Forced Four SMART firmware update instructions

Procedure compatible with SMART 100.1, SMART 150, SMART 250

Follow these instructions EXACTLY and you can easily update your Forced Four SMART firmware

Note: SMART 100.1 PCB Version prior to 3.2 must press and hold the down button or short DI2 to ground for the entire update process to work. If unsure of PCB version, no harm will be caused by holding the down button. Failure to do so will cause bootloader to not be found.

With USB cable connected and device powered on (key in on position, engine off) Open the included AN1310ui.exe software included in the Update folder in the installation directory. C:\Program Files (x86)\ForcedFour\Forced Four SMART\Update\AN1310ui.exe

File Program Help Abort Operation Exc Run Mode F2 Break/Rest Mode Bootloader Mode F4 Read Device F5 Write Device F6 Verify Device F1 Settings F12	- 0
• Abort Operation Esc • Run Mode F2 • Read Device F3 • Bootloader Mode F4 • Read Device F5 • Write Device F6 • Incremental Bootloading F11 • Settings	
Run Mode F2 Break/Rest Mode F3 Bootloader Mode F4 Read Device F5 Write Device F6 ✓ Incremental Bootloading F11 Settings F12	
Break/Reset Mode F3 Bootloader Mode F4 Read Device F5 Write Device F6 Verify Device F8 Incremental Bootloading F11 Settings F12	
 Bootloader Mode F4 Read Device F5 Write Device F6 Erase Device F7 Verify Device Read Device Incremental Bootloading F11 Settings F12 	
Image: Read Device F5 Image: Write Device F6 Image: Read Device F7 Image: Read Device F8 Image:	
Write Device F6 ✓ Frase Device F7 Write Device F8 ✓ Incremental Bootloading F11 Settings F12	? ×
Verify Device F8 Ised Serial Port (CCM3) Bootsad Baud Rate Application Baud Ra Settings F12	
✓ Incremental Bootloading F11 Settings F12 Bootload Baud Rate Application Baud Rate Isecond paul Rate	•
Settings F12	e
Write Options	-
Write Options	
V FLASH Program Memory C Config Bits C EEPRCM OK	
Config Bits	
C EEPROM	
ОК	
OK	
OK	
	Cancel
	D:

Select Program>Settings then configure exactly as shown with correct COM port for your connected device.

FLASH Program Memory should be checked	, the other 2 items MUST be unchecked	under Write Options. Then click OK.
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M AN1310 v1.05r - X File Program Help Break/Reset Application Firmware	
	Select ' Break/Reset ' icon to prepare device for bootloader entry Next power cycle the device without disconnecting USB cable
	Simply turn ignition switch off, wait a few seconds

