

MULTIPLE-FEATURE PHONE
FP-2000
MODEL

INSTRUCTION MANUAL



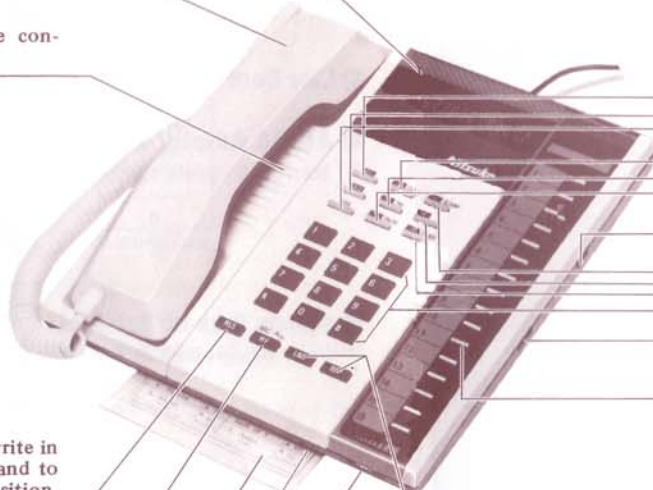
Nitsuko

Thank you very much for your purchase of our **MULTIPLE-FEATURE PHONE Model FP-2000**. Please read this booklet thoroughly before using this equipment to have a complete understanding of its operation, which will ensure your FP-2000 to operate at its best efficiency and performance for many years to come.

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I. NOMENCLATURE AND FUNCTIONS

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- 1 Handset** Is the same as the handset of a normal telephone set.
- 2 Speaker** Is used for handsfree conversation and C/O line monitoring.
- 3 Reset Key (RLS)** Is used to write in telephone numbers, etc., for memory and to restore the equipment to its initial position.
- 4 Line Key (HF) and MIC ON/OFF Key** Has functions of connecting and disconnecting a C/O line and of controlling the microphone during handsfree operation.
- 5 Name Cards for Abbreviated Dial** Fill them in with the addresses and their telephonenumber you want to store in the memory area for abbreviated dialling.
- 6 Built-in Microphone** Picks up your voice when you use the equipment in the handsfree mode.
- 7 Volume Knob** Is used to control volume of the speaker.
- 8 Fluorescent Display** Exhibits four kinds of mode marks/clock/telephone number/calculation/timer
- 9 All Clear Key (AC)** Is used to stop alarm tone and to clear the calculator register.
- 10 Calculation & Clock Key (CA/CL)** A change key to establish the calculator mode by first depression and the clock mode by a second depression.
- 11 Abbreviated Dial Key (ABV)** Has a function of establishing the abbreviated dial mode.
- 12 Clock & Division Key (\div)** A key for establishing the clock mode and for calculator operation.
- 13 PM & Multiplication Key (x)** A key for clock & alarm setting and calculator operation.
- 14 Pause & Decimal Point Key (.)** A key for placing special pauses between dial digits when required and for calculator entry.
- 15 Dial Mode Change Switch** A switch to choose either pulse dial signal or DTMF signal.
- 16 Alarm & Subtraction Key (-)** A key for alarm setting and calculator operation.
- 17 Addition Key (+)** A key for calculator operation.
- 18 Timer & Equal Key (=)** A key for timer starting/stopping and calculator operation.
- 19 Numerical Keys (NK)** Consists of twelve keys (0 ~ 9, * and #) for entry in each mode of the equipment.
- 20 Incoming Level Control Switch** A switch for controlling the incoming level to high, middle and low.
- 21 Repertory Dial Key (RK)** Is used to send out each prememorized telephone number at a touch.
- 22 LND/REP/EK/FLASH Keys (Plant option)** Two of the features are equipped as plant option.
- Last Number Re-dial (LND)** You can make another call to a party you have just called and found busy.
- Repeat Dial Key (REP)** You can repeat a calling automatically.
- Earth Key (EK), Flash Key (FLASH)** When your equipment is connected to a PABX extension, you can get a PABX features Two of features



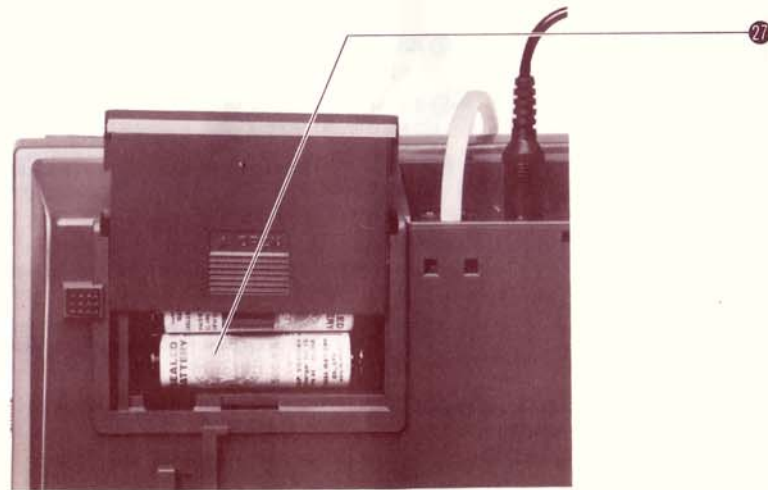
23 Incoming Tone Change Switch A switch to change the tone of incoming call in three steps.

