



talkswitch®

TS-480i IP PHONE

Installation
Guide

41-000062-05

A detailed line drawing of a TS-480i IP phone, shown from a three-quarter perspective. The drawing highlights the handset, the main body with a numeric keypad, a small display screen, and various control buttons and ports.

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Table of Contents

Introduction	1
Phone Features.....	1
Requirements	1
About this Guide.....	1
Phone Parts	2
Key Panel	3
Key Description	4
Installation and Setup	5
Direct or Shared Network Connection.....	5
Direct Network Connection	5
Shared Network Connection	5
Connecting to the Network and to Power	6
Connecting a Handset or Headset	7
Desk or Wall Installation	8
Inserting Number Card	10
Customizing your Phone	11
Internal Use	11
External Use	11
Setting your Options	11
Using your TS-480i IP Phone with TalkSwitch.....	13
Accessing Features	13
Accessing an Outside Line.....	13
Activate/Deactivate Do not Disturb.....	13
Pick up — Any Inbound Call Ringing at Any Extension	13
Pick up — Specific Extension	13
Place a Caller on Hold.....	13
Retrieve a Caller on Hold.....	13
Cycle through Callers on Hold or Queued.....	13
Answer Call Waiting	13
Call Transfer	13
Voicemail Transfer	14
Cancel Transfer	14
Conference Call	14
Park a Caller	14
Retrieve a Parked Caller.....	14
Paging	14
Attach Account Code to Last Call.....	14
Engaging Line/Ext/Queue Appearances	15
Voicemail.....	15
Message Playback Controls.....	15

Table of Contents

Other Phone Features 16

- Adjusting the Volume 16
- Status Lights16
- Timer16
- Softkeys16
- Using a Headset with your Telephone 16
- Making and Receiving Calls using a Headset17
- Using Services 17

Troubleshooting 18

Limited Warranty 19

Introduction

Congratulations on your purchase of the Model TS-480i IP telephone! The TS-480i communicates over an IP Network, allowing you to receive and place calls in the same manner as a regular business telephone. This release of the TS-480i is capable of supporting the SIP protocol.

Phone Features

- A 3.5" x 2.25" backlit display
- 6 multi-functional softkeys
- 4 line/call appearance buttons with corresponding LEDs
- Enhanced busy lamp fields
- Set paging
- A speakerphone for handsfree calls
- Built-in-two-port, 10/100 Ethernet switch. Lets you share a connection with your computer
- Inline power support eliminates power adapters

Requirements

- SIP based IP PBX system or network installed and running with a SIP account created for the TS-480i phone
- Access to a Trivial File Transfer Protocol (TFTP) server
- Ethernet/Fast Ethernet LAN (10/100 Mb)
- Category 5/5e straight-through cabling
- Power source

For Ethernet networks that supply in-line power to the phone (IEEE 802.3af):

- For power, use the Ethernet cable (supplied) to connect from the phone directly to the network. (No 48v AC power adapter required.)

For Ethernet networks that DO NOT supply power to the phone:

- For power, use the 48V AC Power Adapter (included) to connect from the DC power port on the phone to a power source.
or
- (optional) For power, use a Power over Ethernet (PoE) power injector or a PoE switch. A PoE power injector is available as an optional accessory from Aastra Telecom. Contact your System Administrator for more information.

About this Guide

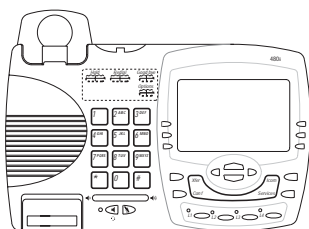
This guide describes how to physically set up your new TS-480i. Not all features listed are available by default and some may depend on your phone system or service provider. Contact your System Administrator if you have any questions on what features and services are available to you on your system.

Phone Parts

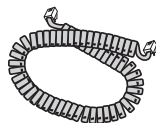
When you unpack your phone, you should ensure that you have all of the following items. If any part is missing, contact the supplier of your phone.