🕸 AN1310 v1.05r -	- 🗆 X	S AN1310 v1.05r	- 🗆 X
File Program Help		File Program Help	
		🕸 Open Hex File	
00 02 04 00 02 0A 0C 0E ASCII	<u> </u>	← → ∽ ↑ 📴 « OS (C:) → Update	✓ ♂ Search Update
10 FFFF FFFF FFFF FFFF FFFF FFFF FFFF F		Organize 🔻 New folder	
20 FFFF FFFF FFFF FFFF FFFF FFFF FFFF F			Data was dified
30 FFFF FFFF FFFF FFFF FFFF FFFF FFFF F		OneDrive Name	Date modified
40 FFFF FFFF FFFF FFFF FFFF FFFF FFFF		This PC	3/27/2021 11:55 AM
50 FFFF FFFF FFFF FFFF FFFF FFFF FFFF F		3D Objects	
60 FFFF FFFF FFFF FFFF FFFF FFFF FFFF F			
70 FFFF FFFF FFFF FFFF FFFF FFFF FFFF F			
80 FFFF FFFF FFFF FFFF FFFF FFFF FFFF F		Documents	
90 FFFF FFFF FFFF FFFF FFFF FFFF FFFF		- Downloads	
A0 FFFF FFFF FFFF FFFF FFFF FFFF FFFF F		Music	
BO FFFF FFFF FFFF FFFF FFFF FFFF FFFF		E Pictures	
CO FFFF FFFF FFFF FFFF FFFF FFFF FFFF F		Videos	
DO FFFF FFFF FFFF FFFF FFFF FFFF FFFF		🛀 OS (C:)	
E0 FFFF FFFF FFFF FFFF FFFF FFFF FFFF		Maharah	
F0 FFFF FFFF FFFF FFFF FFFF FFFF FFFF			
100 FFFF FFFF FFFF FFFF FFFF FFFF FFFF		File name: SMART 150.HEX	 Hex Files (*.hex)
110 FFFF FFFF FFFF FFFF FFFF FFFF FFFF			
120 FFFF FFFF FFFF FFFF FFFF FFFF FFFF F			Open
130 FFFF FFFF FFFF FFFF FFFF FFFF FFFF F		130 FFFF FFFF FFFF FFFF FFFF FFFF FFFF	
140 FFFF FFFF FFFF FFFF FFFF FFFF FFFF		140 FFFF FFFF FFFF FFFF FFFF FFFF FFFF	
150 FFFF FFFF FFFF FFFF FFFF FFFF FFFF F		150 FFFF FFFF FFFF FFFF FFFF FFFF FFFF	
160 FFFF FFFF FFFF FFFF FFFF FFFF FFFF F		160 FFFF FFFF FFFF FFFF FFFF FFFF FFFF F	
170 FFFF FFFF FFFF FFFF FFFF FFFF FFFF F		170 FFFF FFFF FFFF FFFF FFFF FFFF FFFF F	
180 FFFF FFFF FFFF FFFF FFFF FFFF FFFF F	······ •	180 FFFF FFFF FFFF FFFF FFFF FFFF FFFF FLASH EEPROM CONFIG	······
Bootloader Firmware v1.05 (0.975s) PIC18F46K22 Revisio	n 4 COM3 19200	PIC	18F46K22 Revision 4 COM3 19200

Select 'Bootloader Mode' icon, once connected should appear as shown on left image.

Then select **File>Open** and open the included SMART_xxxxx.HEX file for your device.

Navigate to the ZIP file you downloaded for SMART PC app version 2.0 and higher for appropriate *. HEX file.

