

PRODUCT MANUAL INSTALLATION INSTRUCTIONS

AUTO DIPPER SYSTEM



Overview

The Auto-Dipper System is an advanced electronic device designed to enhance road safety and driving comfort by automatically controlling vehicle headlight beams. The system seamlessly switches the headlights to dipper mode (low beam) when it detects the sharp high-beam light from an approaching vehicle. Once the vehicle passes, the headlights are restored to the original high-beam position within a few seconds, eliminating the need for manual intervention.

Key Features

Automatic Operation:

Consists of a sensor unit and a control unit.

The sensor detects the high beam light from oncoming vehicles.

The control unit processes the signal and switches the headlamp from high beam to low beam.

Once the vehicle has passed, the headlamp beam automatically restores to high beam within 2 seconds.

Adjustable Sensitivity:

The system allows for light sensitivity adjustment, enabling users to set the operational distance up to 150 meters based on road and visibility conditions.

Ease of Installation:

Lightweight and easy to install without modifying or disturbing the vehicle's existing manual headlight control arrangement.

Key Features

Compatibility:

Operates on 24V DC vehicle battery voltage (standard for heavy vehicles).

An optional 12V DC version is available on special order, ensuring compatibility with a wide range of vehicles.

Enhanced Safety and Comfort:

Reduces driver fatigue caused by manual headlight switching.

Improves night driving safety by preventing the blinding glare from high-beam headlights of oncoming vehicles.

Durability and Protection:

Designed to withstand shocks and vibrations from heavy vehicles.

Features fire-retardant conduit pipes for safe and secure wiring harness installation.

Technical Specifications

Parameter

Details

Function

Automatic dipping and restoring of headlight beams

Operating Voltage

24V DC (Optional 12V DC available upon request)

Timer

Light beam restored within 2 seconds

Current Capacity

30 Amp for headlamp operation

Sensitivity Range

Adjustable up to 150 meters

Protection

Shock-resistant, vibration-resistant, and fire-safe

Color

Black

Applications

The Auto-Dipper System is ideal for:

Heavy commercial vehicles such as trucks and buses.

Passenger vehicles operating in poorly lit or rural areas.

Any vehicle requiring advanced headlight automation for safer night driving.

Advantages

Safety Improvement: Prevents accidents caused by high-beam glare, enhancing safety for drivers, passengers, and pedestrians.

Reduced Driver Fatigue: Eliminates the need for constant manual headlight switching, making long-distance driving more comfortable.

Energy Efficiency: Smart automation ensures headlights are used optimally without unnecessary high-beam operation.

Reliability: Built to withstand harsh road conditions, ensuring long-lasting and reliable performance.



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