24 Power Jack Connect this jack to the plug of the adaptor to power your equipment.

25 Line Cord A cord for connecting to a C/O line.



26 AC/DC Adaptor An adaptor to connect commercial power source to your equipment.



27 System Back-up Batteries Are used to back up operation of your equipment at the time of a power failure.

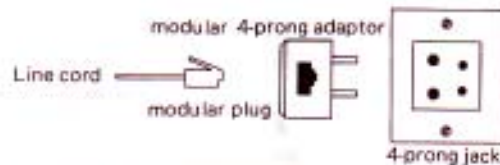
II. INSTALLATION

Modular plug type Line cord

1. Connect the AC/DC Adaptor (item I-26) to the plug socket of commercial power source and then its power plug to the power jack (item I-24) of your equipment.
2. Connect the modular plug (item I-25) at the end of the line cord to the modular jack on the wall.

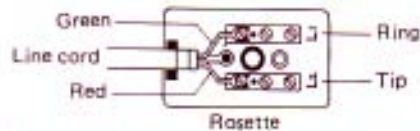


3. If a 4-prong jack is in use on the wall, make connections by using a modular 4-prong adaptor.

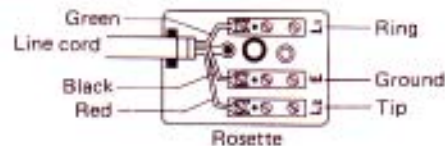


Other type Line cord

1. Connect the AC/DC Adaptor (item I-26) to the plug socket of commercial power source and then its power plug to the power jack (item I-24).
2. Connect the ring and the tip to the L1 and L2 terminals of the rosette respectively.



3. In case your equipment is connected to a PABX extension and an earth key is required to have access to a C/O line, connect the L1 and L2 terminals to the ring and the tip respectively, and connect the E terminal to the ground.



III. HOW TO OPERATE THE EQUIPMENT

1. REPERTORY DIAL

Your equipment is provided with an RK key and name cards corresponding to 16 telephone numbers. Store the telephone numbers you may frequently use and the emergency numbers such as those of FIRE and POLICE in the memory area corresponding to this key.

a) STORING A TELEPHONE NUMBER

(Example) To Store 123-4567:

CASE 1: Your equipment is connected to C/O lines:

	<u>Display</u>
Action 1: Keep depressing the RLS key.	- Clock
2: Choose an RK key and depress it.	- Blank
3: Depress the NK keys in the order of 1, 2, 3, 4, 5, 6 and 7.	- 1234567
4: Stop depressing the RLS key.	- Clock

CASE 2: Your equipment is connected to a PABX extension and a proper code (such as "9") is required to have access to a C/O line:

	<u>Display</u>
Action 1: Keep depressing the RLS key.	- Clock
2: Choose an RK key and depress it.	- Blank
3: Depress the key 9.	- 9
4: Depress the PAUSE key.	- 9P
5: Depress the NK keys in the order of 1, 2, 3, - and 7.	- 9P1234567
6: Stop depressing the RLS key.	- Clock

NOTE 1: A maximum of 16 digits (including pauses) can be stored in one telephone number area.

2: By storing a new telephone number, the old one will be automatically cleared.

3: To clear a telephone number which has been stored, keep depressing the RLS key, while depress the RK key corresponding to the telephone number you want to clear and then stop depressing the RLS key.

b) OPERATION

Depress an RK key as you may choose. Then your equipment will display the telephone number corresponding to the depressed RK key and will start dialling it out automatically after a pre-pause. (If you lift the handset or depress the HF key first, then your equipment will start dialling out the number without placing any pre-pause.) Start conversation after hearing the called party answer through the speaker (or through the handset in the case of off-hook operation).

