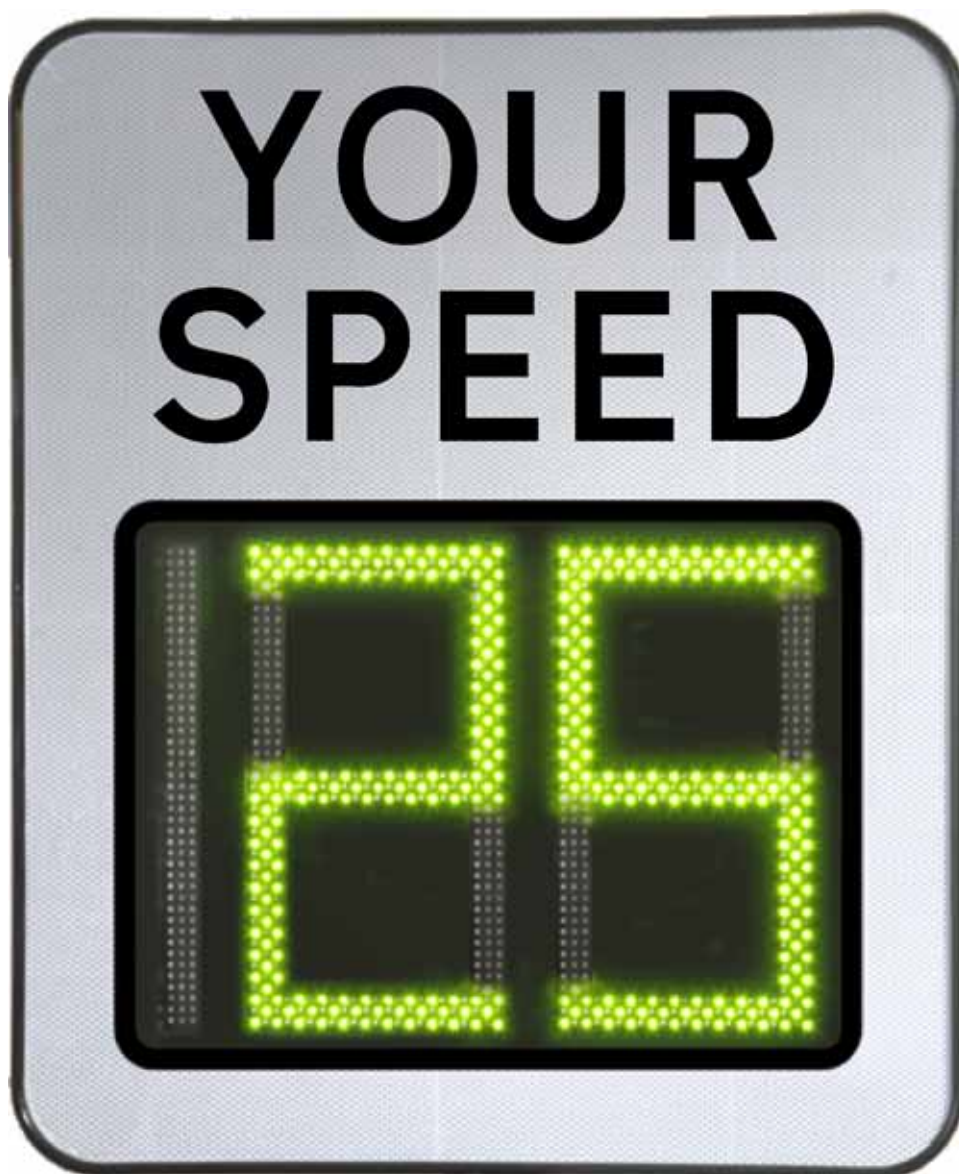


3M Technical Information
Firmware Release Notes
3M™ Driver Feedback Sign DFS 700



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Manufacturer and Distributor

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For questions please first contact your local dealer that you obtained your DFS 700 from.

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This document describes firmware changes applied to the 3M™ Driver Feedback Sign 700 with release date and the starting serial number. For subsequent upgrades of DFS 700 that still have older firmware versions a file package with firmware codes can be obtained from 3M Technical Support.

In order to determine if an upgrade is available please first check the firmware version of the DFS 700. This can be done by using the diagnostics function via “Read DFS Status” in the user software while connected to a DFS 700. The firmware version consists of three dot-separated numbers with the following meaning:

[hardware version].[main firmware version].[radar firmware version],
e.g. 003.030.006

For information: the serial number of a DFS 700 is composed of two letters and two four-digit numbers representing this info:

[Device version] [running number XXXX] [manufacturing date MMY],
e.g. AA00071106

Before upgrading the firmware evaluate if this is really necessary. Therefore, first see in the attached tables what the changes with newer versions were. If any of the described changes are relevant then obtain the newest version of the firmware since they are incremental and contain all previous changes.

