

pathBlazer™

HEAD LIGHT MODULATOR



FACTORY LED PLUG-IN MODULATORS

INSTALLATION GUIDE

HEAD LIGHT MODULATORS ARE LEGAL

- in all of United States & Canada.

Below is a partial reprint of the Federal Standard 108, which makes modulators legal. No state can usurp Federal Authority, and therefore local Law Enforcement cannot issue citations for the use of modulators in their jurisdiction and expect to prevail in any Court of Law.

Department of Transportation
National Highway Traffic Safety Administration
Federal Motor Vehicle Safety Standards
49 CFR Parts 571
[Docket No. 97-57; Notice 1] Executive Order 12866

Motorcycle Headlamp Modulation System

s7.9.1 A headlamp on a motorcycle may be wired to either the upper or the lower beam from its maximum intensity to a lesser intensity provided that:

- (a) The rate of modulation shall be 240 +/- 40 cycles per minute.
- (b) The headlamp shall be operated at maximum power for 50 to 70 percent of each cycle
- (c) The lowest intensity at any test point shall be not less than 17% of the maximum intensity measured at the same point.
- (d) The modulator switch shall be wired in the power feed of the beam filament being modulated and not in the ground-side of the circuit.
- (e) Means shall be provided so that both the lower beam and the upper beam remain operable in the event of a modulator failure.
- (f) The system shall include a sensor mounted with the axis of its sensing element perpendicular to the horizontal plane. Headlamp modulation shall cease whenever the level of light . . . less than 270 lux.

USA

Department of Transportation
National Highway Traffic Safety Administration
Federal Motor Vehicle Safety Standards

CANADA

Transport Canada
Motor Vehicle Standards and Research Branch
Road Safety Motor Vehicle Regulation Directorate



Plug-in products for factory OEM headlights

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P115W-H3-AF2:

Plug & Play

SPECIAL VERSION unit:

This unit has matched connectors for the 2-pin socket of Honda CRF-1000L Africa Twin LED headlights. It plugs inline with bike's wiring.



P115W-H3-AF2

IN-LINE PLUG ADAPTERS



DAYLIGHT SENSOR



SN-2

P115W-H3-AF2 *pathBlazer* application:

- Factory LED Head Lights – 2-pin plug
- Modulates in **HIGH-BEAM**, when selected in daytime
- Maximum load does not exceed 75W (14.5 v)
- Waterproof unit is compact and is mounted externally

- This is a special unit is designed to drive LED bulbs.
- The adapters plug between the 2-pin connector of the bike's wiring.

P115W-H3-AF2 INSTALLATION:



- ❶ Access to the 2-pin plug of the LED headlights is under the left handlebar assembly. Remove the left fairing side panel to get to the mounting screw.
Note! Removal of this side panel is required during maintenance for the routine change of left air filter as well.
- ❷ With handlebar assembly moved aside, you will see (2) plugs - White and Black. White 2-pin plug is for the hi-beam of the LED headlights.
- ❸ Now you can unplug the original 2-pin connector and install male/female connectors of **pathBlazer** in-line.

- Mate all connectors fully so they are latched
- Use the zip-tie to secure any loose wires and socket/plugs

The Daylight Sensor can be flush mounted or you can zip-tie it. Refer to the Instructions on following pages for:

- Choosing appropriate location for mounting the Daylight Sensor
- Programming Sensitivity Levels

The Daylight Sensor must be plugged-in for the **pathBlazer** to modulate. This is in accordance with the Sec108 requirement of the Federal DOT Standard.

P115W-H3-CB8:

Plug & Play

SPECIAL VERSION unit:

This unit has matched connectors for the 8-pin socket of newer Honda CB1100 and CB1000 models with factory LED headlight. It plugs in-line with bikes wiring.

IN-LINE PLUG ADAPTERS



P115W-H3-CB8



P115W-H3-CB8 *pathBlazer* application:

- Factory LED Head Lights – 8-pin plug
- Modulates in **HIGH-BEAM**, when selected in daytime
- Maximum load does not exceed 75W (14.5 v)
- Waterproof unit is compact and is mounted externally

- This is a special unit is designed to drive LED bulbs.
- The adapters plug between the 8-pin connector of the bike's wiring.

