

**USER'S MANUAL
OF
SYNTHESIZED THERMAL
WEATHER FACSIMILE RECEIVER**

TF-711

TAIYO MUSEN CO., LTD.

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SAFETY INSTRUCTIONS



WARNING

Personal injury or death may be resulted when handled improperly.

All wiring should be properly insulated to prevent electric shock, especially when using AC power supply of 200V or higher.

Protect wire and cables with pipes from heat or mechanical injury.

The ground terminal on its rear panel should be connected to the vessel with copper belt or heavy braided wire.

Handle LCD (liquid crystal display) carefully not to break its glass.

When the glass is broken, do not touch the liquid in it. Particularly keep it away from mouth or eye. When you touch the liquid, wash it out with running water.

Handle carefully the manganese lithium dry cell in the circuit. Do not heat it or put it into fire.



CAUTION

Personal injury or damage to property may occur when handled improperly.

Use the power supply as defined in the specification.

Select a position to install the main unit. Avoid rain or water splash, direct sunshine, strong vibration or high temperature.

Keep a separation larger than 1.1 m from a magnetic compass or 0.9 m from a steering compass to avoid unfavorable influence.

Do not use organic solvent such as thinner or alcohol to clean the main unit.

Use soft cloth soaked in neutral detergent solution and well squeezed.

Use the genuine recording paper (Taiyo Thermal paper, 257mmx60m), and install it to the main unit in accordance with the procedure indicated in the section 2.6 of the User's Guide.

Follow local regulations when disposing a main unit or its dry cell.

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APPENDIX

TABLE OF FACSIMILE STATION

Area map of existing stations
Facsimile station table

Layout diagram

Outside view

1. SPECIFICATIONS

1.1 Receiver

Reception	: Synthesized double superheterodyne
Frequency range	: LF 80.0 ~ 159.9 kHz MF/HF 2.0000 ~ 24.99999 MHz
Mode	: F3C
Selectivity	: 3.0 kHz at -6 dB
Number of channels	: 396 channels
Sensitivity	: LF 10 μ V at 20 dB SINAD MF/HF 2 μ V at 20 dB SINAD
Channel selection	: Automatic or manual, digital with ten-key pad
Tuning indicator	: 3 LEDs (light emitting diodes)
Display	: 32 characters in 2 lines with LCDs (liquid crystal display)
Audio input	: Impedance 600 Ω , frequency 1900 \pm 400 Hz level 0 dBm, or high impedance

1.2 Recorder

Recording system	: Electronic scanning with thermal head
IOC	: Index of cooperation – 576 and 288
Recording speed	: 60, 90, 120 scans per minute
Gradation	: 9 tones (white, 7 gray levels and black)
Recording paper	: Thermal paper (257 mm X 60 m)
Line density	: 8 dots/mm (total number of dots: 2048)

1.3 Automatic Control

Start/stop	: Automatic start or stop by timer program and/or WMO standard remote control signal (or manual)
Recording rate	: Automatic selection of recording rate (or manual)
IOC	: Automatic selection of IOC by WMO start signal (or manual)
Phase	: Automatic selection of phase matching by passing signal (or manual)

1.4 Power, Dimension & Weight

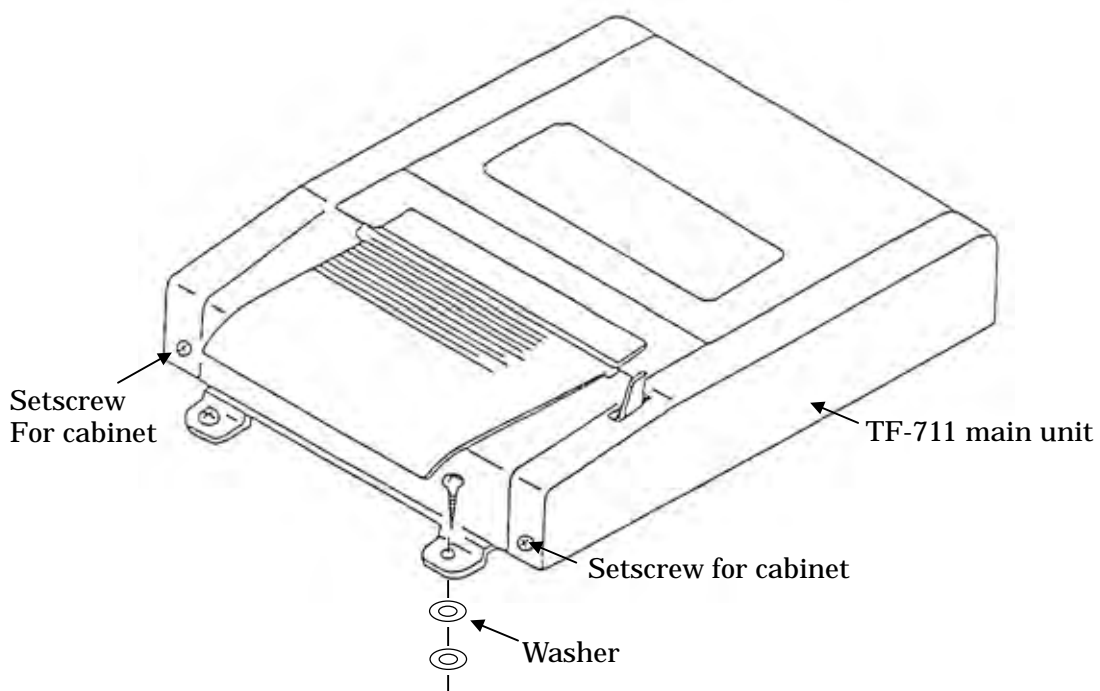
Power source	: DC 11 ~ 40 V, max. 28 W AC 100/115/200/220 V, 50 or 60 Hz, max. 36 VA
Dimension	: 100(H) X 382(W) X 340(D) mm
Weight	: 8.4 kg \pm 0.8 kg (AC type, including recording paper) 7.9 kg \pm 0.8 kg (DC type, including recording paper)

2. INSTALLATION

2.1 Main unit

Install the TF-711 main unit on a plane desk or a solid and plane wall with 4 pcs. of screws and washers.

Caution: A print may become blurred if the installation place is uneven. In that case, put some washers or suitable attachment to adjust the flatness as following figure.



2.2 Wiring of power supply cable

There are 2 kinds of power supply cable, DC power supply cable (2P), or AC power supply cable (3P).