Handset



Telephone



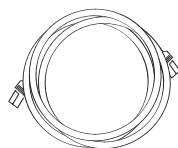
Handset cord



Stand

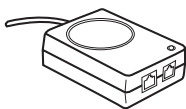


Number card and lens

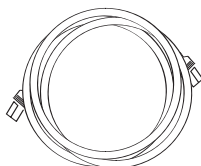


Ethernet cable

Optional Accessories (Not Included)



PoE (Power over Ethernet)
inline power injector

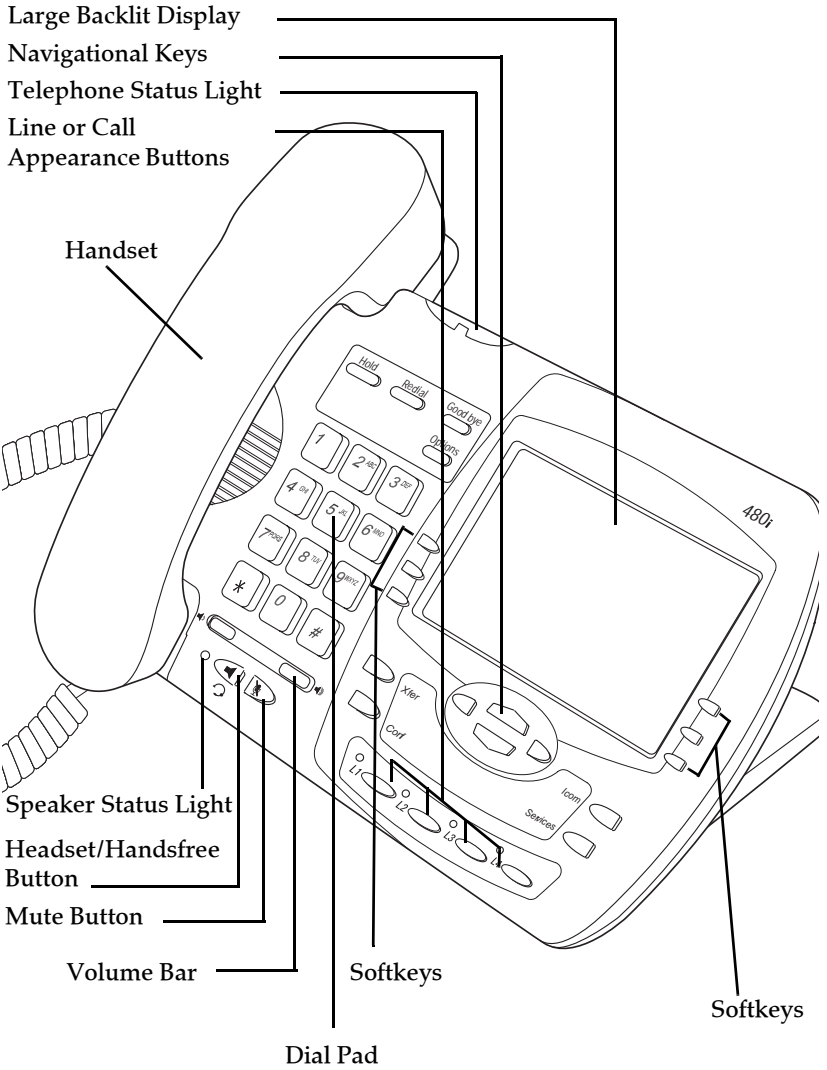


Additional Ethernet cable
(category 5/5e straight
through cable)




































A PoE (Power over Ethernet) inline power injector supplies 48v power to the TS-480i through the Ethernet Cable on pins 4 & 5 and 7 & 8. Do not use this injector to power other devices.

