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Accident warning light

Abstract

An accident warning light includes a post assembly and a warning light assembly and is used to monitor a roadway for accidents. The post assembly is further comprised of a post base, a support post, and a post mount and is used to support the warning light assembly. The warning light assembly is further comprised of a top cap, an electrical slot, an angled lip, a strobe socket, a strobe bulb, a strobe lens, and at least one sensor. The divider further has at least one aperture to connect the warning light assembly to the post assembly.

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References Cited

U.S. PATENT DOCUMENTS

Patent No.	Issued Date	Patentee Name	U.S. Cl.	CPC
4042919	12/1976	Patty	362/186	G08B 5/36
5097612	12/1991	Williams	N/A	N/A
5276424	12/1993	Hegemann	N/A	N/A
6389720	12/2001	Hsieh	N/A	N/A
6409358	12/2001	Grover	N/A	N/A
6693556	12/2003	Jones et al.	N/A	N/A
7985004	12/2010	Schach	362/240	G08B 7/064
8733001	12/2013	Gallet	N/A	N/A
2004/0183694	12/2003	Bauer	340/933	G08G 1/095
2006/0012487	12/2005	Gibson	340/815.45	G08G 1/095
2009/0045933	12/2008	Smith	340/468	F21S 43/15
2009/0289790	12/2008	Issokson	340/552	G08B 25/008
2010/0109898	12/2009	Kensy	340/815.73	H05B 45/20
2016/0071413	12/2015	Jones	340/907	G08G 1/0955
2017/0042003	12/2016	Logvinov	N/A	G05B 19/0428

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Background/Summary

BACKGROUND

1. Field of the Invention

(1) The present invention relates generally to warning and traffic control systems used on roadways, and more specifically to a system of using accident warning lights to alert drivers of any upcoming accidents or any other adverse driving condition.

2. Description of Related Art

(2) When an accident occurs on a roadway, there is a chance that the initial accident will spread and involve additional drivers leading to a larger number of injuries or deaths. The chance of additional accidents occurring may also be further increased if there are already adverse driving conditions on the road such as poor visibility caused by the weather or if the roadways have blind spots caused by sharp turns or elevation changes. The speed that drivers are traveling at may also contribute to the increased chance of additional accidents occurring as most roadways allow drivers to drive at high speeds which makes sudden stops difficult and potentially dangerous. Typically, after an accident occurs, emergency services are dispatched to the scene of the accident to treat any injuries and direct traffic until the accident has been cleared away. However, it takes time for most emergency services personnel to arrive on scene and stop traffic, during which additional accidents may continue to occur. Even after emergency services arrive, the build up of traffic may still lead to more accidents depending on the road conditions if incoming drivers are not aware of the accident

ahead and are unable to stop in time.

(3) A need therefore exists for improvements in warning and traffic control systems. Although great strides have been made in traffic control systems, considerable shortcomings remain.

Description

DESCRIPTION OF THE DRAWINGS

(1) The novel features believed characteristic of the embodiments of the present application are set forth in the appended claims. However, the embodiments themselves, as well as a preferred mode of use, and further objectives and advantages thereof, will best be understood by reference to the following detailed description when read in conjunction with the accompanying drawings, wherein:

(2) FIG. 1 is a perspective view of the accident warning light according to the preferred embodiment of the present application;

(3) FIG. 2 is an exploded view of the accident warning light of FIG. 1;

(4) FIG. 3 is a perspective view of the post assembly from the accident warning light of FIG. 1;

(5) FIG. 4 is a perspective view of the post mount from the post assembly of FIG. 3;

(6) FIG. 5 is an exploded view of the warning light assembly from the accident warning light of FIG. 1;

(7) FIG. 6 is a perspective view of the divider from the warning light assembly of FIG. 5;

(8) FIG. 7 is a perspective view of a section of the warning light assembly of FIG. 5;

(9) FIG. 8 is a perspective view of the top cap from the warning light assembly of FIG. 5; and

(10) FIG. 9 is a perspective view of a section of the warning light assembly of FIG. 5.

