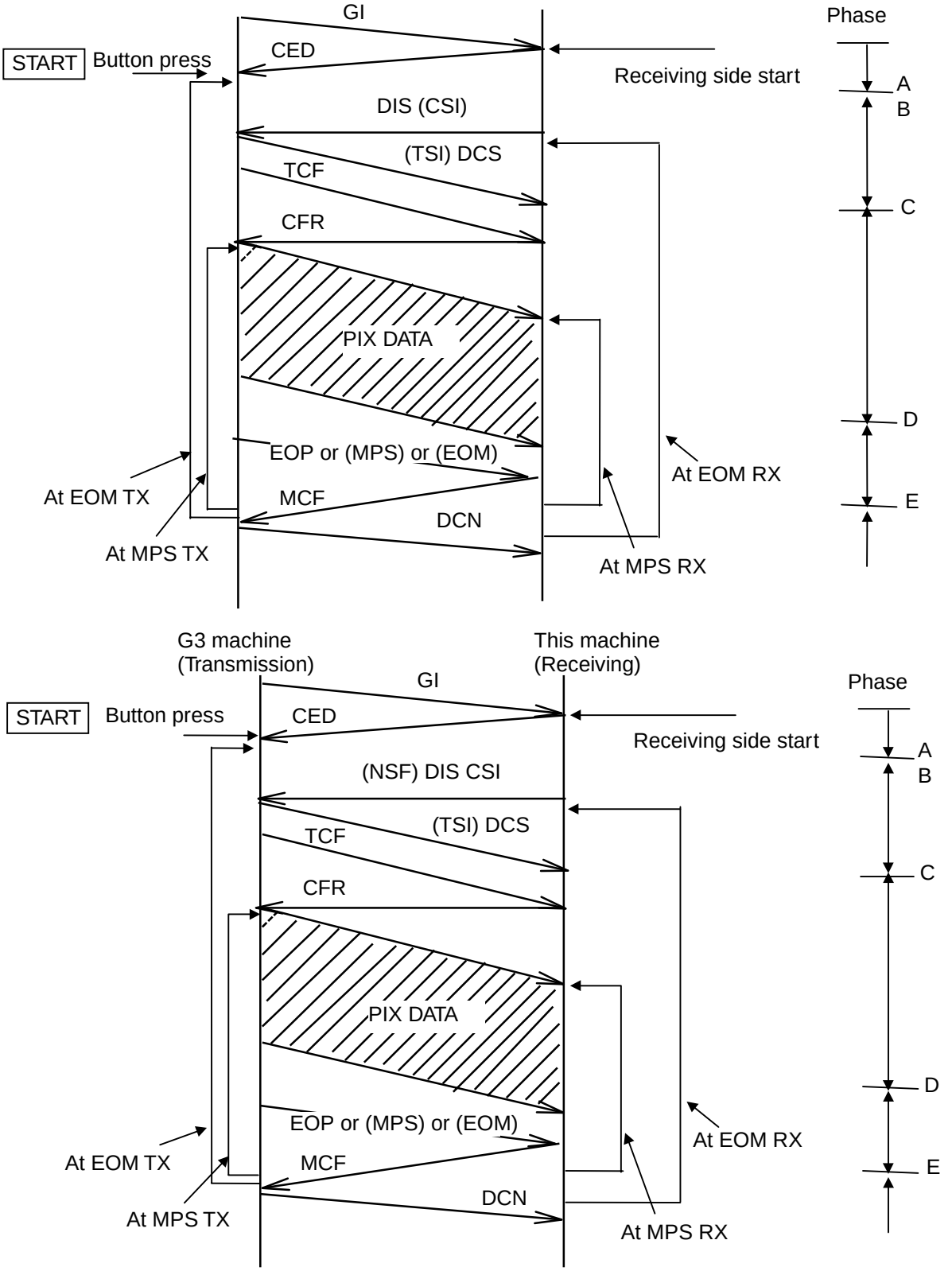
By G3 ECM, documents are divided into blocks (called partial page) for transmission. If any error takes place in any frame (one partial page consists of 256 frames) on a partial page, the receiving party generates the retransmit request with erroneous frame numbers.
An example: Where frame 1 and frame 3 are subjected to error.



6.2 Line Control

6.2.1 Procedure of G3 mode communication

Fig. 10-2-1 shows the basic communication diagram of G3 mode.



7. Error Code Table

7.1 Reception

Code	Possible Causes of Error
0001	Manual receive mode, nothing G3 signal received within 35 sec.
0003	Received DIS after sending DIS signal.
0004	Received DCN after sending DTC signal.
0006	Detect busy tone within receiving phase B.
0009	Can’t receive any signal within 35 sec. in manual polling mode.
0010	Received DCN signal after sending DTC signal in polling RX.
0011	Can’t receive any correct response after sending three DTC signal.
0012	Remote side Password not match in polling RX/our side no any file to be polling.
0013	Can’t receive carrier within 6 sec. after sending CFR in data phase C.
0014	Can’t receive T.30 signal after sending FTT signal.
0015	Line polarity change within receiving phase B~D.
0016	Receive DCN signal after sending FTT signal.
0017	Can’t receive any response from remote side after sending type of xxx_EOM signal.
0018	Can’t detect energy within 6 sec after sending FTT command
0019	Received DCN signal sending CFR signal
001A	No energy on line over 6 sec. Within phase C before any corrected ECM frame.
001D	Detect FSK signal. But not received any command within 6 sec.
001E	In phase C, have detected FSK signal. But not received any command within 6 sec.
0020	Can’t correct frame within 6 sec. Or in no-ECM mode, one decoding line over 6 sec.
0021	Remote side disconnect at phase C (V.17)
0022	Owing to noise interference on the line, receiving side can't receive correct data within specified time (no ECM).
0029	Mailbox password not set or not matches for mailbox receiving.
0030	Can't receive any signal within 6 sec. at phase D.
0031	Received incorrect signal at phase D (not EOP, MPS, EOM, DCS PPS_Q, PPS_Q, etc)
0032	Can't receive carrier within 6 sec. after sending MCF or RTP, RTN signal.
0033	Received DCN signal at phase D within pages (not last page).
003F	Remote side TSI not define in machine one touch or speed dial directory.
0040	Can't receive carrier within 6 sec. after sending CTR.

Code	Possible Causes of Error
0041	Can't receive carrier within 6 sec. after sending PPR.
0042	Can't receive correct signal after sending RNR signal.
0043	Receive incorrect signal at phase D in ECM mode.
0044	Can't receive carrier /FSK signal within 6 sec. after sending MCF in ECM mode.
0045	Can't receive any correct signal after sending RNR response with ERR signal.
0046	Receive incorrect signal when sending RNR which response with ERR signal.
0047	Can't receive correct signal after sending ERR signal.
0048	Can't receive correct signal after receive PPS_PRI_Q or PRI_Q, EOR_PRI_Q.
0049	Can't receive correct signal after sending PIP/PIN signal within 13 sec.
004A	Line energy over threshold last 60 sec. After MCF, and Can't detect FSK or carrier signal in ECM mode.
004B	Can't detect correct FSK signal even through detected FSK tone within 6 sec.
004C	Command handshake fail when V.34 RX.
004E	Receive DCN signal after sending DIS in V.34.
004F	Remote side disconnected after sending ANSam in V.8 phase.
0050	Can't receive any correct signal after sending CJ signal in V.8 phase.
0051	Can't receive phase 3 signals after phase 2 within 20 seconds in V.34.
0052	Can't receive phase 4 signals after phase 3 within 20 seconds in V.34.
0053	Modem disconnect after phase 4 in V.34.
0054	Remote side disconnected after phase 4 in V.8
0055	Receive incorrect signal after sending DIS signal in V.34
0056	Modem disconnect after sending CFR in V.34.
0057	Can't detect image signal within 6 seconds after sending CFR.
0058	Can't detect image signal within 6 seconds after modem enter to primary phase in V.34.
005A	Modem Can't detect any correct ECM frame with 3 minutes in phase C.
005B	Can't detect phase 5 signals after primary channel within 6 seconds.
005C	Detect busy tone within control channel after phase C.
005D	Remote side disconnect at phase C (V.34)
005E	Can't detect control channel signal after received RCP frame within 6 seconds.
005F	Can't detect silence after sending JM signal for polling TX function.

Code	Possible Causes of Error
0060	There are not any bulletin files to be polled in V.34.
0061	Machine Can't detect V.21 or V.8 signal with 35 seconds.
0062	Modem disconnect in phase D after our side sending out flags sequence in control channel.
0063	Can't receive any flag sequence in control channel within 6 seconds in phase D.
0064	Can't detect any control channel signal in phase D within 60 seconds even through energy still on the line.
0065	Can’t detect any control channel signal within 60 seconds after detect silence in phase D.
0066	Can’t receive T.30 signal or carrier after sending CFR in V.34.
0070	User pressed stop key while receiving.
0071	Memory full within receiving.

7.2 Transmission

Code	Possible Causes of Error
0080	Can’t detect any G3 signal within 35 sec. specified by ITU-T in phase B.
0081	Received DTC signal in transmission phase.
0082	Transmitting unit receives a signal other than DIS or DTC, and DCN in phase B.
0083	Detected FSK signal, but Can't received any signal within 35 seconds.
0084	Detect DCN signal in phase B.
0085	Transmitting unit sending DCS 3 times consecutively, but each time responds with DIS/DTC
0086	Detected responds signal other than DTC, DIS, FTT, DCN or CFR after sending DCS.
0087	Training attempt has failed because speed unit Can’t adjust to a lower speed.
0088	Received DCN signal after sending out DCS signal.
0089	Remote side no mailbox function or not compatible.
008A	Remote side not enough memory for relay initiate.
008B	Receiver's protocol of DIS is received, but it is not compatible with our machine.
008C	Remote side not enough memory for relay initiate.
008D	Receiver's protocol of DIS is received, but remote side can't receive document temporary, may be caused by running out of paper or other reason.
008E	Remote side CSI number not defined in machine one touch or speed dial directory.
008F	Modem not ready to received V.34 data within 6 seconds after received CFR signal.
0090	Called side document not ready for our polling.
0091	Sending out DCS+TCF signal 3 times consecutively but no signal in response from receiver.
0092	Remote side disconnected within transmitting phase.
0093	Received DCN signal after sending out DCS signal for V.34
0094	It is over 4 minutes to TX a ECM block (64K)
0099	Remote side disconnect after primary channel.
009A	Can’t detect any signal after sending CI signal.
009C	Received DCN after sending DTC in V.34 polling RX.
009D	Remote side hang up before V.34 modem enter PHASE 2 state in V.34 polling RX.
009F	Can’t receive any response from other side after sending PPS_EOM signal.
00A0	User stops or cancel transmission job.

Code	Possible Causes of Error
00A1	Document JAM within transmission
00AE	Can't finish V.8 procedure or detect V.21 signal after CM signal within 30 seconds.
00AF	Modem Can't enter into control channel after TX side sending out RCP signal for V.34
00B0	Can't received any command after our side retry there DCS signal in V.34 TX.
00B1	Can't finish V.8 procedure or detect V.21 signal after ANSam signal within 35 seconds.
00B2	Can't detect phase 2 signals after our side sending CJ signal within 30 seconds.
00B3	Can't detect correct V.21 or JM signal after sending CM signal.
00B4	Can't detect correct phase 2 signals within 25 seconds after CM/JM signal exchange.
00B5	Can't detect phase 3 signals after PHASE 2 within 25 seconds.
00B6	Can't detect phase 4 signals within 25 seconds after CM/JM exchange.
00B7	Can't detect phase 5 signals after phase 4 within 30 seconds.
00B8	Remote side disconnect after our side sending DCS signal in V.34.
00B9	Receive T.30 signal other than DIS, DCS, and CFR after sending DCS signal in V.34.
00BA	Can't receive correct signal after our side sending DTC signal in V.34.
00BB	Every time our side received DIS signal after sending DTC in V.34.
00BC	Modem Can't ready within 10 seconds after entering primary channel in V.34.
00BD	Can't detect correct V.21 or JM signal after detected FSK frequency.
00BE	Remote side no document to be polled after V8 handshaking.
00BF	Capability not matching after V8 handshaking.
00C0	Remote side disconnected before entering primary channel in V.34.
00C1	At phase-D, transmitting units outputs EOP 3 times consecutively, but received no answer from receiving unit.
00C2	Remote side disconnected after sending out V.8 CM signal.
00C4	After sending MPS signal, the received is not one of MCF, RTN, PIP, PIN, RTP, and DCN.
00C5	Received DCN signal after sending MPS signal.
00C9	At phase-D, sending MPS 3 times consecutively, but no answer from receiving unit.
00CA	After sending EOP signal, the received signal is not one of MCF, RTN, PIP, PIN, PRI-EOP, and DCN.
00CB	After sending EOP signal, the received signal is DCN signal.
00CC	After sending EOM signal, the received signal is not one of MCF, RTN, PIP, PIN, RTP, and DCN.