- **Voltage:** 110/120 V AC in; 48 V DC out
- **Safety and emissions:** Canada: ICES-003 Class A; Japan: VCCI Class A; U.S.: FCC Class A, CSA, C-Tick, NOM

Key Panel



Key Description

Keys	Key Description
	Places an active call on hold. To retrieve a held call, press the call appearance button beside the light that is flashing.
	Redials up to 100 previously dialed numbers.
	Pressing  ends an active call.  also exits an open list, such as  , without saving changes.
	The  button lets you access options to customize your phone. Your System Administrator may have already customized some of your settings. Check with your System Administrator before changing any Administrator-only options.
	Adjusts the volume for the handset, headset, ringer and handsfree speaker. For more information, see "Adjusting the Volume."
	Pressing  activates Handsfree so you can make and receive calls without lifting the handset. When the audio mode option is activated, this key is used to switch between a Headset () and the Handsfree () speakerphone. For more information, see "Customizing your Phone."
	Pressing  prevents the caller from hearing you through the handsfree, handset or headset microphone. The speaker light blinks quickly to indicate mute is active. To unmute, press  again.
	Pressing  transfers the active call to another number.
	Pressing  begins a conference call with the active call.
	Pressing  and  lets you move between screens. These buttons also let you scroll through menu selections, such as the Options List. Pressing  and  in the Options List will also cancel or show the current option. When you are editing entries on the display,  moves the cursor left and  moves the cursor right.
	Pressing  begins an intercom call to an extension on the system.
	Pressing  opens Services that are available to your phone, if Services have been configured.
   	Pressing one of the line or call appearance buttons connects you to a line or call.


Installation and Setup

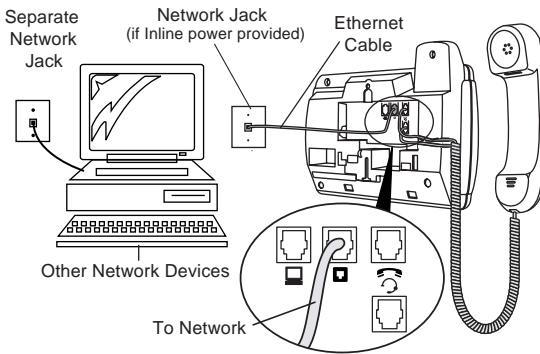
The TS-480i can be setup to share a network connection with another network device. Power can be provided by an 802.3af compliant network power source or with a PoE inline power injector (optional accessory). It can also be installed on a desk or mounted on the wall.

Direct or Shared Network Connection


The phone can be set up as a direct network connection to the Ethernet wall jack or as a shared network connection as a pass-through if connecting a computer or another network device to the phone.


Direct Network Connection

Located at the back of the phone are two fully switched 10/100 Mbps Ethernet cable ports. The port marked with  is used to connect the phone to the network, as well as provide power to your phone. For more information, see “Connecting to the network and to Power.”



Shared Network Connection


To connect a network device (such as a computer) to the phone, connect an Ethernet Cable into the network port on the back of the phone marked with . Plug the other end of the Ethernet Cable into the network port on the network device you are sharing the network connection with.

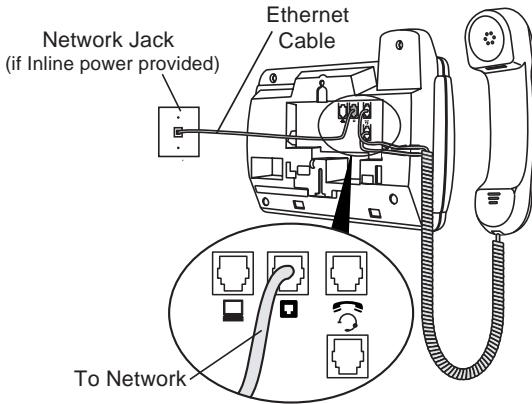
Note: The  jack on the TS-480i does not supply inline power onto other network devices. All Ethernet cables used must be category 5/5e straight-through cables, such as the cable provided with your phone.

Connecting to the Network and to Power

Inline Power Provided


If your network provides 802.3af compliant in-line power, the phone gets its power through the network.

1. On the back of your phone, connect the Ethernet Cable (provided with your phone) into the network port marked with .
2. Plug the other end of the Ethernet Cable directly into the network jack on the wall.



