

**Puma 130 / 130CVX**  
**Puma 145 / 145CVX**  
**Puma 160 / 160CVX**

Tractors

**CALIBRATION BOOKLET**

**Part Number 84533337**

1st edition English  
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## **HYDRAULIC, PNEUMATIC, ELECTRICAL, ELECTRONIC SYSTEMS - A**

### **ELECTRONIC SYSTEM - 50.A**

**PUMA 130 CVX , PUMA 130 , PUMA 145 CVX , PUMA 145 , PUMA 160 CVX  
, PUMA 160**

## Control module - Configure H-Menu Overview

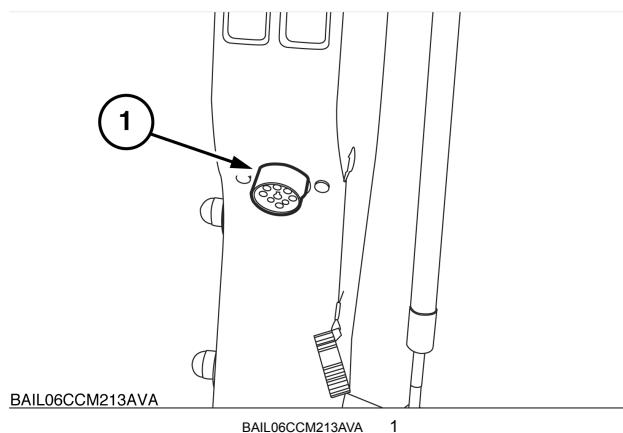
### ECU Names and Identifiers

Each of the electronic control modules fitted to the vehicle has an associated identifier that is used by the instrument cluster during the H menu diagnostics procedures. Throughout this document the modules are referred to using these identifiers. The following table lists all the modules accessible from the H menu diagnostics, its function and the corresponding identifier used by the instrument cluster.

Identifier	Controller Name	Controller Functions
IG	Enhanced ICU3	Instrument Cluster
IH	Basic ICU3	Instrument Cluster
KA	Steering Controller	Steering Control
LC	Armrest Controller	Armrest Controller
U1	Universal Controller	Transmission, Electronic Draft Control, Engine, Rear PTO, Front Wheel Drive, Differential Lock, Midmount Electronic Hydraulic Remote Valves, Suspended Front Axle Rear Electronic Hydraulic Remote Valves, Front PTO, Front Hitch
XA	EPL	Electronic Park Lock

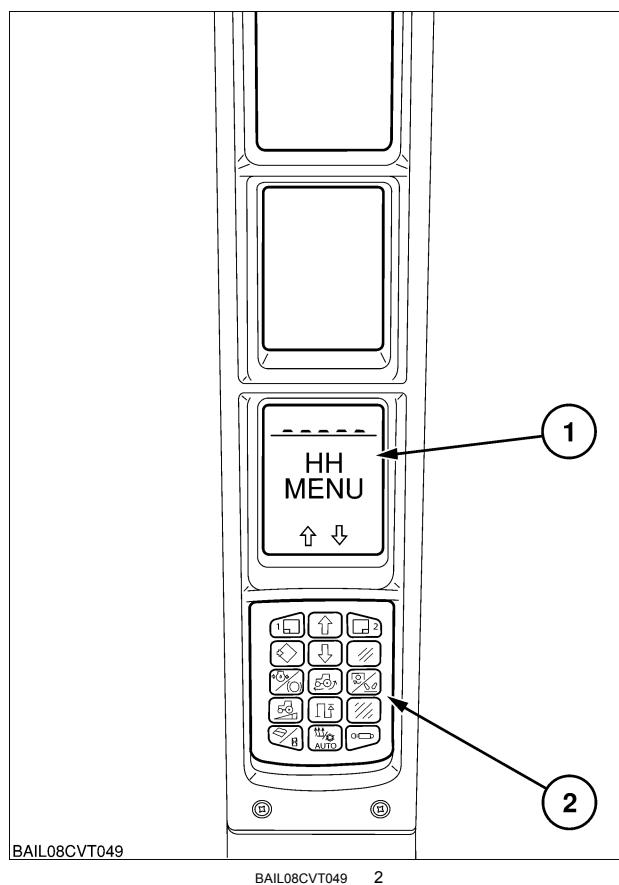
### INTRODUCTION

To gain access to the diagnostic "H" menu mode routine, it is necessary to use the diagnostic test switch, special tool **380000843 (1)** in the tractor diagnostic connector. The main diagnostics connector is located in the cab on the right hand side rear pillar behind the operators seat.



