

# SafetyNet Family Firmware Document

## Abstract

*This document lists the current firmware versions and the history of firmware releases.*

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# 1. SafetyNet

Firmware Version	DC Version	Release Date	Reason for release/Bug fixes
1.01H	8.3	05/08/2010	1. HTTP Buffer Increased to support IE 7 & 8
1.01G	8.3	03/08/2005	<ul style="list-style-type: none"> <li>2. Fixed roll over bug of date – date appeared as 1772 when year was over 2027. This has been fixed</li> <li>3. After an IP address update HTTP port was set to 80, as occasionally the Java applets would not load unless you close the browser. This has been fixed</li> <li>4. Digital sensor trigger delay had a wrapping bug, where a trigger delay over 65 seconds (65536 ms) was not functioning well. This has been fixed</li> </ul>
1.01F	8.3	01/12/2004	1. Fixed bug wrapped with negative values for analogue sensor limits
1.01E	8.3	02/09/2004	1. Modified software to allow clients to pick extended SMS messages giving choices to pick mobile phones for additional SMS messages
1.01	8.3	25/09/2004	1. Gateway appeared to be non-existing when booting up with a static IP address. This bug has been fixed.
1.00J1.3	8.3		1. Same as 1.00 EXS but made for clients with Java 1.3 runtime environment
1.00 EXS	8.3		1. Added code to activate alarm buzzer when Ethernet is disconnected as MD's request
1.00 ExS	8.3		1. SNMP traps now have specific ID's (trap type ID's) so that trap can be distinguished clearly
1.00 Ex	8.3		<ul style="list-style-type: none"> <li>1. Driving of a relay from the web interface gets logged on the event log from now.</li> <li>2. Resetting the relay/s from the viewer writes a log entry, when used in a latched situation.</li> </ul>
1.00G	8.3		1. Released version with Object Planet Charts – non evaluation version
1.00	8.3		1. Released version with Object Planet Charts – evaluation version



## 2. SafetyNet Micro

SafetyNet Micro has three products that has 3 firmware types

1. SafetyNet Micro
2. SafetyNet Micro with SMS Modem
3. SafetyNet Micro with PPP

Firmware Version	DC Version	Release Date	Reason for release/Bug fixes
<b>SafetyNet Micro</b>			
1.00	8.3	03/08/2005	<ul style="list-style-type: none"> <li>▪ First release</li> </ul>
1.01	8.3	07/01/2009	<ul style="list-style-type: none"> <li>▪ VISTA support</li> </ul>
1.02	8.3	05/08/2010	<ul style="list-style-type: none"> <li>▪ Supports FireFox Browser</li> </ul>

Firmware Version	DC Version	Release Date	Reason for release/Bug fixes
<b>SafetyNet Micro with SMS Modem</b>			
1.00M	8.3	01/03/2005	<ul style="list-style-type: none"> <li>▪ First release</li> </ul>
1.01M	8.3	25/07/2005	<ul style="list-style-type: none"> <li>▪ Due to producing a new board to accommodate PPP, we moved the serial port that communicates with the modem. This version of firmware allows the latest board being compatible with PPP and SMSing via modems</li> </ul>
1.02M	8.3	07/05/2008	<ul style="list-style-type: none"> <li>▪ UDP Debugger, SMS Access Manager Timings</li> </ul>
2.00M	8.3	06/09/2008	<ul style="list-style-type: none"> <li>▪ Increase HTTP Buffer to support Vista</li> <li>▪ Aligned modem init strings as per PLUS</li> <li>▪ TEST release defaults updated</li> <li>▪ Network loosing issue resolved during multiple SMS delivery</li> <li>▪ Analogue sensor trigger increased to 30 seconds</li> </ul>
3.00M	8.3	09/01/2009	<ul style="list-style-type: none"> <li>▪ Modem init strings can be customisable</li> <li>▪ UDP Debugger removed</li> </ul>
3.04M	8.3	11/05/2009	<ul style="list-style-type: none"> <li>▪ Fixed 'Insert System Time' defect</li> <li>▪ Improved hangup sequence</li> </ul>
3.05M	8.3	31/05/2011	<ul style="list-style-type: none"> <li>▪ Fixed defect on graphs page</li> </ul>

