

# User Manual

**PWS-870**

**Fully-Rugged Tablet PC**

**Optional Accessories**

## **Copyright**

The documentation and the software included with this product are copyrighted 2012 by Advantech Co., Ltd. All rights are reserved. Advantech Co., Ltd. reserves the right to make improvements in the products described in this manual at any time without notice. No part of this manual may be reproduced, copied, translated or transmitted in any form or by any means without the prior written permission of Advantech Co., Ltd. Information provided in this manual is intended to be accurate and reliable.

However,

Advantech Co., Ltd. assumes no responsibility for its use, nor for any infringements of the rights of third parties, which may result from its use.

## **Acknowledgements**

All other product names or trademarks are properties of their respective owners.

# Declaration of Conformity

## CE Conformity Statement

Radio products with the CE alert marking comply with the R&TTE Directive (1999/5/EC) issued by the Commission of the European Community. Compliance with this directive implies conformity to the following European Norms (in brackets are the equivalent international standards)

- EN 60950-1 (IEC60950-1) - Product Safety

Products that contain the radio transmitter are labeled with CE alert marking and may also carry the CE logo.

## FCC Compliance Statement

This 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;
2. This device must accept any interference received, including interference that may cause undesired operation.

### **Caution!** *Exposure to Radio Frequency Radiation.*

*The radiated output of this device is far below the FCC radio frequency exposure limits. Nevertheless, the device shall be used in such a manner that the potential for human contact during normal operation is minimized. When connecting an external antenna to the device, the antenna shall be placed in such a manner to minimize the potential for human contact during normal operation. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm (8inches) during normal 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 a residential installation.

This equipment generates, uses and can radiate radio frequency energy. 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 and correct the interference by one or more of the following measures:

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 computer technician for help

## Technical Support and Assistance

1. Visit the Advantech website at <http://support.advantech.com> where you can find the latest information about the product.
2. Contact your distributor, sales representative, or Advantech's customer service center for technical support if you need additional assistance. Please have the following information ready before you call:
  - Product name and serial number
  - Description of your peripheral attachments
  - Description of your software (operating system, version, application software, etc.)
  - A complete description of the problem
  - The exact wording of any error messages

## Safety Instructions

Use the following safety guidelines to help protect yourself and PWS-870

- Do not attempt to service the PWS-870 yourself. Always follow installation instructions closely.
- Be sure that nothing rests on the AC adapter's power cable and that the cable is not located where it can be tripped over or stepped on.
- Do not cover the AC adaptor with papers or other items that will reduce cooling; also, do not use the AC adapter while it is inside a carrying case.
- Use only the AC adapter, power cord, and batteries that are approved for use with this PWS-870. Use of another type of battery or AC adapter may cause risk of fire or explosion.
- If you use an extension cable with the AC adapter, ensure that the total ampere rating of the products plugged in to the extension cable does not exceed the ampere rating of the extension cable.
- When you move the PWS-870 between environments with very different

temperature and/or humidity ranges, condensation may form on or within the PWS-870. To avoid damaging the PWS-870, allow sufficient time for the moisture to evaporate before using the PWS-870.

- When you disconnect a cable, pull on its connector or on its strain relief loop, not on the cable itself. As you pull out the connector, keep it evenly aligned to avoid bending any connector pins. Also, before you connect a cable make sure both connectors are correctly oriented and aligned.

## Chapter 1

# Universal Cover, Handstrap and Shoulder Belt



Universal Cover, Handstrap and Shoulder Belt are provided to carry your Tablet PC securely and safely. You can use the Handstrap and Shoulder Strap we provide separately or together to carry the PWS-870 either indoors and outdoors.

## Exploring the Universal Cover, Handstrap and Shoulder Belt

### Front View



No.	Component
1	Hook Point

## Rear View



No.	Component
2	HANDGRIP
3	Hook Point



## Assemble PWS-870 with Universal Cover:

1. Connect PWS-870 to Universal Cover with care, via 2 setup points.
2. Push PWS-870 into universal cover and confirm the system is connected well



## Remove PWS-870 from Universal Cover:

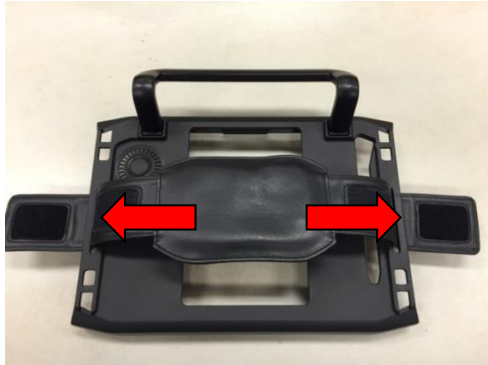
1. Pull latch up and push from rear.



