

Caller ID Hands-Free Business Telephone

AT-55 USER GUIDE

IMPORTANT NOTICE

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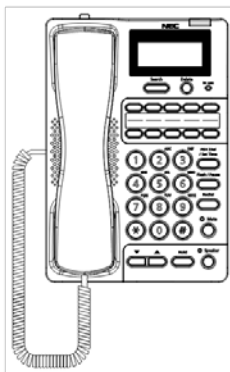
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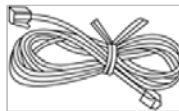
Package Contents

Check the contents of package for the following items. If any item is missing or damaged, please consult the dealer you purchased.

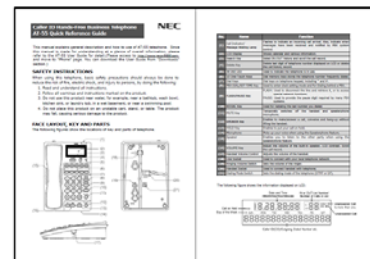
Telephone Set x 1
(Including handset with curl code)



Telephone Line Cord x 1
(Connecting the telephone set to network)



Quick Reference Guide x 1
(Explains basic operations of telephone set)



SAFETY INSTRUCTIONS

When using this telephone, basic safety precautions should always be taken to reduce the risk of fire, electric shock, and injury to persons, by doing the following:

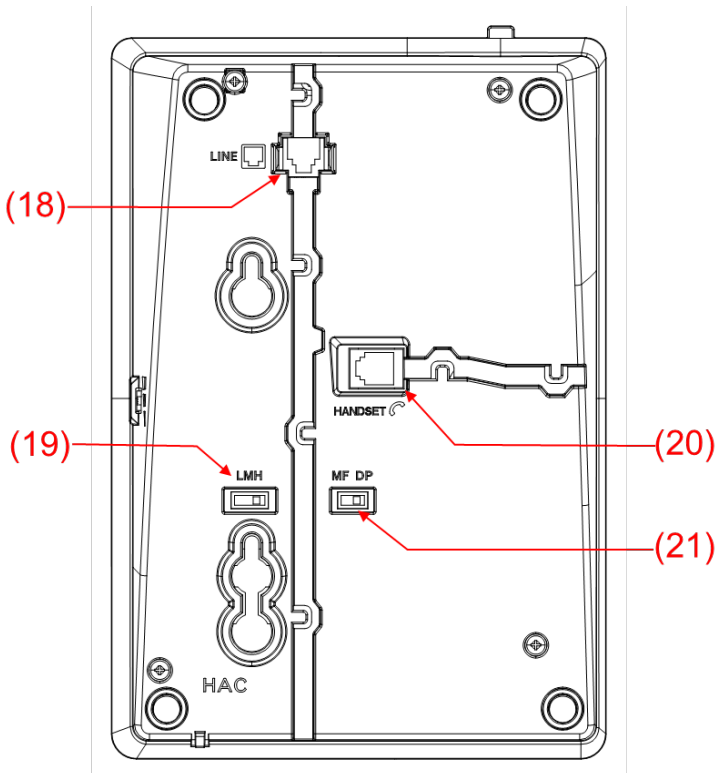
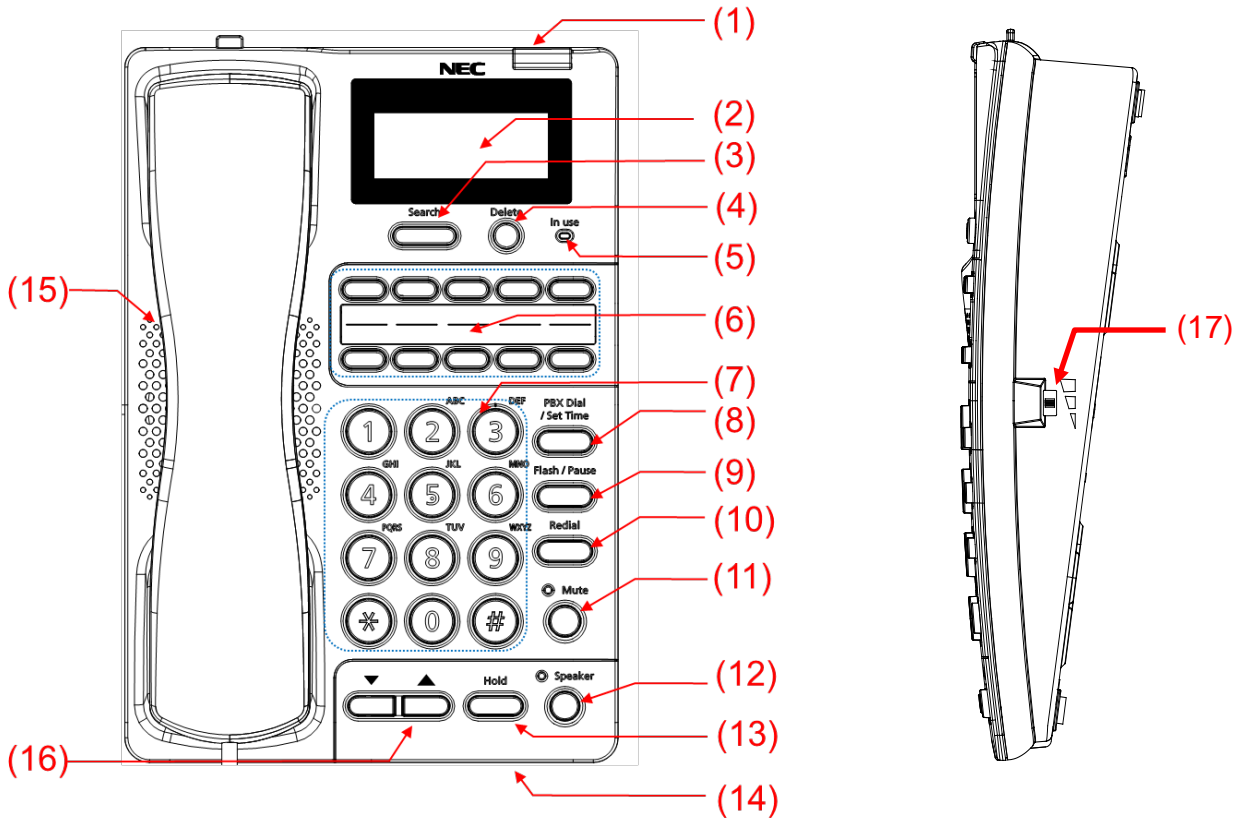
1. Read and understand all instructions.
2. Follow all warnings and instructions marked on the product.
3. Do not use this product near water, for example, near a bathtub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.
4. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
5. Slots and openings in the cabinet and the back or bottom are provided for ventilation. To protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.
6. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire, electric shock, or damage to the product itself. Never spill liquid of any kind on the product.
7. To reduce the risk of electric shock, do not disassemble this product. The product should be taken to a qualified service agent if service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when the product is subsequently used.
8. Avoid using a telephone during an electrical storm. There may be a remote risk of electric shock from lightning.
9. Do not use the telephone to report a gas leak in the vicinity of the leak.
10. Please keep this unit away from equipment that uses radio waves or microwaves, (e.g. a portable radio or microwave oven). These may cause improper operation.
11. The maximum level setting for the Receive Volume Control should only be used by hearing impaired individuals, otherwise hearing damage may occur.