Inline Power Not Provided


If your network does not provide 802.3af compliant in-line power, you have to install the PoE inline power injector (optional accessory).

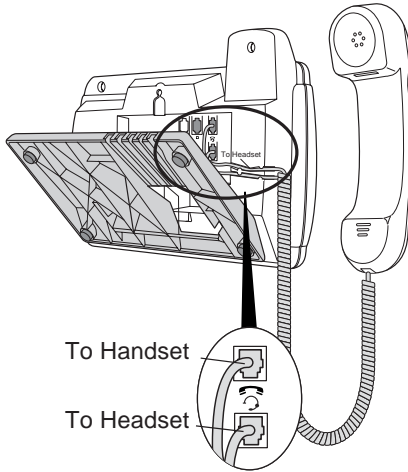
1. On the back of your phone, connect the Ethernet Cable (provided with your phone) into the network port marked with .
2. On the PoE power supply, plug the other end of the Ethernet Cable into the network jack marked as indicated below.
3. On the PoE power supply, connect an additional Ethernet Cable into the network port as indicated below.
4. Plug the other end of the Ethernet Cable into the network jack on the wall.
5. Plug the PoE power supply into a power outlet.

Note: You should connect the power supply to a surge protector or power bar. All Ethernet cables used must be category 5/5e straight-through cables, such as the cable provided with your phone.


Connecting a Handset or Headset

Handset

Turn the phone over and locate the handset jack marked . Insert one end of handset cord into the jack until it clicks into place. Then route the handset cord through the upper groove as shown in the next illustration. Attach the handset to the other end of the handset cord.



Headset (Optional)

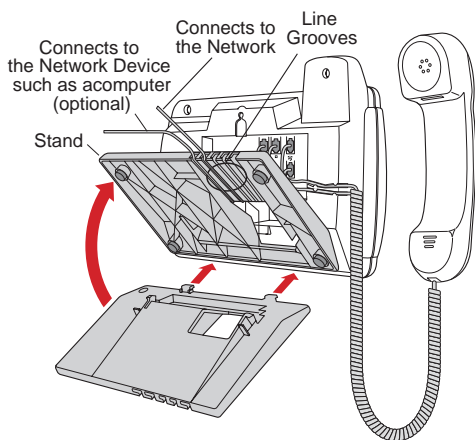
Turn the phone over and locate the headset jack marked . Insert the headset cord into the jack until it clicks into place. Then route the headset cord through the lower groove as shown in the previous illustration.

Desk or Wall Installation

Install on the Desk

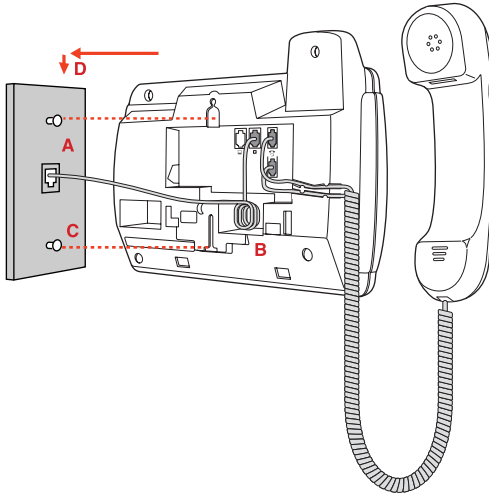
Route the cables through the opening in the stand. Attach the stand by inserting the tabs on the stand (marked with ↓) into the slots on the bottom of the phone. For a higher viewing angle, use the slots marked ↘.

For a lower viewing angle, use the slots marked ↙. Then push the stand towards the phone until it snaps into place. Press the cords into the grooves provided on the bottom of the stand. This will allow the stand to sit flat on a desk surface.