Code	Possible Causes of Error
00CD	At phase-D, transmitting units outputs EOM 3 times consecutively, but received no answer.
00CE	At phase-D, transmitting units outputs EOM, but received DCN.
00CF	Received incorrect signal after sending DTC signal for V.34 polling.
00D0	Received ERR signal after sending EOR_NULL.
00D1	ECM TX received in correct command in phase D after PPS-EOP (not PPR, MCF, PIP, PIN, ……..).
00D2	Received DCN after send command PPS-EOP.
00D3	Received DCN after sending PPS_NULL signal.
00D4	Received DCN after sending PPS_EOM signal.
00D8	Can’t detect correct phase 3 signals for polling within 25 seconds.
00D9	Can’t detect correct phase 3 signal after detect silence after phase 2.
00DA	Can’t detect phase 4 signal within 30 seconds or remote side hung up over 6 seconds.
00DB	Can’t receive any T.30 signal within 15 seconds within phase 4.
00DC	Received T.30 signal in phase 4 other than DCS, DIS or DTC.
00DD	Remote side not the same model or no any mailbox ID defined for mailbox TX.
00E0	At phase-D, transmitting units outputs PPS_NULL 3 times consecutively but received no answer.
00E1	Received incorrect response after sending PPS_NULL.
00E2	Can't receive any response in RR response procedure after sending PPS_NULL .
00E4	At phase-D, transmitting units outputs PPS_MPS 3 times consecutively but received no answer.
00E5	Received incorrect response after sending PPS_MPS.
00E6	Can't receive any response in RR response procedure after sending PPS_MPS.
00E7	Received DCN after sending PPS_MPS.
00E8	At phase-D, transmitting units outputs PPS_EOP 3 times consecutively but received no answer.
00E9	Received PIN signal after sent last page three times.
00EA	Can't receive any response in RR response procedure after sending PPS_EOP.
00EB	At phase-D, transmitting units outputs PPS_EOM 3 times consecutively but received no answer.
00EC	Received incorrect response after sending PPS_EOM.
00ED	Can't receive any response in RR response procedure after sent out PPS_EOM.

Code	Possible Causes of Error
00EE	At phase-D, transmitting units outputs EOR_NULL 3 times consecutively but receives no answer.
00EF	Received incorrect response after sending EOR_NULL.
00F0	Can't receive any response procedure after sending EOR_NULL.
00F1	At phase-D, transmitting units outputs EOR_MPS 3 times consecutively but receives no answer.
00F2	Received incorrect response after sending EOR_MPS.
00F3	Received ERR signal after sending EOR_MPS.
00F4	Can't receive any response in RR response procedure after sending EOR_MPS.
00F5	At phase-D, transmitting units outputs EOR_EOP 3 times consecutively but receives no answer.
00F6	Received incorrect response after sending EOR_EOP.
00F7	After Received ERR, our side Can’t receive response after sending EOR_EOP command
00F8	At phase-D, transmitting units outputs EOR_EOM 3 times consecutively but receive no answer.
00F9	Received incorrect response after sending EOR_EOM.
00FA	Received ERR signal after sending EOR_EOM.
00FB	Can't receive any response in RR response procedure after sending EOR_EOM.
00FC	Can't receive any response after sending CTC.
00FD	Can't slow down to lower speed in ECM mode
00FE	Memory full for transmission
00FF	REDIALS ALL FAIL

7.3 Machine Trouble

Code	Possible Causes of Error
C0000	Main Driver Motor Malfunction
C0045	Fuser Cooling Fan Motor Malfunction
C0049	P/H Cooling Fan Motor Malfunction
C0500	Warming-up Failure
C0510	Abnormal Low Fusing Temperature
C0520	Abnormal High Fusing Temperature
C0600	Scanner Driver Motor Malfunction
C1300	Polygon Motor Malfunction
C1400	H/V output error
C13F0	HSYNC detect abnormal
C133B	Communication error for PCL5e board
C0650	Home sensor detect error
C14A3	CCD lamp error
C1468	EEPROM error
C1200	SDRAM error

8. SERVICE MODE

To enter service mode, press UTILITY, STOP, 0, 0, STOP, 0, 1 in order.

8.1 SERVICE'S CHOICE

(1) MERKETING AREA

The default country code of this machine set as STANDARD. If changing the country code. The soft switch will change automatically. This includes default parameter for PTT regulation and default function setting. The message will update automatically after country code setting.

<< IMPORTANT NOTE >>
Need to reset marketing area again after downloading firmware and Power OFF and ON the machine.

ONE TOUCH KEY DEFINITION FOR MARKETING AREA:

One Touch	Country	One Touch	Country
1	STANDARD	15	SOUTH AFRICA
2	U.S.A	16	GREECE
3	TAIWAN	17	ISRAEL
4	SPAIN	18	AUSTRIA
5	ITALY	19	GERMANY
6	BELGIUM	20	FRANCE
7	NORWAY	21	UNITED KINGDOM
8	SWEDEN	22	AUSTRALIA
9	NETHERLANDS	23	CHINA
10	FINLAND	24	NEW ZEALAND
11	DENMARK	25	KOREA
12	SWITZERLAND	26	CZECH
13	IRELAND	27	SLOVAK
14	PORTUGAL		

OTHERS:

You can select the other country with ←,→ key after number 27.

28	HUNGARY	38	HONG KONG
29	UKRAINE	39	PHILIPPINE
30	BALTIC	40	THAILLAND
31	WEST EUROPE	41	INDONESIA
32	SLOVENIJA	42	OMAN
33	POLAND	43	UAE
34	ROMANIA	44	QATAR
35	RUSSIA	45	BAHRAIN
36	SINGAPORE	46	KUWAIT
37	MALAYSIA	47	SAUDI ARABIA

(2) LANGUAGE

Select the LCD display and report print out message. The number of message depends on model or OEM customer. The display message in service mode use English only.

KEY DEFINITION FOR LANGUAGE (Depend on ROM definition)

One Touch	Language	One Touch	Language	One Touch	Language
1	ENGLISH	4	FRENCH	7	SWEDISH
2	GERMAN	5	DANNISH		
3	SPANISH	6	DUTCH		

(3) TONER EMPTY STOP

Stop printing after toner empty signal is detected. Choose among the following items.

OFF	Toner empty stop is disabled.
FAX	Toner empty stop is enabled only for fax function.
COPY&FAX	Toner empty stop is enabled for copy function but also fax function.

(4) TX SPEED

Transmission start speed setting. Choose among the following items. Default is V.34 33600.

V.34	
V.17	
V.33	
V.29	
V.27	

(5) RX SPEED

Reception start speed setting. Choose among the following items. Default is V.34 33600.

V.34	
V.17	
V.33	
V.29	
V.27	

(6) TX LEVEL

PSK/FSK signal output level. Choose any integer from -2dBm to –17dBm. Default is –10dBm.

(7) RX LEVEL

Reception sensitive level. Choose among the following items. Default is –43 dBm.

-43 dBm	
-45 dBm	
-47 dBm	
-49 dBm	

(8) DTMF LEVEL

Dual tone output level. Choose any integer from -2dBm to –17dBm. Default is –10dBm.

(9) CNG LEVEL

Calling tone output level. Choose any integer from -2dBm to –17dBm. Default is –11dBm.

(10) CED LEVEL

Answer tone output level. Choose any integer from -2dBm to –17dBm. Default is –11dBm.

(11) T.30 MONITOR

Display T.30 command at LCD.

Enable T.30 command display on the LCD during communication, this display has the highest priority over other jobs. (Each command definition please reference ITU-T recommendation)

ON	Display T.30 command on the LCD during communication.
OFF	Don't display T.30 command on the LCD during communication.

(12) ECM MODE

Select error correction mode. Default is ON, users can turn on/off this.

ON	When an error occurs during communication, resend the frame where the error occurs.
OFF	Any error is ignored during communication.

(13) CODING SCHEME

Select compress method in TX/RX mode. Choose among the following items. Default is JBIG.

JBIG	The most complex compression method that generates smaller code than the following ones.
MMR	A compression method.
MR	A compression method.
MH	The simplest compression method.

(14) TONER EMPTY REPORT

Select ON to print report as toner is empty, or OFF for not.

ON	Print report, as toner is empty.
OFF	Print no report, as toner is empty.

(15) PROTOCOL REPORT

Print T30 communication report. Choose among the following items. Default is OFF.

OFF	Print no T30 communication report.
ON	Print T30 communication report.
ON (ERROR)	Print T30 communication report when error occurs.

8.2 ADJUST

(1) CCD-MAIN ZOOM

Adjust horizontal zoom ratio from 45 to 55, 0.4% per step, while CCD scanning. Default is 50. Press START key to copy for test. Press YES key to adjust setting. Adjust range from –2% to +2%

(2) CCD-SUB ZOOM

Adjust vertical zoom ratio from 45 to 55, 0.4% per step, while CCD scanning. Default is 50. Press START key to copy for test. Press YES key to adjust setting. Adjust range from –2% to +2%

(3) CCD-MAIN REGIST

Adjust horizontal start position from 40 to 60, 0.5 mm per step, while CCD scanning. Default is 50. Press START key to copy for test. Press YES key to adjust setting. Adjust range from –5 mm to +5 mm

(4) CCD-SUB REGIST

Adjust vertical start position from 46 to 60, 0.5 mm per step, while CCD scanning. Default is 50. Press START key to copy for test. Press YES key to adjust setting. Adjust range from –5 mm to +5 mm

(5) ADF-MAIN ZOOM

Adjust horizontal zoom ration from 45 to 55, 0.4% per step, while ADF scanning. Default is 50. Press START key to copy for test. Press YES key to adjust setting. Adjust range from –2% to +2%

(6) ADF-SUB ZOOM

Adjust vertical zoom ratio from 40 to 60, 0.4% per step, while ADF scanning. Default is 50. Press START key to copy for test. Press YES key to adjust setting. Adjust range from –2% to +2%

(7) ADF-MAIN REGIST

Adjust horizontal start position from 40 to 60, 0.5 mm per step, while ADF scanning. Default is 50. Press START key to copy for test. Press YES key to adjust setting. Adjust range from –5 mm to +5 mm

(8) ADF-SUB REGIST

Adjust vertical start position from 40 to 60, 0.5 mm per step, while ADF scanning. Default is 50. Press START key to copy for test. Press YES key to adjust setting. Adjust range from –5 mm to +5 mm

(9) TRAY1-MAIN REGIST

Adjust horizontal start position from 43 to 57, 0.5 mm per step, while printing using TRAY1. Default is 50. Press START key to copy for test. Press YES key to adjust setting. Adjust range from –3.5 mm to +3.5 mm

(10) TRAY1-SUB REGIST

Adjust vertical start position from 43 to 57, 0.5 mm per step, while printing using TRAY1. Default is 50. Press START key to copy for test. Press YES key to adjust setting. Adjust range from –3.5 mm to +3.5 mm

(11) TRAY2-MAIN REGIST

Adjust horizontal start position from 43 to 57, 0.5 mm per step, while printing using TRAY2 tray. Default is 50. Press START key to copy for test. Press YES key to adjust setting. Adjust range from –3.5 mm to +3.5 mm

(12) TRAY2-SUB REGIST

Adjust vertical start position from 43 to 57, 0.5 mm per step, while printing using TRAY2 tray. Default is 50. Press START key to copy for test. Press YES key to adjust setting. Adjust range from –3.5 mm to +3.5 mm

8.3 DISPLAY

(1) I/C COUNTER

Total DRUM counter

(2) TOTAL PRINT COUNTER

Total printing pages, the same as the sum of copy print counter, fax print counter and PC print counter.

(3) PM COUNTER

Number of printing /TOD signals, each page content follows a TOD signal. PM counter increases one as TOD is generated.

(4) COPY PRINT COUNTER

Total printing pages of copy operation. Any printing action from copy-mode operation will increase this counter, 1 per page.

(5) FAX PRINT COUNTER

Total printing pages of FAX operation. Any printing action from fax-mode operation will increase this counter, 1 per page, including reports.

(6) PC PRINT COUNTER

Total PC printing page. Any printing action from PC side will increase this counter, 1 per page.

(7) CCD SCAN COUNTER

Total CCD scan pages. Each flatbed scanning action increases one per page. The sum of CCD scans counter and ADF scan counter represents the total scan page.

(8) ADF SCAN COUNTER

Total ADF scan pages. Each ADF scanning action increases one per page. The sum of CCD scans counter and ADF scan counter represents the total scan page.

(9) TX PAGE COUNTER

Total transmission session. It will increase one as a page is transmitted.

(10) RX PAGE COUNTER

Total reception counter. It will increase one as a page is received.

(11) PRINTER JAM COUNTER

Total printing JAM pages. It also represents the number of paper jams that have occurred to printer. It will increase one while a paper jam occurs in the printer.

(12) SCAN JAM COUNTER

Total ADF scan jam counter. It also represents the number of paper jams that have occurred to ADF. It will increase one while a paper jam occurs in the ADF.

(13) FAX ROM VER.

Fax-Board ROM Version.

(14) PC PRINTER VER.

Reserved.

(15) FAX RAM SIZE

Get current Fax-Board ram size.

(16) COPIER RAM SIZE

Get SDRAM size of copier.

(17) PC PRINTER RAM SIZE

Get PCL5E On Board RAM size.

8.4 FUNCTION

(1) PRINTER FEED TEST

Printer performs continuously feeding without printing from TRAY1. TRAY/TRAY2.

(2) SCAN TEST

Repeat CCD scanning until STOP key is pressed.

(3) COPY TEST

Copy one page using flatbed scanning.

(4) ADF COPY TEST

Copy all pages of document put in ADF.

(5) ADF FEED TEST

ADF performs continuously feeding until STOP key is pressed.

(6) PRINT TEST PATTERN

Print pattern page, choose among PAT1. / PAT2..

(7) FAX RES. COPY TEST

Print TX page of FAX operation. Perform CCD fax or ADF fax without transmitting data, but redirects data to its own decoding unit and print it out. The purpose of this is to check whether the encoding/decoding process is correct.

(8) VIDEO I/F TEST

When the machine is set into this mode, the message " VIDEO TEST ITEM 16 " appears on the upper row of the LCD. This mode has 16 items (ITEM 1 to 16).
The LCD shows which item the machine is in on its lower row.
Pressing . or . scrolls down or up through the items. Pressing YES will set the machine into the particular item being shown on the LCD. To exit from the Video I/F Test mode, press STOP while any item has been selected.

