

# PC-3000 for HDD. How to unlock SED on WD SMR drives without a special board

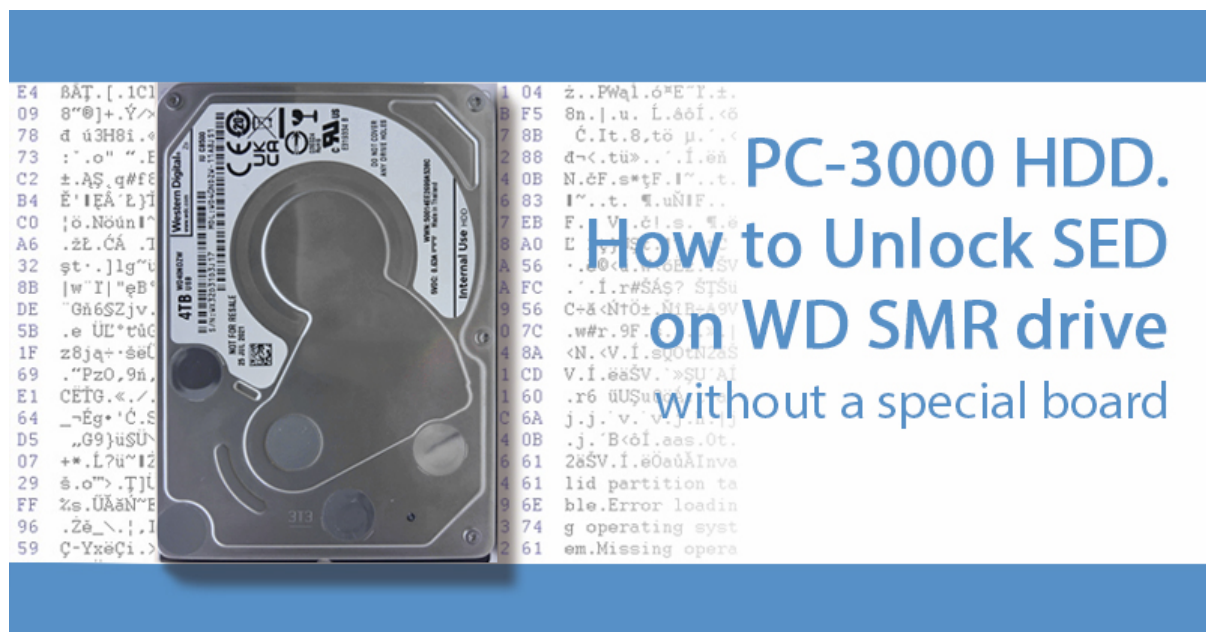
Posted on

3–4 минуты

Hello dear friends,

In June 2022, we released a new [PC-3000 software version 7.1.x](#), and one of the main features in this update is the SED unlocking option for new WD SMR families.

It means that now you don't need to buy a special unlocked PCB to get the Service Area access on these drives anymore!



