TX81Z

ROM Updated

*Corrections have been made to the following bugs in the software program.

Modifications: A. The following bugs in MIDI bulk transfer have been corrected:

1. V1.0 and V1.1 cannot receive data bulk-output by V1.0 as setup data ("Setup Trans?") transmission format is wrong.

   Wrong: F0 43 00 7E 00 24

   Right: F0 43 00 7E 00 25

Example: Data saved in MDF1 cannot be loaded.

2. "ID" code is one character right to the correct location when the setup data is received.

Example: "PAN RANGE =nn" value changes when the data is received during use of EFFECT 2 (PAN).

3. The Master tune, Micro tune and Effect 2 ranges are not set correctly when the setup data (Sys, MC, EF) is received. (Display changes correctly.)

4. "Transmitting" is not displayed during bulk transmission of "Sys", "PC" and "EF" among the setup data.

5. The check sum value is wrong during MIDI bulk out (ACED data, PCED data, setup data, PMEM data, MC data).
   As this fault has been corrected, correction has also been made to allow version V1.0 check sum bulk to be received.

Example: The sum check error occurs when connected with the computer. (Data has been received.)

B. Bug corrections in MIDI

Fault occurs when key on data is transmitted from the sending side in running status.

Example:

Inst 1 is only generated in performance mode.
: Inst 3 and up keep sounding when dual tone (exPF05) is selected in performance mode, Sus ON/OFF data received, dual sound generated, Assign mode = alter tone PF06 then selected and the key switched on.
: Sound is not generated if the MIDI channel is ready to receive data in performance edit.
: The above symptom sometimes occurs if monitoring is attempted with ECHO BACK of QX21, etc. on and QX21 OUT connected.

C. Bug correction in cassette interface

The master tune value changes when the setup data is loaded from the cassette. (The indication changes but the interval remains unchanged.)

Servicing: Change the ROM when any of the above faults occurs.

Parts:

Part Name	Part No.	Version No.
ROM	XB186003 (XB186C0)	V1.1

Application to production: S/# 7539 and up

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SERVICE NEWS

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ROM Update

The system ROM has been updated to eliminate the following problems.

Change from V1.1 to V1.2

1) Part of the EF (effect) and MC (micro tuning) data in the range of C_{-2} to C_0 are loaded together when the PC (program Change table) data is loaded from the cassette tape.
   "Verify error" occurs when the PC data is saved to the cassette, the EF or MC data is changed, and the PC data is then verified.
   These do not occur when "AL" (all setup data) is saved, loaded, and verified.

2) The controllers (PB, BC, FC, MW, POR, SUS, etc.) are not initialized when SINGLE PLAY mode changes to UTILITY "EDIT EFFECT 2" mode. Correction has been made to allow the controllers to be initialized when EF2 is set.

Example:
a) EF2 is set with SUS pushed.
   SUS is effected on one channel only. Fault is removed when SUS is pushed again.

b) EF2 is set with the volume lowered by FC.
   The volume is set to maximum on one channel. Fault is removed when the FC is pressed.

c) In EF2 mode, the TX81Z leaves EF2 duning SUS is switched on, then SUS is switched off, EF2 is returned and the key is switched on.
   Sound is kept generated in one channel only. This fault is removed when SUS is switched on then off.

3) When LFO SELECT is set to "vib" in PFM mode and Sync of the instrument is on, vib is synchronized if the other instrument key is switched on. Multi LFO is therefore used.

4) If many keys are pressed quickly with the voice contained MICRO TUNE-ON delay effect, e.g. "PF16" in PFM mode, the pitches of notes G# to B of each octave become wrong. 20 bytes have therefore been reduced from the MIDI receive buffer.

Setting:
Delay must be set to the factory-set value. The above fault is likely to occur if delay F/B is large. In this case, MICRO TUNE SELECT is not FULL KBD but OCTAVE.

**Change from
V1.2 to V1.3**

1) OP2, 3, and 4 fix ranges cannot be edited correctly with MIDI parameter change data.