1. BASIC STATUS

Bit	Description
7 :	0
6 :	Set to 1 when engine becomes able to feed (predetermined fixed interval after starting feed of previous sheet). Set to 0 when engine begins feed operation in response to /PRINT, Bit 5 (see below) is cleared or paper feed becomes impossible.
5 :	Set to 1 when engine becomes printing after receiving the /PRINT signal. Set to 0 when engine begins feed operation in response to /PRINT, engine enters standby or all paper feed means are stopped by jams or other error condition.
4 :	Set to 1 when system cannot eject paper due to printing problem. Set to 0 when engine becomes printing after receiving the /PRINT signal.
3 :	Set to 1 when the engine starts warm up, or while idling (preliminary engine run) starts at power-on or after cover open/close. Set to 0 when warm up and idling is complete, error occurrence causes warm up, idle to be aborted or the engine receives Pause during warm up.
2 :	Set to 1 when the engine starts pause. Set to 0 when the engine releases pause.
1 :	Set to 1 when an operator calls, a service calls or size error occurs. Undefined feed location will also set the bit to 1. Set to 0 when all errors and call conditions are cleared.
0 :	Odd parity.

2. OPERATOR CALL

Bit	Description
7 :	0
6 :	Reserved.
5 :	Reserved.
4 :	Set to 1 when paper is absent at selected feed inlet. Set to 0 when paper is present, or when feed location is undefined.
3 :	Set to 1 when jam occurs. Set to 0 after cover open/close.
2 :	Set to 1 when cover is opened. Set to 0 when cover is closed.
1 :	Set to 1 when remainder jam occurs. Set to 0 when remaining paper is removed from the system.
0 :	Odd parity.

3. SERVICE CALL

Bit	Description
7 :	0
6 :	Bits 6 to 1 : Contains code indicating the reason for the service call. Details are given below.
5 :	
4 :	
3 :	
2 :	
1 :	
0 :	Odd parity.

Code	Error Name
00H	No service call
0AH	Error in polygonal mirror motor
0BH	Fan lock error
10H	Laser error
18H	Fuser warm up error
19H	Fuser temperature low
1AH	Fuser overheat
0FH	High voltage circuit error

4. JAM & SIZE ERROR

Bit	Description
7 :	0
6 :	Set to 1 when engine has detected a size error. Set to 0 after cover open/close.
5 :	Bits 5 to 1 : Contains code indicating the cause of the paper jam. Set to 1 when paper jam while printing. Set to 0 after cover open/close.
4 :	
3 :	
2 :	
1 :	
0 :	Odd parity.

Code	Error Name
00H	No jam
01H	Jam in MP feeder section
02H	Jam in 2nd feeder section
09H	Jam in drum area
0AH	Jam in fuser section

5. NO. OF RESEND PAGES

Bit	Description
7 :	0
6 :	Bits 6 to 1 : Indicates the number of pages of image data that must be resent. This value is set when the system fails to eject all sheets normally due to printing error, paper jam causing end of printing run, or other such error.
5 :	
4 :	
3 :	
2 :	
1 :	
0 :	Odd parity.

6. BASIC STATUS (2)

Bit	Description
7 :	0
6 :	Reserved.
5 :	Set to 1 when cause for wait occurs. Set to 0 when cause for wait cleared.
4 :	Reserved.
3 :	Set to 1 when size error is occurred in “Continue on size error” mode.
2 :	Reserved.
1 :	Reserved.
0 :	Odd parity.

7. PAPER LENGTH-1

Bit	Description
7 :	0
6 :	Bits 6 to 1 : Paper length recognized by engine (High-order 6 bits of the length value). This field will return “111111” immediately when the engine initializes.
5 :	
4 :	
3 :	
2 :	
1 :	
0 :	Odd parity.

8. PAPER LENGTH-2

Bit	Description
7 :	0
6 :	Bits 6 to 1 : Paper length recognized by engine (High-order 6 bits of the length value). This field will return “111111” immediately when the engine initializes.
5 :	
4 :	
3 :	
2 :	
1 :	
0 :	Odd parity.

9. NO. OF PAGE EJECTED

Bit	Description
7 :	0
6 :	Bits 6 to 1 : System ejection count. The ejection counter increments each time a sheet is ejected from controller. The count starts at 0, proceeds to 63, and then loops back to 0.
5 :	
4 :	
3 :	
2 :	
1 :	
0 :	Odd parity.

10. INPUT SELECTION

Bit	Description
7 :	0
6 :	Reserved.
5 :	Reserved.
4 :	Bits 4 to 1 : Indicates feed location selected by execution command from the controller.
3 :	
2 :	
1 :	
0 :	Odd parity.

Feed location	Code
Undefined (at power-on)	00H
MP feeder	01H
2nd feeder	02H

11.PRINT RESOLUTION

Bit	Description
7 :	0
6 :	N/A “ *** COMMAND ERROR! *** ”
5 :	
4 :	
3 :	
2 :	
1 :	
0 :	Odd parity.

12. TONER LEVEL

Bit	Description
7 :	0
6 :	Reserved.
5 :	Reserved.
4 :	Reserved.
3 :	Reserved.
2 :	Bits 2 to 1 : Toner status.
1 :	
0 :	Odd parity.

Code	Explanation
00B	Toner present
01B	Near Empty
10B	Toner empty

13. INSTALLED SUPPLY

Bit	Description
7 :	0
6 :	Set to 1 when 2nd (TRAY2) feeder is installed.
5 :	Reserved.
4 :	Reserved.
3 :	Reserved.
2 :	Set to 1 when MP feeder is installed.
1 :	Reserved.
0 :	Odd parity.

14. PAPER EXISTENCE

Bit	Description
7 :	0
6 :	Set to 1 when 2nd (TRAY2) feeder contains paper.
5 :	Reserved.
4 :	Reserved.
3 :	Reserved.
2 :	Set to 11 when the MP (or Manual) feeder contains paper.
1 :	
0 :	Odd parity.

15. M/C VERSION

Bit	Description
7 :	0
6 :	Bits 6, 5 : Reserved. Bits 4 to 1 : Indicates the M/C software version number.
5 :	
4 :	
3 :	
2 :	
1 :	
0 :	Odd parity.

16. BIAS ADJUSTMENT

Bit	Description
7 :	0
6 :	Bits 6 to 1 : Indicates the current image density setting. Details are given below.
5 :	
4 :	
3 :	
2 :	
1 :	
0 :	Odd parity.

Code	Density Step	Remark
1	-3 (extra light)	Middle value (power-on default)
2	-2 (more light)	
3	-1 (light)	
4	0	
5	+1 (dark)	
6	+2 (more dark)	
7	+3 (extra dark)	

(9) COPY ADF GLASS AREA

Copy ADF glass area image

(10) CCD MOVE TO HOME

Move CCD to home position adjustable for locking

(11) CCD MOVING TEST

Reserved.

(12) UPLOAD FIRMWARE

Upload firmware by PSTN line to remote machine (when the REMOTE MONITOR setting in remote machine is “ON”), this function can do broadcast and each time the max. location is 16 (OT dial, Speed dial and 16 full dial).

1. After upload the new F/W, machine will reset automatically.
2. Before connection, please inform user not to do other function, otherwise there have unexpected result within connection.
3. This function work on the same model only.
4. Please don’t turn off machine during upload F/W.

If machine power off during program F/W, after power on machine will display following message “FLASH ROM LOST” in this case you can re-upload again by following ways with F/W file: Centronic, RS-232, PCL5E, PCL5E+NIC.

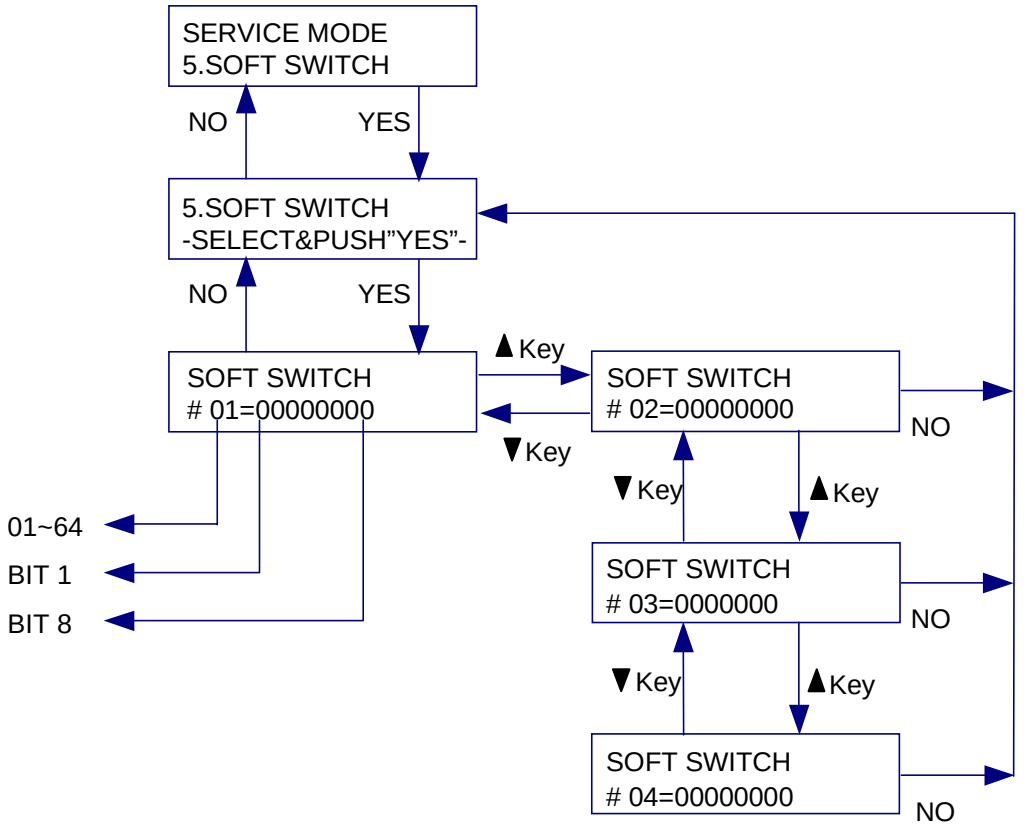
8.5 SOFT SWITCH

This section shows the operational procedure only, the definition of each soft switch, please reference soft switch document in other chapter. The default value is copy from ROM after re-setting the country code.

KEY DEFINITION FOR SOFTSWITCH

Key	Definition
'↑'	Soft Switch Number Forward
'↓'	Soft Switch Number Backward
YES	Update Soft Switch by current setting
Reserved.	Print soft switch setting from SW01 to SW64
PAUSE	Enable Soft Switch after 64 (for internal use only)
ONE TOUCH N	Point to Soft Switch Number "N", N= 1 ~ 27 ,others use '↓' key

FLOWCHART (SOFTSWITCH)



8.6 REPORTING

Any selection of the following lists will not print out in service mode unless service mode ends.

(1) SERVICE DATA LIST

Print service data list report and Error log history list

Service Data list including following items:

1. Report title
2. Soft switch list
3. Communication History and counter
4. RX in memory password
5. Mailbox ID password (total 10 MAILBOX)
6. ROM ID

Error log history list including following items

1. Index : Index number from 0 ~ 9999
2. Error : Error code number
3. Maker : NSF frame maker code
4. Tele. : Remote side or TX side telephone number for that transaction

SERVICE DATA LIST

NAME: DALLAS

TEL: 1234567

DATE: JUL.02'1998 11:55

COUNTRY CODE=STANDARD

SOFT SWITCH

SW01-SW16	00	20	80	0C	00	00	07	61	00	81	10	80	10	00	01	00
SW17-SW32	00	00	66	00	80	06	00	00	00	28	00	A7	14	68	00	00
SW33-SW48	4A	00	10	0A	00	C1	01	08	20	80	60	00	01	02	0C	89
SW49-SW64	01	20	00	68	00	68	00	B0	00	00	00	00	00	00	90	00

COMMUNICATION HISTORY & COUNTER

000001: G3 RX TIME
000001: ECM RX TIME
000001: V.17 14.4K
000000: V.33 14.4K
000000: V.17 9.6K
000000: V.29 9.6K
000000: V.27 4.8K
000001: G3 TX TIME
000000: V.17 14.4K
000000: V.33 14.4K
000000: V.17 9.6K
000001: V.29 9.6K

000001: G3 RX PAGE
000001: ECM TX TIME
000000: V.17 12K
000000: V.33 12K
000000: V.17 7.2K
000000: V.29 7.2K
000000: V.27 2.4K
000001: G3 TX PAGE
000000: V.17 12K
000000: V.33 12K
000000: V.17 7.2K
000000: V.29 7.2K

000000: V.27 4.8K
000008: V.34 RX TIME
000002: 33.9K
000004: 28.8K
000000: 24.0K
000000: 19.2K
000000: 9.6K
000000: 4.8K
000001: V.34 TX TIME
000001: 33.6K
000000: 28.8K
000000: 24.0K
000000: 19.2K
000000: 9.6K
000000: 4.8K
000142: PRINTED PAGE
000088: SCAN PAGE
000000: PC TX TIME
000000: POLLING RX TIME
000000: PAPER JAM TIME
000010: V.34 RX – PPR
000000: V.17 RX – PPR
000000: V.17 TX – CTC
000000: V.17 RETRY TX CMD
000000: TX/DIAL STOP
000000: PAPER SIZE ERROR
000000: REPORT PRINTED PAGE
000000: JBIG TX TIME
000000: CURRENT T/C
000000: DRUM COUNTER
000000: ADF TX TIME

000000: V.27 2.4K
000060: V.34 RX PAGE
000002: 31.2K
000000: 26.4K
000000: 21.6K
000000: 16.8K
000000: 7.2K
000000: 2.4K
000002; V.34 TX PAGE
000000: 31.2K
000000: 26.4K
000000: 21.6K
000000: 16.8K
000000: 7.2K
000000: 2.4K
000000: PCL4 PRINTER PAGE
000000: GDI PRINTED PAGE
000000: PC RX TIME
000000: POLLING TX TIME
000001: DOC. JAM TIME
000000: V.34 TX – PPR
000000: V.17 TX – PPR
000000: V.17 RX– CTC
000000: V.34 RETRY TX CMD
000000: RX STOP
000000: TWAIN SCAN
000000: COPY PAGE
000000: JBIG RX TIME
000000: PREVIOUS T/C
000000: POWER OFF TIME
000000: PCL5e PRINTER PAGE

MEMORY RX ID:1234

-- MAILBOX ID--

NO.0 :	NO.1 :	NO.2 :	NO.3 :	NO.4 :
NO.5 :	NO.6 :	NO.7 :	NO.8 :	NO.9 :

--DEPARTMENT ID--

NO.0 :	NO.1 :	NO.2 :	NO.3 :	NO.4 :
NO.5 :	NO.6 :	NO.7 :	NO.8 :	NO.9 :

-- ROM ID--

11/16/98 V1.30

8.7 T.30 PROTOCOL LIST

PRINT OUT T.30 PROTOCOL WITHIN COMMUNICATION AFTER COMMUNICATION.