P115W-H3-CB8 INSTALLATION:



P115W-H3-CB8 has matching 8-pin plug and socket for the LED headlight of CB1100 & CB1000 models.

- ➊ Gain access to the back of the LED headlight and remove the plug.
- ➋ Install male/female connectors of *pathBlazer* in-line.

- Mate all connectors fully so they are latched
- Use the zip-tie to secure any loose wires and socket/plugs

The Daylight Sensor can be flush mounted or you can zip-tie it. Refer to the Instructions on following pages for:

- Choosing appropriate location for mounting the Daylight Sensor
- Programming Sensitivity Levels

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P115W-H3-CB12:

Plug & Play

SPECIAL VERSION unit:

This unit has matching connectors for LED headlights of Honda CB500F. It plugs in-line with bikes wiring.

IN-LINE PLUG ADAPTERS



12-pin plug



P115W-H3-CB12



SN-2

P115W-H3-CB12 *pathBlazer* application:

- Factory LED Head Lights – 12-pin plug
- Modulates in **HIGH-BEAM**, when selected in daytime
- Maximum load does not exceed 75W (14.5 v)
- Waterproof unit is compact and is mounted externally

- This is a special unit is designed to drive LED bulbs.
- The adapters plug between the 12-pin connector of the bike's wiring.

P115W-H3-CB12 INSTALLATION:



Sub-harness for the LED headlight is located just below it. Remove the side panel and reach from below the headlight assembly to locate the 12-pin plug.

- ➊ Gain access to the back of the LED headlight and remove the plug.
- ➋ Install male/female connectors of *pathBlazer* in-line.

- Mate all connectors fully so they are latched
- Use the zip-tie to secure any loose wires and socket/plugs

The Daylight Sensor can be flush mounted or you can zip-tie it. Refer to the Instructions on following pages for:

- Choosing appropriate location for mounting the Daylight Sensor
- Programming Sensitivity Levels

The Daylight Sensor must be plugged-in for the *pathBlazer* to modulate. This is in accordance with the Sec108 requirement of the Federal DOT Standard.

P115W-H3-FJ04:

Plug & Play

SPECIAL VERSION unit:

This is a special version unit with 4-pin connectors for the LED headlight controller of the Yamaha FJ09 2015 & newer models.

IN-LINE PLUG ADAPTERS



P115W-H3-FJ4



P115W-H3-FJ04 *pathBlazer* application:

- Factory LED Head Light Controller - 4-pin plug
- Modulates in **HIGH-BEAM**, when selected in daytime
- Maximum load does not exceed 75W (14.5 v)
- Waterproof unit is compact and is mounted externally

- This is a special unit is designed to drive LED bulbs.
- The adapters plug between the 4-pin connector of the bike's wiring.

P115W-H3-FJ04 INSTALLATION:



LED headlight controller is mounted on the bottom of of the headlight assembly as shown in the picture. Locate the 4-pin connector to plug the *pathBlazer* in-line.

- 1 Unplug the 4-pin connector from the controller
- 2 Install male/female connectors of *pathBlazer* in-line.

- Mate all connectors fully so they are latched
- Use the zip-tie to secure any loose wires and socket/plugs

The Daylight Sensor can be flush mounted or you can zip-tie it. Refer to the Instructions on following pages for:

- Choosing appropriate location for mounting the Daylight Sensor
- Programming Sensitivity Levels

The Daylight Sensor must be plugged-in for the *pathBlazer* to modulate. This is in accordance with the Sec108 requirement of the Federal DOT Standard.

P115W-H3-GL8:

SPECIAL VERSION unit:

This unit has matched connectors for the 8-pin socket of newer GL1800 models with factory LED headlamp. It plugs inline with bikes wiring.

