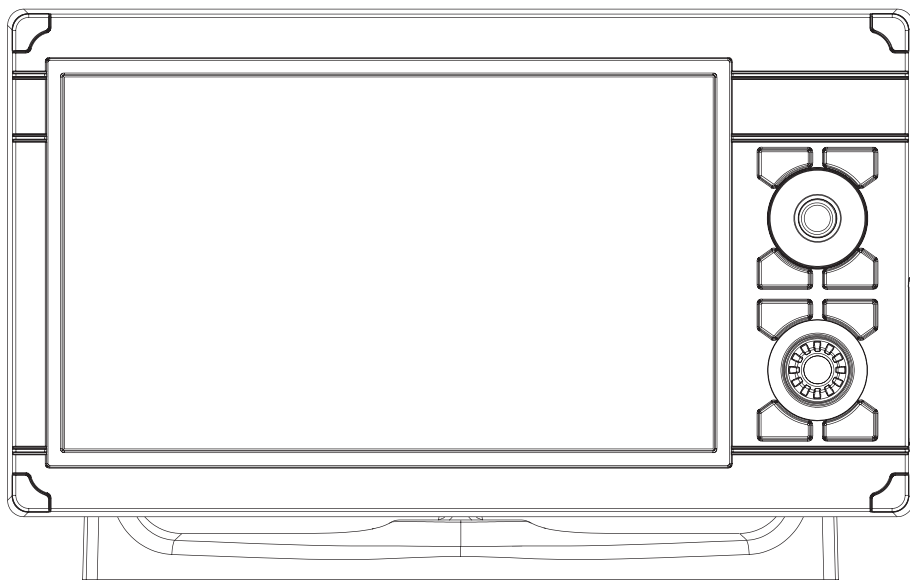




MMXRSE0AE030



# SWx 900

**WARNING AND INSTALLATION MANUAL**

# 1. Warranty and warnings

**AvMap Srl** warrants every unit to be free from defects in material and workmanship under normal use and service for a period of 24 months from original retail purchase. During the warranty period, **AvMap Srl** will repair or replace any component which fails in normal use without charges for parts or labour. Technological developments, modifications and upgrades of software are not covered by warranty. To receive warranty service, contact your local authorized dealer for shipping instructions. The device should be securely packed with its tracking code clearly written on the outside of the package, shipping to be paid by the customer. Include a copy of the original sales receipt as the proof of purchase. This limited warranty does not extend to any device which has been subjected to misuse, neglect, accident, incorrect wiring or improper installation. **AvMap Srl** reserves the right to repair or replace the device at its sole discretion.

For more warranty information please see the web site: [www.seiwadirect.com](http://www.seiwadirect.com)











For technical advice or assistance in Europe contact:

## **AvMap Srl**

Viale Zaccagna 6, 54033 Carrara (MS), Italy

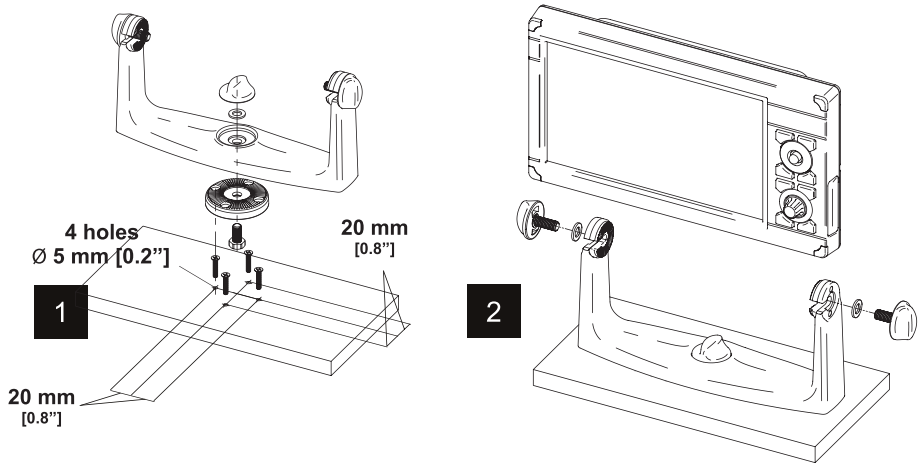
Customer support: +39-0585-784044

[support@seiwadirect.com](mailto:support@seiwadirect.com)