The instrument cluster (ICU3) dot matrix display (1) is located on the right hand 'A' pillar, the dot matrix displays all the "H" menu information.

The "H" menu navigation keys (2) are located on the key pad.

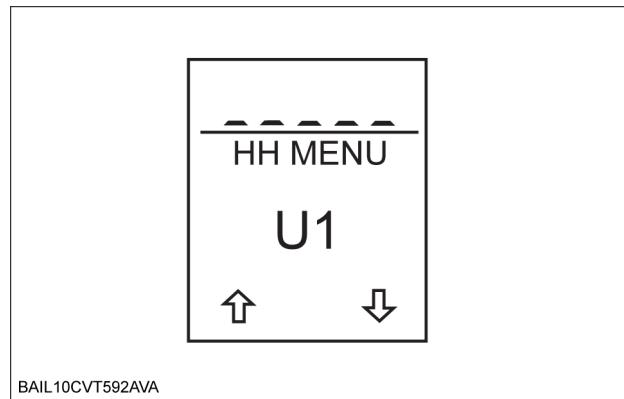


## H Menu Navigation Procedure

Connect the special tool **380000843** to the diagnostic connector and turn the key start switch ON.

At key ON the ICU3 will automatically build a list of the controllers connected on the Controller Area Network (CAN), and will store it in the Electrically Erasable Programmable Read Only Memory (EEPROM).

The dot matrix display will show "HH MENU" to indicate that the "H" menu has been activated.

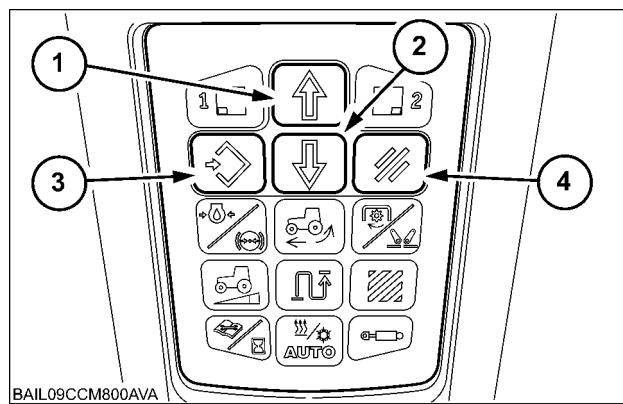


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To navigate the "H" menus use the navigation "up" key and "down" key to scroll through the options, and the "menu" key to select the required controller or "H" menu, and the "escape" key to back up a menu level.

- (1) "up" key
- (2) "down" key
- (3) "menu" key

- (4) "escape" key



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**NOTE:** Not all H menus will be available on every controller. If a controller does not implement a particular H menu, then it will not be shown when scrolling.

## Controller Identifier Code Table

The controller is identified with a two letter code, i.e. IG - Enhanced ICU3.

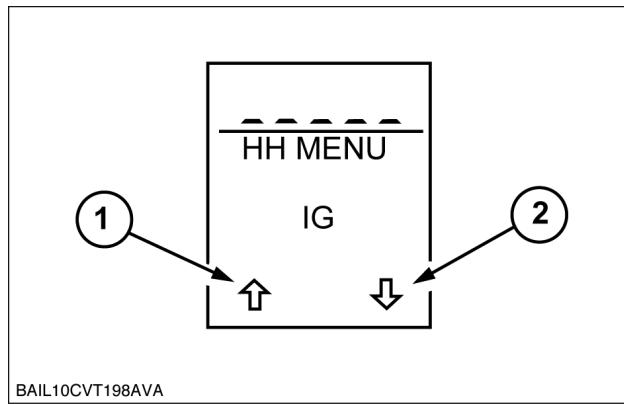
Identifier	Controller Functions
IG	Enhanced ICU3 Instrument Cluster
IH	Basic ICU3 Instrument Cluster
KA	Fast Steer System
LC	Armrest Controller
OA	Tractor ECU
U1	Transmission, Electronic Draft Control, Rear PTO, Front Wheel Drive, Differential Lock, Midmount Electronic Hydraulic Remote Valves, EngineFront Axle Suspension, Rear Electronic Hydraulic Remote Valves, Front PTO, Front Hitch
XA	Electronic Park Lock

Select the controller that requires diagnostics or configuration.