IN-LINE PLUG ADAPTERS



Plug & Play



P115W-H3-GL8

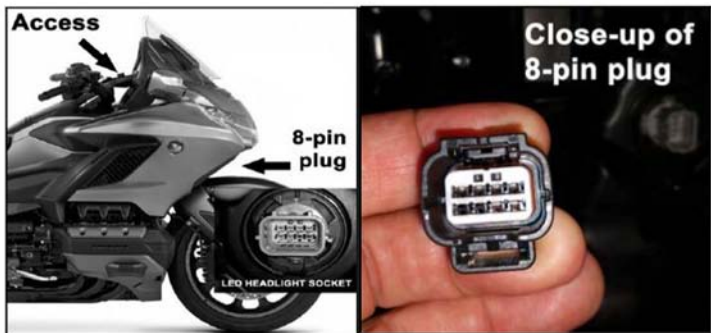


P115W-H3-GL8 *pathBlazer* application:

- Factory LED Head Lights – 8-pin plug
- Modulates in **HIGH-BEAM**, when selected in daytime
- Maximum load does not exceed 75W (14.5 v)
- Waterproof unit is compact and is mounted externally

- This is a special unit is designed to drive LED bulbs.
- The adapters plug between the 8-pin connector of the bike's wiring.

P115W-H3-GL8 INSTALLATION:



P115W-H3-GL8 has matching 8-pin plug and socket for the LED headlights.

- 1 Gain access to the back of the LED headlight by reaching under the dash, in front of handlebar. Headlight socket is as shown.
- 2 Install male/female connectors of *pathBlazer* in-line.

- Mate all connectors fully so they are latched
- Use the zip-tie to secure any loose wires and socket/plugs

The Daylight Sensor can be flush mounted or you can zip-tie it. Refer to the Instructions on following pages for:

- Choosing appropriate location for mounting the Daylight Sensor
- Programming Sensitivity Levels

The Daylight Sensor must be plugged-in for the *pathBlazer* to modulate. This is in accordance with the Sec108 requirement of the Federal DOT Standard.

P115W-H3-HD4:

Plug & Play

SPECIAL VERSION unit:

This unit has matched connectors for the 4-pin socket of newer Harley models with factory DayMaker LED headlamp. It plugs inline with bikes wiring.



P115W-H3-HD4

IN-LINE PLUG ADAPTERS



P115W-H3-HD4 *pathBlazer* application:

- Factory LED Head Lights – 4-pin plug
- Modulates in **HIGH-BEAM**, when selected in daytime
- Maximum load does not exceed 75W (14.5 v)
- Waterproof unit is compact and is mounted externally

- This is a special unit is designed to drive LED bulbs.
- The adapters plug between the 4-pin connector of the bike's wiring.

P115W-H3-HD4 INSTALLATION:



- ❶ To gain access to back of SINGLE LED headlight, remove trim ring
- ❷ For DUAL LED headlights, remove trim and loosen mounting screws to bring the headlight assembly forward
- ❸ Now you can unplug the original 4-pin connector and install male/female connectors of *pathBlazer* in-line

Note! On older models with dual DayMaker LED headlights there may be (2) 4-pin plugs - located on the outboard side.

- Mate all connectors fully so they are latched
- Use the zip-tie to secure any loose wires and socket/plugs

The Daylight Sensor can be flush mounted or you can zip-tie it. Refer to the Instructions on following pages for:

- Choosing appropriate location for mounting the Daylight Sensor
- Programming Sensitivity Levels

The Daylight Sensor must be plugged-in for the *pathBlazer* to modulate. This is in accordance with the Sec108 requirement of the Federal DOT Standard.

P115W-H3-VK4:

Plug & Play

SPECIAL VERSION unit:

This unit has matched connectors for the 4-pin socket of newer Valkyrie models with factory LED headlamp. It plugs inline with bikes wiring.

IN-LINE PLUG ADAPTERS



P115W-H3-VK4



P115W-H3-WK4 *pathBlazer* application:

- Factory LED Head Lights – 4-pin plug
- Modulates in **HIGH-BEAM**, when selected in daytime
- Maximum load does not exceed 75W (14.5 v)
- Waterproof unit is compact and is mounted externally

- This is a special unit is designed to drive LED bulbs.
- The adapters plug between the 4-pin connector of the bike's wiring.

P115W-H3-VK4 INSTALLATION:



P115W-H3-WK4 has matching 4-pin plug and socket for the Valkyrie LED headlights.

- ➊ Gain access to the back of the LED headlight and remove the plug.
- ➋ Install male/female connectors of **pathBlazer** in-line.

