

gotive®

User's Guide

H42

Communicator



Trademarks

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Revision History

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Table of Contents

Trademarks	2
Revision History	2
Table of Contents	3
Important User Information	5
Disclaimer	5
Conventions	5
Alerts that can be found throughout this manual	5
Safety Notices and Warnings	6
Installation in Cupboards and Safes	6
Do Not Operate in an Explosive Atmosphere	6
Do Not Make Repairs Yourself	6
Safety on the road	6
Emergency calls	6
Navigating Safely	6
Global Positioning System	6
For vehicles equipped with an air bag	7
Vehicle installation	7
Use an Appropriate Power Supply	7
Antistatic Precautions	7
Interference	7
Medical devices	7
Implanted medical devices	7
Switch off in aircraft	7
Switch off when refuelling	7
Life Support Policy	8
Batteries	8
Storage of battery pack	8
Long term storage of battery pack	8
Continuous operation	8
Backup battery replacement	8
Important Handling Information	9
Carrying the device	9
LCD display care and maintenance	9
Keeping the device within acceptable temperatures	9
Cleaning the device and docking pads	9
Laser devices	10
CE Marking and European Economic Area (EEA)	11
National Restrictions	11
Declaration of Conformity	12
FCC Information for the User	13
FCC Statement	13
Co-located statement	13
Exposure to Radio Frequency Radiation	13
Waste Electrical and Electronic Equipment (WEEE)	14
Restriction of Hazardous Substances (RoHS)	14
Service and Support	15
Transportation	15
Warranty	15
END-USER LICENCE AGREEMENT	16
Introduction	17
Welcome Statement	17
H42 Configurations	17
Getting Started	18
Introduction	18
Features summary	18
Unpacking the Mobile Computer	18
Accessories	19
Parts	19

Hand Strap Assembly and Removal.....	21
Battery Pack Assembly the Removal.....	21
SIM card Insertion and Removal	22
Door Assembly and Removal.....	22
SD card Insertion and Removal	22
Door Assembly and Removal.....	23
Device Battery Charging	23
Spare Battery Charging	23
Main Battery Exchanging	24
Stylus	24
Starting and Suspending the Communicator	24
Operating the Communicator.....	25
Introduction.....	25
Action Keys	25
Reset the Communicator	25
Performing Hard Reset	25
Performing Soft Reset	25
Navigating the display.....	27
The taskbar	28
Start Menu.....	28
Charging Policy of H42	29
Battery notification in the system tray.....	29
Virtual Keyboard.....	30
Physical keyboard.....	31
Persistent storage.....	31
SD Card	31
Autorun Feature.....	31
Control panel	32
Action Keys (Gotive).....	32
BCR Control (Gotive).....	33
Firmware Control	34
LCD Control	34
Power.....	35
Display Advanced Backlight.....	37
Rotation control	37
Stylus (System)	37
Upgrade Firmware in H42 Communicator	39
Upgrade using SD card	39
Upgrade via USB cable	41
Emergency restart of the upgrade procedure	43
Setting up Connections.....	44
GPRS Connection	44
Creating new GPRS connection.....	44
Closing an opened connection.....	46
WLAN Connection	47
PC Connection via Microsoft ActiveSync.....	49
Installing Microsoft ActiveSync USB Connection (Windows XP)	49
Installing Windows Mobile Device Center USB Connection (Windows 7).....	51
Creating Microsoft ActiveSync IrDA connection.....	53

Important User Information

Disclaimer

The information contained in this document is the property of Gotive a.s. and may be used only for the purposes of operating and servicing the relevant equipment manufactured by Gotive a.s.

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In order to lower the risk of personal injury, electric shock, fire or damage to equipment, users must observe the following precautions, as well as good technical judgment, whenever this product is being installed or used.

All reasonable efforts have been made to ensure the accuracy of this document; however, Gotive a.s. assumes no liability resulting from any error/omission in this document, or from the use of the information contained herein.

Gotive a.s. reserves the right to revise this document and to change its contents at any time without obligation to notify any person of such revision or changes.

Gotive a.s. reserves the right to make changes to any product to improve reliability, function, or design.

Conventions

Alerts that can be found throughout this manual

The following alerts are used within this manual and indicate potentially dangerous situations:

Danger, electrical shock hazard:

Information regarding potential electrical shock hazards:



- Personal injury or death could occur. Also damage to the system, connected peripheral devices, or software could occur if the warnings are not carefully followed.
- Appropriate safety precautions should always be used, these should meet the requirements set out for the environment that the equipment will be deployed in.

Warning:

Information regarding potential hazards:



- Personal injury or death could occur. Also damage to the system, connected peripheral devices, or software could occur if the warnings are not carefully followed.
- Appropriate safety precautions should always be used, these should meet the requirements set out for the environment that the equipment will be deployed in.



Information and/or Notes:

These will highlight important features or instructions that should be observed.

Safety Notices and Warnings

The following general safety precautions must be observed during all phases of operation, service, and repair of the equipment. Failure to comply with these precautions or with specific warnings elsewhere in this manual violates safety standards of design, manufacture, and intended use of the equipment. Gotive assumes no liability for the customer's failure to comply with these requirements.

The safety precautions listed below represent warnings of certain dangers of which Gotive is aware of. You, as the user of the product, should follow these warnings and all other safety precautions necessary for the safe operation of the equipment in your operating environment.

Installation in Cupboards and Safes

In the event that the product is placed within a cupboard or safe, together with other heat generating equipment, ensure appropriate ventilation.

Do Not Operate in an Explosive Atmosphere

Do not operate the equipment in the presence of flammable gases or fumes. Operation of any electrical equipment in such an environment constitutes a definite safety hazard.

Do Not Make Repairs Yourself

Do not attempt to open your communicator or disassemble it. You run the risk of electric shock and voiding the limited warranty. No user-serviceable parts are inside.

Safety on the road

Do not operate the device while driving. Operating the device takes attention away from your primary responsibility, driving safely. When driving a car, driving is your first responsibility – Give full attention to driving. Check the laws and regulations on the use of wireless devices in the areas where you drive. Always obey them. When using a wireless device behind the wheel of a car, practice good common sense and remember the following tips:

- Get to know your wireless device and any features.
- When available, use a hands free device
- Let the person you are speaking with know you are driving; if necessary suspend the call in heavy traffic or hazardous weather conditions. Rain, sleet, snow, ice, and even heavy traffic can be hazardous.
- Dial sensibly and assess the traffic; if possible, place calls when you are not moving or before pulling into traffic. Try to plan calls when your car will be stationary. If you need to make a call while moving, dial only a few numbers, check the road and your mirrors, then continue.

Emergency calls

You should not rely on wireless devices for essential communications, such as medical emergencies. Emergency numbers and services vary by region, and sometimes an emergency call cannot be placed due to network availability or environmental interference.

Navigating Safely

If your device has an application that provides maps, directions and location-based navigation assistance, these applications should only be used for basic navigation assistance and should not be relied on to determine precise locations, proximity, distance, or direction.

Do not use maps, directions, or location-based applications while performing activities that require your full attention.

Global Positioning System

The Global Positioning System (GPS) is a satellite-based system that provides location and timing information around the globe. GPS is operated and controlled under the sole responsibility of the Government of the United States of America which is responsible for its availability and accuracy. Any changes in GPS availability and accuracy, or in environmental conditions, may impact the operation of your device. Gotive cannot accept any liability for the availability and accuracy of GPS.

For vehicles equipped with an air bag

An air bag inflates with great force. Do not store your device or any of its accessories in the area over the air bag or in the air bag deployment area.

Vehicle installation

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles such as electronic fuel injection systems, electronic antiskid (antilock) braking systems, electronic speed control systems, and air bag system. For more information, check with the manufacturer, or its representative, of your vehicle or any equipment that has been added. Only qualified personnel should service the device or install the device in a vehicle. Faulty installation or service may be dangerous and may invalidate any warranty that may apply to the device. Check regularly that all wireless device equipment in your vehicle is mounted and operating properly. Do not store or carry flammable liquids, gases, or explosive materials in the same compartment as the device, its parts, or enhancements.

Position your device within easy reach. Be able to access your device without removing your eyes from the road systems.

Do not place your device on the passenger seat or any other place where it can break loose in a collision or sudden stop. Use your device with optional card docking station in your car.

Use an Appropriate Power Supply

Use only the AC adapter that is provided / recommended by Gotive.

Antistatic Precautions

To avoid ESD (Electro Static Discharge) damage, always use appropriate antistatic precautions when handing any electronic equipment.

Interference

All wireless devices may be susceptible to interference, which could affect performance.

Medical devices

Operation of any radio transmitting equipment, including wireless phones, may interfere with the functionality of inadequately protected medical devices. Consult a physician or the manufacturer of the medical device to determine if they are adequately shielded from external RF energy or if you have any questions. Switch off your device in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy.

Implanted medical devices

Manufacturers of medical devices recommend that a minimum separation of 15.3 centimeters (6 inches) should be maintained between a wireless device and an implanted medical device, such as a pacemaker or implanted cardioverter defibrillator, to avoid potential interference with the medical device. Persons who have such devices should:

- Always keep the wireless device more than 15.3 centimeters (6 inches) from the medical device when the wireless device is turned on.
- Not carry the wireless device in a breast pocket.
- Hold the wireless device to the ear opposite the medical device to minimize the potential for interference.
- Turn the wireless device off immediately if there is any reason to suspect that interference is taking place.
- Read and follow the directions from the manufacturer of their implanted medical device.
- If you have any questions about using your wireless device with an implanted medical device, consult your health care provider.

Switch off in aircraft

Follow any restrictions. Wireless devices can cause interference in aircraft.

Switch off when refuelling

Do not use the device at a refueling point. Do not use near fuel or chemicals.

Life Support Policy

Gotive products are not authorized for use as critical components in life support devices or systems without the express written approval of Gotive.

Batteries

The product uses a Lithium-Ion and Lithium-Polymer batteries. Do not use it in a humid, wet and/or corrosive environment. Do not put, store or leave your device in or near a heat source, in high temperature location, in strong direct sunlight, in a microwave oven or in a pressurized container, and do not expose it to temperatures over 60°C (140°F). Do not expose the battery to a fire. Do not heat the battery. Do not short the terminals of the battery. Do not carry or store battery together with metal objects. Do not expose the battery to liquid, or allow the contacts to get wet. Do not salivate the contacts. Do not solder directly onto the battery. Do not discharge the battery using any device except those that are specified. When used in devices other than those specified, the battery pack can be damaged and its life expectancy reduced. If the device causes any abnormal current to flow, it may cause the battery pack to become hot, ignite or explode and cause serious injury. Failure to follow these guidelines may cause the batteries to leak acid, become hot, explode or ignite and cause injury and/or damage. Do not pierce, open or disassemble the battery. If the battery leaks and you come into contact with the leaked fluids, rinse thoroughly with water and seek medical attention immediately. For safety reasons, and to prolong the lifetime of the battery, charging will not occur at low (below 0°C/32°F) or high (over 45°C/113°F) temperatures. Do not operate device without the battery pack. Operating the device without the main battery can significantly reduce lifetime of the backup battery. Avoid charging of batteries in car during the night in the cold freezing weather. Do not leave the device on charger behind the car window for long time in hot sunny weather if the car is not ventilated or air conditioned.



Warning:

Only use the Li-Ion battery pack provided by Gotive.

The use of any other battery pack not sold/manufactured by Gotive in the H42 device will void your warranty and may result in damage to the H42 device.



Battery product safety:

The Lithium-Ion battery pack contained in the product must be recycled or disposed of properly. Use only the AC adapter that is provided / recommended by Gotive.

Storage of battery pack

The removed battery pack or inserted in the device should be stored within a range of temperatures specified in the product specification otherwise it may cause loss of characteristics, leakage and/or rust. Optimal storage temperature should be in range -20°C (-4°F) to 25° (77°F).

Long term storage of battery pack

The battery pack should be used within a short period after charging because long-term storage may cause loss of capacity by self-discharging. If long-term storage is necessary, the battery pack should be stored at 50% of its capacity range because storage at higher capacity range may cause loss of characteristics. Optimal storage temperature should be in range -20°C (-4°F) to 25°C (77°F). Long term storage may reduce battery capacity. It is not recommended to store batteries for longer period than 1 year.

Continuous operation

Operation of battery pack continuously in the device with full charging capacity state in combination with high ambient temperature may cause loss of characteristics or damage the battery. It is recommended to discharge battery once a month

Backup battery replacement

The backup battery in the device should be replaced only by an authorized service provider.

Important Handling Information

Carrying the device

H42 device contains sensitive components. Do not bend, drop, or crush the device.

LCD display care and maintenance

Use only stylus pen delivered by Gotive or fingers to operate LCD touch panel. It is allowed to use gloves when operating LCD touch panel by fingers. Do not use any other tools, sharp objects or pen to operate LCD touch panel.

To clean LCD screen lightly wipe to clean the dirty surface with absorbent cotton or other soft material like chamois, soaked in the LCD liquid cleaner without scrubbing it hard. Always wipe the surface horizontally or vertically. Never give a wipe in a circle. To prevent the display surface from damage and to keep the appearance in good state, it is sufficient, in general, to wipe it with absorbent cotton.

LCD display is equipped with screen protector foil to ensure maximal optical performance and mechanical protection of the screen. When foil is wear out by extensive usage you can replace this protection foil with a new LCD screen protector offered by Gotive as spare part. Anyway changing LCD screen protector requires certain ability therefore we strongly recommend to relinquish this operation to authorize service centre.

The response time of the LCD will be extremely delayed at the temperatures lower than specified operating temperature range. However, this phenomenon does not mean defect of the LCD module. It will disappear in the standard operating temperature range.

If the display area is had pushed during an operation, some display patterns will be abnormally displayed.

Pointed position of touch panel may shift owing to a change in parameters of touch panel depending on the operating condition. To compensate this shift, the set shall be given a calibration function.