(11) While the assembly of the accident warning light of the present application is susceptible to various modifications and alternative forms, specific embodiments thereof have been shown by way of example in the drawings and are herein described in detail. It should be understood, however, that the description herein of specific embodiments is not intended to limit the invention to the particular embodiment disclosed, but on the contrary, the intention is to cover all modifications, equivalents, combinations, and alternatives falling within the spirit and scope of the present application as defined by the appended claims.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

(12) Illustrative embodiments of the accident warning light are provided below. It will of course be appreciated that in the development of any actual embodiment, numerous implementation-specific decisions will be made to achieve the developer's specific goals, such as compliance with assembly-related and business-related constraints, which will vary from one implementation to another. Moreover, it will be appreciated that such a development effort might be complex and time-consuming, but would nevertheless be a routine undertaking for those of ordinary skill in the art having the benefit of this disclosure. It is also appreciated that the use of “a” or “an” before a noun naming an object is construed to be that the noun refers to both the singular and the plural.

(13) Referring now to FIGS. 1 and 2 in the drawings, a perspective and an exploded view of accident warning light **100** according to the preferred embodiment of the present application is depicted. As shown in the drawings, accident warning light **100** is comprised of post assembly **101**, warning light assembly **103**, support post **105**, post base **107**, top opening **109**, apertures **111**, access panel **113**, post mount **115**, mount insert **117**, mount base **119**, dividers **121a** and **121b**, electrical slot **123**, angled lip **125**, lens **127**, O-rings **129**, LED panels **131**, heat sinks **133**, top cap **135**, strobe lens **137**, lens base **139**, strobe socket **141**, strobe bulb **143**, sensor **145**, and fasteners **147**. In order to properly observe roadways for adverse driving conditions, accident warning lights **100** are preferably placed at designated intervals along the side of a roadway. Preferably, accident warning lights **100** are placed at consistent intervals to ensure that the entirety of the roadway is monitored, however, alternative embodiments may also exist where there may be greater distances

between warning lights **100**. In operation, accident warning lights **100** continuously monitor the flow of traffic to observe for any accidents which may occur or any other natural adverse driving conditions such as fog, flooding, ice, or any other adverse condition which could cause an accident. If an adverse driving condition or accident is detected, accident warning light **100** will automatically activate and begin flashing with lights to warn oncoming traffic. Accident warning lights **100** are preferably interconnected through a central server such that, if one warning light **100** detects adverse conditions, other warning lights **100** earlier along the road will also be sent a signal to activate to warn drivers about the adverse conditions ahead.

(14) Referring now also to FIG. 3 in the drawings, a perspective view of post assembly **101** of accident warning light **100** according to the preferred embodiment of the present application is depicted. Post assembly **101** is comprised of support post **105**, post base **107**, top opening **109**, apertures **111**, access panel **113**, post mount **115**, mount insert **117**, and mounting base **119** and is used to support warning light assembly **103**. The main length of post assembly **101** is formed by support post **105** which is generally square in shape, however, alternative embodiments may also exist where support post **105** is instead cylindrical, hexagonal, or any other shape. Support post **105** is preferably formed out of sturdy material capable of withstanding adverse weather conditions such as heavy winds and storms to prevent post assembly **101** from being knocked over. To secure post assembly **101** at a designated surface along the roadway, the bottom of support post **105** is positioned within post base **107** which is secured to the designated surface using fasteners **147**.

(15) Post base **107** is preferably square in shape and extends outwardly from support post **105** increasing the surface area that is in contact with the designated surface. While post base **107** is shown to have a square base in the present application, alternative embodiments may also exist where base **107** is circular, hexagonal, or any other shape, so long as base **107** has a significant surface area in contact with the designated surface. Post base **107** further a series of apertures **111** bored through the flat surface of base **107** to receive fasteners when securing accident warning light **100** to the designated surface. As accident warning light **100** is designed to monitor the flow of traffic on a roadway, the designated surface that warning light **100** is secured to is typically the side of the road where asphalt or concrete has already been poured. However, the designated surface may be any other stable surface adjacent to the road or the designated surface may be a surface poured specifically for supporting accident warning light **100**.

