tools for datarecovery experts

Tools for data recovery experts

Guide for using HddSurgery™ head unstick tools:

- ▪ *HDDS WDC 3.5" Unstick p2-3 (2 or 3 platters)*
- ▪ *HDDS WDC 3.5" Unstick p4 (4 platters)*

HDDSURGERY
Lomina 41, 11 000 Belgrade, Serbia
phone +381 11 361 43 43
www.hddsurgery.com
support@hddsurgery.com

Tools for data recovery experts

tools for datarecovery experts

Table of contents:

Tools for data recovery experts

1. Introduction

This guide is intended as a short course in handling of our tools for professionals in data recovery. It is assumed that the user is experienced in data recovery and familiar with "traditional" ways of saving data. This manual should not be taken as a guide for training.

Using these tools without adequate software support is not recommended. It is recommended to use some of the proven systems for cloning, such as Ace Lab, Salvation Data, Copy-r and other products.

It is possible to recover data without HddSurgery™ tools. In many cases, the known processes of hard drive head replacement are effective and sufficient. The general idea behind HddSurgery™ tools was to make sure that the process of replacing damaged hard drive heads goes with no errors. The use of HddSurgery™ tools prevents the ferromagnetic read/write heads to come in any kind of contact with the platter i.e. disk surface or other read/write heads. Also, with some basic procedures and short training, it is possible to let junior data recovery technicians handle complex tasks. With the development of these tools, we are trying to eliminate the element of luck that usually accompanies the process of data recovery.

Experienced data recovery technicians or engineers can have great success even without our tools, but they can have absolute security only by using HddSurgery™ tools.

HddSurgery™ is not responsible for any eventual damage caused by usage of our tools. HddSurgery™ is not responsible for the data stored on the patient or donor hard drives.

HDDSURGERY
Lomina 41, 11 000 Belgrade, Serbia
phone +381 11 361 43 43
www.hddsurgery.com
support@hddsurgery.com

Tools for data recovery experts

2. HddSurgery™ head unstick tool

Western Digital hard drives from families Tornado, Tornado PATA, Tornado 2R, Tornado 2PMR, Tornado 2D, Atlantis, Atlantis PATA, Spider, Gekko, DragFly2, DragFly3, Kermit, Sadle G6, Sadle 2D and Sadle BK, but also DragFly4, Hulk and Jupiter belong in the category of disks that "park heads" on a ramp. Sometimes, due to a shock or malfunction, heads don't get back to the ramp and they stay on the platters and stick to them. This prevents the motor to start rotating the platters and hard drive emits a "buzzing" sound.

HddSurgery^TM **head unstick tools** can be used to safely and easily unstick the heads from the platters and transfer them to the ramp. The purpose of these tools is to minimize the risk of platter damage during the procedure of head unsticking. Heads are lifted above the platters and safely guided over them back to the ramp.

▪ HDDS WDC 3.5" Unstick p2-3

These head unstick tools can be used on Western Digital hard drive models AAKS, AAJS, AAJB, AAKB, EADS, EARS and all other models with 2 or 3 platters from families: Tornado, Tornado PATA, Tornado 2R, Tornado 2PMR, Tornado 2D, Atlantis, Atlantis PATA, Spider, Gekko, DragFly2, DragFly3, Kermit, Sadle G6, Sadle 2D and Sadle BK.

▪ HDDS WDC 3.5" Unstick p4

These head unstick tools can be used on Western Digital hard drive models AAKS, AACS, EADS, EARS, EACS, EZRX and all other models with 4 platters from families: Jupiter, Hulk and DragFly4. As there is no conceptual difference between these two tools, we will explain only the functioning of HDDS WDC 3.5" Unstick p2-3 tool. In the case of HDDS WDC 3.5" Unstick p4, apply the same procedure.