1) PAGE NUMBER : ONE PAGE
(KEEP FIRST PAGE IF TOTAL COMMAND OVER 1 PAGE)
2) OUTPUT METHOD : PRINT OUT AFTER COMMUNICATION BY USER SETTING
3) REPORT ITEMS

(1) SESSION	SESSION NUMBER
(2) FUNCTION	FUNCTION NAME
(3) DESTINATION STATION	DESTINATION NAME/TELEPHONE NUMBER
(4) DATE/TIME	COMMUNICATION DATE & TIME
(5) PAGE	TOTAL PAGE NUMBER FOR THIS SESSION
(6) DURATION	COMMUNICATION DURATION
(7) MODE	COMMUNICATION SPEED AND ECM MODE
(8) RESULT	COMMUNICATION RESULT
(9) TX	T.30 COMMAND SENT BY LOCAL FAX
(10) RX	T.30 COMMAND RECEIVED FROM REMOTE FAX
(11) DATA	T.30 FRAME THAT INCLUDE ADDRESS & CONTROL & DATA

4) EXAMPLE - SEE NEXT PAGE

NOTE: RECORD FIRST PAGE ONLY.

V.17 COMMUNICATION

PROTOCOL MONITOR REPORT

NAME: TAIPEI

TEL: 789 1 12345678

DATE: APR.10'97 12:20

SESSION	FUNCTION	NO.	DESTINATION STATION	DATE	TIME	PAGE	MODE	RESULT
0001	TX	01	TAIPEI 22345678901234567890	OCT.27	17:19	008	ECM -12	OK

TX	RX	DATA
NSF		FF 03 20 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
CSI		FF 03 40 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
DIS		FF 13 00 00 00 00 00
	NSS	FF 03 00 00 00 00 00 00 00 00 00 00 00
	DCS	FF 13 00 00 00 00 00 00 00 00 00 00
	•TCF	00 00 00 00 00 00 00 00 00 00 00
CFR		FF 13 84
	•PIX	
	EOP	FF 13 BF 2F 00 00 41
MCF		FF 13 8C
	DCN	FF 13 FB

TRAINING PHASE

DATA PHASE

V.34 COMMUNICATION

PROTOCOL MONITOR REPORT

NAME: TAIPEI

TEL: 789 1 12345678

DATE: APR.10'97 12:20

SESSION	FUNCTION	NO.	DESTINATION STATION	DATE	TIME	PAGE	MODE	RESULT
0001	TX	01	TAIPEI 22345678901234567890	OCT.27	17:19	008	ECM -12	OK

TX	RX	DATA
ANS		
	CM	
JM		
	CJ	V.8 PROTOCOL DUMP
NSF	NSS	FF 03 20 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
CSI	DCS	FF 03 40 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
DIS	•TCF	FF 13 80 00 00 00 00 00
		FF 03 20 00 00 00 00 00 00 00 00 00 00
	•PIX	FF 13 83 00 00 00 00 00 00 00 00 00
	EOP	
CFR		FF 13 84
	DCN	
		FF 13 BF 2F 00 00 41
MCF		FF 13 8C
		FF 13 FB
		TRAINING PHASE
		DATA PHASE

8.8 FACTORY TEST

(1) SIGNAL TEST

Test PSK/FSK /CED/CNG signal

There are PSK, FSK, CED, CNG signal, the output message are as below.

No.	Function	Description
1	TX FSK	Output sync. Char
2	TX PSK	Output Zero at each data rate
3	CED (2100Hz)	Output answer tone
4	CNG (1100 Hz)	Output calling tone
5	V.34 SIGNAL TX	Output carrier at each sample rate (note 1)

Note : For V.34 modem only

(2) RELAY TEST

Test TEL/FAX relay switch

Relay description

Relay	Function	Action
CML relay	TEL/FAX line relay	1: FAX 0: TEL
DI Relay	Pulse dial relay	1: MAKE 0: BREAK
DS Relay	Isolate relay for Pulse dial	1: Dial 0: Idle
HOOK 1 Relay	Handset Relay 1	0: Close 1: Open
HOOK 2 Relay	Handset Relay 2	0: Close 1: Open

(3) DIAL TEST

Use this function to measure H/W circuit working correctly or not, also to measure the following items.

No.	Measure items	Description
1	DTMF	DTMF output frequency
2	PULSE	Pulse number for each digit.
3	PB	Reserved.

DTMF SIGNAL FREQUENCY

Low	High Frequency			
Frequency	1209Hz	1336Hz	1477Hz	1633Hz
697Hz	1	2	3	A
770Hz	4	5	6	B
852Hz	7	8	9	C
941Hz	*	0	#	D

(4) SENSOR TEST

Test left and right sensors of ADF.

(5) RS232 TEST

Test RS232 following items

No.	Test signal	Note
1	Output TXD & Input RXD	Output 0XAA & 0x55 data
2	Input CTS	Display ‘HIGH” or “LOW”
3	Output RTS	Output low & high

(6) VOLUME TEST

Buzzer issues sound adjust. Choose among LOW/MEDIUM/HIGH. Press STOP key to exit.

(7) CENTRONIC TEST

This test need test software in PC side.

No.	Test Signal Line	Note
1	AD0~AD7	Data lines
2	ACK	Acknowledge
3	NO PAPER	Fax run out of paper
4	FAULT	Machine trouble
5	BUSY	Machine Busy

(8) PANEL BUZZER TEST

This mode is used to check the LCD, LEDs, switches, and buzzer on the operation panel for operation.

When the machine is set into this mode, all LEDs light up 4 sec. Then a buzzer sounds for 2 sec. Then, the message “PANEL SWITCH TEST PRESS ANY SWITCH” appears on the LCD, indicating that the machine has entered the switch test standby state.

Pressing a key on the operation panel in the switch test standby state causes the LCD to show the name of key pressed (Table.). Press “STOP” key twice to return to the switch test standby state.

Pressing “STOP” in the switch test standby state terminates the Panel & Buzzer Test Mode.

Table, LCD indication of each switch

KEY NAME	LCD
LCD Panel	
One-Touch Keys (01-27)	One Touch 01-27
Report Keys	Report
Memory TX Key	
Resolution Key	
Hook Key	Speaker
Speed Dial Key	Speed Dial
Journal Key	Journal
Function Key	Function
YES Key	Yes
NO Key	No
Set Key	Set
TEL/DIR	TEL/DIR
Numeric Keys Panel	
Redial/Pause	Redial
Numeric Keys	1-9,0
* Key	*
# Key	#
Start	Start
Copy Key	Copy
Stop Key	Stop

(9) RAM TEST

Test DRAM

(10) LOW TRAY TEST

Check whether there are papers in the 2nd tray.

8.9 CLEAR DATA

(1) DRAM

Clear all data in the memory file and free all memory to 100%

(2) SRAM

1) Clear user setting data
2) Clear dial registration data
3) Clear all data in the memory same as clear DRAM
4) Reset Date/time to January 1st 1990
5) Reset all setting item into default setting base on current country
6) Code (before clear)
7) Note : 1. TOD position, Scan start position, Country code, will restore after Clear SRAM

(3) I/C COUNTER

Display content of I/C counter. Press YES key to clear counter.

(4) TOTAL PRINT COUNTER

Display content of Total Print counter. Press YES key to clear counter.

(5) PM COUNTER

Display content of PM counter. Press YES key to clear counter.

(6) COPY PRINT COUNTER

Display content of Copy Print counter. Press YES key to clear counter.

(7) FAX PRINT COUNTER

Display content of FAX Print counter. Press YES key to clear counter.

(8) PC PRINT COUNTER

Display content of PC Print counter. Press YES key to clear counter.

(9) CCD SCAN COUNTER

Display content of CCD scan counter. Press YES key to clear counter.

(10) ADF SCAN COUNTER

Display content of ADF scan counter. Press YES key to clear counter.

(11) TX PAGE COUNTER

Display content of TX Page counter. Press YES key to clear counter.

(12) RX PAGE COUNTER

Display content of RX Page counter. Press YES key to clear counter.

(13) PRINTER JAM COUNTER

Display content of Printer Jam counter. Press YES key to clear counter.

(14) SCAN JAM COUNTER

Display content of Scan Jam Counter. Press YES key to clear counter.

9. Soft Switch Definition

SOFT SWITCH : 01

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td rowspan="12">TX START SPEED
(Select transmit start speed for V.17 mode)</td><td rowspan="12"><table>
<tr><th>Speed \ Bit No.</th><th>Bit 8</th><th>Bit 7</th><th>Bit 6</th><th>Bit 5</th></tr>
<tr><td>v.17 14400</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>v.17 12200</td><td>0</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>v.17 9600</td><td>0</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>v.17 7200</td><td>0</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>v.33 14400</td><td>0</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>v.33 12000</td><td>0</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>v.29 9600</td><td>0</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>v.29 7200</td><td>0</td><td>1</td><td>1</td><td>1</td></tr>
<tr><td>v.27 4800</td><td>1</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>v.27 ter 2400</td><td>1</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>Reserved</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Reserved</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Reserved</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Reserved</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Reserved</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Reserved</td><td></td><td></td><td></td><td></td></tr>
</table></td><td>0</td></tr>
<tr><td>7</td><td>0</td></tr>
<tr><td>6</td><td>0</td></tr>
<tr><td>5</td><td>0</td></tr>
<tr><td>4</td><td rowspan="12">RX START SPEED
(Select receiving start speed for V.17 mode)</td><td rowspan="12"><table>
<tr><th>Speed \Bit No.</th><th>Bit 4</th><th>Bit 3</th><th>Bit 2</th><th>Bit 1</th></tr>
<tr><td>v.17 14400</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>v.17 12200</td><td>0</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>v.17 9600</td><td>0</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>v.17 7200</td><td>0</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>v.33 14400</td><td>0</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>v.33 12000</td><td>0</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>v.29 9600</td><td>0</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>v.29 7200</td><td>0</td><td>1</td><td>1</td><td>1</td></tr>
<tr><td>v.27 4800</td><td>1</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>v.27 ter 2400</td><td>1</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>Reserved</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Reserved</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Reserved</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Reserved</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Reserved</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Reserved</td><td></td><td></td><td></td><td></td></tr>
</table></td><td>0</td></tr>
<tr><td>3</td><td>0</td></tr>
<tr><td>2</td><td>0</td></tr>
<tr><td>1</td><td>0</td></tr>
</table>

SOFT SWITCH : 02

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td rowspan="2">Rx. Level threshold in receiving mode</td><td rowspan="2"><table><tr><th>Rx Insensitivity</th><th>Bit 8</th><th>Bit 7</th></tr><tr><td>-43 dBm</td><td>0</td><td>0</td></tr><tr><td>-45 dBm</td><td>0</td><td>1</td></tr><tr><td>-47 dBm</td><td>1</td><td>0</td></tr><tr><td>-49 dBm</td><td>1</td><td>1</td></tr></table></td><td>0</td></tr>
<tr><td>7</td><td>0</td></tr>
<tr><td>6</td><td>Tx header setting for user or not</td><td>0: Not to open to user.
1: Open to user.</td><td>1</td></tr>
<tr><td>5</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>4</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>3</td><td rowspan="2">Transmit RTN signal level criteria</td><td rowspan="2"><table><tr><th>Percentage of error line</th><th>Bit 3</th><th>Bit 2</th></tr><tr><td>10 %</td><td>0</td><td>0</td></tr><tr><td>15 %</td><td>0</td><td>1</td></tr><tr><td>20 %</td><td>1</td><td>0</td></tr><tr><td>25 %</td><td>1</td><td>1</td></tr></table>In G3 mode, if error line ratio over this number, RTN signal will send out.</td><td>0</td></tr>
<tr><td>2</td><td>0</td></tr>
<tr><td>1</td><td>Sent N.G page (memory send)</td><td>0 : Sent N.G page and up to 3 times for that page
1 : Not resend that N.G page for G3 mode
N.G indicate our side detected RTN signal at the Page.</td><td>0</td></tr>
</table>

SOFT SWITCH : 03

Bit No.	Designation	Function	Initial Setting
8	Send out NSF frame with station ID	1 : Yes 0 : No	1
7	Number of Pause within phone number	0 : No any limitation 1 : Max. up to 2 pause and others do not effect telephone number.	0
6	Re-dial prohibit for no answer	0 : Continue to dial 1 : Not allowed to re-dial if any FAX signal or detected busy tone after dialing.	0
5	Reserved		0
4	Reserved		0
3	Reserved		0
2	Reserved		0
1	Reserved		0