(16) As accident warning light **100** is used to alert drivers of accidents or other adverse driving conditions, it is preferred that support post **105** extend significantly upwards from post base **107** to ensure visibility for drivers. In the preferred embodiment, support post **105** extends upwards ten feet from post base **107** to ensure that most traffic will not block the view of accident warning light **100**. However, alternative embodiments may also exist where support post **105** extends further than ten feet from post base **107** in situations where a taller accident warning light **100** is needed such as with elevated roadways or bridges or where support post **105** extends less than ten feet when a shorter warning light **100** is desired. It is appreciated that when taller support posts **105** are used, warning light assembly **103** may also be scaled up proportionally with the height of post **105** to ensure visibility. While not shown in the drawings, it is also appreciated that alternative embodiments may also exist where instead of support post **105** extending upwards, post **105** may instead extend downwards or sideways if accident warning light **100** is installed within a tunnel or other enclosed environment. As enclosed environments severely limit the visibility of the roadways ahead of drivers, having accident warning lights **100** within these environments help warn drivers of upcoming accidents or adverse traffic conditions that otherwise might not be visible. It is further appreciated that alternative embodiments may also exist where support post **105** does not extend outwardly at a 90 degree angle relative to post base **107** and may instead protrude at any angle.

(17) As shown in FIG. 3 of the drawings, support post **105** is preferably hollow with a top opening **109** allowing for electrical components of accident warning light **100** to be stored within support post **105** and pulled up through opening **109** to connect to warning light assembly **103**. During

operation, accident warning light **100** may either receive electricity from an internal battery within support post **105** or accident warning light **100** may be connected to an external battery or power line. It is appreciated that if accident warning light **100** does receive electricity from an internal or external battery, warning light **100** may further be connected to solar panels for recharging the battery. Along with providing power to accident warning light **100**, the electrical components within support post **105** are also used to carry activation signals between the many components of warning light assembly **103** and access panel **113**. Access panel **113** is preferably positioned on the external surface of support post **105** and is connected to warning light assembly **103** through the internal electrical components allowing an individual to manually activate or deactivate warning light assembly **103** as needed. Being able to activate accident warning light **100** even if an accident is not detected would be beneficial during a parade or other large event which could cause significant traffic. To ensure that only the intended individuals be able to operate access panel **113**, access panel **113** is preferably covered allowing only authorized individuals such as emergency services or individuals repairing accident warning light **100** to use access panel **113**.

(18) Referring now to FIG. **4** in the drawings, a perspective view of post mount **115** of accident warning light **100** according to the preferred embodiment of the present application is depicted. Post mount **115** is comprised of mount insert **117** and mount base **119** and is used to secure warning light assembly **103** onto the top of post assembly **101**. Mount insert **117** is preferably square in shape and sized to be slightly smaller than support post **105**, such that mount insert **117** is securely received by top opening **109**. It is also appreciated that the shape of mount insert **117** may also be circular, hexagonal, or any other shape to match the shape of support post **105**. To retain mount insert **117** within support post **105**, mount insert **117** has a series of apertures **111** bored through the surface of mount insert **117** matching the size and position of apertures **111** bored along the top of support post **105**, such that fasteners **147** can be inserted through apertures **111** to secure insert **117** within the top of post **105**. Once mount insert **117** is secured within support post **105**, mount base **119** provides a surface for securing warning light assembly **103** onto post assembly **101**. Mount base **119** is a preferably flat square surface extending outwardly along the top edges of mount insert **117** and has a series of apertures **111** positioned along base **119** for receiving fasteners **147** to secure warning light assembly **103** onto base **119**. Like with post base **107**, alternative embodiments may also exist where the shape of mount base **119** may be circular, hexagonal, or any other shape so long as there is a large enough surface area to receive warning light assembly **103**.