Keeping the device within acceptable temperatures

Operate the device in a place where the temperature is between -10°C to 60°C (14°F to 140°F). When you are using the device or charging the battery, it is normal for the device to get warm. The exterior of the device functions as a cooling surface that transfers heat from inside the unit to the cooler air outside.

Cleaning the device and docking pads

To clean the device you should undock the device from cradle and turn the device into Suspend mode. Then use a soft, slightly damp lint-free cloth for cleaning body of the device. Avoid getting moisture in openings. Do not use window cleaners, household cleaners, aerosol sprays, solvents, alcohol, ammonia, or abrasives to clean the device.

Special care must be taken to clean and maintain the docking pads. Use dry antistatic brush [1] to release mechanical impurities and dust. To remove residual dust from the docking pads use Airduster [2]. Afterwards finalize cleaning process by using swab stick wetted with Isopropanol (IPA) [3]. Do not blow by yourself to substitute Airduster.

[1] Antistatic [brush](#) can be purchased at [Farnell](#).

[2] [Airduster](#) can be purchased at [Farnell](#).

[3] [Isopropanol](#) can be purchased at [Farnell](#).

Laser devices

Complies with 21CFR1040.10 and 1040.11 except for deviations pursuant to Laser Notice No.50, dated July 26 2001, and with EN60825-1:1994+A1:2002+A2:2001, and with IEC60825-1:1993+A1:1997+A2:2001.



Caution:

Do not look directly into the window area or a reflection of the laser beam while the laser is scanning. Long-term exposure to the laser beam can damage your vision

The laser classification is marked on one of the labels on the device.

Class 2 laser scanners use a low power, visible light diode. As with any very bright light source, such as the sun, the user should avoid staring directly into the light beam. Momentary exposure to a Class 2 laser is not known to be harmful.

CE Marking and European Economic Area (EEA)

This product has the CE labelling in accordance with the 1999/5/EC regulations. This Product is intended to be operated in the following countries:

AT, BE, CY, CZ, DK, EE, FI, FR, DE, GR, HU, IE, IT, LV, LT, LU, MT, NL, PL, PT, SK, SI, ES, SE, GB, IS, LI, NO, CH, BG, RO, TR.

The following conformity mark is added to the WLAN product in accordance to annex VII of 1999/5/EC:



National Restrictions

RLAN's (2.4GHz) for use through the EEA have the following restrictions:

- Maximum radiated transmit power of 100 mW EIRP in the frequency range 2.400 - 2.4835 GHz indoor and outdoor
- France: the output power is restricted to 10mW in frequency range 2.436 GHz to 2.4835 GHz of the 2.4 GHz band (affected channels 8, 9, 10, 11, 12, 13). Check <http://www.arcep.fr/> for more details.
- Belgium: The Belgian Institute for Postal Services and Telecommunications (BIPT) must be notified of any outdoor wireless link having a range exceeding 300 meters. We recommend checking <http://www.bipt.be> for more details.
- Italy requires a user license for outside usage.

Declaration of Conformity

Gotive hereby, declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Table 1. Declaration statement

Czech (CS)* Česky	Toto zařízení je v souladu se základními požadavky a ostatními odpovídajícími ustanoveními směrnice 1999/5/ES
Danish (DA)* Dansk	Dette udstyr er i overensstemmelse med de væsentlige krav og andre relevante bestemmelser i Direktiv 1999/5/EF.
Estonian (ET)* Eesti	See seade vastab direktiivi 1999/5/EÜ olulistele nõuetele ja teistele asjakohastele sätetele.
English (EN)*	This equipment is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC
German (DE)* Deutsch	Dieses Gerät entspricht den grundlegenden Anforderungen und den weiteren entsprechenden Vorgaben der Richtlinie 1999/5/EG
Greek (EL)* Ελληνική	Αυτός ο εξοπλισμός είναι σε συμμόρφωση με τις ουσιώδεις απαιτήσεις και άλλες σχετικές διατάξεις της Οδηγίας 1999/5/EK
Finnish (FI)* Suomi	Tämä laite täyttää direktiivin 1999/5/EY olennaiset vaatimukset ja on siinä asetettujen muiden laitetta koskevien määräysten mukainen.
French (FR)* Français	Cet appareil est conforme aux exigences essentielles et aux autres dispositions pertinentes de la Directive 1999/5/CE
Hungarian (HU)* Magyar	Ez a készülék teljesíti az alapvető követelményeket és más 1999/5/EK irányelvben meghatározott vonatkozó rendelkezéseket.
Icelandic (IS)* Íslenska	Þetta tæki er samkvæmt grunnkröfum og öðrum viðeigandi ákvæðum Tílskipunar 1999/5/EB
Italian (IT)* Italiano	Questo apparato è conforme ai requisiti essenziali ed agli altri principi sanciti dalla Direttiva 1999/5/CE
Latvian (LV)* Latviski	Šī iekārta atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lithuanian (LT)* Lietuvių	Šis įrenginys tenkina 1999/5/EB Direktyvos esminius reikalavimus ir kitas šios direktyvos nuostatas.
Maltese (MT)* Malti	Dan l-apparat huwa konformi mal-hitgiet essenziali u l-provedimenti l-ohra rilevanti tad- Direttiva 1999/5/KE
Netherlands (NL)* Dutch	Dit apparaat voldoet aan de essentiële eisen en andere van toepassing zijnde bepalingen van de Richtlijn 1999/5/EG
Norwegian (NO)* Norsk	Dette utstyret er i samsvar med de grunnleggende krav og andre relevante bestemmelser i EU-direktiv.1999/5/EC
Polish (PL)* Polski	Urządzenie jest zgodne z ogólnymi wymaganiami oraz szczególnymi warunkami określonymi Dyrektywą UE: 1999/5/WE
Portuguese (PT)* Português	Este equipamento está em conformidade com os requisitos essenciais e outras provisões relevantes da Directiva 1999/5/CE
Spanish (ES)* Español	Este equipo cumple con los requisitos esenciales así como con otras disposiciones de la Directiva 1999/5/CE
Slovenian (SL) Slovensko	Ta naprava je skladna z bistvenimi zahtevami in ostalimi relevantnimi pogoji Direktive 1999/5/ES
Slovak (SK)* Slovensky	Toto zariadenie je v súlade so základnými požiadavkami a ostatnými príslušnými ustanoveniami smernice 1999/5/ES
Swedish (SV)* Svenska	Denna utrustning är i överensstämmelse med de väsentliga kraven och andra relevanta bestämmelser i direktiv 1999/5/EG

FCC Information for the User

FCC Statement

H42 device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

Co-located statement

The FCC approval excludes co-location with any other transmitter. To comply with FCC RF exposure compliance requirement, the antenna used for this transmitter must not be colocated or operating in conjunction with any other transmitter/antenna.

Exposure to Radio Frequency Radiation

To comply with RF exposure requirements, please maintain a separation distance of at least 20cm / 7 inches from any part of the product.



Note:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Waste Electrical and Electronic Equipment (WEEE)

The information below is issued in compliance with the regulations set out in the 2002/96/EC directive, subsequently superseded by 2003/108/EC. It refers electrical and electronic equipment and the waste management of such products.

When disposing of a device, including all of its components, subassemblies and materials that are an integral part of the product, you should consider the WEEE directive.

The symbol to the right has been attached to the equipment or, if this has not been possible, on the packaging, instruction literature and/or the guarantee sheet. By using this symbol, it states that the device has been marketed after August 13th 2005, and implies that you must separate all of its components when possible, and dispose of them in accordance with local waste disposal legislations:



- Because of the substances present in the equipment, improper use or disposal of the refuse can cause damage to human health and to the environment
- With reference to WEEE, it is compulsory not dispose of the equipment with normal urban refuse, arrangements should be instigated for separate collection and disposal
- Contact your local waste collection body for more detailed recycling information
- In case of illicit disposal, sanctions will be levied on transgressors

Restriction of Hazardous Substances (RoHS)

This device, including all its components, subassemblies and the consumable materials that are an integral part of the product, has been manufactured in compliance with the European directive 2002/95/EC known as the RoHS directive (Restrictions on the use of certain Hazardous Substances). This directive targets the reduction of certain hazardous substances previously used in electrical and electronic equipment (EEE).

Service and Support

If you encounter problems during routine operation of H42 devices consult chapters in this guide for the cause of and solution to your problem. If the problem persists please visit our Support page:

www.gotive.com/support

Here you can find all the necessary information, manuals, developer's forum, updates and other downloads. Also you can find there, how to contact Gotive Support.

Transportation

When transporting any module or system, for any reason, it should be packed using anti-static material and placed in a sturdy box with enough packing material to adequately cushion it.



Warning:

The products warranty will be void if any product returned to Gotive and is damaged due to inappropriate packaging!

Warranty

For Warranty terms and conditions users should contact their local Gotive Sales Office.

END-USER LICENCE AGREEMENT

You have acquired a device („DEVICE“) which includes software licensed by GOTIVE from one or more software licensors („GOTIVE's Software Suppliers“). Such software products, as well as associated media, printed materials and „online“ or electronic documentation („SOFTWARE“) are protected by international intellectual property laws and treaties. The SOFTWARE is licensed, not sold. All rights reserved.

IF YOU DO NOT AGREE TO THIS END USER LICENCE AGREEMENT („EULA“), DO NOT USE THE DEVICE OR COPY THE SOFTWARE. INSTEAD, PROMPTLY CONTACT GOTIVE FOR INSTRUCTIONS ON RETURN OF THE UNUSED DEVICE(S) FOR REFUND. ANY USE OF THE SOFTWARE, INCLUDING BUT NOT LIMITED TO USE ON THE DEVICE, WILL CONSTITUTE YOUR AGREEMENT TO THIS EULA (OR RATIFICATION OF ANY PREVIOUS CONSENT).

GRANT OF SOFTWARE LICENCE. This EULA grants you the following license:

You may use the SOFTWARE only on the DEVICE.

NOT FAULT TOLERANT. THE SOFTWARE IS NOT FAULT TOLERANT. GOTIVE HAS INDEPENDENTLY DETERMINED HOW TO USE THE SOFTWARE IN THE DEVICE. AND GOTIVE'S SOFTWARE SUPPLIERS HAS RELIED UPON GOTIVE TO CONDUCT SUFFICIENT TESTING TO DETERMINE THAT THE SOFTWARE IS SUITABLE FOR SUCH USE.

NO WARRANTIES FOR THE SOFTWARE. THE SOFTWARE is provided „AS IS“ and with all faults. THE ENTIRE RISK AS TO SATISFACTORY QUALITY, PERFORMANCE, ACCURACY, AND EFFORT (INCLUDING LACK OF NEGLIGENCE) IS WITH YOU. ALSO, THERE IS NO WARRANTY AGAINST INTERFERENCE WITH YOUR ENJOYMENT OF THE SOFTWARE OR AGAINST INFRINGEMENT. IF YOU HAVE RECEIVED ANY WARRANTIES REGARDING THE DEVICE OR THE SOFTWARE, THOSE WARRANTIES DO NOT ORIGINATE FROM, AND ARE NOT BINDING ON, GOTIVE'S SOFTWARE SUPPLIERS.

Note on Java support. The SOFTWARE may contain support for programs written in Java. Java technology is not fault tolerant and is not designed, manufactured, or intended for use or release as online control equipment in hazardous environments requiring fail-safe performance, such as in the operation of nuclear facilities, aircraft navigation or communication systems, air traffic control, direct life support machines, or weapons systems, in which the failure of Java technology could lead directly to death, personal injury, or severe physical or environmental damage. Sun Microsystems, Inc. has contractually obligated GOTIVE'S SOFTWARE SUPPLIERS to make this disclaimer.

No liability for Certain Damages. **EXCEPT AS PROHIBITED BY LAW, GOTIVE'S SOFTWARE SUPPLIERS SHALL HAVE NO LIABILITY FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES ARISING FROM OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THE SOFTWARE. THIS LIMITATION SHALL APPLY EVEN IF ANY REMEDY FAILS OF ITS ESSENTIAL PURPOSE.**

Limitations on Reverse Engineering, Decompilation, and Disassembly. You may not reverse engineer, decompile, or disassemble the SOFTWARE, except and only to the extent that such activity is expressly permitted by applicable law notwithstanding this limitation.

SOFTWARE TRANSFER ALLOWED BUT WITH RESTRICTIONS. You may permanently transfer rights under this EULA only as part of a permanent sale or transfer of the DEVICE, and only if the recipient agrees to this EULA. If the SOFTWARE is an upgrade, any transfer must also include all prior versions of the SOFTWARE.

EXPORT RESTRICTIONS. You acknowledge that SOFTWARE is of US and international origin. You agree to comply with all applicable international and national laws that apply to the SOFTWARE, including the U.S. Export Administration Regulations, as well as end-user, and-use and country destination restrictions issued by U.S. and other governments. For information on exporting the SOFTWARE, see also <http://www.microsoft.com/exporting/>

Application developer undertakes to fulfil the requirements of directives in force for his territory to provide at any time the possibility to dial the emergency call number active in the territory of use, provided that the device is equipped with GSM module.

Introduction

Welcome Statement

Congratulations on purchasing Gotive H42 Wireless Enterprise Communicator. Gotive H42 is an ideal electronic handheld device for outdoor mobile enterprise applications that involve collecting, processing, managing, and communicating business data at the point of activity. Through the unique all-in-one integration of a powerful handheld computer, global positioning system (GPS), wireless networking (WLAN), Bluetooth (BT), mobile phone (GSM) and automatic data capture (BCR) Gotive H42 enables mobile workers to dramatically increase the effectiveness and efficiency in accomplishing their data management tasks while staying connected via voice or data communication channels. The sophisticated ergonomic rugged design ensures that even the most repetitive operations can be done with maximum ease causing the lowest possible strain for the user. This all together supported by our continuous drive for product quality makes Gotive H42 one of the best products in its class and guarantees maximum return on the investment made by purchasing this product.