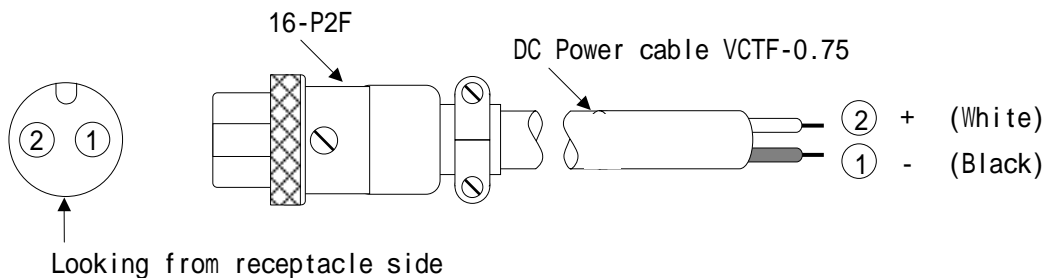
2.2.1 DC power supply cable

Use DC power supply cable when the main unit is DC power supply (DC 10 V – 40 V) type.

Polarity is as follow;

Black wire : Connector socket 1 “-“ (minus)

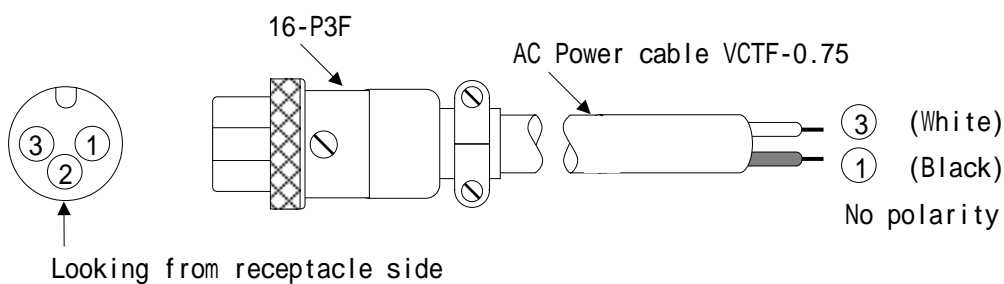
White wire : Connector socket 2 “+“ (plus)



2.2.2 AC power supply cable

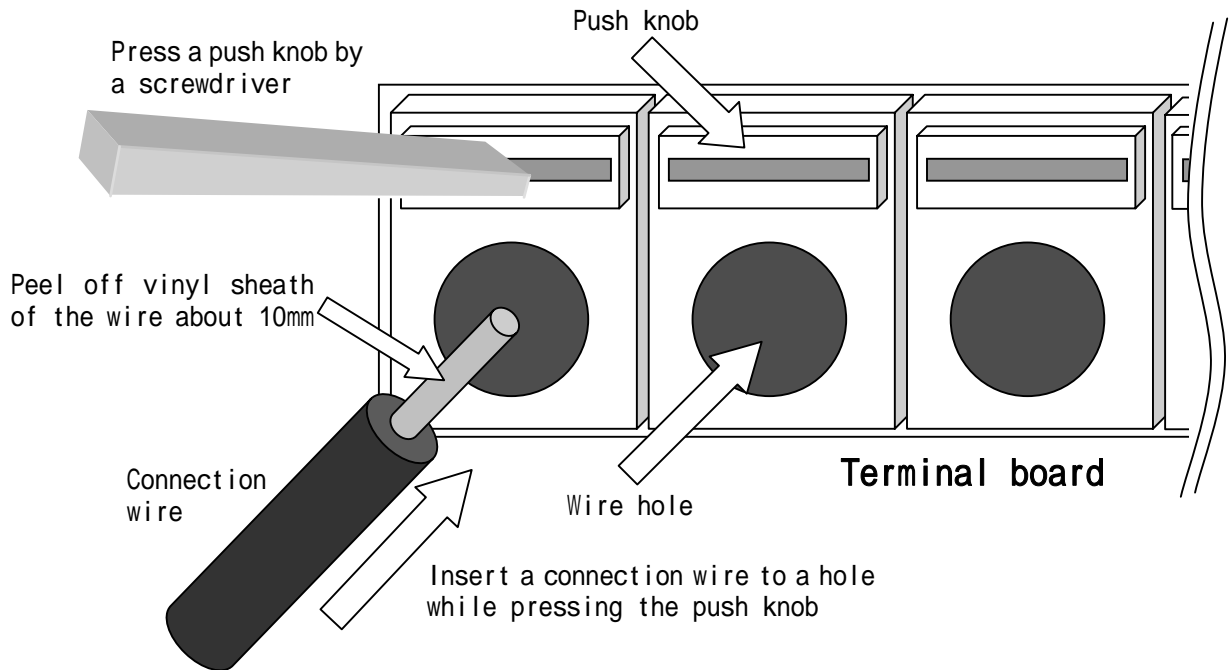
Use AC power supply cable when the main unit is AC power supply (AC 100/115/200/230 V) type.

The voltage specified at the time of an order is set. When you change voltage, please change a setup of the power supply part of the main unit.



2.3 Terminal board

Use terminal board on the rear panel of the main unit for the connection between BK, external receiver or decoder. Insert a connection wire in a terminal in the following ways.



Note: Use connection wire with single core 0.4~1.0mmØ or standard twist core 0.3mm²~0.7mm².

2.4 Grounding

A GND terminal is on the rear panel of the main unit.

Be sure to ground the main unit using attached earth wire (3m KIV wire 50/0.45 with copper tube terminal).

2.5 Receiving antenna

Following antennas are suitable to use as the receiving antenna for the TF-711.

- A) Antenna coupler TFM-01 + 2 m whip antenna (supplied by us as option)
- B) Whip antenna (6 m ~ 8 m)
- C) Wire antenna (Reverse-L or T type)

Note: Generally, whip antenna is suitable for reception over 6 MHz, and wire antenna is suitable for reception under 6 MHz.

Receiving sensitivity would become worse when using one antenna for other receivers and/or transmitters through multi-coupler. In that case, please use other antenna or install exclusive antenna.

Be sure to connect BK especially for following case in order to avoid from burning trouble of antenna coil/receiver circuit.

- A) In case of using same antenna which is used for a transmitter
- B) When a transmitting antenna is located near to receiving antenna of TF-711

Use high frequency coaxial cable as an antenna cable.

When using optional antenna coupler TFM-01, turn ON the switch S1 on BK board inside the main unit.

2.6 Exchange of a recording paper

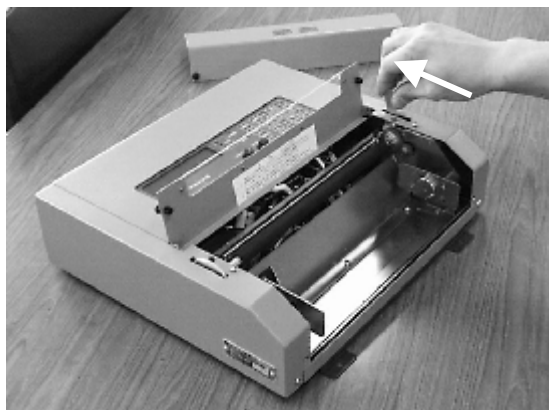


Fig.1

- (1) Remove the front cover, up the paper cutting plate, slide the paper feed lever in the direction of rear.