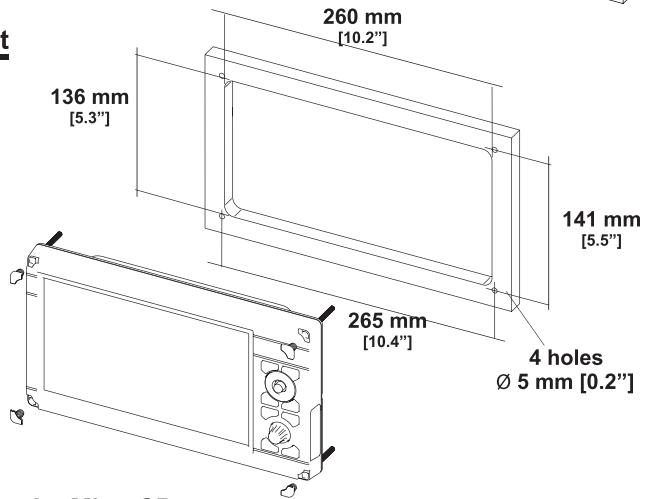
|  |  |
|--|--|
|    | CAUTION: Risk of electric shock! Do NOT connect or disconnect peripheral instruments before completely powering down your navigation system. Failure to power down may result in electric shock and/or damage to your equipment, especially in the case of depth sounder and fish finder transducers, which employ powerful electrical impulses.   |
|    | Electronic charts displayed by the device are believed to be accurate and reliable, but they are not intended to replace official charts which should remain your main reference for all the matters related to the execution of safe navigation. For this reason we would like to remind you that you are required to carry on board and use the officially published and approved nautical charts. |
|    | Please be aware that the serial ports are not opto-isolated and therefore the peripherals are electrically connected to the device. This allows the connection of high speed peripherals, like Fish Finder. If you are connecting a NMEA0183 peripheral and you would like to isolate it from the device, you have to add the opto-isolator externally.  |
|  | If water leaks into the equipment, immediately turn off the power at the switchboard. Fire or electrical shock can result.   |
|  | If the equipment is giving off smoke or fire, immediately turn off the power at the switchboard. Fire or electrical shock can result.  |
|  | Do not open the equipment. The equipment uses high voltage that can cause electrical shock.  |
|  | Keep the SD card slot's door closed to avoid water intrusion into the device   |
|  | Extensive exposure to heat may result in damage to the device.   |
|  | Please read through the device manual before the first operation. If you have any questions, please contact the customer service or your local dealer.   |
|  | Chart media are available from C-Map and Navionics authorized resellers.   |