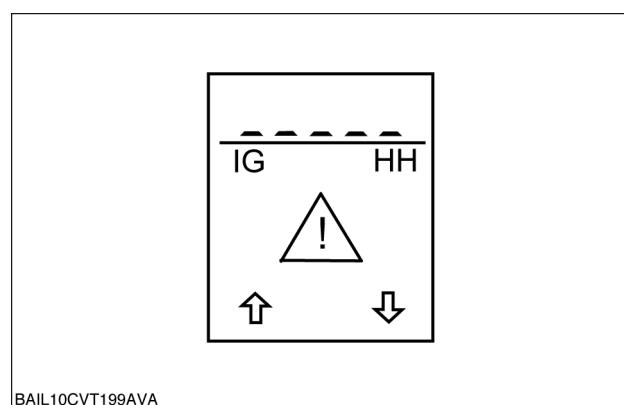
Depress the "menu" key to show the first controller identifier code in the list.

The up arrow (1) and the down arrow (2) indicate there are other controllers available.

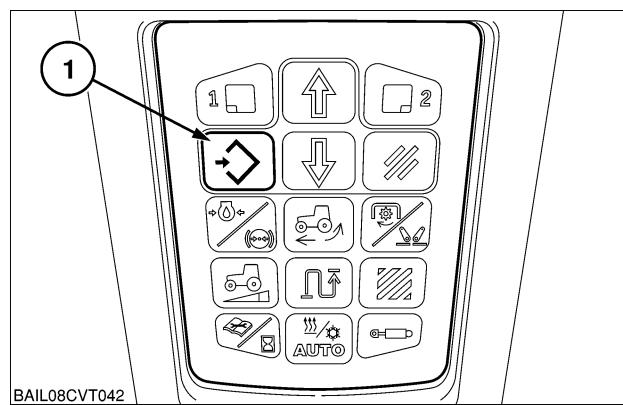
To navigate through the list of controllers use the "up" and "down" key.



If a controller cannot be found on the CAN, a symbol will be displayed to indicate that there is no communication between the ICU3 and the selected controller.

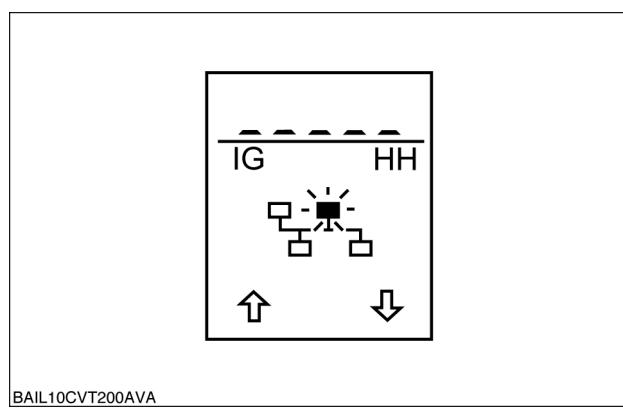


When the required controller is located in the list, depress the menu key (1) to select it.



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The display will change to show the "HH menu" select screen.



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## H Menu Common Features

The "H" menus consist of the following menu codes.

**NOTE:** Not all the following "H" menus are available for all controllers.

HH	Not Supported
H1	Calibration procedures
H2	View stored calibration values
H3	Configurations and options
H4	View software revision level
H5	Switch operation test
H6	Vehicle information view
H7	Vehicle test modes
H8	Clear stored calibration information
H9	Voltmeter diagnostics
HA	Demonstration mode
HB	Display stored fault codes
HC	Clear all stored fault codes
HE	Display frequency inputs
HF	View controller hardware information
HJ	Electronic hydraulic remote control valve number programming
HK	Rear electronic hydraulic remote control valve diagnostics

## Dot Matrix Display Symbols

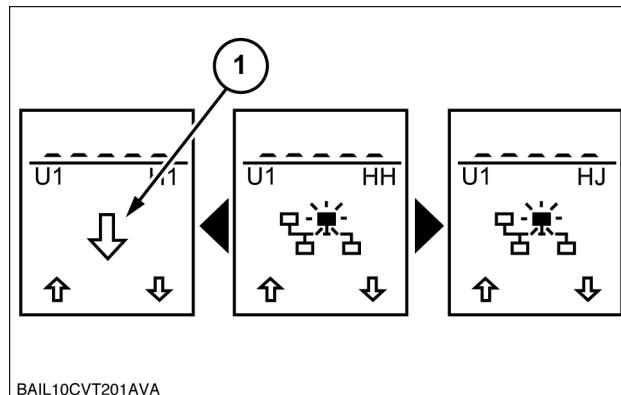
1. Engine		8. Front suspension	
2. Transmission		9. Four wheel drive	
3. Differential lock		10. Fast steer system	
4. Electronic draft control		11. HTS	
5. Front hitch		12. Engine shutdown	
6. Rear P.T.O. system		13. Air brake	
6a. Front P.T.O. system		14. Steering sensor	
7. Rear Electronic remote valves		16. Error code management	
7a Front electronic remote valves		17. SWCD	

The up and down arrows indicate there are other "H" menus available.