(Ref. Fig.1)

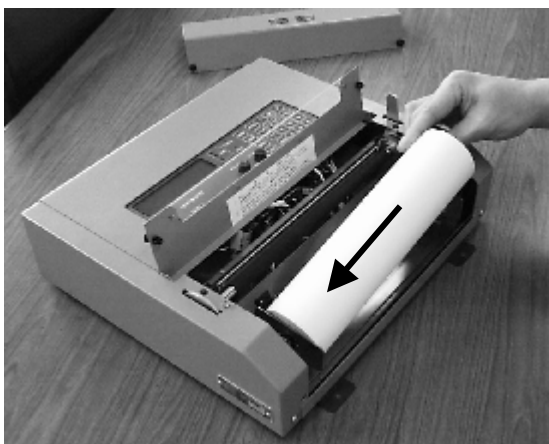


Fig.2

- (2) Set the roll paper to the holder by pressing a paper guide to left side.

(Ref. Fig.2)

Note: A paper detection sensor is at the middle-left of the holder, and is weak against a shock. Therefore, be careful to do not damage it when setting the roll paper.



Fig.3

- (3) Pull out the end of paper upwards from under the rubber roller.

(Ref. Fig.3)



Fig.4

- (4) Pull down ahead the paper feed lever, pulling the end of paper a little ahead.
(Ref. Fig.4)



Fig.5

- (5) Return the paper cutting plate to the original position.



Fig.6

- (6) Install the front cover.
At that time, place the end of paper above the front cover.
(Ref. Fig.6)

3. OPERATION

The unit, with antenna(s) and power supply, receives and records signal automatically by the control of APSS when desired channels have been set.

3.1 Description of key



Program key : For preparation to mode setting.

One of following modes can be selected by pressing **PRG** key and next, a **0^N~9** key.

Be sure to follow instruction of the indicator in selecting a mode. To cancel a setting, press the **PRG** key to reset to the initial display of selection mode.

Then, press a **0^N~9** key to reset or the **C** key to set the standard operation mode.



1 key

: Switch the receiver, internal or external



2 key

: Set timer reception



3 key

: Set sleep timer



4 key

: Set a new frequency or change stored frequency



5 key

: Set clock time








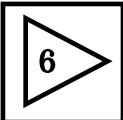





6 key

: Set ISB



9 key

: Clear RAM

	Dimmer key	: For adjusting a backlight brightness of the LCD indicator, 4 levels selectable.
	Speed key	: For selection of SPD (speed).
	IOC key	: For selection of IOC.
	Up key	: Channel up in the channel mode or frequency up in the frequency mode.
	Left key	: For manual phasing in recording (towards left). A press of the key shifts 2.5% of the paper width.
	Right key	: For manual phasing in recording (towards right). A press of the key shifts 2.5% of the paper width.
	Down key	: Channel down in the channel mode or frequency down in the frequency mode.
	Reverse key or dot key	: (REV) For reversal of black-white of the recording. (.) Decimal point in setting time or frequency. A press of the key alternates the (REV)/(.).
	Frequency key	: For selection of frequency mode from channel mode and for shift to frequency setting in the frequency mode. For frequency setting, press FRQ key and enter frequency with  keys and  key. (unit: 0.1kHz, Available frequency for setting are within 80-159.9kHz or 2-24.9999MHz.)

- CH** Channel key : For selection of channel mode from frequency mode, and for shift to the channel setting in the channel mode. For setting a channel, press **CH** key and enter channel number with three **N_{0~9}** keys. The channel covers 000 ~ 443 (existent frequency) and 450 ~ 724 (new frequency).
- C** Clear key : For deletion of memorized value in a set mode and for return to the standard operation mode from a set mode.
- RCD** Record key : To start and stop recording. In the non-recording mode, a press of **RCD** key sets automatic phasing mode and recording starts when phasing is completed. In the automatic phasing, a press of **RCD** key stops the automatic phasing and starts recording. A press of **RCD** key while recording stops recording.
- 5** key : Time display (clock function)
- N_{0~9}** Number key : To enter number or mode.
- E** Entry key : To acknowledge setting.

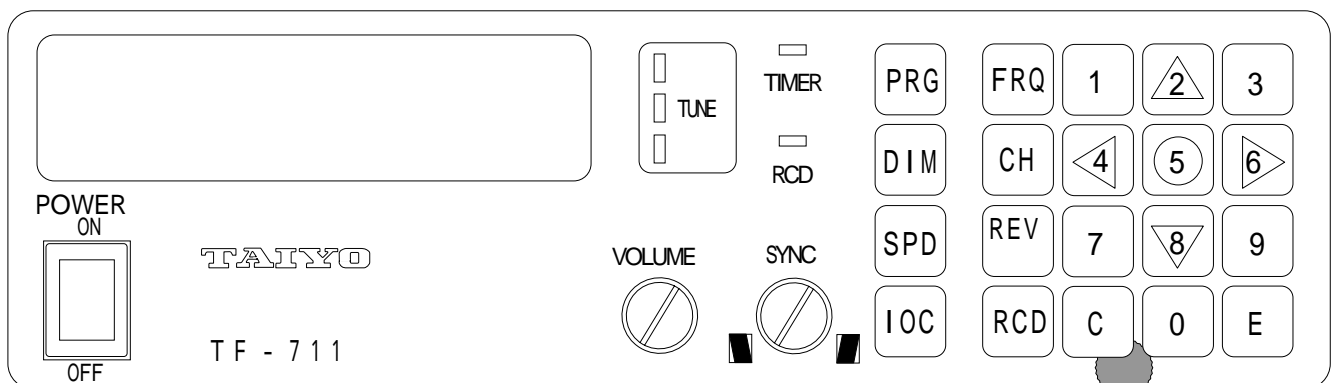


Fig.1 Panel

Contrast knob (under the panel)

3.2 Contrast and brightness

Contrast of LCD display depends on the visual angle and the temperature and hence, be sure to adjust it with the contrast knob (see Fig. 1) for optimum result at the time of installation. The backlight brightness of the LDC can be adjusted in four stages by pressing the **DIM** key.

3.3 Basic operation

Power switch is on the left of the front panel. When the power is turned on, the channel at the last power off is displayed.

C000	JMH	3622.5
S120	I576	

The channel [000] is displayed as an example. C on the left top shows channel display mode.

000	JMH	F	3622.5
S120	I576		

F before frequency shows frequency display mode.

These two display modes are selected alternatively by pressing **FRQ** key or **CH** key.

Channel number is displayed with 3 figures. Upper 2 figures are assigned for a station and last figure represents its own frequency code.

3.3.1 Channel setting

A press of **[]/[]** key in the channel display mode scrolls channel number. Selection of a channel is possible by pressing **CH** key first and next, three **[0~9^N]** keys. When a station is chosen with two **[0~9^N]** keys and the **REV** key is pressed, asterisk mark (*) appears in the 3rd figure and the most sensitive frequency of that station is selected automatically.