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FACE LAYOUT, KEY AND PARTS

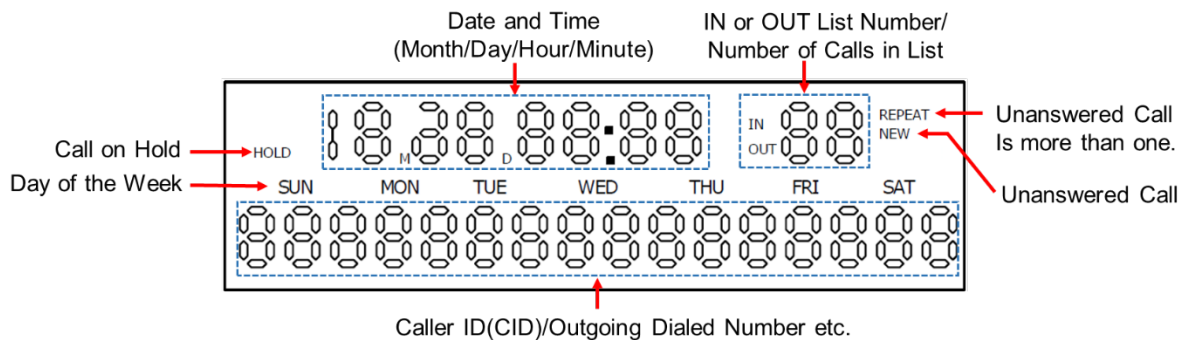
The following figures show the locations of key and parts of telephone.



