

**TachoSoft UK**  
LIMITED

# Tachosoft Online Mileage Calculator User Guide



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### Advantages of the online service [www.TachosoftOnline.com](http://www.TachosoftOnline.com)

- \* Instant file generation - The website does the file data edit work for you
- \* Continued updates, with new models added frequently
- \* Upload file check confirmation  
Service will check the integrity of your BIN file  
(File size, data structure where possible)
- \* Checked and Re-mastered algorithms for all models
- \* Increased accuracy in calculation for models with low value correction
- \* Supports complex and encrypted dashboard algorithms
- \* Easy Registration and free e-mail support service

#### Trading Policy of Tachosoft UK limited

Tachosoft UK limited provide access to the [www.TachosoftOnline.com](http://www.TachosoftOnline.com) service as per our agreement with the Tachosoft™ vendor. Support and/or training for [TachosoftOnline.com](http://TachosoftOnline.com) will be provided for the Tachosoft Airbag Resetter™ service. For more information, please see the Tachosoft UK Limited Trading Policy available at [www.Tachosoft-UK.com](http://www.Tachosoft-UK.com)

# TachosoftOnline.com Mileage Calculator - User Guide

Using [www.TachosoftOnline.com](http://www.TachosoftOnline.com) for adjusting vehicle instrument cluster digital mileage values. This guide is intended to help guide you through the process of using TachosoftOnline.com and help to avoid common errors.

## Introduction

The TachosoftOnline.com Mileage Calculator has been developed to focus on the programming of digital dash memory to enable the user to adjust to any desired KM/Miles value. Tachosoft mileage calculator is aimed at those involved in electronic service and repair. Tachosoft mileage calculator is regarded as the best mileage correction software available due to its extensive coverage of vehicles, ease of use and affordability. Tachosoft mileage calculator is preferred by bench engineers and service centres alike, rather than its overpriced competition in the mileage correction market that often limit your usability and require annual updates. In the last few years, most advances in mileage correction were seen implemented on the Tachosoft platform weeks and months before our competitors, making Tachosoft mileage calculator not only the market leader and standard setter, but also the most often updated and supported mileage tool in the market! Tachosoft.. a revolution in Specialised Automotive Electronics.. Be part of the electronic programming revolution!

## Who is it intended for

TachosoftOnline.com is an easy to use software solution suitable for Beginner to Professional, with the use of an EPROM programmer and soldering station. Tachosoft is aimed at those involved in automotive electronic service and repair, companies and/or individuals alike. In this day and age, vehicles are increasingly being fitted with computer modules by manufacturers to control everything from the engine fuel injection, back to simple functions like wind screen wipers. Don't be left in the past, be apart of the Tachosoft revolution in Specialised Automotive Electronics. Solutions for Immobilisers, Body control units, Engine Management Tuning, and much more..

## Which type of vehicles

The Tachosoft platform supports vehicles from motorbikes, cars and commercial vehicles right through to plant and various ATV vehicles such as Skido's, Quads, etc. Currently at Tachosoft we are working hard to update our online service with support for Airbag Crash Data Resetting and Mileage Correction for digital dash. It is our intention to become the worlds no.1 resource in the next few years for all automotive / car data dump files , including but not limited to ECU Remapping and Chip Tuning MOD files, Stock ECU files, Virgin Files for all automotive modules / components including Body control modules, Immobiliser solutions and much more.

## Why [www.TachosoftOnline.com](http://www.TachosoftOnline.com)

TachosoftOnline.com is our newest service, it is updated daily with new additions which are available to registered users. The TachosoftOnline.com service is fast, effective and affordable, which includes a quick and simple registration process. The online service allows real-time resetting of Airbag Crash Data and Digital Mileage Correction, otherwise know as adjusting the Odometer. The Odometer is the vehicles mileage recorder that displays the distance a vehicle has covered during its service life. In some circumstances the mileage value can become a corrupt value, a corrupt value mileage value may be a value that has increased, decreased or become inconsistence, in some cases the values displayed may even disappear and the message 'error' may be displayed. TachosoftOnline.com Mileage Calculator has been designed to rebuild the code stored inside the digital dash instrument cluster EPROM where the mileage code is stored. This gives the ability to restore any given mileage value of choice to a vehicles digital dash instrument cluster.



## Step.1 - Identify the instrument cluster make/model

The first step in the process, establish the make/model of the instrument cluster to be programmed. Check the Tachosoft listing of vehicle make and model to find the type of instrument cluster (digital dash) fitted to that vehicle.



Once you have correctly identified the digital dash part type, the Tachosoft listing will state the 'EPROM' memory where that instrument clusters mileage value (ODO) data is stored (Circled in below photo). This is the memory IC Microchip you need to remove in order to read/write program to adjust the stored mileage value.

### Tachosoft Online Services

(coverage: 4515 airbag types, 1400 dash types updated: 06.06.2013)

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**TachoSoft Airbag Resetter** **TachoSoft Mileage Calculator**

Brands	Models	Types
Lexus	Fluence	24c16 (Dash) - 2009-2010 years
Lincoln	Kangoo	93c36 Visteon v2 - 2003-2006 years
Mazda	Koleos	93c66 - 2008-2009 year
Mercedes	Laguna	95160 (ABS) v1 - 2009-2012 years
Mercury	Latitude	95160 (ABS) v2 - 2009-2012 years
MINI	Logan	95160 (Dash) - 2010-2012 years
Mitsubishi	Master	
Nissan	Maxity	
Opel	Megane	
Peugeot	Modus	
Pontiac	Scenic	
Porsche	Traffic	
Renault	Vel Satis	
Saab		
Samsung		
Saturn		
Scion		
Seat		
Skoda		
SsangYong		
Subaru		
Suzuki		
Toyota		
Volkswagen		
Volvo		

If your airbag ecu model is not supported, we can help with it. Feel free to contact us on email.

