



# ACTIA Instrument Cluster Replacement

# UPDATE

**Models Affected:** Vision 2011 – Current, All American, TX3, TX4, 2010 – Current

## Service Update SU1603 Supersedes Service Update S1004

### Service Set Odometer Feature

The Service Set feature allows the odometer be set by the Blue Bird dealer. The odometer value can be set using the front panel buttons and no other tools are necessary when the instrument cluster is plugged into the bus electrical system.

With parking brake set, insert ignition key, and turn to the ignition position.

**STOP Warning – Do NOT start the engine prior to setting the odometer. The engine running will cause the odometer to be set to zero by default.**

Note: To set the odometer on a workbench a 12 volt regulated power supply and bench harness #10016388 (part of kit #00072987) are required.

**Warning – U.S. Federal Law requires that the odometer accurately display the vehicle’s actual mileage. It is the responsibility of the person installing the Cluster to make sure the mileage entered into the odometer correctly matches the vehicle’s actual mileage.**

**Important – It is highly recommended that Blue Bird dealer service centers install replacement instrument clusters. However if a replacement instrument cluster must be installed by a service location other than a Blue Bird dealer, the dealer MUST set the odometer and configuration settings prior to shipping the replacement instrument cluster to the installing shop or customer.**

When the replacement instrument cluster is first powered up, the LCD will display the “Service Set Odometer” screen and the odometer MUST be set. The instrument cluster will function in a limited mode until the odometer and if applicable bus type has been set.

### Limited Function

All gauge pointers will sit at zero position and not operate prior to setting the odometer while the LCD will only show the Service Set messages. All other parts of the system will operate. Warning icons located in the warning modules and in gauges will function normally and buzzer tones associated with the warnings will be allowed.

### Setting the Units

Prior to setting the odometer value the technician must indicate to the gauge whether English (miles) or metric (kilometers) units are being set. The gauge will default to the unit that was set when the gauge left the factory. To change, press the up or Down button to scroll to the proper unit and press both buttons to select.



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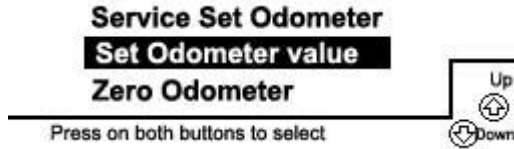
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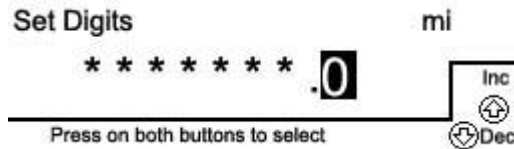
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## Setting the Odometer Value

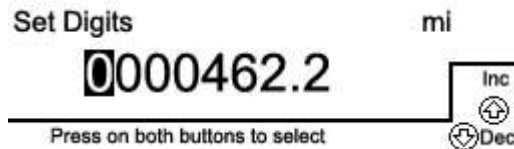
By using the *Up* or *Down* button to scroll, you can highlight either Set Odometer Value or Zero Odometer. Highlight Set Odometer value and press both buttons to select. Note: Zero Odometer is only used by manufacturing. **Do not select Zero Odometer.**



Selecting Set Odometer value displays the Set Digits screen, while selecting Zero Odometer displays the confirmation screen.



Each digit is set by using the *Inc* and *Dec* buttons to scroll forward and backward through the digits 0 – 9. Pressing **both buttons** together stores the digit and displays the next digit to be set. The following screen shows 462.2 programming into the odometer.



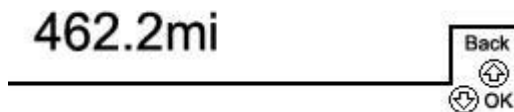
All digits must be set, but since pressing both buttons together for select brings up the next digit as zero, you can quickly set the remaining digits to zero.

Once all digits have been set the confirmation screen will be displayed. Pressing **lower OK button** will accept the mileage and display the service bus type option while pressing **upper Back button** will take you back to the beginning Service Set Gauge screen to start over.

**Important – Be sure the odometer mileage is correct before pressing the lower OK button.**

## Confirmation Screen

The Odometer will be set to:



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## Setting the Service Bus Type (Only applicable to pre-common instrument clusters)

By using the *Up* or *Down* button to scroll you can highlight either Set BBCV or Set BBD3. This is important as the Park Brake logic is different for both. Press on both buttons to select.

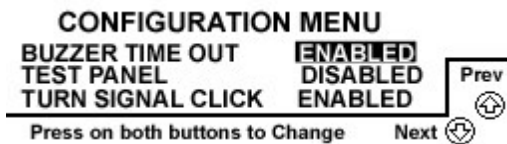


Once bus type has been set the confirmation screen will be displayed. Pressing *lower OK button* will accept the value and restart the cluster in normal ignition mode with these settings while pressing *upper Back button* will take you back to the Service Bus Type setting to reset the bus type. Turn ignition key off.