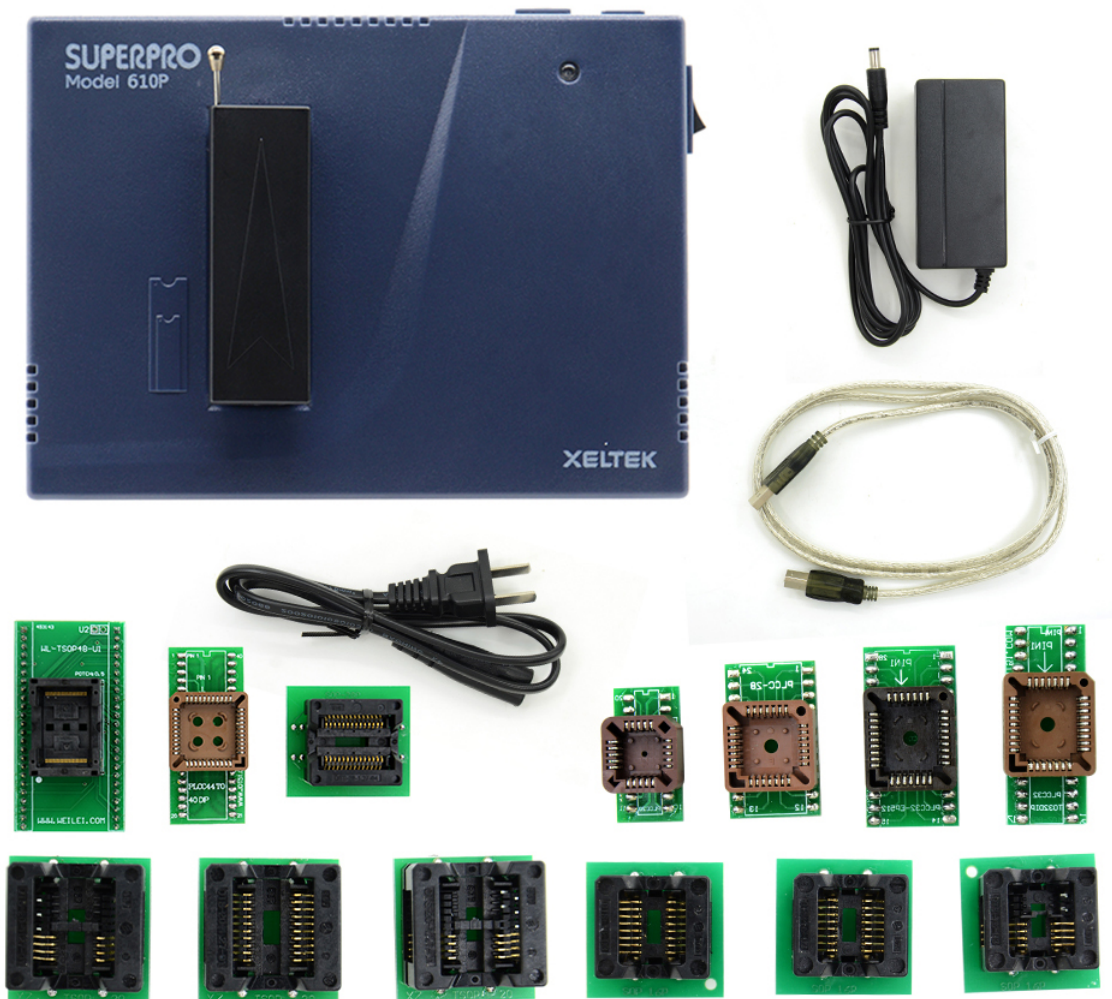
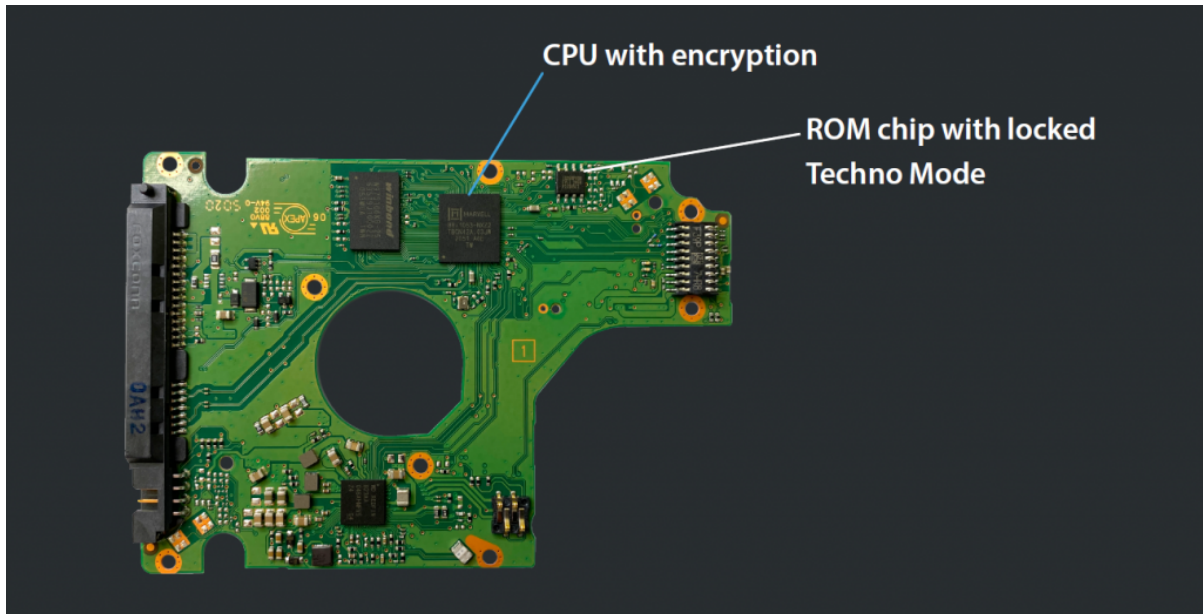
In this article, we describe how to use this option in practice.

