

TALKSWITCH TELEPHONE SYSTEMS

A full-featured, all-in-one telephone system that handles both traditional and VoIP telephony.

- VOICE OVER IP ENABLED
- BUILT-IN SIP SERVER
- VOICEMAIL
- CELL/PAGER/E-MAIL NOTIFICATION OF NEW MESSAGES
- AUTO ATTENDANTS
- REMOTE EXTENSIONS
- AUTO FAX DETECTION
- DIAL-BY-NAME DIRECTORY
- AUTOMATIC ROUTE SELECTION
- MUSIC ON HOLD
- USER-CONFIGURABLE
- CALL FORWARD
- CALL CASCADE
- CALL DETAIL RECORD LOGGING
- RING GROUPS
- CALL BACK/CALL BRIDGE
- CALL HOLD/PARK/PICKUP
- CALL TRANSFER
- CALL CONFERENCE
- INTERCOM
- PUBLIC ADDRESS
- CALL QUEUE
- MODE SCHEDULING
- HOLIDAY MODE
- CALL SCREENING
- DISTINCTIVE RING
- USES STANDARD AND IP PHONES
- EXPANDABLE
- LAN CAPABILITY
- FLASH UPGRADEABLE
- LOCAL & REMOTE MANAGEMENT
- EXPANDABLE MEMORY
- UNIFORM CALL DISTRIBUTION

## TALKSWITCH 284vs

The TalkSwitch 284vs is a hybrid telephone system capable of handling both traditional telephone and Voice over IP calls. Using VoIP allows calls from one location to be routed over the Internet to a VoIP-equipped TalkSwitch (or VoIP gateway) in another location, eliminating long distance charges.

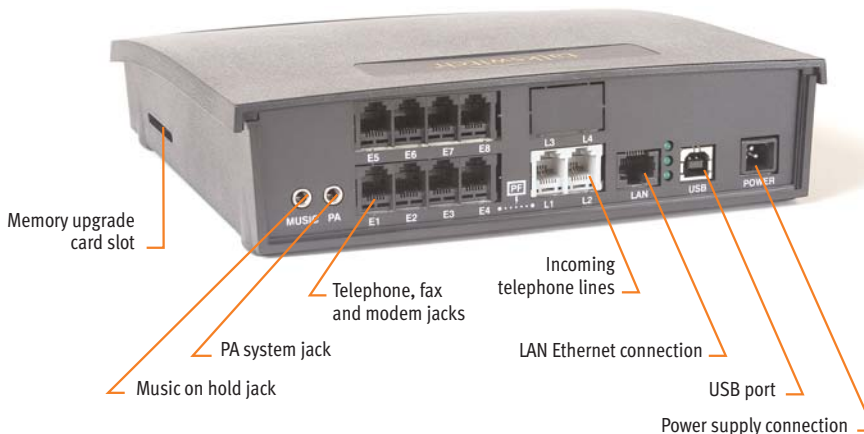
The TalkSwitch 284vs is also able to directly integrate into a service provider network to take advantage of VoIP calling services. And the system is built on the SIP protocol, so you know it will work with the industry-standard VoIP products and services of today and tomorrow.

TalkSwitch 284vs systems include all the features that we're known for. Voicemail, auto attendants, innovative remote extensions and sophisticated call handling helps businesses look big, reduce communications costs and stay connected everywhere. With standard connections for fast and easy installation and free PC configuration software, TalkSwitch 284vs set-up and changes are a snap.

### CAPACITY

- 2 lines in
- 8 analog or IP local extensions
- 10 remote extensions
- 4 VoIP trunks
- 9 auto attendants
- 28 voice mailboxes
- expandable

### CONNECTIONS



**Extensions:** 8 standard 2-pin RJ-11 ports — TalkSwitch 284vs units support up to 8 standard analog telephones and fax machines or IP telephones.

**PA Output:** 1/8" mono phone jack to connect the TalkSwitch 284vs to a PA system to announce calls, or to a local speaker to monitor incoming calls and voicemail

**Audio Input:** 1/8" mono phone jack allows connection of standard audio devices (CD players, radio or PC soundcards) for music or messages on hold. TalkSwitch can also play a .wav file stored on the TalkSwitch.