We at Gotive would like to wish our customers best of success in their work and a most rewarding and enjoyable experience with Gotive H42.

H42 Configurations

The guide covers the configurations described in the following table.

Table 2. H42 Configurations

Product Code	Description
H42TBTWB	Color TFT LCD, Bar Code Reader, Bluetooth, WLAN,
H42TBTWMG	Color TFT LCD, Bluetooth, WLAN, GSM&GPRS, GPS
H42TBTWMGB	Color TFT LCD, Bar Code Reader, Bluetooth, WLAN, GSM&GPRS, GPS
H42TBTWBS	Color TFT LCD, Bar Code Reader, Bluetooth, WLAN, Smart Card Reader
H42TBTWMGS	Color TFT LCD, Bluetooth, WLAN, GSM&GPRS, GPS, Smart Card Reader
H42TBTWMGBS	Color TFT LCD, Bar Code Reader, Bluetooth, WLAN, GSM&GPRS, GPS, Internal Smart Card Reader
H42TBTWBA	Color TFT LCD, Bar Code Reader, Bluetooth, WLAN, Internal Smart Card Reader
H42TBTWMGA	Color TFT LCD, Bluetooth, WLAN, GSM&GPRS, GPS, Internal Smart Card Reader
H42TBTWMGBA	Color TFT LCD, Bar Code Reader, Bluetooth, WLAN, GSM&GPRS, GPS, Internal Smart Card Reader

Getting Started

Introduction

This chapter describes the mobile computer physical characteristics, how to install and change batteries, how to remove and replace Hand Strap and how to start the mobile computer for the first time.

Features summary

Table 3. System architecture

PROCESSOR	PXA 270 @ 520 MHz
MEMORY	128 MB RAM - 1 GB Non Volatile FLASH
MEMORY EXPANSION	User accessible expansion SD card up to 32 GB
DISPLAY	6.2" TFT 640 x 240 pixels HVGA (153 x 58 mm effective area) Touch Screen - 64K Colours Dynamic landscape/portrait mode switch
LED	1 System status LED 1 WWAN status LED 1 GPS status LED
AUDIO	Integrated 18 bit sound – 1 speaker – 1 microphone
I/O	1 USB host & client (needs relevant accessory)
IrDA	115 Kbps
WPAN	Bluetooth Class 1 internal antenna
WLAN	Integrated IEEE 802.11b/g with internal antenna
WWAN	Integrated GSM/GRPRS class 10 with internal antenna – User accessible SIM card slot Tri-Band 900/1800/1900MHz or 850/1800/1900MHz (USA)
GPS	Integrated ultra fast 50 channel, SBAS & A-GPS support, NMEA & UBX protocols, GALILEO ready, SuperSense® Indoor GPS Technology – Internal antenna
DATA CAPTURE	Integrated high performance 1D laser scanner On screen signature capture
KEYBOARD/Buttons	On screen finger friendly keyboard freely resizable and freely programmable Free programmable Side Action Keys and Triangular Buttons, Suspend and Reset Button
POWER	17.8 Wh 4800 mAh Li-Ion hot swappable battery pack Non removable Li-Po rechargeable backup battery
BATTERY CHARGING	Universal power supply Variety of charging accessories – see respective data sheet
PEN DEVICE	Integrated stylus
OPERATING SYSTEM	Microsoft Windows CE 5.0
APPLICATION DEVELOPMENT	Gotive SDK for Visual Studio.NET and Embedded Visual C++
DIMENSIONS	230x94x34 mm (9.05x3.70x1.34 in)
WEIGHT	From 580g depending on configurations (battery included)
OPERATING TEMPERATURE	-10 to +60°C (battery charging 0 to 45°C)
STORAGE TEMPERATURE	-20 to +60°C
HUMIDITY	95% relative humidity non condensing
ENVIRONMENTAL	IP54
DROP SPECIFICATIONS	1,2 m (4 ft) onto concrete

Unpacking the Mobile Computer

Carefully remove all protective material from around the mobile computer and save the shipping container for later storage and shipping.

Accessories

Table 4 lists the H42 Accessories.

Table 4. H42 Accessories

Product Code	Description
H42ACC0115	Lithium Ion Battery Pack
H4XACC0133	Travel Charger Plug
H42ACC0158	SmartCap USB Host, Audio
H42ACC0159	SmartCap RS232
H42ACC0160	SmartCap USB Host/Client, Audio
H4XACC0134	Power Supply Adapter EUR
H4XACC0144	Power Supply Adapter UK
H4XACC0132	Cigarette Lighter Adapter 12V/24V
H42ACC0153	Pistol Grip
H42DSAGR	Docking Station with GPS and RS232 and antenna connectors
H41ACC0112	Stylus
H4XACC0161	LCD Protection Foil
H41ACC0105	USB Cable A-B
H41ACC0104	RS 232 Serial Cable M-M
H41ACC0114	Hand Strap
H41ACC0109	Carrying Case Basic
H41ACC0131	Carrying Case Functional
H42ACC0146	Battery Pack Charging Station (10 positions)
H42ACC0164	H42 Multi Charging Station with Ethernet and Lock (10 positions)
H4XACC0150	H42 Multi Charging Station (10 positions)

Parts

Figure 1 shows device parts. Details about device parts are described in Table 5.

Table 5. Main device parts – front view

Part	Description
1	LCD Screen with touch pad
2	Side button (ACTION_KEY_1)
3	Side button (ACTION_KEY_2)
4	Triangle button (ACTION_KEY_0)
5	On/Suspend button
6	Microphone
7	Speaker
8	Multipurpose LED Indicator (System status / WWAN status)
9	Hand Strap lock
10	Bar Code Scanner
11	Bar Code Scanner visor
12	Hand Strap
13	GPS antenna area

Table 6. Main device parts – back view

Part	Description
12	Hand Strap
14	Hand Strap screw
15	Stylus
16	Battery pack
17	Antenna connector
18	Antenna connector
19	Docking and connection interface
20	Battery pack lock
21	Product Label
22	SD card compartment Door
23	SD card compartment Door lock
24	SD card slot
25	SAM card slot
26	SIM card slot
26	RESET button

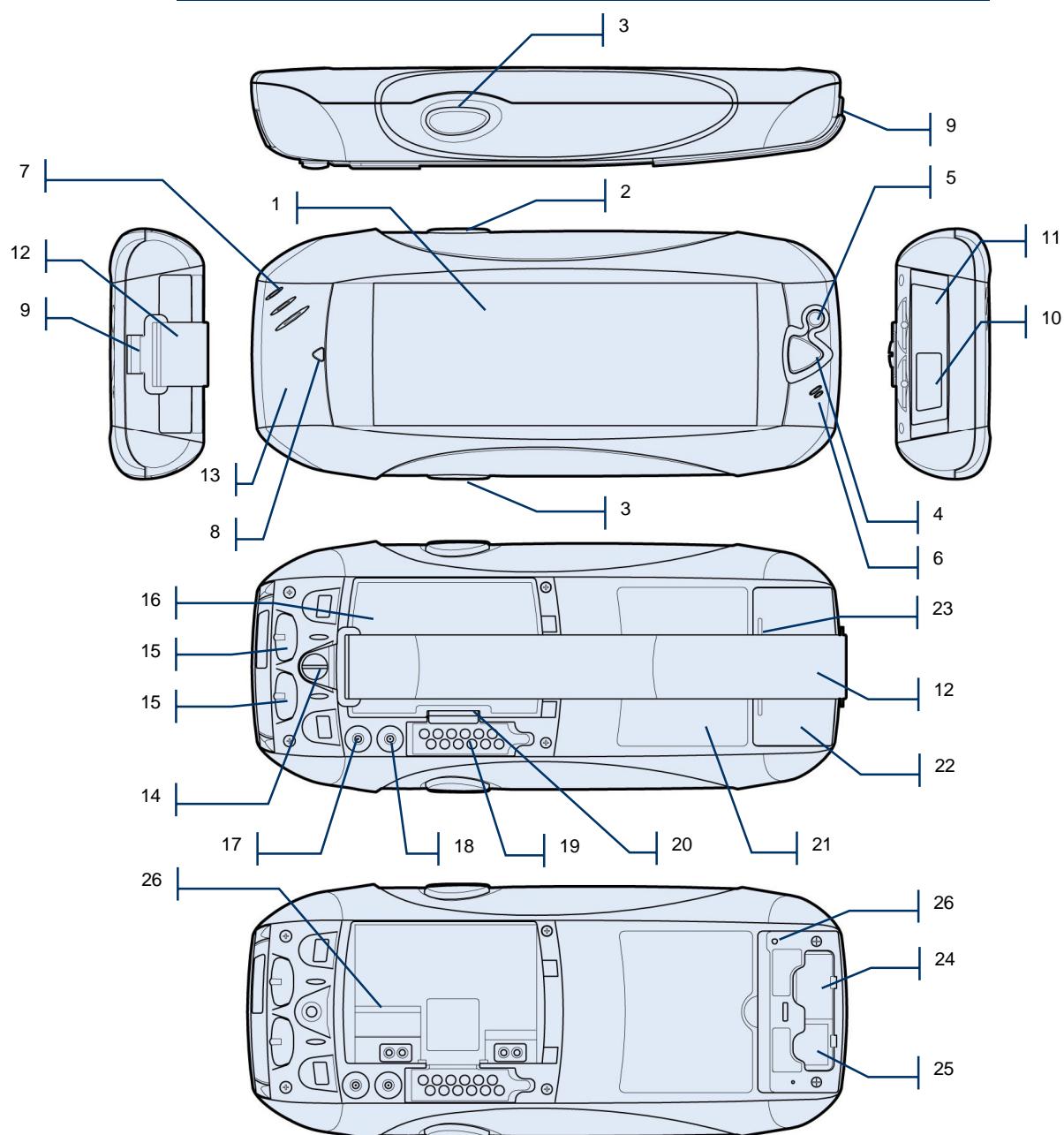


Figure 1. Device parts

Hand Strap Assembly and Removal

Hand Strap is flexible part of the device which helps to hold safely in the hand. Hand Strap can be removed partly on one side or completely. To remove on one side it is necessary to lift Hand Strap lock [9] (see *Figure 2*). On other side of Hand Strap there is screw [14] used. This screw can be released with help of screwdriver or even small coin.

To assembly Hand Strap reversed order must be applied. It is necessary to assembly screw first [14] and afterwards insert Hand Strap lock [9].

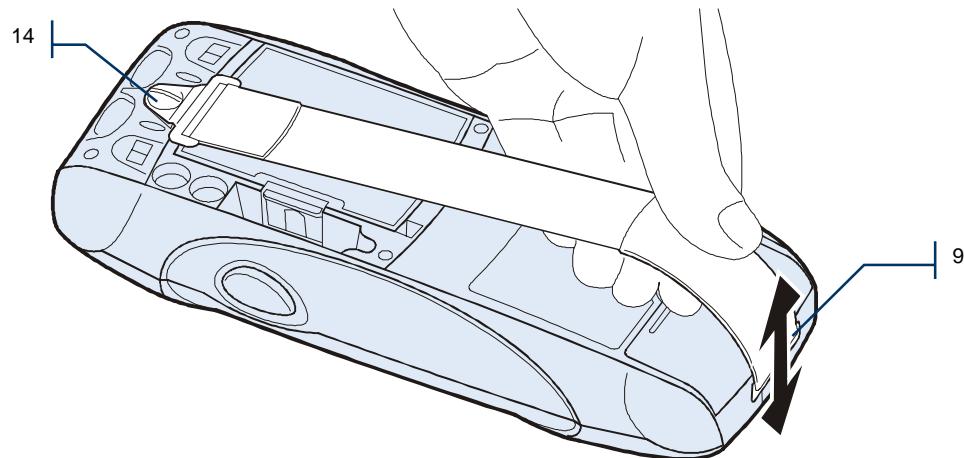


Figure 2. Removing Hand Strap

Battery Pack Assembly the Removal

To insert battery (H42ACC0115) make sure that one side of the Hand Strap is released (see section *Hand Strap Assembly and Removal*) and Hand Strap itself is turned to one side to make battery compartment completely free (see *Figure 3*). When compartment area is completely open it is possible to insert battery pack into compartment. Battery fixation is indicated by "click" of the Battery Pack lock.

Removing battery pack is possible by releasing Battery Pack lock (see *Figure 3*) but first it is necessary to release Hand Strap (see *Figure 3*) to open compartment area (see *Figure 4*).

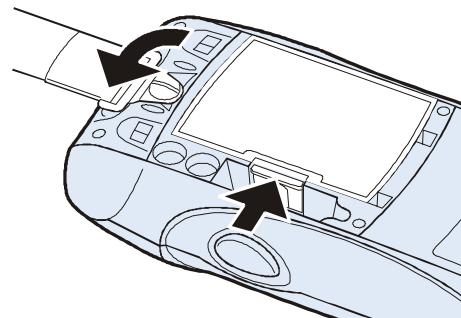


Figure 3. Releasing Hand Strap and releasing Battery Pack lock

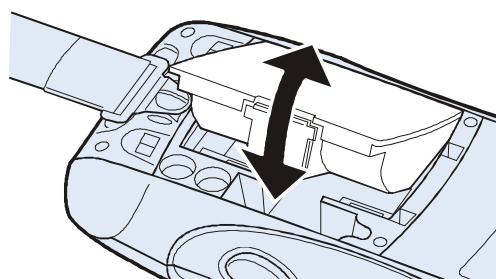


Figure 4. Battery Pack Assembly and Removal

SIM card Insertion and Removal

SIM card is located in battery pack compartment (see *Figure 5*). Before SIM card is inserted into the slot, it is necessary to remove Battery Pack (see section *Battery Pack Assembly the Removal*). SIM card is covered by rubber gasket therefore it is necessary to remove this gasket and afterwards insert SIM card (see *Figure 5*). Cover SIM card with rubber gasket.