2. ABBREVIATED DIAL

Your equipment is provided with 40 telephone number areas (memory location numbers 00 – 39) and the corresponding name cards for abbreviated dialling. Fill the cards with the addresses and telephone numbers beforehand for your convenience in making memory operation.

a) STORING A TELEPHONE NUMBER

(Example) To Store 123-4567 in the memory location number 15:

CASE 1: Your equipment does not require any access code to have access to a C/O line:

	<u>Display</u>
Action 1: Keep depressing the RLS key.	– Clock
2: Depress the ABV key.	– Blank
3: Depress the NK keys in the order of 1 and 5.	– Blank
4: Depress the NK keys in the order of 1, 2, 3, – and 7.	– 1234567
5: Stop depressing the RLS key.	– Clock

CASE 2: Your phone requires an access code (such as "9") to have access to a C/O line:

	<u>Display</u>
Action 1: Keep depressing the RLS key.	– Clock
2: Depress the ABV key.	– Blank
3: Depress the NK keys in the order of 1 and 5.	– Blank
4: Depress the key 9.	– 9
5: Depress the PAUSE key.	– 9P
6: Depress the NK keys in the order of 1, 2, 3, – and 7.	– 9P1234567
7: Stop depressing the RLS key.	– Clock

NOTE 1: A maximum of 16 digits (including pauses) can be stored per one telephone number area.

2: By storing a new telephone number, the old one will be automatically cleared.

3: To clear a telephone number which has been stored, keep depressing the RLS key, depress the ABV key, depress the location number (2 digits) you want to clear and then stop depressing the RLS key.

b) OPERATION

Enter the memory location number (2 digits) after depressing the ABV key. Automatic dialling-out will be started in the same way as in the case with repertory dial.

NOTE: If you do not enter any memory location number after depressing the ABV key, the display will remain blank. In that case, depressing the RLS key will provide CLOCK indication and have your equipment to go back to its initial position.

3. MANUAL DIAL

Use the NK keys to dial any telephone number which has not been stored in your equipment (no matter how many digits). Lift the handset or depress the HF key, receive dial tone and then dial your desired telephone number by depressing the NK keys in order. The number corresponding to each depressed key will be displayed, and at the same time, dialled out. With manual dialling, the display does not change automatically till dialling is completed (the display provides CLOCK indication when the handset has been returned to its cradle or when the RLS key has been depressed.) So, depress the key for the CLOCK, TIMER or CA/CL as occasion demands.

4. RE-DIAL

In case your line receives busy tone and you want to repeat the call, the use of the LND key or the REP key will be very convenient.

a) LAST NUMBER RE-DIAL

First disconnect the C/O line by depressing the RLS key or by returning the handset to its cradle and then depress the LND key. Now, the last dialled telephone number will be exhibited on the display again and dialled out automatically.


b) REPEAT DIAL: 9 times or 2 times (Plant option)

Depress the REP key after disconnecting the C/O line by depressing the RLS key or by returning the handset to its cradle. Then the **31** mark and the last dialled telephone number will be displayed and the number will be dialled out automatically. The period of one dial repeat is 30 seconds (calling time) with an interval of 68 seconds. As soon as the called party answers, lift the handset off-hook or depress the HF key once (then the **31** mark will disappear) and start conversation.



NOTE 1: If you continue conversation without lifting the handset off-hook or depressing the HF key when the called party has answered, the C/O line will be released at the lapse of the calling time.

2: To cancel REPEAT RE-DIAL, depress the RLS key.



5. HANDS FREE

You can dial and proceed with a call even with your equipment at the on-hook position through the built-in speaker and microphone. The state of your equipment being in the handsfree mode is displayed with the  marks.



a) GOING FROM HANDSET OPERATION TO HANDSFREE OPERATION

Depress the HF key. Return the handset to its cradle as soon as the  marks appear. Then the  mark will disappear and your equipment will now be in the handsfree mode.

b) GOING FROM HANDSFREE OPERATION TO HANDSET OPERATION

Lift the handset off-hook, and the  mark will be displayed and, at the same time, the  marks will disappear and you can now conduct conversation through the handset.

c) MICROPHONE CONTROL

During operation in the handsfree mode, a depression of the MIC ON/OFF (HF) key will erase the  mark, bringing the built-in microphone into a non-operating state, and your equipment will function for receiving only. A second depression of this key will display the  mark bringing the microphone into operation.

NOTE 1: Change-over from the handsfree mode to the handset mode and vice versa can be made at any time.

2: In handsfree conversation; control the volume to a level appropriate to you by turning the volume control knob.

6. LINE RELEASE

At any state of operation, your equipment can be restored to its initial position by depressing the RLS key (in the handsfree mode) or by returning the handset to its cradle.

7. RECALL KEY (EARTH or FLASH KEY: PLANT OPTION)

In case your equipment is connected to a PABX extension, these keys are very convenient to access a PABX features. FLASH feature can be stored in memory (750 ms timed break) of Repertory Dial Key and Abbreviated Dial Key by pressing the FLASH Key during programming.

8. ANSWERING INCOMING CALLS

The built-in buzzer will go when an incoming call comes. Lift the handset off-hook or depress the HF key and conduct conversation. Depress the RLS key as soon as the conversation (handsfree) has been over.