The firmware files are handed out in a zipped archive file, which needs to be unpacked. The firmware upgrade can be performed by choosing the “Update DFS Firmware” command in the user software while connected to a DFS 700 and then choosing the provided files. The following recommendations need to be considered:

- All files in a package must be applied to the DFS 700, larger files first
- The indirect firmware update method is to be preferred
- After applying a file, give the DFS 700 time to process it (observe the display)
- After applying all files, erase the DFS memory (“Delete DFS Data” in software menu)
- Check in diagnostics screen of software if firmware version is correct and memory empty
- In case the firmware version is not correct, repeat the procedure
- In case the memory is not empty, switch DFS 700 off and on and try erasing again
- If DFS 700 does not work after upgrade, repeat upgrade using direct method via RS-232

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Firmware Version	Release Date	Starting Serial No	File Package Name
003.030.006	23.11.2006	AA00071106	
First official firmware version			

Firmware Version	Release Date	Starting Serial No	File Package Name
003.033.007	29.11.2006	AA00491106	3M DFS 700 - Firmware 06 12.zip
File "0004E06-SW02-033.hex" <ul style="list-style-type: none"> Improves radar startup. In earlier version randomly the radar was not activated after switching the DFS 700 on (usually in conjunction with empty or missing real-time clock buffer battery). Repeated on/off switching was necessary in order to get a display Improves measurement of power supply voltage 			
File "0004E06-SW03-007.hex" Improves version query in radar controller			

Firmware Version	Release Date	Starting Serial No	File Package Name
003.034.008	02.03.2007	AA01180307	3M DFS 700 -Firmware 07 03.zip
File "0004E06-SW02-034.hex" <ul style="list-style-type: none"> Fixes issues with erasing data memory. In earlier versions the data memory was not always properly deleted upon user command Erases data memory after firmware upgrade in order to avoid subsequent data storage errors Improves power consumption in standby and demo mode Now displays initial self-check routine independent of operating mode and schedule Now uses green horizontal bars "-" instead of red to indicate end of self-check routine Does not log speeds any more in standby and demo mode Fixes scheduling error (hour rounding issue) 			
File "0004E06-SW03-008.hex" <ul style="list-style-type: none"> Explicitly transmits radar sensitivity Improves version query in radar controller 			

Firmware Version	Release Date	Starting Serial No	File Package Name
003.035.008	02.07.2007	AA03010707	3M DFS 700 - Firmware 07 07.zip
File "0004E06-SW02-035.hex" <ul style="list-style-type: none"> Improves SMS notification function and GSM communication Fixes bug of SMS notification function (too many SMS sent in case of low or over voltage) Fixes bug of GSM communication (no connection was possible when SMS couldn't be sent) Fixes scheduling error after battery change (DFS didn't start immediately when battery changed while a schedule was active) 			
File "0004E06-SW03-008.hex" <ul style="list-style-type: none"> Please note that you have to use the radar firmware version 008 with the new main firmware version 			



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Firmware Version	Release Date	Starting Serial No	File Package Name
003.037.008	10.02.2009	AA11010209	3M DFS 700 - Firmware 09 03.zip
File "0004E06-SW02-037.hex" <ul style="list-style-type: none"> Fixes bug of SMS notification function (too many SMS have been sent in case of low voltage. SMS will be send at 11,3V and notification service will be activated again at 12,0V) Fixes Error 67. In case of error 67 no SMS notification have been sent out and no GSM field was shown. Error 67 does not exist any more. Fixes bugs of corrupt data (Errors that some times come if the memory was full and where 125.255.255... was written in the memory) Improved notification SMS Improved communication interface due to a shorter response time 			
File "0004E06-SW03-008.hex" <ul style="list-style-type: none"> Please note that you have to use the radar firmware version 008 with the new main firmware version 			

Firmware Version	Release Date	Starting Serial No	File Package Name
003.039.008	04.08.2009	AA14030709	3M DFS 700 - Firmware 09 08.zip
File "0004E06-SW02-039.hex" <ul style="list-style-type: none"> Improved communication between modem and DFS. Some new modems have a firmware which takes any longer to boot the modem. Now the DFS waits till the modem is ready to avoid the communication error with different modem firmware. 			
File " 0004E06-SW03-008.hex" <ul style="list-style-type: none"> Please note that you have to use the radar firmware version 008 with the new main firmware version 			