**Ethernet Connection:** RJ-45 10BaseT Ethernet connection for LAN networking and management and access to 4 VoIP trunks.

**Memory Card Slot:** The TalkSwitch 284vs comes with 30 minutes of built-in voicemail and auto attendant memory, which can be upgraded by up to 9 hours. The memory can also be expanded by 1- and 2-hour license codes.

**Incoming Lines:** 2 standard 2-pin RJ-11 ports; support for Caller ID and distinctive ringing.

**USB Port:** TalkSwitch 284vs units can optionally be connected to a PC via a USB port for configuration. Ethernet cable and configuration software is included. The system does not need to be connected to a PC to function.

**Power Source:** 120 VAC, 60 Hz — In. 16 VAC, 1.5 A — Out. AC adapter included.

### GROW YOUR OWN WAY

Single and multi-location organizations come in all shapes and sizes and each one has its own unique telephone needs. So we designed TalkSwitch with a smooth evolutionary path that protects your investment. TalkSwitch is made to expand with you as your company grows and changes.

Add lines, extensions, VoIP trunks or all three with TalkSwitch upgrades, or add other TalkSwitch units to your network for increased capacity. TalkSwitch systems can be expanded up to 16 traditional lines, 16 VoIP trunks and 64 local extensions.

### FREE SOFTWARE UPDATES. YES, FREE.

**Software:** TalkSwitch comes with free user-friendly Windows-based configuration software. We're continually adding features and functionality to our software, and we don't charge for updates.

**Warranty:** The TalkSwitch 284vs is covered by a limited one-year warranty.

### TECHNICAL SPECIFICATIONS

<b>System</b>		Ringing sensitivity	45 volts RMS @ 20 Hz
Analog trunks	2	REN	0.7B
VoIP trunks	4	Longitudinal balance	69 dB
Analog extension interfaces	8	Signal level	-10 dB
USB interface	1	Distinctive ring supported	Yes
LAN interface	RJ-45 Ethernet (10BaseT)	Caller ID support	FSK, all lines
Memory expansion	1, 2, 4.5 and 9-hour memory cards, 1- or 2-hour license codes		
Power-failure line to extension jacks:	Extension 4 connects to Line 1		

#### Analog extension interface

Connector type	RJ-11, 2-pin
Trunk type	Loop start
Interface impedance	600 ohms
Loop range	0-600 ohms
Hook flash supported	Yes
On-hook voltage	35 volts
Off-hook loop voltage source	35 volts
Off-hook loop current	23 mA to 40 mA
Dial tone level	-2.4 dBm
Ringing voltage	90 volts RMS
Ringing frequency	20 Hz – true sine wave
Total ringing load	5 REN

#### Analog trunks

Connector type	RJ-11, 2-pin
Trunk type	Loop start
Interface impedance	Configurable
	600 ohms, 600 complex
	900 ohms, 900 complex
Ringing impedance	3,900 ohms

#### VoIP features

- Embedded SIP server and user agents
- Integrated registrar
- Can use external SIP servers as required
- RTP
- G.711  $\mu$ -law/A-law, G.726 (32 Kbps), G.729a
- G.168 echo cancellation
- VAD, silence suppression
- Adaptive jitter buffer
- Packet loss concealment
- Fax tone detection

#### Dimensions (H x W x L)

Metric	51.6 mm x 203.2 mm x 213.4 mm
Imperial	2.03" x 8" x 8.4"

#### Weight

Metric	0.74 kg
Imperial	1.62 lbs

#### Regulatory Approvals

**CE** ACTA TIA/EIA/IS-968A and FCC Part 68  
 Industry Canada CS-03  
 FCC Part 15B, Industry Canada ICES-003  
 Power adapter complies with UL and CSA

#### About TalkSwitch

TalkSwitch® designs and develops award-winning phone systems for small, multi-location and franchise businesses. Since its establishment in 1990, TalkSwitch has dedicated itself to developing PBXs and IP PBXs that tens of thousands of small businesses across North America rely on. With a growing global network of resellers, distributors and partners, TalkSwitch phones and phone systems are changing the way small businesses communicate. For more information, please visit our website at [www.talkswitch.com](http://www.talkswitch.com), or call us toll free in North America at 1.888.332.9322. In all other markets call +1.613.725.2980.

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