HDDSURGERY
Lomina 41, 11 000 Belgrade, Serbia
phone +381 11 361 43 43
www.hddsurgery.com
support@hddsurgery.com

Tools for data recovery experts

tools for datarecovery experts

3. Supported models

HDDS WDC 3.5" Unstick p2-3 (2 or 3 platters)				
This tool can be used on Western Digital hard drive models AAKS, AAJS, AAJB, AAKB, EADS, EARS and all other models with 2 or 3 platters from following families: (two-letter marks can be found in model names - ex. WD5000AAKS-00**TM**A0)				
Tornado TA, TP, TB, TR, TC, TS, TH, TJ, TK, TL, TM, TN, RY, RZ, SB, SC, SD, SE	**Tornado PATA** TV, UF, TW, UG, TY, TZ, UJ, UA, UK, UB, UL, UC, UM, UD, UN, UE, UP, UH	**Tornado 2R** YE, YF, YG, YH, YJ, YK, YL, YM, YN, YP, YR, YS, YT, YU, YV, YW, YY, YZ, C8	**Tornado 2PMR** WF, WG, WH, WJ, WK, WL	**Tornado 2D** VV, VW, VY, WC, WD, WE, B9, C9
Atlantis D2, E7, A7, A8, A9, B0, B1, B2, C1, C2, C3	**Atlantis PATA** H8, H9, J0, J1	**Spider** ZS, ZT, ZU, ZV, ZW, ZY, ZZ, D0	**Gekko** G8, G9, H0, H1	**Kermit** D6, D7, E0, E1
DragFly2 M2B, 3BB, Y5B	**DragFly3** P8B, Z5B	**Sadle BK** MVWB	**Sadle G6** MVWB	**Sadle 2D** N0YB

HDDS WDC 3.5" Unstick p4 (4 platters)			
This tool can be used on Western Digital hard drive models AAKS, AACS, EADS, EARS, EACS, EZRX and all other models with 4 platters from following families:			
Hulk ZJB, ZKB, C7B	**Jupiter** RCA, RBA	**DragFly4** S2B, S8B, R6B	**Other** MMMB, J2GB, U2B, S0XB, T3B, J99B, R8UY, KEZB, Z9B

Tools for data recovery experts

4. Head unstick process

Step 1 – Handling the tools

When not in use, the tool should always be kept in a wooden box delivered with the tool. This way of keeping the tool prevents any possible damage to it which could appear when not handled properly.

When taking the tool out of the box, always hold it for the shank. Never hold the tool in the part where the head lifting snouts are.

Due to sensitivity of hard drive platters to dust and any kind of contamination, be sure to clean the tool before its use. Tool can be cleaned with a piece of cotton wool and alcohol. When cleaning the head lifting snouts, be extremely gentle.
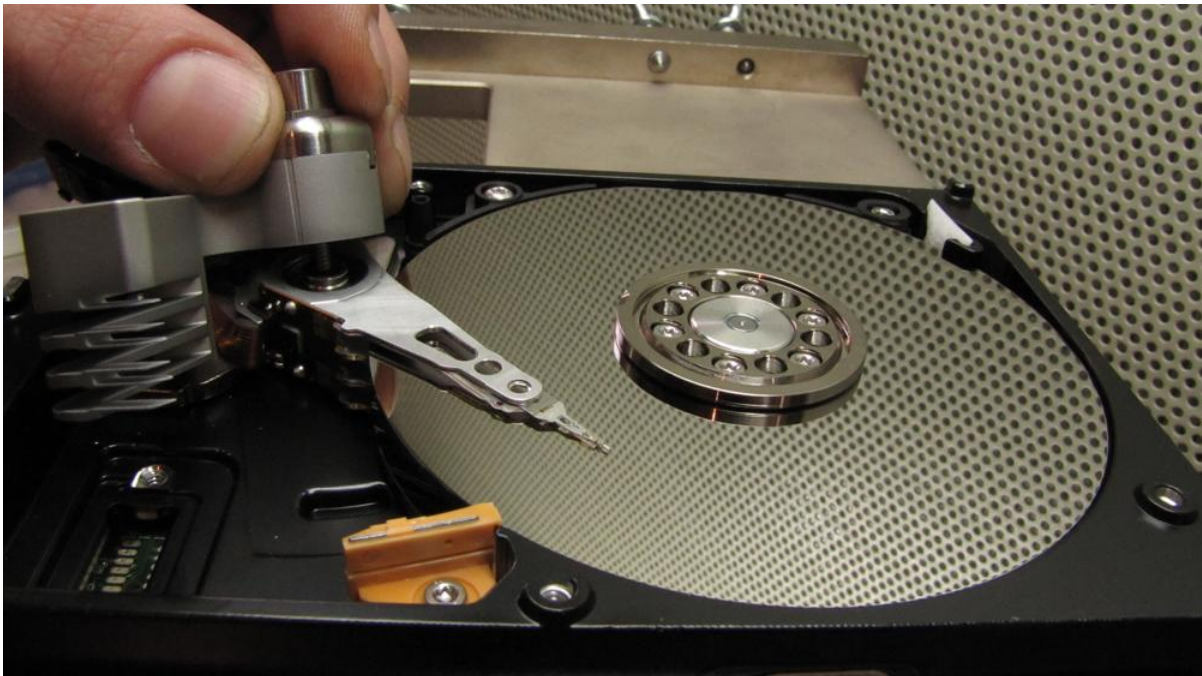