## 2. Installation

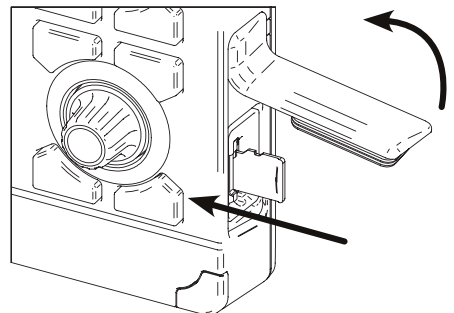
### 2.1 Bracket Mount



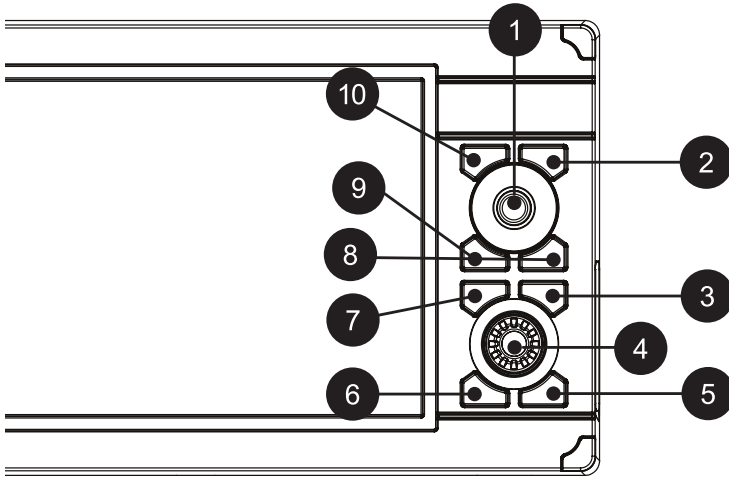
### 2.2 Panel Mount



### 2.3 How to insert the MicroSD

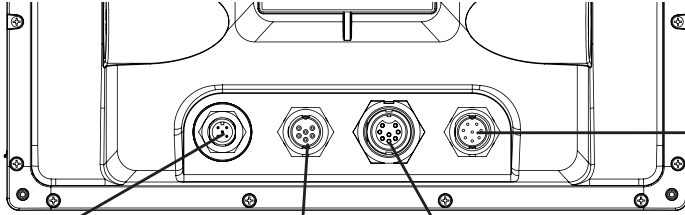


### 3. Keyboard

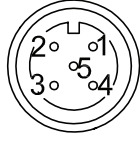


- 1 The joystick can move the cursor around the map or through menu items. Press [UP], [DOWN], [LEFT] or [RIGHT].  
Each button – except for MOB – can perform two functions: a short press performs the function labeled on the button; a long press (hold) executes the second function labeled on the unit face (for Power key is the opposite).  
[F1 – F3] long press functions can be customized by the user. This gives you a wider scope of options. Read the software manual to learn how to customize the functions keys.
- 2 [POWER] – [BRIGHTNESS]  
Short press: allows to change the brightness.  
Long press: turns the device on/off when pressed and held in.
- 3 [F2] – [WP]  
Short press: WP – insert a new waypoint on the cursor position.
- 4 [ZOOM IN / ZOOM OUT] – [ENTER]  
Rotor: Zoom In/Out if turned on map (it is possible to change default setting to [ROTATE] or [TILT]); if not on map, move the cursor through menu items like joystick.  
Enter: push it to confirm your choice. When on map page, it opens the contextual menu of a map object.
- 5 [F3] – [TRACK]  
Short press: Track – start and stop the track.
- 6 [MOB]  
Is a special button dedicated to man-over-board situation. Pressing MOB places a MOB mark on the current boat position and starts navigation to that place.
- 7 [F1] – [GOTO]  
Short press: Go To – to navigate to a destination (desired position on map)
- 8 [CLEAR]  
Short press: exits from the current menu (back).  
Long press: allows to come on the main page or, if you are on map page and the cursor is away from the boat position, centers the map on the boat position (home mode).
- 9 [MARK] – [LIST]  
Short press: allows to add a new mark.  
Long press: open a mark list.
- 10 [MENU] – [PAGE]  
Short press: Menu – opens the main menu if pressed on one of the main pages (Map, Fish Finder, GPS status, Engine monitor). It selects the top bar control buttons if pressed on full menu pages such as Marks, Routes, Tracks and others.  
Long press: Page – shows the main pages, it is the quicker way to switch between pages.


# 4. Connections scheme



| NMEA 2000 Connector |             |
|---------------------|-------------|
| PIN                 | FUNCTION    |
| 1                   | NOT CONNECT |
| 2                   | POWER +     |
| 3                   | POWER -     |
| 4                   | SIGNAL H    |
| 5                   | SIGNAL L    |




| FF Transducer* |              |
|----------------|--------------|
| PIN            | FUNCTION     |
| 1              | XDR POSITIVE |
| 2              | XDR SHIELD   |
| 3              | TEMP         |
| 4              | +5V          |
| 5              | ID           |
| 6              | GND          |
| 7              | XDR NEGATIVE |
| 8              | SPEED        |




\* SWx 900cw

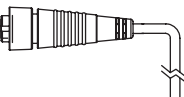
| GPS Connector (Port C) |                            |
|------------------------|----------------------------|
| PIN                    | FUNCTION                   |
| 1                      | POWER OUTPUT + (10-35 Vdc) |
| 2                      | OUTPUT C                   |
| 3                      | INPUT C                    |
| 4                      | NOT CONNECT                |
| 5                      | NOT CONNECT                |
| 6                      | GND / SIGNAL RETURN        |



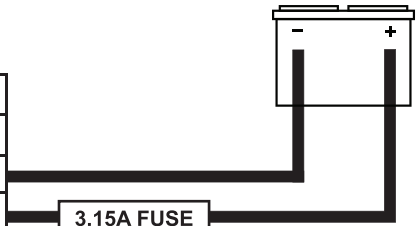
| Power & I/O Connector (Port A & Port B) |                           |
|---|---------------------------|
| PIN                                     | FUNCTION                  |
| 1                                       | GND                       |
| 2                                       | POWER INPUT + (10-35 Vdc) |
| 3                                       | INPUT A                   |
| 4                                       | COMMON                    |
| 5                                       | OUTPUT B                  |
| 6                                       | OUTPUT A                  |
| 7                                       | INPUT B                   |
| 8                                       | EXTERNAL ALARM OUTPUT     |