3.3.2 Fine-adjustment of frequency, and selection of a desired frequency

In the frequency display mode, fine-adjustment of the frequency with a step of 0.1kHz is possible by pressing **[]/[]** key. Best tuning is indicated when the green LED is lit on the TUNE display.

It is also possible to select a desired frequency by pressing **FRQ** key first and next, four ~ six **[0~9^N]** keys with **REV** key (available frequency for setting are within 80.0 ~ 159.9kHz or 2000.0 ~ 24999.9kHz).

3.3.3 Start and stop of recording

(1) Start

Recording starts automatically (Start/Stop, Phase, Speed, IOC) by receiving the APSS signal. To start halfway of the received picture, press **RCD** key once and automatic speed setting and auto-phasing mode are set. Then, recording starts upon phasing is completed. When the phase signal for automatic start is not received, recording does not start. Then, press **RCD** key again for manual recording.

(2) Stop

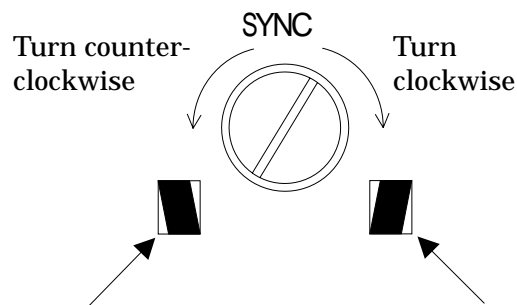
Recording stops automatically when auto stop signal is received. In the absence of auto stop signal or to stop halfway, press **RCD** key.

3.3.4 Manual phasing

In manual recording mode or when the phasing is not completed in the proper position by auto phasing, be sure to adjust the phase using the **◀/▶** key. The phase signal shifts by 2.5% of the paper width or about 6.4mm per keying.

3.3.5 Synchronization

When a recorded picture (phase signal, etc.) drifts to left or right, be sure to adjust the synchronization with SYNC knob to stop drift.



When the picture is such as shown in the left illustration (), turn the knob counter-clockwise. In case of the right illustration (), turn the knob clockwise.

3.3.6 Selection of reception mode

The reception mode refers IOC, speed, and normal/reverse printing and modes. The former two (IOC and speed) are automatically selected by receiving the APSS signal and phase signal. For the latter two modes, desired ones should be selected manually.

(1) Speed and IOC

When incorrect speed or IOC is selected in manual recording or when auto-recording has started at improper position, its setting can be changed with following procedure.

a) Change of speed

Press **SPD** key, then the display on the right appears. Press **0^N-9** key to select correct speed.

SPEED:120
1-120 2-90 3-60

b) Change of IOC

Press **IOC** key, then the display on the right appears. Press **0^N-9** key to select correct IOC.

IOC:576
1-576 2-288

(2) Reverse mode

When recorded picture is reversed (white/black), follow the procedure below.

Press **REV** key, then the display on the right appears. Press **0^N-9** key to select mode.

REVERSE:
1-OFF 2-ON

(3) Time display

A built-in clock is provided. The present time is displayed by pressing **[]** key in the standard operation mode. When the displayed time is not correct, be sure to reset the time by following the instructions in 1.4.5.

Right display indicates April 10, Tuesday, 12:00.

C000	JMH	3622.5
APR	10	TUE 12:00

3.3.7 Timer release and release of keylock in the timer mode

When the timer is in operation (except sleep timer), function of each key (except **DIM** key) is locked to keep set values and hence, ordinary keying is inhibited. To release this timer or keylock in the timer mode, follow the procedure below.

- (1) In the timer standby mode (time for the next recording is displayed):

Press **PRG** key then the message on the right is displayed. Then, a press of **E** key releases the timer operation and shifts the mode to the standard operation mode. By pressing **C** key before fix the timer release, the timer standby mode is maintained.

```
TIMER  RCV : OFF ?  
PUSH  E  KEY
```

- (2) In the timer operation mode (standard operation being displayed):

Press the **PRG** key and the message on the right appears. Fixing with the **E** key releases the keylock (even though in the timer operation mode, each key function is revised and all operations are possible). To release the timer mode in such a case, refer to 1.4.2.

```
KEY  LOCK : OFF ?  
PUSH  E  KEY
```

When the keylock off is displayed, it is possible to clear the keylock off with the **C** key.

3.4 Description of setting mode

Shift to a set mode is made by pressing the **PRG** key.

When the mode is set, the message on the right is shown. Pressing the **C** key in this mode, the standard operation mode is reset.

When a **0^N~9** key is pressed, it is possible to set one of the following modes as explained in 1.4.1~1.4.6. To cancel a setting after shifting to the setting mode and before fix it, press the **PRG** key. Pressing the **PRG** key resets to the initial setting mode (as displayed above).

```
SET  PRG.  NO.  1-9  
ESC  PUSH  C  KEY
```

3.4.1 Switching of receiver (audio)

Switching of the internal or external receiver is set by the following procedure.

Press **1** key. Then the receiver switching mode is set and message on the right appears. The displayed number 1 is for internal receiver, 2 is for external receiver. Pressing the **E** key after setting a **0^N~9** key, completes the setting.

```
AF   IN : INT
1-INT  2-EXT
```

3.4.2 Setting of timer reception

This unit has 16 booking functions and each timer is set as follows.

Press **2** key. Then the timer reception setting mode is set and the message is shown on the right. The displayed number correspond to the following entries respectively.

```
TIMER  RCV : 1-OFF
2-ON   3-RCL  4-STR
```

- 1 : Release
- 2 : Setting
- 3 : Re-calling (readout of the booking data)
- 4 : Entry booking

(1) Release

Press **1** key. Then the message is shown on the right. Pressing the **E** key releases the timer mode

```
TIMER  RCV : OFF
PUSH  E  KEY
```

(2) Setting

Press **2** key. Then the message is shown on the right.

Select booking number(s), 0~F, by pressing **□/□** key. The display shown on the right is an example when selecting booking number "0".

Then, press **▷** key to fix the selection

Plural selection of the booking numbers are acceptable. The display shown on the right is an example when select and fix the booking number "0", "1", "2" and "3".

Press the **E** key to complete the setting.

```
SET  REG  No. 0-F
PUSH  /  &▷&E KEY
```

```
TIMER  RCV  NO.: 0
```

```
TIMER  RCV  NO.: 3
0123
```

(3) Re-calling (readout of the booking data)

Press **3** key. Select a booking number to be confirmed by pressing **□**/**□** key. Then, contents of the booking data is displayed.

```
RECALL TIMER REG
SET REG NO. 0 - F
```

(4) Entry booking

Press **4** key.