(19) Referring now also to FIG. **5** in the drawings, an exploded view of warning light assembly **103** according to the preferred embodiment of the present application is depicted. As shown in FIG. **5**, warning light assembly **103** is comprised of dividers **121a** and **121b**, electrical slots **123**, angled lip **125**, lens **127**, O-rings **129**, LED panel **131**, heat sinks **133**, top cap **135**, strobe lens **137**, lens base **139**, strobe socket **141**, strobe bulb **143**, and sensor **145**. When assembling accident warning light **100**, warning light assembly **103** is preferably positioned at the top of post assembly **101** to ensure visibility for drivers below. However, alternative embodiments may also exist where warning light assembly **103** may be positioned at the bottom of post assembly **101** to function as a fog light or where accident warning light **100** has an additional light positioned at the bottom of post **101** to function as a fog light. Alternative embodiments may also exist where instead of only having one singular warning light assembly **103**, accident warning light **100** may have more than one light assembly **103** secured to post assembly **101**. Whenever an accident is detected by warning light assembly **103**, the lights within assembly **103** are activated and shine with designated colors to help manage the flow of traffic. As accident warning lights **100** are preferably interconnected, activation of one warning light **100** sends a signal through a central server to other warning lights **100** positioned earlier along the roadway to start alerting drivers of an upcoming accident or adverse conditions. It is also appreciated that along with contacting other accident warning lights **100**, activation of warning light **100** may also send a signal to emergency services that an accident has occurred so that the emergency services can quickly arrive on scene. Accident warning lights **100**

may further communicate with online map services to transfer information on where traffic is heavy or where accidents have occurred on the roadway.

(20) Referring now also to FIG. 6 in the drawings, a perspective view of a divider **121** from warning light assembly **103** according to the preferred embodiment of the present application is depicted. Each divider **121a** and **121b** within warning light assembly **103** is comprised of an electrical slot **123** and an angled lip **125** and are used to separate the different colored lights within light assembly **103** into different internal layers. In the preferred embodiment, dividers **121a** and **121b** are typically flat circular sections of material, however, alternative embodiments may also exist where dividers **121a** and **121b** are square, hexagonal, or any other shape so long as there is a large enough surface to receive the other components of warning light assembly **103**. As shown in FIG. 5, warning light assembly **103** is preferably comprised of two dividers **121a** and **121b** and an end cap **135** with lens **127** secured between dividers **121a** and **121b** and between divider **121b** and end cap **135** creating two internal layers within warning light assembly **103**. However, alternative embodiments may also exist where warning light assembly **103** may be comprised of more than two or less than two dividers **121**.

(21) To connect dividers **121a** and **121b** together and form warning light assembly **103**, dividers **121a** and **121b** have a series of apertures **111** bored through the surface of dividers **121a** and **121b** which are sized and positioned to match the size and positioning of apertures **111** bored through mount base **119**. Once the apertures **111** within mount base **119** and dividers **121a** and **121b** are aligned, fasteners **147** can be inserted through apertures **111** securing warning light assembly **103** onto base **119** along with connecting dividers **121a** and **121b** together. Along with having apertures **111** bored through the surface of dividers **121a** and **121b**, each divider **121** further has electronic slot **123** bored through the center of dividers **121a** and **121b** for receiving the electrical components from post assembly **101**. Electronic slot **123** is preferably circular in shape and allows the electrical components within post assembly **101** be pulled up through dividers **121a** and **121b** to provide power to and interconnect the components of warning light assembly **103**. Alternative embodiments may also exist where electronic slot **123** may be square, hexagonal or any other shape when disposed through dividers **121a** and **121b**, so long as the electrical components can be pulled through slot **123**.