Picture 1. (handling the tools)

HDDSURGERY
Lomina 41, 11 000 Belgrade, Serbia
phone +381 11 361 43 43
www.hddsurgery.com
support@hddsurgery.com

Tools for data recovery experts

Step 2 – Mounting the tool on actuator arm

Remove screws holding flat cable contact and with a finger push contact from the bottom upwards to release it. The pressure from below may cause flat cable contacts to pop out and possibly damage platters, so hold firmly top of a flat cable contact with another hand while pushing related plastic. Before applying pressure, remove screws from their holes.

Carefully center the tool over the center hole of the hard disc head arm. Take care that the notch on the bottom of the tool coincides with the notches on the actuator arm base. Tighten the screw to perform tool installation.
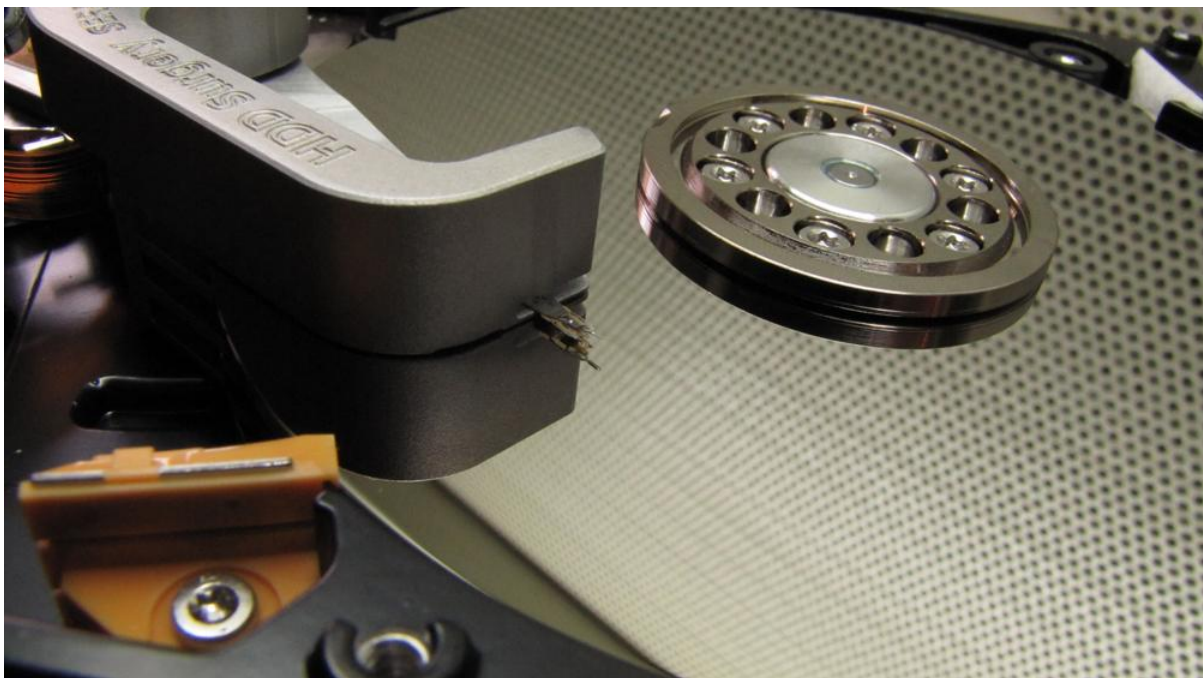

