BLUE BIRD

DATE: **May 17, 2010**

SUBJECT: **SERVICE UPDATE S1004 ACTIA INSTRUMENT CLUSTER PROGRAMMING PROCEDURES**

MODELS AFFECTED: 2007-2010 MODEL YEAR VISION

You will find enclosed a copy of Service Update S1004 regarding the ACTIA instrument cluster 2007 through 2010 model year "Vision" model buses.

Service Update S1004 provides written procedures for programming a new replacement ACTIA instrument cluster on the subject buses.

Questions regarding Service Update S1004 should be directed to your Blue Bird Field Service Representative.

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ACTIA Instrument Cluster Replacement Update

Models Affected: 2010-2011 All American, Vision

ISSUE

Written instructions for replacement of ACTIA instrument cluster on above models is not available.

CORRECTIVE ACTION

Written instructions for replacing the ACTIA instrument cluster on above models are provided in this publication.

S1004

SERVICE UPDATE

PROCEDURE

Service Set Odometer Feature –

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 programmed into the odometer correctly matches the vehicle's actual mileage.

The Service Set odometer feature allows the odometer and bus type to be set by the service technician installing a new cluster into a vehicle. The odometer value and bus type is programmed using the front panel buttons and no other tools are necessary.

When the Cluster is powered up the LCD will display the fact that this is a Service Set Gauge and the odometer must be set. The Cluster will function in a limited mode until the Odometer and bus type has been set. Access to the set feature is controlled and secured to prevent accidental access to this feature.

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. Once odometer and bus type are set, the Service Set Gauge screen will not be seen again and the odometer value cannot be changed.

Setting the Units

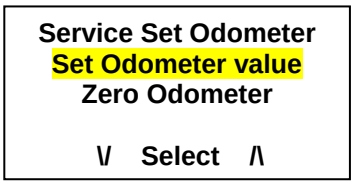
Prior to setting the odometer value the technician must indicate to the gauge whether English (miles) or metric (kilometers) units are being set. The gauge will default to the unit that was set when the gauge left the factory. To change, press the ***m*** or ***t*** button to scroll to the proper unit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

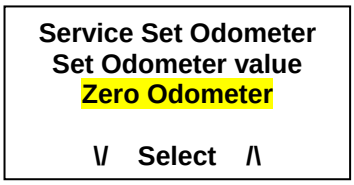
Service Set Odometer
Set Odo in miles
Set Odo in kilometers
\/ Select /\

Service Set Odometer
Set Odo in miles
Set Odo in kilometers
\/ Select /\

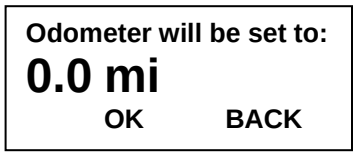
Setting the Odometer Value

By using the ***m*** or ***t*** button to scroll you can highlight either Set Odometer Value or Zero Odometer.

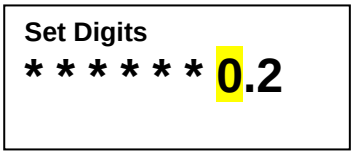


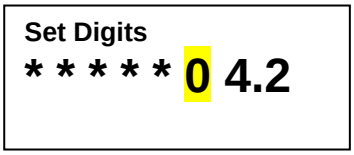


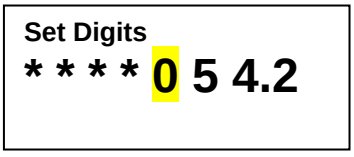
Selecting Set Odometer Value displays the Set Digits screen, while selecting Zero Odometer displays the confirmation screen.

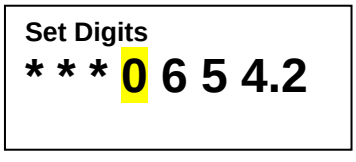


Each digit is set by using the ***m*** and ***t*** buttons to scroll forward and backward through the digits 0 – 9. Pressing ***m*** and ***t*** together stores the digit and displays the next digit to be set. The following screens show programming 7654.2 into the odometer.