(22) While the surface of dividers **121a** and **121b** are preferably flat, the external edge of dividers **121a** and **121b** is preferably angled down to form angled lip **125**. As previously shown in the drawings, lens **127** does not have the same external radius as dividers **121a** and **121b** and when lens **127** is secured between dividers **121a** and **121b**, there is a length of material between the external circumference of lens **127** and the external circumference of dividers **121a** and **121b** that is uncovered. If the length between the external circumference of lens **127** and the external circumference of dividers **121a** and **121b** was planar, then liquid would be able to pool and potentially seep underneath lens **127** and damage the internal electronics of accident warning light **100**. As such, the length of dividers **121a** and **121b** beyond lens **127** is angled downward to form angled lip **125** which prevents water or other liquids from building up and potentially seeping underneath lens **127** to damage the electronics within. While angled lip **125** is shown with a slight incline in the present application, alternative embodiments may also exist where lip **125** instead extends at a sharper downward incline. Alternative embodiments may also exist where the length of angled lip **125** may be shorter or longer depending upon the external circumference of lens **127** used in warning light assembly **103**.

(23) Referring now also to FIG. 7 in the drawings, a perspective view of an internal layer of warning light assembly **103** according to the preferred embodiment of the present application is depicted. Warning light assembly **103** preferably has two internal layers formed between dividers **121a** and **121b** with each layer housing a lens **127**, O-rings **129**, LED panels **131**, and heat sinks **133** used when accident warning light **100** is activated. As shown in the drawings, lens **127** are preferably cylindrical sections of material positioned between dividers **121a** and **121b** and are used

to cover the electrical components within warning light assembly **103**. In the preferred embodiment, lens **127** are formed out of a sturdy plastic that is strong enough to withstand the forces of nature, but which are still transparent to let light from LED panels **131** shine through. However, it is also appreciated that alternative embodiments may also exist where lens **127** are instead formed from glass or any other transparent material, so long as the material is capable of withstanding the forces of nature without breaking. Preferably, the material used for lens **127** is a clear material, such that only the color of LED panels **131** will shine from warning light assembly **103**. However, alternative embodiments may also exist where colored lens **127** may be used to adjust the colors shining from LED panels **131**. In the preferred embodiment, lens **127** are secured within warning light assembly **103** through the pressure of dividers **121a** and **121b** pressing against lens **127** when fasteners **147** are used to connect light assembly **103** to post assembly **101**. However, it is also appreciated that alternative embodiments may also exist where additional fasteners or adhesives may be used to secure lens **127** between dividers **121a** and **121b**. When securing lens **127** in place between dividers **121a** and **121b**, O-rings **129** are used to seal the space between lens **127** and dividers **121a** and **121b** and top cap **135**. O-rings **129** are preferably formed from a gasket material and are used to prevent any liquid from seeping underneath lens **127** to damage the internal electronics.

(24) Along with having lens **127** positioned between dividers **121a** and **121b**, warning light assembly **103** further has LED panels **131** and heat sinks **133** secured between dividers **121a** and **121b** and end cap **135**. As shown, LED panels **131** are typically two arched shaped light panels positioned behind lens **127** and are connected to the electrical components within post assembly **101** to receive power and activation signals from sensor **145**. In the preferred embodiment, LED panels **131** may either give off green or red light depending on which layer of warning light assembly **103** panels **131** are positioned. LED panels **131** positioned between dividers **121a** and **121b** preferably shine with a red light while panels **131** positioned between divider **121b** and end cap **135** preferably shine with a green light. However, the colored light given off by each LED panel **131** may vary with the position of the red and green lights being interchangeable or panels **131** may shine with colors other than red or green. Connected to the back of each LED panel **131**, either through adhesives or other fastening methods, are heatsinks **133**. Using electricity to power LED panels **131** generates heat which could damage the electrical components within warning light assembly **103** if the heat is not properly vented. Heat sinks **133** have a series of fins protruding outwardly from LED panels **131** towards electrical slot **123** to increase the surface area that is exposed to the air and increase the heat exchange within warning light assembly **103** so that LED panels **131** do not overheat. Heat sinks **133** further have apertures **111** extending through the full height of sinks **133** which are sized and positioned to receive fasteners **147** connecting dividers **121a** and **121b** and end cap **135** together, such that fasteners **147** also secure LED panels **131** and heatsinks **133** in place within warning light assembly **103**.

