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Abstract

A shroud adapted to substantially encase rear and peripheral edge portions of a display screen in a manner whereby an air gap is provided to permit ventilation of the rear portion of said display screen. The air gap is preferably provided along the lower and upper peripheral edges of the display screen. The shroud is preferably attached to a wall or ceiling via an arm and the arm is optionally adjustable in angle and/or length.
SCREEN SHROUD/MOUNTING

BACKGROUND OF THE INVENTION
[001] The present invention relates to a shroud for a display screen, and in particular, to a shroud for mounting a digital display screen in a retail outlet, including but not limited to an overhead menu board in a fast food restaurant.

DESCRIPTION OF THE PRIOR ART
[002] The reference in this specification to any prior publication (or information derived from it), or to any matter which is known, is not, and should not be taken as, an acknowledgement or admission or any form of suggestion that prior publication (or information derived from it) or known matter forms part of the common general knowledge in the field of endeavour to which this specification relates.
[003] Display screens are used in a variety of retail outlets. For example, overhead menu boards are commonly used in fast food restaurants.
[004] Recently, with the advent of plasma, LCD, LED and light digital screens, such digital display screens may be utilised in such businesses.
[005] However, digital display screens are prone to be adversely affected when used in such certain environments. In particular, in fast food restaurants, such environments are typically hot and greasy. These conditions are not particularly suitable for installation of such screens.
[006] If the screens are placed in an enclosed housing, in seeking to protect them from smoke and/or grease, then the housing is likely to have further adverse affects on the digital display screen, due to lack of ventilation, potentially causing the digital display screen to overheat.

SUMMARY OF THE INVENTION
[007] The present invention seeks to provide a device which overcomes the disadvantages of the prior art.
[008] The present invention seeks to provide a shroud for a display screen, and in particular, to a shroud for mounting a digital display screen, which may be typically used
in a retail outlet or fast food restaurant.

[009] In one broad form, the present invention provides a shroud adapted to substantially encase rear and peripheral edge portions of a display screen in a manner whereby an air gap is provided to permit ventilation of the rear portion of said display screen.

[0010] Preferably, said air gap is provided along at least part of lower and upper peripheral edges of said display screen.

[0011] Also preferably, said screen is adapted to be retained within said shroud on a pivotal bracket.

[0012] Preferably, said shroud is attached to a wall or ceiling via an arm, the arm being optionally adjustable in angle and/or length.

[0013] Alternatively, but also preferably, said shroud is substantially recessed in a wall or other cavity.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] The present invention will become more fully understood from the following detailed description of preferred but non-limiting embodiments thereof, described in connection with the accompanying drawings wherein:

[0015] Fig. 1 illustrates a shroud, in accordance with the present invention, surrounding a display screen, typically in use as an overhead menu board in a retail outlet, including a fast food restaurant;

[0016] Fig. 2 illustrates how the display screen may be pivotally mounted in the shroud;

[0017] Fig. 3 illustrates a cross-sectional view of a wall recessed configuration of the present invention.

[0018] Fig. 4 illustrates a wall mounted arm supporting the shroud/display screen of the present invention.

[0019] Fig. 5 illustrates a ceiling mounted arm supporting the shroud/display screen of the present invention; and

[0020] Fig. 6 illustrates the ceiling mounted device of Fig. 5, showing how the screen may be pivotally attached to the shroud.
DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

[0021] Throughout the drawings like numerals will be utilised to identify similar features, except for where expressly otherwise indicated.

[0022] A shroud, generally designated by the numeral 1 is adapted to substantially encase a display screen 2. As will be seen in the drawings, the shroud substantially encases the rear surface 4 of the display screen 2 and, at least a portion of the peripheral edges, that is, lower edge 5, upper edge 6 and side edges 7 of the display screen. That is, the display screen is preferably mounted within the shroud such that it is spaced apart from the surfaces of the shroud such that air flow is permitted therearound.

[0023] As shown in Figs. 3, 4 and 5, cool air indicated by arrow 8 may typically flow through an air gap 3 provided below the lower peripheral edge 5 of screen 2 and the shroud 1 such that it travels from an external environment and behind the screen 2. It will be understood by persons skilled in the art that electronic components etc provided on the rear surface 4 of the screen 2 which, typically, in use, heat up. The cool air flow flowing past these electronic components will permit the electronic components to thereby be cooled.