FACE LAYOUT, KEY AND PARTS

No.	Name	Function
(1)	Call Indicator/ Message Waiting Lamp	Flashes to indicate an incoming call arrival. Also, indicate when messages have been received and notified by PBX system control.
(2)	LCD Display	Shows calendar and various information.
(3)	Search Key	Select IN /OUT history and scroll the call record.
(4)	Delete Key	Delete last digit of telephone number displayed on LCD or delete the call history record.
(5)	IN USE LED	Used to indicate the telephone is in use.
(6)	10 One-Touch Keys	Dial memory keys stores the telephone number frequently dialed.
(7)	Dial Keys	Dial keys on telephone keypad, including * and #.
(8)	PBX DIAL/SET TIME Key	Used to enter clock setting mode and for Dialing behind a PBX.
(9)	FLASH/PAUSE Key	FLASH: Used to disconnect the line and retrieve it, or to access special network functions. PAUSE: Used to provide the pause digit required by many PBX systems.
(10)	REDIAL Key	Used for redialing the last number you dialed.
(11)	MUTE Key	Temporarily switches off the handset and speakerphone microphone.
(12)	SPEAKER Key	Enables to make/answer a call, converse and hang-up without lifting the handset.
(13)	HOLD Key	Enables to put your call on hold.
(14)	Microphone	Picks up your voice when using the Speakerphone feature.
(15)	Speaker	Enables you to listen to the other party when using the speakerphone feature.
(16)	VOLUME Key	Adjust the volume of the built-in speaker, LCD contrast. Scroll the call record.
(17)	Handset Volume Control	Adjusts the volume of the handset.
(18)	Line Socket	Used to connect with your local telephone network.
(19)	Ringing Volume Switch	Sets the volume of the ringer.
(20)	Handset Socket	Used to connect handset with telephone.
(21)	Dialing Mode Switch	Sets the dialing mode of the telephone (DTMF or DP).

The following figure shows the information displayed on LCD.



INSTALLATION

Connecting the Telephone Network

Connect the telephone to the telephone network with following steps.

1. Connect the one end of the line cord to the LINE socket on the rear of telephone and the other end to your telephone network outlet.
2. Lay the handset cord in the groove on the bottom of the telephone.

IMPORTANT

- Do not connect with the public telephone network directly. This telephone is manufactured for connection to the line provided by the KTS/PBX systems.
- Do not connect other analog devices such as FAX/telephone on the same line. Since this telephone is a Caller ID terminal, parallel connection on the same line is not guaranteed.
- If the other analog terminal is connected to the same line with this telephone, this telephone does not operate properly.
- Do not set the "Momentary Open" to the KTS/PBX as a disconnect signal sent to the telephone as much as possible. For detail, please consult with system administrator and/or installation engineer of KTS/PBX.
- The Caller ID receiver of KTS/PBX systems shall be set to FSK mode. This telephone is not supported Caller ID with DTMF signaling.

NOTE

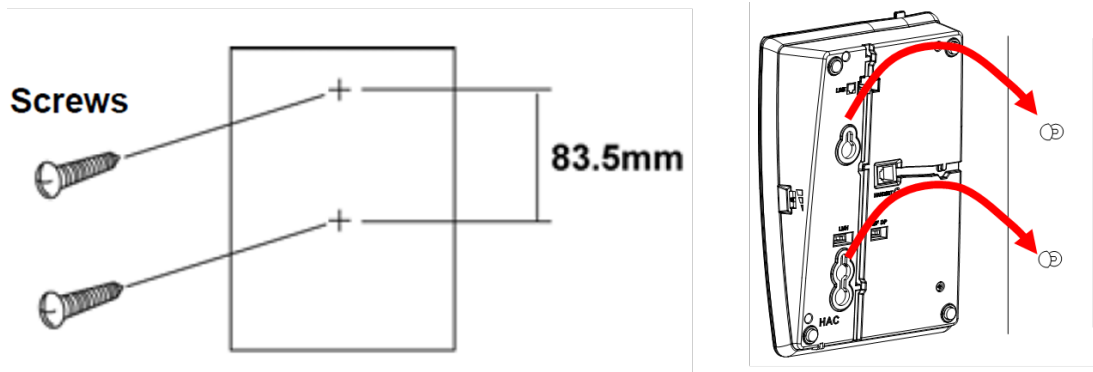
For the best speakerphone performance, avoid to using telephone in the following environment. Otherwise, low speaker volume or poor voice quality may occur.

