

Part Number 35-9023
VHM NightRod Special LCD Display

Congratulations, you have purchased the finest system available for your motorcycle. Your Vance & Hines Motorsports LCD Display is designed and crafted for maximum performance. Please follow the instructions below, check for missing or damaged parts and if you need any assistance please contact our technical support line (317) 852-9057.



PARTS INCLUDED IN KIT

	Part	Qty
<input type="checkbox"/>	Display	1
<input type="checkbox"/>	Backing Plate	1
<input type="checkbox"/>	M4 x 10mm Bolts	4
<input type="checkbox"/>	M8 x 40mm Bolts	4
<input type="checkbox"/>	Button Assembly	1
<input type="checkbox"/>	Wiring Harness	1
<input type="checkbox"/>	Speed Sensor	1
<input type="checkbox"/>	Speed Sensor Bracket	1
<input type="checkbox"/>	Speed Sensor Nut & Bolt	1

LCD DISPLAY INSTALLATION

- » Remove the tank cover by lifting seat and twisting tab loose. Lift up rear of cover and wiggle loose from front rubber grommets.
- » Remove stock dash which is held in place by two 4mm cap screws.
- » Tilt dash outwards and unplug deutsch connector by squeezing in tabs.
- » Wiggle dash outwards and to the driver side to free from mounting peg.
- » Remove left side cover by removing M6 cap screw and lifting cover upward to free the cover from the rubber grommets (*Figure 1*).
- » Mark handlebar location with a sharpie at handlebar clamp joint.
- » Remove four M8 cap screws holding the handlebar clamp and lay handlebars down on frame with a rag to protect frame from scratching.
- » Cut ziptie securing bundle of wires coming through upper triple tree.
- » Realign the handlebars and secure the supplied plate by using the following torque sequence and four M8 cap screws provided.

Torque Sequence:

- » Tighten two front fasteners until cast-in spacers of upper clamp contact handlebar lower clamp.
- » Tighten rear fasteners to 144-180 in/lbs.
- » Final tighten front fasteners to 144-180 in/lbs. Slight gap up should exist at rear between upper and lower clamp.
- » Route the wire with the 2 plugs from the display down through upper triple tree along with handlebar wires down to behind the left side cover. Connect the 12 pin deutsch connector to the factory connector for the stock dash.
- » Attach display to backing plate using the supplied M4 cap screws.
- » Ziptie wires along with factory wires.
- » Install mode button by removing T-25 Torx screw on left or right cluster housing clamp (*Figure 2*). Install bracket behind stock T-25 screw and route wire through upper triple tree down behind left cover and connect to two pin

Packaged By: _____



Figure 1



Figure 2

connector from dash.

- » Remove airbox cover by disconnecting IAT sensor connector and loosening 8 snap clips.
- » Remove air filter cover wingnut, cover, and air filter.
- » Remove 6 cap screws retaining velocity stacks.
- » Remove breather hose from air/oil separator.
- » Lift airbox bottom and pull rear breather hose from airbox.
- » Plug in 6 pin connector with wiring assembly to dash connector.
- » Route wiring assembly down along stock wiring harness.
- » Connect yellow wire from dash harness to blue/orange wire on front ignition coil connector by stripping small amount of coating and solder wire to blue/orange, cover with electrical tape (*Figure 3*).
- » Connect temp sensor wire to thermostat housing bolt (*Figure 4*).
- » Route speed sensor cable under seat and leave momentarily.
- » Attach speed sensor to bracket using supplied bolt M6 x 16mm and 6mm nylon lock nut, leave loose until proper positioning is complete.
- » Remove rear brake caliper bolt and attach bracket with speed sensor and leave loose. Be sure sensor is in line with disc webs and has 1 – 3mm clearance between sensor face and rotor surface. Tighten bolts when desired position is achieved (*Figure 5*). (If adjustment is needed, bend bracket as required)