- Mate all connectors fully so they are latched
- Use the zip-tie to secure any loose wires and socket/plugs

The Daylight Sensor can be flush mounted or you can zip-tie it. Refer to the Instructions on following pages for:

- Choosing appropriate location for mounting the Daylight Sensor
- Programming Sensitivity Levels

The Daylight Sensor must be plugged-in for the **pathBlazer** to modulate. This is in accordance with the Sec108 requirement of the Federal DOT Standard.

P115W-H3-ZH4:

SPECIAL VERSION unit:

CAN-bus compatible for factory LED headlamps or incandescent bulbs - the 3-pin H4 style plug fits both.

IN-LINE PLUG ADAPTERS



Plug & Play



P115W-H3-ZH4

3-pin PLUG



SENSOR PLUG



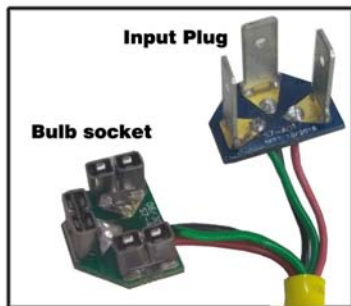
SN-2

P115W-H3-ZH4 *pathBlazer* application:

- Factory LED or incandescent headlamps - 3pin plug
- Modulates in **HIGH-BEAM**, when selected in daytime
- Maximum load does not exceed 75W (14.5 v)
- Waterproof unit is compact and is mounted inside the headlight bucket

- This is a special unit is designed to drive H4 style bulbs.
- The adapters plug between the 3-pin connector of the bike's wiring.

P115W-H3-ZH4 INSTALLATION:



Select CAN-bus option for incandescent headlights. Most factory LED headlights do not require this option.

P115W-H3-ZH4 has the matching 3-pin plug to fit the LED headlights or the incandescent headlights.

- ➊ Gain access to the back of the headlight and remove the plug.
- ➋ Install male/female connectors of *pathBlazer* in-line.

- Mate all connectors fully so they are latched
- Use the zip-tie to secure any loose wires and socket/plugs

The Daylight Sensor can be flush mounted or you can zip-tie it. Refer to the Instructions on following pages for:

- Choosing appropriate location for mounting the Daylight Sensor
- Programming Sensitivity Levels

The Daylight Sensor must be plugged-in for the *pathBlazer* to modulate. This is in accordance with the Sec108 requirement of the Federal DOT Standard.

P115W-H3-ZR4:

SPECIAL VERSION unit:

This unit has matched connectors for the 4-pin socket of Kawasaki Z900RS factory LED headlamp. It plugs in-line with bikes wiring.

IN-LINE PLUG ADAPTERS



Plug & Play



4-pin plug



P115W-H3-ZR4



SN-2

P115W-H3-ZR4 *pathBlazer* application:

- Factory LED Head Lights – 4-pin plug
- Modulates in **HIGH-BEAM**, when selected in daytime
- Maximum load does not exceed 75W (14.5 v)
- Waterproof unit is compact and is mounted externally

- This is a special unit is designed to drive LED bulbs.
- The adapters plug between the 4-pin connector of the bike's wiring.

P115W-H3-ZR4 INSTALLATION:



P115W-H3-ZR4 matching connectors for 4-pin plug of Z900RS factory LED headlight.

- ➊ Gain access to the back of the LED headlight and remove the plug.
- ➋ Install male/female connectors of *pathBlazer* in-line.

- Mate all connectors fully so they are latched
- Use the zip-tie to secure any loose wires and socket/plugs

The Daylight Sensor can be flush mounted or you can zip-tie it. Refer to the Instructions on following pages for:

- Choosing appropriate location for mounting the Daylight Sensor
- Programming Sensitivity Levels

The Daylight Sensor must be plugged-in for the *pathBlazer* to modulate. This is in accordance with the Sec108 requirement of the Federal DOT Standard.

P115W-T4-CanAm:

SPECIAL VERSION unit:

This is a special unit for shutter actuated Hi-beam. It has matching 5-pin plugs for both LED headlamps of newer CanAm bikes. It installs inline with bike's wiring.

IN-LINE PLUG ADAPTERS



Plug & Play



P115W-T4-CanAm

DAYLIGHT SENSOR



P115W-T4-CanAm: *pathBlazer* application:

- Factory LED Head Lights – 5-pin plugs
- Modulates in **HIGH-BEAM**, when selected in daytime
- Maximum load does not exceed 75W (14.5 v)
- Waterproof unit is compact and is mounted externally

- This is a special unit is designed to drive LED bulbs.
- The adapters plug between the 5-pin connector of the bike's wiring.