(25) Referring now also to FIG. **8** in the drawings, a perspective view of end cap **135** of warning light assembly **103** according to the preferred embodiment of the present application is depicted. End cap **135** has similar components as dividers **121a** and **121b** having an electrical slot **123** bored through the center and a series of apertures **111** positioned around electrical slot **123** to match apertures in dividers **121a** and **121b** to receive fasteners **145** when forming warning light assembly **103**. Where end cap **135** differs from dividers **121a** and **121b** is that instead of end cap **135** having an angled lip **125** around the external circumference, the thickness of end cap **135** is instead variable with the thickness of end cap **135** increasing towards the center of end cap **135**. As such, the bottom surface of end cap **135** is preferably planar while the height of end cap **135** steadily increases towards the center of end cap **135** until leveling out, such that end cap **135** is shaped as a flat top cone with a planar top for receiving strobe lens **137**. This increase in thickness creates a long, slanted portion along the circumference of end cap **135** instead of using an angled lip **125** to prevent liquid from pooling on end cap **135**. As shown in the drawings, strobe lens **137** has a

smaller external radius than lens **127** and if an angled lip **125** was used for end cap **135**, water and other liquids would still be able to pool on top of end cap **135**. The sloped surface prevents that as the top surface of end cap **135** is sized to fit strobe lens **137** with the rest of the surface being sloped to prevent liquid build up.

(26) Referring now also to FIG. **9** in the drawings, a perspective view of a section of warning light assembly **103** according to the preferred embodiment of the present application is depicted. Along with having lens **127** positioned between dividers **121a** and **121b** and between divider **121b** and end cap **135**, warning light assembly **103** further has strobe lens **137** positioned on the top of end cap **135** which is used to house strobe bulb **143** and sensor **145**. Strobe lens **137** is preferably formed out of the same materials as lens **127** but instead of being a cylindrical lens without a top or bottom surface, strobe lens **137** is closed on top and has lens base **139** extending outwardly along the external circumference of lens **137**. As shown in the drawings, lens base **139** is preferably square in shape and extends outwardly from the edges of strobe lens **137** over end cap **135** to increase the surface area in contact between lens **137** and end cap **135**. It is also appreciated that alternative embodiments may also exist where instead of lens base **139** being square, base **139** may be circular, hexagonal, or any other shape so long as base **139** has sufficient surface area in contact with end cap **135**. To secure strobe lens **137** onto end cap **135**, lens base **139** has a series of apertures **111** bored through base **139** that are sized and positioned to match apertures **111** in end cap **135**, such that fasteners **147** used to secure dividers **121a** and **121b** and end cap **135** together will also secure lens base **139** to end cap **135**.

(27) When strobe lens **137** is secured to end cap **135**, electronic slot **123** is preferably centered within lens **137** and is used to receive strobe socket **141** and strobe bulb **143**. Strobe socket **141** is selectively sized to be secured within electronic slot **123** and functions as a conduit to connect to the electrical components within warning light assembly **103** when positioned within slot **123**. Once strobe socket **141** is in place within electronic slot **123**, strobe bulb **143** can be secured within socket **141** to receive power and any activation signals from the internal electrical components. Strobe bulb **143** is preferably an upright light bulb designed to pulse with light when powered on to alert passing drivers of upcoming adverse road conditions. In the preferred embodiment, strobe bulb **143** is an amber bulb which pulses with a yellow light when activated, however, alternative embodiments may also exist where instead of being an amber bulb, strobe bulb **143** may be any other color of light. It is further appreciated that while strobe bulb **143** is described as a pulsing light while activated, alternative embodiments may also exist where instead of strobe bulb **143** flashing with light, strobe bulb **143** may instead shines with a consistent light.

