

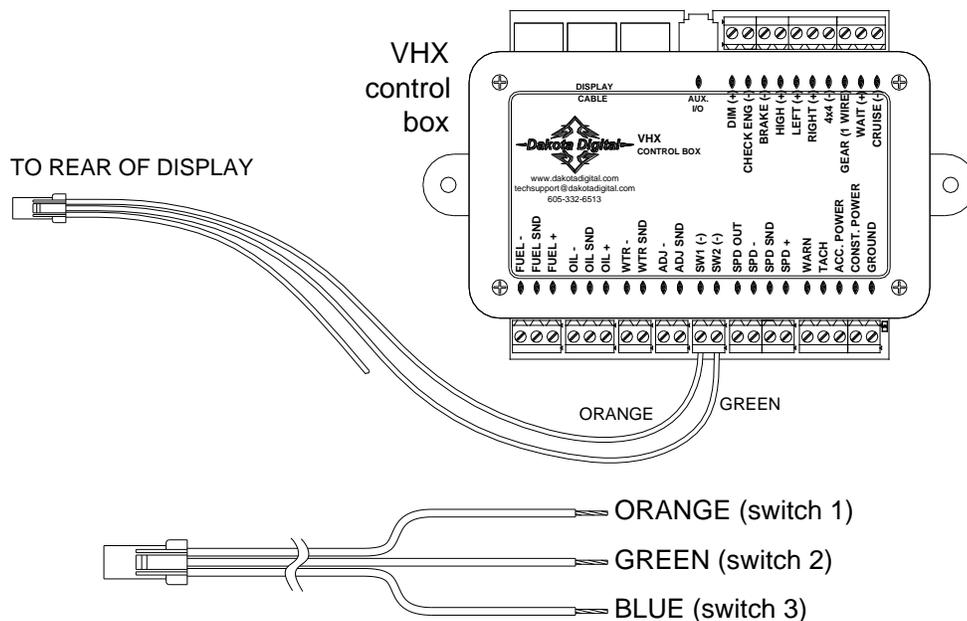


Operating Manual and Switch Connections for VHX-1100 & VHX-1200 Systems

The VHX-1100 and VHX-1200 systems have additional display area to provide more functionality. These systems can display data from any BIM module attached to the system as well as several gauge values from the control box sensors.

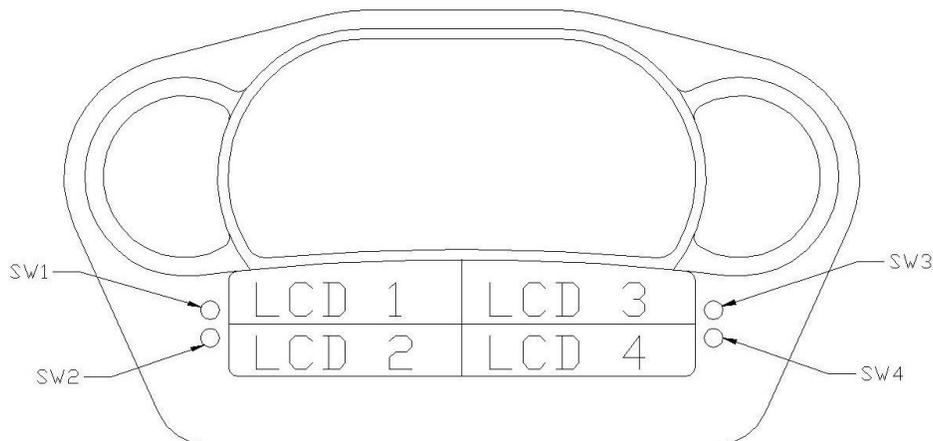
These versions contain four switches in the face which are used as SW1 and SW2 with the use of the switch harness provided, and SW3 and SW4, which are internal to the VHX system.

SWITCH HARNESS CONNECTION:



Connect the orange wire to SW1 (-) terminal on VHX control box. Upper left switch will be SW1 (speed display). Connect the green wire to SW2 (-) terminal on VHX control box. Lower left switch will be SW2 (tach display). Leave the blue wire disconnected (not used). SW3 and SW4 are internal with no additional connections needed. Upper right switch will be SW3. Lower right switch will be SW4.