SOFT SWITCH : 04

Bit No.	Designation	Function	Initial Setting
8	Reserved		0
7	Reserved		0
6	Reserved		0
5	Reserved		0
4	Visible alarm for RTN signal	0 : No 1 : Yes Need to display message while sending/receiving RTN signal.	1
3	Audible alarm for RTN signal	0 : No 1 : Yes Need to alarm for sending or receiving RTN signal.	1
2	Reserved		0
1	Polarity Change Detection	0 : No to detect within communication. 1 : Enable (Dial or communication within phase B) If polarity change within connection, machine will disconnect at specified time.	0

SOFT SWITCH : 05

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td rowspan="2">Push Button On/Off Timing (PB)</td><td rowspan="2">
<table>
<tr><th>Timing (ms)</th><th>Bit 8</th><th>Bit 7</th></tr>
<tr><td>On: 100 / Off: 140</td><td>0</td><td>0</td></tr>
<tr><td>On: 70 / Off: 70</td><td>0</td><td>1</td></tr>
<tr><td>On: 70 / Off: 140</td><td>1</td><td>0</td></tr>
<tr><td>On: 90 / Off: 90</td><td>1</td><td>1</td></tr>
</table>
</td><td>0</td></tr>
<tr><td>7</td><td>0</td></tr>
<tr><td>6</td><td rowspan="2">Relation between Ten Key # & No. of Dial pulse</td><td rowspan="2">
<table>
<tr><td>Bit 6</td><td>0</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>Bit 5</td><td>0</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td># 1</td><td>1</td><td>9</td><td>2</td><td>x</td></tr>
<tr><td># 2</td><td>2</td><td>8</td><td>3</td><td>x</td></tr>
<tr><td># 3</td><td>3</td><td>7</td><td>4</td><td>x</td></tr>
<tr><td># 4</td><td>4</td><td>6</td><td>5</td><td>x</td></tr>
<tr><td># 5</td><td>5</td><td>5</td><td>6</td><td>x</td></tr>
<tr><td># 6</td><td>6</td><td>4</td><td>7</td><td>x</td></tr>
<tr><td># 7</td><td>7</td><td>3</td><td>8</td><td>x</td></tr>
<tr><td># 8</td><td>8</td><td>2</td><td>9</td><td>x</td></tr>
<tr><td># 9</td><td>9</td><td>1</td><td>10</td><td>x</td></tr>
<tr><td># 0</td><td>10</td><td>10</td><td>1</td><td>x</td></tr>
</table>
</td><td>0</td></tr>
<tr><td>5</td><td>0</td></tr>
<tr><td>4</td><td>Dial pulse</td><td>0 : 10 PPS
1 : 20 PPS</td><td>0</td></tr>
<tr><td>3</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>2</td><td rowspan="2">Dial pulse make ratio select (MR)</td><td rowspan="2">
<table>
<tr><th>MR</th><th>33%</th><th>40 %</th><th>30 %</th><th>X</th></tr>
<tr><td>Bit 2</td><td>0</td><td>0</td><td>1</td><td>x</td></tr>
<tr><td>Bit 1</td><td>0</td><td>1</td><td>0</td><td>x</td></tr>
</table>
</td><td>0</td></tr>
<tr><td>1</td><td>0</td></tr>
</table>

SOFT SWITCH : 06

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td rowspan="2">Ring on time to ignore Ring off time at 1st cycle (ms)</td><td rowspan="2"><table><tr><td>Time</td><td>100</td><td>50</td><td>150</td><td>800</td></tr><tr><td>Bit 8</td><td>0</td><td>1</td><td>0</td><td>1</td></tr><tr><td>Bit 7</td><td>0</td><td>0</td><td>1</td><td>1</td></tr></table></td><td>0</td></tr>
<tr><td>7</td><td>0</td></tr>
<tr><td>6</td><td rowspan="2">Ring on cycle to approve incoming ring (Auto Rx)</td><td rowspan="2"><table><tr><td>Cycle</td><td>2</td><td>4</td><td>1</td><td>3</td></tr><tr><td>Bit 6</td><td>0</td><td>1</td><td>0</td><td>1</td></tr><tr><td>Bit 5</td><td>0</td><td>0</td><td>1</td><td>1</td></tr></table></td><td>0</td></tr>
<tr><td>5</td><td>0</td></tr>
<tr><td>4</td><td rowspan="2">Ring off time at 1st cycle to approve incoming ring</td><td rowspan="2"><table><tr><td>Time</td><td>1000</td><td>250</td><td>500</td><td>100</td></tr><tr><td>Bit 4</td><td>0</td><td>1</td><td>0</td><td>1</td></tr><tr><td>Bit 3</td><td>0</td><td>0</td><td>1</td><td>1</td></tr></table></td><td>0</td></tr>
<tr><td>3</td><td>0</td></tr>
<tr><td>2</td><td rowspan="2">Pulse cycle to approve ring frequency</td><td rowspan="2"><table><tr><td>Cycle</td><td>4</td><td>2</td><td>3</td><td>1</td></tr><tr><td>Bit 2</td><td>0</td><td>1</td><td>0</td><td>1</td></tr><tr><td>Bit 1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr></table></td><td>0</td></tr>
<tr><td>1</td><td>0</td></tr>
</table>

SOFT SWITCH :07

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>Dial tone or busy tone detection</td><td>0 : Disable
1 : Enable [Have to detect Dial tone before Dial]</td><td>0</td></tr>
<tr><td>7</td><td>PSTN/PBX select</td><td>0 : PSTN
1 : PBX (Select PBX line type)</td><td>0</td></tr>
<tr><td>6</td><td>PBX dial tone detect</td><td>0 : Not to detect dial tone before pre-fix number
1 : Detect dial tone before the pre-fix number in PBX mode</td><td>0</td></tr>
<tr><td>5</td><td>Dial mode select</td><td>0 : DTMF [PB]
1 : Pulse [DP]</td><td>0</td></tr>
<tr><td>4
3
2
1</td><td>TX Level select for PSK/FSK (dBm)</td><td>
<table>
<tr><th>Level</th><th>Bit 4</th><th>Bit 3</th><th>Bit 2</th><th>Bit 1</th></tr>
<tr><td>-17</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>-16</td><td>0</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>-15</td><td>0</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>-14</td><td>0</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>-13</td><td>0</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>-12</td><td>0</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>-11</td><td>0</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>-10</td><td>0</td><td>1</td><td>1</td><td>1</td></tr>
<tr><td>-9</td><td>1</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>-8</td><td>1</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>-7</td><td>1</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>-6</td><td>1</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>-5</td><td>1</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>-4</td><td>1</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>-3</td><td>1</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>-2</td><td>1</td><td>1</td><td>1</td><td>1</td></tr>
</table>
</td><td>0
1
1
1</td></tr>
</table>

SOFTWITCH : 08

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>Sending RTN signal level (For G3 mode)</td><td>1 : (Normal, Fine)=(6,12) continue error line
If received error line over above situation, have to send out RTN signal instead of MCF in receiving mode.
0 : (Normal, Fine)=(12,24) continue error line</td><td>0</td></tr>
<tr><td>7</td><td>Detect busy tone after dialing</td><td>0 : Not to detect
1 : Detect busy tone after dialing</td><td>1</td></tr>
<tr><td>6</td><td>Sending CED signal after connection</td><td>0 : Not to send
1 : Send CED signal before DIS signal after connection</td><td>1</td></tr>
<tr><td>5</td><td>CED transmission timing</td><td>0 : 2.0 s (specified period of time between close the relay and starting transmission CED)
1 : 2.5 s</td><td>0</td></tr>
<tr><td>4
3
2
1</td><td>Redial Interval</td><td>
<table>
<tr><th>Auto Dial Interval</th><th>Bit 4</th><th>Bit 3</th><th>Bit 2</th><th>Bit 1</th></tr>
<tr><td>1,1,1,1,1,10,1,1,1</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>3,3,15,3,3</td><td>0</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>1,1,15</td><td>0</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>3,3</td><td>0</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>1,1,1</td><td>0</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>3,3,3</td><td>0</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>1,1</td><td>0</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>3,3,3,3</td><td>0</td><td>1</td><td>1</td><td>1</td></tr>
<tr><td>1,1,1,1</td><td>1</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>2,2</td><td>1</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>5,5,5,5</td><td>1</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>1,2,2,2</td><td>1</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>2,2,2,2,2,2,2,2,2,2</td><td>1</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>2,2,10,2,2,2</td><td>1</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>3,3,10,3,3,3,3</td><td>1</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>10,10,10,10,15,10</td><td>1</td><td>1</td><td>1</td><td>1</td></tr>
</table>
</td><td>4 : 0
3 : 0
2 : 0
1 : 1</td></tr>
</table>

SOFT SWITCH :09

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td rowspan="2">Ringer frequency detection</td><td rowspan="2"><table><tr><th>Ringer frequency range</th><th>Bit 8</th><th>Bit 7</th></tr><tr><td>10 ~ 75 Hz</td><td>0</td><td>0</td></tr><tr><td>20 ~ 57.5 Hz</td><td>0</td><td>1</td></tr><tr><td>20 ~ 75 Hz</td><td>1</td><td>0</td></tr><tr><td>10 ~ 75 Hz</td><td>1</td><td>1</td></tr></table></td><td>0</td></tr>
<tr><td>7</td><td>0</td></tr>
<tr><td>6</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>5</td><td>TSI/CSI append ‘+’</td><td>0 : Not append ‘+’ before send out TSI/CSI
1 : Automatically insert ‘+’</td><td>0</td></tr>
<tr><td>4</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>3</td><td>Header position</td><td>0: Inside document around 5 mm in TX mode.
1: Outside [Germany, Italian]</td><td>0</td></tr>
<tr><td>2</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>1</td><td>Reserved</td><td></td><td>0</td></tr>
</table>

SOFT SWITCH : 10

Bit No.	Designation	Function	Initial Setting
8	Print out RTN page report	0 : Not to Print 1 : Print Out RTN page report after transaction	1
7	Print NG or Ok in confirmation report If any negative signal detected. (RTN, PIN, ERR, etc)	0 : Print OK 1 : Print NG	0
6	Reserved		0
5	Reserved		0
4	Rx PIP T.30 command after send out MPS command	0 : Send DCS at current speed 1 : Return to TX phase B waiting for DIS signal	0
3	Received DIS signal within reception	0 : Repeat sending DIS/DTC again until time out 1 : Disconnected after sending DCN signal	0
2	Transmission time limitation	1 : Limit to 8 minutes from data phase 0 : No any limitation until document jam (this only for manual transmission)	0
1	Audio alarm after communication fail	0 : Not to alarm after transaction fail 1 : Alarm 3 seconds after disconnected	1

SOFT SWITCH : 11

Bit No.	Designation	Function	Initial Setting
8	Reserved		0
7	Detect dial tone after pre-fix number	0 : No 1 : Yes	0
6	Pulse dial allowed to select	0 : Yes 1 : Not allowed [Norway, Denmark, Finland..]	0
5	T.30 Protocol signal display mode	0 : Not to display 1 : Display T.30 signal within communication.	0
4	Reserved		0
3	Reserved		0
2	Reserved		0
1	Reserved		0

SOFT SWITCH : 12

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>ECM Mode capability</td><td>1 : Yes
0 : No - also disable V.34 modem capability</td><td>1</td></tr>
<tr><td>7</td><td rowspan="2">V.34 fall back counter for V.34 TX.</td><td rowspan="2"><table><tr><th>Description</th><th>Bit 7</th><th>Bit 6</th></tr><tr><td>1</td><td>0</td><td>0</td></tr><tr><td>2</td><td>0</td><td>1</td></tr><tr><td>3</td><td>1</td><td>0</td></tr><tr><td>4</td><td>1</td><td>1</td></tr></table></td><td>0</td></tr>
<tr><td>6</td><td>0</td></tr>
<tr><td>5</td><td>Send CTC after 4th PPR</td><td>0 : Send CTC (Continue To Correct)
1 : Send EOR (End Of Transmission)</td><td>0</td></tr>
<tr><td>4</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>3</td><td>Send EOR after lowest speed</td><td>0 : Send DCN (Redial)
1 : Send EOR_xxx [Germany PTT]</td><td>0</td></tr>
<tr><td>2</td><td rowspan="2">TCF transmission timing after DCS signal</td><td rowspan="2"><table><tr><th>Description (unit = msecond)</th><th>Bit 2</th><th>Bit 1</th></tr><tr><td>70</td><td>0</td><td>0</td></tr><tr><td>80</td><td>0</td><td>1</td></tr><tr><td>90</td><td>1</td><td>0</td></tr><tr><td>100</td><td>1</td><td>1</td></tr></table></td><td>0</td></tr>
<tr><td>1</td><td>0</td></tr>
</table>

SOFT SWITCH : 13

Bit No.	Designation	Function	Initial Setting
8	MR capability For G3	0 : Yes 1 : No	0
7	Delay time between transaction	0 : 20 s 1 : 60 s Time to start next job after the line disconnects.	0
6	Reserved		0
5	Super fine printing capability for receiving	0 : No 1 : Yes	1
4	300 x 300 RX capability	0 : No. 1 : Yes	0
3	Reserved		0
2	Send DTC signal if RX DIS signal in manual RX mode	1 : No (send DIS again) 0 : Yes	0
1	PSK to FSK delay time (Phase C Phase D)	0 : 70 ± 20 ms 1 : 150 ± 20 ms	0

SOFT SWITCH : 14

Bit No.	Designation	Function	Initial Setting
8	Reserved		0
7	Reserved		0
6	Auto Rx min. memory size	1 : Up to 128 K (available memory in auto receiving mode) 0 : base on system configuration	0
5	Reserved		0
4	Reserved		0
3	Reserved		0
2	Reserved		0
1	Reserved		0

SOFT SWITCH : 15

Bit No.	Designation	Function	Initial Setting
8	Reserved		0
7	Reserved		0
6	Reserved		0
5	Reserved		0
4	Reserved		0
3	Reserved		0
2	Reserved		0
1	Remote side no document be polling	0 : Not to generate report 1 : Generate error report	1

