BIM-01-2-HSN2
Bus Interface Module for Holley Sniper 2

BIM-xx-2 power & data connectors.
Either one can be used.

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BIM-01-2-HLLY
Bridge Module for Holley EFI Systems
INPUT

setup/status switch

391205

394298

BIM-xx-2 Power/Data (extension) cable

Connect to
the BIM-xx-2

394191 - 18" (Optional **394192 - 72"**)

Connects to
HDX, RTX,
VFD, VHX,
or BIM-xx-2
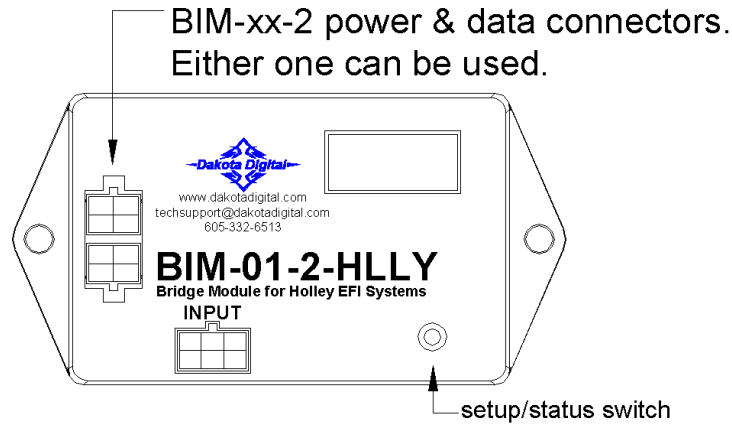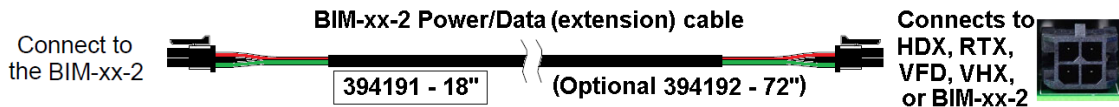
This Bus Interface Module is designed to read engine information from the Holley Sniper 2 kits. The module is connected to the Holley EFI through the CAN-bus plug on the EFI harness. To connect your Sniper 2 to this product, disconnect the 4-pin threaded connector that links your throttle body to the Sniper 2 handheld. Then, connect these cables to the 391205 included in this kit. Connect the 391205 to the BIM-01-2-HLLY using the included 394298 harness.

There are two interface (I/O) ports on the BIM-01-2-HLLYmodule. Either one can be connected to the instrument system or to another module, allowing several units to be daisy chained together.
Cannot daisy chain with GPS-50-2.
Do not connect the I/O port to anything other than a Dakota Digital control box or BIM.
Do not mount the module in the engine compartment; as it should be mounted in the vehicle's cabin.

The engine and transmission information that is available from the unit depends on the EFI kit and module programming and add-ons. For specific data readings: see individual setups below for each version of Holley EFI system below.

Note: If you are not utilizing a Holley handheld display, you must disable the HND setting within this BIMs setup menu (Page 9-10). With the HND setting disabled, you must unplug this BIM unit if you perform a Holley firmware update using Holley's CAN to USB adapter.
A GPS-50-2 CANNOT be linked (daisy chained) to a BIM-01-2 with a BIM cable. **The two units cannot talk to the display control box at the same time.**

Table of Contents

Sniper EFI system setup:

Data that should be available: RPM, Engine temp, Intake/manifold temp, MAP/boost, A/F ratio.

Holley system setup: No configuration within the Sniper EFI system or software is required.
BIM-01-2-HLLY setup: The BIM must be configured to understand it will be talking to the Sniper EFI

- Hold button on BIM-01-2-HLLY and turn ignition on, then release the button.
- The BIM module should display 5Y5 (System).
- Hold button until a dash (**–**) is displayed, and then release.
- Tap the button to display 5Pr (Sniper)
- Hold button until a dash (**–**) is displayed, and then release.
- Tap button to display End, then hold to save.

Note: Speed Input is not a selectable menu option with 5Pr selection – Sniper does not send speed.