Select a timer number for booking by pressing **□**/**□** key. Then, the unit will ask whether the number is correct or not. Fix the number by pressing the **E** key or enter a new number if the number is not correct.

```
STORE TIMER REG
SET REG NO. 0 - F
```

The display on the right shows when the number 1 is set.

```
R1 SET CHANNEL
NO. in 3 FIGURES
```

Then, enter a channel number with three **0~9^N** keys (or press two **0~9^N** keys and **REV** key for automatic setting of the maximum sensitive frequency) and fix with the **E** key or reset a channel with the **C** key.

Further, set a day of the week with **□**/**□** key and fix it with the **E** key.

```
R1 C000 SET DAY
OF THE WEEK by
```

Then, set start and end time with **0~9^N** keys from 00:00 to 23:59.

After setting is completed, fix it with the **E** key. To change the time while setting, press the **C** key to reset the time.

```
R1 C000 MON
SET START / STOP
```

After fix with the **E** key, the setting is displayed as shown on the right. The message on the right is for setting: Channel No.000 at JMH 3MHz, booking No.1, starting Monday 08:00 and ending 09:00.

```
08 : 00 - 09 : 00 ?
PUSH E KEY
```

Be sure to give one minute or longer for time interval between start times of booking.

For example, 12:00~12:30 for No.1 and 12:31~13:00 for No.2.

```
000 JMH 3622.5
1MON 08:00 - 09:00
```

3.4.3 Sleep timer setting

The sleep timer indicates the sleep mode after a specified time for reception has passed and its setting is made as following.

Press **[3]** key. Then the message is shown on the right. The displayed numbers refer to the following operations.

SLEEP MODE : OFF
1-OFF 2-ON

1 : Release

2 : Setting

(1) Release

Select "1" in the above message, and fix with

[E] key. (display on the right)

Note: When the system is in the sleep mode, press **[PRG]** & **[E]** keys to shift the mode to the standard operation mode.

SLEEP MODE : OFF
PUSH E KEY

(2) Setting

Select "2" in the above message, and enter desired time to sleep by **[0~9]^N** key (max. 23:59), and fix it with **[E]** key. To correct or change the entered time before pressing **[E]** key, press the **[C]** key for resetting.

SLEEP TIME :
SET SLEEP TIME

3.4.4 Registration of new frequency

Registration of a new frequency (450~724) or re-writing of an existent frequency (CH000~443) can be made in the following procedure.

Press the **[5]** key, and the frequency registration mode is set. Then, message shown on the right appears.

CHANNEL PROGRAM
SET CH in 3 FIGS

Enter a channel number with three **[0~9]^N** keys.

Right example is for channel 000.

To change the entered number, use the **[C]** key.

Then, enter a call sign with the **[<]/[>]** & the **[]/[]** key, and fix it with the **[E]** key.

C000 SET CALL S -
ign by ·<> KEY

To correct call sign, press **[C]** key and re-enter a call sign before pressing **[E]** key.

The message on the right shows when AAA (3 figures) is entered.

CALL SIGN : AAA
SET FREQUENCY

Then, enter a frequency (3~6 figures) with **[0~9]^N** keys and **[REV]** key with a unit of 0.1kHz

Available frequency for setting are within 80.0 ~ 159.9kHz or 2000.0 ~ 24999.9kHz.

Press **E** key to fix the registration.

To correct the entry halfway, use **C** key for resetting.

Further, the speed, IOC, reverse and decoder can be set in sequence.

SET SPEED 120-60

SET REVERSE

SET IOC 576/288

SET DECODER

3.4.5 Time setting

Clock time can be set by the following procedure.

Pressing the **5** key sets the time setting mode and message shown on the right appears.

Set month with / key, and fix it with **E** key.

The message on the right shows entering April.

Next, enter date with 2 figures by the **N**_{0~9} key, and fix it with the **E** key. (e.g. April 10th)

Then, enter day of the week with / key, and fix it with the **E** key. Message shown on the right indicates Monday.

Finally, enter year (last two figures) and time (hour: 2 figures, minute: 2 figures) each with the **N**_{0~9} key, and fix with the **E** key.

To correct the setting halfway, press the **C** key for resetting.

SET MONTH
by Δ / ∇ KEY

APR
SET DATE in 2FIG

APR 10 SET DAY
Of THE WEEK by Δ / ∇

APR 10 MON '
SET YEAR in 2FIG

SET HOUR in 2FIG

12:00
SET MIN. in 2FIG

3.4.6 Setting of ISB frequency

Signals from multiplex-communication station are easily received by setting an ISB (Independent side band) width as shown in the following.

Pressing **6** key sets the ISB setting mode and the message on the right is shown.

The displayed numbers correspond to the following.

- 1 : Release
- 2 : Setting
- 3 : Shift quantity entry

ISB +0.0KHz : OFF
1-OFF 2-ON 3-QTY

(1) Release

Press **1** key, and fix with the **E** key to release the mode.

(2) Setting

Press **2** key, and fix with the **E** key, then a displayed amount of frequency is shifted.

Be careful as a frequency shift is set in all channels. When the power is turned on, the shift frequency for all channels is indicated when ISB has been set.

ISB +1.9kHz : ON
PUSH ENT KEY

(3) Shift quantity entry

Press **3** key. Then use the **<**/**>** key to decide plus (+) or minus (-), and enter a shift width by **0~9** key (2 figures). Press the **E** key to fix it.

To correct the entry halfway, use the **C** key for re-entry.

SET ISB in 2FIG
+ / - by · KEY

3.4.7 RAM clearance function

The unit has RAM to memorize the frequency data of the FAX transmitting stations in the world and to retrieve such data. Therefore, when a part or all of RAM data is deleted in error so that the initial data in ROM (data at the time of delivery) has to be retrieved, the following procedure is needed to clear the RAM data. Be careful since all the data in the RAM will be initialized, deleting the data of registered frequencies, etc. when this procedure is performed.

Pressing **9** key sets the RAM clear mode and pressing **E** key clears the RAM data.

To stop this procedure, press the **C** key or the **PRG** key.

RAM CLEAR !!

PUSH ENT KEY

3.4.8 Attention at the time of operation

Be careful of the following thing when operation.

[CAUTION]

If operations other than normal operation are repeated, the keyboard may lock. In such a case, turn the power switch OFF, and turn it ON again.

3.5 Operation with external receiver

(1) External receiver

When an external receiver is used, it should have a local oscillator with very good frequency stability. The A1 detected beat, a low-frequency output, can be monitored with the unit when the signal is supplied through receiver jack of the external receiver. If the signal is supplied from the speaker terminal, it is suggested to use a dummy resistor and supply signal from both ends of the dummy resistor. The signal enters the input terminal (EXT-IN) on the back of the unit and should be 50mV or larger at the input terminal. When an external receiver is of ordinary type, there will be no problem of excessive input since there is a protection circuit inside the unit. However, if direct current is superposed, be sure to input it through a non-polarized capacitor of about 1 μ F.