<b>Firmware Version</b>	<b>DC Version</b>	<b>Release Date</b>	<b>Reason for release/Bug fixes</b>
<b>SafetyNet Micro with PPP</b>			
1.00	9.21	02/08/2005	1. First release

### 3. SafetyNet Lite

SafetyNet Lite has two products that has 2 firmware types

1. SafetyNet Lite
2. SafetyNet Lite with SMS Modem

Firmware Version	DC Version	Release Date	Reason for release/Bug fixes
<b>SafetyNet Lite</b>			
1.00	8.3	03/08/2005	<ul style="list-style-type: none"> <li>▪ First release</li> </ul>
1.01	8.3	26/02/2006	<ul style="list-style-type: none"> <li>▪ Introduced Calibration Points for Analogue sensors</li> <li>▪ Moved analogue sensor to serial port D</li> </ul>
1.02	8.3	05/08/2010	<ul style="list-style-type: none"> <li>▪ HTTP Buffer increased to support IE 7 &amp; 8. Firefox compatible</li> </ul>

Firmware Version	DC Version	Release Date	Reason for release/Bug fixes
<b>SafetyNet Lite with SMS Modem</b>			
1.00M	8.3	03/08/2005	<ul style="list-style-type: none"> <li>▪ First release</li> </ul>
1.01M	8.3	26/02/2006	<ul style="list-style-type: none"> <li>▪ Introduced Calibration Points for Analogue sensors</li> <li>▪ Moved Modem comms to serial port E</li> <li>▪ Moved analogue sensor to serial port D</li> </ul>
1.02M	8.3	08/05/2008	<ul style="list-style-type: none"> <li>▪ UDP Debugger, SMS Access Manager Timings</li> </ul>
2.00M	8.3	06/09/2008	<ul style="list-style-type: none"> <li>▪ Increase HTTP Buffer to support Vista</li> <li>▪ Aligned modem init strings as per PLUS</li> <li>▪ TEST release defaults updated</li> <li>▪ Network loosing issue resolved during multiple SMS delivery</li> <li>▪ Analogue sensor trigger increased to 30 seconds</li> </ul>
3.00M	8.3	09/01/2009	<ul style="list-style-type: none"> <li>▪ Modem init strings can be customisable</li> <li>▪ UDP Debugger removed</li> </ul>
3.04M	8.3	11/05/2009	<ul style="list-style-type: none"> <li>▪ Fixed 'Insert System Time' defect</li> <li>▪ Improved hangup sequence</li> </ul>

## 4. SafetyNet Plus

SafetyNet Plus has two products that has 2 firmware types

1. SafetyNet Plus
2. SafetyNet Plus with SMS Modem

Firmware Version	DC Version	Release Date	Reason for release/Bug fixes
<b>SafetyNet Plus</b>			
1.00	8.3	03/08/2005	<ul style="list-style-type: none"> <li>▪ First release</li> </ul>
1.00A	8.3	05/02/2006	<ul style="list-style-type: none"> <li>▪ Bug in serial port E for analogue sensor 2. Was receiving Jargon intermittently.               <ul style="list-style-type: none"> <li>○ Moved Serial Port E to D for analogue Sensor 2</li> </ul> </li> </ul>
1.01	8.3	29/04/2006	<ul style="list-style-type: none"> <li>▪ Introduced Calibration Points for analogue sensors</li> </ul>
1.02	8.3	NOT RELEASED	<ul style="list-style-type: none"> <li>▪ SMTP Implemented</li> </ul>
1.03	8.3	24/08/2008	<ul style="list-style-type: none"> <li>▪ SMTP modified to add EMAIL senders address</li> <li>▪ WEB pages MOZILLA compatible</li> </ul>
1.04	8.3	04/08/2010	<ul style="list-style-type: none"> <li>▪ HTTP Buffer Increased</li> <li>▪ Fixed defect where Email menu Item not being accessible without the 3rd Registration key/</li> <li>▪ Emails for analogue sensors now contain sensor reading</li> </ul>