Install on the Wall

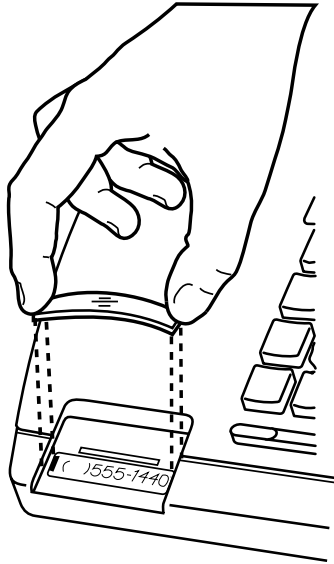
1. Connect the Ethernet cable to the wall network jack (A).
2. Coil the cable into the space provided on the back of the phone (B).
3. Align the phone so the hooks on the wall plate (C) align with the wall-mount slots on the back of the phone, as shown here.
4. Push the phone onto the pegs, and then slide it down until it is secure (D).



Note: You may wish to purchase a short Ethernet cable from a local supplier for a wall installation. Also, if 802.3af compliant in-line power is not provided on your network and you are installing the TS-480i on a wall using a PoE in-line power supply, you may also wish to use an equivalent flat Ethernet cable rather than the one provided.

Inserting Number Card

Write your phone number on the number card, and place it into the card slot on the phone, located under the mouthpiece in the handset cradle. Gently bend the clear plastic lens into the slot, over the number card.



Customizing your Phone

An admin password may be required in some cases to access or configure specific parameters on the phone. The default password is 22222. Once TalkSwitch has provisioned the phone, the new admin password is 23646 (spells ADMIN).

Internal Use

When connecting your IP phone to the same LAN as TalkSwitch, first ensure you have already configured this extension's information and MAC address in the TalkSwitch configuration software. Once configured and saved to TalkSwitch, connect the phone to the LAN then power it up. It will automatically detect TalkSwitch on the LAN and configure itself.


External Use







When connecting your IP phone at a remote location for external use, please perform the following steps:

1. Pre-configure the extension in the TalkSwitch configuration software and include the MAC address of the phone.
2. Before or after deploying the phone, power up the phone and select **Options**, then **Network Settings**.
3. Enter the administrative password for the phone set. If no password has been previously set by your phone System Administrator, enter a password of either '22222' or '23646'.
4. From the **Network Settings** menu, select *TFTP Server* then *Primary TFTP*. Enter the WAN (External) IP address or URL/ FQDN of your TalkSwitch location.
5. Press **Done** then reboot the phone. It then connects to the TalkSwitch system and updates its configuration.

If you encounter problems, please ensure the appropriate ports are forwarded from the router to the TalkSwitch unit acting as the proxy at that location; for more information, see the *TalkSwitch User Guide*. There should be no need to make any adjustments to the firewall at the IP phone's location.

Setting your Options

There is a list of configuration options, accessed by pressing the  button.

1. Press  to enter the Options List.
2. Use  and  to scroll through the list of options.
3. Press the **Show** softkey, the  button or press the digit number of the corresponding option to select an option.
4. Use the softkeys to change a selected option.
5. Press the **Done** softkey at any time to exit the option and save the change.
6. Press the **Cancel** softkey, the  button or the  button at any time to exit without saving changes.

The following options may change on the TS-480i:

Language

Select a language for the display prompts.

Note: Supported languages may vary.

Set Ring Tone

Press the **Change** softkey to select one of the four ring tones. Use the volume bar to increase or decrease the ringer volume level.

Clear Message Waiting

To clear the Message Waiting Light, select the **Clear** softkey. The light will flash again when there are new messages waiting.

Contrast Level

Use the **Change** softkey to cycle through 8 contrast settings, which brighten or darken the display.

Live Dial Pad*

Use this option to turn on or off the dial pad mode. With live dial pad on, the telephone automatically dials out and turns on Handsfree mode as soon as a dial pad key or softkey is pressed. With live dial pad off, you must dial the number first and then lift the handset or press the Handsfree button before the number is dialed. Press the **Change** softkey to turn on or off the dial pad mode.

Audio Mode

The TS-480i allows you to use a handset, a headset or handsfree to handle incoming and outgoing calls. This option provides different combinations of these three methods to provide maximum flexibility in handling calls.

