dms®

DMS C9e
RGB COLOUR CARD

FEATURES

1) No modifications are required to ANY Apple Software in any Language.

2) It produces CLEAR and VIVID Colours in LO-RES or HI-RES Graphics which are superior to those which can be obtained from standard composite Monitors or Televisions.

3) The TEXT Page, in 40 or 80 Column Mode, can be altered by a simple 'POKE' in Software to 1 of 8 Colours. As these 'POKES' can be done in DIRECT or PROGRAM mode you can obtain a RED or GREEN etc. VDU. The screen prompts can also be changed to different coloured text during a program run to alert the user to the required type of response or to emphasise warnings.

4) The Apple / / e 80 Column Card switches through the card automatically and does not require any extra switches or software commands.

5) The Video is enhanced in the Text Mode to improve the 80 column display which is normally difficult to resolve on colour monitors.

6) The board is small sized — 107mm x 70mm.

7) It comes with a 5 way Output Cable for connection to a VDU via a cable socket. This socket allows the cable to be removed and so exit through the rear computer openings.

8) The outputs are:
R G B at + going TTL Levels.
Sync at − going TTL Level.
Ove (Ground).

9) Current Consumption is very low. The card uses only 0.48 Watts and so runs cool.

Current Consumption:

+ 5 Volts = 46 mA
+ 12 Volts = 16 mA
− 5 Volts = 12 mA

INSTALLATION

1) ENSURE THAT THE COMPUTER IS SWITCHED OFF.

2) Remove a cable EXIT COVER from the rear of the computer near to Slot 7.

3) Look at the output cable colours as they leave the DMSC9e Card and remember the order ready to re-insert them later.

4) Hold the DMSC9e Card and pull the black surround of the output socket to free the output cable.

5) Thread this cable into the computer through the rear exit hole which you have prepared near to Slot 7.

6) Re-insert the 5 output wires carefully back into the output socket on the DMSC9e Card in the same order as they came out, then push the socket surround back towards the card to clamp this output cable again.

For those who ignored step (3) all is not lost!
The wires will be one of two types:

Output	Type 1	Type 2
R	Blue	Brown
G	Violet	Red
B	Grey	Orange
Ove	White	Yellow
Sync	Black	Green

Now re-insert them back into the output socket

7) Insert the DMSC9e Card into Slot 7 of the Computer.

Please read carefully the following as the installation varies for different types of Apple Computer depending on the series and intended country of use.
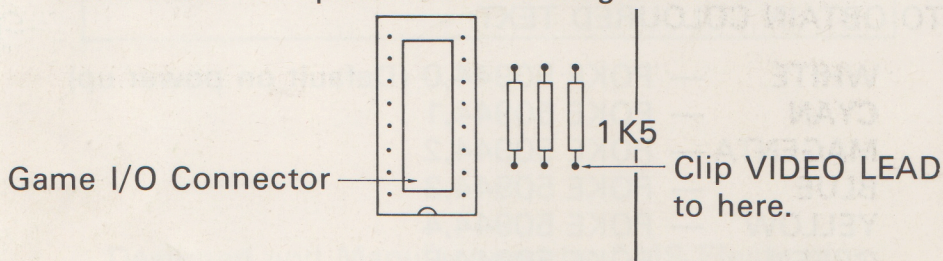
DMSC9e — APPLE / / e VERSION

1) Remove I/C C13 (74LS166) from the Apple / / e Mother-board and insert it into the provided 16 Pin I/C Socket. Re-insert this Socket back into the Motherboard.

2) Remove I/C D12 (74S10) from the Apple / / e Motherboard and insert it into the provided 14 Pin I/C Socket. Re-insert this Socket back into the Motherboard.

Please ensure that the I/Cs are correctly inserted into their Sockets and then into the Motherboard.

This completes the installation.

DMSC9+ — APPLE][+ VERSION

1) Clip the single wire to the front of the 1 K5 Resistor which is the 3rd to the right of the Games I/O Port, as seen from the front of the Computer. See the diagram below:

Game I/O Connector ———— 1 K5 ——— Clip VIDEO LEAD to here.

TO THE FRONT OF THE COMPUTER

This completes the installation for the Apple][Euro Plus Version.

For the USA Apple][(DMSC9+U) you need to also:

2) Remove I/C B10 (74LS74) from the Motherboard and insert it into the provided I/C Socket. Re-insert this socket back into the Motherboard. This I/C Socket is marked white.

3) Remove I/C B11 (74LS08) from the Motherboard and insert it into the provided I/C Socket. Re-insert this Socket back into the Motherboard.

Please ensure that the I/Cs are correctly inserted into their Sockets and then into the Motherboard.

This Completes the installation for the USA Apple][Version.

CONNECTING TO THE RGB MONITOR

1) Connect the R, G, B, Ove (Ground) and Sync signals to the Monitor.

2) If the Monitor has DUMMY LOAD RESISTORS fitted then these must be removed as they are not required and waste unnecessary power. The DMSC9e card will switch its' output off if these are left in.

ADDITIONAL SOFTWARE FEATURES

The BASE Address of the Card is 50944 ($C700). This Memory Location can be 'POKE' d to obtain different coloured text etc.
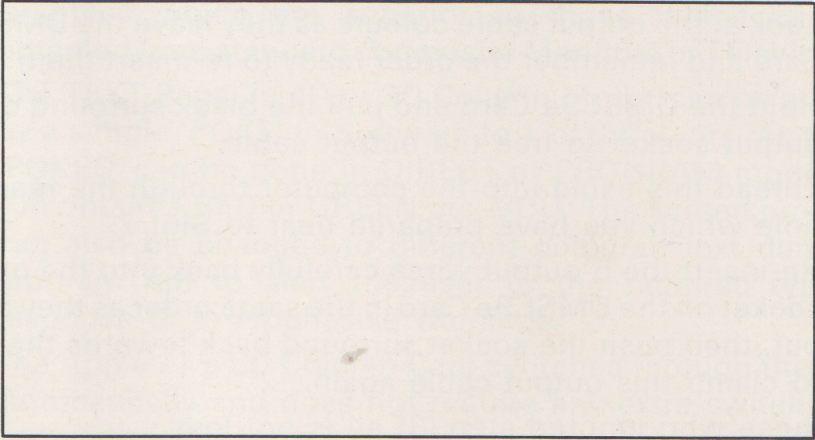
TO OBTAIN COLOURED TEXT:

WHITE	— POKE 50944,0 (Default on power up)
CYAN	— POKE 50944,1
MAGENTA	— POKE 50944,2
BLUE	— POKE 50944,3
YELLOW	— POKE 50944,4
GREEN	— POKE 50944,5
RED	— POKE 50944,6
BLACK	— POKE 50944,7 (Not Seen)

TO OBTAIN A SOLID COLOUR IN GRAPHICS:

Add 8 to the above and PLOT in WHITE.

Available from:

Designed and Manufactured by DMS Electronics

DMS Electronics reserve the right to alter the specification.