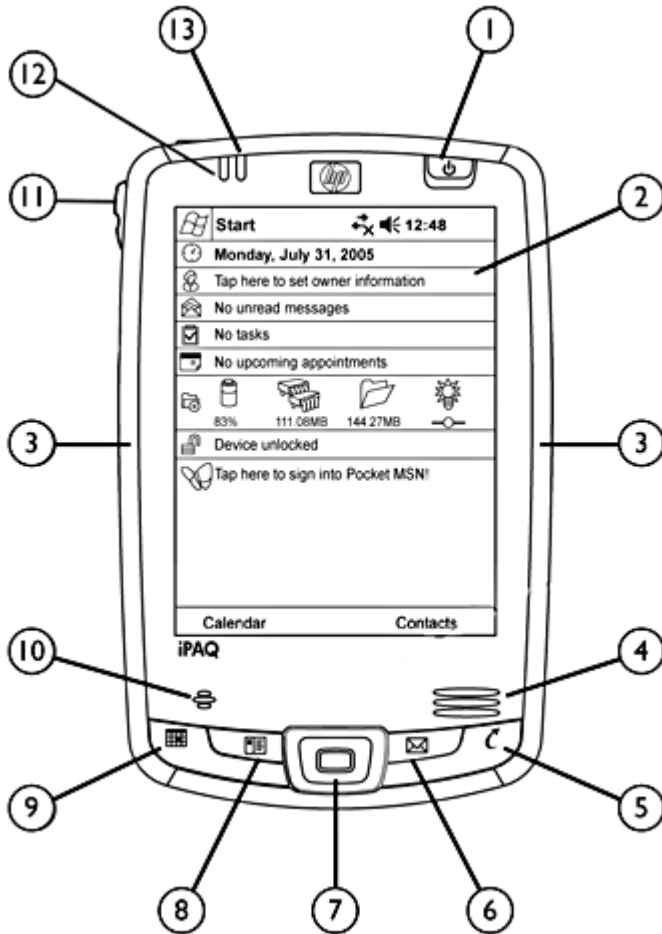
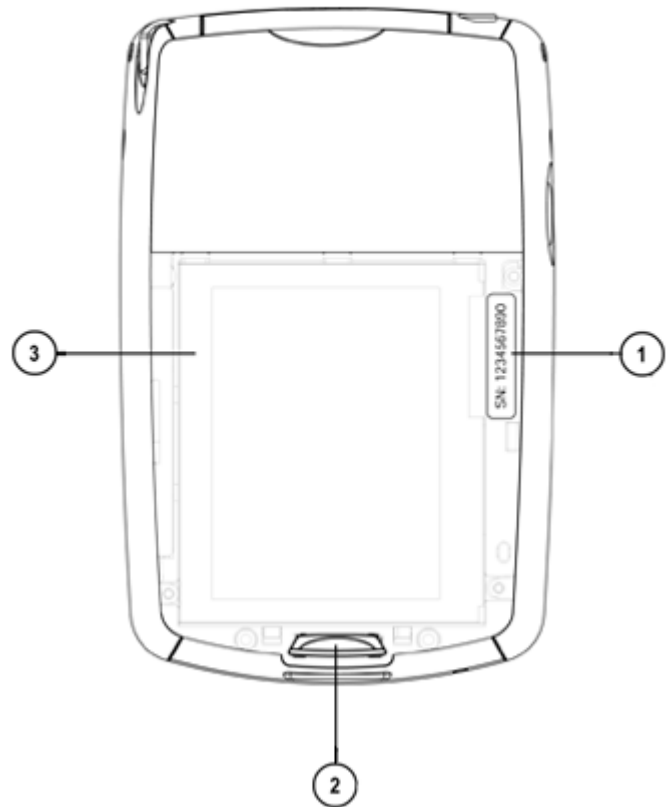


Overview



Front Image

- | | |
|----------------------------|--------------------------------|
| 1. Power Button | 8. Contacts Button |
| 2. Color Display | 9. Calendar Button |
| 3. Rubber Side Grips | 10. Microphone |
| 4. Speaker | 11. Voice Record Button (side) |
| 5. iTask Button | 12. Wireless LED |
| 6. Messaging Button | 13. Charging/Notification LED |
| 7. 5-way Navigation Button | |



Back Image

- | |
|-------------------------------------|
| 1. Serial number under battery door |
| 2. Battery Door Cover Release |
| 3. Battery Door Cover |

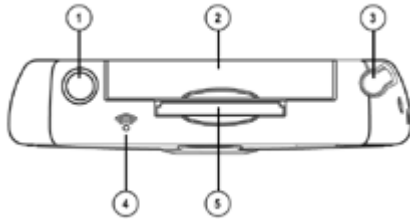
NOTE: This image shows the product with the battery door removed.