There are four options to choose from:

- **Handsfree** — this is the default setting. Calls can be made or received using the handset or handsfree speakerphone and can be switched between the two modes by pressing the / button on the phone. When on handsfree, you can return to using the handset by placing the handset on the cradle and picking it up again.
- **Headset** — choose this setting if you want to make or receive all calls using a headset. Calls can be switched between the headset and handset by pressing the / button on the phone.
- **Spkr/Hset** — incoming calls will be sent to the handsfree speakerphone. By pressing the / button on the phone you can switch between the handsfree speakerphone, the headset and the handset.
- **Hset/Spkr** — calls will be sent to the headset. By pressing / the button on the phone you can switch between the headset, the handsfree speakerphone and the handset.

Talk to your System Administrator before changing any of these settings.

*Availability of feature dependant on your phone system or service provider.

Using your TS-480i IP Phone with TalkSwitch

Accessing Features

Notes:

1. If the feature keys are programmed for a specific feature then follow the first instruction for the appropriately labeled keys; otherwise, follow alternate instructions.
2. If the extension is configured to use Direct Line Access, then some features may require you to dial ***#** before dialing the feature code or placing internal calls.

Accessing an Outside Line

Dial hunt group 9 or 81-88. No hunt group is required if Direct Line Access is enabled for this extension.

Activate/Deactivate Do not Disturb

Press **DND** softkey, then on the next screen select ON or OFF; otherwise dial ***#62** to toggle ON or OFF.

Pick up — Any Inbound Call Ringing at Any Extension

Press the **Pickup Any** softkey, otherwise dial ***#9**.

Pick up — Specific Extension

1. Press **Pickup Ext** softkey.
2. On the next screen, enter the extension.
3. Press the **Pickup** softkey; otherwise dial ***#7** + extension.

Place a Caller on Hold

Press the **Hold** button.

Retrieve a Caller on Hold

Select flashing **Line** key or **Pickup** softkey.

Cycle through Callers on Hold or Queued

1. Press the **Line** key associated with the caller on hold;
or
If programmed, press the **Queue** key to see a list of queued calls.
2. Select the call you wish to retrieve.



Answer Call Waiting

Press the **Answer** softkey or the **Line** key associated with the new call.

Call Transfer

1. Press **Xfer** button + extension + **Dial** softkey.
2. To complete the transfer, press **Xfer**.



Voicemail Transfer

1. Press  button.
2. Press ***** + extension.
3. Press the **Dial** softkey.
4. Press  to complete the transfer.


Cancel Transfer

1. Press the **Cancel** softkey while in transfer state.
2. Press the **Pickup** softkey or flashing **Line** key to connect to the caller on hold.

Conference Call

1. Press  button to put the first party on hold.
2. Call the second party (first dial 9 or 81-88 for external calls).
3. Press the **Dial** softkey.
4. Press  button to join all parties.

Park a Caller


Press the **Park** softkey; otherwise,
press , then dial ***510** + **Dial** softkey.
The system responds with a parking orbit.

Retrieve a Parked Caller

1. With the phone onhook, press the **UnPark** softkey.
2. Select a parked call, then press the **UnPark** softkey; otherwise, dial ****** + orbit + **Dial** softkey.

Paging

Two-way Intercom Paging to TalkSwitch Phones from TS-480i

Press the Icom  button + extension + **Dial** softkey.

PA Overhead Paging

Press **Ovhd Page** softkey; otherwise, dial ***0**.


Attach Account Code to Last Call*

At dial tone, dial ***88** + <Account code> **#**.


*CDR logging must be active.

Engaging Line/Ext/Queue Appearances

1st Call

Press the softkey  associated to the line/ext/queue entity that has the icon in the bell state (ringing or on hold).

Additional Calls

1. Press the **Hold** button to put the current caller on hold.
2. Pick an available line (Eg. L2) then press the softkey  associated to the line/ext/queue entity that has the icon in the bell state (ringing or on hold).

VoiceMail

Access Mailbox

Locally

Press the **VoiceMail** softkey; otherwise dial *** * * #** + **Dial** softkey.

