

TEKNOSERVICE ERASE SYSTEM – ERASER

BIOS PREPARATION

To proceed to activate the disk erase system, it is necessary to activate it from the BIOS. To do this, after starting the computer, press the F2 key to enter the BIOS.

The access to the BIOS must be protected by password, so that users cannot manipulate it, for security.

The default password is **ttl**.

Once inside the BIOS, in the **main menu**, we select the **advanced options** tab. Just below the **exit button** we will click on the second circle (the gray one) to see the next advanced options menu.

/ISLIS UEFI BIOS Utility - Advanced Mo	de 🖉 Salir
🔺 Mis favoritos 🎛 Principal 🔩 Ai Tweaker	🔄 Opciones avanzadas 🗲 Monitor
Trusted Computing	Trusted Computing Settings
🖸 Configuración de la CPU	
≥Configuración PCH	
🖸 Configuración SATA	
🖸 Configuración del agente del sistema	
🖸 Configuración USB	
▶ Miscelaneas	
≥Configuración de dispositivos incluidos	
► APM	Quick Note Last Modified
≥ Pila de red	→+: Cambiar pestaña
	14: Cambiar opción Enter: Seleccionar
	+/-: Modificar opción
	F1: Ayuda
	F2: Valores anteriores F3: Access directs
	F4: Añadir Acceso dir. y Mis Favoritos
	F5: Valores predeterminados optimizados
	FIU: GUARDAR ESU: SAIIR F12: Imprimir pantalla
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TEKNOSERVICE HARD DISK ERASE SYSTEM

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VIEFI BIOS Utility - Advanced M	ode	📮 Salir
🗸 🕁 Arrancar 🖴 Herramienta		••
Configuración de arranque Arranque rápido	Deshabilitado	Habilita o deshabilita el arranque con la inicialización de un conjunto mínimo de dispositivos necesarios para iniciar la opción de arranque activa. No tiene efecto en las
Logotipo a pantalla completa	Deshabilitada	opciones de arranque BBS.
POST Report	5 sec	
Estado de Bloq Num al arrancar	Activado	
Esperar 'F1' si hay error	Habilitada	
Mensajes de las opciones de ROM	Forzar BIOS	
Capturar interrupci ó n 19	Deshabilitada	Quick Note Last Modified
Modo de configuraci ó n	Modo EZ	→+: Cambiar pestaña
🖸 CSM (Módulo de compatibilidad)		Enter: Seleccionar
≥ Arranque seguro		F1: Ayuda F2: Valores anteriores F3: Access directo
Prioridades de opciones de arranque Opción de arranque nº 1	P1: TOSHIB	F4: Añadir Acceso dir. y Mis Favoritos F5: Valores predeterminados optimizados F10: Guardar ESC: Salir F12: Imprimir pantalla
Version 2.10.1208. Copyrig		

Inside the second menu of advanced options we will click on the tools tab where we will select the "OC" profile option Asus.

IEFI BIOS Utility - Advanced Mode	U Salir
🕛 🕁 Arrancar 🚘 Herramienta	
▶ Utilidad ASUS EZ Flash 2	Guardar y restaurar Perfil 0.C. ASUS
Perfil O.C. ASUS	
▶ Información de SPD de ASUS	
	Quick Note Last Modified
	Enter: Medificar opcionar
	F1: Ayuda
	F3: Acceso directo
	F5: Valores predeterminados optimizados
	F10: Guardar ESC: Salir F12: Imprimir pantalla
Version 2.10.1208. Copyright (C) 2014 American	Megatrends, Inc.

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Next we will position ourselves on the option **load from profile** and we will type option No. 2, in this way we will load the option of secure deletion. Before leaving the BIOS, we will press the F10 key to save the changes we have made.