- Areas with high background noise. (The microphone might pick up these sounds and prevent the speakerphone from going into receiving mode when you finish talking.)
- Surfaces affected by vibration.
- Recessed areas such as in a corner, inside a cupboard, or next to a cabinet, which can generate an echo effect.
- Do not place objects near the microphone of the telephone, otherwise hands-free calls may not be optimally performed.
- If the line condition is poor quality the speakerphone may not operate properly.

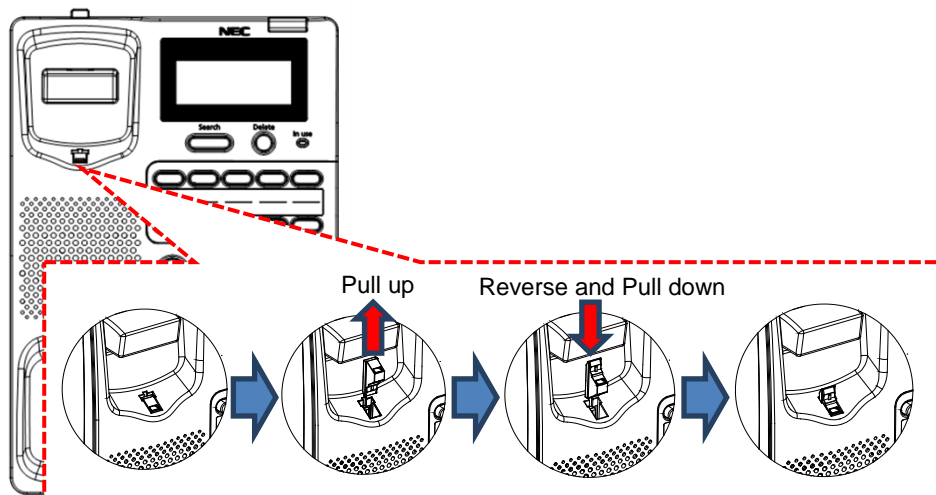
Wall Mounting

This telephone can be mounted on a wall with two screws. The screws shall be supplied by customer.

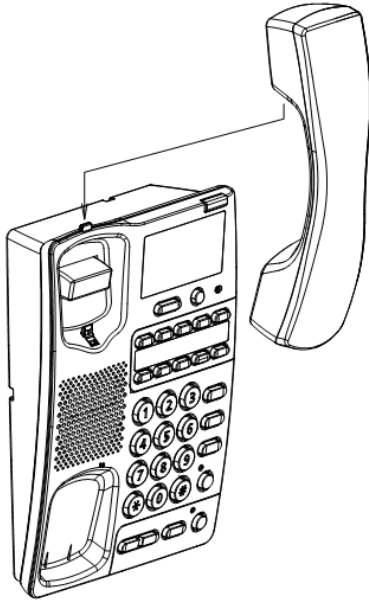
1. Mark off the correct positions for the screws, 83.5mm apart vertically before drilling the wall.
2. Install the screws into the wall.
3. Mount the telephone on the wall so that the screw heads insert into the slots on the underside of the telephone.



4. Remove the hanger hook from the telephone, and then reverse it and reinsert to the telephone.



5. If you wish to temporarily place the handset down during a conversation, hook the handset onto the top of the hanger hook as shown below.



INITIAL SETUP

Setting the Calendar

This telephone is equipped with a calendar showing Year/Month/Day/Hour/Minute. The calendar is shown on the display while the phone is idle. Set the calendar with the following steps.

NOTE

When the telephone receives an incoming call the time and date will automatically be overwritten with the system time and date.

1. Ensure the phone is idle.
2. Hold the SET TIME key for approx. 2 seconds until the year appears flashing on the display.
3. Advance up or down to the correct year by pressing the Δ or ∇ keys.
4. Press the SET TIME key to set the year and advance to the Month.
5. Repeat this process to set the Month, Date, Hour and Minute.

Setting the LCD Contrast

There are 6 display contrast settings.

1. Ensure the phone is idle.
2. Press VOLUME repeatedly to set the desired LCD contrast.

Selecting the Ringing Volume

Select from three ringing volume levels using the Ringing Volume Switch on the rear of telephone, L (low), M (mid), or H (high).

Selecting the Ringing Tone

There are 3 ringing tones to choose from – low, mid and high pitch.

1. Ensure the phone is idle.
2. Dial * 1 *.
3. Dial 1 (low), 2 (mid) or 3 (high). (Default setting is 1.)
4. Dial #.

The selected ringing tone will play for approximately 2 seconds.