Picture 2. (mounting the head unstick tool)

With your right hand make sure that the tool shank with snouts remains in the area outside of the platters.

!!! IMPORTANT !!!
Be sure to tighten the screw in order to ensure good contact and proper tool height.

Tools for data recovery experts

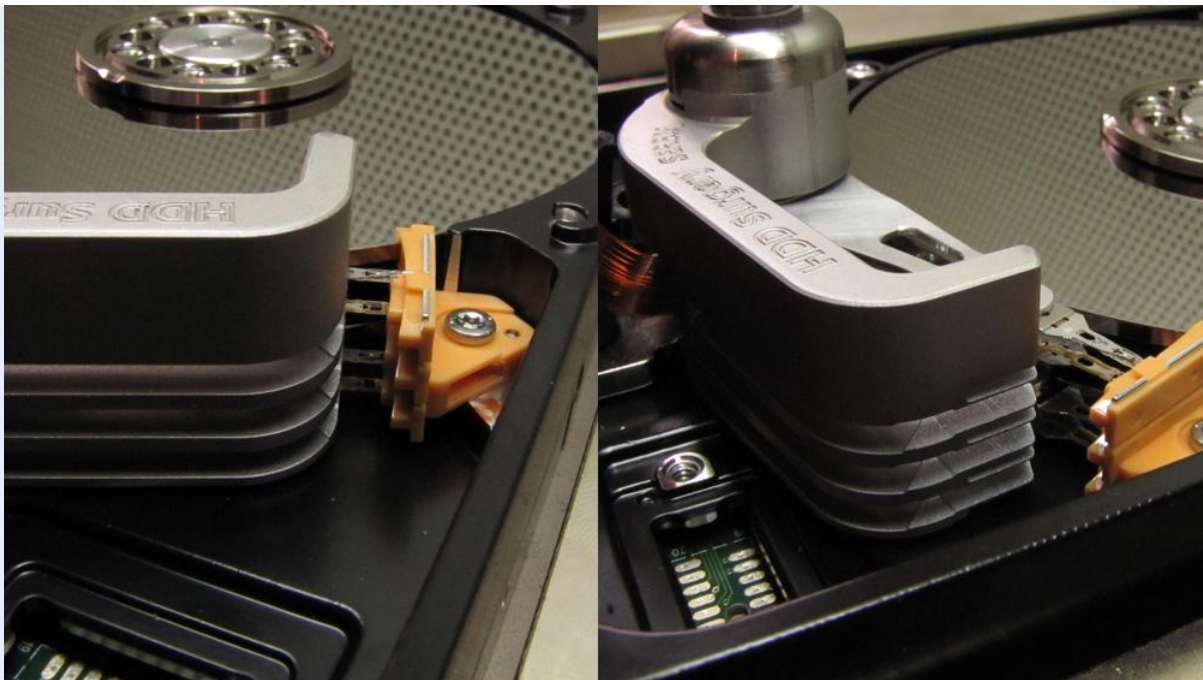tools for datarecovery experts

Step 3 – Lifting the heads

While holding the back side of the head arm with one hand, horizontally move the tool shank to slide it over platters. Hold the back side of head arm (magnetic coil) to assure that the tool lifts the heads and not push them. Construction of the tool snouts enables them to lift the heads by relatively small force. If you feel that the necessary force is greater than the expected, check tool positions and possible damage to the HDA assembly. Push the tool as far as possible until the snouts lift the heads completely. The heads are now unstick from the platters.