Receive data   Wrong (TX81Z response)

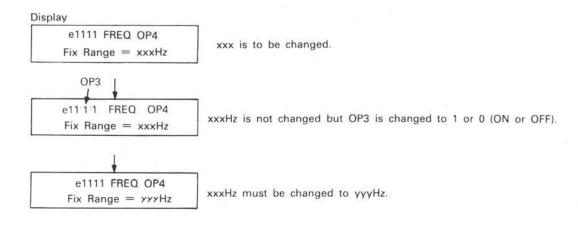OP4 fix range ⟶ Received as OP3 operator ON/OFF

OP3 fix range ⟶ Received as OP2 operator ON/OFF

OP2 fix range ⟶ Received as OP1 operator ON/OFF

Example:

MIDI exclusive data "Parameter change" (When OP4 fix range is changed)

Display

```
┌─────────────────────┐
│   e1111 FREQ OP4    │
│  Fix Range = xxxHz  │     xxx is to be changed.
└─────────────────────┘
```

```
      OP3 ↓
┌─────────────────────┐
│  e1111  FREQ  OP4   │
│  Fix Range = xxxHz  │     xxxHz is not changed but OP3 is changed to 1 or 0 (ON or OFF).
└─────────────────────┘
```

```
┌─────────────────────┐
│   e1111 FREQ OP4    │
│  Fix Range = yyyHz  │     xxxHz must be changed to yyyHz.
└─────────────────────┘
```
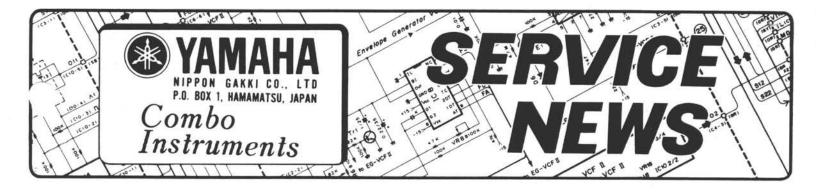
2) When 1 PERFORMANCE bulk is received in SINGLE mode to set to PERFORMANCE mode, the first letter of PERFORMANCE is not changed to a small letter (p: editing).

Parts:

Part Name	Part No.	Version No.
ROM	XB186005 (XB186E0)	V1.3
ROM	XB186004 (XB186D0)	V1.2

**Application to
production:**

Change from V1.1 to V1.2: S/# 12959 to 14014
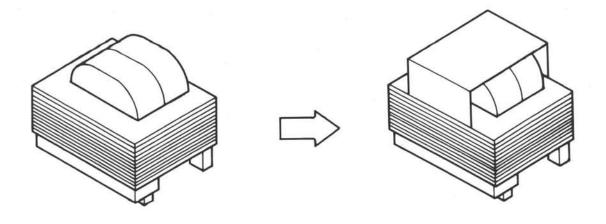Change from V1.2 to V1.3: S/# 14015 and up

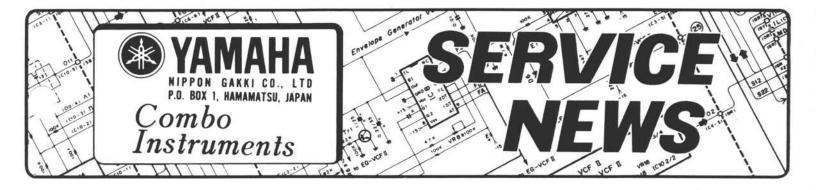# SERVICE NEWS

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Power Transformer Modified

Modification: A metal cover has been added to the transformer to prevent vibration due to leak magnetic flux.

Parts:

Description	Part No.	Remarks
Power Transformer	XB358002	U, C
Power Transformer	XB359002	H, D, A

Application to production: S/#25631—up

TX81Z

BULLETIN NO.: E-405

DATE: JUNE, 1987

ROM Update

Purpose: To correct the following functional problems.

Modifications: (1) When the voice number is changed in Performance Edit mode, the corresponding EBS (EG Bias Sensitivity) is not loaded correctly.

Example:

After the voice with EBS=0 is selected for instrument #4 and EBS=7 for instrument #8 in Performance Edit mode, sound is generated when the keyboard is played. (BC EG Bias = 99)

In this state

Instrument	1	2	3	4	5	6	7	8
EBS's of these instrument numbers are loaded.	1	1	1	2	2	3	3	4

Correct ‖ Incorrect

(2) A fault occurs when a parameter change (e.g. chorus) other than the TX81Z parameters is received thru MIDI.