Firmware Version	DC Version	Release Date	Reason for release/Bug fixes
<b>SafetyNet Plus with SMS Modem</b>			
1.00M	8.3	03/08/2005	<ul style="list-style-type: none"> <li>▪ First release</li> </ul>
1.00A	8.3	05/02/2006	<ul style="list-style-type: none"> <li>▪ Bug in serial port E for analogue sensor 2. Was receiving Jargon intermittently.               <ul style="list-style-type: none"> <li>• Moved Serial Port E to D for analogue Sensor 2</li> <li>• Moved Modem from Serial Port E to D</li> </ul> </li> </ul>
1.01M	8.3	17/04/2006	<ul style="list-style-type: none"> <li>▪ Introduced Calibration Points for analogue sensors</li> </ul>
1.02M	8.3	05/11/2006	<ul style="list-style-type: none"> <li>▪ Introduced A/C Sequence Controller Option for SafetyNet Plus with Modem.</li> <li>▪ The CSS.MIB file has to be 2.03 or higher</li> </ul>
1.01MSP1	8.3	19/12/2007	<ul style="list-style-type: none"> <li>▪ Fixed MODEM init strings</li> </ul>

1.03M	8.3	30/01/2007	<ul style="list-style-type: none"> <li>Fixed bug in opening Administration Configuration page.</li> </ul>
2.00M	8.3	10/03/2007	<ul style="list-style-type: none"> <li>Implemented SMTP</li> </ul>
2.01M	8.3	26/09/2007	<ul style="list-style-type: none"> <li>Fixed SMTP Senders Address to be customisable.</li> </ul>
2.01MSP1	8.3	18/04/2008	<ul style="list-style-type: none"> <li>Fixed Modem Init Strings</li> </ul>
2.02M	8.3	06/05/2008	<ul style="list-style-type: none"> <li>UDP Debugger, SMS Access Manager Timings</li> </ul>
2.03xM  - A/C Seq Con - 2.03hM	8.3	Various	<ul style="list-style-type: none"> <li>Updates to Modem Init strings in beta:</li> </ul> <p>2.03a serEputs ("AT+MS=V22B,1,300,2400,300,2400\r"); serEputs ("AT+ES=4,2,0\r");</p> <p>2.03b serEputs ("AT+MS=V92,1,28000,56000,28000,56000\r"); serEputs ("AT+ES=4,2,0\r");</p> <p>2.03c serEputs ("AT+MS=V92,0,28000,56000,28000,56000\r"); serEputs ("AT+ES=4,2,0\r");</p> <p>2.03f serEputs ("AT+MS=V22B,0,300,2400,300,2400\r"); - serEputs ("AT+ES=4,2,0\r");</p> <p><b>2.03hM</b> Updates to SMS delivery bug HTTP Buffer increased. Analogue sensor trigger delay increased to 30 secs</p>
2.05M	8.3	11/06/2008	<ul style="list-style-type: none"> <li>Update modem init strings: to be: AT+MS=V22B,0,300,2400,300,2400\r AT+ES=4,2,0\r</li> <li>Removed A/C Controller Sequence feature to make space on device</li> <li>Removed UDP Debugger to make space on device.</li> </ul>
2.06M	8.3	27/08/2008	<ul style="list-style-type: none"> <li>HTTP Buffer increased</li> </ul>
2.07M	8.3	11/07/2008	<ul style="list-style-type: none"> <li>Updated with Camera View feature</li> <li>Updated TEST defaults</li> </ul>
2.15MC BETA CAMERA	8.3	27/08/2008	<ul style="list-style-type: none"> <li>HTTP Buffer increased</li> <li>Plus all of 2.07M features</li> </ul>
3.00M	8.3	06/09/2008	<ul style="list-style-type: none"> <li>Fixed Issue with multiple SMS delivery</li> <li>Updated TEST release default values</li> <li>Analogue sensor trigger delay increased to 30 secs</li> <li>No camera features</li> </ul>
3.01M	8.3	13/11/2008	<ul style="list-style-type: none"> <li>Fixed Bug of SMS 2, 3 being blank</li> <li>Added delays to hang up. Minor bug fixed</li> </ul>
3.02M	8.3	16/11/2008	<ul style="list-style-type: none"> <li>Modem init strings now customisable</li> </ul>
3.03M	8.3	27/02/2009	<ul style="list-style-type: none"> <li>MS calls now await 60 seconds for call negotiations.</li> </ul>