Picture 3. (lifting the heads)

Tools for data recovery experts
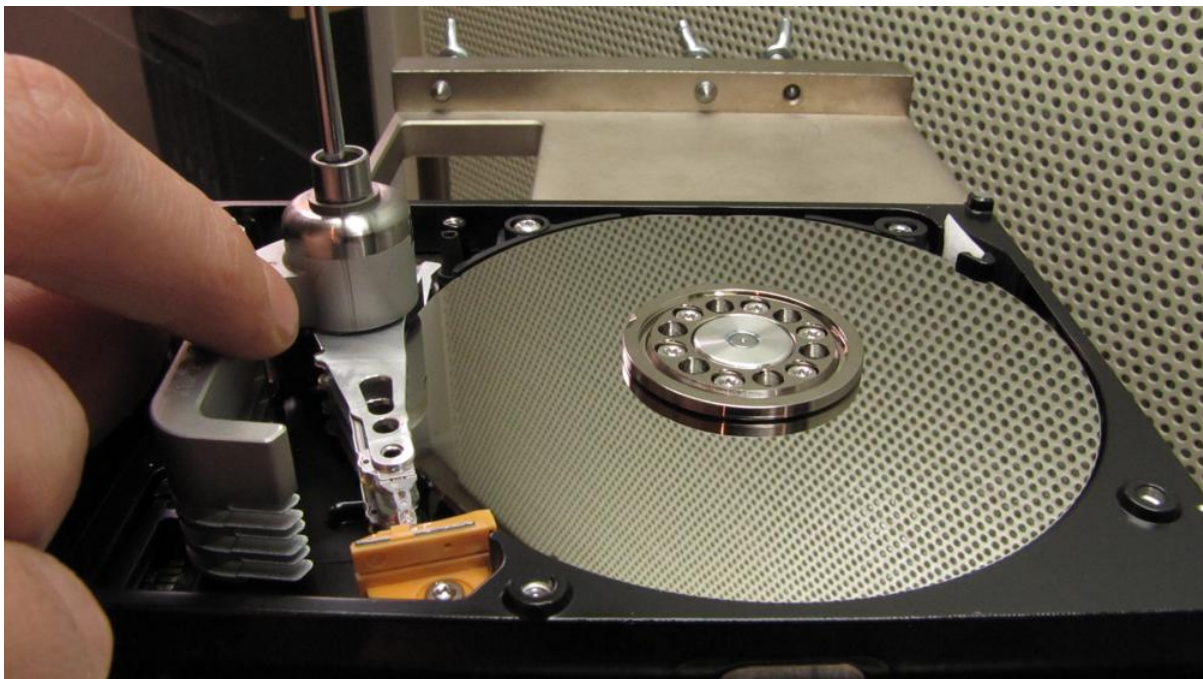
Step 4 – Moving the heads to the ramp

Move the tool with heads out of the platter area and over the ramp. Push the back side of the head arm (magnetic coil) together with the tool itself to prevent heads from slipping until they reach the ramp. When the heads are over the ramp, hold the back side of the head arm (magnetic coil) and move the tool horizontally so the heads slide from the snouts to the ramp.

Picture 4. (moving the heads to the ramp)

HDDSURGERY
Lomina 41, 11 000 Belgrade, Serbia
phone +381 11 361 43 43
www.hddsurgery.com
support@hddsurgery.com

Tools for data recovery experts

tools for datarecovery experts

Step 5 – Dismounting the tool

Remove the screw that's holding the head and tool attached to the drive itself. While unscrewing this screw, hold the back side of head arm (magnetic coil) and make sure that the heads stay on the ramp. Also, take care that the tool remains away from the heads and platters while removing it. Now the tool can be removed.

Picture 5. (dismounting the tool)

Now you can start head replacement using the tools from HDDS WDC 2.5"-3.5" Ramp Set

You can find more information about this tool and many other tools used for data recovery on our website.

http://www.hddsurgery.com/

Also you can watch the videos that show how this tool works on our YouTube channel.

http://www.youtube.com/user/HddSurgery

Tools for data recovery experts