Overview

At A Glance

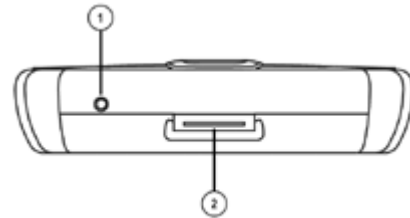
- Marvell PXA270 Processor 312 MHz
- Integrated Bluetooth® wireless technology¹
- Integrated Compact Flash type II (CF) and Secure Digital (SDIO) slots
- HP ProtectTools secured by Credant Technologies security application⁴
- 3.5" transfective TFT QVGA color LED backlight display, landscape and portrait display modes
- Microsoft® Windows Mobile™ 5.0 Software for Pocket PC, Premium Edition
- Removable/rechargeable 920 mAh battery
- Integrated Serial IR
- Protective plastic flip cover
- Pocket versions of familiar applications like Microsoft® Outlook®, Word, Excel, and PowerPoint

NOTE: ¹ A standard WLAN (Wi-Fi) infrastructure, other Bluetooth-enabled devices, separately purchased equipment, and a service contract with a wireless airtime provider may be required for applicable wireless communication. Wireless Internet use requires a separately purchased service contract. Check with wireless network service providers for availability and coverage in your area. Not all web content available.



Top Image

1. Headphone/Headset Jack
2. Compact Flash (CD) Expansion Slot
3. Stylus
4. Serial IR (Infrared) Port
5. Secure Digital (SDIO) Expansion Slot



Bottom Image

1. Reset Button
2. Charging ActiveSync Connector

Standard Features

Models

iPAQ Pocket PC hx2190b – 192 MB ROM, 64 MB SDRAM, Bluetooth and Serial IR

FA673B#ABA – US Commercial, English

Processor	Marvell PXA270 Processor 312 MHz
	NOTE: Intel's processor numbering is not a measurement of higher performance.

Memory	User Available Memory	256 MB total memory (192 MB ROM and 64 MB SDRAM) Up to 128 MB user available persistent storage memory
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Display	Type	Transflective TFT QVGA color with LED backlight with power save mode
	Modes	Portrait and landscape
	Number of Colors	64K color (65,536 colors) 16-bit
	Touch Screen	Yes
	Resolution (W x H)	240 x 320 pixels
	Dot Pitch	0.24 mm
	Viewable Image Size	3.5 in (89 mm)

Hardware Buttons/ Reset Buttons	Power, soft reset, 5-way navigation, voice record, calendar, contacts, messaging, and iTask buttons. (The last 5 buttons are re-programmable.)	
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Stylus	One – Included in the box	
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Audio	Integrated microphone, speaker and one 3.5 mm stereo headphone jack	
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Indicators	LED 1 – Power	Solid amber LED – battery in unit fully charged Flashing amber LED – battery in unit charging Flashing green LED – event alarm/notification
	LED 2 – Wireless	Flashing blue LED – wireless Radio enabled

Cradle Interfaces	Connector	1 – 22 pin
	DC Power jack connector for AC/DC Adapter connection	1

Standard Features

Other interfaces	IrDA (SIR)
	USB 2.0 Client – Supported via HP standard 22-pin cradle interface
	Serial RS232 – Supported via HP standard 22-pin cable interface (cable must be purchased separately)
	NOTE: Some HP authorized options may not be supported. See: http://www.hp.com/go/ipaqaccessories .

SD Slot	Support 1-bit SDIO and 4-bit SD/MMC type memory standard
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CF Slot	1 Type II
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Power Supply	Battery	Removable/rechargeable 920 mAh Lithium-Ion (user changeable) Optional extended 2880 mAh Lithium-Ion battery available for purchase separately (http://www.hp.com/go/ipaqaccessories).
	AC Power	AC Input: 100~240 Vac, 50/60 Hz, AC Input current: 0.3 Aac max Output Voltage: 5Vdc (typical), Output Current: 2A (typical)
NOTE: Battery run time varies based on the usage pattern of an individual user and the configuration of the handheld. Use of internal wireless capabilities and backlight will significantly decrease battery run time.		