P115W-T4-CanAM INSTALLATION:



❶ Access panel shown needs to be removed. Mirror, deflector and side panels on BOTH SIDES must be removed for this.

❷ Once removed, you can reach behind RIGHT and LEFT side

headlights and unplug the 5-pin connectors.

❸ Feed the LEFT side plug and route the RIGHT side plug of the *pathBlazer* as shown. And connect then inline with 5-pin plug of bike.

❹ Mount the *pathBlazer* as shown and make sure the wires are free and clear and cannot be pinched with access panel installed back.

The Daylight Sensor can be flush mounted or you can zip-tie it. Refer to the Instructions on following pages for:

- Choosing appropriate location for mounting the Daylight Sensor
- Programming Sensitivity Levels

The Daylight Sensor must be plugged-in for the *pathBlazer* to modulate. This is in accordance with the Sec108 requirement of the Federal DOT Standard.

P115W-T6:

Plug & Play

SPECIAL VERSION unit.

This is a Shutter Actuated unit.
It has matching 6-pin connectors
for 2015 and newer Yamaha Tenere
models.

IN-LINE PLUG ADAPTERS

SHUTTER ACTUATED



P115W-T6



DAYLIGHT SENSOR

2-PIN PLUG



SN-2

P115W-A6 *pathBlazer* application:

- Factory LED Head Lights – 6-pin plug
- Modulates in **HIGH-BEAM**, when selected in daytime
- Maximum load does not exceed 75W (14.5 v)
- Waterproof unit is compact and is mounted externally

- This unit is designed to drive Halogen or LED bulbs.
- The adapters plug between the 6-pin connector of the bike's wiring.

P115W-T6 INSTALLATION:



Yamaha Super Tenere INSTALLATION:

- ❶ Locate the rubber boot covering the electrical connections for the headlight and turn signals. It is located slightly below and aft of the right turn signal.
- ❷ Locate the single (6) wire connector inside the boot (with red, black, green, and blue wires) and disconnect the connector.
- ❸ Connect the matching modulator plugs into the OEM plugs.
- ❹ Mount the modulator unit to the plastic shelf, using Velcro, in the position and orientation shown.

Daylight sensor gets plugged in next. And the following page shows how and where to mount the photo-eye of the sensor.

Note! This unit will modulate in daytime when the hi-beam switch is activated. If gets dark, the hi-beam will operate as normal.

P115W-F2:

Plug & Play

SPECIAL VERSION unit:

This unit has matched connectors for the 2-pin socket for the hi-beam bulb of the dual lamp bucket system of Yamaha Roadliner and Stratonliner models.



2-pin Plug



P115W-F2

IN-LINE PLUG ADAPTERS



SENSOR PLUG



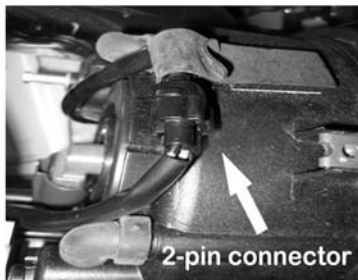
SN-2

P115W-F2 *pathBlazer* application:

- Factory Halogen or LED Head Lights – 2-pin plug
- Modulates in **HIGH-BEAM**, when selected in daytime
- Maximum load does not exceed 75W (14.5 v)
- Waterproof unit is compact and is mounted externally

- This is a special unit is designed to drive Halogen or LED bulbs.
- The adapters plug between the 2-pin connector of the bike's wiring.

P115W-F2 INSTALLATION:



Stratoliner and Roadliner models with dual headlamps.

Remove the nacelle and move it away to gain access to the headlight housing.

Locate 2-pin connector on the right side of the headlight housing, as shown.

Unplug 2-pin connector and install the male and female connectors of the **pathBlazer**. This is polarized in-line connection.

Attach the **pathBlazer** using the Velcro pad supplied to the side of the headlight housing.