Your choice is:

Please select the dump file you wish to clear here:

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Disclaimer Manual Airbag List Dash List



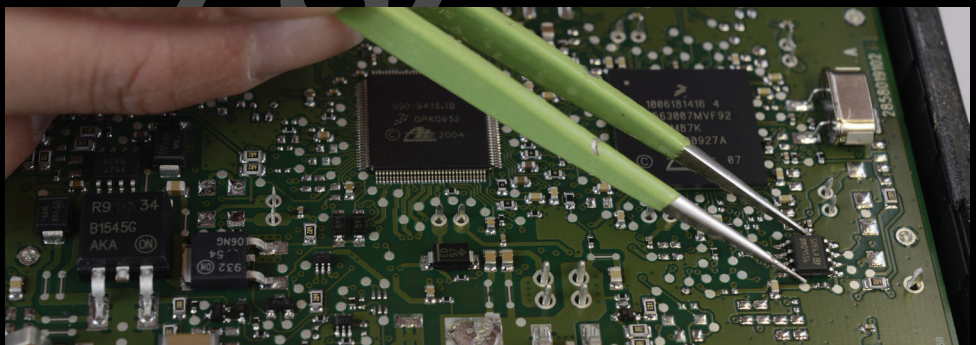
## Step.2 - Removing the Vehicles instrument cluster

Disconnect the vehicles battery before removing the vehicles instrument cluster. It is advisable to place some protective material clothes over surrounding dashboard plastics and finishes to prevent any scratches caused by tools used for removing the instrument cluster.



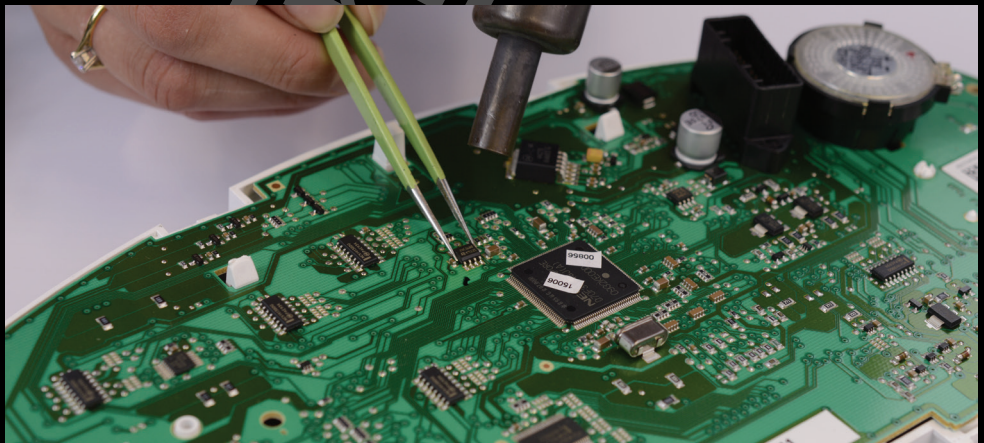
## Step.3 - Secondary Active Memory Modules

Some models may incorporate 'active memory' and these parts will require programming before you can re-fit the main instrument cluster back into the vehicle. Failure to program secondary active memories may result in the original mileage value being restored automatically to the vehicles instrument cluster when refitted and powered on.



## Step.4 - Disassembly of the instrument cluster

Care should be taken when disassembling the instrument cluster. Gauge needles can be delicate and must be removed carefully. (Not all digital dash types require removal of Gauge/ Needles) LCD Panels and ribbon connections to them can easily become damaged when disassembling an instrument cluster, be sure not to damage these parts as they are in some cases impossible to repair and will require a replacement LCD or ribbon cable fitted should it become damaged.



## Step.5 - Obtaining the EPROM memory data

Locating the EPROM memory, for instrument panels fitted with a “serial EPROM” (See Fig.01) As a rule, a serial EPROM will be fitted to the circuit board in close proximity to the main processor, either on the same side of the circuit board or the reverse side. The main processor will usually be the larger microchips fitted flat to the circuit board with legs on all 4 sides and a crystal/oscillator will also be fitted in close proximity. The Tachosoft service will state what EPROM type you are looking for, with this information you can quickly and easily identify the serial EPROM to remove it for reading/writing in an EPROM programmer.