(28) Along with having strobe bulb **143** positioned within strobe lens **137**, warning light assembly **103** further has sensor **145** positioned within lens **137** and connected to the internal electrical components. While sensor **145** is shown to be secured within strobe lens **137** in the present application, alternative embodiments may also exist where sensor **145** may instead be secured onto an external surface of accident warning light **100**, such as beneath divider **121a**, on support post **105**, or any other surface of warning light **100** so long as sensor **145** maintains connection with the internal electronics and the roadway is still visible. In the preferred embodiment, sensor **145** is a visual sensor designed to monitor the flow of traffic and detect any accidents or adverse driving conditions on the roadway. When monitoring for an accident, an accident may be detected when sensor **145** visually confirms that cars are significantly out of the designated road lanes, when cars have impacted with other cars or surfaces, or any other visual indication that a car accident has occurred. Along with visual monitoring, sensor **145** may further include audio sensors to help determine if an accident has occurred through monitoring for any loud sounds typically associated with car crashes such as tires screeching, impact sounds, or any other sound which may indicate an accident. It is also appreciated that sensor **145** may further incorporate an infrared sensor that automatically turns on when visibility is limited such as with fog or heavy rain. Whenever sensors **145** detect an accident or where visibility is limited, sensors **145** generate and send signals through

the electrical components in accident warning light **100** to activate the lights within warning light assembly **103** along with sending signals to a central server to activate other warning lights **100**. It is further appreciated that while a singular sensor **145** is shown in the present application, alternative embodiments may also exist where warning light assembly **103** may have more than one sensor **145**.

(29) During operation, sensor **145** continuously monitors a section of the roadway to detect any accidents or adverse driving conditions that might be present. Once an accident or adverse driving condition is detected, sensor **145** generates and sends signal through the internal electronics to begin providing power to strobe bulb **143** such that bulb **143** will start indicating to drivers to begin slowing down. Along with generating a signal to activate strobe bulb **143**, additional signals may be generated and sent to the central network connecting accident warning lights **100** together. The central network may then further relay these signals to emergency services and to accident warning lights **100** positioned earlier along the road. Depending on the size and seriousness of the accident, additional signals may be generated either at accident warning light **100** or the central network, to activate the red LED panels **131** to signal to the drivers to stop driving. Stopping traffic would allow for emergency services to access any of the drivers caught in the accident and begin emergency treatment or rescue operations without having to worry about directing traffic. Once the accident has been cleared away, a signal can then be generated to activate the green LED panels **131** to signal to drivers that the roads are clear and that it is safe to begin driving again.

(30) While not shown in the drawings, it is also appreciated that alternative embodiments may also exist where accident warning lights **100** may be further connected to an external roadway sign to help direct traffic. Roadway signs are typically temporary signs used by emergency services or construction crews to alert oncoming traffic about any adverse conditions in the roads ahead. Digital signs are typically used for these roadway signs allowing for various messages to be displayed and adjusted as needed. In this alternative embodiment, accident warning light **100** is connected to the roadway sign and whenever warning light **100** is activated, a signal can be generated and sent to the roadway sign to display a preprogrammed message. These messages may preferably be personalized depending on the color light that is turned on or the distance from the accident warning light **100** that is activated. For example, if strobe bulb **143** is activated, a message directing drivers to begin slowing down could be programmed to appear on the roadway sign while if the red LED panels **131** are activated, a message directing traffic to stop may be displayed instead. These messages may be adjusted and updated in real time either directly at the roadway sign or through the central server connected to accident warning lights **100**.

(31) It is apparent that an assembly with significant advantages has been described and illustrated. The particular embodiments disclosed above are illustrative only, as the embodiments may be modified and practiced in different but equivalent manners apparent to those skilled in the art having the benefit of the teachings herein. It is therefore evident that the particular embodiments disclosed above may be altered or modified, and all such variations are considered within the scope and spirit of the application. Accordingly, the protection sought herein is as set forth in the description. Although the present embodiments are shown above, they are not limited to just these embodiments, but are amenable to various changes and modifications without departing from the spirit thereof.