UEFI BIOS Utility - Adv	anced Mode	🗐 Salir
🕘 Arrancar 🚘 Herramienta		••
Herramienta\ Perfil O.C. ASUS >		
Configuración de Perfil O.C.		Cargar configuración de la BIOS
Estado de perfil de configurac Estado de perfil de configurac	ARRANQUE/DISCO BORRADO/SEGURO Not assigned Not assigned Not assigned Not assigned Not assigned Not assigned	
Agregar su Perfil Etiqueta Guardar en Perfil Cargar Perfil	ARRANQUE/DISCO	Quick Note Last Modified
Cargar desde Perfil	2	→+: Cambiar pestaña
The last loaded profile:	Profile 1 ARRANQUE/DISCO	t4: Cambiar opción Enter: Seleccionar
▶ Load/Save Profile from/to USB Drive		+/-: Modificar opción F1: Ayuda F2: Valores anteriores F3: Acceso directo F4: Añadir Acceso dir. y Mis Favoritos F5: Valores predeterminados optimizados F10: Guardar ESC: Salir F12: Imorimir pantalla

UEFI BIOS Utility - Adv	anced Mode	📮 Salir
😃 Arrancar 🖴 Herramienta		••
Herramienta\ Perfil 0.C. ASUS >		
Configuración de Perfil 0.C.		Cargar configuración de la BIOS
Estado de perfil de configurac Estado de perfil de configurac	ARRANQUE/DISCO BORRADO/SEGURO Not assigned Not assigned Not assigned Not assigned Not assigned Not assigned	
Agregar su Perfil Etiqueta	Load from Profile ?	
Guardar en Perfil	Yes	
Cargar Perfil Cargar desde Perfil	NO	Quick Note Last Modified
The last loaded profile:	Profile 1 ARRANQUE/DISCO	↔: Cambiar pestama 14: Cambiar opción
▶ Load/Save Profile from/to USB Drive.	8	Enter: Seleccionar +/-: Modificar opción F1: Ayuda F2: Valores anteriores F3: Acceso directo F4: Affadir Acceso dir. y Mis Favoritos F5: Valores predeterminados optimizado
		F10: Guardar ESC: Salir F12: Imprimir pantalla

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Once all the changes in the BIOS configuration have been made, **DURING THE START OF THE MACHINE**, we will press the F8 key repeatedly to show us a boot menu in which we will select the Kingston pendrive (8 gigabytes) in which we will find the application Secure erase.

ERASER

When starting from the option of the pendrive, a small Linux system will be started that contains rescue tools among which we will choose the **DISK ERASER** application. At this point, the erase system will automatically start.

After the initial load, a screen will appear where we will launch the disk deletion process.



Double click on the "Disk Eraser" icon (1), a window will appear where we select the option "External (nwipe): Fork of DBAN's dwipe - Darik's Wipe" (2) and press the "Continue" button (3).

	nwipe 🗖 🗖	
nwipe 0.13 (base	ed on DBAN's dwipe - Darik's Wipe)	
Options Entropy: Linux Kernel (urandom) PRNG: Mersenne Twister (mt19937ar-cok) Method: DoD Short Verify: Last Pass Rounds: 1 (plus blanking pass)	Statistics Runtime: Remaining: Load Averages: Throughput: Errors:	
<pre>Disks and Partitions</pre>		
P=PRNG M=Method V=Verify R=Rounds B=Blank	king-pass, J=Up K=Down Space=Select, F10=Start, ctrl-c=Quit	



METHODS OF DELETING

The available erase methods are as follows (M key (Method) in the initial screen):

.	nwipe	_ = ×
nwipe 0.13 (base	ed on DBAN's dwipe - Darik's Wipe)	<u>^</u>
Options Entropy: Linux Kernel (urandom) PRNG: Mersenne Twister (mt19937ar-cok) Method: DoD Short Verify: Last Pass Rounds: 1 (plus blanking pass)	Statistics — Runtime: Remaining: Load Averages: Throughput: Errors:	
Quick Erase syslinux.cfg: nuke="nwipemethod dodshort" RCMP TSSIT OPS-II Security Level: Medium (3 passes)		
DoD 5220.22-M Gutmann Wipe PRNG Stream	I	
J=Up K=Down Space=Select		

The DoD Short method appears, which is also the recommended one.