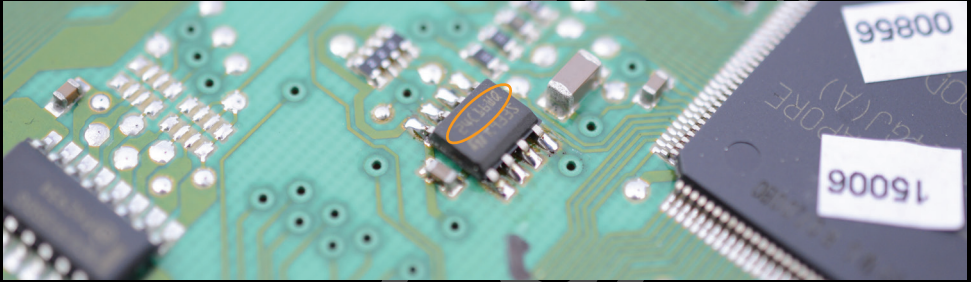
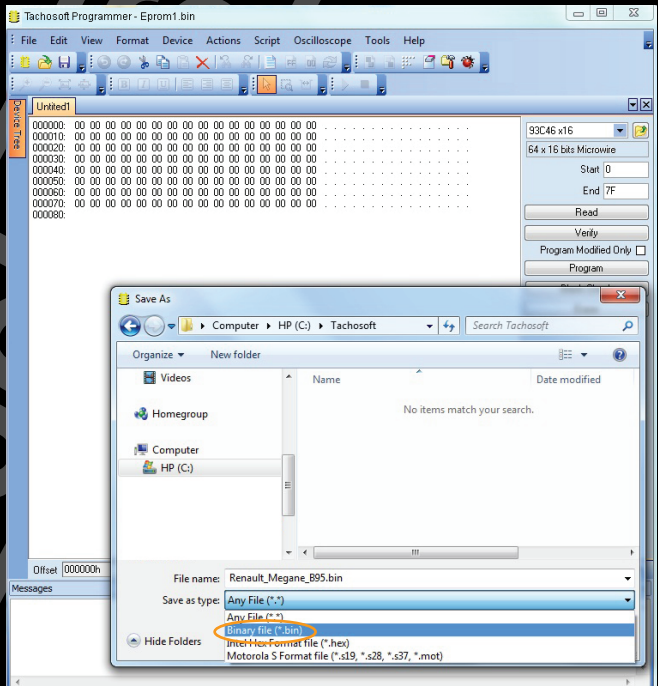


Fig.01

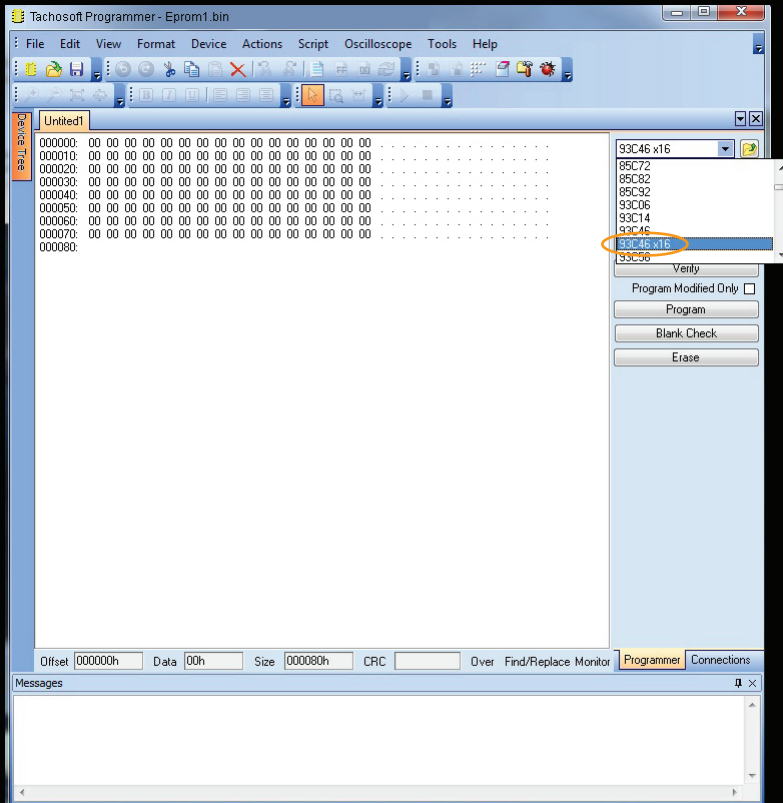
Once you have correctly identified the EPROM memory and read the data with an EPROM programmer, save the file as a .BIN format file





## Step.6 - Saving the instrument cluster data correctly

Read and save as both 16bit and 08bit format where an option to do so is presented by your programmer – usually for 93Cxx soic8 serial EPROM)



## Step.7 - Uploading to Tachosoft Mileage Calculator

Log into your [www.TachosoftOnline.com](http://www.TachosoftOnline.com) account with your registered Username and Password. If you do not currently have a registration username and password, you can get registration and credit point Top Up from website: [www.Tachosoft-UK.com](http://www.Tachosoft-UK.com)

**Tachosoft Online Services**  
(coverage: 4568 airbag types, 1422 dash types updated: 05.07.2013)

Login:  Password:  Remember  Login Register

**Tachosoft Airbag Resetter** | Tachosoft Mileage Calculator

Brands	Models	Types
Acura		
Alfa Romeo		
Audi		
BMW		
Buick		
Cadillac		
Chevrolet		
Citroen		
Dacia		
Daewoo		
Daihatsu		
Dodge		
Fiat		
Ford		
GMC		
Honda		
Hummer		
Hyundai		
Infiniti		
Isuzu		
Jaguar		
Jeep		
Kia		
Lancia		
Land Rover		

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Once you have logged into your Tachosoft account, you can select the Mileage Calculator Tab to display available vehicles and models.

**Tachosoft Online Services**  
(coverage: 4568 airbag types, 1422 dash types updated: 05.07.2013)

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**Tachosoft Airbag Resetter** | **Tachosoft Mileage Calculator**

Brands	Models	Types
Landwind	Fluence	24C16 (Dash) - 2009-2010 years
Lexus	Kangoo	93C56 Visteon v2 - 2003-2006 years
Lifan	Koleos	93C66 - 2008-2009 year
Lincoln	Laguna	95160 (ABS) v1 - 2009-2012 years
Lotus	Latitude	95160 (ABS) v2 - 2009-2012 years
Maple	Logan	95160 (Dash) - 2010-2012 years
Maserati	Master	
Maybach	Maxity	
Mazda	Megane	
Mercedes	Modus	
Mercury	Scenic	
MINI	Traffic	
Mitsubishi	Vel Satis	
Nissan		
Oldsmobile		
Opel		
Peugeot		
Plymouth		
Polonez		
Pontiac		
Porsche		
Proton		
Renault		
Rolls-Royce		
Rover		

If your airbag ecu model is not supported, we can help with it. Feel free to contact us on email.