Claims

1. An accident warning light, comprising: a post assembly, comprising: a post base; a support post extending outwardly from the post base; and a post mount coupled the support post; and a warning light assembly, comprising: a top cap; an electrical slot disposed through the top cap; at least one aperture disposed through the top cap, the at least one aperture being configured to receive a fastener to secure the top cap onto the post mount; a strobe socket selectively sized to be retained

within the electrical slot; a strobe bulb conductively coupled to the strobe socket; a strobe lens connected to a top surface of the top cap, the strobe lens being configured to cover the strobe bulb; and at least one sensor for monitoring a roadway, the at least one sensor being conductively coupled to the strobe bulb, such that the at least one sensor activates the strobe bulb when an accident or any other adverse condition is detected.

2. The accident warning light according to claim 1, wherein the post assembly further comprises: at least one aperture disposed through the post base, the at least one aperture being configured to receive a fastener to secure the post base to a designated surface.

3. The accident warning light according to claim 1, wherein the support post extends outwardly from the post base at a ninety-degree angle relative to the post base.

4. The accident warning light according to claim 1, wherein the support post extends outwardly from the post base at an acute angle relative to the post base.

5. The accident warning light according to claim 1, wherein the post assembly further comprises: an access panel connected to an external surface of the support post, the access panel being conductively coupled to the strobe bulb, such that the access panel can be used to manually activate or deactivate the strobe bulb.

6. The accident warning light according to claim 1, wherein the post mount comprises: a mount insert selectively sized to be received within a top opening of the support post; a mount base extending outwardly along a top edge of the mount insert, the mount base being configured to receive the warning light assembly; and at least one aperture disposed through the mount base, the at least one aperture being configured to receive a fastener to secure the warning light assembly onto the mount base.

7. The accident warning light according to claim 1, wherein the thickness of the top cap is variable, such that the thickness of the top cap increases towards a center of the top cap until leveling out creating a planar top surface.

8. The accident warning light according to claim 1, wherein the warning light assembly further comprises: a divider; an electrical slot disposed through the divider; an angled lip disposed along an outer edge of the divider, the angled lip being oriented at a downward angle; and at least one aperture disposed through the at least one divider, the at least one aperture being configured to receive a fastener to secure the divider to the top cap.

9. The accident warning light according to claim 8, wherein the warning light assembly further comprises: at least one LED panel disposed between the top cap and the divider, the at least one LED panel being conductively coupled to the sensor, such that the at least one sensor activates the at least one LED panel when an accident or any other adverse condition is detected.

10. The accident warning light according to claim 9, wherein the warning light assembly further comprises: a lens disposed between the top cap and the divider, the lens being configured to protect the at least one LED panel.

11. The accident warning light according to claim 1, wherein the warning light assembly further comprises: at least one additional divider; an electrical slot disposed through the at least one additional divider; an angled lip disposed along an outer edge of the at least one additional divider, the angled lip being oriented at a downward angle; and at least one aperture disposed through the at least one additional divider, the at least one aperture being configured to receive a fastener to secure the at least one additional divider to the divider.

12. The accident warning light according to claim 11, wherein the warning light assembly further comprises: at least one LED panel disposed between the divider and the least one additional divider, the at least one LED panel being conductively coupled to the sensor, such that the at least one sensor activates the at least one LED panel when an accident or any other adverse condition is detected.

13. The accident warning light according to claim 12, wherein the warning light assembly further comprises: a lens disposed between the divider and the at least one additional divider, the lens

being configured to protect the at least one LED panel.

14. The accident warning light according to claim 1, further comprising: a central server for connecting the accident warning light to at least one additional accident warning light.

15. The accident warning light according to claim 14, wherein activation of one accident warning light sends a signal through the central server to activate the at least one additional accident warning light.

16. The accident warning light of claim 14, wherein activation of the accident warning light sends a signal over the central server to emergency services.

17. The accident warning light of claim 1, wherein the at least one sensor is an audio sensor.

18. The accident warning light of claim 1, wherein the at least one sensor is a visual sensor.

19. The accident warning light of claim 1, wherein the at least one sensor is an infrared sensor.