## Configuration Menu

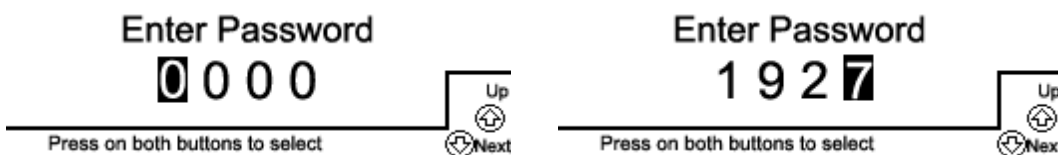
Holding both buttons pressed while turning the ignition on enters the Configuration Menu. In this menu configurable features can be enabled and disabled. If the cluster has less than 25 miles, all menu selections can be changed using the buttons. After 25 miles some items will only be able to be modified by entering the password for the UNLOCK feature (see Unlock section below).

To change a feature configuration with the buttons, scroll up or down to it and then press both buttons to change the configuration. This menu will auto exit and the cluster will re-initialize its startup routine after 10 sec timeout with no activity.



## Unlock Password (Configuration Menu)

Selecting this option will allow the user to enter a password using the buttons on the cluster in order to unlock the configurations that lock out after 25 miles to make selected configurations accessible temporarily. The first digit will highlight and characters will be incremented by pressing the *upper* button. Pressing the *lower* button will advance to the next character. Pressing both buttons when the last character is selected will make all configurations accessible. If no configuration item is selected before the menu times-out in 20 sec the cluster will reset and the password must be reentered to unlock the configuration items again.



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## Buzzer Time out Enable

Default Value = ENABLED – Customer Preference

When this configuration is ENABLED the continuous 1 audible alarm (Buzzer) would be allowed to timeout in 15 sec if the engine speed is < 400 RPM. When this configuration is DISABLED the continuous audible alarm will not time out.

## Test Panel Mode

Default Value = DISABLED – Used For Manufacturing ONLY

## Turn Signal Click

Default Value = ENABLED – Customer Preference

When this configuration is ENABLED the turn signal will use the simulated relay click audible sound. When this configuration is DISABLED there will be no sound for turn signal.

## Ammeter Display

Default Value = DISABLED – Production Order Feature (ENABLE if feature 40280-02 is on production order).

When this configuration is ENABLED the Ammeter value is shown in the display beside the Voltmeter. When this configuration is DISABLED only the Voltmeter is shown.

## Applied/Suspension Air

Default Value = DISABLED – Production Order Feature (ENABLE if feature 40280-05 or 40280-12 is on production order).

When this configuration is ENABLED the software is configured to display Applied Front and Rear Air Pressure (for Air Brake System) or Suspension Air (for Hydraulic Brake System) depending on Brake System Type. When DISABLED, Applied Air/Suspension Air are NOT displayed.

## Self Test

Default Value = DISABLED – Customer Preference

When this configuration is ENABLED the cluster will perform a startup self-test at ignition. When the configuration is DISABLED the cluster will not perform a startup self-test.

## Battery Controlled Lift

Default Value = DISABLED – Production Order Feature (ENABLE if feature 31045-02 is on production order).

When this configuration is ENABLED the wheelchair lift and related functions will operate with ignition off. When this configuration is ENABLED it affects the logic of several of the outputs. When this configuration is DISABLED the wheelchair lift and related functions will operate only with the ignition on.

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## Seatbelt Logic

Default Value = DISABLED – Production Order Feature (Auto ENABLES if pin 32 is pulled Low).

When this configuration is ENABLED the Seatbelt alarm and lamp logic will apply. If it is DISABLED this logic will not apply and no alarm or lamp will be triggered in this case. When DISABLED, and the seatbelt input is pulled low, the cluster will automatically enable the configuration.

## Lift not stowed audible

Default Value = ENABLED – Customer Preference

The Lift Not Stowed audible alarm can be Enabled/Disabled using the configuration menu. The display message will always show when the trigger condition is present.

## Headlight on audible

Default Value = ENABLED – Customer Preference

The Headlight On audible alarm can be Enabled/Disabled using the configuration menu. The display message will always show when the trigger condition is present.

## Set Clock

Ignition “on”, park brake “set”, hold the lower button > 5 seconds, the cluster will enter the “SETTINGS & DIAGNOSTICS” menu. Use buttons to scroll menu to “clock”, when highlighted press both buttons to select. Pressing both buttons will first select the “hours” selection and it will be highlighted. Pressing both buttons again will select minutes. Once a selection is highlighted, then the lower buttons will decrease the setting and the upper button will increase the setting.

The clock can be changed from 12 to 24 hour mode.

First press and release the lower button which will highlight one section of the display, then press and release both buttons simultaneously to highlight the clock section. Once the clock section is highlighted you can toggle between 12 or 24 mode by pressing and releasing the upper or lower button. If a selection is not made this menu will timeout to the previous menu after 15 seconds.



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