To navigate through the list of "H" menus use the "up" and "down" key.

The downward arrow (1) indicates there is more than one sub-system that uses the same menu (multi-functional "H" menu).

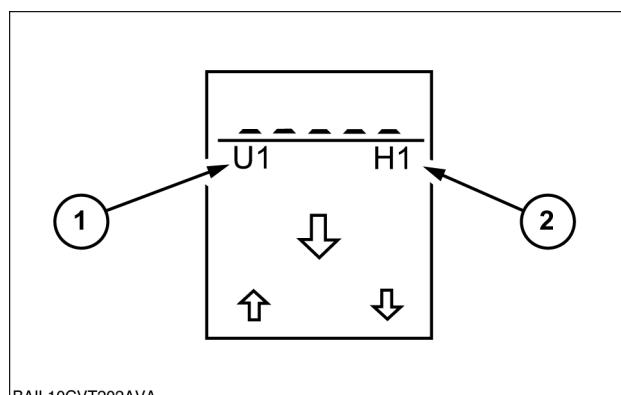
Depress the "menu" key to select the "H" menu required.



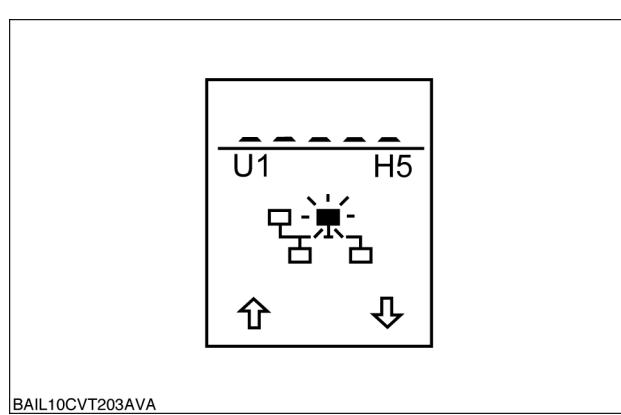
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The controller selected will be displayed in the top left hand corner of the dot matrix display (1).

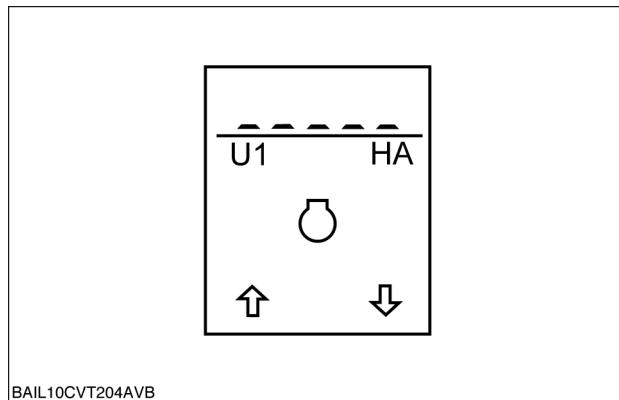
The "H" menu will be displayed in the top right hand corner of the dot matrix display (2).



The "H" menu select screen will be displayed if the menu is common to all sub-systems, i.e. H5 - Switch test and H9 - Voltmeter.

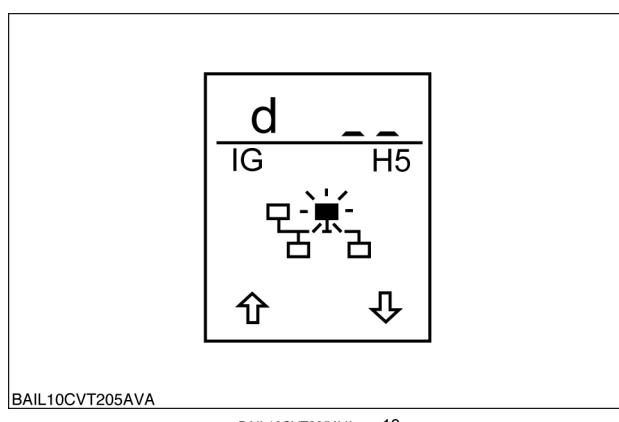


If the menu is specific to only one sub-system, the relevant icon will be displayed in the centre of the dot matrix display, i.e. engine icon for HA - Demonstration mode.