Remotely

Press *** * #** + <mailbox no.>

Change Greeting Options


Dial 2.

Change Personal Options

(password, date stamp, remote notification options)

Dial 3.




Message Playback Controls

Option	Dial
Rewind 10 seconds	1
Go to beginning	1 1
Skip ahead 10 seconds	3
Skip to end of message	3 3
Check time and date stamp	5
Forward message	6
Delete message	7
Save message	9
Skip to next message	

Other Phone Features


Adjusting the Volume

Pressing the volume button  adjusts the receiver, headset, speaker, and ringer volume.

- To adjust the ringer volume, leave the handset in the cradle and press the volume button  while there is no active call. There are 8 settings for the ringer — the display will temporarily indicate the current ringer volume setting.
- To adjust the handset volume, lift the handset and press the volume button while you are on a call. The handset will remain at this volume until it is adjusted again.
- To adjust the headset volume, press the volume button while you are on a call. The headset will remain at this volume until it is adjusted again.
- To adjust the speaker volume, press the volume button while the speaker is activated (activate the speaker by pressing  / ). The speaker will remain at this volume until it is adjusted again.

Status Lights

Speaker Light

- Speaker light is on solid: a call is on Handsfree (speakerphone).
- Speaker light flashes slowly: indicates that the headset is being used.
- Speaker light flashes quickly: indicates that the call is muted. Press  to take the call off mute.

Telephone Light

- Light flashes slowly: indicates you have messages.
- Light flashes quickly and the ringer sounds: indicates you have an incoming call.

Timer

When you make or answer a call, the Timer shows the elapsed time of the call.




Softkeys

The TS-480i has 6 softkeys that you can program with key features to make call handling and managing calls easier. Labels for the softkeys appear on the display after you configure the softkey for use.



Using a Headset with your Telephone

The TS-480i accepts headsets through the modular RJ22 jack on the back of the phone. Contact your telephone equipment retailer or distributor to purchase a compatible headset. An amplified headset is required. Customers should read and observe all safety recommendations contained in headset operating guides when using any headset.

Making and Receiving Calls using a Headset

1. Ensure that you have selected a headset audio mode by accessing the Options menu. For detailed information, see “Customizing your Phone.”
2. Plug the headset into jack.
3. Press the  /  key to obtain dial tone or answer an incoming call. Depending on the audio mode selected from the Options menu, dial tone or an incoming call will be received on either the headset or the handsfree speakerphone.
4. Press the  key to end the call.

Using Services







The Services key () on the TS-480i can access enhanced features such as Directory and Caller Log. You can press the  key to access the phone's services.

Troubleshooting

Why is my handset not working?

Check to ensure that the handset cord is fully connected to both the phone and handset. For more information, see “Connecting a Handset or Headset.”


Why is my speakerphone not working?

If you press  /  and the speaker light flashes and you do not hear dial tone, the Set Audio option has been used to set up the phone for headset use; press  /  a second time. If the light goes out, the phone is set up to be used only with a headset or handset. If the light stays on steady and you hear dial tone, you can alternate between the speakerphone and the headset by pressing  / . For more information, see “Customizing your Phone.”

Why is my display blank?

Ensure that power is being provided to your phone. If your Network does not provide Inline power over Ethernet, you can obtain an additional accessory, the a PoE inline power injector, to provide power over Ethernet locally to your phone. For more information, see “Connecting to the Network and to Power.”

Why can I only see four options on the display?

The telephone screen shows four options at a time. To see more, press the down arrow button .

How do I remove the stand from the phone?

Place one hand on top of the phone, and place the other hand on the top of the stand. Pull the stand away from the telephone. You will have to pull quite forcefully, but this will not break the stand.

Can I turn the light on the screen off?

No. You can only adjust the contrast of the display.

Why does the telephone wobble?

Make sure the cords are routed properly through the stand, as indicated in the Installation section. Check that the stand has been properly snapped into place.

What is a softkey?

There are three keys on both the left and right side of the display. They do different things, depending on the command displayed next to them. For more information, see “Softkeys.”