NOTE

If the KTS/PBX system is set the ringing signal interval less than 0.5 second, the ringer sound may not be followed by the setting timing.

Selecting the Dialing Mode

Set the Dialing Mode Switch on the rear of the telephone to either DP (Pulse) or MF (Tone) to select the signaling type. The signaling type depends on the requirements of the PBX to which the telephone is connected.

Setting the Flash Time

The correct hook flash timing depends on the requirements of the PBX to which the telephone is connected.

1. Ensure the phone is idle.
2. Dial *41 *.
3. Dial 00 to 06 to select from the following hook flash timings.

00: 95ms	01: 100ms	02: 120ms	03: 180ms
04: 270ms	05: 300ms	06: 600ms (Default)	

4. Dial #.
5. After the setting is completed, the setting time (e.g.300) is shown on the LCD for 15 seconds.

Setting the PBX DIAL Code

When this telephone is installed as a PBX extension, a trunk access code is often required to precede external numbers that are dialed. The PBX DIAL key can automatically insert the PBX trunk access code at the front of a dialed number, when dialing from a One-Touch key, the IN List (Caller ID), or when Preview Dialing.

The PBX trunk access code may differ from site to site, according to how the PBX is configured. Set the PBX DIAL code with following steps.

To set or change the PBX DIAL code:

1. Ensure the phone is idle.
2. Dial * 0 *.
3. Dial the PBX trunk access code 0 to 9. (Default=not assigned.)
4. Dial #.

To clear the PBX DIAL code:

1. Ensure the phone is idle.
2. Dial * 0 * #.

BASIC OPERATION

Making a Call using the Handset

1. Pick up the handset and wait for dial tone.
2. Dial the desired number.
3. Replace the handset when you finish the call.

Or, to preview the dialed number:

1. Dial the desired number with handset on-hook.
2. You may press the DELETE key to erase dialed digits one at a time.
3. When you have finished dialing, lift the handset.
4. Replace the handset when you have finished the call.

NOTE

Adjust the volume if needed using the Handset Volume Control Switch.

Making a Call using Speakerphone

By using the SPEAKER key, you can make and receive calls without lifting up the handset. The speakerphone works in similar way to a two-way radio; both parties cannot talk at the same time.

1. Press the SPEAKER key and wait for dial tone.
2. Dial the desired number.
3. Once answered, converse normally. Be sure to speak clearly toward the microphone (located under the front edge of the phone).
4. To end the call, press the SPEAKER key.

Or, to preview the dialed number:

1. Dial the desired number with handset on-hook.
2. You may press the DELETE key to erase dialed digits one at a time.
3. When you have finished dialing, press the SPEAKER key.
4. Once answered, converse normally. Be sure to speak clearly toward the microphone (located under the front edge of the phone).
5. To end the call, press the SPEAKER key.

NOTE

Adjust the speaker volume if needed by pressing the VOLUME key.

Receiving a Call using the Handset

1. Lift the handset when the phone rings.
2. Converse with your caller.
3. Replace the handset when you finish the call.

NOTE

Adjust the volume if needed using the Handset Volume Control Switch.

Receiving a Call using Speakerphone

1. Press the SPEAKER key when the phone rings.
2. Converse with your caller.
3. To end the call, press the SPEAKER key.

NOTE

Adjust the speaker volume if needed by pressing the VOLUME key.

Switching between Handset and Speakerphone

You can switch between Speakerphone and Handset while dialing a number, waiting for answer, or at any time during a call.

To change from Handset to Speakerphone:

1. Press the SPEAKER Key.
2. Replace the handset.

To change from Speakerphone to Handset.

1. Pick up the handset.

FEATURES

FLASH Key

The FLASH key works the same as the hook switch of the phone. When the FLASH key is pressed during a conversation, it may terminate the call or place the call on hold and you will hear dial tone allowing you to dial the next phone number. The FLASH key may also provide access to special facilities such as call waiting and conference calls. Actual operation will depend on the specific PBX to which you are connected.

To activate, press the FLASH key.

PAUSE Key

The PAUSE key is used to insert a 3.6 second pause between digits during dialing. For automatic dialing (One-Touch Dial / Redial), the pause may be needed in the dialing sequence to wait for dial tone or a computer tone (such as computer activated operations like banking and voice mail). A pause can be programmed into any memory location.

To activate, press the PAUSE key when required during dialing.
You may press the PAUSE key multiple times for a longer pause.

Last Number Redial

The last telephone number dialed (up to 32 digits) can be redialed automatically by pressing the REDIAL key.

