



Sound Principles.
Good Advice.

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PCM3 v PCM2 FAQ

Next Generation PCM update - July 2022

The PCM2 was updated with a newer GNSS receiver (Phantom-34) from the same manufacturer we currently use (Hemisphere). The PCM3 will look the same as the PCM2, but the newer version number will be indicated on the label "PCM3" effective immediately. Additionally, after we use up existing stock, the housing color will change from white to grey. The exact timeline will depend on the quantity of orders but is expected toward the end of 2022. The form and fit of the PCM3 is identical to the most recent PCM2 version with no changes being made to any mechanical parts, including batteries and mounts. The only physically noticeable change is the introduction of the A25 GPS antenna, which replaces the current A21 and works with the existing mount (no adapters are necessary).

Internally, the electronics have been updated with a new power supply capable of handling the higher power requirements of all the features the Phantom-34 offers. Initially, there will not be any change to the power consumption and overall battery life of the PCM since we have not enabled the additional functionality for the Phantom-34 (Atlas Network RTK, L2 frequencies).

Q1: Can I use my existing M9/S5 with the PCM3?

A1: Yes, all M9s and S5s, running the latest firmware, are compatible with the PCM3. Make sure you are running the latest version of RiverSurveyor Live or RiverSurveyor Stationary Live. Firmware and software are available from here: <https://www.yssi.com/customer-support/software-firmware-downloads/software>

Q2: Is the PCM3 the same price as the PCM2?

A2: No, due to a change in the GNSS electronics board and antenna, the overall cost has increased. Please check with your local representative for updated pricing.

Q3: What has changed from the PCM2 to the PCM3?

A3: The GNSS board inside the PCM and the GNSS receiver (external antenna) has been changed due to end of life.

Q4: Are there any new features with the PCM3?

A4: Yes, there are a few new features and capabilities.

- Multi-GNSS capable meaning the PCM3 will use GPS, GLONASS, BeiDou, or Galileo constellations.
- Ability to enable extra options will be added in the future
- The new Phantom-34 board will automatically switch between DGPS and RTK modes. Users no longer have to manually switch, using the software.
- RiverSurveyor Live and RiverSurveyor Stationary Live will now detect whether the user has a PCM2, with P102 receiver, or PCM3, with the Phantom-34 receiver.
 - For current PCM2's, the functionality will be the same.
 - For the PCM3, when the 'SonTek GPS Option' is selected in RSL, a window will open indicating to the user stating: 'GPS Application is Automatic Differential/RTK'
- Users will notice a higher satellite count with the new PCM3 (Phantom-34) GNSS receiver.

Q5: If only the GNSS components have changed, why has the Basic version increased in price?

A5: The price of all materials has gone up, including the housing and other electronics.



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Q6: For RTK, are the two generations compatible with one another? I.e., is a PCM2 Rover compatible with a PCM3 base and/or is a PCM3 Rover compatible with a PCM2 base?

A6: No, you must use the same generation PCM rover and base.

Q7: If I want to order a Rover only or Base only, do I need to do anything special?

A7: It depends on what generation of PCM you currently have. If you are not sure, please contact Tech Support (support@sontek.com) with your existing PCM Serial Number. If your existing PCM is a 1st or 2nd generation PCM, there are a few options for upgrading to PCM3.

- If you have a PCM1, you will need to purchase an entirely new kit (PCM3-RTK).
- If you have a PCM2, and you want to order a Rover (RK) for your existing Base (BK) you will need to contact Support for an Service Request (SR) to upgrade your existing PCM2 to a PCM3 and then add PCM3-RTK-RK to the SR order.
- If you have a PCM2, and you want to order a Base (BK) for your existing Rover (RK) you will need to contact Support for an SR to upgrade your existing PCM2 to a PCM3 and then add PCM3-RTK-BK to the SR order.

Q8: Can a PCM2 be upgraded to a PCM3?

A8: Yes. The upgrade process will be handled by our repair department, please reach out to Tech Support with your PCM Serial Number and they will generate a Service Request (SR) number. You can reach Tech Support by emailing support@sontek.com. The mainboard and GPS board will be replaced. Although the A21 receivers are compatible with the new Phantom-34 board, users will not be able to take full advantage without a new receiver. For this reason, we recommend purchasing the new A25 antenna with the upgrade.

Q9: Are we still able to repair PCM2s? When will we stop being able to repair the PCM2?

A9: Yes, we can still repair the PCM2 and will continue to do so until we run out of parts.

Q10: If I upgrade to the PCM3, will I need a new pelican case?

A10: Yes, the new GNSS receivers on the PCM3 (A25) have a slightly different footprint and will not fit in the previous M9/S5 pelican cases.

Q11: With a new GNSS receiver, will the power consumption on the PCM3 change, compared to the PCM2?

A11: No, there is no change to the existing PCM power consumption and battery life with the GNSS receiver

Q12: Are there any PCM2 or PCM1 related spare parts affected by this changed? Any discontinuation of spares for PCM2 or PCM1?

A12: The Hemisphere A21 receiver is no longer available as a spare part for the PCM1 and PCM2. The currently available A25 receiver is backward compatible with the PCM2 and PCM1.