## Using the Handstrap:

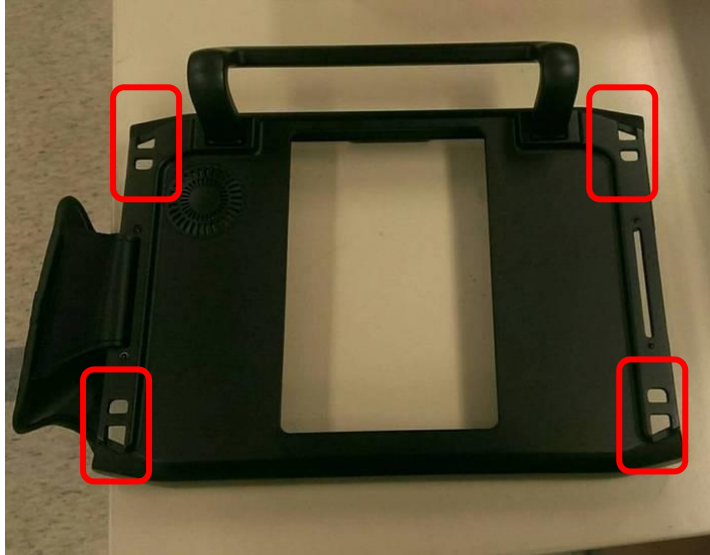
The handstrap makes it easy to carry the device with one hand.

1. Insert the handstrap to the rear of Universal Cover using the Velcro on both sides.
2. Ensure the handstrap to be securely attached



## Using the Shoulder Belt:

Attach the shoulder belt to the rear of your Universal cover using two screws as Shown below.



You also can hook your shoulder belt in lower area, so you can use the PWS-870 with ease.



## Using the Handstrap and Shoulder Belt together:

Attach the Handstrap to the rear of your Universal Cover using the Velcro. Then hook the shoulder strap as below.



## Chapter 2

# Vehicle Docking



Vehicle docking could be mounted with the PWS-870 onto any vehicles with applicable RAM Mount kits. The docking station comes with a lock for theft deterrence. It offers complete port replication for users to access audio jacks, USB, RS-232/RS-485, and LAN ports.

## Exploring the Vehicle Docking

### Front View



No.	Component
1	Release latch
2	Poco Pin

### Rear View



No.	Component
3	Ram Mount Screw hole

## Side View



No.	Component
4	Keyhole

## Bottom View



No.	Component
5	Lan 100/100
6	GPS SMA
7	2 x USB Connector (USB 3.0)
8	HDC Connector: RS-232 x1; CAN2.0 x1; DIx2; DOx2; Line-in x1; Line-out x1
9	DC-in (M12)