SOFT SWITCH : 16

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>7</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>6</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>5</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>4</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>3</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>2</td><td rowspan="2">Coding method</td><td rowspan="2"><table><tr><th>Coding Method</th><th>Bit 2</th><th>Bit 1</th></tr><tr><td>MMR</td><td>0</td><td>0</td></tr><tr><td>MR</td><td>0</td><td>1</td></tr><tr><td>MH</td><td>1</td><td>0</td></tr><tr><td>JBIG</td><td>1</td><td>1</td></tr></table></td><td>1</td></tr>
<tr><td>1</td><td>1</td></tr>
</table>

SOFT SWITCH : 17

Bit No.	Designation	Function	Initial Setting
8	Reserved		0
7	Reserved		0
6	CED frequency	0 : 2100 Hz 1 : 1100 Hz	0
5	Reserved		0
4	Reserved		0
3	Reserved		0
2	Reserved		0
1	Reserved		0

SOFT SWITCH : 18

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>7</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>6</td><td>Special training</td><td>0 : Normal
1 : Strict training specification</td><td>0</td></tr>
<tr><td>5</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>4</td><td rowspan="4">Redefine re-dial attempts counter</td><td rowspan="4">
<table>
<tr><th>Counter</th><th>Bit 4</th><th>Bit 3</th><th>Bit 2</th><th>Bit 1</th></tr>
<tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>1</td><td>0</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>2</td><td>0</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>3</td><td>0</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>4</td><td>0</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>5</td><td>0</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>6</td><td>0</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>7</td><td>0</td><td>1</td><td>1</td><td>1</td></tr>
<tr><td>8</td><td>1</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>9</td><td>1</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>10</td><td>1</td><td>0</td><td>1</td><td>0</td></tr>
</table>
</td><td>0</td></tr>
<tr><td>3</td><td>0</td></tr>
<tr><td>2</td><td>0</td></tr>
<tr><td>1</td><td>0</td></tr>
</table>

SOFT SWITCH : 19

Bit No.	Designation	Function	Initial Setting
8	CNG signal Level		0
7			1
6			1
5			0
4	DTMF high frequency level		1
3			0
2			0
1			0

Level	Bit 8	Bit 7	Bit 6	Bit 5
-15 dBm	0	0	0	0
-14 dBm	0	0	0	1
-13 dBm	0	0	1	0
-12 dBm	0	0	1	1
-11 dBm	0	1	0	0
-10 dBm	0	1	0	1
-9 dBm	0	1	1	0
-8 dBm	0	1	1	1
-7 dBm	1	0	0	0
-6 dBm	1	0	0	1
-5 dBm	1	0	1	0
-4 dBm	1	0	1	1
-3 dBm	1	1	0	0
-2 dBm	1	1	0	1
-1 dBm	1	1	1	0
Not used	1	1	1	1

Level	Bit 4	Bit 3	Bit 2	Bit 1
-15 dBm	0	0	0	0
-14 dBm	0	0	0	1
-13 dBm	0	0	1	0
-12 dBm	0	0	1	1
-11 dBm	0	1	0	0
-10 dBm	0	1	0	1
-9 dBm	0	1	1	0
-8 dBm	0	1	1	1
-7 dBm	1	0	0	0
-6 dBm	1	0	0	1
-5 dBm	1	0	1	0
-4 dBm	1	0	1	1
-3 dBm	1	1	0	0
-2 dBm	1	1	0	1
-1 dBm	1	1	1	0
Not used	1	1	1	1

SOFT SWITCH : 20

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>7</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>6</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>5</td><td rowspan="5">Redefine redial interval over default setting that base on Soft Switch 08 Bit 1~4 (unit = minute)</td><td rowspan="5"><table>
<tr><th>Interval</th><th>Bit 5</th><th>Bit 4</th><th>Bit 3</th><th>Bit 2</th><th>Bit 1</th></tr>
<tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>2</td><td>0</td><td>0</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>3</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>4</td><td>0</td><td>0</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>5</td><td>0</td><td>0</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>6</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>7</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td></tr>
<tr><td>8</td><td>0</td><td>1</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>9</td><td>0</td><td>1</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>10</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>11</td><td>0</td><td>1</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>12</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>13</td><td>0</td><td>1</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>14</td><td>0</td><td>1</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>15</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr>
<tr><td>16</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>17</td><td>1</td><td>0</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>18</td><td>1</td><td>0</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>19</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>20</td><td>1</td><td>0</td><td>1</td><td>0</td><td>0</td></tr>
</table></td><td>0</td></tr>
<tr><td>4</td><td>0</td></tr>
<tr><td>3</td><td>0</td></tr>
<tr><td>2</td><td>0</td></tr>
<tr><td>1</td><td>0</td></tr>
</table>

SOFT SWITCH : 21

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>NSS signal before DCS</td><td>0 : Not to send NSS signal for self mode in TX mode
1 : Send NSS signal if remote side is same model</td><td>1</td></tr>
<tr><td>7</td><td rowspan="2">CNG duration after dialing</td><td rowspan="2"><table><tr><th>Duration (unit = second)</th><th>Bit 7</th><th>Bit 6</th></tr><tr><td>70</td><td>0</td><td>0</td></tr><tr><td>40</td><td>0</td><td>1</td></tr><tr><td>60</td><td>1</td><td>0</td></tr><tr><td>120</td><td>1</td><td>1</td></tr></table></td><td>0</td></tr>
<tr><td>6</td><td>0</td></tr>
<tr><td>5</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>4</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>3</td><td>DIS signal length</td><td>0 : Normal length (Bit 1~64)
1 : 4 bytes DIS command (Bit 1~32) only, because some old machines may have a problem if DIS length is more than 4 bytes</td><td>0</td></tr>
<tr><td>2</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>1</td><td>Reserved</td><td></td><td>0</td></tr>
</table>

SOFT SWITCH : 22

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>Detect busy tone before dial</td><td>1 : Check busy tone within dial tone detection
0 : Not to check</td><td>0</td></tr>
<tr><td>7</td><td>Regard dial tone as busy tone after dialing</td><td>1 : Yes - Check Dial tone after dialing
0 : No</td><td>0</td></tr>
<tr><td>6</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>5</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>4
3
2
1</td><td>CED signal output level</td><td>
<table>
<tr><th>Level</th><th>Bit 4</th><th>Bit 3</th><th>Bit 2</th><th>Bit 1</th></tr>
<tr><td>-15 dBm</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>-14 dBm</td><td>0</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>-13 dBm</td><td>0</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>-12 dBm</td><td>0</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>-11 dBm</td><td>0</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>-10 dBm</td><td>0</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>-9 dBm</td><td>0</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>-8 dBm</td><td>0</td><td>1</td><td>1</td><td>1</td></tr>
<tr><td>-7 dBm</td><td>1</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>-6 dBm</td><td>1</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>-5 dBm</td><td>1</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>-4 dBm</td><td>1</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>-3 dBm</td><td>1</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>-2 dBm</td><td>1</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>-1 dBm</td><td>1</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>Not used</td><td>1</td><td>1</td><td>1</td><td>1</td></tr>
</table>
</td><td>0
1
1
0</td></tr>
</table>

SOFT SWITCH : 23

Bit No.	Designation	Function	Initial Setting
8	Reserved		0
7	Reserved		0
6	Reserved		0
5	Reserved		0
4	Reserved		0
3	Reserved		0
2	Reserved		0
1	Reserved		0

SOFT SWITCH : 24

Bit No.	Designation	Function	Initial Setting
8	Reserved		0
7	Reserved		0
6	Reserved		0
5	Reserved		0
4	Reserved		0
3	Reserved		0
2	Reserved		0
1	Reserved		0

SOFT SWITCH : 25

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>International dial tone frequency index</td><td>0 : Same as dial tone frequency range
1 : Fix (see bit 5~7)</td><td>0</td></tr>
<tr><td>7
6
5</td><td>International dial tone frequency index</td><td>
<table>
<tr><th>Frequency (Hz)</th><th>Bit 7</th><th>Bit 6</th><th>Bit 5</th></tr>
<tr><td>375 ~ 462</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>310~380</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>462~580</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>570 ~ 630</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>300~370</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>Reserved</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>1100 ~1185</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>Reserved</td><td>1</td><td>1</td><td>1</td></tr>
</table>
</td><td>0
0
0</td></tr>
<tr><td>4
3</td><td>Flash key time in ON hook key dial</td><td>
<table>
<tr><th>Flash time</th><th>Bit 4</th><th>Bit 3</th></tr>
<tr><td>100 ms</td><td>0</td><td>0</td></tr>
<tr><td>80 ms</td><td>0</td><td>1</td></tr>
<tr><td>60 ms</td><td>1</td><td>0</td></tr>
<tr><td>50 ms</td><td>1</td><td>1</td></tr>
</table>
</td><td>0
0</td></tr>
<tr><td>2</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>1</td><td>Reserved</td><td></td><td>0</td></tr>
</table>

SOFT SWITCH : 26

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8
7</td><td>Dial tone detection time before disconnected</td><td>
<table>
<tr><th>Time (unit = second)</th><th>Bit 8</th><th>Bit 7</th></tr>
<tr><td>10</td><td>0</td><td>0</td></tr>
<tr><td>15</td><td>0</td><td>1</td></tr>
<tr><td>20</td><td>1</td><td>0</td></tr>
<tr><td>25</td><td>1</td><td>1</td></tr>
</table>
</td><td>0
0</td></tr>
<tr><td>6
5
4
3
2
1</td><td>Dial tone insensitivity (0~-40 dBm)</td><td>
<table>
<tr><th>Level</th><th>Bit 6</th><th>Bit 5</th><th>Bit 4</th><th>Bit 3</th><th>Bit 2</th><th>Bit 1</th></tr>
<tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>-1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>-2</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>-3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>-4</td><td>0</td><td>0</td><td>0</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>-5</td><td>0</td><td>0</td><td>0</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>~
~</td><td>~
~</td><td>~
~</td><td>~
~</td><td>~
~</td><td>~
~</td><td>~
~</td></tr>
<tr><td>-39</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td></tr>
<tr><td>-40</td><td>1</td><td>0</td><td>1</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>-41
-42
-43
-44
-45
-46
-47
-48
-49
-50</td><td colspan="6">setting disable</td></tr>
</table>
</td><td>1
0
1
0
0
0</td></tr>
</table>

SOFT SWITCH : 27

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>SUB bit in DIS frame</td><td>0 : Not set
1 : Set SUB bit to ‘1’ in DIS frame</td><td>0</td></tr>
<tr><td>7</td><td>Check remote SUB capability for SUB TX.</td><td>0 : Don’t care remote side SUB capability
1 : Not to send if remote side does not have SUB Capability.</td><td>0</td></tr>
<tr><td>6</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>5</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>4</td><td rowspan="4">Immunity for dial tone receiver
(Not to dial if input level over this level)</td><td rowspan="4">
<table>
<tr><th>Level</th><th>Bit 4</th><th>Bit 3</th><th>Bit 2</th><th>Bit 1</th></tr>
<tr><td>> 0 dBm</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>-1 dBm</td><td>0</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>-2 dBm</td><td>0</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>-3 dBm</td><td>0</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>-4 dBm</td><td>0</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>-5 dBm</td><td>0</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>-6 dBm</td><td>0</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>-7 dBm</td><td>0</td><td>1</td><td>1</td><td>1</td></tr>
<tr><td>-8 dBm</td><td>1</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>-9 dBm</td><td>1</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>-10 dBm</td><td>1</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>-11 dBm</td><td>1</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>-12 dBm</td><td>1</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>-13 dBm</td><td>1</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>-14 dBm</td><td>1</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>-15 dBm</td><td>1</td><td>1</td><td>1</td><td>1</td></tr>
</table>
</td><td>0</td></tr>
<tr><td>3</td><td>0</td></tr>
<tr><td>2</td><td>0</td></tr>
<tr><td>1</td><td>0</td></tr>
</table>

SOFT SWITCH : 28

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8

7

6

5</td><td>Time to dial after dial tone come out the line</td><td>
<table>
<tr><th>Time</th><th>Bit 8</th><th>Bit 7</th><th>Bit 6</th><th>Bit 5</th></tr>
<tr><td>0 ms</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>100 ms</td><td>0</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>200 ms</td><td>0</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>300 ms</td><td>0</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>400 ms</td><td>0</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>500 ms</td><td>0</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>600 ms</td><td>0</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>700 ms</td><td>0</td><td>1</td><td>1</td><td>1</td></tr>
<tr><td>800 ms</td><td>1</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>900 ms</td><td>1</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>1000 ms</td><td>1</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>1100 ms</td><td>1</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>1200 ms</td><td>1</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>1300 ms</td><td>1</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>1400 ms</td><td>1</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>1500 ms</td><td>1</td><td>1</td><td>1</td><td>1</td></tr>
</table>
</td><td>1

0

1

0</td></tr>
<tr><td>4

3

2

1</td><td>CED duration time within calling period.
(CED signal must be over this timer)</td><td>
<table>
<tr><th>Time</th><th>Bit 4</th><th>Bit 3</th><th>Bit 2</th><th>Bit 1</th></tr>
<tr><td>0 ms</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>100 ms</td><td>0</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>200 ms</td><td>0</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>300 ms</td><td>0</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>400 ms</td><td>0</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>500 ms</td><td>0</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>600 ms</td><td>0</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>700 ms</td><td>0</td><td>1</td><td>1</td><td>1</td></tr>
<tr><td>800 ms</td><td>1</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>900 ms</td><td>1</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>1000 ms</td><td>1</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>1100 ms</td><td>1</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>1200 ms</td><td>1</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>1300 ms</td><td>1</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>1400 ms</td><td>1</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>1500 ms</td><td>1</td><td>1</td><td>1</td><td>1</td></tr>
</table>
</td><td>0