Your choice is:

Please select the dump file you wish to clear here:  no file selected

Select the vehicle make and model that relates to your digital dash BIN file, you can then upload your file to the website. The TachosoftOnline.com website has file-check features, that will (where available) check file size, data construction and identify byte swapping. It is advised to read in both 08bit and 16bit format where you have the option but upload 16bit BIN files to the TachosoftOnline.com website.

**Tachosoft Online Services**  
(coverage: 4568 airbag types, 1422 dash types updated: 05.07.2013)

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**TachoSoft Airbag Resetter**    **TachoSoft Mileage Calculator**

Brands	Models	Types
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Lexus	Kangoo	93c56 Visteon v2 - 2003-2006 years
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Lincoln	Laguna	95160 (ABS) v1 - 2009-2012 years
Lotus	Latitude	95160 (ABS) v2 - 2009-2012 years
Maple	Logan	95160 (Dash) - 2010-2012 years
Maserati	Master	
Maybach	Maxty	
Mazda	Megane	
Mercedes	Modus	
Mercury	Scenic	
MINI	Traffic	
Mitsubishi	Vel Satis	
Nissan		
Oldsmobile		
Opel		
Peugeot		
Plymouth		
Polonez		
Pontiac		
Porsche		
Proton		
Renault		
Rolls-Royce		
Rover		

If your airbag ecu model is not supported, we can help you. Your choice is:  Please select the dump file you wish to clear here:

Choose File to Upload

to use BIN Files    Search BIN Files

Organize    New folder

Name

- A2C53363614-RN248100342R-REV02.MEGANE\_B95-24C16.ODD.bin
- CDC\_ESP\_00.0405-104E0-MEGANE\_B95-95160-ABS

File name: A2C53363614-RN248100342R-REV    All Files (\*.\*)

## Step.8 – Change KM/Miles Value

Once your upload to TachosoftOnline.com has completed, the website will check your file and display the current KM/Miles value present in the BIN file data. You then have the option to enter a 'new' KM/Miles value. The TachosoftOnline.com website automatically updates your file data with your new desired KM/Miles value and presents you with a download file.

**TachoSoft Online Services**  
(coverage: 4515 airbag types, 1400 dash types updated: 06.06.2013)

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[Logout](#)

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**Renault / Megane / 24c16 (Dash) - 2009-2010 years**

Mileage:

New value:

## Step.9 - Download and Reprogram the TachosoftOnline.com BIN File

Once you have entered your desired value into the Tachosoft website, you will be given a download link to get your new file! If for some reason your Internet browser freezes or the download link does not appear, you can easily access your file history of in/out files in the 'Files Table' option at the top of the Tachosoft page. (It is not advisable to click the 'Proceed' button more than once)

**TachoSoft Online Services**  
(coverage: 4515 airbag types, 1400 dash types updated: 06.06.2013)

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[Logout](#)

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**List of files you have worked with**

Created at	Dump	Brand name	Model name	Type name	In file	Out file
17.04.13 13:51	A	Opel	Insignia	13578320 - 9e12XD9512	Original	Modified
25.04.13 13:15	A	Ford	Focus	2MST 14B056 DE Bosch 0 285 001 425 - 68HC912D60	Original	Modified
15.05.13 12:18	A	Audi	4F0 xxxx xxxx	4F0 959 655 B Siemens 5WK43416 - 95160	Original	Modified
18.05.13 12:26	A	Peugeot	207	96 750 688 80 Bosch 0 285 010 828 - 95160	Original	Modified
30.05.13 12:40	A	Renault	Megane	605 49 05 00 Autoliv 8200 682 393 - 95160	Original	Modified
03.06.13 11:52	A	VW	6Q0 xxxx xxxx	6Q0 909 605 AL VW71 - 95320	Original	Modified
17.06.13 13:48	D	Renault	Megane	24c16 (Dash) - 2009-2010 years	Original	Modified

[<<](#)    [<](#)    [1](#)    [2](#)    [3](#)    [>](#)    [>>](#)  
**107 results (page 3/3)**



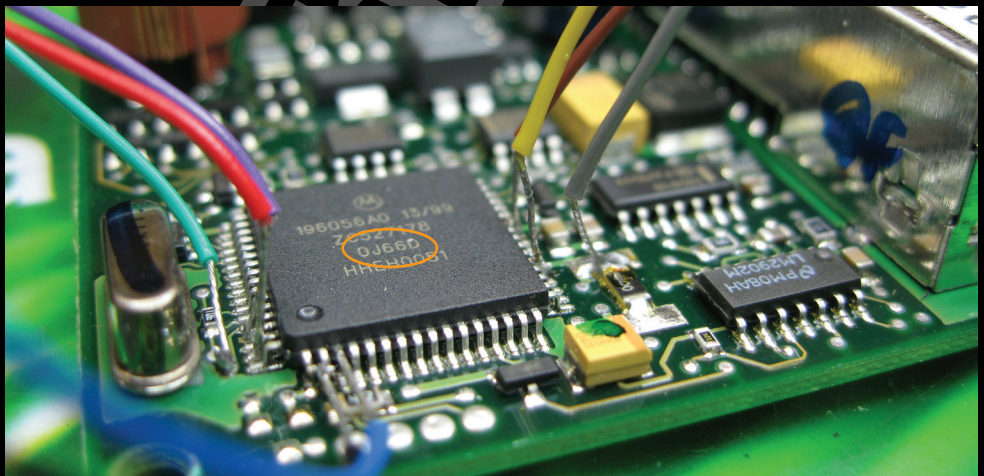
## Step.10 - Refitting and testing

Before fully rebuilding an instrument cluster, partly assemble the instrument cluster for testing. Where gauge needles were removed, leaving these parts to be refitted last or loosely refitting for test.