Figure 3

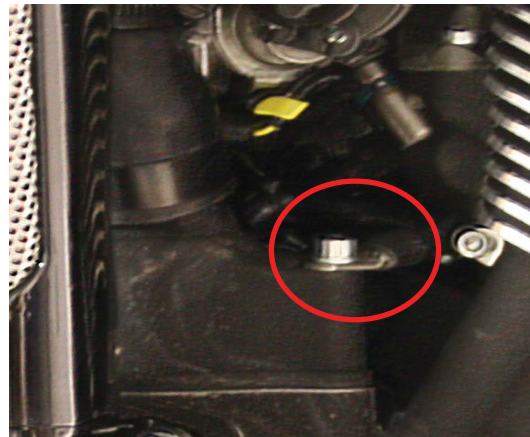


Figure 4

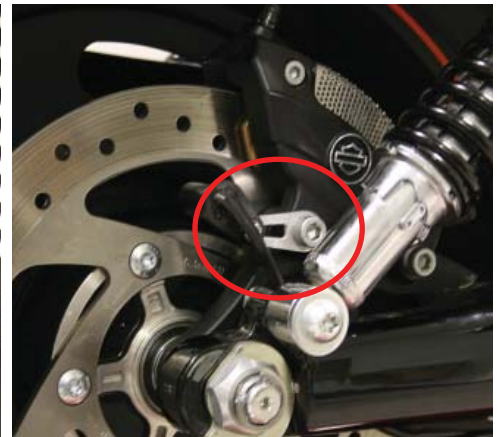


Figure 5

- » Route cable along brake hose and zip tie
- » Route connector behind swing arm up behind the gas tank and underneath the seat and connect to wiring assembly.
- » Be sure all wiring is securely zip tied and out of the way for reinstallation of airbox.
- » Install airbox in reverse order of disassembly.

SETTING THE LCD DISPLAY PARAMETERS

ATTENTION! We recommend that the following set-up procedures are done with the use of a Dynamometer for the best results.

- » To enter the set-up mode press and hold the black lap timer button, switch on the ignition, the lap-timer section of the LCD Display will countdown ie: 05, 04, 03, 02, 01, 00, when zero is reached release the button and start the engine. Do not switch off the ignition/engine during these set-up procedures unless instructed to do so. Each section to be programmed will flash on the display in turn.

SAVING MODE SELECTION: To save the parameters in each section and then move onto the next following programming section press and hold the black button, the lap-timer section of the LCD Display will countdown ie: 05, 04, 03, 02, 01, 00, when zero is reached release the button.

- » To change between KMH and MPH press the black button to select the desired indication. Now press and hold the black button... see SAVING MODE SELECTION

NOTE: The words **FUEL LOW** will now be displayed on the LCD Display and the word OFF will be displayed in the distance section.

- » To enable the low fuel level indication momentarily press the black button, the number 50 will now be displayed in

the distance section, (this number indicates that the low fuel level warning will come on at 50 miles). To increase the distance the low fuel level warning indication comes on momentarily press the black button, the number 50 will change to 60 to indicate that the low fuel level warning will come on at 60 miles. You can repeat this procedure and raise the low fuel level indication up to 200 miles, after this OFF will be displayed indicating that the low fuel indication will be disabled, further momentary presses of the black button will start the sequence again. Now press and hold the black button... see SAVING MODE SELECTION

NOTE: When you first enter the next tach/RPM section check to see if the LCD Display is showing the correct tach/RPM before pressing the black button. Each time the black button is pressed this will half the number of RPM pulses being read by the LCD Display and the tach/RPM reading will change accordingly.

- » To adjust the tach/RPM reading to the correct engine idle RPM press the black button once at a time until the correct tach/RPM is being shown on the LCD Display. Note: zero button presses may be necessary. Now press and hold the black button... see SAVING MODE SELECTION

NOTE: In the next section the LCD Display will show double the actual engine RPM's in 'real time', this is done so the shiftlight indication point can be set without over revving the engine.

- » To set the approximate shiftlight indication point increase the engine RPM's until you see the desired shiftlight indication RPM number shown on the display, hold the engine RPM's steady and press the black button once to set the indication point. Note: after a second or two you will see the RPM on the display reduce again to double the 'real time' engine RPM. You can set this approximate shiftlight indication point as many times as necessary. Now press and hold the black button... see SAVING MODE SELECTION
- » To adjust the tach/RPM reading to the correct engine idle RPM press the black button once at a time until the correct tach/RPM is being shown on the LCD Display. Note: zero button presses may be necessary.
- » To fine tune the shiftlight indication point press the black button once at a time until the actual shiftlight indication point is reached. Note: You may need to re-enter set-up mode again if you made a mistake in the previous section 5, as this adjustment is plus or minus 500 RPM. Now press and hold the black button... see SAVING MODE SELECTION

WARNING! The rear wheel/wheels will be rotating in each gear at speed during the following.

- » To set the speed indication you must operate the motorcycle at a known steady 30 mph/48 kmh. Once you have reached this speed press the black button. If you have made a mistake you can set the speed indication again during this section of the set-up procedure by repeating this process. Now press and hold the black button... see SAVING MODE SELECTION
- » To set the gear indication each gear to be programmed will flash on the display. Select 1st gear, release the clutch, increase the engine RPM's to approximately half of the RPM range of the engine and hold the RPM's steady, then press the black button once to program 1st gear selection, number 2 will now flash, select 2nd gear, hold the engine RPM's steady again at half of the RPM range, then press the black button and continue until you have reached and programmed the gearboxes top gear. Now allow the engine to idle and select neutral. Now press and hold the black button... see SAVING MODE SELECTION
- » To change between Fahrenheit and Centigrade readings press the black button to select the desired indication. Now press and hold the black button... see SAVING MODE SELECTION
- » To set the oil pressure loss indication parameters press the black button. Now press and hold the black button... see SAVING MODE SELECTION
- » To set the backlight color parameters press the black button to toggle between **RED** and **BLUE** backlighting.