## Assemble PWS-870 with Vehicle Docking

1. Attach the PWS-870 to the vehicle docking as below.

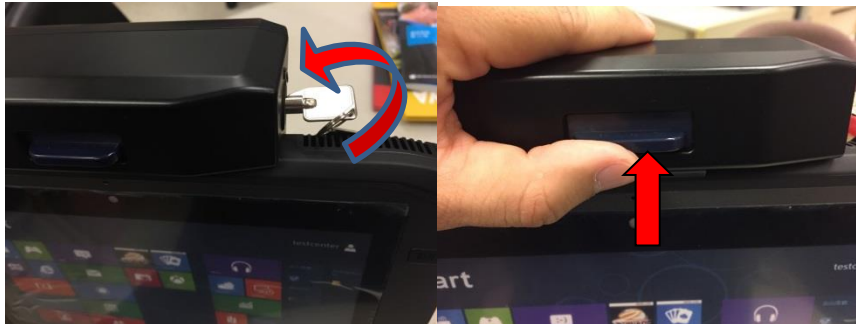


2. Use the key on the top of the vehicle docking to lock the PWS-870 to avoid theft.



## Remove PWS-870 with Vehicle Docking

1. Remove the PWS-870, unlock with key and push the blue latch upward.

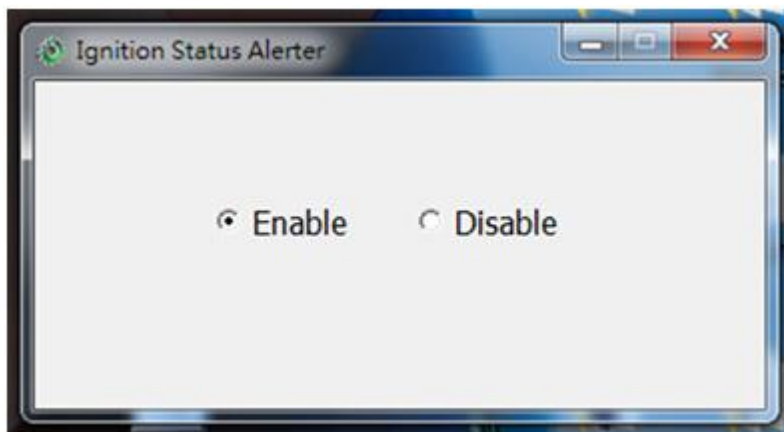


The vehicle docking fits many types of RAM Mount kits for installing in different kinds of vehicles





PWS-870 uses a pre-installed “Ignition Status Alert” application. When the vehicle ignition is turned off, a warning message will pop up to ask the user to turn off PWS-870. (Some users might continue to use the PWS-870 when the vehicle is off and this can drain the car battery if the PWS-870 remains connected to the car battery.)





## Chapter 3

# Multiple Battery Charger



Multiple Battery Charger can charge at most 4 batteries, which will provide PWS-870 longer operation time. When the batteries complete charging, Multiple Battery Charger will stop charging automatically to protect your batteries

## Exploring the Vehicle Docking

### Front View



No.	Component
1	Charging status indicator

## Side View



No.	Component
2	DC-in

## Charging status

Multiple Battery charger can fully charge the battery in around 5 hrs, where the charging slot can be used individually.

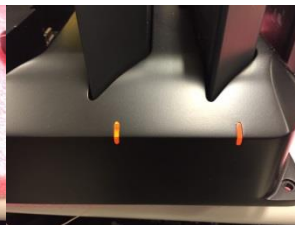
There are 3 kinds of color of indicator

Indicator	Status
Blue	No charging(in case where the battery is placed, please check whether the battery is connected properly)
Orange	Charging
Green	Charging Completed

Blue



Orange



Green



## Chapter 4

# **I/O extension, MSR & Smart Card Reader Extension and UHF RFID Extension**

I/O extension provides various I/O ports to connect your devices more conveniently, which brings out the best performance from PWS-870.

MSR & smart card reader can help user log in easily, or provide limited data access based on different authorities.

UHF RFID is a wireless data access solution, you just setup the related tag first, then the device receive the data when PWS-870 approach it.

## I/O extension

### Front View



No.	Component
1	USB connector
2	Screw Holes

## Side View



No.	Component
4	USB Connector (USB 3.0)
5	RS-232(D-Sub 9)
6	Ethernet(RJ45)



## Using I/O Extension with PWS-870

Connect I/O Extension to PWS-870 with care, via 2 screw holes and USB connector.



## Connecting USB Device

You can connect to various USB devices, such as USB Keyboard and Mouse, besides you can connect with USB 3.0 device to reach the faster transmission speed as well.



## Connecting RS-232 Device

There are 2 sets of RS-232 to connect with CAN box and other device which use RS-232.