- Mate all connectors fully so they are latched
- Use the zip-tie to secure any loose wires and socket/plugs

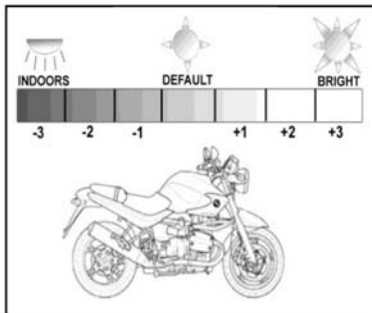
The Daylight Sensor can be flush mounted or you can zip-tie it. Refer to the Instructions on following pages for:

- Choosing appropriate location for mounting the Daylight Sensor
- Programming Sensitivity Levels

The Daylight Sensor must be plugged-in for the **pathBlazer** to modulate. This is in accordance with the Sec108 requirement of the Federal DOT Standard.

SENSITIVITY PROGRAMMING

During this procedure **pathBlazer** captures the available light and resets the threshold in its memory.



❶ Find a location or time of the day when you wish to **BEGIN** modulation. You can fine-tune the On/Off triggers from the default setting, as shown.

❷ Turn the Hi-beam ON first, then turn the ignition ON (3) times quickly.

■ If your bike allows the hi-beam only with engine running, you may have to start the bike in lo-beam and then flick to hi-beam (3) times quickly

■ The confirmation of the new setting is: Hi-beam flashes 4 times
If you don't get this confirmation, try it once more – a little faster.

■ Once set and confirmed by 4 flashes, the new Setting will remain in permanent memory of the processor. It is not affected even if the battery is disconnected or the **pathBlazer** unit is un-plugged.

■ If you attempt the Sensitivity Adjustment in a very dark setting – beyond the DOT specified limits – the setting will revert back to default level. This will be confirmed as: Hi-beam flashes 8 times.

Note! To avoid unintended reprogramming of Daylight Sensor's sensitivity, DO NOT start the engine with the hi-beam on. During cranking, the battery voltage can drop out and simulate the "3-time ignition on" sequence.

LIMITED WARRANTY

Kisan warrants this product to be free of manufacturing defects for a 1-year period after the original date of consumer purchase. A purchase receipt or other proof of original retail purchase will be required. This warranty does not include damage to the product resulting from accident, misuse, improper installation or operation or unauthorized repair or alteration. If the product should become defective within the warranty period, we will elect to repair or replace it free of charge at our option. Parts and/or replacement product supplied under the warranty may be new or rebuilt.

The consumer's sole remedy shall be such repair or replacement as is expressly provided above, and **Kisan** shall in no event be liable for any incidental or consequential damages arising out of the use of; or inability to use this product for any purpose whatsoever.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights. You may have other rights, which vary from state to state.

If you have to return the product for warranty service, please contact our service department to obtain a R.M.A. (Return Merchandise Authorization) number and instructions on how to pack and ship the product to us.

Kisan Electronics

Products distributed by **rideSafer LLC**.

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(9AM to 4PM mountain time)

Fax: 719-576-4700
email: sales@kisantech.com

Other products....

tailBlazer™ DECELERATION WARNING



vectraLIGHT™ TAIL LIGHT, TURN SIGNALS & BRAKES



Tail lights
Directional signals
Full surround housing
Super bright COB panels
Deceleration Flash Sequence

**you ever
forget to
turn off
blinkers?**

signalMinder™ AUTOMATIC CANCELATION™

**Plug
& Play**

INSTALLATION
FOR MOST POPULAR
BIKES AND MODELS



PROGRAMMABLE TIME-OUTS
RUNNING LIGHT CONVERSION



This Installation Guide is intended to provide you with general application related procedures. There are just too many different makes and models to be able to cover every specific condition you may encounter with your own motorcycle. We do our best to tell you how to handle most applications but we must depend on your good judgement for dealing with the rest.

Therefore, we strongly urge you to think carefully about what could happen to you and your bike if you use any tools, parts, fastening methods, routing or procedure not described in this Guide. Please read the manual in its entirety

For faster response, please visit the FAQ section in the **pathBlazer** product section of our website: www.kisantech.com

Kisan
ELECTRONICS

TECH SUPPORT:

719-226-0300

M - F 9AM to 4PM (Mountain Time)

or Email to: techsupport@kisantech.com