Display Setup

VFD and VHX systems will add extra readings to the message displays under the tach.
HDX and RTX need a group screen configured to show additional information such as Boost or Intake temp

Setting up the display system will configure the instrument control box to read each input from either the terminals or through the BIM cable from the Bus Interface Module.
The BIM menu of the display will not find the BIM-01-2-HLLY, but will find specific channels for Fuel Pressure and Air/Fuel Ratio.

There is no Check Engine option for the BIM-01-2-HLLY to pick up.

The following settings are for the basic information to be displayed with data from the BIM module.
Extra data that might be sent such as Intake Air Temp, Fuel Pressure, Air/Fuel Ratio or Boost, can be brought up in the message centers of the VFD3 and VHX system by toggling SW2 in normal operation of the vehicle. Similar data that might be present will not automatically be shown in the HDX and RTX systems. That extra information must be placed in a group screen of your choice, in the HDX and RTX setup.

Display data usage
The following readings can each be used in place of dedicated sending units to the instrument system control box. These are individually selectable in the display system instrument setup menus.

VFD3, and VFD3X setup:
Only VFD3/3X systems with a plastic case, support adding BIMs

Entering the VFD3 setup is done by holding SW1 (I) and turning the ignition to "on", or "acc".
Once in setup, one can move between **speed, tach, volt, water**, etc…. by tapping SW1 (I)
If you are setting multiple items, once done with one section you will automatically move onto the next item.

Obtaining RPM from the BIM-01-2-HLLY
- Hold the SW1 switch from the instrument system control box while turning the key on.
  - The speed display should show 5EE and the message display should show **SETUP**.
- Release SW1. Tap SW1 until 5EE and **TACH** are displayed.
- Press and hold SW1 for at least 3 seconds, until 5EE changes to "-". The displays should show 5EE and **T CAL**.
- Press and hold SW1 for at least 3 seconds, until 5EE changes to "-". The speed display will show the current setting.
- Tap SW1 until bU5 and **T CAL** are displayed.
- Press and hold SW1 until "-" and DONE are displayed.
- Tap SW1 until 5EE and **DONE** are displayed.
- Press and hold SW1 until "-" and DONE are displayed.

Obtaining engine temperature from the BIM-01-2-HLLY
- Hold the SW1 switch from the instrument system control box while turning the key on.
  - The speed display should show 5EE and the message display should show **SETUP**.
- Release SW1. Tap SW1 until 5EE and **WATER** are displayed.
- Press and hold SW1 for at least 3 seconds, until 5EE changes to "-". The displays should show 5EE and **SENDER**.
- Press and hold SW1 for at least 3 seconds, until 5EE changes to "-". The speed display will show the current setting.
- Tap SW1 until 5EE and **BUS F** (Fahrenheit) is displayed.
  - Tap SW1 once more for 5EE and **BUS C** (Celsius) if desired.
- Press and hold SW1 until "-" and **DONE** are displayed.
- Tap SW1 until 5EE and **DONE** are displayed.
- Press and hold SW1 until "-" and **DONE** are displayed.

VHX Setup:

Entering the VHX setup is done by holding SW1 (I) and turning the ignition to "on", or "acc".
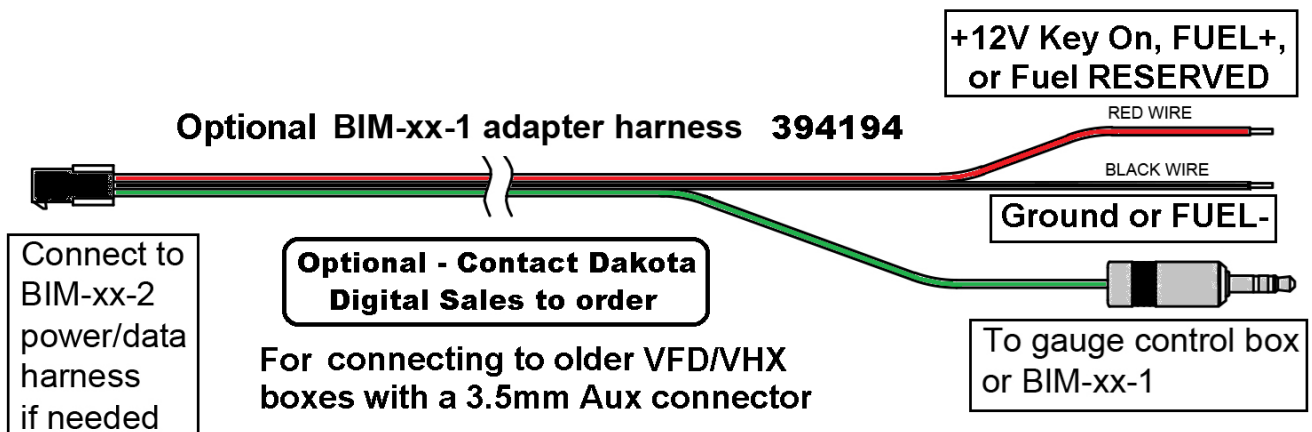Once in setup, one can move between **speed**, **tach**, **volt**, **water**, etc…. by tapping SW1 (I)
If you are setting multiple items, once done with one section you will automatically move onto the next item.

Obtaining RPM from the BIM-01-2-HLLY
- Hold the SW1 (I) switch from the instrument system control box while turning the key on.
  - The message display should show **SETUP**.
- Release SW1 (I) - LCD1 should show **SETUP SPEED**.
- Tap SW1 (I) until **SETUP TACH** is displayed.
- Press and hold SW1 (I) for at least 3 seconds until **TACH ENGINE** is displayed.
- Press and hold SW1 (I) for at least 3 seconds until **ENGINE** is displayed.
- Release the switch and **ENGINE 8** will be displayed.
- Tap SW1 (I) until **ENGINE BUS** is displayed.
- Press and hold SW1 (I) until **DONE** is displayed.
- Tap SW1 (I) until **TACH DONE** is displayed.
- Press and hold SW1 (I) until a big **DONE** is displayed.

Obtaining engine temperature from the BIM-01-2-HLLY
- Hold the SW1 (I) switch from the instrument system control box while turning the key on.
  - The message display should show **SETUP**.
- Release SW1 (I) - LCD1 should show **SETUP SPEED**.
- Tap SW1 (I) until **SETUP WATER** is displayed.
- Press and hold SW1 (I) for at least 3 seconds until **WATER SENDER** is displayed.
- Press and hold SW1 (I) for at least 3 seconds until **SENDER DD F** is displayed.
- Release the switch and **SENDER DD F** will be displayed.
- Tap SW1 (I) until **SENDER BUS F** (Fahrenheit) is displayed.
  - Tap SW1 (I) once more for **SENDER BUS C** (Celsius) if desired.
- Press and hold SW1 until **DONE** is displayed.
- Tap SW1 (I) until **WATER DONE** is displayed.
- Press and hold SW1 (I) until a big **DONE** is displayed.

+12V Key On, FUEL+, or Fuel RESERVED

Optional BIM-xx-1 adapter harness   394194

RED WIRE

BLACK WIRE

Ground or FUEL-

Connect to BIM-xx-2 power/data harness if needed

Optional - Contact Dakota Digital Sales to order

For connecting to older VFD/VHX boxes with a 3.5mm Aux connector

To gauge control box or BIM-xx-1

HDX and RTX setup:

HDX/RTX systems can be configured with the Dakota Digital app for Apple and Android devices

HDX and RTX Operations
- **HDX:** With the ignition key already on, press and hold both switches to enter **SETUP**, release when instructed.
    - o   If using the external rocker switch, hold SW2 (II) while turning the ignition on.
    - o   Release the switch when **SETUP** is shown.
    - o   Left switch on display is SW1, and right switch on display is SW2
- **RTX:** With the ignition off, press hold SW2 (II) while turning the ignition key on to enter **SETUP**
    - o   Release the switch when **SETUP** is shown.
- **BOTH:** When holding for an option, release the button when the screens says **"RELEASE"**
- **BOTH:** You may skip to whichever reading you'd like to configure below; they do not need to be done in order.
- **BOTH:** After making a selection, tap a switch and select **BACK** to save and return to the main menu, then select **EXIT SETUP** to return to normal operation.
- **BOTH:** SWI (left) moves up ↑ the menu list, SWII (right) moves down ↓ the menu list