1

1

1</td></tr>
</table>

SOFT SWITCH : 29

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>7</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>6</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>5</td><td rowspan="8">Time to dial after seize the line when dial tone detection disable
(Unit= 0.2 second)</td><td rowspan="8">
<table>
<tr><th>TIME</th><th>Bit 5</th><th>Bit 4</th><th>Bit 3</th><th>Bit 2</th><th>Bit 1</th></tr>
<tr><td>0 s</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>0.2 s</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>0.4 s</td><td>0</td><td>0</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>0.6 s</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>0.8 s</td><td>0</td><td>0</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>1.0 s</td><td>0</td><td>0</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>1.2 s</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>1.4 s</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td></tr>
<tr><td>~
~</td><td>~
~</td><td>~
~</td><td>~
~</td><td>~
~</td><td>~
~</td></tr>
<tr><td>5.2 s</td><td>1</td><td>1</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>5.4 s</td><td>1</td><td>1</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>5.6 s</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>5.8 s</td><td>1</td><td>1</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>6.0 s</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>6.2 s</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr>
</table>
</td><td>1</td></tr>
<tr><td>4</td><td>0</td></tr>
<tr><td>3</td><td>1</td></tr>
<tr><td>2</td><td>0</td></tr>
<tr><td>1</td><td>0</td></tr>
</table>

SOFT SWITCH : 30

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8
7</td><td>Pause delay time within digits
Ex. 002Pxxxxxx</td><td>
<table>
<tr><th>Description (unit = second)</th><th>Bit 8</th><th>Bit 7</th></tr>
<tr><td>2.0</td><td>0</td><td>0</td></tr>
<tr><td>2.5</td><td>0</td><td>1</td></tr>
<tr><td>3.0</td><td>1</td><td>0</td></tr>
<tr><td>3.5</td><td>1</td><td>1</td></tr>
</table>
</td><td>0
1</td></tr>
<tr><td>6
5
4
3
2
1</td><td>Signal tone insensitivity (dBm) after dial (Busy Tone)</td><td>
<table>
<tr><th>Level</th><th>Bit 6</th><th>Bit 5</th><th>Bit 4</th><th>Bit 3</th><th>Bit 2</th><th>Bit 1</th></tr>
<tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>- 1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>-2</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>-3</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>-4</td><td>0</td><td>0</td><td>0</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>~
~</td><td>~
~</td><td>~
~</td><td>~
~</td><td>~
~</td><td>~
~</td><td>~
~</td></tr>
<tr><td>-39</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td></tr>
<tr><td>-40</td><td>1</td><td>0</td><td>1</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>-41
-42
-43
-44
-45
-46
-47
-48
-49
-50</td><td colspan="6">Setting disable</td></tr>
</table>
</td><td>1
0
1
0
0
0</td></tr>
</table>

SOFT SWITCH : 31

Bit No.	Designation	Function	Initial Setting
8	Reserved		0
7	Reserved		0
6	Reserved		0
5	Reserved		0
4	Reserved		0
3	Reserved		0
2	Reserved		0
1	Reserved		0

SOFT SWITCH : 32

Bit No.	Designation	Function	Initial Setting
8	Reserved		0
7	Reserved		0
6	Reserved		0
5	Reserved		0
4	Reserved		0
3	Reserved		0
2	Reserved		0
1	Reserved		0

SOFT SWITCH : 33

Bit No.	Designation	Function	Initial Setting
8	V.27 Echo protection tone	0 : Off 1 : On	1
7	V.17 Echo protection tone	0 : Off 1 : On	1
6	V.29 Echo protection tone	0 : Off 1 : On	0
5	V.34 Compromise equalizer enable in the transmitter's path	0 : Off 1 : On	0
4	Reserved		0
3	Reserved		0
2	Reserved		0
1	Reserved		0

SOFT SWITCH : 34

Bit No.	Designation	Function	Initial Setting
8	Reserved		0
7	Reserved		0
6	Reserved		0
5	Reserved		0
4	Reserved		0
3	Reserved		0
2	Password capability in DIS/DTC frame	0 : No 1 : Yes	1
1	Mailbox TX method	0 : Only within compatibility machine 1 : Send PWDT command if remote side have password capability (DIS bit 50 set)	0

SOFT SWITCH :35

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td rowspan="2">Dial tone table switch time
(Time to change freq. table if not detected)</td><td rowspan="2"><table><tr><th>Switch time (unit=second)</th><th>Bit 8</th><th>Bit 7</th></tr><tr><td>1</td><td>0</td><td>0</td></tr><tr><td>2</td><td>0</td><td>1</td></tr><tr><td>3</td><td>1</td><td>0</td></tr><tr><td>4</td><td>1</td><td>1</td></tr></table></td><td>0</td></tr>
<tr><td>7</td><td>0</td></tr>
<tr><td>6</td><td rowspan="3">Dial tone frequency upper range index</td><td rowspan="3">See Bit 1~3

(This upper range value must be higher than lower range value that defined in bit 1~3)</td><td>0</td></tr>
<tr><td>5</td><td>1</td></tr>
<tr><td>4</td><td>0</td></tr>
<tr><td>3</td><td rowspan="3">Dial tone frequency low range index</td><td rowspan="3"><table><tr><th>Frequency Range</th><th>Bit 3</th><th>Bit 2</th><th>Bit 1</th></tr><tr><td>375 Hz ~ 462 Hz</td><td>0</td><td>0</td><td>0</td></tr><tr><td>310Hz ~380 Hz</td><td>0</td><td>0</td><td>1</td></tr><tr><td>462Hz ~580 Hz</td><td>0</td><td>1</td><td>0</td></tr><tr><td>570 Hz ~ 630 Hz</td><td>0</td><td>1</td><td>1</td></tr><tr><td>300 Hz ~ 370 Hz</td><td>1</td><td>0</td><td>0</td></tr></table></td><td>0</td></tr>
<tr><td>2</td><td>0</td></tr>
<tr><td>1</td><td>0</td></tr>
</table>

SOFT SWITCH : 36

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>Re-dial attempts continue fail counter</td><td>0 : No any limitation
1 : limit up to bit 1~4 (machine stops to dial unless user interrupt or ringing detection again)</td><td>1</td></tr>
<tr><td>7</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>6</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>5</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>4</td><td rowspan="4">Re-dial attempts fail limitation counter</td><td rowspan="4">
<table>
<tr><th>Counter</th><th>Bit 4</th><th>Bit 3</th><th>Bit 2</th><th>Bit 1</th></tr>
<tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>1</td><td>0</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>2</td><td>0</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>3</td><td>0</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>4</td><td>0</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>5</td><td>0</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>6</td><td>0</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>~</td><td>~</td><td>~</td><td>~</td><td>~</td></tr>
<tr><td>13</td><td>1</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>14</td><td>1</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>15</td><td>1</td><td>1</td><td>1</td><td>1</td></tr>
</table>
</td><td>1</td></tr>
<tr><td>3</td><td>0</td></tr>
<tr><td>2</td><td>1</td></tr>
<tr><td>1</td><td>0</td></tr>
</table>

SOFT SWITCH :37

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>Polling TX type for V.34 modem</td><td>0 : V.34
1 : V.17</td><td>0</td></tr>
<tr><td>7</td><td>Auto dial learning for V.34 modem</td><td>0 : Yes (skip V.34 handshaking with remote side)
1 : No (retry from V.8) handshake</td><td>0</td></tr>
<tr><td>6</td><td rowspan="2">Rx start symbol rate for V.34 modem</td><td rowspan="2"><table><tr><th>Symbol rate</th><th>Max.</th><th>Bit 3</th><th>Bit 2</th><th>Bit 1</th></tr><tr><td>3429</td><td>33.6 k</td><td>0</td><td>0</td><td>0</td></tr><tr><td>3200</td><td>31.2 k</td><td>0</td><td>0</td><td>1</td></tr><tr><td>3000</td><td>26.4 k</td><td>0</td><td>1</td><td>0</td></tr><tr><td>2800</td><td>24.0 k</td><td>0</td><td>1</td><td>1</td></tr><tr><td>2400</td><td>21.6 k</td><td>1</td><td>0</td><td>0</td></tr></table></td><td>0</td></tr>
<tr><td>5</td><td>0</td></tr>
<tr><td>4</td><td>0</td></tr>
<tr><td>3</td><td rowspan="2">TX start symbol rate for V.34 modem</td><td rowspan="2"><table><tr><th>Symbol rate</th><th>Max.</th><th>Bit 3</th><th>Bit 2</th><th>Bit 1</th></tr><tr><td>3429</td><td>33.6 k</td><td>0</td><td>0</td><td>0</td></tr><tr><td>3200</td><td>31.2 k</td><td>0</td><td>0</td><td>1</td></tr><tr><td>3000</td><td>26.4 k</td><td>0</td><td>1</td><td>0</td></tr><tr><td>2800</td><td>24.0 k</td><td>0</td><td>1</td><td>1</td></tr><tr><td>2400</td><td>21.6 k</td><td>1</td><td>0</td><td>0</td></tr></table></td><td>0</td></tr>
<tr><td>2</td><td>0</td></tr>
<tr><td>1</td><td>0</td></tr>
</table>

SOFT SWITCH : 38

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>Fine tune of 33.6/ 31.2k receiving for V.34 modem</td><td>1 : Yes
0 : No (Modem default setting)</td><td>1</td></tr>
<tr><td>7</td><td>Set/Reset V.34 transmit level deviation</td><td>0 : Reset
1 : Set</td><td>1</td></tr>
<tr><td>6</td><td rowspan="2">V.34 Flag number between ECM frame</td><td rowspan="2"><table><tr><th>Flags number</th><th>Bit 6</th><th>Bit 5</th></tr><tr><td>8</td><td>0</td><td>0</td></tr><tr><td>16</td><td>0</td><td>1</td></tr><tr><td>4</td><td>1</td><td>0</td></tr><tr><td>2</td><td>1</td><td>1</td></tr></table></td><td>0</td></tr>
<tr><td>5</td><td>0</td></tr>
<tr><td>4</td><td>Phase 2 guard tone power level (V.34)</td><td>0 : normal power level
1 : -7 db of normal power level</td><td>0</td></tr>
<tr><td>3</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>2</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>1</td><td>V.8 /V.34 Capability</td><td>0 : No
1 : Yes</td><td>1</td></tr>
</table>

SOFT SWITCH 39:

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>Disable V.34 TX for V.34 modem</td><td>1 : Yes
0 : No</td><td>0</td></tr>
<tr><td>7</td><td>Disable V.34 Rx for V.34 modem</td><td>1 : Yes
0 : No</td><td>0</td></tr>
<tr><td>6</td><td rowspan="2">Flags number in FSk for V.34 modem</td><td rowspan="2"><table><tr><th>Flags number</th><th>Bit 6</th><th>Bit 5</th></tr><tr><td>1</td><td>0</td><td>0</td></tr><tr><td>2</td><td>0</td><td>1</td></tr><tr><td>3</td><td>1</td><td>0</td></tr><tr><td>4</td><td>1</td><td>1</td></tr></table></td><td>0</td></tr>
<tr><td>5</td><td>0</td></tr>
<tr><td>4</td><td>Manual TX mode for V.34 modem</td><td>0 : V.8 → start handshake from V.8
1 : V.17</td><td>0</td></tr>
<tr><td>3</td><td>Switch from V.17 to V.34 if DIS bit 6 set after received DIS</td><td>0 : Yes (start V.8 handshaking. but only first time)
1 : No (continue start with .17)</td><td>0</td></tr>
<tr><td>2</td><td rowspan="2">Delay time in primary channel for V.34 transmit after CFR or MCF signal</td><td rowspan="2"><table><tr><th>Delay time (unit = msecond)</th><th>Bit 2</th><th>Bit 1</th></tr><tr><td>200</td><td>0</td><td>0</td></tr><tr><td>100</td><td>0</td><td>1</td></tr><tr><td>300</td><td>1</td><td>0</td></tr><tr><td>500</td><td>1</td><td>1</td></tr></table></td><td>0</td></tr>
<tr><td>1</td><td>0</td></tr>
</table>

SOFT SWITCH :40

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td rowspan="3">V.34 TX start speed

Prohibit V.34 mode when upper speed rate is less than 16k</td><td rowspan="3">
<table>
<tr><th>Speed (bps)</th><th>Bit 8</th><th>Bit 7</th><th>Bit 6</th></tr>
<tr><td>33.6 k</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>31.2 k</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>28.8 k</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>26.4 k</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>24.0 k</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>21.6 k</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>19.2 k</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>16.8 k</td><td>1</td><td>1</td><td>1</td></tr>
</table>
</td><td>0</td></tr>
<tr><td>7</td><td>0</td></tr>
<tr><td>6</td><td>0</td></tr>
<tr><td>5</td><td rowspan="2">V.34 CI signal byte number</td><td rowspan="2">
<table>
<tr><th>Description</th><th>Bit 5</th><th>Bit 4</th></tr>
<tr><td>30 bytes</td><td>0</td><td>0</td></tr>
<tr><td>9 bytes</td><td>0</td><td>1</td></tr>
<tr><td>15 bytes</td><td>1</td><td>0</td></tr>
<tr><td>60 bytes</td><td>1</td><td>1</td></tr>
</table>
</td><td>0</td></tr>
<tr><td>4</td><td>1</td></tr>
<tr><td>3</td><td rowspan="3">V.34 RX start Speed

Prohibit V.34 mode when upper speed less than 16.8 k</td><td rowspan="3">
<table>
<tr><th>Speed (bps)</th><th>Bit 8</th><th>Bit 7</th><th>Bit 6</th></tr>
<tr><td>33.6 k</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>31.2 k</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>28.8 k</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>26.4 k</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>24.0 k</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>21.6 k</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>19.2 k</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>16.8 k</td><td>1</td><td>1</td><td>1</td></tr>
</table>
</td><td>0</td></tr>
<tr><td>2</td><td>0</td></tr>
<tr><td>1</td><td>0</td></tr>
</table>