## Notes about MCU's Processors:

The procedure for reading and programming an EPROM contained within a processor differ to those for programming a serial EPROM. The type of Microchip that has its EPROM integral with the main processor and I/O controller is commonly known as an MCU (Micro Controller Unit) or termed 'micro-computer unit' because they function as a fully contained programmable computer unit with in-built memory and peripheral interface (Input/Output controller). In most cases when programming MCU devices, it is necessary to leave the MCU fitted on the application circuit board and simply connect the required wires from your programmer to read/write. These are usually the power  $V_{pp}$ ,  $V_{ss}$  and 2 or more functional lines such as RESET, IRQ, BACKGROUND etc. The reason for why it is not advisable to remove the MCU from the application board is because there are several components fitted to the circuit board that allows the mcu to correctly power up, these are (but not limited to) the oscillator crystal fitted external to the MCU in almost all cases, varied configuration of  $V_{pp}/V_{ss}$  on other legs of the mcu, various high/low resistance states to configure basic modes of the MCU boot up and functionality. In short, removing the mcu and connecting only the wires required to read/write program it, will almost always fail to work at all, presenting problems at the power up stage of the MCU. Some programmers have special adaptors for MCU's to correctly power up and be programmed separately, but in most cases an MCU will be connected to and programmed on the application circuit board. To identify an MCU it is usually referenced to the microchips 'Mask ID' which follows the format of 1 number, 1 letter, 2 numbers, 1 letter. 'usually' I.E. 0J66D – For more information on mask ID's, please see section 'Identifying EPROMs and MCUs'



## Identifying EPROMS

Mask    EEPROM / MCU

B22AN    93C06  
B34AB    24C02  
B42AB    93C06  
B43AB    24C02  
B46AJ    24C02  
B49AJ    24C02  
B52AP    24C02  
B54AH    24C02  
B81AB    93S66  
B56022    27C128  
B57324    2732A  
B57325    27C32  
B57347    27C64  
B57423    27C256  
B57477    27C64  
B57519    27C64  
B57546    27C010  
B57604    27C256  
B57605    27256  
B57607    27C128  
B57610    27C128  
B57618    87C257  
B57618    87C64  
B57625    2764A  
B57654    27C256  
B57684    27C256  
B57696    27C256  
B57701    27C256  
B57764    87C257  
B57764    87C64  
B57769    MC68HC05SR3  
B57771    27C256  
B57808    27C256  
B57922    87C257  
B57960    27C256  
B57995    TMS27C256  
B58014    27C256  
B58038    27C256  
B58094    27C510  
B58098    27C512  
B58126    27C010  
B58127    27C512  
B58150    87C257  
B58157    27C512  
B58185    87C257  
B58196    93C46  
B58213    93C06  
B58214    27C256  
B58234    27C256  
B58235    87C257

Mask    EEPROM / MCU

B58239    27C512  
B58243    CJ87BC6QG  
B58252    24C02  
B58253    24C02  
B58256    24C01  
B58258    24C02  
B58275    27C1024  
B58293    27C512  
B58323    93C46  
B58331    28F010  
B58334    28C64  
B58335    AT28C64B  
B58380    24C02  
B58381    AM28F512  
B58399    AM29F010  
B58400    87C510  
B58424    27C512  
B58517    27C020  
B58530    27C010  
B58533    27C4096  
B58539    27C256  
B58541    27C512  
B58542    27C512  
B58543    27C512  
B58544    27C1001  
B58545    87C257  
B58546    87C510  
B58547    27C010  
B58548    TMS27PC210  
B58550    27C512  
B58601    AM29F200B  
B58608    93C66  
B58639    87C510  
B58647    87C257  
B58718    27C512  
B58755    AM29F200  
B58768    AM29F400AB  
B58791    AM29F200AB  
B58813    93C56  
B58838    27C256  
B58911    TMS27C010A  
B9411    AM27C256