9. CLOCK SETTING.

The clock built in your equipment provides time indication on a 12-hour basis. How to set the CLOCK is as follows:

(Example) To set CLOCK to 9:15 PM (AM):

	<u>Display</u>
Action 1: Keep depressing the RLS key.	- Clock
2: Depress the CLOCK key.	- 00-00
3: Depress the PM key (in the case of PM only).	- P 00-00
4: Depress the NK keys in the order of 0 and 9.	- P(A) 09-00
5: Depress the NK keys in the order of 1 and 5.	- P(A) 09-15
6: Stop depressing the RLS key.	- P(A) 9-15
	START

NOTE: Enter hours and minutes always in 2 digits each.

10. ALARM TIME SETTING

You can make the electronic buzzer built in your equipment at the time designated by you. The buzzer goes continuously for one minute with a period of 0.5 seconds and then stops automatically. Depress the AC key if you want to stop it before the lapse of one minute. As soon as an alarm time is set, the display exhibits "A".

(Example) To set ALARM to 3:00 PM (AM):

	<u>Display</u>
Action 1: Keep depressing the RLS key.	- Clock
2: Depress the ALARM key.	- 00-00
3: Depress the "PM" key (in the case of PM only).	- P 00-00
4: Depress the NK keys in the order of 0 and 3.	- P(A) 03-00
5: Depress the NK keys in the order of 0 and 0.	- P(A) 03-00
6: Stop depressing the RLS key.	- A Clock

*NOTE 1: Enter hours and minutes always in 2 digits each.
2: To confirm the time to which ALARM has been set, depress the ALARM key and then depress the CLOCK key after it has been confirmed.*

11. TIMER

Your equipment is provided with a timer feature to count 0 ~ 9 hours, 59 minutes and 59 seconds, which can be used to toll time or to function as a stopwatch. The timer is started by first depression of the TIMER key and is stopped by a second depression. After operation as a timer, depress the CLOCK key.

12. CALCULATOR

In the CALCULATOR mode, your equipment can make addition, subtraction, multiplication and division within 8 digits. Depress the CA/CL key to establish this mode, and the display will exhibit "0". After operation as a calculator, depress the CA/CL key again.

*NOTE 1: The display "0." indicates that the register has been cleared.
2: The display "E0." indicates that the register has been overflowed.
3: To clear the register, depress the AC key.
4: Calculation can be made even during conversation over the phone.*

a) **MIXED OPERATION WITH ADDITION AND SUBTRACTION**
(Example) $9 + 8 - 7 = 10$

	(display)
Action 1: Depress keys 9 and +	9.
2: Depress key 8	8.
3: Depress key -	17.
4: Depress key 7	7.
5: Depress key =	10.

b) **ADDITION (with decimal points)**
(Example) $1.1 + 2.2 = 3.3$

	(display)
Action 1: Depress keys 1, ., 1, and +	1.1
2: Depress keys 2, ., and 2	2.2
3: Depress key =	3.3

c) **DIVISION**
(Example) $8 \div 4 = 2$

	(display)
Action 1: Depress keys 8, and \div	8.
2: Depress key 4	4.
3: Depress key =	2.

d) **CHAIN MULTIPLICATION**
(Example) $2 \times 3 \times 0.5 = 3$

	(display)
Action 1: Depress keys 2 and \times	2.
2: Depress key 3	3.
3: Depress key \times	6.
4: Depress keys . and 5	0.5
5: Depress key =	3.

13. CHANGE OF DIAL SIGNAL

You can change dial signal of your equipment from pulse dial signal to DTMF signal and vice versa. With the CHANGE switch (item I-15) in the right side of your equipment kept in a MF position, DTMF signal will become available.

IV. SYSTEM BACK-UP FOR POWER FAILURE

Your equipment is designed to be able to operate off-hook dialling and conversation (the functions of a normal telephone set) at the time of a failure of commercial power source with the use of the built-in rechargeable batteries. During a power failure, neither display nor any handsfree feature can be provided.

With these batteries completely charged, your equipment can continue to operate for about two days.

In case of a commercial power failure during handsfree dialling or conversation, you can continue operation by immediately lifting the handset off-hook.

NOTE 1: When the batteries have been completely discharged, it will take about two days to have them fully charged. So, the duration of continuous operation of your equipment will be much shorter in case a power failure has taken place during the occasion of battery charging.

- 2. Life of the built-in batteries is about three years. Replace them at every lapse of the life span.*

REPLACEMENT OF BATTERIES

Only AA Cell Nickel-Cadmium Batteries can be used for this back-up system.

CH500, 41B905AA01, CD6, 500SC, etc.

NOTE 1: Never use Dry AA Cells.

- 2: Be sure not to confuse new batteries with old ones.*
- 3: Pay enough attention to polarity of the batteries.*

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