SIM card slot is type Push/Push therefore it is necessary to push slightly SIM card into the slot to release card. Rubber gasket must be removed before removing SIM card itself.

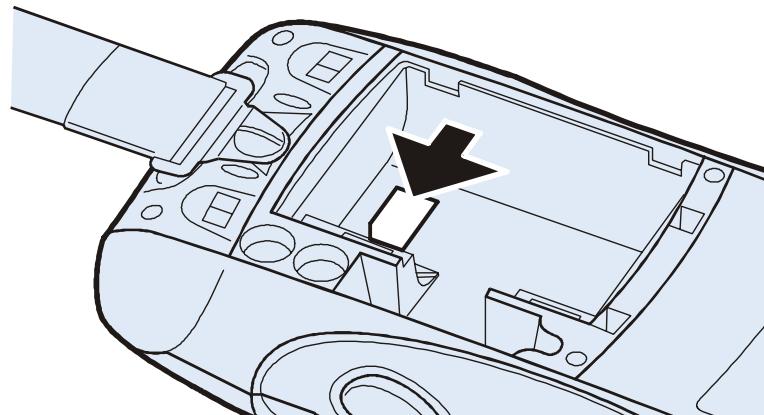


Figure 5. SIM card insertion

Door Assembly and Removal

To remove H42 Door it is necessary to release SD card compartment Door lock [23]. Afterwards door could be released (see *Figure 6*).

Door could be assembled by inserting Door into detentents first and afterwards press Door into lock. Proper Door fixation is indicated by "click".

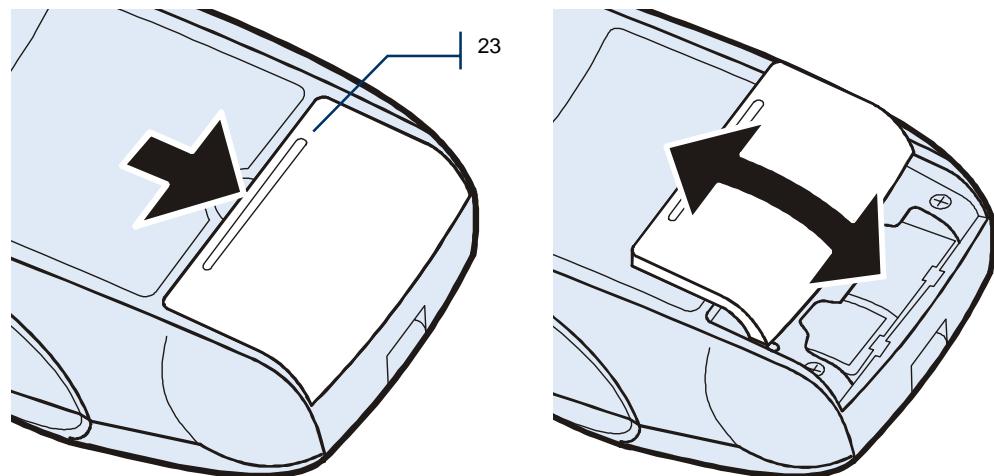


Figure 6. Door Assembly and Removal

SD card Insertion and Removal

SD card is located under Door therefore it is necessary to remove door first (see section *SIM card Insertion and Removal*). SIM card is located in battery pack compartment (see *Figure 5*). Before SIM card is inserted into the slot, it is necessary to remove Battery Pack (see section *Battery Pack Assembly the Removal*). SIM card is covered by rubber gasket therefore it is necessary to remove this gasket and afterwards insert SIM card (see *Figure 5*). Cover SIM card with rubber gasket.

SIM card slot is type Push/Push therefore it is necessary to push slightly SIM card into the slot to release card. Rubber gasket must be removed before removing SIM card itself.

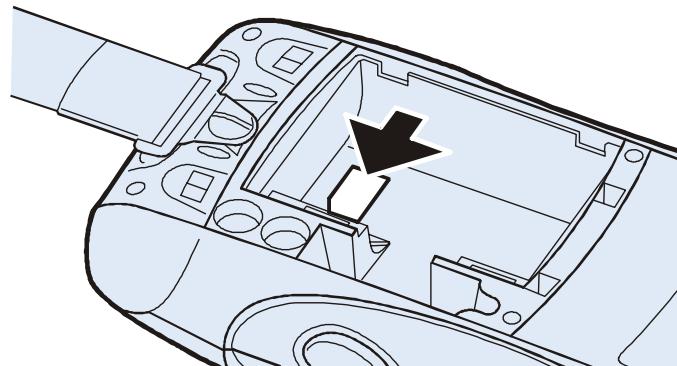


Figure 7. SIM card insertion

Door Assembly and Removal

SD card is inserted by pushing card into the slot (see *Figure 8*). SD card could be removed by pulling card from the slot with help of nail which is applied to the nock in the card.

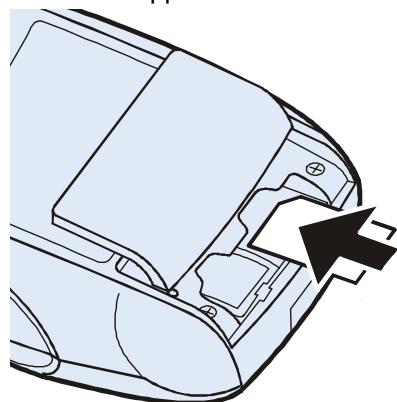


Figure 8. SD card insertion



Note:

In case that miniSD card or microSD card with card adapter is used it is necessary to create small loop created from plastic tape at the end of SD card otherwise it will be very difficult to release SD card from the slot. It is not recommended to use any tool like pliers or tweezers to remove SD card from the slot.

Device Battery Charging

The following accessories can be used to charge batteries in the device:

- H42 Docking Station (H42DSAGR) – to charge the device in the Docking Station it is necessary properly dock the device and plug the power source into the Docking station
- H42 Travel Charger Plug (H4XACC0133) together with Power supply adapter (H4XACC0134 or H4XACC0144) – insert Travel charger plug into device together with plugged power supply adapter
- Multi Charging Station (H42ACC0164 or H42ACC0150) – dock the device into cradle

Spare Battery Charging

Spare battery (H42ACC0115) can be charged by following accessory:

- Power supply adapter (H4XACC0134 or H4XACC0144) – plug power supply adapter directly into battery pack jack
- Battery Pack Charging Station (H4XACC0150) – it is possible to charge up to 10 battery packs by simple inserting battery pack into cradle

Main Battery Exchanging

Main Battery pack can be exchanged by user. Device is powered by internal backup battery during exchanging process. This process should take as short period as possible. Before removing the main battery pack, press Suspend button to sets mobile computer to Suspend mode.



Caution:

Exchanging main battery pack without setting device to Suspend mode can cause loss of data.

Stylus

Communicator uses a touch-pad as the main user input interface. The touch-pad is very easy and intuitive to use. You can use the supplied stylus or simply tap with your fingers on the screen. Use the stylus for selecting items and entering information on the screen. The stylus functions as a pen and a mouse. Tap the touch screen once with the stylus to select options and open menu items.

This action has the same effect as a mouse click. You can also simulate double click – simply double tap an item on the screen just as you would do the same with a mouse of the personal computer. Drag and drop technique is also easy to apply with a touch-pad. Touch an item on the screen and drag it to the desired position. Then lift your finger or the stylus and the object will be dropped.

You can also simulate a mouse right click. When you hold stylus or your finger on same place for few moments you will see some dots around the icon, then properties window will be opened. Then you can free your stylus and simply select item from menu.

Starting and Suspending the Communicator

Before using the mobile computer for the first time, fully charge the main battery. Mobile computer can be in two possible power states:

- Switched on in RUN mode
- In SUSPEND mode

When the device is in the 'Suspend mode', the display is switched off and processor adopts a sleep mode. All active processes will be suspended until the Communicator is switched on again. The Communicator looks as if turned off, but there are several significant differences. By switching the device to the suspend mode the memory is not cleared. All the opened applications stop operating but will resume from the same point where they had been before entering in the suspend mode.

To put the Communicator to suspend mode, press the suspend button. Or press the 'Start' menu – 'Suspend'. The Communicator also goes to suspend state after predefined time of inactivity. This time can be configured in the *Control Panel* (for information on its configuring, see the section *Schemes*).

To wake up the H42 communicator from suspend, press the suspend button.

Note: After waking up the device, suspend is prohibited for period of 10 seconds. During this period is the suspend button not responding.

Operating the Communicator

Introduction

This chapter provides basic instructions for using the mobile computer and navigating the mobile computer software.

Action Keys

H42 device is equipped with three used defined Action keys. More about these buttons and how to configure them is written in the section *Action Keys (Gotive)*.

Reset the Communicator

Procedures described in this section show how to reset the mobile computer. If the mobile computer stops responding to input, user can reset it. Two types of reset can be performed by user:

- Hard Reset
- Soft Reset

Perform a Soft reset first. If the mobile computer still does not respond, perform Hard Reset.

Performing Hard Reset

Performing Hard Reset all your data in RAM memory will be erased and RAM file system will be also erased! In this case also registry settings will be restarted to factory settings. Only Persistent storage remains preserved. Never perform a Hard reset unless a Soft reset does not solve the problem.



Caution:

Files that remain open during the Soft reset may not be retained.

Hard reset is performed by following:

- User pressing the Reset button [26] for longer than 3 seconds.
- Performing command sequence *Start > Settings > Control Panel > Firmware Control > Erase RAM content*
- Performing of upgrading of operating system image by command sequence *Control Panel > Firmware Control > Start the firmware update*. This sequence is used for upgrading operating system image and this process is described in section *Upgrade Firmware in H42 Communicator*.

Performing Soft Reset

Performing Hard Reset all your data in RAM memory will be erased. All running programs will be closed. The RAM file system, registry settings and Persistent storage remains preserved.



Caution:

Files that remain open during the Soft reset may not be retained.

Soft reset is performed by following:

- User short pressing the Reset button [26]
- Performing command sequence *Start > Settings > Control Panel > Firmware Control > Software reset*



Figure 9. Performing Soft reset

Navigating the display

Next figure shows typical desktop of the device after start up. On the screen there are basic icons which could be opened by double tap:

- *My Device* – displays file structure installed in the device
- *Recycle bin* – contains deleted files
- *Internet Explorer* – allows browsing on Internet
- *Media Player* – starts Windows Media Player
- *Microsoft WordPad* – starts application Microsoft WordPad
- *My Documents* – shows file structure in folder My Documents
- *Remote Desktop Connection* – allows remote control of the devices

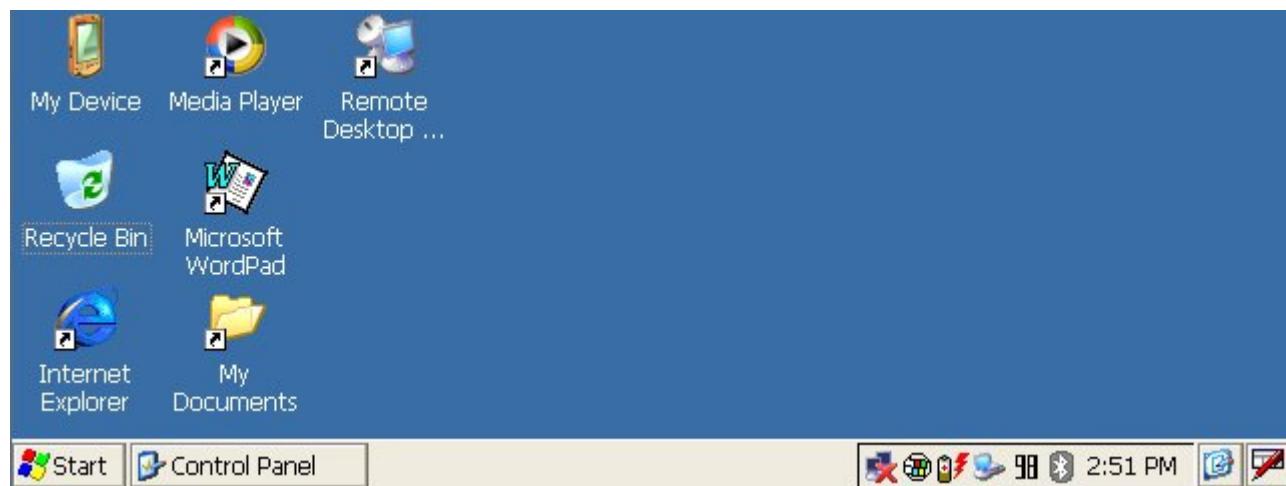


Figure 10. Windows CE 5.0 Desktop

Context menu could be activated by long pressing on desired object. Next figure shows example of activating of context menu for *Recycle bin*.

