Model: Schmidt3	Date: 31-Oct-99	No.: RH547001

Subject: New Functions in the Schmidt3 G4 Unit	Prepared by: K. Misugi
From: Technical Service Dept., GTS Division	

Classification:	☒ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☒ Service manual revision
	☐ Paper path	☐ Transmit/receive	☐ Retrofit information
	☐ Other ( )		

This RTB informs the changes made to the G4 (SiG4) unit software and corrections to the Schmidt3 ISDN Unit service manual.

1. **CHANGES MADE TO THE DEFAULT SETTINGS**
   The following changes have been made from the first production of August.

Bit Switch 13: D channel layer 3 (Attachment IE in S: SETUP)		
	FUNCTION	**COMMENTS**
7	Condition for fallback from G4 to G3 **0:** Refer to the CPS code setting **1:** Fallback in response to any CPS code	**0:** Fallback occurs when a CPS code is the same as the CPS code settings specified by G4 internal switches 17, 18, 1A, 1B, and 1C. If you wish to enable fallback when any CPS code is detected, set this bit to "1." This switch is effective in coping with fallback problems where the CPS code does not match those specified in the ITU-T recommendation.

The new default setting is "1."

Communication Switch 07		
No	FUNCTION	COMMENTS
3	Fallback from G4 to G3 reflected in programmed Quick/Speed dials **0:** Fallback enabled (Default) **1:** Always start with G4	**0:** If a communication falls back from G4 to G3, the machine will always start transmission with G3 from the next communication. 1: The machine will always start to transmit with G4.

The new default setting is "1."

The default settings have been changed to cope with fallback problems where CPS codes do not match those specified in the ITU-T recommendations. If you are installing machines that were manufactured earlier than August, it is recommended to change the settings as explained above to avoid communication problems.

NOTE:
PCB part numbers: H5476170G (Europe/Asia models), H5476180F (USA model)
Please also refer to MB No. MH547001 for part number information.

Model: Schmidt3	Date: 31-Oct-99	No.: RH547001

2. NEW SWITCH ADDED TO THE G4 UNIT
The following changes have been made from the first production of August.

G4 Internal Bit Switch 13		
No	**FUNCTION**	**COMMENTS**
1	Information transfer capability shift down to retry transmission **0:** Shiftdown procedure disabled (Default) **1:** Shiftdown and retry the call	**1:** The machine changes the ISDN G3 information transfer capability informed in the [SETUP] signal to "Speech" from "3.1 kHz audio" or to "3.1 kHz audio" from "Speech" automatically and retries the transmission. The information transfer capability used in the first try is determined by the setting of G4 internal bit switch 14 bit 0. This switch is effective with some types of exchangers and T/As where they only accept calls with information transfer capability "Speech."

- Cross reference -

G4 Internal Bit Switch 14		
No	**FUNCTION**	**COMMENTS**
0	ISDN G3 information transfer capability **0:** 3.1 kHz audio **1:** Speech	In tx mode, this determines the information transfer capability informed in the [SETUP] message. In rx mode, this determines the information transfer capability that the machine can use to receive a call. Set this bit to 1 if the ISDN does not support 3.1 kHz audio.

NOTE:
PCB part numbers: H5476170G (Europe/Asia models), H5476180F (USA model)
Please also refer to MB No. MH547001 for part number information.

Model: Schmidt3	Date: 31-Oct-99	No.: RH547001

3. CORRECTION TO THE SCHMIDT 3 ISDN UNIT SERVICE MANUAL

Wrong Information (page 3-14)

Dedicated Transmssion Parameter Switch 10		
No	**FUNCTION**	**COMMENTS**
2	ISDN G3 information transfer capability for transmission **0:** 3.1 kHz audio **1:** Speech	This determines the information transfer capability informed in the [SETUP] message. Set this bit to 1 if the ISDN does not support 3.1 kHz audio.

Correct Information

Dedicated Transmssion Parameter Switch 10		
No	**FUNCTION**	**COMMENTS**

2
 	
3
	ISDN G3 information transfer capability for transmission
	Bit 3 2 Setting
	  0 0 Speech
	  0 1 3.1 kHz audio
	  1 0 Not used
	  1 1 Same as the G4 internal
	          switch 14 bit 0 setting.
		This determines the information transfer capability informed in the [SETUP] message. Set this bit to 1 if the ISDN does not support 3.1 kHz audio.

Model: Schmidt 3	Date: 31-Oct-99	No.: RH547002

Subject: Group dials display on RDS	Prepared by: K. Moriizumi
From: Technical Service Dept., GTS Division	

Classification:	☒ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☐ Retrofit information
	☐ Other ( )		

SYMPTOM

RDS displays groups 8, 9, 24 and 25 for Quick Dial 01 after the dial data is read from the Schmidt 3. However, groups 8, 9, 24 and 25 are actually not programmed in Quick Dial 01, as the Schmidt 3 can only hold a maximum of seven groups.