VHX-1100 shown below



AVAILABLE SCREENS:

The following screens are ONLY available on LCD1 or LCD2 (see main VHX manual for settings):

| Message displays | Default LCD | DESCRIPTION |
|-------------------------|--------------------|---|
| ODOMETER | 1 | Odometer reading (0-999,999) |
| A MILES | 1 | Trip A odometer reading (0-9999.9) |
| B MILES | 1 | Trip B odometer reading (0-9999.9) |
| SERVIC (when enabled) | 1 | Distance to next service (0-9,999, or ---- when past due) |
| ENGINE | 1 | Check Engine indicator |
| BRAKE | 1 | Brake Warning indicator |
| 4W DRV | 1 | 4 Wheel Drive indication |
| WAIT | 1 | Diesel Wait To Start indicator |
| CLOCK | 2 | 12 hour clock display (press and hold switch to set) |
| HOURS | 2 | Hours system has been on with tach signal (0-999.9) |
| HI SPEED | 2 | High speed recall (0-255) |
| 0-60 MPH | 2 | 0-60 mph time in seconds (0-25.5) |
| 1/4 MI SPD | 2 | Vehicle speed at end of 1/4 mile (trap speed) |
| 1/4 MI TIME | 2 | Time to travel 1/4 mile from standing start |
| HIGH RPM | 2 | High RPM recall (0-18,000) |
| VOLTS | none | Battery voltage (display may be enabled in setup) |

In addition to the above screens, LCD1 and LCD2 may display any or all the screens listed below. These screens are also available for display in LCD3 and LCD4. The main VHX operations manual covers selecting which screens display in LCD1 and LCD2. See the setup instructions in this manual for selecting the which screens display in LCD3 and LCD4.

LCD1/LCD2/LCD3/LCD4

| Message displays | DESCRIPTION |
|----------------------------------|---|
| TACHOMETER | Digital tach readout on message display |
| MPH | Digital speed readout on message display |
| KM/H | Digital alternate speed unit conversion |
| WATER TEMP | Digital engine temp readout on message display |
| OIL PRESSURE | Digital oil pressure readout on message display |
| FUEL | Digital fuel level readout on message display |
| GEAR (with optional GSS) | Gear shift position indicator |

Additionally, many other screens may also be available (many of these readings require additional sensors and or BIM expansion modules) including:

| | | |
|---------------------------|---------|---|
| Gear Position | Compass | Various temperature readings |
| Various pressure readings | | More readings may be available from BIM modules |

By default all available screens for LCD3 and LCD4 are set to "ON" but only screens with data available will be displayed.

WARNING POINTS:

Warnings for the main system values (Engine Temp, Oil Pressure, Fuel, and Tachometer) will only be displayed in LCD1, however, BIM modules that have the internal warning points (set in VHX main system setup) will flash if they are currently being displayed and they are in a warning condition.

SETUP

This VHX system has two different setup menus that can be used to configure your VHX system. The first is the controller setup. The second is the display head setup.

The controller setup allows you to configure how the control box connects to your vehicle, what senders are used and also allows you to do some setup on many connected expansion modules. This setup is also used in setting up the display preferences of the primary display areas (LCD1 and LCD2). To enter this setup, press and hold SW1 while turning on the key. Refer to the main VHX Installation and Operation manual for the various options and settings.

The display head setup allows configuring the two additional display areas (LCD3 and LCD4) that are not included in standard VHX systems. To enter this setup menu, press and hold SW3 while turning on the key. Below is a list and description of the setup options for the display head setup.

| <u>Main Menu</u> | <u>Sub Menu</u> | <u>Description</u> |
|------------------|------------------------|---|
| UPDATE SPD | | |
| | SLOW | Tach display updates at a slow rate |
| | MED | Tach display updates at a medium rate |
| | FAST | Tach display updates at a fast rate |
| TEMP UNIT | | |
| | F | Sets temp displays in LCD3 and LCD4 to Fahrenheit |
| | C | Sets temp displays in LCD3 and LCD4 to Celsius |
| ALTIM UNIT* | | |
| | FT | Altimeter display in LCD3 or LCD4 will be in feet |
| | M | Altimeter display in LCD3 or LCD4 will be in meters |
| SCREENS | | |
| | (available screen) 3 | Screen can only be displayed in LCD 3 |
| | (available screen) 4 | Screen can only be displayed in LCD 4 |
| | (available screen) 3+4 | Screen can be displayed in LCD 3 and/or LCD 4 |
| | (available screen) OFF | Screen will not display in LCD 3 or LCD 4 |
| | DONE | Exit sub menu and return to main menu |
| SET DEFAULTS | | |
| | Y | Select to put display settings back to default |
| | N | Select to cancel reset to default |
| DONE | -- | Exits setup and returns gauge to normal operation |