[0024] Additional cool air may flow into the rear surface of the shroud such as shown by arrow 9 to further permit cooling of these electronic components. Air flow may then continue and egress from the shroud such as indicated by arrow 10.

[0025] By providing ventilation and suitable air flow to the rear surface 4 of the screen 2, overheating of the screen 2 may be prevented such that correct electronic operation of the screen is permitted.

[0026] The shroud 1 of the present invention further seeks to protect the screen 2 from settling airborne grease and dust or the like, indicated by the arrows 11 whereby, by provision of the shroud 1, this settling airborne grease or dust is not permitted to settle on the rear surface 4 of the screen 2 or on its electronic components associated therewith.

[0027] Whilst air gaps may be provided entirely around all four peripheral edges 5, 6 and 7 of the shroud, it will be understood by persons skilled in the art that in some applications this extent of air gap may not be necessary to be effective. It will be understood by persons skilled in the art that depending upon the different climatic and environmental conditions, less ventilation may be required, and an air gap may not need to be provided.
about all peripheral edges. It will also be understood by persons skilled in the art that, for effective air flow the air gaps are preferably provided along at least part of the lower and upper peripheral edges of the display screen to permit the ingress of air at the lower peripheral edge and egress of air at the upper peripheral edge, the cooler air ingressing the lower air gap, travelling past the electronic componentry to cool it, the warm air egressing the upper air gap.

[0028] As illustrated in Figs. 2 and 6, the screen is preferably adapted to be retained within the shroud on a pivotal bracket such that the screen may be moved as indicated by arrow 12. In the embodiments shown, the upper portion of screen 2 is pivoted to the shroud, such that the bottom portion may be opened up to allow good access to the rear of the screen 2, for servicing, etc. It will be understood by persons skilled in the art that the screen may be pivotally attached to a side portion of the shroud, or may be otherwise removably or releasably connected into the shroud to achieve a similar function.

[0029] This pivotal attachment may be effected whether the device is either ceiling mounted, mounted to a wall, or recessed in a wall or other object.

[0030] It will be appreciated by persons skilled in the art that in situations when the device is used as an overhead menu board, it may be preferably attached to either a wall such as shown in Figs. 3 or 4 or a ceiling 14 such as shown in Figs. 5 and 6. In some instances, it is desired to attach the shroud to the wall or ceiling via an arm 15. The arm 15 may be any desired length and may be optionally adjustable in angle and/or length. As shown in Fig. 4, the arm may optionally incorporate additional ventilation means to allow the egress of air such as shown by reference numeral 9.

[0031] The device of the present invention may be constructed from a variety of materials which may be chosen depending upon climatic and environmental factors, etc for instance in some environments, the components may preferably be made of metal and/or plastics.

[0032] Whilst the present invention has been hereinbefore described with specific reference to an application as an overhead menu board in a fast food restaurant, it will be appreciated that there are other applications for such a device such as in any other retail environment. All such applications should be considered to be within the spirit and scope of the present invention.

[0033] Furthermore, whilst a specific embodiment of the device has been hereinbefore
described, it will be appreciated that numerous variations and modifications to the device may become apparent to persons skilled in the art. All such variations and modifications should be considered to fall within the spirit and scope of the invention as broadly hereinbefore described.
The claims defining the present invention are as follows:

1. A shroud adapted to substantially encase rear and peripheral edge portions of a display screen in a manner whereby an air gap is provided to permit ventilation of the rear portion of said display screen.

2. A shroud as claimed in claim 1, wherein said air gap is provided along at least part of lower and upper peripheral edges of said display screen.

3. A shroud as claimed in claims 1 or 2, wherein said screen is adapted to be retained within said shroud on a pivotal bracket.

4. A shroud as claimed in any one of claims 1 to 3, wherein said shroud is attached to a wall or ceiling via an arm, the arm being optionally adjustable in angle and/or length.

5. A shroud as claimed in any one of claims 1 to 3, wherein said shroud is substantially recessed in a wall or other cavity.