Obtaining RPM from the BIM-01-2-HLLY
- Tap SWII (right) switch until **TACH** is selected. Press and hold SWII (right) switch to enter **TACH** menu.
- Tap SWII (right) switch until **INPUT** is displayed. Press and hold SWII (right) switch to enter **INPUT** menu.
- Tap SWII (right) switch until **CYLINDER** is displayed. Press and hold SWII (right) switch to select **CYLINDER**.
- Tap SWI (**left**) switch until **BIM** is displayed. Press and hold SWII (right) switch to select **BIM**.
- When **INPUT** is displayed again, tap until **BACK** is displayed, then hold the switch to exit.

Obtaining engine temperature from the BIM-01-2-HLLY
- Tap SWII (right) switch until **WATER** is selected. Press and hold SWII (right) switch to enter **WATER** menu.
- Tap SWII (right) switch until **INPUT** is displayed. Press and hold SWII (right) switch to enter **INPUT** menu.
- Tap SWII (right) switch until **BIM** is displayed. Press and hold SWII (right) switch to select **BIM**.
- When **INPUT** is displayed again, tap until **BACK** is displayed, then hold the switch to exit.

GRAFIX setup:

GRAFIX systems can be configured with the Dakota Digital app for Apple and Android devices

GRAFIX Operations
- With the vehicle stopped, tap the Control Knob to enter the Main Menu
  - The Main menu can be entered with the vehicle moving, but only the speedometer ADJUST menu will be available in the SETUP menu
- Twist the Control Knob clockwise until SETUP is highlighted. Tap the knob to enter the SETUP menu.
- You may skip to whichever reading you'd like to configure below; they do not need to be done in order.
- After making a selection, select BACK to save and return to the main menu, then select EXIT to return to normal operation.
- Twisting the Control Knob clockwise moves up ↑ the menu list, twisting counterclockwise moves down ↓ the menu list.

Obtaining RPM from the BIM-01-2-HLLY
- Twist the Control Knob clockwise until TACH is highlighted. Tap the knob to enter TACH menu.
- INPUT will be displayed. Tap the Control Knob to enter INPUT menu.
- CYLINDER will be displayed. Tap the Control Knob to enter CYLINDER menu.
- Twist the Control Knob counterclockwise until BIM is highlighted. Tap the knob to select BIM.
- When INPUT is displayed again, twist the Control Knob until BACK is displayed, then tap to return to TACH.
- When TACH is displayed again, twist the Control Knob until BACK is displayed, then tap to return to SETUP.
- When SETUP is displayed again, twist the Control Knob until BACK is displayed, then tap to exit.

Obtaining engine temperature from the BIM-01-2-HLLY
- Twist the Control Knob clockwise until WATER is highlighted. Tap the knob to enter WATER menu.
- INPUT will be displayed. Tap the Control Knob to enter INPUT menu.
- Twist the Control Knob counterclockwise until BIM is highlighted. Tap the knob to select BIM.
- When INPUT is displayed again, twist the Control Knob until BACK is displayed, then tap to return to WATER.
- When WATER is displayed again, twist the Control Knob until BACK is displayed, then tap to return to SETUP.
- When SETUP is displayed again, twist the Control Knob until BACK is displayed, then tap to exit.

TIP: Intake/manifold air temp, air fuel ratio, trans fluid temp, and boost will be displayed if selected in the LAYOUTS>>GAUGES menu

BIM setup:

BIM menu table:

Menu	Options		Default	Notes
5Y5	5td		5td	For Terminator HP and Dominator systems
	5Pr			For Sniper EFI
	tEr			For Terminator X and Terminator X Max
InP	OFF		OFF	Input 1 speed enable, only in menu when 5Y5 is set to 5td (HP & Dominator)
	On			
hnd	YES		YES	For a handheld display connection to the Holley ECU.
	no			YES (handheld connected) or no (handheld not connected).
b5t	OFF		OFF	Gauge will display MAP/vacuum reading *** **Terminator X cannot read MAP**
	On			Gauge will display boost
id	UPd			Update communications with other BIM modules attached
End				Exit Setup.