(2) Operation

a) Beat adjustment

When using an external receiver whose beat frequency is adjustable within a range of ± 2 kHz or more by means of the beat knob, set the frequency dial so as to maximize the deflection of the receiver's "S" meter, and adjust the beat knob so that the center LED of the tuning indicator of the unit is lit. When a signal from station with ISB communication from a U.S. Navy station, e.g., Guam, Pearl Harbor or San Francisco, is received, sometimes an adjustment of the frequency is necessary with a variable condenser or spread variable condenser, because the frequency may shift within a range of ± 2 kHz from the specified frequency of the station.

b) Band width

When noise is low, a wide bandwidth is advantageous to have good picture quality. However, a narrow bandwidth down to 1kHz is preferable in a noisy condition.

c) Selection of external receiver

Refer to 1.4.1 to use an external receiver and also to return to the internal receiver.

d) Recording

Refer to 1.3.3 for recording operations and for reverse reception. In reverse reception, set the external receiver to the FBO, LSB or USB mode similarly.

NOTE

BFO : Beat frequency oscillator

LSB : Lower side band

USB : Upper side band

ISB : Independent side band

3.6 Connection of a decoder

The terminal board (AF OUT/IN) is provided so that a decoder of secrecy broadcasts, such as Kyodo News (JJC), can be used. Turn ON the DIP-switch S2 (marked "DEC") on BK board (inside the unit, attached to the terminal board) . Turn the power switch OFF and ON again after connection and S2 switch-ON. The channel as which "D" is indicated on the lower right of the display shows that the signal comes through a decoder. Even if "D" is not displayed, select "DECORDER-ON" at registration of new frequency with reference to 1.4.4 to receive a signal through a decoder.

4. Maintenance

4.1 Back-up battery

This device uses a manganese lithium battery as a back-up battery.

Please exchange to new one after using for 1~2 years.

This battery is located on the CPU PCA.

Please be careful about polarity when exchanging it.

4.2 Lubrication and Cleaning

(1) Lubrication

Lubricate a paper sending gear with 1-2 drops of lubricating oil at every 2-3 months.

(2) Cleaning

Clean the thermal head with attached cotton cleaner at every month.

When garbage has adhered to the thermal head, soak a little ethyl alcohol on cloth and wipe it off. Don't use other than ethyl alcohol.

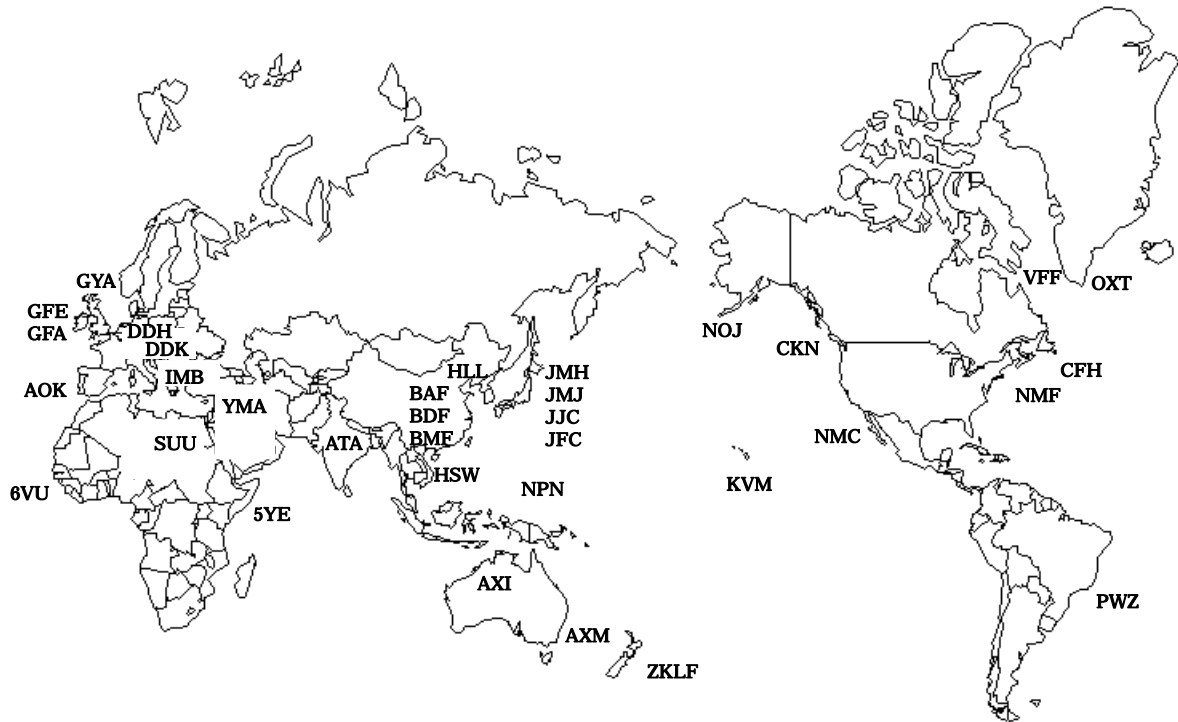
TABLE OF FACSIMILE STATION

Table of pre-programmed frequencies and area map

This unit has a ROM (read only memory) which is pre-programmed 443 existing frequencies of facsimile transmitting stations. Stations and frequencies are shown in the map and table respectively.

This table is reference data and is subject to change without previous notice.

Area map of existing stations



TF-711 FACSIMILE STATION TABLE

CHANNEL NO.	CALL SIGN	STATION	FREQUENCY [kHz]
000	JMH	JAPAN	3622.5
001	JMH	JAPAN	7305.0
002	JMH	JAPAN	9970.0
003	JMH	JAPAN	13597.0
004	JMH	JAPAN	18220.0
005	JMH	JAPAN	23522.9
010	JMJ	JAPAN	3365.0
011	JMJ	JAPAN	5405.0
012	JMJ	JAPAN	9438.0
013	JMJ	JAPAN	14692.5
014	JMJ	JAPAN	18441.2
020	JJC	JAPAN	4316.0
021	JJC	JAPAN	8467.5
022	JJC	JAPAN	12745.5
023	JJC	JAPAN	16971.0
024	JJC	JAPAN	17069.6
025	JJC	JAPAN	22542.0
026	9VF	JAPAN	16035.0
027	9VF	JAPAN	17430.0
030	JFC	JAPAN	4274.0
031	JFC	JAPAN	6414.5
032	JFC	JAPAN	8658.0
033	JFC	JAPAN	13074.0
034	JFC	JAPAN	16907.5

