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Instruction procedure
Sonic-Pro field firmware upgrade using SD card.

Sonic-Pro firmware upgrades must be installed in the Sonic-Pro meter using an SD memory card. If your meter's current firmware version is A01.00.08 or higher, the new firmware may be obtained by contacting the factory or by downloading from our website at:
http://www.spe.co.id/html/bwf_ultrasonic.html
The downloaded firmware will be zipped. Save the zip file to your PC. Open the zip file and copy the three files (eraseall, uImage, and update) onto a blank SD card. Install the files on the Sonic-Pro as detailed below.

Note: If your meter's current firmware version is A01.00.07 or lower (March 10, 2009), new firmware may ONLY be obtained by contacting the factory. Firmware upgrades to replace versions A01.00.07 and lower will erase all user configuration data when installed. It is recommended that you take note of your configuration data before upgrading.
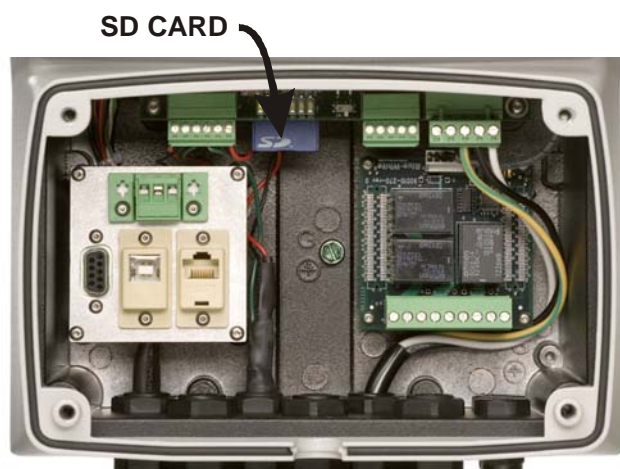
The procedure for updating the Sonic-Pro firmware using the SD Card is as follows:

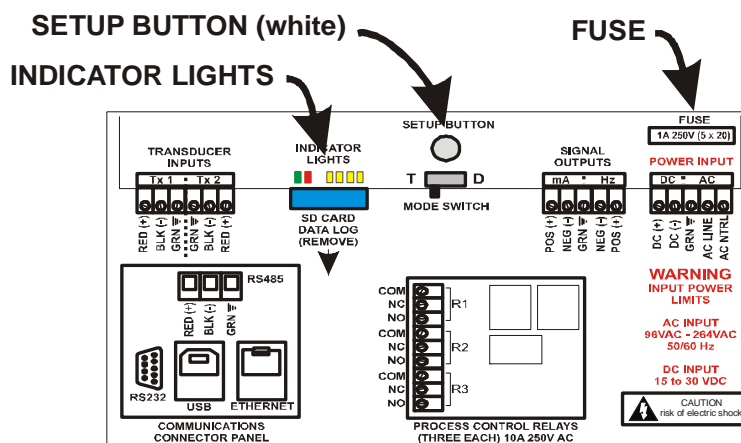**IMPORTANT** - Do not allow the power to go out during this process.

1 - Start with the flowmeter powered off and all communications cables disconnected.

2 – Remove the Data Logging SD Card.

3 - Insert the Firmware Upgrade SD Card in the Sonic-Pro card slot in the normal manner.

4 – Press and hold down the motherboard setup button.

5 – With the button still held down, apply power to the flowmeter, watching the motherboard LEDs.

6 - When the red LED comes on, the flowmeter has found the 'update' file on the SD Card and you can take your finger off the setup button.

7 - The left-hand amber LED will soon come on to indicate that the update is starting.

8 - The right-hand amber LED will come on about a minute later to indicate that the update has completed.

9 – Remove power from the flowmeter. Remove the Firmware Upgrade SD Card and re-install the Data Logging SD Card.

10 - When you re-apply power to the Sonic-Pro on again, the new firmware will run.

IMPORTANT - Do not allow the power to go out during this process. If it does, the meter will need to be returned to the factory for firmware installation. This is also the case if anything else goes wrong during the update.

Instruction procedure

Sonic-Pro field firmware upgrade using SD card.

SD CARD

SETUP BUTTON (white)

INDICATOR LIGHTS

FUSE

FRONT COVER PLATE REMOVED

CIRCUIT BOARD LAYOUT

Release notes

Version	Release date	Notes
A01.00.01	6/30/2008	Add field upgrade capability.
A01.00.02	7/17/2008	Reduce memory usage.
A01.00.03	8/19/2008	Default IP address changed from 192.100.100.23 to 192.100.100.023
A01.00.04	10/23/2008	Warning code 19 changed to Fault code 19. Increase log buffer to 10,000 entries.
A01.00.05	Unreleased	
A01.00.06	Unreleased	
A01.00.07	1/26/2009	Add auto-retry after a fault condition. Repair fault during zero calibration. Add speed of sound alarm window. Zero all outputs during auto-retry.
A01.00.08	Unreleased	
A01.00.09	Unreleased	
A01.01.00	3/10/2009	Add error codes to log file. Add speed of sound alarm to process control functions. Add one-button data log download to user PC software. Remove warning 14.
A01.01.01	6/9/2009	Repair fault 19 function at velocities > 30 fps.
A01.01.02	7/21/2009	Repair process control; totalizer and memory loss bug.
A01.01.03	7/31/2009	Add VLAN and multiple network sub-net capabilities to communications.
A01.01.04	10/22/2009	Repair language default setting bug.
A01.01.05	Unreleased	
A01.01.06	2/10/2010	Modify Doppler pulsing functions.
A01.01.07	4/23/2010	Repair bug in SD card loader.
A01.01.08	7/8/2010	Repair custom sound speed bug.