## Connecting Network

You can use Lan to connect with network



# MSR & Smart Card Reader Extension

## Front View



No.	Component
1	USB connector
2	Screw Holes

## Side View



No.	Component
3	MSR Slot
4	Smart Card Reader Slot

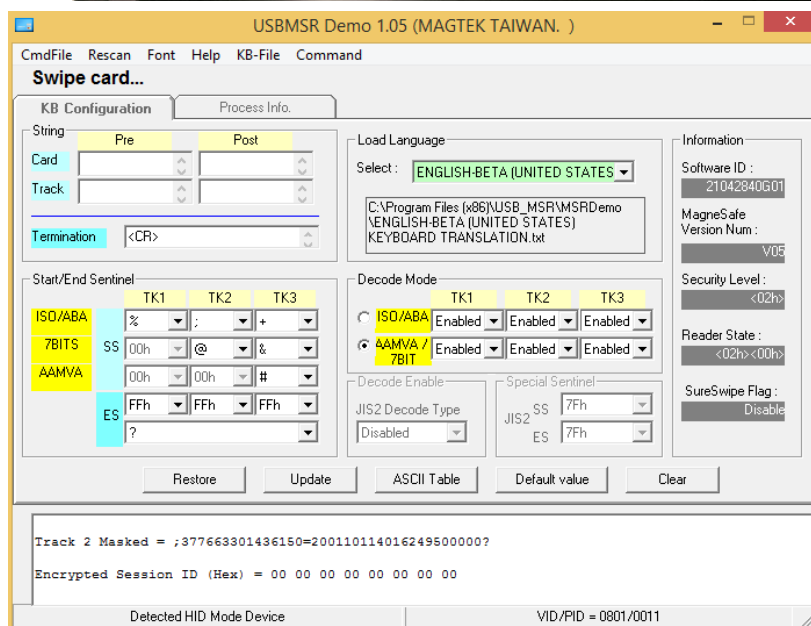
## Using MSR & Smart Card Reader Extension with PWS-870

1. Connect MSR & Smart Card Reader Extension to PWS-870 with care, via 2 screw holes and USB connector.

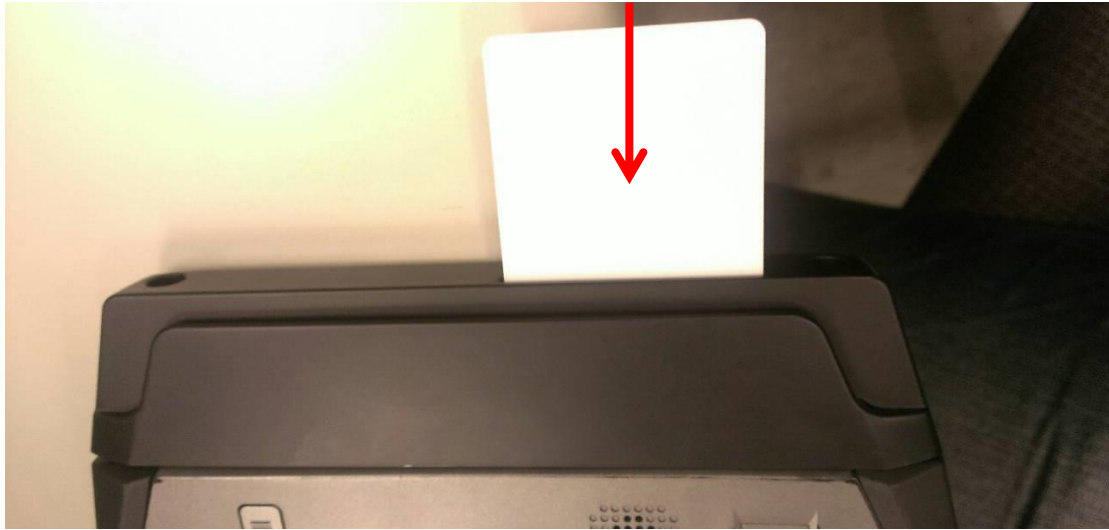


2. Whether through inserting or swiping the card, user can receive the data in the card or using it for identification or authorization for further action approved.

### MSR



# Smart Card Reader



AU9540 Demo AP V1.3.1.0 DLL Version: V1.41

Alcor Micro USB Smart Card Reader 0

Reader Info

VID: FFFF PID: FFFF Serial Number:

Manufacturer:  Product:

Slot

ATR String:

3B 4F 00 53 6C 65 34 34 31 38 2D 32 38 3D  
92 23 10 91

Protocol Type:

Asynchronous Card

EEPROM Card

Synchronous Card

VID:9540 Year:2011 Month:08 Day:20 Ver:0105

# UHF RFID Extension

## Front View



No.	Component
1	USB connector
2	Screw Holes

## Side View



## Using UHF RFID Extension with PWS-870

1. Connect UHF RFID Extension to PWS-870 with care, via 2 screw holes and USB connector.



2. Run the program and search the nearby tags, when PWS-870 enters within the

range of tag signal, you can read the data of tag.

3. Line up the UHF RFID Extension with tag to read the data. The reading distance is around 2.5M(based on the environment).