SOLUTION

Change the software.

Temporary firmware will be issued (version 045).

Check Sum values

Total : 1F14

Boot : 5123

Main : CDF1

Files

For Flash Card:

      File name   H547W045.BIN

For RDS:

      File name   H547W045.FRH/H547W045.LZ

Model: Schmidt3	Date: 31-Dec-99	No.: RH547003a

RTB Correction
Revised: 15-Jan-00

Subject: Communication Problem	Prepared by: Y. Okunishi
From: Technical Services Dept., GTS Division	

Classification:	☒ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☐ Retrofit information
	☐ Other ( )		

Symptoms
- *The operation panel and keys become inoperative and/or the line becomes disconnected during reception or transmission.*
- *"E" or "D" is printed on the TCR as the reception/transmission result.*
It should be noted that the above symptom does not always occur.

Cause
When power is supplied to the DRAM, values are assigned to each DRAM address. Of course, the addresses are formatted before being used. However, we do not know what values are assigned to unformatted addresses, because the machine does not control the values before formatting.
According to the test results from our Design Division, the above communication problem can result if one of three specific addresses attain a value of 60 when the power is turned on, or when the machine recovers from Energy Saver Mode.
We have also found that this symptom occurs in a very few DRAMs used in Schmidt3 MIFs. Most of the DRAMs which can exhibit the problem have been installed in production runs from August 1999.

Action taken
Replace the ROM with H5477200H or a later version.
The above problem does not occur on the machines with the new ROM version.

Note
- *The new ROM version has been used in production runs from November 1999.*
- *The machine serial numbers are: 4992xxxxx. The second digit represents the year ('99) while the third and fourth digits indicate the month. The month can be calculated by subtracting 84. Therefore, in this case, 92-84=8, or August.*

RC	REBV	ASIA	
*	*	*	

Model: Schmidt3	Date: 15-Jan-00	No.: RH547004

Subject: Level 1 RAM Reset	Prepared by: Y. Okunishi
From: Technical Service Dept., GTS Division	

Classification:	☐ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☐ Retrofit information
	☒ Other ( )		

When a level 1 RAM reset is done, the programmed country code goes back to UK. (See page 4-15 of the service manual.)
So, please set the proper country code after a level 1 RAM reset.

RC	REBV	ASIA	
*	*	*	

RICOH

Technical Bulletin

Reissued: 29-Feb-00

Model: Schmidt3	Date: 15-Jan-00	No.: RH547005a

RTB Correction
The items in italic have been corrected or added.

Subject: RDS for Schmidt3		Prepared by: Y. Okunishi
From: Technical Services Dept., GTS Division		
Classification:	☐ Troubleshooting ☐ Mechanical ☐ Paper path ☐ Other ( )	☐ Part information ☐ Electrical ☐ Transmit/receive	☒ Action required ☐ Service manual revision ☐ Retrofit information

Re: Using RDS with the Schmidt3.
The following have been corrected with the release of firmware version H5477200H.

1) When the firmware H5477200G or an older version is upgraded by RDS, RAM reset is performed automatically. This will cause the user data to be lost (quick dials, RTI, TTI, etc.).

2) When group dial data is downloaded from a FAX2900L by RDS and sent to a machine with more than 7 groups, some data ends up being registered in groups 8 to 10. This occurs when the firmware is H5477200G or an older version.

There is no risk of losing data if an IC card is used instead of RDS.

RC	REBV	ASIA	
*	*	*	

Model: Schmidt 1/3	Date: 15-Aug-99	No.: RH545004

Subject: Noise reduction for the fan	Prepared by: Y. Okunishi
From: Technical Service Dept., GTS Division	

Classification:	⊠ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☐ Retrofit information
	☐ Other ( )		

Symptom

The noise level of the machine is within standard parameters. However, some customers do not like the noise generated by the fan, as the machine is sometimes installed on or by a desk.

Action taken

We have prepared the following countermeasure to reduce the noise from the fan:

1) New ROM H5457200J (See MB no. MH545008.) --- Only for Schmidt 1.
   This reduces the noise level of the fan by about 20% during printing.
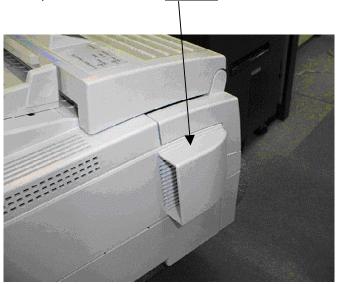   **Notes**
   - The running time of the fan is longer than the original time using the old ROM.
   - We cannot change the fan control in Schmidt 3.
2) Silencer
   We will provide a special part called a "Silencer" which can be set at the air exit near the fan by the customer. (See below)
   This will reduce the noise from the fan.
   The part number of the Silencer is H5459500. This part will be available soon at SPC.