When the sub-system has been selected, the navigation arrows will no longer be displayed.

The top section of the dot matrix display will be used to display the set-ups or values for the selected sub-system.

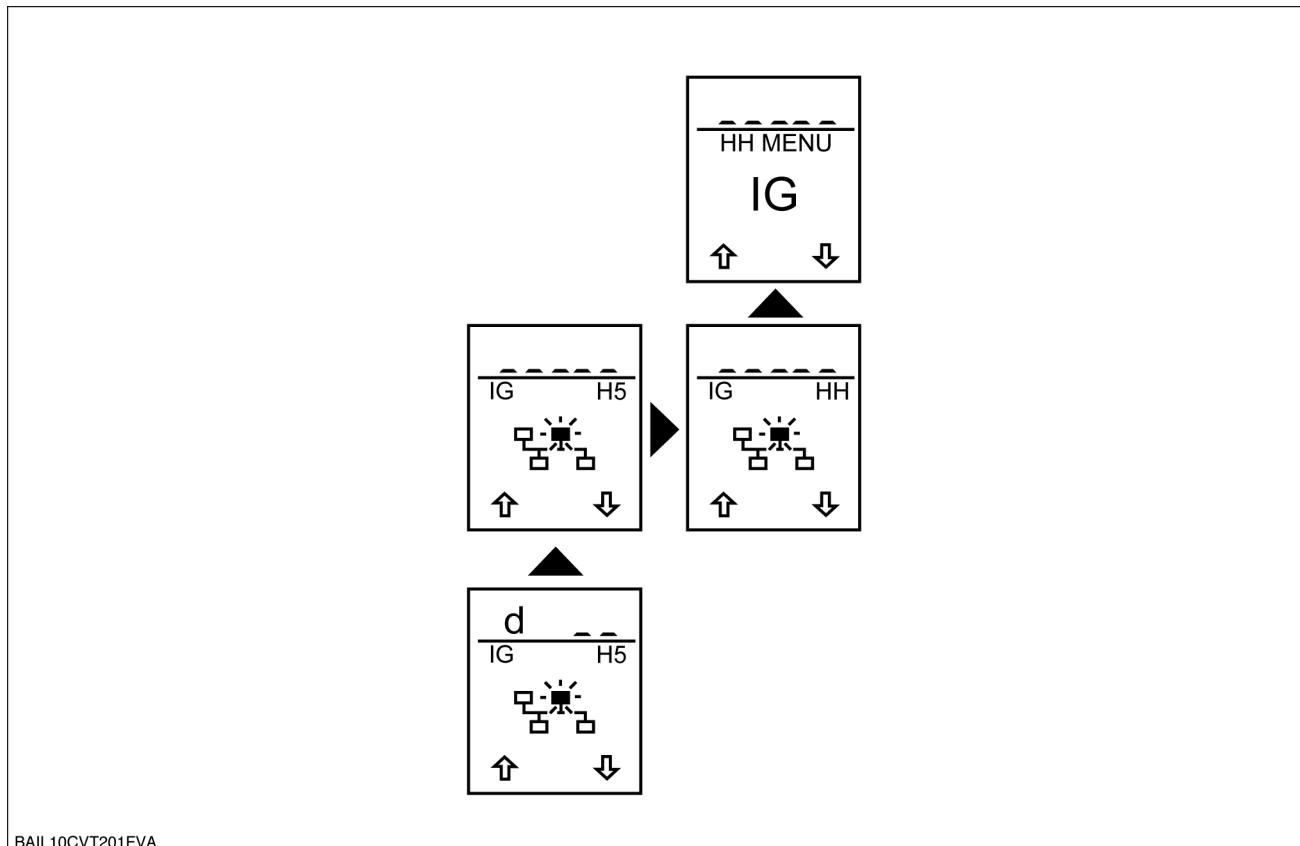


**NOTE:** To return to the "H" menu select screen from H1 - Calibrations the keystart needs to be turned OFF. This will store the completed calibrations.

To return back to the "H" menu select screen, depress the "menu" key.

**NOTE:** To return to the controller select screen, "HH" must be indicated in the top right hand corner of the dot matrix display.

To return back to the controller select screen, depress the "menu" key again.



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