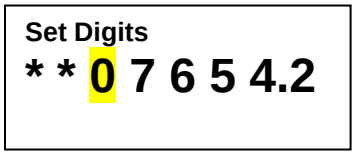


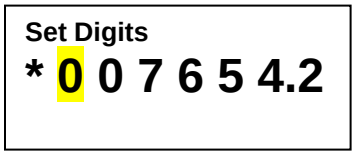


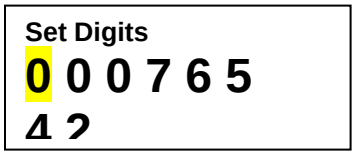




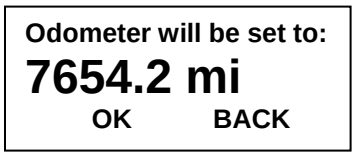
All digits must be set, but since pressing the ***m*** and ***t*** buttons together for select brings up the next digit as zero, you can quickly set the remaining digits to zero.





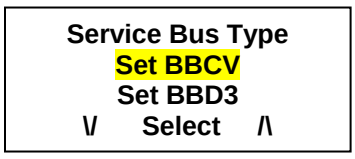


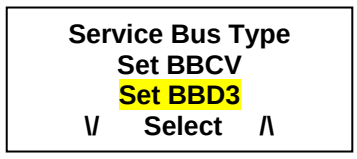
Once all digits have been set the confirmation screen will be displayed. Pressing the ***m*** will accept the mileage and display the service bus type option while pressing ***t*** will take you back to the beginning Service Set Gauge screen to start over. **Once the odometer mileage is set it can NOT be changed again. Be certain of mileage before selecting "OK".**



Setting the Service Bus Type

By using the ***m*** or ***t*** button to scroll you can highlight either BBCV or BBD3. This is important as the Park Brake logic is different for both.





Once bus type has been set the confirmation screen will be displayed. Pressing the ***m*** will accept the value and restart the cluster in normal ignition mode with these settings while pressing ***t*** 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 logged 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 using a diagnostic tool via PC or by entering the UNLOCK feature (see 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 reinitialize its startup routine after 10 second timeout with no activity.

Unlock

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. The asterisk will highlight and characters will be incremented by pressing the up button. Pressing the down 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 timeout in 20 seconds the cluster will reset and the password must be reentered to unlock the configuration items again. **Password is "1927".**

Set Character	Set Character
* * 2 7 \/ back	1927 \/ back
\/ Next	\/ Next

Buzzer Time out Enable

Default Value = DISABLED – Customer Preference

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

Test Panel Enable

Default Value = DISABLED – Used For Manufacturing ONLY

Turn Signal Click Enable

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 Enable

Default Value = ENABLED – Production Order Feature (DISABLE IF 40280-02 IS NOT ORDERED).
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.

Brake System Type (AIR) Or (Hydraulic)

Defined By Instrument Cluster Part Number – Air and Hydraulic Versions

Applied/Suspension Air Enable

Default Value = DISABLED – Production Order Feature (ENABLE IF 40280-05 OR 40280-12 IS ON 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 Configuration. When DISABLED Applied air/Suspension air are NOT displayed.

Engine Configuration Type

This setting will Auto detect based on the Engine ID's broadcast on J1939.

Transmission Configuration Type

This setting will Auto detect based on the Transmission ID's broadcast on J1939.

ABS Configuration Type

This setting will Auto detect based on the ABS ID's broadcast on J1939.

Self Test Enable

Default Value = ENABLED – Customer Preference
When this configuration is ENABLED the cluster will perform a startup self test at ignition on.

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

Battery Controlled Lift Enable

Default Value = DISABLED – Production Order Feature (ENABLE IF 31045-02 IS ON ORDER).
When this configuration is ENABLED the wheel chair lift and related functions will operate with ignition off.

When this configuration is DISABLED the wheel chair lift and related functions will operate only with the ignition on.

Seatbelt Logic Enable

Default Value = DISABLED – Production Order Feature (AUTO ENABLES IF PIN 32 PULLED LOW).
When this configuration is ENABLED the seatbelt warning light and audible alarm will activate with the seatbelt unbuckled.

When this configuration is DISABLED the seatbelt warning light and audible alarm will not activate.