System Selection for Holley module

The BIM-01-2-HLLY must be configured for the correct type of Holley EFI system being used.
- Hold the switch on the BIM-01-2-HLLY case while turning the key on. The BIM display will show the current revision code while this is held.
- Release the switch.
- The BIM module should display 5Y5 (System). Press and hold to enter this menu.
- When you see "---" on the display release the switch.
- The display will show the current system 5td, 5Pr, or tEr
- Tap the switch to change the system.
  - o 5td – Standard = Dominator or Terminator HP
  - o 5Pr – Sniper
  - o tEr – Terminator X only
- To save setting press and hold the switch until you see "---" on the display, then release the switch.
- The display will show "End". Press and hold the switch to exit setup or tap to choose another menu option.

Enable or disable ability to read speed (HP and Dominator 5Y5 = 5td)
  Not an option when 5Y5 is set to 5Pr or tEr
With the configuration of the speed input in either the Dominator or Terminator HP, the BIM-01-2-HLLY has the option
- Hold the switch on the BIM-01-2-HLLY case while turning the key on. The BIM display will show the current revision code while this is held.
- Release the switch.
- Tap the switch until the display shows InP (input). Press and hold to enter this menu.
- When you see "---" on the display release the switch.
- The display will show the current state or the speed input On (enable) or oFF (disable).
- Tap the switch to change the state.
- To save setting press and hold the switch until you see "---" on the display, then release the switch.
- The display will show End. Press and hold the switch to exit setup or tap to choose another menu option.

BIM setup continued:

Holley Handheld

Most Holley systems come with a handheld display which attaches to the Holley ECU. By default, this unit is programmed to assume the Holley handheld is in use. If your Holley system does not have a Holley handheld unit attached, please change this setting to '**NO**'

> **Note - If you change this setting to 'NO', and plan to use a Holley CAN to USB adapter to perform Holley firmware updates, you must disconnect this BIM module prior to the firmware update. After the firmware update is complete, you can re-connect this BIM module.**

- Hold the switch on the BIM-01-2-HLLY case while turning the key on. The BIM display will show the current revision code while this is held.
- Release the switch.
- Tap the switch until the display shows *hnd*(handheld). Press and hold to enter this menu.
- When you see "---" on the display release the switch
- The display will show the current setting, *YES* (handheld attached) or *no* (handheld not attached).
- Tap the switch to change the state.
- To save setting press and hold the switch until you see "---" on the display, then release the switch.
- The display will show *End*. Press and hold the switch to exit setup or tap to choose another menu option.

Enabling Boost:

All Holley systems (except for Terminator X) will always send MAP/vacuum data to the BIM-01-2-HLLY.
The BIM-01-2-HLLY has an option to enable boost readings if the car has turbocharger, and this works on all models of Holley EFI systems.
- Hold the switch on the BIM-01-2-HLLY case while turning the key on. The BIM display will show the current revision code while this is held.
- Release the switch.
- Tap the switch until the display shows *bSt* (boost). Press and hold to enter this menu.
- When you see "---" on the display release the switch.
- The display will show the current boost state, *oFF* (disable) or *On* (enable).
- Tap the switch to change the state.
- To save setting press and hold the switch until you see "---" on the display, then release the switch.
- The display will show *End*. Press and hold the switch to exit setup or tap to choose another menu option.

To set or change the ID number:

The ID will not normally need to be changed. The fuel PSI and A/F ratio readings both use bus ID's so if you have other BIM units connected along with this one, there is a chance of ID conflicts. This can easily be resolved. If fuel PSI or A/F ratio is not showing up in the BIM setup menu on your system you may need to resolve an ID conflict. The following procedure will allow the BIM-01-2 to automatically select a new, unused ID.
- Hold the switch on BIM while turning the key on. The BIM will show the current software code.
- Release the switch.
- Press and release the switch until *Id* is shown on the display.
- Press and hold. *UPd* will be shown while the BIM is scanning the bus for other BIM units.
- When you see *dnE* shown on the display release the switch.
- The BIM unit will now go back to normal operation.