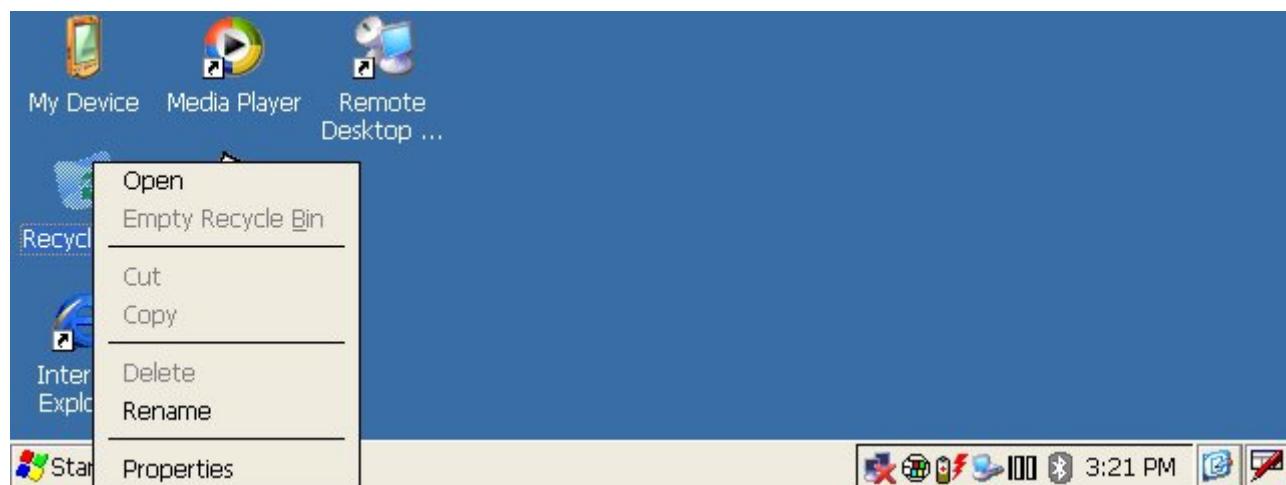


Figure 11. Activating of context menu for Recycle bin

The taskbar

The taskbar (at the bottom of the screen) displays the Start button, active programs, battery status and communication status. The Taskbar buttons are used to access menus, select/deselect functions or to change display windows.



Figure 12. Taskbar

Table 7. Taskbar icons

Icon	Description
	Bluetooth is disabled
	Bluetooth is enabled
	Indicates that device is not connected to WLAN network
	Indicates that device is connected to WLAN network
	Indicates IP status. Indicates when the device is not connected to Ethernet network
	Indicates IP status. Indicates when the device is connected to Ethernet network
	Indicates that the ActiveSync application is running
	Keyboard Button – Activates the virtual keyboard menu (Keyboard already shown)
	Keyboard Button – Activates the virtual keyboard menu (Keyboard not shown)

Note: Icons related to power status are described in section *Battery notification in the system tray*.

Start Menu

Tap the *Start* button to launch the *Start menu*:

- *Programs* – use to access available programs
- *Favorites* – displays files in *Favorites* directory
- *Documents* – displays files in *Documents* directory
- *Settings* – Accesses the *Control Panel*, *Network and Dial-up Connections* and the *Taskbar and Start Menu*
- *Help* – accesses the Windows CE Help
- *Run* – Runs a program or application
- *Suspend* – Places the device in the suspend mode



Figure 13. Start menu

Charging Policy of H42

When the battery is discharged, the device is in forced suspend mode. If you try to wake up such a device orange LED blinks 3 times (or does not blink at all). Put the device to the docking station or plug in the travel charger to recharge it.

Note: The device makes a soft reset, when it is waking up from the forced suspend, this is to ensure the stability of the system.

Here are some tips and tricks how to save more power in your battery:

- always put the H42 Communicator on charge during the night
- remember to switch off modules that are not used (GPS, GSM)
- check the battery status (see section *Power*) and when battery is low put Communicator on charging
- to save power you can also reduce LCD backlight, see section *Display Advanced Backlight*
- when you are not using the device put the device to Suspend mode

Battery notification in the system tray

In order for the user to see the battery status easily, the following icons are displayed in system tray. See the next table for their meaning:

Icon	Meaning	Description
(none)	Main battery normal	Normal status of battery, device can be used.
	Main battery low	Main battery allows the device to be used, but it should be recharged at first possibility.
	Main battery critical	Main battery has charge enough only to prevent data loss, device should not be used and should be switched to suspend state.
(none)	Backup battery normal	Normal status, battery pack can be exchanged. (in suspend mode)
	Backup battery low	Device can be used, but battery pack cannot be exchanged. The backup battery should be recharged at first possibility, to prevent data loss, when fallout of main happens.
	Backup battery critical	It is not safe to use the device until it is recharged.
	Status of main battery charge	This icon shows charge percentage of the main battery.
	Charging the main battery	Displayed when main battery is being recharged from external power.
	Running on external power	Displayed when main battery is full and device is running on external power (battery is already fully charged).

Table 8. Battery notification in the system tray

Virtual Keyboard

Because H42 communicator does not have physical keyboard on it it is possible to use virtual keyboard.

You can show or hide virtual keyboard by tapping icon  in the tray bar on the desktop of the Communicator. Once virtual keyboard is present on the screen, keyboard icon is changed to . Menu with following items is displayed (see next picture):

- Standard Keyboard
- Extended Keyboard
- Hide Input Panel



Figure 14. Virtual keyboard menu

Note: Default action for 'Action Key 1' is the 'show and hide keyboard' action.

Standard keyboard – This one is default by the operating system. This one can be used in all screen rotations. Stylus is necessary for use.



Figure 15. Standard keyboard

Extended keyboard – Resizable keyboard that can be operated also with fingers. User can set Skin of the keyboard layout.

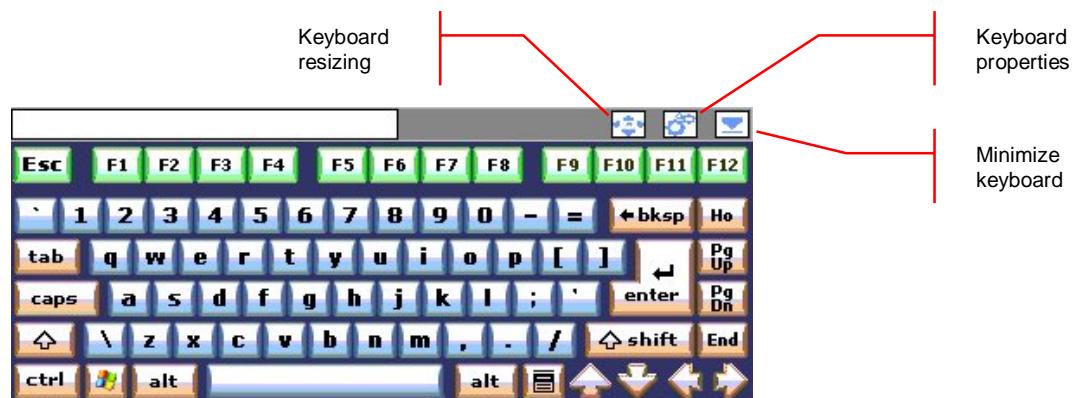


Figure 16. Extended keyboard

The following parameters could be set by Keyboard Properties:

- Layout file (Skin)
- Default position and size
- Key repetition rate and delay

Physical keyboard

H42 Communicator has no physical keyboard supplied with it. To use physical keyboard with H42 device you have to insert Communicator into Docking Station or plug SmartCap and connect USB keyboard to Docking Station or to SmartCap. Then it is possible to use keyboard the same way like with PC.

Persistent storage

Persistent Storage memory allows users to use free non volatile memory for storing data or applications. The content of Persistent Storage does not get erased on battery discharge or hard reset.

'Persistent Storage' is accessible as a folder in H42 file system. It can be used the same way as the standard file system in Windows Explorer.

SD Card

Secure Digital card (SD card) can be used to share or copy files between devices or between device and PC. Also the content of these cards does not get erased on battery discharge or hard reset.

SD card is accessible as a folder 'Storage Card' in H42 file system. It can be used the same way as the standard file system in Windows Explorer.

Autorun Feature

The H42 device has 'Autorun Feature'. After restoring power or hard reset, the operating system searches for file autorun.exe on all persistent storages. When such a file is found, it is executed. Autorun file stored in Persistent Storage has higher priority than autorun files on cards. Autorun file can be also executed after inserting and removing the SD card.

How to use it:

- 1.Create an application and name it 'autorun.exe':
- 2.Copy it to any of the persistent storages. (Persistent Storage, SD or CF card)
- 3.After restoring power or hard reset, system will copy 'autorun.exe' application to 'Windows' directory on H42. Then the system will run the application with parameter 'install' from there, i.e.:

```
autorun.exe /install
```

4.Another option is when the user inserts the SD Card in the Communicator, In that case system will do the same as in 3.

5.When the user removes SD Card from Communicator, system automatically starts the 'autorun.exe' application with parameter 'uninstall', i.e.:

```
autorun.exe /uninstall
```

This way you can easily create your own start up or installation application.

Control panel

You can access various functions of H42 device from Control Panel. Open it via *Start* menu (*Start* > *Control Panel*).



Figure 17. Control panel

Note: All the applications and utilities marked with '(Gotive)' are made and supplied by Gotive. These applications and utilities are fully supported by Gotive Support. All the other utilities without the mark or marked with '(system)' are provided by Windows CE system or by other solution providers.

Action Keys (Gotive)

Action Keys utility allows the user to configure action keys (buttons) on Communicator. You can set two types of actions for a button, first one when you simply press it and the second one when you push and hold the button for a while.



Figure 18. Action keys / Settings

As action you can choose from:

- Running an application of your choice or
- Simulate pressing a keyboard key (like Shift, Ctrl) or
- No action

If you choose 'Run application' for a button, you have to select also the application (executable file). Consequently, whenever you push the button, desired application will be started.

In 'Simulate keyboard' simply choose a key or combination of keys that will be executed when you push the button.

Table 9. Action Keys – default settings

Action key	Action / Push	Action / Hold
0	Media Player	No action
1	Open / close small virtual keyboard	Open / close extended virtual keyboard
2	Scanning barcode as keyboard input	Laser aiming

Where:

- *Push* - means a simple push of the action key
- *Hold* - means to push and hold the action key for predefined time (default: 1 s)
- *Action* – action performed (name of application or process started)

BCR Control (Gotive)

BCR (Bar Code Reader) Control allows testing barcode scanner functionality.

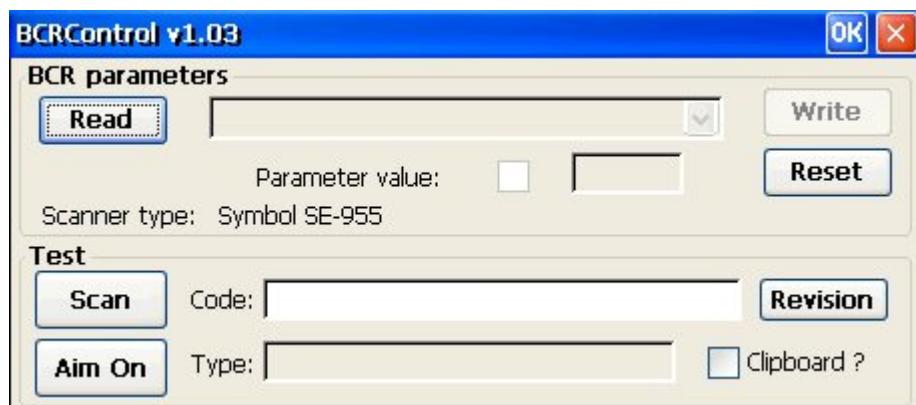


Figure 19. BCR Control

Tapping of 'Scan' button starts the bar code scanning. You can simply retrieve bar code or check BCR functionality. If you tap on 'Aim' button, BCR module starts aiming. It means that instead of a scanning ray, BCR module emits an aiming ray. You can easily aim on bar code and then tap 'Scan' button to retrieve the code.

Note: There are predefined actions for Action keys. Action key 2 starts scanning the bar code (simply push). When you push and hold for a while the Action key 2, aiming function will start. For more details please see the section *Action Keys (Gotive)*.

In the section 'BCR parameters' BCR Control allows the user to test modification of the parameters of BCR module. You can read the settings with 'Read' button, select a parameter and set the value for this parameter and then write changes to BCR module memory using the 'Write' button (Figure 20).

Note: You can easily disable/enable reading of some codes. To set the base (factory) settings use 'Reset' button – your changes will be lost.

Note: Changes of BCR parameters are temporary. After closing BCR Control the changes are lost.

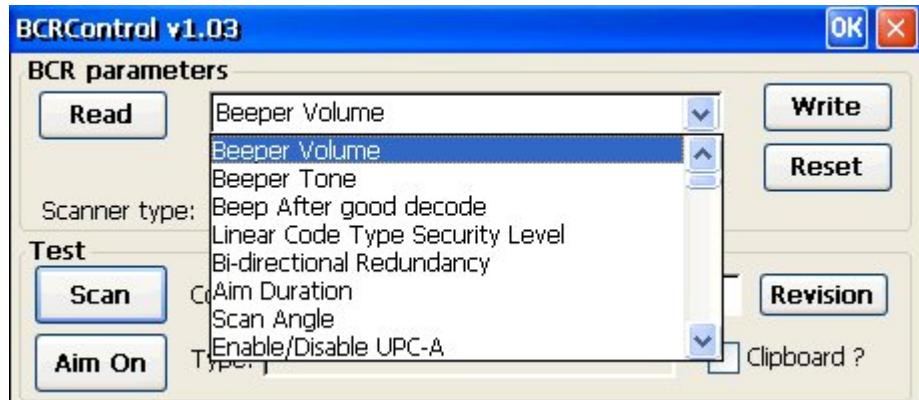


Figure 20. BCR parameters

Firmware Control

Firmware control displays the:

- Installed OS version number: 1.24 ()
- Installed Boot loader version: 1.07 ()
- Installed Microcontroller version: 49.00 ()

It allows the user to:

- Initiate the firmware update
- Erase RAM content (Hard Reset)
- Software reset (Soft Reset)

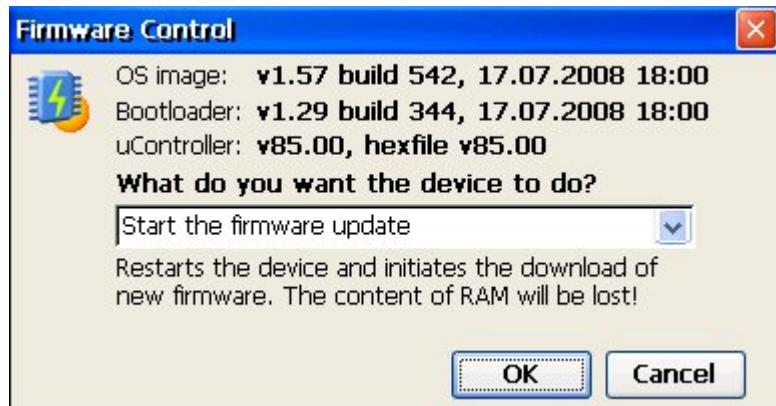


Figure 21. Firmware control

When you choose 'Start the firmware upgrade', your device will start upgrade procedure. See section *Upgrade Firmware in H42 Communicator* for more details.