			<ul style="list-style-type: none"><li>▪ Attempt show staus for each attempt for dialling out.</li><li>▪ Improvements to call hang up sequence</li><li>▪ Emails and SMS for analogue sensors now contain sensor reading</li></ul>
3.04M	8.3	11/05/2009	<ul style="list-style-type: none"><li>▪ 'Insert System time' defect (time came up with AM/PM when 24 HR format was required) fixed</li></ul>

## 5. SafetyNet Series 5

SafetyNet Series 5 has 3 types of firmware.

1. SafetyNet Series 5 P (PSTN Modem)
2. SafetyNet Series 5 G (GSM Modem)
3. SafetyNet Series 5 (No Modem)

Firmware Version	DC Version	Release Date	Reason for release/Bug fixes
<b>SafetyNet Series 5 P</b>			
1.00P	9.52	21/11/2009	<ul style="list-style-type: none"> <li>▪ Initial release</li> </ul>
1.01P	9.52	17/12/2009	<ul style="list-style-type: none"> <li>▪ Update Camera View to Support Grand Mega Pixel IP Camera</li> </ul>
1.02P	9.52	09/05/2010	<ul style="list-style-type: none"> <li>▪ Improved Digital Sensor Scanning methods</li> <li>▪ Updated with UDP buffer clearing methods to prevent NAK messages.</li> </ul>
1.03P	9.62	21/11/2010	<ul style="list-style-type: none"> <li>▪ Fixed Camera page to support all types of browsers</li> </ul>
1.04P	9.62	16/02/2011	<ul style="list-style-type: none"> <li>▪ Trigger delay limitation of 32 chars fixed</li> <li>▪ Analogue sensor alarm clearance algorithm updated.</li> </ul>
1.05P	9.62	09/04/2011	<ul style="list-style-type: none"> <li>▪ Updated AC &amp; DC Voltage display on GUI. AC display with no decimal values.</li> <li>▪ Extended graph supporting range up to -80 to 300 units.</li> </ul>

Firmware Version	DC Version	Release Date	Reason for release/Bug fixes
<b>SafetyNet Series 5 G</b>			
1.00G	9.52	21/11/2009	<ul style="list-style-type: none"> <li>▪ Initial release</li> </ul>
1.01G	9.52	17/12/2009	<ul style="list-style-type: none"> <li>▪ Update Camera View to Support Grand Mega Pixel IP Camera</li> </ul>
1.02G	9.52	22/02/2009	<ul style="list-style-type: none"> <li>▪ Improved Digital Sensor Scanning methods</li> </ul>
1.03G	9.52	09/05/2010	<ul style="list-style-type: none"> <li>▪ Updated with UDP buffer clearing methods to prevent NAK messages.</li> </ul>
1.04G	9.62	21/11/2010	<ul style="list-style-type: none"> <li>▪ Fixed Camera page to support all types of browsers</li> </ul>
1.05G	9.62	09/02/2011	<ul style="list-style-type: none"> <li>▪ Trigger delay limitation of 32 chars fixed</li> <li>▪ Analogue sensor alarm clearance algorithm updated.</li> </ul>
1.06G	9.62	20/03/2011	<ul style="list-style-type: none"> <li>▪ Updated AC &amp; DC Voltage display on GUI. AC display with no decimal</li> </ul>