## 4.1 Power supply connection only

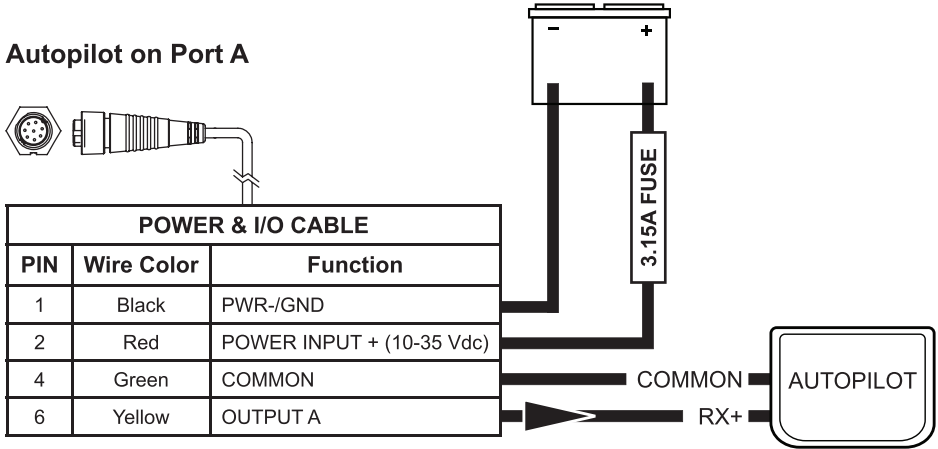


| POWER & I/O CABLE |            |                           |
|-------------------|------------|---------------------------|
| PIN               | Wire Color | Function                  |
| 1                 | Black      | PWR-/GND                  |
| 2                 | Red        | POWER INPUT + (10-35 Vdc) |



## 4.2 Autopilot Connections

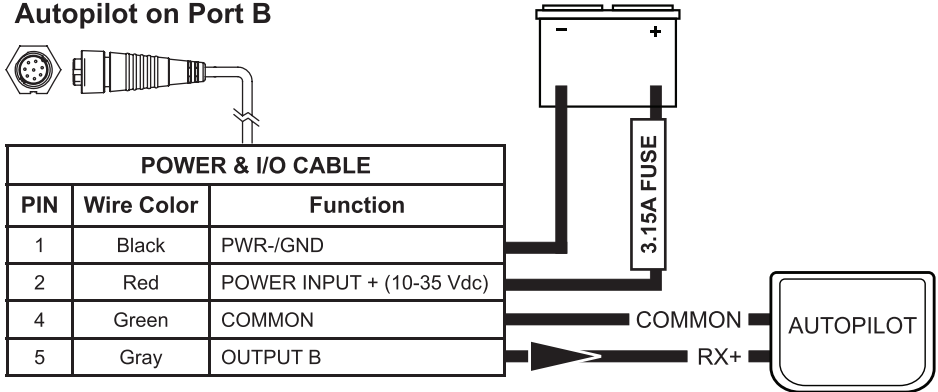
### Autopilot on Port A



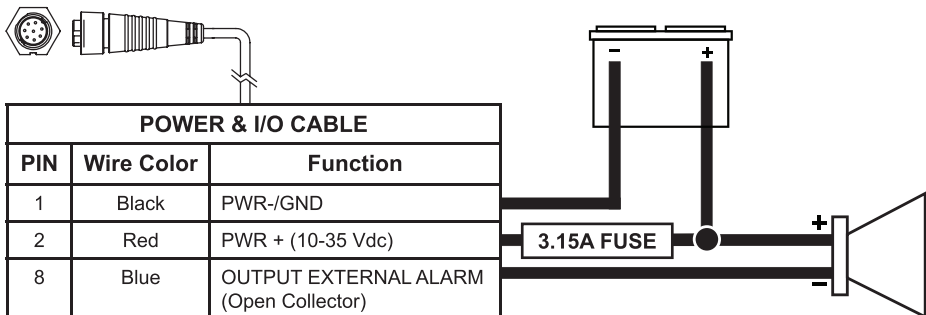
#### WARNING

Do not connect the COMMON connections (green wires) of the I/O ports to the power cables of external devices. This connection could damage the hardware of the device.