Option 'Erase RAM content' will erase all programs and data stored in memory (see *Reset the Communicator* for more details).

Option 'Software reset' causes 'warm reset' of the device (see section *Reset the Communicator* for more details).

LCD Control

LCD Control allows a user to set backlight and contrast of H42 device. Setting option 'Disable 0%' prevent user before setting minimal backlight intensity below visible level.

Option 'Boost' emphasize backlight intensity above standard range.

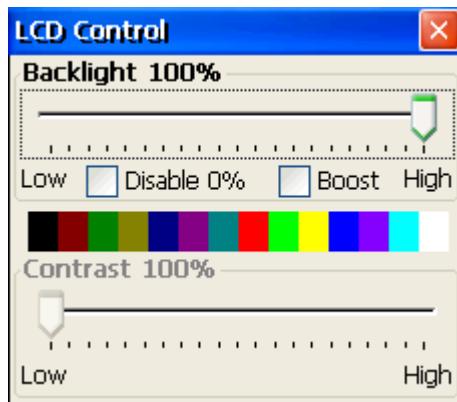


Figure 22. Set Backlight and Contrast

**Caution:**

Do not use 'Boost' option for longer period. This can significantly reduce backlight lifetime.

Power

Power Properties allow the user to control and set power options for H42 device. These four tabs are important:

- *Main Battery* – current power status overview of main battery
- *Backup Battery* – current power status overview of backup battery
- *Battery Format* – starts formatting of the battery
- *Schemes* – Settings for device Power schemes

Backup battery

This tab shows the Main Battery status, battery capacity in percents, voltage, charge current (negative number means discharging and positive numbers means charging) and battery temperature.

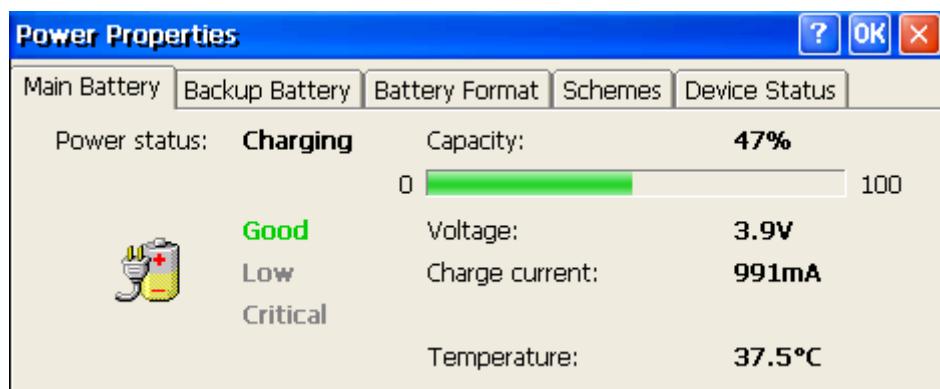


Figure 23. Battery tab in Power properties

Backup battery

This tab shows the status of Backup Battery the same way as Main Battery.

Battery format

After some time of using (Gotive recommends once per year), it is advised to format the battery of the H42 Communicator. This ensures that the device uses the battery in optimal way. The formatting of the battery takes approximately 14 hours, so the effective way to format battery is to do it during night or

weekend. The Communicator has to be on external power (docking station or travel charger) for the whole time of formatting, and no other operations can be carried out on it.



Figure 24. Battery format Tab in Power Properties

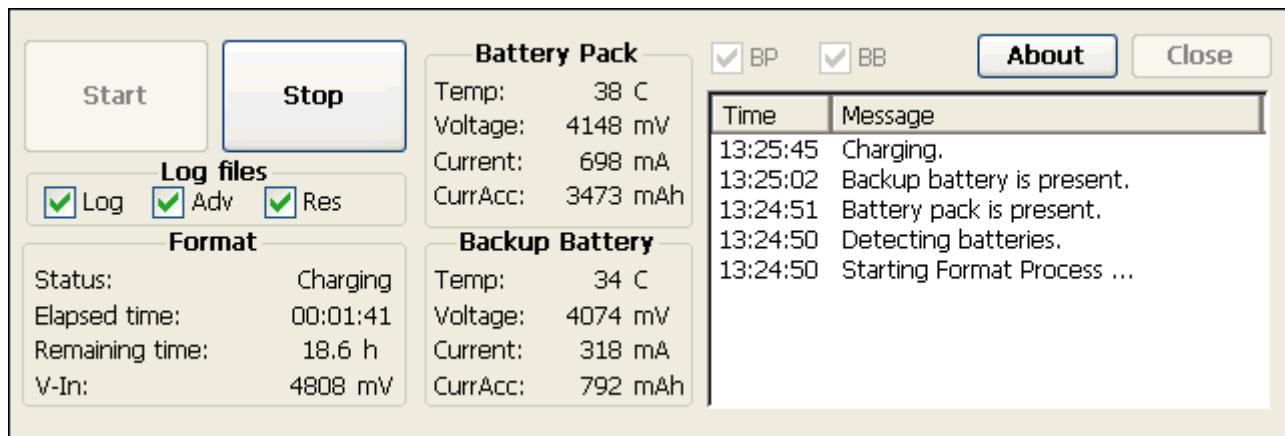


Figure 25. Battery format window

Schemes

On this tab user can define Power Schemes for device running on battery and for device powered from AC source. Each Power Scheme holds the time, after which the H42 device goes to: User Idle, System Idle, Suspend state.

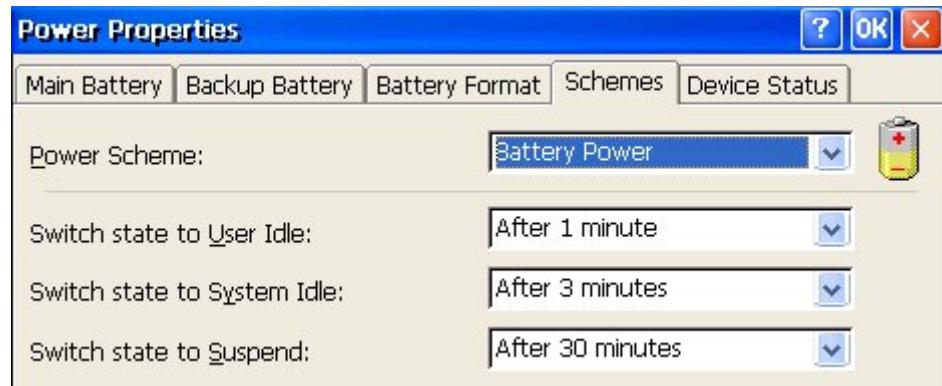


Figure 26. Schemes tab in Power properties

Display Advanced Backlight

In Backlight tab in Display Properties it is defined after how long time of user inactivity will the device reduce the display backlight to preserve battery power. The display backlight is reduced from previous value to 12%. Touching the display again restores the previous backlight level.

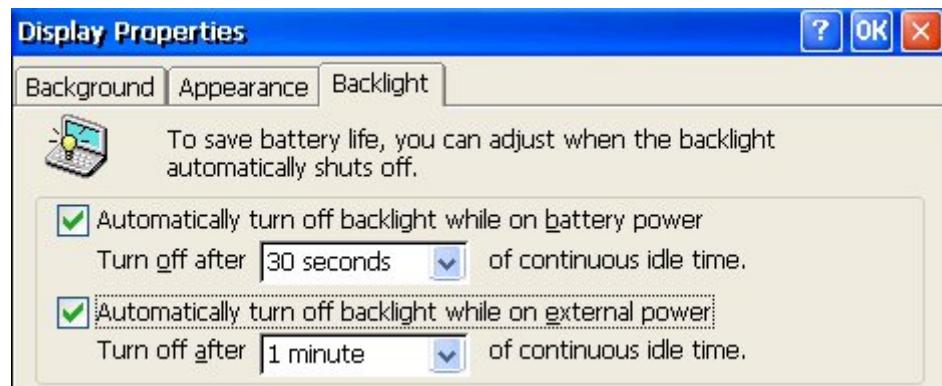


Figure 27. Backlight tab in Display properties

Rotation control

With the H42 Communicator you can select either landscape or a portrait view orientation for any given situation. Tap on the button with the preferred rotation option and the screen will rotate into the new position.

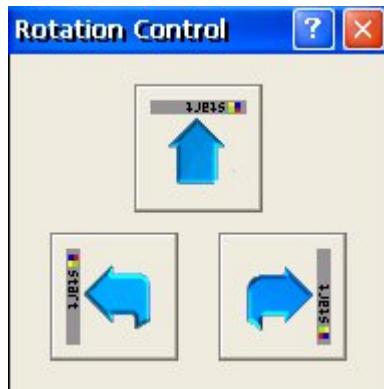


Figure 28. Rotation of the screen

Stylus (System)

Although device touch panel is calibrated from production, user can start calibration process anytime. Calibration can be started from the Control Panel > Stylus > Calibration > Recalibrate. Follow the instructions that will appear on the screen.

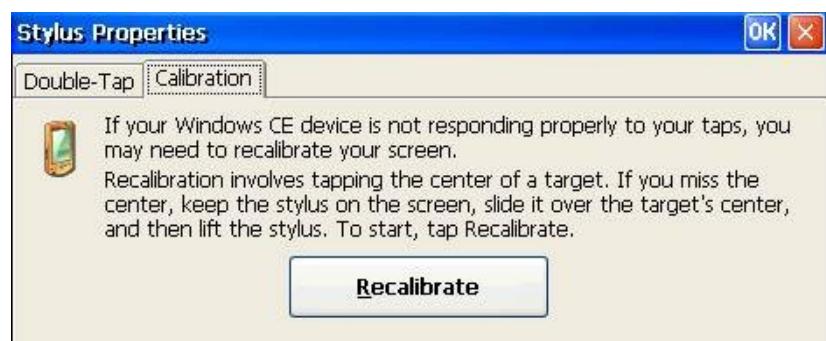


Figure 29. Running of calibration utility

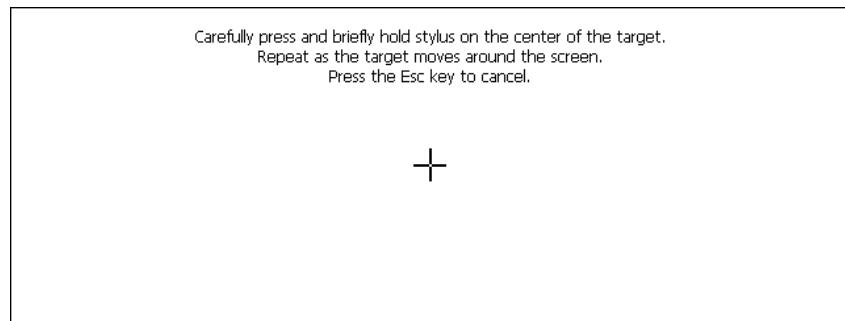


Figure 30. Display calibration

Upgrade Firmware in H42 Communicator

This section describes possibility to upgrade Firmware of the device.

Upgrade using SD card

To upgrade firmware in H42 Communicator by this way you need at least 64 MB SD card and SD card reader for your PC. Afterwards perform following steps:

- Download the necessary files from the Gotive support page <http://www.gotive.com/support/> in section *Firmware updates*:
 - Download the *WIN CE Image and goBoot* (zip file). To download the upgrade, you have to enter your e-mail address and serial number of the device
 - From *Utilities for H42* section download the sdlH42.exe (zip file)
- Unzip and copy all files to the same directory on your PC on a local drive.
- Transfer image / bootloader to SD card:
 - Connect card reader to your PC and insert SD card to the reader.
 - Run *sdlH42* utility on your PC to copy the image or bootloader file to SD card, e.g.:

```
sdlH42.exe /mX: h42_ram_img_1_22_retail.bin
```

(where X: represents the drive letter of the card reader)
(use the actual name of the image file)



Note:

It might happen that you will have to run this application "As administrator" to be able to finish this process.

- As the transfer finishes, remove SD card from card reader.
- For more information about *sdlH42* utility type:

```
sdlH42.exe
```

- Upgrade:
 - Remove card cover and insert SD card into Communicator.
 - Connect external power via Travel Charger Plug or dock device into Docking station
 - Run *Firmware Control* (*Start > Control Panel > Firmware control*).
 - Choose *Start the firmware update* and tap *OK*.

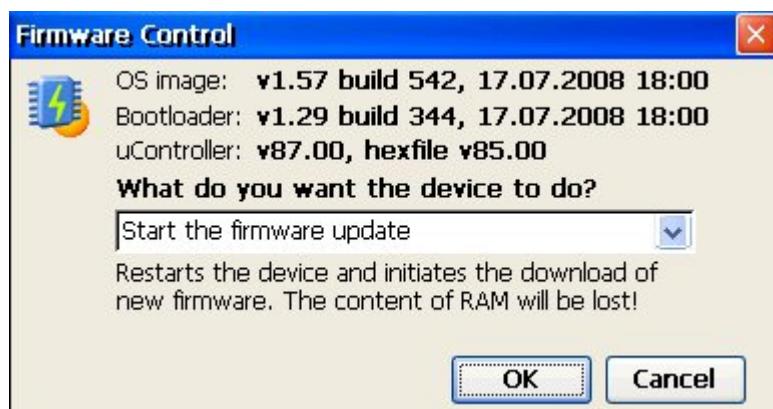


Figure 31. Firmware control – Firmware update



Caution:

All data and settings stored in RAM memory will be erased!
During upgrade process preserve device connected to external power!