SMART_150.HEX - AN1310 v1.05r X	SMART_150.HEX - AN1310 v1.05r
file Program Help	File Program Help
00 02 04 06 08 0A Wite Device ASCII	00 02 0: IRun Application Firmware 0E ASCII
0 EF81 F07E FFFF FFFF EFE7 F002 FFFF FFFF~	0 EF81 F07E FFFF FFFF EFE7 F002 FFFF FFFFF~
10 FFFF FFFF FFFF FFFF EFOD F002 010F B2AB	10 FFFF FFFF FFFF FFFF EFOD F002 010F B2AB
20 98AB 88AB 5024 6E18 5025 6E19 6A1A 6A1B\$P.n %P.n.j.j	20 98AB 88AB 5024 6E18 5025 6E19 6A1A 6A1B\$P.n %P.n.j.j
30 0004 BA9E DOOC 6AE8 061A 5A1B E2F9 0618jZ	30 0004 BA9E DOOC 6AE8 061A 5A1B E2F9 0618jZ
40 5A19 E307 0EF3 6E1A 0E01 6E1B D7F1 50AE .ZnnP	40 5A19 E307 0EF3 6E1A 0E01 6E1B D7F1 50AE .ZnP
50 80D8 EFE4 F001 50E9 010F 0004 A89E D7FDPP	50 80D8 EFE4 F001 50E9 010F 0004 A89E D7FDPP
60 6EAD 80D8 EFE4 F001 010F B271 9871 8871 .nq.q.q.q.	60 6EAD 80D8 EFE4 F001 010F B271 9871 8871 .nq.q.q.
70 5024 6E18 5025 6E19 6A1A 6A1B 0004 BAA4 \$P.n%P.n .j.j	70 5024 6E18 5025 6E19 6A1A 6A1B 0004 BAA4 \$P.n&P.n .j.j
80 DOOC 6AE8 061A 5A1B E2F9 0618 5A19 E307jZZ	80 DOOC 6AE8 061A 5A1B E2F9 0618 5A19 E307jZZ
90 0EF3 6E1A 0E01 6E1B D7F1 5074 80D8 EFE4nntP	90 0EF3 6E1A 0E01 6E1B D7F1 5074 80D8 EFE4nntP
A0 F001 010F 0004 A8A4 D7FD 6E73 80D8 EFE4sn	A0 F001 010F 0004 A8A4 D7FD 6E73 80D8 EFE4
B0 F001 C042 FFEA C040 FFE9 5024 6E18 5025B@\$P.n%P	B0 F001 C042 FFEA C040 FFE9 5024 6E18 5025B@\$P.n%P
CO 6E19 6A1A 6A1B 0004 D820 E30C 6AE8 061A .n.j.jj.	CO 6E19 6A1A 6A1B 0004 D820 E30C 6AE8 061A .n.j.jj
D0 5A1B E2F9 0618 5A19 E317 0EBC 6E1A 0E00 .ZZR	D0 5A1B E2F9 0618 5A19 E317 0EBC 6E1A 0E00 .ZZ
E0 6E1B D7F1 D858 6A20 0E08 6E1B D855 D80D .nX. jnU	E0 6E1B D7F1 D858 6A20 0E08 6E1B D855 D80D .nX. jnU
F0 B0D8 3E20 321A 2E1B D7F9 AA23 6A20 BA23 >.2#. j#.	F0 B0D8 3E20 321A 2E1B D7F9 AA23 6A20 BA23 >.2#. j#.
100 9E1A D84A 80D8 501A 0012 0E12 26E9 503EJP&>P	100 9E1A D84A 80D8 501A 0012 0E12 26E9 503EJP&>P
110 12EF C040 FFE9 14EF BC23 183E 0FFF 0012@ #.>	110 12EF C040 FFE9 14EF BC23 183E 0FFF 0012@ #.>
120 6E1E C042 FFEA C042 FFE2 5040 6EE9 0F12 .nBB@P.n	120 6E1E C042 FFEA C042 FFE2 5040 6EE9 0F12 .nBB@P.n
130 6EE1 0E80 163A 0E08 6E1F 90D8 B0D8 3E3A .n:n:>	130 6EE1 0E80 163A 0E08 6E1F 90D8 B0D8 3E3A .n:n>
140 D813 321E 2E1F D7FA 0000 BA23 303A D80C2#.:0	140 D813 321E 2E1F D7FA 0000 BA23 303A D80C2#.:0
150 ECE5 F001 80D8 D808 5027 6E1B 5026 EC42 'P.n&PB.	150 ECE5 F001 80D8 D808 5027 6E1B 5026 EC42 'P.n&PB.
160 F001 80D8 EFE4 F001 AE23 D00B 50EF 103E #P>.	160 F001 80D8 EFE4 F001 AE23 D00B 50EF 103E #P>.
170 AC23 183E 6EEF 50E7 103E AOD8 183E 6EE7 #.>n.P >>n	170 AC23 183E 6EEF 50E7 103E A0D8 183E 6EE7 #.>n.P >>n
180 D00B 50EF 103E A0DS 183E BC23 183E 6EEF P> >.#.>n	180 D00B 50EF 103E A0D8 183E BC23 183E 6EEF P> >.#.>n
PIC18F46K22 Revision 4 COM3 19200	Write complete (FLASH 45.071s) PIC18F46K22 Revision 4 COM3 19200

Select 'Write Device' icon. Once completed, select the 'Run Application Firmware' icon. You may now close the firmware updater program. Your firmware update is now complete. Update your SMART PC APP before connecting to the new firmware if you haven't already done so! Power off the device and disconnect the USB cable before attempting to re-connect to it!