			<ul style="list-style-type: none"> <li>▪ values.</li> <li>▪ Extended graph supporting range up to -80 to 300 units.</li> </ul>
1.07G	9.62	22/12/2013	<ul style="list-style-type: none"> <li>▪ Fixed a bug with Signal Strength Response where SMS's queue up</li> <li>▪ Fixed issue with fallback IP address</li> </ul>

Firmware Version	DC Version	Release Date	Reason for release/Bug fixes
<b>SafetyNet Series 5</b>			
1.00	9.52	28/05/2010	<ul style="list-style-type: none"> <li>▪ Initial release</li> </ul>
1.01	9.62	21/11/2010	<ul style="list-style-type: none"> <li>▪ Fixed Camera page to support all types of browsers</li> </ul>
1.02	9.62	09/02/2011	<ul style="list-style-type: none"> <li>▪ Trigger delay limitation of 32 chars fixed</li> <li>▪ Analogue sensor alarm clearance algorithm updated.</li> </ul>
1.03	9.62	14/03/2011	<ul style="list-style-type: none"> <li>▪ Updated AC &amp; DC Voltage display on GUI. AC display with no decimal values.</li> <li>▪ Extended graph supporting range up to -80 to 300 units.</li> </ul>

## 6. SafetyNet Series 5 Lite

Firmware Version	DC Version	Release Date	Reason for release/Bug fixes
<b>SafetyNet Series 5 Lite G</b>			
1.00G	9.52	21/11/2009	<ul style="list-style-type: none"> <li>Initial release</li> </ul>
1.01G	9.52	17/12/2009	<ul style="list-style-type: none"> <li>Update Camera View to Support Grand Mega Pixel IP Camera</li> </ul>
1.02G	9.52	09/05/2010	<ul style="list-style-type: none"> <li>Improved Digital Sensor Scanning methods</li> <li>Updated with UDP buffer clearing methods to prevent NAK messages.</li> </ul>
1.03G	9.62	21/11/2010	<ul style="list-style-type: none"> <li>Fixed Camera page to support all types of browsers</li> </ul>
1.04G	9.62	11/02/2011	<ul style="list-style-type: none"> <li>Trigger delay limitation of 32 chars fixed</li> <li>Analogue sensor alarm clearance algorithm updated.</li> </ul>
1.05G	9.62	27/03/2011	<ul style="list-style-type: none"> <li>Updated AC &amp; DC Voltage display on GUI. AC display with no decimal values.</li> <li>Extended graph supporting range up to -80 to 300 units.</li> </ul>
1.06G	9.62	22/12/2013	<ul style="list-style-type: none"> <li>Fixed a bug with Signal Strength Response where SMS's queue up</li> <li>Fixed issue with fallback IP address</li> </ul>

## 7. SafetyNet Series 5 Micro

SafetyNet Series 5 Micro has two products that has 2 firmware types

1. SafetyNet Series 5 Micro
2. SafetyNet Series 5 Micro with GSM Modem

Firmware Version	DC Version	Release Date	Reason for release/Bug fixes
<b>SafetyNet Series 5 Micro</b>			
1.00	9.52	16/01/2010	<ul style="list-style-type: none"> <li>▪ Initial release</li> <li>▪ Includes Camera View to Support Grand Mega Pixel IP Camera</li> </ul>
1.01	9.52	09/05/2010	<ul style="list-style-type: none"> <li>▪ Improved Digital Sensor Scanning methods</li> <li>▪ Updated with UDP buffer clearing methods to prevent NAK messages.</li> </ul>
1.02	9.62	21/11/2010	<ul style="list-style-type: none"> <li>▪ Fixed Camera page to support all types of browsers</li> </ul>
1.03	9.62	14/02/2011	<ul style="list-style-type: none"> <li>▪ Trigger delay limitation of 32 chars fixed</li> <li>▪ Analogue sensor alarm clearance algorithm updated.</li> </ul>
1.04	9.62	31/03/2011	<ul style="list-style-type: none"> <li>▪ Updated AC &amp; DC Voltage display on GUI. AC display with no decimal values.</li> <li>▪ Extended graph supporting range up to -80 to 300 units.</li> </ul>