1. Pick up the handset (or press the SPEAKER key).
2. Press the REDIAL key.

You can re-dial the same telephone number as many times as required. However, once you dial another number, the previous number is erased. (Only the last number you dialed will be stored in the REDIAL key).

Memory Redial

The last 30 telephone numbers dialed (up to 21 digits each) are stored in the Outgoing Call Memory. To dial from the Outgoing Call Memory:

1. Press the SEARCH key until the OUT icon is shown on the display.
2. Advance up or down to search phone number you wish to dial by pressing the ∇ or Δ keys.
3. When the desired phone number is displayed, press the PBX DIAL key, SPEAKER key, or lift the handset. Dialing starts automatically.
4. Press the DELETE key to remove the displayed number from the list.

Microphone Mute

The MUTE key allows you to switch off the handset and Speakerphone microphone temporarily. During this state, you can consult with another person and your voice will not be sent to the called party.

To mute the call so that the called party cannot hear you:

1. Press the MUTE key. The MUTE key LED will light up.

To cancel Mute and resume normal conversation:

1. Press the MUTE key. The MUTE key LED will go out.

Message Waiting Lamp

Some PBX systems offer a visual message waiting indication. The message waiting lamp is turned on when there is a message left for you. This lamp also flashes while the phone is ringing to indicate an incoming call.

Temporarily Switching Pulse to Tone Dialing

If your telephone is connected to a Pulse dialing mode network, this feature allows you to temporarily switch to Tone dialing to access Tone operated services; e.g. answering machines, telephone banking, etc.

1. Dial the number of the service you wish to use and wait for answer.
2. Dial * to switch to Tone dialing.
3. When you hang up, the phone automatically returns to Pulse dialing mode.

Call Hold

A call in progress may be placed on hold at the telephone by pressing the HOLD key. When the HOLD key is pressed, the call remains on the telephone, and both parties hear the hold melody until the call is retrieved.

NOTE

It may also be possible to place the call on hold at the PBX system by pressing the FLASH key.

Selecting the Hold Melody:

There are 2 different melodies for the HOLD function. Select the desired melody with following steps.

1. Ensure the phone is idle.
2. Dial * 5 *.
3. Dial 0 or 1 to select the desired melody. (Default = 0.)
4. Dial #. The selected melody will be played for approximately 6 seconds.

Placing a Call on Hold:

1. With a conversation in progress on the phone.
2. Press the HOLD key.
3. If using the handset, you may put the handset back in the cradle.
4. To converse with the caller again, pick up the handset (or press the SPEAKER key).

One-Touch Dialing

This telephone is equipped with 10 one-touch dial memory keys for programming your most frequently dialed telephone numbers. You can store up to 21 digits in each one-touch key. When using this telephone as a PBX extension, you may need to include a Trunk Access Code followed by a pause to gain an access to an outside line.

Index Label:

Surrounding the one-touch keys is an index label. When numbers are entered into the one-touch keys, remove the plastic cover and make a note against each key to remind you which number is stored in the memory.

To Store a Number in the One-Touch Key:

1. Ensure the phone is idle.
2. Dial the number you want to store (up to 21 digits). This may include digits 0~9, *, # and Pause.
3. Press and hold the one-touch key (1-10) for approx. 2 seconds, until you see "SAVE" shown on the display.

To Change the Number in the One-Touch Key:

You can change a stored number by simply following the storage procedure above. The new number will overwrite the previously stored number.

To Dial the Number in the One-Touch Key:

1. Press SPEAKER (or lift the handset).
2. Press the desired one-touch key.
3. The stored number is automatically dialed out.

To Preview the Number before Dialing:

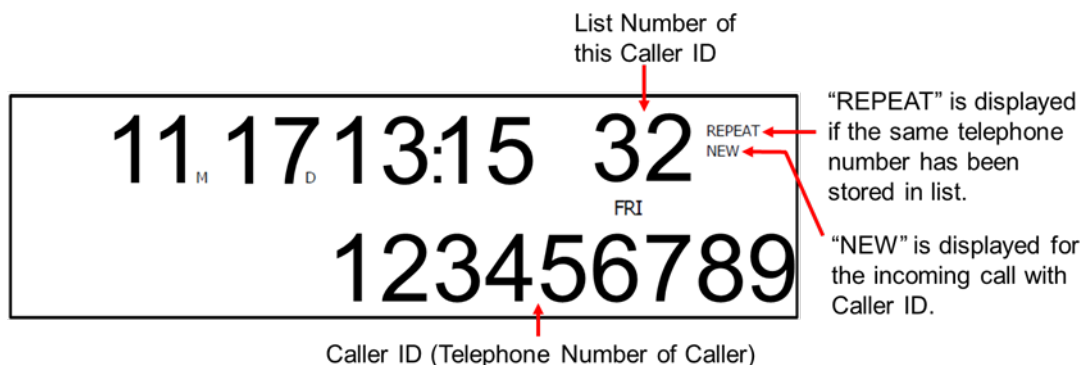
1. Press first the desired one-touch key. The stored number is displayed.
2. Press SPEAKER, PBX DIAL, or lift the handset.
3. The stored number is automatically dialed out.