Example:

When chorus (No. 70) is received and data is entered on the panel with the cursor located over any operator parameter (e.g. EG, OSW) other than OP1, the cursor moves to OP1 but the data previously under the cursor changes.
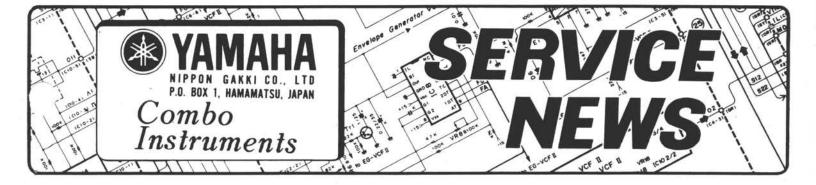
The above problems exist in V1.0 to V1.3.

Updated ROM:	Description	Part No.	Version No.
	ROM	XB186006 (XB186F0)	V1.4

Application to production: S/#25616 and up

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SERVICE NEWS

TX81Z

ROM Update

Purpose: To correct the following functional problem and delete the IC socket.

Modifications: (1) When any voice is changed on the panel or thru MIDI (program change) in PLAY SINGLE mode, controller data (e.g. FC, BC, PB, MW, SUS, POR) is held but the volume data (control change No. = 7) defaults to the maximum value. This problem has been corrected.

Reference: The TX81Z specifications are as follows:

All controllers are initialized when the performance is changed in Performance mode.

All control data other than SUS is held when eight instrument voices are changed on the panel or thru MIDI in Performance mode. (SUS defaults.)

(2) The ROM IC socket is deleted from V1.5.

Updated ROM:

Description	Part No.	Version No.
EPROM	XB186007 (XB186G0)	V1.5

Application to production: S/#31441—up

TX81Z

ROM Update

Purpose: To correct the following functional problem and delete the IC socket.

1) When any voice is changed on the panel or thru MIDI (program change) in PLAY SINGLE mode, controller data (e.g. FC, BC, PB, MW, SUS, POR) is held but the volume data (control change No. = 7) defaults to the maximum value. This problem has been corrected.

The TX81Z specifications are as follows:

All controllers are initialized when the performance is changed in Performance mode.

All control data other than SUS is held when eight instrument voices are changed on the panel or thru MIDI in Performance mode. (SUS defaults.)

2) The ROM IC socket is deleted from V1.5.

Parts:

Description	Part No.	Version No.
EPROM	XB186007 (XB186G0)	V1.5

Application to production: S/#31441 and up

TX81Z

ROM Part Number Change

The system ROM has been changed from EPROM to OTPROM, then to mask ROM. The software remains unchanged.

Parts:

Description	Part No.	Version No.
Mask ROM	XB186009 (XB186I0)	V1.5
(OTPROM	XB186008 (XB186H0)	V1.5)

Application to production:

1) OTPROM: S/# NM01001 and up
2) Mask ROM: S/# NM03001 and up

BULLETIN NO.: E-537

DATE: JULY, 1989

TX81Z

ROM UPDATE

OBJECTIVE: The ROM has been updated from version 1.5 to 1.6 in order to improve the following MIDI-related malfunctions.

SYMPTOM:
1. When a voice number parameter change message is received in Performance Edit mode, if D01 is the voice number received after preset voice number C32, switching is done incorrectly — not to D01, but to I01.
2. When a POLY/MONO channel mode message is received in Single mode and the basic receive channel is set to OMNI, this does not switch to either POLY or MONO. When set to any channel (1-16), no switching is done although the message has been received.
3. Given a portamento time control change message in Single mode, the portamento time changes every time a channel message is received, regardless of the basic receive channel setting.
4. When the key assign mode is set to "altr" (alternate) in Performance mode, only channel controller information (MW, BC, FC, VOL, AT, PB) matching that in the basic INST 1 receive channel should have been enabled, but other controller information is also enabled.
5. When a MIDI parameter change message, which includes data outside the permissable range, is received, the LCD displays an improper message.

SERVICE: If complaints about these sort of symptoms have been received from users, replace with the ROM listed below.

PARTS:

Part No.	Description
XB186J00	ROM V 1.6

Note: This ROM is prepared only for servicing.