RC	REBV	ASIA	
*	*	*	

Reissued: 07-Aug-00

Model: Schmidt3	Date: 29-Feb-00	No.: RH547006a

Subject: Firmware modification history	Prepared by: Y. Okunishi
From: Technical Services Dept., GTS Division	

Classification:	☐ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☐ Retrofit information
	☒ Other ( )		

RTB Update

FAX2900L firmware modification history

H5477200K
 PCB-FCU: H5476101P, H5476111Q
 Schedule: April production run in 2000
Reasons for the change:
 1) Bug Correction
  - Programmed modes, such as GROUND/FLASH, by User Parameter SW13 are not printed
   correctly on the user parameter list when the country code for Hungary is selected.
  - Dial data transmission by the RDS is not done properly for the i-Schmidt3.

H5477200J
 PCB-FCU: H5476101M, H5476111N
 Schedule: Feb. production run in 2000
 Reasons for the change:
 1) Country code (22H = 034) for Hungary has been added.

H5477200H
 PCB-FCU: H5476101L, H5476111M
 Schedule: December 1999 production runs.
 Reasons for the change:
 1) Change of default settings for Bit switches
  Communication switch 02 Bit 0: 1 → 0
  G4 switch 13 Bit 1: 0 → 1 (For Europe)
  Redialing with IG3 (SPEECH) when dialing with IG3 (3.1KHz) is unsuccessful.
  However, this will be effective in combination with SiG4 ROM version 14.
 2) Correction of software bugs:
  - User data in S-RAM was cleared after downloading the firmware by RDS.
  - When group dial data is downloaded from a FAX2900L by RDS and sent to a machine with more
   than 7 groups, some data ends up being registered in groups 8 to 10.
   There is no problem when downloading from FAX2900L to FAX2900L.
  - An alarm display and sound have been added at the calling side in case the user picks up the
   handset and hangs up right away when the FAX2900L calls.

 NOTE: When the firmware is older than "H" and it is changed by RDS, the RAM data is cleared.

H5477200G
 PCB-FCU: H5476101K, H5476111L
 Schedule: November 1999 production runs.
 Reasons for the change:
 1) Correction of software bugs:
  - On Hook Mode was not turned off in some cases after pressing the On Hook button again.
  - Reception problem (RTB no. RH547003a).
  - Dial data transmission problem on RDS.

Model: Schmidt3	Date: 29-Feb-00	No.: RH547006a

H5477200F
  PCB-FCU: H5476101J, H5476111K
  Schedule: August 1999 production runs.
  Reasons for the change:
  1) Correction of software bug:
   - RAM Test (Function 12) did not work for 64 kilobytes of the 128kb SRAM.

H5477200E
  PCB-FCU: H5476101G, H5476111H
  Schedule: July 1999 production runs.
  Reasons for the change:
  1) Correction of software bugs:
   - There was a case where a frame was not received during V21 reception.
   - There was a case where re-dial was not done after T1 time expired.
   - "EK" was printed on the transmission report when an error occurred in Broadcasting Mode.
   - There was a case where the Receiver ID was not mentioned in the G4 protocol dump list.
   - The TID received (G4) in small character code was not printed out correctly.
     It was printed out as a space or a special European character.

  2) Optimizing machine performance.
   - Detection level for busy tone and re-order tone (US version).
   - Change in the fan control.
   - Selection switch to change the fan controls was added.
     The fan was also changed.
     The noise caused by the fan can only be improved when the fan is replaced.
     This will not affect machine performance in any way.
   - Total scanning time.
     The time that the machine pauses while scanning the original has been reduced.
   - The signal output level has been adjusted to conform with Australian and New Zealand
     regulations.

H5477200D
  PCB-FCU: H5476101F, H5476111G
  Schedule: June 1999 production runs
  Reasons for the change:
  1) Software bug correction:
   - No service call.
  2) Specification changes
   - Communication switch 07 bit 3: 0 → 1
   - G4 switch 13 bit 7: 0 → 1.

H5477200C
  Applied from the 1st lot of mass production of machines for Europe.

Reference:
  Procedure for downloading to the IC card:
    1) Download the above file to the PC with the Swap File Utility.
    2) Insert the IC card into the IC card slot.
    3) Run the Swap File Utility.
    4) Select "Open" from the File pull-down menu and then select the file.
    5) Select "Write" from the Image pull-down menu and input the following items:
        Start Address: 200000.
        Length: Do not change.
        Check: Card erase before write
        Select: Hex.
    6) Click "OK".
    7) Print out the System Parameter List and confirm that the new ROM version is listed on the sheet.