Methods of deleting	Characteristics	Minimum Estimated Time
Quick Erase	Writing of Zeros	2 hours
RCMP TSSIT OPS-II	Canadian Standard	10 hours
DoD Short	Department of American Defense – 3 passes	5 hours 30 minutes
DoD 5220.00-M	Department of American Defense – 7 passes	10 hours
Gutmann Wipe	Gutmann Method	40 hours
PRNG Stream	Writing random data	3 hours

The minimum estimated characteristics and times are the following:

	nwipe 💶 🗖 🗶	
nwipe 0.13 (base	ed on DBAN's dwipe - Darik's Wipe)	
Options Entropy: Linux Kernel (urandom) PRNG: Mersenne Twister (mt19937ar-cok) Method: DoD Short Verify: Last Pass Rounds: 1 (plus blanking pass)	Statistics — Runtime: Remaining: Load Averages: Throughput: Errors:	
Disks and Partitions		
P=PRNG M=Method V=Verify R=Rounds B=Blanking-pass, J=Up K=Down Space=Select, F10=Start, ctrl-c=Quit		

At this point, we are ready to carry out the deletion.

Select the hard drive to be erased (using the "Space" key) "/dev/sda - ATA WDC WD5000AZRX-0" and it will be marked as "[wipe]".



	nwipe	_ 0 ×
nwipe 0.13 (base	ed on DBAN's dwipe - Darik's Wipe)	<u>^</u>
Options — Entropy: Linux Kernel (urandom) PRNG: Mersenne Twister (mt19937ar-cok) Method: DoD Short Verify: Last Pass Rounds: 1 (plus blanking pass)	Statistics — Runtime: Remaining: Load Averages: Throughput: Errors:	
Disks and Partitions		
P=PRNG M=Method V=Verify R=Rounds B=Blank	king-pass, J=Up K=Down Space=Select, F10=Sta	rt, ctrl-c=Quit 🕑

Next, press **F10** to start the deletion. This process destroys the contents of the disk. The status of the deletion process (Statistics) will appear on the screen.

Once the deletion has been completed, the confirmation of the deletion (sucess) will appear on the screen.



LOG

The log file of the deletion process can be retrieved from the path "/root/nwipe.log". This file can be stored in an external device, such as a USB memory, through the "**Copy**" action and later "**Paste**".

It is also possible to take a screenshot to a file using the "Screenshot" utility.



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Once the disk erasing is finished, in order to exit the system, we select "**Logout**" and press the "**Turn Off Computer**" button:





The system will turn off.

RESET THE BIOS

In order to make the system available for normal booting for the use of the user operating system, it is necessary to configure it through the BIOS.

To do this, after starting the computer, press the F2 key to enter the BIOS.

The access to the BIOS must be protected by password, so that users cannot manipulate it, for security. The default password will be **ttl**.

Once inside the BIOS, we will follow the previously detailed steps to change the boot profile (BIOS **main menu advanced options under the exit button** click on the second circle **inside** the second menu we will click on tools **in profile** "OC" Asus. **In Option to load from profile type option Nº1 in and save configuration by pressing F10.**

SUS UEFI BIOS Utility - Advanced Mode			🔽 Salir	
😃 Arrancar 🖴 Herramienta				
Herramienta\ Perfil 0.C. ASUS >				
Configuración de Perfil 0.C.			Cargar configuración de la BIOS	
Estado de perfil de configurac Estado de perfil de configurac Estado de perfil de configurac Estado de perfil de configurac Estado de perfil de configurac		ARRANQUE/DISCO BORRADO/SEGURO Not assigned Not assigned Not assigned	desde Perfil	
Estado de perfil de configurac Estado de perfil de configurac		Not assigned Not assigned		
Agregar su Perfil Etiqueta		ARRANQUE/DISCO		
Guardar en Perfil		2		
Cargar Perfil			Quick Note Last Modified	
Cargar desde Perfil		1	++: Cambiar pestaña	
		ARRANQUE/DISCO	14: Cambiar opción	
▶ Load/Save Profile from/to USB Drive.			 File: Selectionar +/-: Modificar opción F1: Ayuda F2: Valores anteriores F3: Acceso directo F4: Amadir Acceso dir. y Mis Favorito F5: Valores predeterminados optimizao F10: Guardar ESC: Salir F12: Imprimir pantalla 	

The system will reboot and start loading the Hard Disk Operating System.