**The "ALTIM UNIT" setting only available if altimeter data is being provided by an expansion module such as the GPS-50-1.*

UPDATE SPEED (UPDATE SPD)

This option sets the update rate of the tachometer when displayed in LCD3 or LCD4. The FAST setting allows frequent updates so the reading is more accurate at any given time. Faster readings may be difficult to read or distracting so some customers prefer a slower averaged reading which is available in the MED or SLOW setting. Default setting is MED.

Enter setup by pressing SW3 and turning key on

Press and Release SW3 until "UPDATE SPD" is displayed, then press and hold SW3.

Press and release SW3 to toggle through speed settings.

Press and hold SW3 when desired setting is displayed to save setting.

"DONE" will be displayed. Release SW3 to return to main menu.

TEMPERATURE UNIT (TEMP UNIT)

This option sets the unit used to display temperature readings when displayed in LCD3 or LCD4. The two options are F (Fahrenheit) and C (Celsius). Default setting is F.

- Enter setup by pressing SW3 and turning key on
- Press and Release SW3 until "TEMP UNIT" is displayed, then press and hold SW3.
- Press and release SW3 to toggle units between F or C.
- Press and hold SW3 when desired setting is displayed to save setting.
- "DONE" will be displayed. Release SW3 to return to main menu.

ALTIMETER UNIT (ALTIM UNIT)

This option sets the unit used to display altimeter readings when displayed in LCD3 or LCD4. This option will only be available if an expansion module that provides altimeter data (such as the GPS-50-1) is connected to the system. The two options are FT (Feet) and M (Meters). Default setting is FT.

- Enter setup by pressing SW3 and turning key on
- Press and Release SW3 until "ALTIM UNIT" is displayed, then press and hold SW3.
- Press and release SW3 to toggle units between FT or M.
- Press and hold SW3 when desired setting is displayed to save setting.
- "DONE" will be displayed. Release SW3 to return to main menu.

SCREEN DISPLAY SELECTION (SCREENS)

This option turns the display of specific screens on or off for LCD3 or LCD4. If the screen is turned "OFF", it will not be displayed when moving through screens using SW3 or SW4 in normal operation. This can be helpful to remove screens from one display zone to make selecting screens you want to view easier. By default, all available screens are set on for both LCD3 and LCD4.

- Enter setup by pressing SW3 and turning key on
- Press and Release SW3 until "SCREENS" is displayed, then press and hold SW3.
- "LCD3" and "LCD4" are displayed to indicate their position. Release SW3.
- Press and release SW3 to move through the available screens.
- Press and hold SW3 on any screen to select it for changes. The setting is highlighted.
- Press and release SW3 to change display setting for screen.
- Press and hold SW3 when desired setting is displayed to save setting.
- Press and release SW3 until "SCREENS DONE" is displayed, then press and hold SW3.
- "DONE" will be displayed. Release SW3 to return to main menu.

RESET SETTINGS TO DEFAULT (SET DEFAULTS)

This option sets all the settings described above back to the factory defaults.

- Enter setup by pressing SW3 and turning key on
- Press and Release SW3 until "SET DEFAULTS" is displayed, press and hold SW3.
- Press and release SW3 to toggle between Y (reset) or N (cancel).
- Press and hold SW3 when desired option is displayed to select.
- "DONE" will be displayed. Release SW3 to return to main menu.

EXIT SETUP (DONE)

This option exits the setup menu. Alternatively the key may be turned off while in main menu.

- Press and release SW3 until "DONE" is displayed, then press and hold SW3.
- "DONE" will be displayed. Release SW3 to return to normal operation.

⚠ 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



4510 W. 61st St. North
Sioux Falls, SD 57107
www.dakotadigital.com

Phone (605) 332-6513
Fax (605) 339-4106

dakotasupport@dakotadigital.com Copyright 2011 - Dakota Digital, Inc.