To Delete Stored Number in One-Touch Key Memory

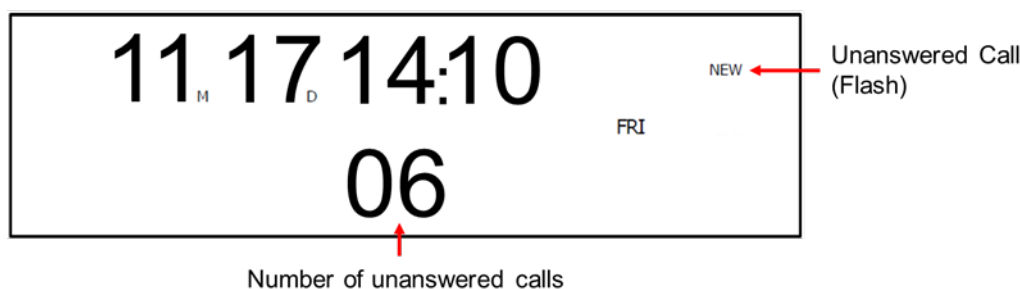
1. Ensure the phone is idle.
2. Press the One-Touch Key desired to delete the memory.
3. Press DELETE more than 2 seconds.
4. The number displayed on LCD is deleted and "-----" is appeared.

Caller ID (CID)

This telephone will display Caller ID (CID) information received with incoming calls. The last 90 Caller ID numbers received are automatically stored in CID memory (up to 21 digits each). The numbers stored in CID memory may be reviewed, deleted, or dialed back if desired.



When a new call is received with CID and goes unanswered, the NEW icon will flash. The number of new (unanswered) calls received with CID is indicated on the bottom row of the display. The NEW icon and number of unanswered calls will disappear after confirming CID by SEARCH key. Note that the oldest call in the list occupies position 01 and new calls are stored at the end of the list.



When CID is restricted by the caller, "NO CID" is displayed. For international and payphone calls, "OUT OF AREA" is displayed.

To Preview the CID Memory:

1. Press the SEARCH key until the "IN" icon is shown on the display.
2. Advance up or down to review received CID numbers by pressing the Δ or ∇ keys. To view the most recent NEW CALL, press the ∇ key.
3. Press the DELETE key to remove the displayed number from the list.

To Dial Back from the CID Memory:

1. Press the SEARCH key until the "IN" icon is shown on the display.
2. Advance up or down to the phone number you wish to dial by pressing the Δ or ∇ keys.
3. When the required phone number is displayed, press the PBX DIAL key, SPEAKER key, or lift the handset. The number is automatically dialed.

TROUBLESHOOTING

Troubleshooting Guide

Problem	Solution
No dial tone /Will not dial out	<ul style="list-style-type: none"> ● Check that the hook switch is not depressed. ● Check that the line cord is connected. ● Make sure the SPEAKER key LED is lit (if using speakerphone). ● Ensure that the Dialing Mode Switch is set to the correct position. ● Unplug the phone, wait 30 seconds, then plug the phone back in.
Phone does not ring	<ul style="list-style-type: none"> ● Ensure there are no other devices connected to the same line.
Cannot be heard by the other party	<ul style="list-style-type: none"> ● Confirm phone cord and handset curly cord are securely plugged in. ● Make sure MUTE key LED is off.
Cannot use one-touch dialing	<ul style="list-style-type: none"> ● Make sure that a number has been correctly stored in the one-touch key. ● A row of “-“ indicates an empty one-touch key.

Care and Maintenance

To keep your telephone working well and looking good, follow these few simple guidelines.

- Avoid putting the telephone near heating appliances and devices that generate electrical noise.
- The telephone should not be exposed directly to sunlight or moisture.
- Avoid dropping the handset and other rough treatment.
- Clean the telephone using a soft cloth moistened with a mild cleaning solution. Remove all traces of the cleaner with a damp cloth.
- Never use cleaners containing alcohol, strong cleaners that may corrode plastic, or abrasive powders, as this may damage the finish.