- Dialog with a message: *“Device will be restarted. Continue?”* appears. Choose ‘Yes’.
- After few seconds *goBoot* screen appears. There you will see the progress of the flashing process:

Gotive Bootloader (goBoot), v1.14, built 16.12.2005 13:27

(c) 2000-2005 Gotive Ltd.

RCSR: 0x00000004, PSSR: 0x00000001, sw reset

FWDATA: OK

Intel PXA 27x C0, 520 MHz

Testing Memory:

115253 KB OK

Trying external MMC download.

Capacity: 252 MB

Downloading: Windows CE RAM image

4443 KB/s

Checking image... OK.

Download successful.

Writing image to internal storage.



- When the flashing process is finished, the device will be restarted.
- Upgrading application verifies version of *ucBoot*, *uC* and *goBoot*. When older version is detected, upgrade process will start automatically after delay. Upgrade can be provoked by pressing button 'Update'. When upgrade process is finished, press button 'Restart'. Each upgrade process is started separately after device restart. Follow instructions on the screen.



Notice:

This process can take several minutes! Be patient!

- After few moments Communicator wakes up and is ready to use.
- If you encounter any problems, please check the whole procedure again and ensure that your SD card is working properly. If you still have problems, please contact your vendor.

Upgrade via USB cable

To upgrade firmware in Communicator via USB cable you need to install the USB Upgrade Driver for Windows XP. This can be downloaded from the Gotive support page (<http://www.gotive.com/support/>), section *Drivers and Utilities*. Unzip the file to a local directory on your PC.



Notice:

Upgrade via USB cable is possible only on Windows XP operating systems!

Installing the USB Upgrade driver

- Remove any SD/MMC card from the card holder and connect the device with USB cable to the PC.
- Run Firmware Control (*Start > Control Panel > Firmware control*).
- Choose Start the firmware update and tap OK.
- After few seconds *GoBoot* screen appears. There you will see the attempt of upgrade process:

```

Gotive Bootloader (goBoot), v1.14, built 16.12.2005 13:27
(c) 2000-2005 Gotive Ltd.

RCSR: 0x00000004, PSSR: 0x00000001, sw reset
FWDATA: OK

Intel PXA 27x C0, 520 MHz

Testing Memory:
115253 KB OK

Trying external MMC download.
SD/MMC card not inserted

Trying CF0 download.
CF0: Card not detected.

Trying CF1 download.
CF1: Card not detected

Trying USB download.

Please connect USB cable.

```

- On PC, you will see the *Found New Hardware Wizard* window:



Figure 32. Found new hardware Wizard

- Choose *Install from a list or specific location* and click *Next >*.

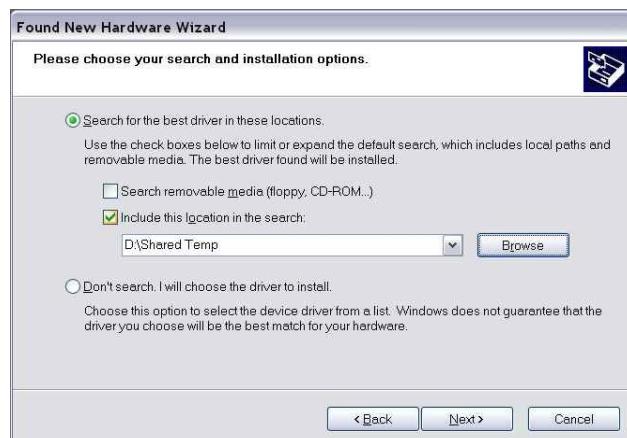


Figure 33. Found New Hardware Wizard

- Choose *Browse* and select the path to the directory, where you have the unzipped driver. Click *Next >*.



Figure 34. Found New Hardware Wizard

- Choose *Continue Anyway* and finish the installation.

Upgrade

- Download the necessary files from the Gotive support page (<http://www.gotive.com/support/>), section *Firmware updates*:
 - Download the *WIN CE Image and goBoot* (zip file). To download the upgrade, you have to enter your e-mail address and serial number of the device
 - From *Utilities for H42* section download the *sdlH42.exe* (zip file)
- Unzip and copy all files to the same directory on your PC on a local drive.
- Remove any SD/MMC card from the card holder and connect the device with USB cable to the PC. Prepare the following line in the PC, but do not execute it (use the actual name of the image file):

```
sdlH42.exe /u h42_ram_img_1_22_retail.bin
```



Note:

It might happen that you will have to run this application "As administrator" to be able to finish this process.

- On H42, run *Firmware Control* (*Start > Control Panel > Firmware control*).
- Choose *Start the firmware update* and tap *OK*.



Caution:

All data and settings stored in RAM memory will be erased!

During upgrade process preserve device connected to external power!

- After few seconds *GoBoot* screen appears. There you will see the upgrade process. When the message *USB Ready. Sending boot packet...* is displayed, execute the command line on PC.
- When the flashing process is finished, the device will be restarted.
- Upgrading application verifies version of *ucBoot*, *uC* and *goBoot*. When older version is detected, upgrade process will start automatically after delay. Upgrade can be provoked by pressing button '*Update*'. When upgrade process is finished, press button '*Restart*'. Each upgrade process is started separately after device restart. Follow instructions on the screen
- After few moments Communicator wakes up and is ready to use.
- If you encounter any problems, please check the whole procedure again and ensure that your USB cable and connection are working properly. If you still have problems, please contact support.

Emergency restart of the upgrade procedure

Should the upgrade procedure fail and device becomes not operational, you can perform this procedure to restart the upgrade process.

- Perform the Hard reset on the device.
- When the *goboot* is started, and is checking the memory, keep the Triangle button pressed. The upgrade process will start.
- Perform the rest of upgrade as previous time.

Setting up Connections

GPRS Connection

Before setting up a GPRS Internet connection the following conditions must be met:

- A GPRS-enabled SIM card from your GSM network provider must be inserted in the Communicator.
- The GSM module has to be on and logged in the network. PIN number has to be entered if required. This can be achieved with GSM Control Center, if is not done with user application.
- The Access Point Name (APN) for GPRS connection, Login name, Password and Domain must be obtained from your GSM network provider

Creating new GPRS connection

To create a new GPRS connection perform following instructions:

- Open '*Network and Dial-up Connections*' in *Control Panel*.
- Tap twice '*Make New Connection*' icon.
- Enter the name of the connection (default is "My Connection") then select '*Dial-Up Connection*'. Choose '*Next*' button.



Figure 35. Creating new connection

- Select '*Internal GSM Modem*' and choose '*Configure*'.

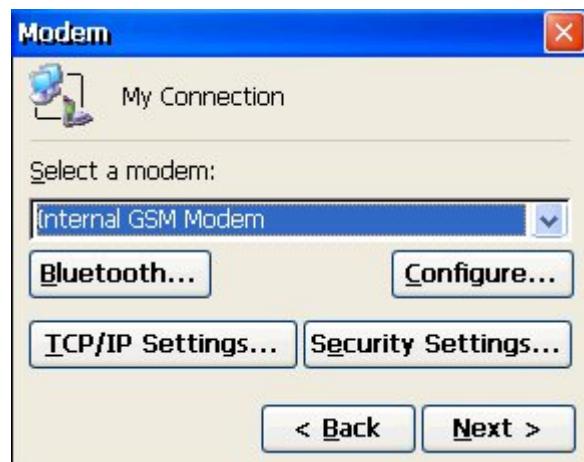


Figure 36. Selecting modem

- In Connection Preferences set Baud Rate to '115200' and Flow Control to 'None'

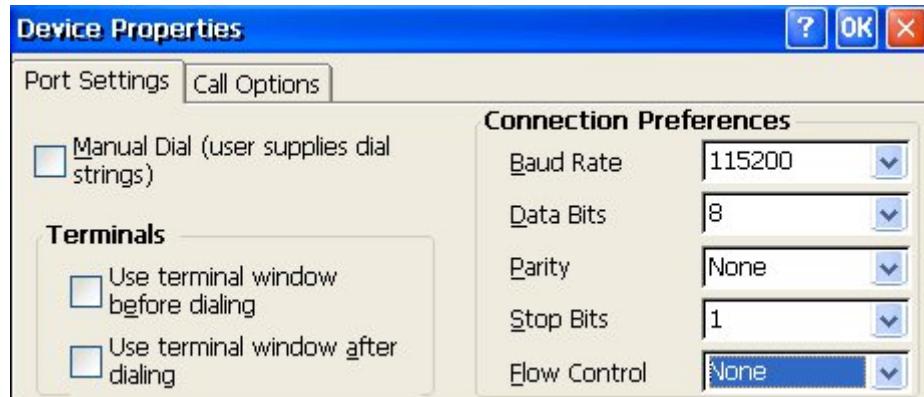


Figure 37. Connection properties

- Tap on 'Call Options' and fill extra settings field with `+cgdcont=1, "IP", "APN"` where APN is Access Point Name from your GPRS provider (e.g. `+cgdcont=1, "IP", "internet"`), then tap 'OK' button.

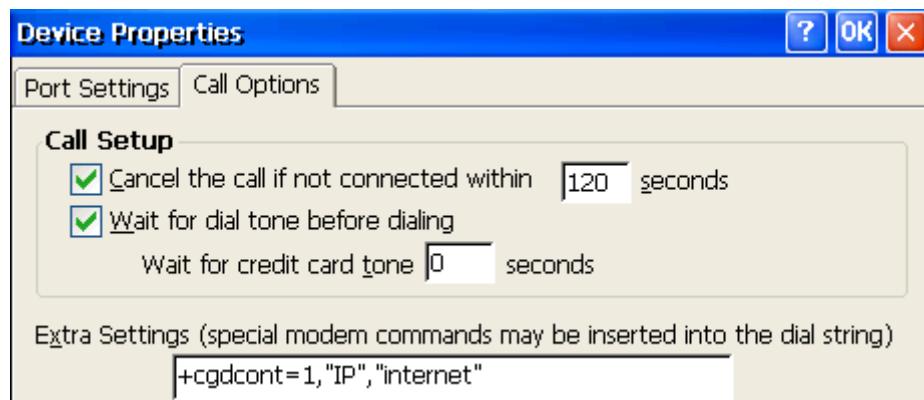


Figure 38. Call options

- Click 'Next' in the main window. Enter `*99***1#` in the 'Phone number'. Then choose 'Finish'

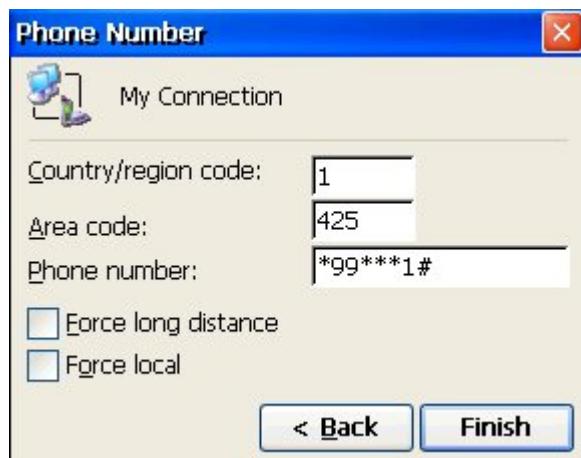


Figure 39. Phone number

- In the main window, tap twice on the newly created connection (its default name is 'My Connection')

- Enter appropriate values for 'User Name', 'Password' and 'Domain'. If you want to avoid retying password each time you open this connection check the 'Save Password' box

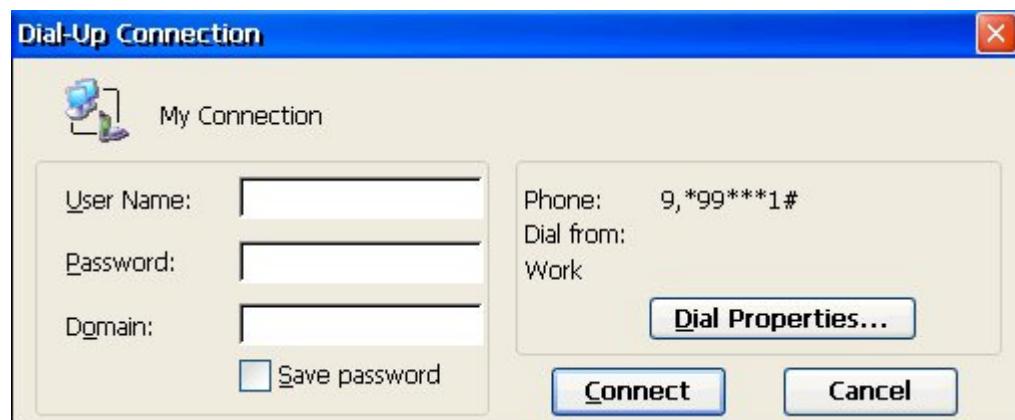


Figure 40. Set user data

- If there are any numbers added to the phone number, choose 'Dial Patterns' to modify it. Change 'When dialing from' to 'Home'. Close the window.



Figure 41. Change location

- Choose 'Connect'

As the connection is established, an information window will be displayed.



Figure 42. Connection successfully created

Tap 'Hide' to move this window to system tray.

Closing an opened connection

An open connection is indicated with an icon in the system tray. To restore the connection window, tap twice on this icon. To close the connection tap on the 'Disconnect' button in the connection window.

WLAN Connection

This section describes how to set up WLAN connection. To make WLAN connection perform following steps:

- If the device is not connected to a WLAN network and a network is detected, the connection window will pop up
- If it doesn't show up, you can open it also by clicking twice the network icon  in the system tray



Note:

The complete procedure depends on the settings of the parameters of the WLAN network. Contact your network administrator when setting up WLAN connection.