SOFT SWITCH : 41

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>7</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>6</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>5</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>4</td><td rowspan="2">Paper size at tray 1 (MP)</td><td rowspan="2"><table><tr><th>Inch</th><th>Metric</th><th>Bit 4</th><th>Bit 3</th></tr><tr><td>H-Letter</td><td>Reserved</td><td>0</td><td>0</td></tr><tr><td>Legal</td><td>A5</td><td>1</td><td>0</td></tr><tr><td>Letter</td><td>A4</td><td>0</td><td>1</td></tr><tr><td>Not Use</td><td>Reserved</td><td>1</td><td>1</td></tr></table></td><td>0</td></tr>
<tr><td>3</td><td>1</td></tr>
<tr><td>2</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>1</td><td>Reserved</td><td></td><td>0</td></tr>
</table>

SOFT SWITCH : 42

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>Print overlap for long document over tray paper size</td><td>0 : No
1 : Yes (overlap mm)</td><td>1</td></tr>
<tr><td>7</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>6</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>5</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>4</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>3</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>2</td><td rowspan="2">Print reduction type</td><td rowspan="2"><table><tr><th>Description</th><th>Bit 2</th><th>Bit 1</th></tr><tr><td>Reduction rate 70 ~ 100 %</td><td>0</td><td>0</td></tr><tr><td>Full print</td><td>0</td><td>1</td></tr><tr><td>Full print, cut 18 mm at bottom</td><td>1</td><td>0</td></tr><tr><td>Not used</td><td>1</td><td>1</td></tr></table></td><td>0</td></tr>
<tr><td>1</td><td>0</td></tr>
</table>

SOFT SWITCH : 43

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td rowspan="3">Adjustment value for laser engine</td><td rowspan="3"><table>
<tr><th>Density</th><th>Bit 8</th><th>Bit 7</th><th>Bit 6</th><th>Dark/light</th></tr>
<tr><td>1</td><td>0</td><td>0</td><td>1</td><td rowspan="7"></td></tr>
<tr><td>2</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>3</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>4</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>5</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>6</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>7</td><td>1</td><td>1</td><td>1</td><td>Darkest</td></tr>
</table></td><td>1</td></tr>
<tr><td>7</td><td>0</td></tr>
<tr><td>6</td><td>0</td></tr>
<tr><td>5</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>4</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>3</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>2</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>1</td><td>Reserved</td><td></td><td>0</td></tr>
</table>

SOFT SWITCH : 44

Bit No.	Designation	Function	Initial Setting
8	Reserved		0
7	Reserved		0
6	Reserved		0
5	Reserved		0
4	Toner empty report print out	0 : No 1 : Yes	0
3	Engine pre-heated	0 : No 1 : Yes	1
2	Reserved		0
1	Reserved		0

SOFT SWITCH : 45

Bit No.	Designation	Function	Initial Setting
8	Reserved		0
7	Reserved		0
6	Reserved		0
5	Reserved		0
4	Reserved		0
3	Reserved		0
2	Reserved		0
1	Reserved		0

SOFT SWITCH : 46

Bit No.	Designation	Function	Initial Setting
8	Daylight savings	0 : No 1 : Yes	0
7	Reserved		0
6	Reset remote monitor function after disconnected	0 : No 1 : Yes	0
5	Reserved		0
4	Reserved		0
3	Default TX mode	0 : Memory TX 1 : ADF TX	0
2	Header	0 : Off 1 : On (transmit header at top of each page)	1
1	Reserved		0

SOFT SWITCH : 47

Bit No.	Designation	Function	Initial Setting
8	Reserved		0
7	Reserved		0
6	Reserved		0
5	Reserved		0
4	Reserved		0
3	Reserved		0
2	Reserved		0
1	Reserved		0

SOFT SWITCH : 48

Bit No.	Designation	Function	Initial Setting
8	Reserved		1
7	Reserved		0
6	Reserved		0
5	Reserved		0
4	Error report	0 : No 1 : Yes	1
3	Reserved		0
2	Reserved		0
1	Broadcast report	0 : Not to print 1 : Print	1

SOFT SWITCH : 49

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>Ring No. limitation</td><td>0 : base on user setting from 1 to 16
1 : base on user setting, but must be 1 ~ 4 rings</td><td>0</td></tr>
<tr><td>7</td><td>Reserved</td><td></td><td></td></tr>
<tr><td>6</td><td>Print RX mailbox report method</td><td>0 : Base on RX RESULT REPORT setting
1 : Always printing</td><td>1</td></tr>
<tr><td>5</td><td>Redial method if comm. fail</td><td>0 : Redial again
1 : Base on redial time interval</td><td>1</td></tr>
<tr><td>4</td><td rowspan="4">No. of rings</td><td rowspan="4">
<table>
<tr><th>No. of rings</th><th>Bit 4</th><th>Bit 3</th><th>Bit 2</th><th>Bit 1</th></tr>
<tr><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>2</td><td>0</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>3</td><td>0</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>4</td><td>0</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>5</td><td>0</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>6</td><td>0</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>7</td><td>0</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>~</td><td>~</td><td>~</td><td>~</td><td>~</td></tr>
<tr><td>14</td><td>1</td><td>1</td><td>0</td><td>1</td></tr>
<tr><td>15</td><td>1</td><td>1</td><td>1</td><td>0</td></tr>
<tr><td>16</td><td>1</td><td>1</td><td>1</td><td>1</td></tr>
</table>
</td><td>0</td></tr>
<tr><td>3</td><td>0</td></tr>
<tr><td>2</td><td>0</td></tr>
<tr><td>1</td><td>1</td></tr>
</table>

SOFT SWITCH : 50

Bit No.	Designation	Function	Initial Setting
8	Transmit or cncel after time out in “MEMORY TX”	0 : Cancel & print outs TX result report 1 : Transmission	0
7	Reserved		0
6	Reserved		0
5	Reserved		0
4	Reserved		0
3	Reserved		0
2	Reserved		0
1	Reserved		0

SOFT SWITCH :51

Bit No.	Designation	Function	Initial Setting
8	Reserved		0
7	Reserved		0
6	Reserved		0
5	Reserved		0
4	Reserved		0
3	Reserved		0
2	Send unsent page mode for memory transmission	0 : From error page 1 : from start page	0
1	Metric or Inch	0: Inch 1: Metric	1

SOFT SWITCH : 52

Bit No.	Designation	Function	Initial Setting
8	Reserved		1
7	Reserved		0
6	Reserved		0
5	Reserved		0
4	Reserved		1
3	Reserved		0
2	Reserved		0
1	Reserved		0

SOFT SWITCH : 53

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>7</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>6</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>5</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>4</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>3</td><td>Half-tone resolution</td><td>0 : Fine mode
1 : Super fine mode</td><td>0</td></tr>
<tr><td>2
1</td><td>Default scan resolution</td><td>
<table>
<tr><th>Scan Resolution</th><th>Bit 2</th><th>Bit 1</th></tr>
<tr><td>Standard mode</td><td>0</td><td>0</td></tr>
<tr><td>Fine mode</td><td>0</td><td>1</td></tr>
<tr><td>Super-fine mode</td><td>1</td><td>0</td></tr>
<tr><td>Half-tone (see bit 3)</td><td>1</td><td>1</td></tr>
</table>
</td><td>1
1</td></tr>
</table>

SOFT SWITCH : 54

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>Report /LCD date/time type</td><td>0 : Digits format
1 : Alpha numeric format</td><td>1</td></tr>
<tr><td>7</td><td rowspan="2">Report /LCD date/time format</td><td rowspan="2"><table>
<tr><td colspan="2">Date/Time (ex. March, 25,1997)</td><td>Bit 6</td><td>Bit 7</td></tr>
<tr><td>Report</td><td>LCD</td><td colspan="2"></td></tr>
<tr><td>‘1997 MAR.25</td><td>MAR.25</td><td>0</td><td>0</td></tr>
<tr><td>25.MAR’1997</td><td>25.MAR</td><td>0</td><td>1</td></tr>
<tr><td>MAR.25 1997</td><td>MAR.25</td><td>1</td><td>0</td></tr>
<tr><td colspan="2">Not used</td><td>1</td><td>1</td></tr>
</table></td><td>0</td></tr>
<tr><td>6</td><td>1</td></tr>
<tr><td>5</td><td rowspan="2">Memory near full capacity for scanning</td><td rowspan="2"><table>
<tr><td>Description</td><td>Bit 5</td><td>Bit 4</td></tr>
<tr><td>16 k</td><td>0</td><td>0</td></tr>
<tr><td>64k</td><td>0</td><td>1</td></tr>
<tr><td>80k</td><td>1</td><td>0</td></tr>
<tr><td>128k</td><td>1</td><td>1</td></tr>
</table></td><td>1</td></tr>
<tr><td>4</td><td>0</td></tr>
<tr><td>3</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>2</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>1</td><td>Reserved</td><td></td><td>0</td></tr>
</table>

SOFT SWITCH : 55

Bit No.	Designation	Function	Initial Setting
8	Reserved		1
7	Reserved		0
6	Reserved		0
5	Reserved		0
4	Reserved		1
3	Reserved		1
2	Reserved		1
1	Reserved		1

SOFT SWITCH : 56

Bit No.	Designation	Function	Initial Setting
8	Reserved		0
7	Reserved		0
6	Reserved		0
5	Reserved		1
4	Reserved		0
3	Reserved		1
2	Reserved		0
1	Reserved		1

SOFT SWITCH : 57

Bit No.	Designation	Function	Initial Setting
8	Reserved		0
7	Reserved		0
6	Reserved		0
5	Reserved		0
4	Initial FAX/COPY mode	0: Initial FAX mode 1: Initial COPY mode	1
3	Reserved		1
2	Reserved		0
1	Reserved		0

SOFT SWITCH : 58

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>Time out after detect PPR command</td><td>0: 6 s
1: 30 s</td><td>0</td></tr>
<tr><td>7</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>6</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>5</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>4</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>3</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>2</td><td rowspan="2">CCFL turn off time</td><td rowspan="2"><table><tr><th>CCFL turn off time</th><th>Bit 2</th><th>Bit 1</th></tr><tr><td>30 s</td><td>0</td><td>0</td></tr><tr><td>20 s</td><td>0</td><td>1</td></tr><tr><td>60 s</td><td>1</td><td>0</td></tr><tr><td>180 s</td><td>1</td><td>1</td></tr></table></td><td>0</td></tr>
<tr><td>1</td><td>0</td></tr>
</table>

SOFT SWITCH : 59

Bit No.	Designation	Function	Initial Setting
8	Reserved		0
7	Reserved		0
6	Reserved		0
5	Reserved		0
4	Reserved		0
3	Reserved		0
2	Reserved		0
1	Reserved		0

SOFT SWITCH : 60

Bit No.	Designation	Function	Initial Setting
8	Reserved		0
7	Reserved		0
6	Quick memory TX	0 : Ineffective 1 : Effective	1
5	Reserved		0
4	Reserved		0
3	Print mailbox with wrong PWD frame	0 : No 1 : Yes	0
2	Off hook alarm after communication	0 : Alarm 1 : Not alarm after communication	0
1	Display destination selection within TX phase C	0 : Local name or telephone 1 : Display and report remote telephone number (CSI from remote side)	0

SOFT SWITCH :61

<table>
<tr><th>Bit No.</th><th>Designation</th><th>Function</th><th>Initial Setting</th></tr>
<tr><td>8</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>7</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>6</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>5</td><td>Reserved</td><td></td><td>0</td></tr>
<tr><td>4</td><td rowspan="4">Max. No. of ring for Rx Operations</td><td rowspan="4">
<table>
<tr><th>No. of rings</th><th>Bit 4</th><th>Bit 3</th><th>Bit 2</th><th>Bit 1</th></tr>
<tr><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>2</td><td>0</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>3</td><td>0</td><td>0</td><td>1</td><td>0</td></tr>
<tr><td>4</td><td>0</td><td>0</td><td>1</td><td>1</td></tr>
<tr><td>5</td><td>0</td><td>1</td><td>0</td><td>0</td></tr>
<tr><td>~</td><td>~</td><td>~</td><td>~</td><td>~</td></tr>
<tr><td>16</td><td>1</td><td>1</td><td>1</td><td>1</td></tr>
</table>
</td><td>1</td></tr>
<tr><td>3</td><td>1</td></tr>
<tr><td>2</td><td>1</td></tr>
<tr><td>1</td><td>1</td></tr>
</table>

SOFT SWITCH : 62

Bit No.	Designation	Function	Initial Setting
8	Reserved		0
7	Reserved		0
6	Reserved		0
5	Reserved		0
4	Reserved		0
3	Reserved		0
2	Reserved		0
1	Reserved		0

SOFT SWITCH : 63

Bit No.	Designation	Function	Initial Setting
8	'#' key definition in PBX mode	1: Default is internal, '#' for Access PSTN by dial pre-fix number 0: Default is external (the pre-fix number will dial automatically if the '#' is input)	1
7	Reserved		0
6	Reserved		0
5	Reserved		0
4	Reserved		0
3	Reserved		0
2	Reserved		0
1	TX Result report with image	0 : Yes 1 : No	0

SOFT SWITCH : 64

Bit No.	Designation	Function	Initial Setting
8	Reserved		0
7	Reserved		0
6	Print RX error report In RX side if no any FAX signal detected	0 : No 1 : Yes	0
5	10 PPS & 20 PPS selectable by User	0 : No 1 : Yes	0
4	Reserved		0
3	Reserved		1
2	Reserved		1
1	Reserved		1