## Motorola-Freescale Mask ID's

\*A20T MC68HC705S3  
\*A38P MC68HC11A8  
\*A46E MC68705R3CS  
\*A49N MC68HC11A8  
\*A75H MC68HC811A2  
\*B16B MC68HC805C4  
\*B19C MC68HC811E2  
\*B35F MC68HC11A0  
\*B36T MC68HC805B6  
\*B46E MC68HC11A8  
\*B60R MC68HC11E9  
\*B65H MC68HC11A8  
\*B76T MC68HC11A8  
\*B77M MC68HC11F1  
\*B83T MC68HC05B8  
\*B84N MC68HC11A1  
\*B84T MC68HC11A1  
\*B91T MC68HC05B6  
\*B95T MC68HC11A8  
\*B96D MC68HC11A8  
\*B96T MC68HC05C8  
\*C10C MC68HC05M4  
\*C11W MC68HC11A1  
\*C12R MC68882FN20A  
\*C15J MC68HC11F1  
\*C13W MC68HC11L6  
\*C14H MC68HC05B6  
\*C16J MC68HC811E2  
\*C16W MC68HC705C8  
\*C17F MC68HC11D3  
\*C25T MC68HC05E1  
\*C27B MC68HC11E1  
\*C27T MC68HC05P8  
\*C28M MC68HC11G5FN1  
\*C28W MC68HC05P9  
\*C35N MC68HC05B16  
\*C40H MC68HC05J1  
\*C45A XC68HC711D3  
\*C46A MC68HC811A8  
\*C47M MC68HC711E9  
\*C61A MC68HC05P8  
\*C75G SOIC28  
\*C83W MC68HC11E9  
\*C85W XC68HC711L6  
\*C90T MC68HC05P8  
\*C91F MC68HC11E1  
\*C92K MC68HC05C12A  
\*C93W MC68HC711K4  
\*C94R MC68HC11F1  
\*C95K MC68HC05E0  
\*C96K MC68HC11E9  
\*C96N MC68HC11A1A8  
\*C99K MC68HC05B4  
\*D10J MC68HC705B5  
\*D12A MC68B09EP  
\*D15G MC68HC05E1  
\*D17E MC68HC05T3  
\*D18E MC68HC05P4  
\*D20J MC68HC05B16  
\*D25A MC68HC05P4  
\*D26E MC68HC11A1  
\*D28J MC68HC705B16  
\*D28N MC68HC05E6  
\*D28T MC68HC705F6B  
\*D32N MC68HC05E1  
\*D33J MC68HC705B16  
\*D35E MC68HC11E9  
\*D37R MC68HC05C12A  
\*D40J MC68HC705B32  
\*D40J MC68HC705X32  
\*D41V XC68HC705BE12  
\*D43F MC68HC11K4  
\*D43R MC68HC711E20  
\*D45R MC68HC11ED0  
\*D46J MC68HC11EA9  
\*D47J MC68HC11EA9  
\*D48A MC68HC05H2  
\*D48J MC68HC11PH8  
\*D51D MC68HC05P8  
\*D53J MC68HC05X32  
\*D54E MC68HC705P9  
\*D54J MC68HC05B8  
\*D56G MC68HC705P6A  
\*D58J MC68HC11PA8  
\*D58N MC68HC11K1  
\*D59J MC68HC705B32  
\*D59J MC68HC705X32  
\*D60J MC68HC05B16  
\*D61N XC68HC711KA4  
\*D62C MC68030FE20B  
\*D62J MC68HC05X16  
\*D64J MC68HC11P2 11PH8  
\*D67F MC68HC711K4  
\*D68C MC68HC705C5  
\*D69F PC68HC711N4  
\*D69J MC68HC05X32  
\*D73W MC68HC705G10  
\*D82R MC68HC11E9  
\*D84M MC68HC05H2  
\*D85F MC68HC711D3  
\*D86B MC68HC705J2  
\*D99H MC68HC711P2  
\*E11P MC68HC16Z2  
\*E20T MC68HC705C4A  
\*E20Y MC68HC705P6CP  
\*E22B MC68HC11E20  
\*E25B MC68HC05P3  
\*E28B MC68HC11E9 old  
4E28B MC68HCP11E1  
\*E30A MC68HC05K1  
\*E31A MC68HC05K0  
\*E31M MC68HC705K1  
\*E32B MC68HC05C8  
\*E32A MC68HC705P6  
\*E36F MC68HC05C8  
\*E38B MC68HC05J3  
\*E40A MC68HC705C5  
\*E41C PC68HC916Y1  
\*E50H MC68HC05B6  
\*E50W MC68HC711E9  
\*E53M MC68HC711P2  
\*E54F MC68HC16Z1  
\*E57S MC68HC11KA4  
\*E59B MC68HC11KA4  
\*E61H MC68HC11F1  
\*E61R MC68HC705C8  
\*E61W MC68HC705F8  
\*E62H MC68HC11K4  
\*E62W MC68HC16Z1  
\*E69W MC68HC16Z1  
\*E74J MC68HC11P2  
\*E74H MC68HC11A1FN  
\*E75J MC68HC11K4  
\*E75N MC68HC05C8A  
\*E78C MC68HC05J1A  
\*E79R MC68HC705C4A  
\*E82K MC68HC11E20  
\*E87J MC68HC11F1  
\*E88N MC68HC711KA2  
\*E98K MC68HC705P6  
\*F10V MC68HC05B6  
\*F10W MC68HC705SR3  
\*F11N MC68HC11L6  
\*F12A MC68HC05J1A  
\*F15H MC68HC05B4  
\*F17V MC68HC11F1B4  
\*F19C MC68EC030CFE25C  
\*F21S MC68HC705MC4  
\*F23H MC68HC05P4A