### Autopilot on Port B



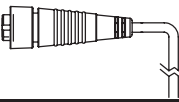
## 4.3 External alarm connection



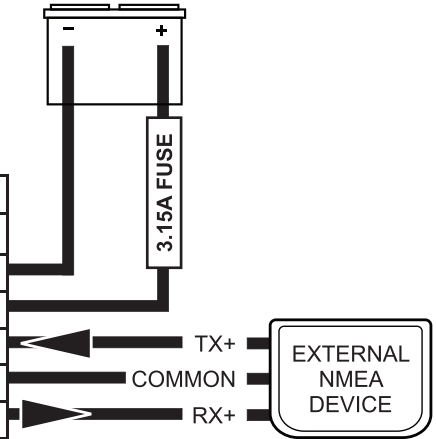
**Note:** Current MAX 300 mA

## 4.4 NMEA0183 Connections

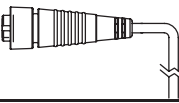
### External NMEA on Port A



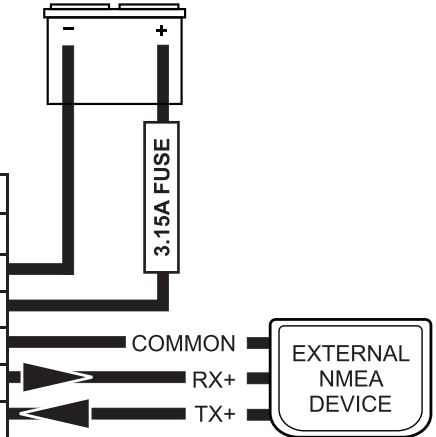
| POWER & I/O CABLE |            |                           |
|-------------------|------------|---------------------------|
| PIN               | Wire Color | Function                  |
| 1                 | Black      | PWR-/GND                  |
| 2                 | Red        | POWER INPUT + (10-35 Vdc) |
| 3                 | White      | INPUT A                   |
| 4                 | Green      | COMMON                    |
| 6                 | Yellow     | OUTPUT A                  |



### External NMEA on Port B



| POWER & I/O CABLE |            |                           |
|-------------------|------------|---------------------------|
| PIN               | Wire Color | Function                  |
| 1                 | Black      | PWR-/GND                  |
| 2                 | Red        | POWER INPUT + (10-35 Vdc) |
| 4                 | Green      | COMMON                    |
| 5                 | Gray       | OUTPUT B                  |
| 7                 | Brown      | INPUT B                   |



**Note:** NMEA-0183 input baud rate is automatically detected and selected. If you need to set the baud rate manually please go into the settings menu.

## 5. Technical specifications

- Display size: 9"
- Display resolution: 800x480px
- Display brightness: 1100 nits
- Touch-screen: Capacitive multitouch
- Back-lit keyboard
- Built-in GPS sensor: 10Hz GPS/GLONASS
- Built-in Fish Finder CHIRP\*
- External GPS connector
- NMEA 2000
- NMEA 0183: 2x Rx/Tx on power cable
- Transducer connector\*
- Memory slot: MicroSD
- Wireless LAN connection compatibility
- BT wireless technology capability
- Mounting options: Bracket and flush mount
- Waterproof: IPX6
- Supply voltage: 10-35 Vdc
- Operating temperature: -10°C / +60°C
- Storage temperature: -20°C / +80°C
- Transmitting frequency range: 2400 - 2483 MHz
- Maximum transmitting power: 100 mW
- Maximum power consumption: 12W or 25W\*

## 6. Product conformity information

### 6.1 FCC compliant

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Changes or modifications not expressly approved by the AvMap Satellite Navigation could void the user's authority to operate the equipment.

#### Compliance information statement

|                                  |   |   |
|----------------------------------|---|---|
| Identification of the product    | Name  | P/N   |
|                                  | SWx 900w<br>SWx 900cw   | P3MR200WSE<br>P3CR200WSE                                |
| Certified components             | WiFi and BT module<br>FCC ID: Z64-WL18SBMOD   |   |
| Applicable compliance statements | This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:<br>(1) This device may not cause harmful interference, and<br>(2) This device must accept any interference received, including interference that may cause undesired operation. |   |
| Responsible party                | Name  | AvMap Satellite Navigation Inc.                         |
|                                  | Address   | 25 Enterprise Zone Drive,<br>Riverhead, NY 11901<br>USA |
|                                  | Phone   | +1-800-363-2627   |
|                                  | Website   | www.avmap.us  |

### 6.2 Simplified EU declaration of conformity

Hereby, AvMap Srl, Viale Zaccagna 6, 54033 Carrara (MS), Italy declares that the radio equipments in the following table are in compliance with Directive 2014/53/EU.

|           |            |
|-----------|------------|
| SWx 900w  | P3MR200WSE |
| SWx 900cw | P3CR200WSE |

The full text of the EU declaration of conformity for every single product is available at the following internet address: [eudeclaration.avmap.it](http://eudeclaration.avmap.it)