To save the backlight color parameters and authenticate the entire LCD Display parameters press and hold the black button. Once the lap-timer section of the LCD Display has counted down again ie: 05, 04, 03, 02, 01, 00 the LCD Display will be programmed and will be in normal run mode.

FINE TUNING THE LCD DISPLAY PARAMETERS

If you wish to make minor adjustments to any of the LCD Display parameters this can be done by entering the set-up mode again. You can re-adjust any of the settings within each section of the LCD Display mentioned in **SETTING THE LCD DISPLAY PARAMETERS**.

- » To skip a section and move straight onto the next section without altering the parameters in the indicated flashing section press and hold the black button, the lap-timer section of the LCD Display will countdown ie: 05, 04, 03, 02, 01, 00, when zero is reached release the button and you will move to the next section without making any alterations. This sequence can be repeated until you reach a section of the LCD Display parameters you wish to adjust.
- » Once in the section you wish to adjust carry out the new setting as described in SETTING THE LCD DISPLAY PARAMETERS and save the new setting by pressing and holding the black button, then the lap-timer section of the Micro Dash will countdown ie: 05, 04, 03, 02, 01, 00, when zero is reached release the button. You can now continue to make an adjustment in the next section or simply switch off the ignition/engine to save and authenticate the new settings.

USING THE TRIP METER

- » To enter the trip meter press and hold the black button, switch on the ignition, wait until LCD Display countdown to 03, ie; 05, 04, 03, then release black button at this point. To reset the trip meter press and hold the black button, the lap-timer section of the LCD Display will countdown ie: 05, 04, 03, 02, 01, 00, when zero is reached release the button. If you wish the LCD Display to run in trip meter mode instead of total distance mode press the black button until the lap-timer section of the LCD Display counts down to number 03 then release the black button at this point. **DISTANCE A** will now be displayed to indicate trip distance display mode. You can toggle between trip distance and total distance modes pressing black button until dash countdown to 03, ie; 05, 04, 03, then release black button. To exit the trip meter memory simply switch off the engine.

RESETTING THE LOW FUEL INDICATION

ATTENTION! For best results the low fuel indication must be reset after refueling (full tank).

- » To reset the low fuel indication (with the ignition on and not in set-up mode) press and hold the black button, the lap-timer section of the LCD Display will countdown ie: 05, 04, 03, 02, 01, 00, after 5 seconds **FUEL RESET** will be displayed in the left hand side of the dash, at this point release the black button to reset the low fuel indication.

DIMMING THE SHIFTLIGHTS

- » At any time during normal vehicle operation (with the ignition on and not in step-up mode) the shiftlight array can be dimmed for poor light conditions and night time use. Press and hold the black button until the lap timer section of the LCD Display counts down to 03, ie; 05, 04, 03, then release the black button at this point. The new shiftlight illumination intensity will now be displayed. You can toggle between SHIFTLIGHTS HIGH and SHIFTLIGHTS LOW by repeating this procedure.

OPERATING THE LAP TIMER

- » When you reach a point on the circuit like the start/finish line simply press the black button to register each lap time. Each Lap time will be displayed momentarily for 3 seconds for on-the-fly viewing. Once you have finished your race or session switch off the ignition.
- » To view the stored lap times switch the ignition on, then press and hold the black button, the display will countdown ie: 05, 04, 03, 02, 01, 00, when zero is reached release the button, the lap number will be shown above each lap time. To view the next lap time press the black button once and so on for each lap time.
- » To erase stored laps in the memory press and hold the black button once more until the display counts down ie: 05, 04, 03, 02, 01, 00, when zero is reached release the button, the lap timer display will now flash 5 times and the memory will have been erased. Note: if you do not wish to erase the memory after you have finished viewing the stored lap times simply switch off the ignition. The LCD Display will now be ready to commence with new sessions.

- » Further consecutive lap times/sessions will be added to the end of the previous stored sessions. A maximum of 99 laps can be stored in the memory. Note: If FULL is displayed in the lap timer section then the memory will need to be erased to store any further lap times.

NOTE: You can switch between the lap-timer and fuel mileage indication feature of the LCD Display by following the next procedure.

- » To enable/disable the lap-timer function, switch the ignition on, then press and hold the black button, the display will countdown ie: 05, 04, 03, 02, 01, 00, when zero is reached release the button, any stored lap times may be displayed. To move to the enable/disable feature press and hold the black button once more until the display counts down to 03, ie: 05, 04, 03, release the black button, the current state of the lap-timer/fuel mileage indication will be displayed, enter ON or OFF. Each momentary press of the black button will toggle between on and off. Once you have chosen the desired setting simply switch off the ignition.

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