AC Adapter	Dimensions (H x W x D)	3 x 1.9 x 1.8 in (76 x 48 x 44 mm – including prongs), (may vary by model)		
	Cord Length (approx.)	6 ft (1.83 m)		
	Power Supply Ratings	Voltage Range	100 to 240 V Switching	
		Input Current	0.3 Aac	
		Input Frequency	50 to 60 Hz	
		Output Voltage	5 VDC	
Output Current	2 Amp			

System Unit	Dimensions (H x W x D)	4.71 x 3.01 x .65 in (119.4 x 76.6 x 16.3 mm)		
	Weight	5.8 oz (164.4 g)		
	Operating Temperature	32° to 104° F (0° to 40° C)		
	Storage Temperature	-4° to 140° F (-20° to 60° C)		
	Operating Humidity	90% RH		
	Regulatory Marks	Electrical	FCC Class B, UL or CSA NRTL	
		Safety	C-UL, NOM	

Design Features	4 programmable application quick-launch buttons, 5-way navigation button, touch-sensitive display for stylus or fingertip, voice record button, microphone and speaker, rubber sides for a comfortable grip
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Standard Features

Operating System Microsoft® Windows Mobile™ 5.0 for Pocket PC, Premium Edition
Mobile versions of Microsoft software are included (Outlook®, Word®, Excel®, PowerPoint®, Windows Media® Player, and Internet Explorer®)

Operating System Applications Powered by Microsoft® Windows Mobile™ 5.0 Software for Pocket PC, Premium Edition; Calendar, Contacts, Messaging (with Spell Checker for email), Tasks, Voice Recorder, Notes, Word Mobile (with Spellchecker), Excel Mobile, PowerPoint Mobile Internet Explorer Mobile, Windows Media Player 10 Mobile, Calculator, Solitaire, Jawbreaker, File Explorer, Terminal Services Client, Beam, Clock, Align Screen, Memory, Volume.

In the box HP iPAQ hx2190 series Pocket PC, lithium-Ion 920 mAh removable/rechargeable battery, AC adapter, charger adapter, USB autosync cable, stylus, protective plastic flip cover, HP iPAQ Product Information Guide, and HP iPAQ Getting Started disc.

Additional Software and links Microsoft ActiveSync 4.1, Microsoft Reader eBooks, and links to Microsoft websites for additional downloadable applications (**NOTE: some programs may require purchase of additional desktop software to utilize Pocket PC versions**).

Service and Support One-year parts and labor in most regions; 90 days technical support for software in most regions. Additional offers may vary by region.

HP Exclusive Applications

- HP ProtectTools secured by Credant Technologies: help secure your device and your data⁴
- Bluetooth Phone Manager: connect to a Bluetooth enabled phone and browse the Internet^{1,2,3}
- Bluetooth Manager: manage your Bluetooth connections and settings
- iPAQ Wireless: manage your wireless connections
- iTask: launch and switch between tasks and applications
- HP Image Zone for Pocket PC: view images and create slide shows
- Utilities: Self Test, iPAQ Audio, Power Status, Certificate Enroller

Getting Started Disc from HP

Applications

Full Versions

ActiveSync 4.1
Adobe Reader for PC
BVRP Live Update
Funk Odyssey® Client for Windows Mobile™
WorldMate (NA Retail only)
Windows Media Player 10

Trial Versions

Audible Player

CD Links

Handango

Additional Documentation

Important Safety Information on PDF, and Additional Product Information PDF

NOTE: Programs may vary based on model. Some programs are accessed through CD links to download web sites.