SPECIFICATIONS

Item	Specifications
Exterior	
Dimensions (W × D × H)	148×219×77mm / 5.83×8.62×3.03 inch
Weight	Approx. 0.64 kg /1.40 lbs
Operating Conditions	
Operating Temperature	0~40 °C / 32~104 °F
Relative Humidity	10~90% RH (Non-condensing)
Features	
Caller ID receiver	FSK (type I)
Caller ID information	CID number with date and time stamp
Caller ID review, delete, dial back	Yes
Caller ID storage	90 calls (21 digits)
Outgoing call history	30 calls (21 digits)
Last number redial key	Yes (32 digits)
One-touch key memories	10 (21 digits)
Date and time display	Yes (24 hour)
Call duration timer	Yes
Music on hold with selectable tones	Yes (2 melodies)
DTMF and Pulse dialing	Yes (DP/MF switch)
Selectable hook flash timing	95/100/120/180/300/600ms (default=600ms)
Pause key	Yes (3.6 sec)
Mute key (handset and hands-free)	Yes (with LED indication)
Message waiting lamp	Yes
Visual ring indicator	Yes
In-use indication	Yes
New call indication	Yes (LCD)
Repeat call indication	Yes
Speakerphone (Hands-free)	Yes (half duplex)
Speakerphone receive volume control	Yes (8 levels)
Handset receive volume control	Yes (slide switch, 3 levels)
Adjustable ring volume	Yes (3 levels)
Adjustable ring tone	Yes (3 pitches)
Automatic insertion of trunk access code	Yes (selectable 0~9)
Adjustable LCD contrast	Yes (6 levels)
Wall mountable	Yes (in-built)
Telephone line interface	2-wire analog center pair

QUICK REFERENCE

Feature Access Code

Operation: Dial Access Code + Option Code + #

Feature	Dial Access Code	Option Code
Ring Tone	*1*	1: Low Tone (default) 2: Mid Tone 3: High Tone
Hold Tone	*5*	0: Tone 1 (default) 1: Tone 2
PBX Trunk Access Code	*0*	0~9 (default = not assigned)
Hook Flash Timing	*41*	00: 95ms 01: 100ms 02: 120ms 03: 180ms 04: 270ms 05: 300ms 06: 600ms (default)
Restore to Factory Settings	*99*	99 Memory of call history and One-Touch keys are also deleted.

Stored Data in the Telephone

The following table shows the stored data in the telephone. If you want to delete the data or restore to factory settings, use the Feature Access Code (*99*).

Item	Feature	Stored Data
Telephone numbers	Outgoing dialed numbers *	30 calls (21 digits)
	Incoming Caller ID (CID) numbers	90 calls (21 digits)
	One-Touch key memories	10 keys (21 digits)
	Last Number Redial *	1 call (32 digits)
LCD display information	Calendar *	Year/Month/Day/Hour/Minute/Day of the week
	Call history counter	Number of incoming/outgoing * calls
	Number of unanswered calls	90 calls
	Icon display	NEW/REPEAT */IN */OUT *
Volume key settings	Speaker volume	1-8 (default = 4)
	LCD contrast	1-6 (default = 4)

Item	Feature	Stored Data
Feature Access Code settings	Ring Tone	1: Low Tone (default) 2: Mid Tone 3: High Tone
	Hold Tone	0: Tone 1 (default) 1: Tone 2
	PBX Trunk Access Code	0~9 (default = not assigned)
	Hook Flash Timing	00: 95ms 01: 100ms 02: 120ms 03: 180ms 04: 270ms 05: 300ms 06: 600ms (default)
	CID Receiving Mode	FSK

NOTE

Please note the stored data marked with "*" will be deleted by disconnecting the line cord. If there is important data, it is recommended to record the data before disconnecting the line cord.

Operations

Feature	Operation	Telephone State
LCD Contrast	Press VOLUME	Idle
Hands-free Volume	Press VOLUME	Off Hook Hands-free
Handset Volume	Handset Volume Control Switch	
Mute Speakerphone	Press MUTE	Off Hook Hands-free
Mute Handset	Press MUTE	Off Hook Handset
Place Call On Hold	Press HOLD	Off Hook
Retrieve Call From Hold	Press SPEAKER	On Hold

Caller ID Hands-free Business Telephone
AT-55 USER GUIDE

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NEC Corporation