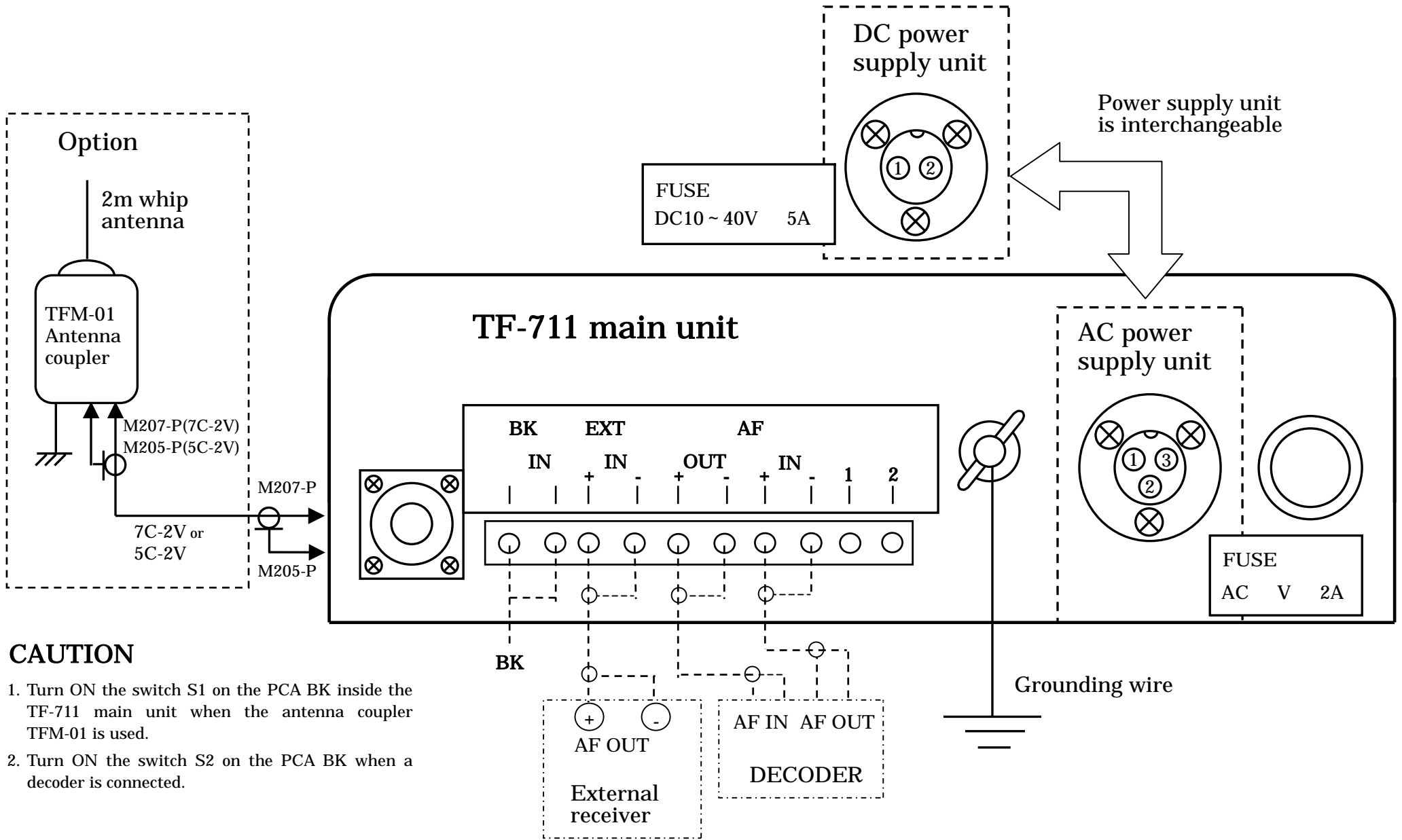
CHANNEL NO.	CALL SIGN	STATION	FREQUENCY [kHz]
040	HLL	SEOUL	5857.5
041	HLL	SEOUL	7433.5
042	HLL	SEOUL	9165.0
050	BAF	BEIJING	5526.4
051	BAF	BEIJING	8122.0
052	BAF	BEIJING	10117.0
053	BAF	BEIJING	14547.4
054	BAF	BEIJING	16025.0
055	BAF	BEIJING	18237.0
060	BDF	SHANGHAI	3241.0
061	BDF	SHANGHAI	5100.0
062	BDF	SHANGHAI	7420.0
063	BDF	SHANGHAI	11420.0
064	BDF	SHANGHAI	18940.0
070	BMF	TAIPAI	4616.0
071	BMF	TAIPAI	5250.0
072	BMF	TAIPAI	8140.0
073	BMF	TAIPAI	13900.0
074	BMF	TAIPAI	18560.0
080	NPN	GUAM	5260.0
081	NPN	GUAM	10255.0
082	NPN	GUAM	16029.6
083	NPN	GUAM	19860.0
084	NPN	GUAM	23010.0

CHANNEL NO.	CALL SIGN	STATION	FREQUENCY [kHz]
090	ZKLF	AUCKLAND	5807.0
091	ZKLF	AUCKLAND	9459.0
092	ZKLF	AUCKLAND	13550.5
093	ZKLF	AUCKLAND	16340.1
100	AXM	MELBOURNE	2628.0
101	AXM	MELBOURNE	5100.0
102	AXM	MELBOURNE	11030.0
103	AXM	MELBOURNE	13920.0
104	AXM	MELBOURNE	20469.0
110	AXI	DARWIN	5755.0
111	AXI	DARWIN	7535.0
112	AXI	DARWIN	10555.0
113	AXI	DARWIN	15615.0
114	AXI	DARWIN	18060.0
120	VLM	CASEY	7470.0
130	HSW	BANGKOK	7395.0
131	HSW	BANGKOK	17520.0
140	ATA	NEW DELHI	7403.0
141	ATA	NEW DELHI	14840.0
150	NKW	DIEGO GRACIA	7580.0
151	NKW	DIEGO GRACIA	12804.0
152	NKW	DIEGO GRACIA	20300.0

CHANNEL NO.	CALL SIGN	STATION	FREQUENCY [kHz]
160	5YE	NAIROBI	7464.4
161	5YE	NAIROBI	9045.0
162	5YE	NAIROBI	12315.0
163	5YE	NAIROBI	16186.9
164	5YE	NAIROBI	17445.6
165	5YE	NAIROBI	22867.0
170	FZS	SAINT DENIS	8176.0
171	FZS	SAINT DENIS	16335.0
180	ZSJ	PRETORIA	4014.0
181	ZSJ	PRETORIA	7508.0
182	ZSJ	PRETORIA	13538.0
183	ZSJ	PRETORIA	18238.0
190	6VU	DAKAR	4790.5
191	6VU	DAKAR	13667.5
192	6VU	DAKAR	13667.5
200	PWZ	RIO DE JANEIRO	12665.0
201	PWZ	RIO DE JANEIRO	16978.0
210	NMG	NEW ORLEANS	4317.9
211	NMG	NEW ORLEANS	8503.9
212	NMG	NEW ORLEANS	12789.9
220	NMF	BOSTON	4235.0
221	NMF	BOSTON	6340.5
222	NMF	BOSTON	9110.0
223	NMF	BOSTON	12750.0