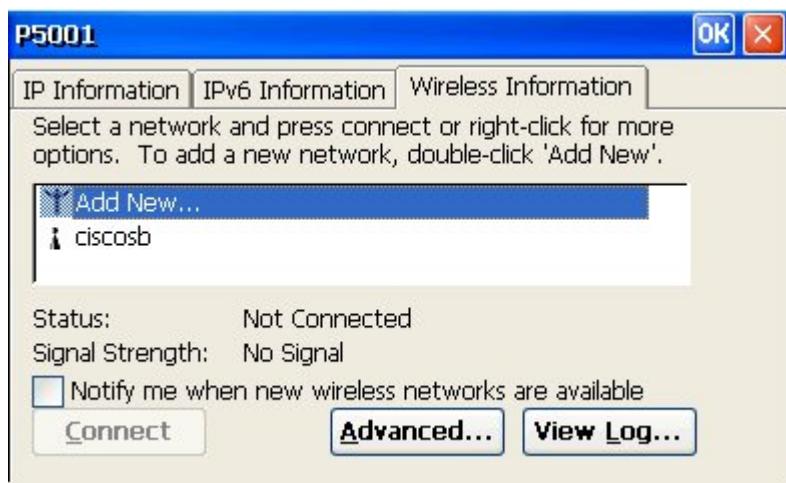


Figure 43. WLAN Connection windows

- In the Connection window choose the wireless network you want to connect to, and click 'Connect'.

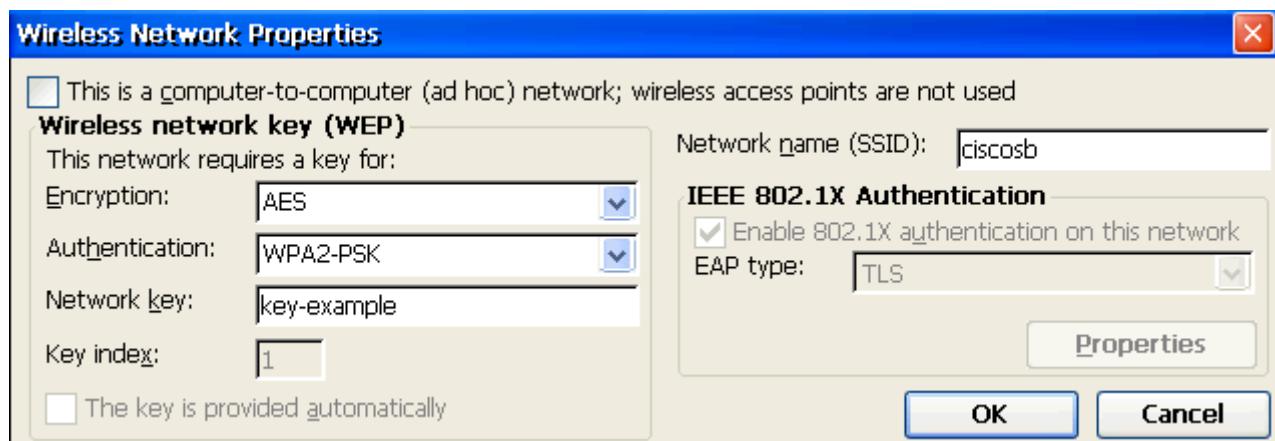


Figure 44. Wireless network Properties window

- Set up all parameters based on your network settings – correct SSID, encryption type and key. Then click 'OK'
- If you have set up all the parameters correctly and signal strength is satisfactory, the device will connect after short period.

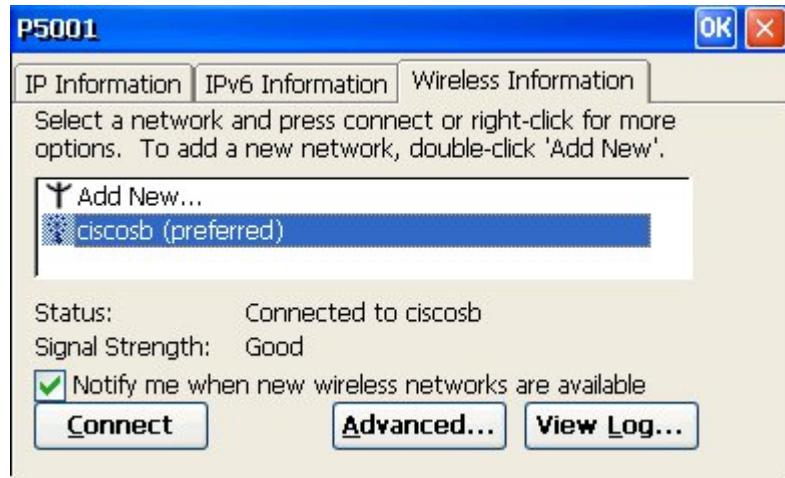


Figure 45. Connection window

- After connecting, the icon in system tray will change to . You can open the connection window any time by double clicking it
- If you wish to get information about the parameters of network, click the 'IP Information' tab

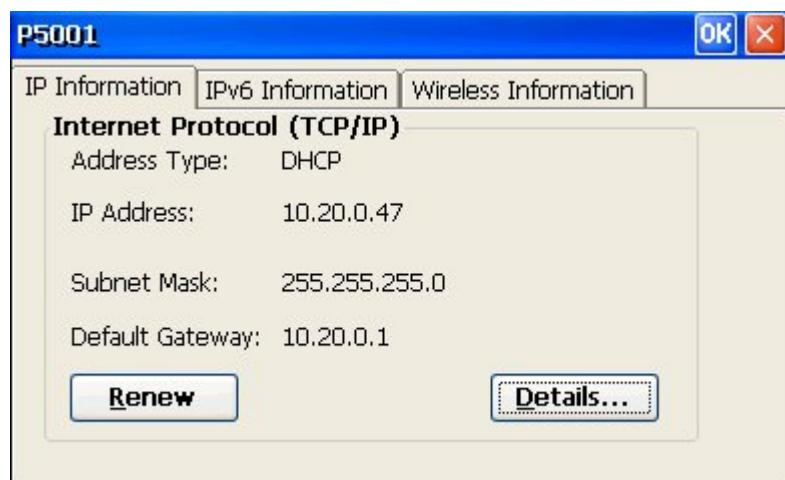


Figure 46. IP onformation

- For more details, like MAC address, click the 'Details...' button

**Note:**

Putting the device to suspend switches off the WLAN. After wake-up, the device needs some time to reconnect again.

Network Connection Details:	
Property	Value
Physical Address	00 C0 1B 0C 09 D5
IP Address	10.20.0.47
Subnet Mask	255.255.255.0
Default Gateway	10.20.0.1
DHCP Server	10.20.0.10
Lease Obtained	3/4/2010 11:06:21

Figure 47. Network connection details window

PC Connection via Microsoft ActiveSync

To be able to set up ActiveSync connection and transfer files between PC and Communicator, the following conditions must be met:

- When host PC is running under MS Windows 2000 or MS Windows XP operating system, MS ActiveSync at least version 3.7 installed on the PC. Latest version of the ActiveSync software could be downloaded from Microsoft web [page](#). Follow installation instruction provided by Microsoft web page.
- When host PC is running under MS Windows Vista or MS Windows 7 operating system, Windows Mobile Device Center must be installed on the PC. Latest version of the ActiveSync software could be downloaded from Microsoft web [page](#). Follow installation instruction provided by Microsoft web page.
- The USB, IrDA or Bluetooth interface is configured on the PC.
- For USB connection the Communicator must be inserted in the Docking Station or connected via SmartCap. Appropriate Gotive USB driver has to be downloaded from support page <http://www.gotive.com/support/> and unzipped in a local directory.

Installing Microsoft ActiveSync USB Connection (Windows XP)

To make ActiveSync connection performs following instruction:



Note:

Before installing Microsoft ActiveSync, do not connect the USB cable between the Docking Station and the PC!

- Run the ActiveSync installation procedure on your PC and follow the instructions.
- Open ActiveSync and from 'File' menu choose 'Connection Settings...'.

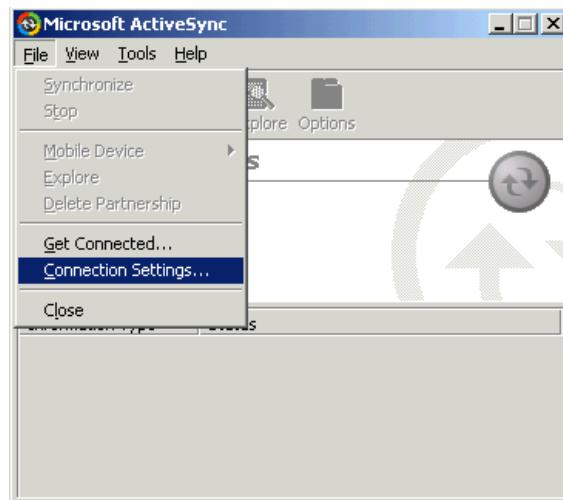


Figure 48. Microsoft ActiveSync – connection settings

- Ensure that the required connection is allowed. Choose 'Ok'



Figure 49. ActiveSync connection settings

- On H42 Communicator open 'PC Connection' from 'Control Panel'

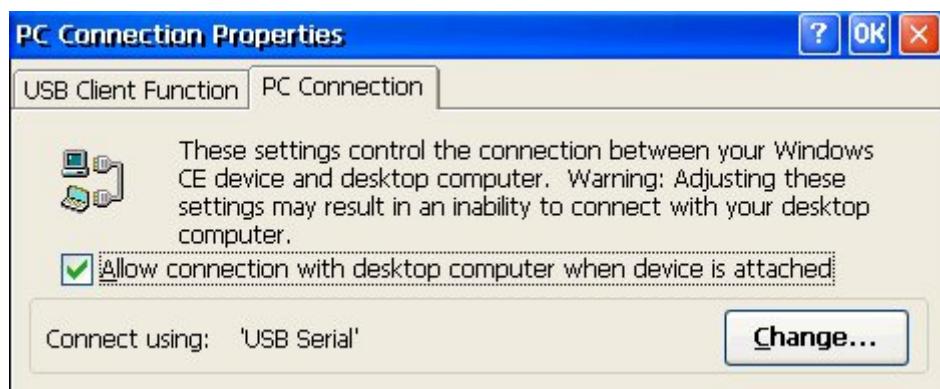


Figure 50. PC connection

- Click 'Change' then choose 'USB Serial' or 'IrDA' according to connection used. Then click 'Ok'
- After plugging the USB cable to Docking Station, 'Found New Hardware Wizard' is displayed on PC



Figure 51. Found New Hardware Wizard

- Choose 'Install from a list or specific location' and click 'Next>'



Figure 52. Found New Hardware Wizard

- Choose 'Browse' and select the path to the directory, where you have the driver. Click 'Next>'

Installing Windows Mobile Device Center USB Connection (Windows 7)

To make ActiveSync connection performs following instruction:

- Run the ActiveSync installation procedure on your PC and follow the instructions.
- Open Windows Mobile Device Center
- Connection should be automatic



Figure 53. Windows Mobile Device Center

- In case that connection is not established click 'Mobile Device Settings' and 'Connection Settings'. Make sure that Connection Settings are like on following picture.

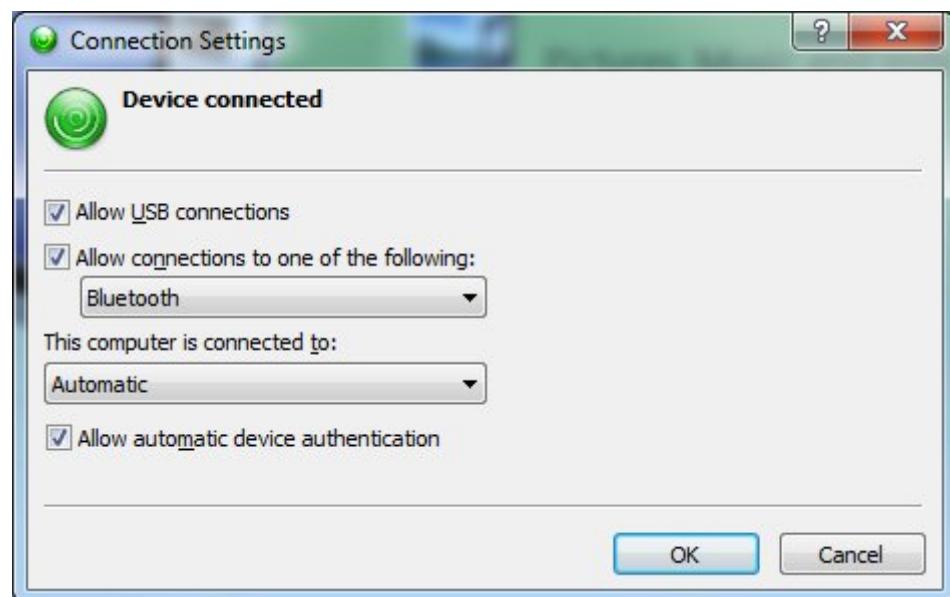


Figure 54. Connection Settings



Figure 55. Connection not established

Creating Microsoft ActiveSync IrDA connection

To establish the connection via Infrared port between your PC and Communicator successfully, please follow the next instructions:

- Install MS ActiveSync on your PC.
- Configure ActiveSync to use IrDA connection.
- On Communicator open *PC Connection* from *Start Menu* (*Start > Settings > Control panel > PC Connection*).
- Tap on 'Change...' button.
- Select 'IrDA'. Then Tap on 'OK' and close PC Connection Properties.
- On Communicator run 'repplog' (*Start / Programs / Communication / repplog*)
- Then connection dialog will appear.
- Bring the Communicator close to the IrDA port on your PC. The distance between the bar code and the device should be in the range of 5 to 25 cm.
- On your PC appears a 'Get connected' dialog.
- A window New partnership appears, choose 'No'.

For more information and updates visit www.gotive.com/support or contact support@gotive.com

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