Model: Schmidt3	Date: 21-Mar-00	No.: RH547007

Subject: Service Manual Correction (Schmidt3)	Prepared by: K. Misugi
From: Technical Services Dept., GTS Division	

Classification:	☐ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☒ Service manual revision
	☐ Paper path	☐ Transmit/receive	☐ Retrofit information
	☐ Other ( )		

This RTB is to inform of mistakes in the service manual.

1. Restricted access

2. System switch 02 bits 6, 7: Memory read/write by RDS

Please refer to the following descriptions for details.

1. Restricted Access

Restricted access is not available in this machine.

Section in the service manual:
1.2 Features
Communication Features - User Selectable: Restricted access

Wrong description

Communication Features - User Selectable	
Restricted access	O

Correct description

Communication Features - User Selectable	
Restricted access	X

Model: Schmidt3	Date: 21-Mar-00	No.: RH547007

2. Memory Read/Write by RDS

Section in the service manual:
4.2 Bit Switches
4.2.1 System Switches
System Switch 02 bits 6, 7

Wrong Description (shaded)

System Switch 02		
No	**FUNCTION**	**COMMENTS**

6
 	
7
	Memory read/write by RDS
	Bit 7 6 Setting
	      0 0 Always disabled
	      0 1 User selectable
	      1 0 User selectable
	      1 1 Always enabled
		(0,0): All RDS systems are always locked out.
		(0,1), (1,0): At any time, an RDS system can access the machine.
		(1,1): At any time, an RDS system can access the machine.

Correct Description (shaded)

System Switch 02		
No	**FUNCTION**	**COMMENTS**

6
 	
7
	Memory read/write by RDS
	Bit 7 6 Setting
	      0 0 Always disabled
	      0 1 User selectable
	      1 0 User selectable
	      1 1 Always enabled
		(0,0): All RDS systems are always locked out.
		(0,1), (1,0): Normally, RDS systems are locked out, but the user can temporarily switch RDS on to allow RDS operations to take place. RDS will automatically be locked out again after a certain time, which is stored in System Switch 03 (see below). Note that if an RDS operation takes place, RDS will not switch off until this time limit has expired.
		(1,1): At any time, an RDS system can access the machine.

Model: Schmidt3	Date: 29-Feb-00	No.: RH547006b

Subject: Firmware modification history		Prepared by: Y. Okunishi
From: Technical Services Dept., GTS Division		

Classification:	☐ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☐ Retrofit information
	☒ Other ( )		

RTB Update

FAX2900L firmware modification history

H5477200L

File:	H5477200L.bin
Soft version:	53
ROM size:	2MB (16Mbit)
First address for downloading data to IC card:	200000
For RDS:	H5477200L.lz / H5477200L.frh
Check-sum:	SUM TOTAL= 1879, BOOT=53E9, MAIN=C490
PCB-FCU:	H5476101R, H5476111S
Schedule:	March 2001 (only for spare parts)

Reasons for change:

1) Software bug correction
   - Scanning stops and the line is disconnected in ISDN G3 Tx mode (reported by REBV)
     This does not occur when the memory card is installed.
2) Wording correction (Dutch)
   - The name of SW usr 03 bits 3 and 4 has been corrected for the user parameter list.

Reissued: 17-Apr-01

Model: Schmidt3	Date: 16-Mar-01	No.: RH547006c

Subject: Firmware modification history	Prepared by: Y. Okunishi
From: Technical Services Dept., GTS Division	

Classification:	☐ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☐ Retrofit information
	☒ Other ( )		

RTB Update

<FAX2900L firmware modification history>

<H5477200M>

File:	H5477200M.bin
Soft version:	54
ROM size:	2MB(16Mbit)
First address for downloading data to IC card:	200000
For RDS:	H5477200L.lz / H5477200L.frh
Check-sum:	SUM TOTAL= 26B1, BOOT=53E9, MAIN=D2C8
PCB-FCU:	H5476101S, H5476111T
Schedule:	March 2001 (only for the spare parts)

Reason for change:

The stored memory reset problem has only been reported on Model S-4. However, the same modification was applied to the S-3 because it was estimated that there was a possibility for it to occur on this model as well.

Reference:

    Procedure for downloading to the IC card:

        1) Download the above file to the PC with the Swap File Utility.
        2) Insert the IC card into the IC card slot.
        3) Run the Swap File Utility.
        4) Select Open from the File pull-down menu and then select the file.
        5) Select Write from the Image pull-down menu and input the following items:
            Start Address: 200000.
            Length: (do not change).
            Check: card erase before write.
            Select: Hex.
        6) Click "OK".
        7) Print out the System Parameter List and confirm that the new ROM version is listed on the sheet.

RC	REBV	ASIA	
∗	∗	∗	