CHANNEL NO.	CALL SIGN	STATION	FREQUENCY [kHz]
230	CFH	HALIFAX	4271.0
231	CFH	HALIFAX	6496.4
232	CFH	HALIFAX	10536.0
233	CFH	HALIFAX	13510.0
234	CFH	HALIFAX	122.5
240	AOK	ROTA	7595.0
241	AOK	ROTA	9050.0
242	AOK	ROTA	10542.0
250	IMB	ROMA	4777.5
251	IMB	ROMA	8146.6
252	IMB	ROMA	13587.4
260	LZJ	SOFIA	5093.0
270	SWA	ATHENS	4481.0
271	SWA	ATHENS	6790.0
280	SUU	CAIRO	4526.0
281	SUU	CAIRO	10123.0
290	YMA	ANKARA	3377.4
291	YMA	ANKARA	6790.0
300	ROO	ROSTOV NA DONU	3610.0
301	ROO	ROSTOV NA DONU	5280.0
302	ROO	ROSTOV NA DONU	7630.0
303	ROO	ROSTOV NA DONU	9100.0

CHANNEL NO.	CALL SIGN	STATION	FREQUENCY [kHz]
310	RIS	TBILISE	3745.0
311	RDK	TBILISE	7495.0
320	RBV	TASHKENT	3690.0
321	RPJ	TASHKENT	4365.0
322	RBV	TASHKENT	5890.0
323	RBX	TASHKENT	7570.0
324	RCH	TASHKENT	9340.0
325	RBV	TASHKENT	14982.5
330	RBX	TASHKENT	3280.0
331	RBX	TASHKENT	5285.0
332	RIJ	TASHKENT	8083.0
333	ROM	TASHKENT	13947.0
340	RBW	MURMANSK	5336.0
341	RBW	MURMANSK	6446.0
342	RBW	MURMANSK	7907.0
343	RBW	MURMANSK	8444.0
344	RBW	MURMANSK	10130.0
350	GFE	BRACKNELL	2618.5
351	GFA	BRACKNELL	4610.0
352	GFA	BRACKNELL	8040.0
353	GFE	BRACKNELL	14436.0
354	GFE	BRACKNELL	18261.0
360	GYA	LONDON	3652.0
361	GYA	LONDON	4307.0
362	GYA	LONDON	6452.5
363	GYA	LONDON	6452.5



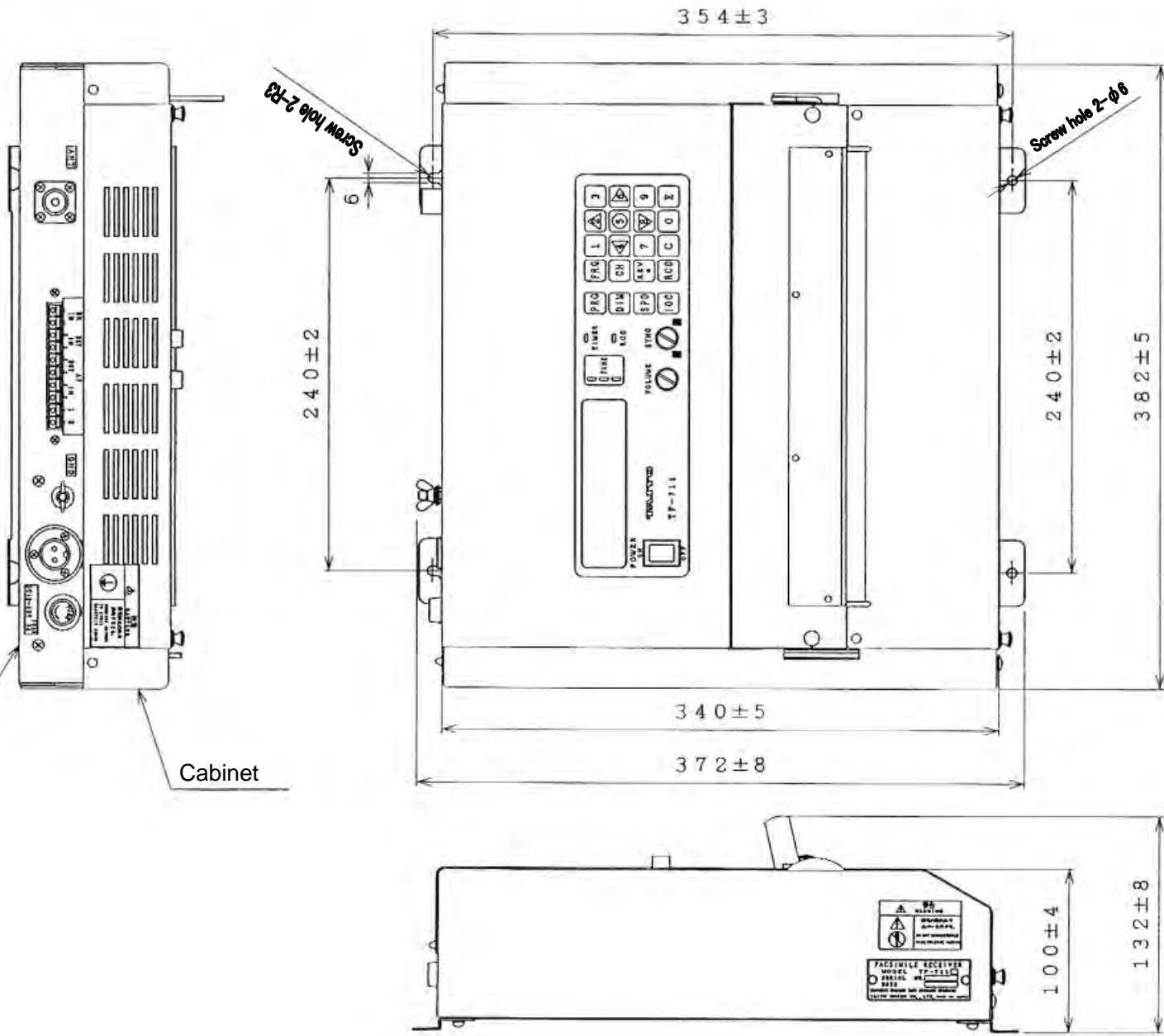
CAUTION

1. Turn ON the switch S1 on the PCA BK inside the TF-711 main unit when the antenna coupler TFM-01 is used.
2. Turn ON the switch S2 on the PCA BK when a decoder is connected.

Layout diagram

Base

Cabinet



Outside view

FOR SERVICE REQUIREMENT

For any inquiry of service, please contact to a dealer where you purchased this equipment.

When the dealer's contact address is uncertain, please contact to following address.

TAIYO MUSEN CO., LTD.

2-11-18, Higashi-Kojiya, Ota-ku, Tokyo 144-0033 JAPAN

Overseas Trading Dept.

TEL: 81-3-5735-1247

FAX: 81-3-5735-1683