HDX/RTX TIP: Intake/manifold air temp, Fuel PSI, boost and A/F ratio will be displayed in the group screens if activated through the displays>>group set menu setup.

MAN #650832

Quick tips:

While the BIM is operating, the dot in the upper left corner of the display will indicate the status. On steady indicates it is powered up but not receiving any BIM bus activity. Flashing indicates it is communicating on the BIM bus.

If the display shows "*bUS*" then it is scanning to try and communicate with the EFI system bus but cannot get an answer.

To see the sensor and channel status on the BIM display, press and hold the switch. The display will cycle through several screens. The first will show the bus type ("*EF I*" Holley EFI). The next screens will indicate which (if any) extended data is available: "*IAt*" for intake/manifold temp, "*EOP*" for engine oil pressure.

Troubleshooting guide:

Problem	Possible cause	Solution
BIM will not light up at all	• PWR wire does not have power. • Connect to a different ground location • Power/data harness is damaged. • Module is damaged.	• Connect to a location that has +12V key-on power. • Inspect harness and repair or replace. • Return for service. (See Instructions below)
BIM display is scanning "*bUS*"	• EFI adapter harness is not connected • The EFI system is not compatible • The EFI is not powered on. • The EFI CAN is not configured to "Racepak"	• Connect the appropriate harness to the EFI CAN. • Verify compatibility. • Verify EFI system is powered on. • Verify CAN settings within EFI software. • If connected to Dominator, HP or Terminator ve *SYS* is set to *Std* in the BIMs setup menu
BIM has a steady dot lit	• Interface cable is not connected • Interface cable is loose. • On VHX systems, the BIM display for this is disabled.	• Connect the supplied data cable between the BIM unit and the instrument system control box. • Make sure both ends of the cable are seated. • Follow instructions in VHX manual to enable the BIM display screen.
BIM display shows "*88:8*"	• Data cable is damaged. • Another module on the bus is damaged or connected improperly.	• Inspect and replace the data cable. • Inspect other modules on the bus.

SERVICE AND REPAIR

DAKOTA DIGITAL offers complete service and repair of its product line. In addition, technical support is available to help you work through any questions or problems you may be having installing one of our products. Please read through the Troubleshooting Guide. There, you will find the solution to most problems.

For additional support, please visit www.dakotadigital.com. A "**Product Support**" link will be found at the bottom of the home page.

Should you ever need to send the unit back for repairs, please call our technical support line, (605) 332-6513, to request a Return Merchandise Authorization number.
- Package the product in a good quality box along with plenty of packing material.
- Ship the product by a common carrier with tracking abilities.
- Be sure to include the RMA number on the package.
- Include a complete description of the problem, with RMA number, your full name and address (street address preferred), and a telephone number where you can be reached during the day.
- Any returns for warranty work must include a copy of the dated sales receipt from your place of purchase.
- Send no money. We will contact you for payment.

Dakota Digital Limited Lifetime Warranty

DAKOTA DIGITAL warrants to the ORIGINAL PURCHASER of this product that should it, under normal use and condition, be proven defective in material or workmanship for the lifetime of the original vehicle it was installed in, such defect(s) will be repaired or replaced at Dakota Digital's option.

This warranty does not cover nor extend to damage to the vehicle's systems, and does not cover diagnosis, removal or reinstallation of the product.
This Warranty does not apply to any product or part thereof which in the opinion of the Company has been damaged through alteration, improper installation, mishandling, misuse, neglect, or accident.
Dakota Digital assumes no responsibility for loss of time, vehicle use, owner inconvenience nor related expenses.
Dakota Digital will cover the return standard freight once the product has been evaluated for warranty consideration, however the incoming transportation is to be covered by the owner.

This Warranty is in lieu of all other expressed warranties or liabilities. Any implied warranties, including any implied warranty of merchantability, shall be limited to the duration of this written warranty. No person or representative is authorized to assume, for Dakota Digital, any liability other than expressed herein in connection with the sale of this product.

⚠**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

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MAN #650832