Standard Features

Specifications¹

Bluetooth specification	Bluetooth devices 1.2 compliant (2.4-GHz Industrial Scientific Medical Band)
System interface	High-speed UART processor interface
User Interface	Bluetooth Manager
Device type	Class II device; up to 4 dBm transmit, typical 10 meter range
Power	3.3V 5% Peak current – typical TX current at approximately 30 mA – typical RX current at approximately 50 mA
Receiver sensitivity	-83 dBm
Regulatory standards	R&TT#-EN 300 328 and EN 300 826, UL 1950, CB Safety Scheme inclusive of EN 60950 and IEC 950, FCC Part 15 subpart C, Canadian, CE
Profile Support	General Access Profile Service Discovery Application Profile Serial Port Profile Generic Object Exchange Profile File Transfer Profile Dial-Up Networking Profile LAN Access Profile Object Push Profile Personal Area Networking Profile Basic Printing Profile Hard Copy Replacement Profile (printing) Headset Support Profile Human Interface Device Profile Advanced Audio Distribution Profile Audio Video Remote Control Profile Hands Free Profile Basic Imaging Profile
Usage Models	Service Discovery Determine what Bluetooth devices are within range and support authorization File Transfer File and directory browsing and navigation on another Bluetooth device. File copying Object manipulation – including add, delete, create new folders etc. Serial Port Synchronization between PDAs and PCs Dial Up Networking Wireless link to WAN thru Bluetooth enabled cell phone ^{1,2,3} Agnostic to WAN technology Send/receive SMS messages LAN Access Wireless link to Corporate LAN using Bluetooth and appropriate Bluetooth access point ¹ Corporate email, network neighborhood, access to LAN applications, file transfer, ftp, Internet browsing, etc, using TCP/IP ¹ Access the Internet by connecting to your desktop or notebook over Bluetooth and using its network connection ¹

Standard Features

Generic Object Exchange and Object Push

Exchange business cards, tasks, documents, appointments and more¹

Personal Area Networking

Collaborate, chat, play games, exchange data¹

Adhoc peer to peer networking¹

Basic Printing and Hard Copy Replacement Profiles

Print to any HP Bluetooth enabled printer without the need for cables or specific print drivers

Certifications

All necessary regulatory approvals for countries supported including:
Bluetooth logo (FCC (47 CFR) Part 15C, Section 15.247&15.249 ETS 300 328, ETS 301 489-1/17 Low Voltage Directive IEC950 UL and CE Mark)

NOTE:

¹ A standard WLAN (Wi-Fi) infrastructure, other Bluetooth-enabled devices, separately purchased equipment, and a service contract with a wireless airtime provider may be required for applicable wireless communication. Wireless Internet use requires a separately purchased service contract. Check with wireless network service providers for availability and coverage in your area. Not all web content available.

Options

NOTE: Optional accessories are available at additional cost.

Memory/Storage	128 MB SD Memory Card	FA135A#AC3
	256 MB SD Memory Card	FA136A#AC3
	512 MB SD Memory Card	FA184A#AC3
	1 GB SD Memory Card	FA283A#AC3
	128 MB miniSD Memory Card*	FA602A#AC3
	256 MB miniSD Memory Card*	FA603A#AC3
	512 MB miniSD Memory Card*	FA604A#AC3
* Models with full-sized SD slots will require the use of an SD adapter (included).		
Power	1440 mAh Lithium Ion Standard Battery	FA285x#AC3
	2880 mAh Lithium Ion Extended Battery	FA286x#AC3
	Automobile Adapter	FA125A#AC3 or FA690B#AC3
	Charger Adapter AC Adapter (WW)	FA133A#AC3 FA372x#AC3
Synchronization	Desktop Cradle	FA260B#AC3
	AutoSync Cable (USB and Serial)	FA122A#AC3
Input Devices	Stylus Three-pack	FA261A#AC3
	Foldable Keyboard	FA118A#ABA
	Thumb Keyboard	FA302A#AC3
Navigation	iPAQ Navigation System – (U.S. only)	FA196A#ABA
Headphones	Bluetooth Stereo Headphones	FA303A#ABA
Cases	Premier Leather Case	FA662A#AC3
	iPAQ Rugged Case	FA288A#AC3
	Nylon slim Case	FA161A#AC3
	Leather Belt Case	FA160A#AC3
	Premier Leather Belt Case	FA350A#AC3
	Custom Cases: to view and order go to: http://www.casesonline.com	

Options

NOTES:

¹ A standard WLAN (Wi-Fi) infrastructure, other Bluetooth-enabled devices, separately purchased equipment, and a service contract with a wireless airtime provider may be required for applicable wireless communication. Wireless Internet use requires a separately purchased service contract. Check with service provider for availability and coverage in your area. Not all web content available.

² Requires Bluetooth enabled mobile, separately purchased wireless carrier/Internet service plan(s) and supporting IT infrastructure.

³ Telephone service requires separately purchased contract with a telephone service provider with coverage in your service area.

⁴ User must have HP Protect Tools features enabled.

HP iPAQ Pocket PC features Windows Mobile™ software

For more information on HP iPAQ Pocket PC, visit our website at <http://www.hp.com/go/iPAQ>

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