Limited Warranty

TalkSwitch warrants this product against defects and malfunctions during a one (1) year period from the date of original purchase. If there is a defect or malfunction, TalkSwitch shall, at its option, and as the exclusive remedy, either repair or replace the telephone set at no charge, if returned within the warranty period.

If replacement parts are used in making repairs, these parts may be refurbished, or may contain refurbished materials.

If it is necessary to replace the telephone set, it may be replaced with a refurbished telephone of the same design and color. If it should become necessary to repair or replace a defective or malfunctioning telephone set under this warranty, the provisions of this warranty shall apply to the repaired or replaced telephone set until the expiration of ninety (90) days from the date of pick up, or the date of shipment to you, of the repaired or replacement set, or until the end of the original warranty period, whichever is later. Proof of the original purchase date is to be provided with all telephone sets returned for warranty repairs.

Exclusions

TalkSwitch does not warrant its telephone sets to be compatible with the equipment of any particular telephone company. This warranty does not extend to damage to products resulting from improper installation or operation, alteration, accident, neglect, abuse, misuse, fire or natural causes such as storms or floods, after the telephone is in your possession.

TalkSwitch shall not be liable for any incidental or consequential damages, including, but not limited to, loss, damage or expense directly or indirectly arising from the customers use of or inability to use this telephone, either separately or in combination with other equipment. This paragraph, however, shall not apply to consequential damages for injury to the person in the case of telephones used or bought for use primarily for personal, family or household purposes.

This warranty sets forth the entire liability and obligations of TalkSwitch with respect to breach of warranty, and the warranties set forth or limited herein are the sole warranties and are in lieu of all other warranties, expressed or implied, including warranties or fitness for particular purpose and merchantability.

Warranty Repair Services

Should the set fail during the warranty period;

In North America, please call 1-866-393-9960 for further information.

Outside North America, contact your sales representative for return instructions.

You will be responsible for shipping charges, if any. When you return this telephone for warranty service, you must present proof of purchase.

A

Adjusting the Volume 16

B

Backlit Display 3

C

Clear Msg. Wtg. 12
 Conference key 4
 Connecting a Handset or Headset 7
 Connecting to the Network
 and to Power 6
 Customizing your phone 11

D

Desk or Wall Installation 8
 Direct Network Connection 5
 Direct or Shared Network
 Connection 5

G

Goodbye key 4

H

Handset 7
 Handsfree key 4
 Headset (Optional) 7
 Headset key 4
 Hold key 4

I

Inline Power Not Provided 6
 Inline Power Provided 6
 Inserting Number Card 10
 Install on the Desk 8
 Install on the Wall 9
 Installation 4
 Installation and Setup 5
 Intercom key 4
 Introduction 1, 19

K

Key Description 3

L

Line 1 key 4
 Line 2 key 4
 Line 3 key 4
 Line 4 key 4
 Live Dial Pad* 12

M

Making and Receiving Calls
 using a Headset 17
 Mute key 4

O

Optional Accessories 3
 Options key 4
 Other Phone Features 16

P

Phone Features 1
 Phone Parts 2

R

Redial key 4
 Requirements 1

S

Scroll keys 4
 Services key 4
 Shared Network Connection 5
 Softkeys 16
 Speaker Light 16
 Status Lights 16

T

TalkSwitch, TS-480i and
 accessing outside line 13
 answer call waiting 13
 call transfer 13
 cancel transfer 14
 conference call 14
 cycle through callers on hold
 or queued 13

DND 13
engaging line/ext/queue
 appearances 15
message playback controls 15
paging 14
park a caller 14
pickup calls 13
place call on hold 13
retrieve held call 13
retrieve parked call 14
voicemail 15
voicemail transfer 14

Timer 16

Troubleshooting 18

U

Using a Headset with your
Telephone 16
Using Services 17

V

Volume control key 4

W

Warranty 19

X

Xfer key 4

If you've read this owner's manual and consulted the Troubleshooting section and still have problems, please visit our website at www.talkswitch.com, or call 1-866-393-9960 for technical assistance.

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