Modern WD families have a locked CPU. That is why it isn't possible to apply the [SED unlocking procedure](#) which we used on models from the previous generation.

But what are the steps for unlocking?

# 1. Read the ROM using a programmer device

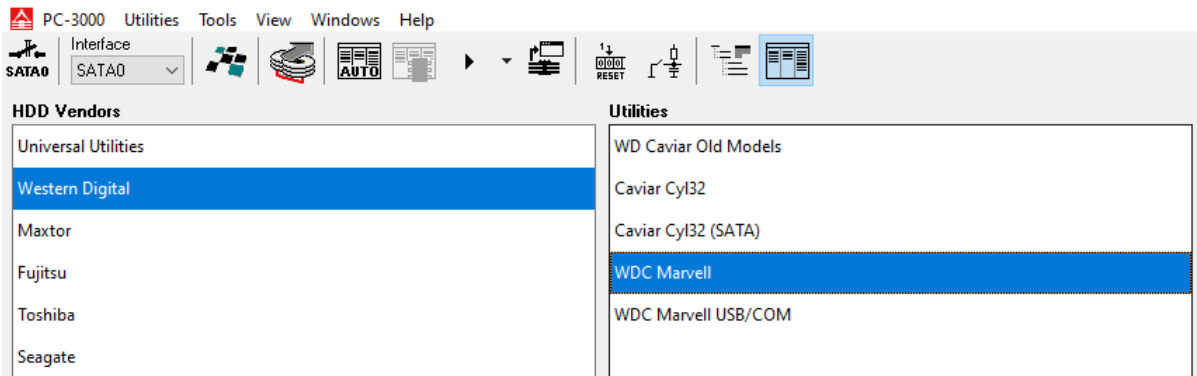
It's the main challenge because you can't read ROM either via the native SATA / USB interface or via Terminal. The only way is to use an external programmer device.



We will not provide special recommendations here about models

and brands. Everything depends on your own preferences and budget.

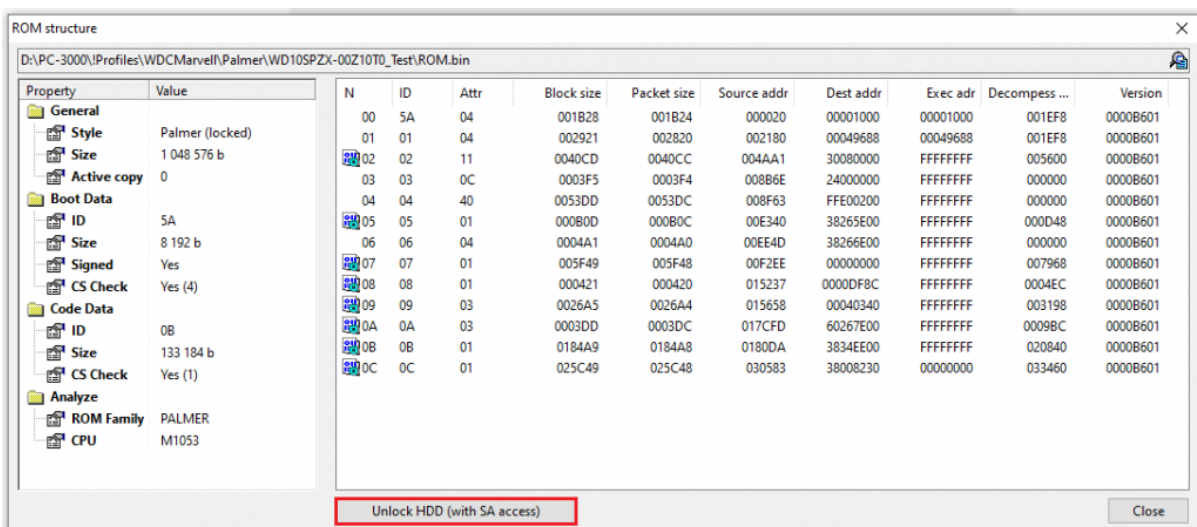
## 2. Open the WDC Marvell Utility without connecting the drive