Firmware Version	DC Version	Release Date	Reason for release/Bug fixes
<b>SafetyNet Series 5 Micro G</b>			
1.00G	9.52	21/11/2009	<ul style="list-style-type: none"> <li>▪ Initial release</li> </ul>
1.01G	9.52	17/12/2009	<ul style="list-style-type: none"> <li>▪ Update Camera View to Support Grand Mega Pixel IP Camera</li> </ul>
1.02G	9.52	09/05/2010	<ul style="list-style-type: none"> <li>▪ Improved Digital Sensor Scanning methods</li> <li>▪ Updated with UDP buffer clearing methods to prevent NAK messages.</li> </ul>
1.03G	9.62	21/11/2010	<ul style="list-style-type: none"> <li>▪ Fixed Camera page to support all types of browsers</li> </ul>
1.04G	9.62	14/02/2011	<ul style="list-style-type: none"> <li>▪ Trigger delay limitation of 32 chars fixed</li> <li>▪ Analogue sensor alarm clearance algorithm updated.</li> </ul>
1.05G	9.62	09/04/2011	<ul style="list-style-type: none"> <li>▪ Updated AC &amp; DC Voltage display on GUI. AC display with no decimal values.</li> <li>▪ Extended graph supporting range up to -80 to 300 units.</li> </ul>

1.06G	9.62	22/12/2013	<ul style="list-style-type: none"><li>▪ Fixed a bug with Signal Strength Response where SMS's queue up</li><li>▪ Fixed issue with fallback IP address</li></ul>
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## 8. SafetyNet Series 5 D40

SafetyNet Series 5 D40 has two products that has 2 firmware types

1. SafetyNet Series 5 D40 with GSM Modem
2. SafetyNet Series 5 D40 with no Modem

Firmware Version	DC Version	Release Date	Reason for release/Bug fixes
<b>SafetyNet Series 5 D40 G</b>			
1.00G	9.52	07/03/2010	▪ Initial Release
1.01G	9.62	21/11/2010	▪ Fixed Camera page to support all types of browsers
1.02G	9.62	17/02/2011	▪ Trigger delay limitation of 32 chars fixed
1.03G	9.62	22/12/2013	▪ Fixed a bug with Signal Strength Response where SMS's queue up ▪ Fixed issue with fallback IP address

Firmware Version	DC Version	Release Date	Reason for release/Bug fixes
<b>SafetyNet Series 5 D40</b>			
1.00	9.52	28/03/2010	▪ Initial Release
1.01	9.62	21/11/2010	▪ Fixed Camera page to support all types of browsers
1.02	9.62	17/02/2011	▪ Trigger delay limitation of 32 chars fixed

## 9. SafetyNet Series 5 D20

SafetyNet Series 5 D20 has only 1 firmware type

1. SafetyNet Series 5 D20 with GSM Modem

Firmware Version	DC Version	Release Date	Reason for release/Bug fixes
<b>SafetyNet Series 5 D20 G</b>			
1.00G	9.62	21/11/2010	▪ Initial Release
1.01G	9.62	17/02/2011	▪ Trigger delay limitation of 32 chars fixed
1.02G	9.62	22/12/2013	▪ Fixed a bug with Signal Strength Response where SMS's queue up ▪ Fixed issue with fallback IP address

## 10. SafetyNet Series 5 Combo

SafetyNet Series 5 Combo has only 1 firmware type

1. SafetyNet Series 5 Combo with GSM Modem

Firmware Version	DC Version	Release Date	Reason for release/Bug fixes
<b>SafetyNet Series 5 Combo G</b>			
1.00G	9.62	29/11/2011	<ul style="list-style-type: none"><li>▪ Initial release</li></ul>
1.01G	9.62	11/12/2013	<ul style="list-style-type: none"><li>▪ Fixed a bug with Signal Strength Response where SMS's queue up</li><li>▪ Included Ethernet Debugger tool</li><li>▪ Fixed issue with fallback IP address</li></ul>