## Motorola-Freescale Mask ID's

\*F28B MC68HC05E6  
\*F29K MC68HC11MA8  
\*F33P PC68HC16V1  
\*F36W MC68HC11E9  
\*F37E MC68HC11F1  
\*F41E MC68HC05L28  
\*F41J MC68HC05L28  
\*F44T MC68HC705J1A  
\*F47V MC68HC705P3  
\*F49K MC68HC705C8A  
\*F52E MC68HC11E32  
\*F52W MC68HC05P18 (28 pins)  
\*F53E MC68HC11KG4  
\*F56K MC68HC705B16  
\*F60M MC68HC11KA4  
\*F62A MC68HC05C8  
\*F62J MC68HC05B16  
\*F63J MC68HC705C9A  
\*F67V MC68HC16Z1  
\*F68K MC68HC912D60  
\*F71L MC68HC05C8 or 705C8  
\*F73K MC68HC912D60  
\*F73T MC68HC16Z1  
\*F74B MC68HC05X4  
0F74K MC68376  
\*F75B MC68HC705P3  
\*F80B MC68HC705P6  
\*F82B MC68HC05E6 (SO28)  
\*F82W MC68HC705V8  
\*F88B MC68HC705X4  
\*F92J MC68HCP11A1  
\*F96J MC68HC11E9  
\*F97J MC68HC11E9  
\*F98Y MC68HC708AS48  
\*G10V MC68HC(7)11P2  
\*G11D MC68HC16Z2  
\*G23V MC68HC08AZ32  
\*G26C MC68HC16Z3  
\*G28F MC68HC05B16  
\*G32V MC68HC11KG4  
\*G33P MC68HC705P6ACP  
\*G35N MC68HC05B16  
\*G39Y MC68HC08AS20  
\*G40G MC68HC805K3  
\*G41V MC68HC705B32  
\*G44P MC68HC705RC16  
\*G47V MC68HC705X32  
\*G49V MC68HC08AZ32  
\*G53F MC68HC05J1A  
\*G54K MC68HC05TB  
3G56P MC68HC705BD7P  
\*G58C MC68HC705JP7  
\*G58F MC68HC705J1A  
\*G58T MC68HC705JJ7 or JP7  
\*G59F MC68HC711E20  
\*G62K MC68HC708AS48  
\*G63P MC68HC705J1A  
\*G64R MC68HC805P18  
\*G72G MC68HC05E6  
\*G78M MC68HC705V12  
\*G96A MC68HC705B32  
\*G96Y MC68HC705V12  
\*H14A MC68HC708AS48  
\*H19S MC68HC711E20  
\*H24A MC68HC11A8  
\*H24M MC68HC05V12  
\*H27B MC68HC11KS2  
\*H30R MC68HC711PH8  
\*H32S MC68HC705JB4  
\*H42K MC68HC705C8A  
\*H42D MC68HC05V12  
\*H44H MC68HC805P18  
\*H48T MC68CM16Z1  
\*H50F MC68HC812AV4  
\*H50W MC68HC711E9  
\*H51A MC68HC705E6  
\*H52A MC68HC05X32  
\*H52P MC68HC705V12  
\*H54K MC68HC11FL0PU1  
\*H54T MC68HC12BE32  
\*H55B MC68HC705BD9  
\*H55F MC68HC805K3  
\*H55W MC68HC912DG128, DA128  
\*H56A MC68HC08AZ32  
\*H57A MC68HC05H12  
\*H62A MC68HC908AS60 or AZ60  
8H62A MC68HC708AZ60  
\*H62P MC68HC908AT32  
\*H70H MC68HC705SJ7 or JJ7 or JP7 or SP7  
\*H72J MC68HC705C8A  
\*H73K MC68HC812AV4  
\*H74Y MC68HC08AZ60A  
\*H75A MC68HC705P6  
\*H77A MC68HC705C9A  
\*H86A MC68HC711KG2  
\*H86X MC68HC(7)11KG2  
\*H89E MC68HC11E20  
\*H91F MC68HC912B32  
\*H94K MC68HC08AS20  
\*H95B MC68HC(7)11K4

## Motorola-Freescale Mask ID's

\*H96J MC68HC05JJ6  
\*H96P MC68HC711KS8  
\*H98X MC68HC11KS8  
\*J15G MC68HC912BC32  
\*J20X MC68HC908GP32  
\*J26H MC68HC08AS20  
\*J26R MC68HC08AS20  
\*J27F MC68HC08AS32  
\*J34P MC68HC12BE32  
\*J35D MC68HC08AZ60  
\*J37F MC68HC908MR24  
\*J38M MC68HC12BE32  
\*J41C MC68HC05SU3A  
\*J43F MC68HC705V12  
\*J43H MC68HC705V12  
\*J53W MC68HRC705JP7  
\*J54E MC68HC912B32  
\*J54W MC68HRC705JP7  
\*J61D MC68HC908AS60  
\*J64Y MC68HC912B32  
\*J66D MC68HC08AZ32  
\*J66H MC68HC705J1A  
\*J73R MC68HC705C8A  
\*J74J MC68HC908AZ60  
\*J74Y MC68HC908AS60  
\*J79Y MC68HC908BD48  
\*J88Y MC68HC908JK3  
\*K00J MC68HC908RK2  
\*K00W MC68HC11K4  
\*K02S MC68HC05P4A  
\*K03B MC68HC705C9A  
\*K05W MC68HC711D3  
\*K07B MC68HC705P6  
\*K07E MC68HC11KS2  
\*K08B MC68HC705C8A  
\*K08S MC68HC908GP32  
\*K08W MC68HC711KS2  
\*K11N MC68HC908LD64  
\*K13J MC68HC12D60  
\*K17X MC68HC908GP32CFB  
\*K20C MC68HC705B32  
\*K20R MC68HC05PV8A  
\*K25E MC68HC912BC32  
\*K29E MC68HC912BD32  
\*K31D MC68HC912DG128A  
\*K36N MC9S12DP256  
\*K38K M68HC912D60  
\*K39K MC68HC908SR12  
\*K45D MC68HC908KX8, KX2  
\*K45H MC68HC908JB8  
\*K50E MC68HC912DG128  
\*K54X MC68HC711K4  
\*K56G MC68HC908AB32  
\*K59D MC68HC08JB8 or MC68HC711K4  
\*K59H PC527283MFU  
\*K71E MC68HC908AS60 (PLCC52)  
\*K75F MC68HC912D60  
\*K76A MC68HC12DA128  
\*K78X MC9S12H256  
\*K79X MC9S12DP256/A256  
\*K81H MC68HC711E9  
\*K82H MC68HC11E20  
\*K85K MC68HC908AZ60A/AS60A  
\*K85V MC68HC908AZ60A  
\*K91D MC68HC912DG128  
\*K92R MC68HC908GP32CFB  
\*L00M MC9S12DP512  
\*L01Y MSE9S12DT256  
\*L02H M68HC912D60  
\*L02M MC68HC08AZ48A  
\*L05H M68HC912DT128  
\*L06H MC68HC908SR12  
\*L07H MC68HC908AB32  
0L08M MSE9S12E128  
\*L09H MC68HC908KX8/KX2  
\*L09S MSE9S12C128  
\*L11Y MSE9S08GB60A  
\*L15P MSE9S12E128  
\*L15Y MC9S12XDP512V2  
\*L16X MSE9S08AW60  
\*L16Y MSE9S12HZ256  
\*L19E MC68HC908JL3  
\*L19S MSE9S12NE64  
\*L24K MSE9S12T64  
\*L24N MSE9S12UF32  
\*L26M MC68HC912D60  
1L27M 68HC912DG128  
\*L28M MC68HC12D60  
\*L31K MC68HC08JL3E  
\*L31R MSE9S08GB60  
\*L31V MC68HC908AS60A/AZ60A  
\*L32X MC68HC08AZ32A  
0L33R MSE9S08RG60  
\*L35K MC68HC08  
\*L35X MC68HC08JL3E  
\*L36W MC68HC908JL3E  
\*L39J MC68HC908JL8  
\*L40K MC9S12DG128/DT128  
0L40V MSE9S12XDP512  
\*L40X MC68HC08AZ60A