## 3. Find the Unlock SED HDD option and choose the saved ROM image



## 4. Press Unlock HDD (with SA access) and save the generated ROM



## 5. Write the unlocked ROM back on the native PCB using the programmer device

That's it! The techno mode is unlocked and you can work with SA modules.

## What about data access and encryption?

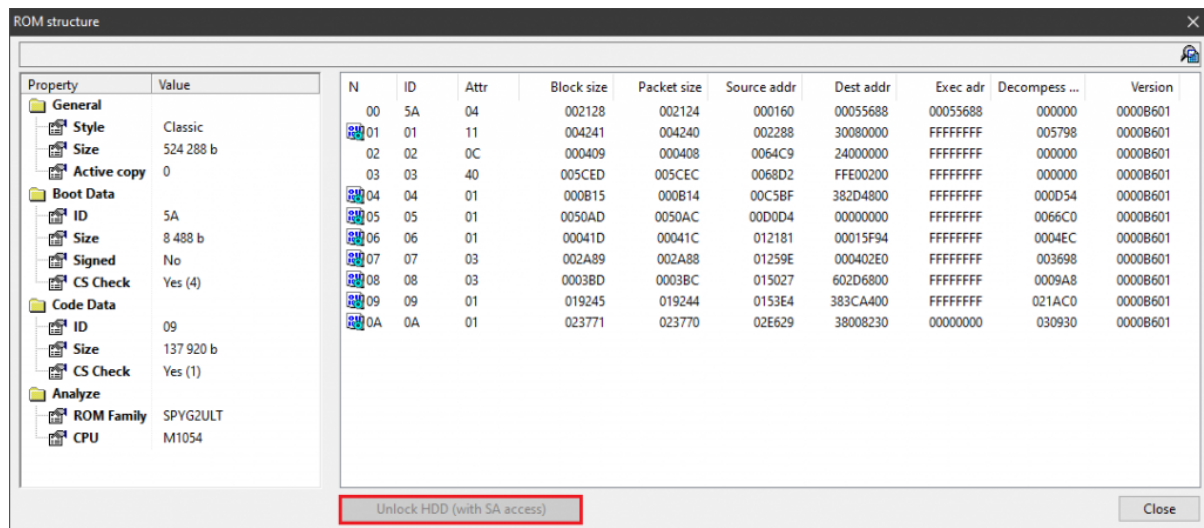
The user area will be accessible in a decrypted format because encryption keys are located in the CPU.

## What if the original board is USB?

If it's not working well, you can convert it to the SATA interface via soldering the SATA connector.

## Any possible problems?

The unlock HDD option isn't active



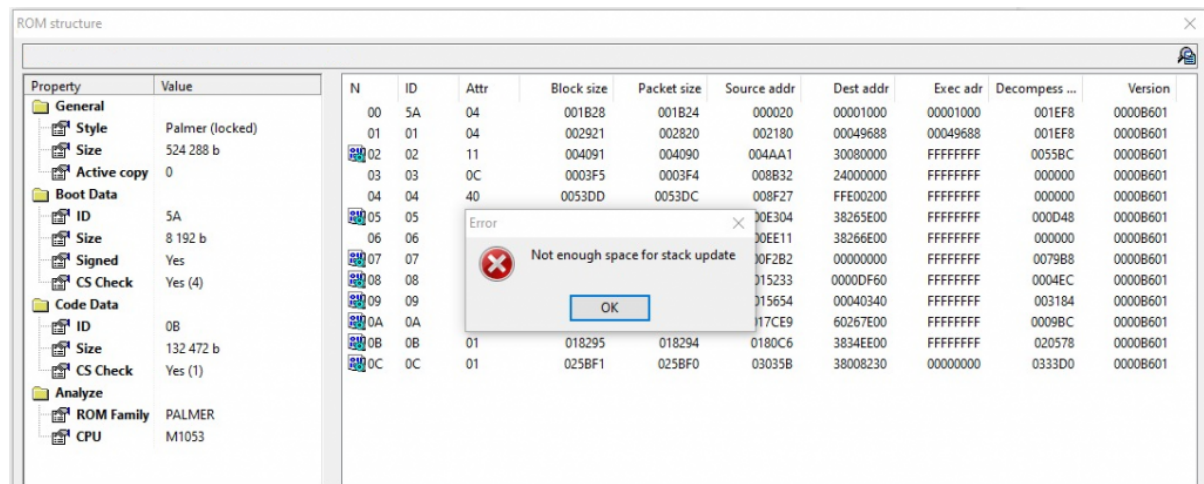
**SOLUTION:** This usually happens with SpyGlass 2 ULTRA drives.

They were added beginning with the 7.1.10 software version.

Please update the software version.

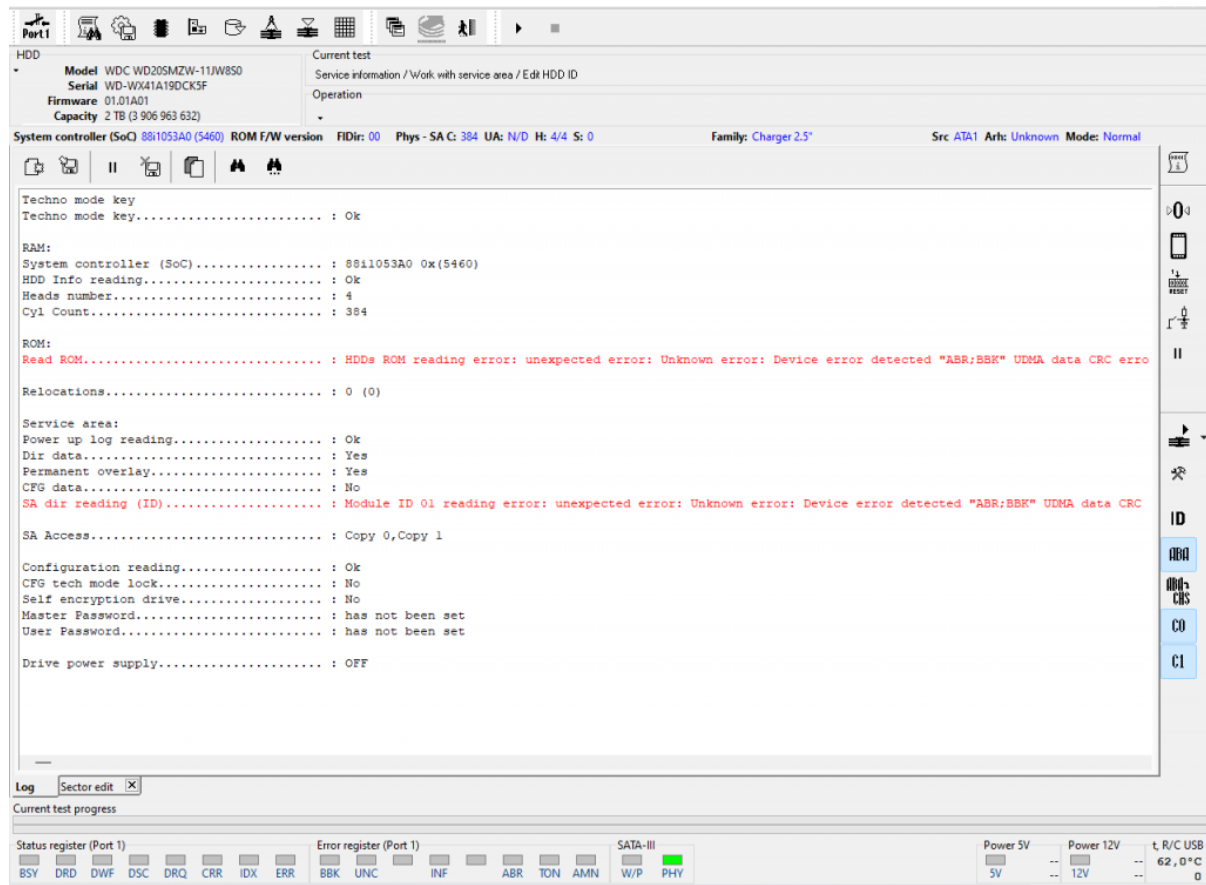
If it didn't help, probably your drive is currently unsupported. Please check the list at the end of this article.