## Motorola-Freescale Mask ID's

0L42M MSE9S12T64  
1L43M MC68HC912B32  
0L43P MSE9S12D64/DG64  
0L43X MSE9S12E256  
\*L45J MC9S12C32  
\*L47P MC908AP32  
0L47P MSE908AP64  
2L47P MSE908AP64  
3L47P MSE908AP64  
4L47P MSE908AP64A  
\*L51J M68HC912D60  
\*L51W MC68HC908SR12  
\*L52H MC68HC08AZ32A  
\*L53J MC68HC908GR8  
\*L54J MC68HC908MR32 or 16  
\*L59X MC68HC908AB32  
1L59W MC9S12DT128  
\*L61N MC68HC08JL8  
\*L69J MC68HC908QT1-4 or QY1-4  
\*L69Y MC68HC08JL8  
2L71Y MSE9S08RE16  
0L72A MC68HC08AB16A  
5L74N MSE9S12KG128  
\*L77N MC68HC908JL3E/JK3E/JK1E  
0L78P MSE9S08RE16  
0L80R MSE9S12B128  
0L85D MSE9S12DT128  
\*L86C MSE9S12T64  
\*L86D MSE9S12D64/DG64/DJ64/A64/D32/A32  
3L87X MSE9S08QB8  
\*L85D MC9S12A128 or DTB128  
\*L86D MC9S12D64  
\*L87J MC68HC908AZ60A or AS60A  
2L87X MSE908QB8  
\*L91N MC9S12DP256B/DT256  
0L94R MSE9S12DT128  
\*L96S MC68HC908GP32CFB  
0M11F MSE9S08RG60  
0M15D MSE9S08QD4  
0M20A MSE9S08RG60  
1M21A MSE9S08RE16  
0M25D MSE908AP64  
1M25D MSE908AP64A  
2M25D MSE908AP64  
1M34C MSE9S12C32  
0M42E MSE9S12XDG128  
0M45H MSE90S08RE16  
\*M62B MSE908QB8  
0M65G MSE9S12B128  
0M66G MSE9S12C128  
0M89C MSE9S12DG64  
2M70C MSE9S08GT16A  
0M75B MSE9S08AW60  
1M75B MSE9S08AW60  
3M75B MSE908EY16A  
5M75B MSE9S08AW60  
0M77B MSE9S08QG8  
1M77B MSE908QG8  
3M77B MSE9S08QG8  
0M89C MSE9S12D64



## Special Notes:

**Active Memory** = An Auto-Updating copy of the vehicles mileage stored remotely (Usually in the Body Control Module, BSI, UCH, BCM)

**BINARY** = Also known as 'BIN' is the File Format we use. (It is also industry standard, your programmer 'WILL' support saving read data as .BIN)

**DUMP** = Data content retrieved (read) from an I.C. EPROM Memory

**EEPROM** = Electrically Erasable Programmable Read Only Memory

**HEX** = Viewer data seen in the programmer data editor

**MCU** = Microcontroller or Micro Computer Unit (an I.C. integrating a Computer Processor, Memory and a Peripheral Input/output device in a single I.C. package)

**ODO** = Vehicle Odometer recorder (Mileage recorder/display)

**SHADOW MEMORY** = Where a NON-Auto-Updating Copy of the Mileage is stored in a different module of the vehicle (Usually Body Control Module)

**PACKAGE** = The encapsulation of the microchip into its production packaging/casing

**DIL-8** = Dual In-Line I.C. with 8 legs, each each side. (Serial EEPROM)

**SOIC8** = Small Outline I.C. with 8 legs, 4 each side. (SERIAL EEPROM)

**QFP64** = Quad Flat Package with 64 legs, 16 legs per side. (MCU)



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