Error: Not enough space for stack update

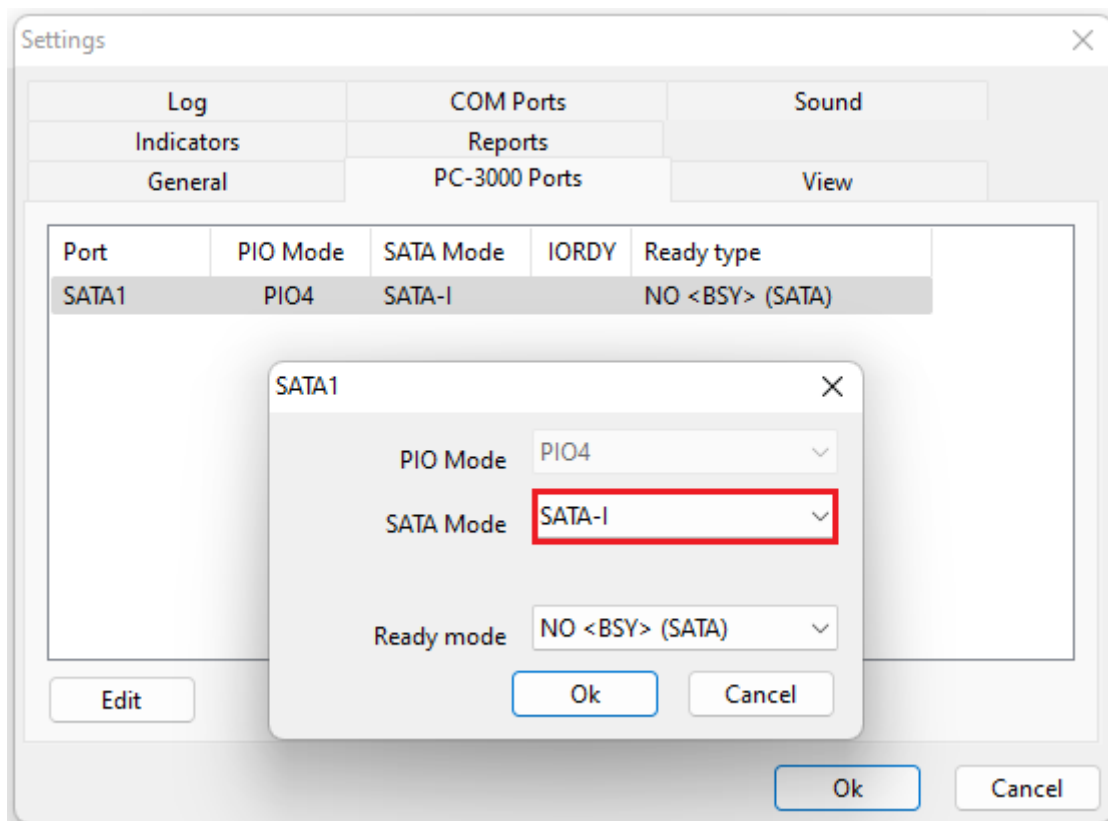


**SOLUTION:** Incorrect ROM size! Check settings for your programmer device and reread the ROM chip.

UDMA data CRC error in the log after utility start:



**SOLUTION:** Open Tools → Settings → PC-3000 Ports and change SATA mode:



The described feature is currently supported for the following WD SMR drives:

- Palmer
- Charger
- SpyGlass 2
- SpyGlass 2 Ultra
- SpyGlass 3
- Venice
- VeniceR
- Carmel
- CarmelR

Our developers are working on expanding this list.

You can also watch the video with some theoretical points on this update and step-by-step examples below:

If you have questions, you are welcome to contact our Technical Support via the [New TS Portal](#).



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