VALID INFOTAINMENT SYSTEM

SERVICE MANUAL

ENTEGRA COACH





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Safety 1

WARNING

- Before work is done underneath the vehicle, it must be supported with jack stands or parked over a pit, with the transmission in neutral, the park brake set, and the wheels chocked.
- Failure to do so may result in personal injury or death.

CAUTION

• The Valid Infotainment System should be serviced only by qualified personnel.

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This service manual provides guidance on troubleshooting the Valid Infotainment System.

NOTE Low battery voltage can result in indeterminate system operation and phantom fault indication. Ensure that vehicle battery voltage is adequate before troubleshooting.

For additional information, refer to the following documentation:

Operation manuals:

- Valid Infotainment System Operation Manuals:
 - VDC00870 MY2023
 - VDC01227 MY2024
 - VDC01290 MY2025
- Sygic Navigation System Operation Manual

Valid Manufacturing Ltd. drawings and schematics:

- VEC05A027-11 Device connection overview, Entegra
- VEC13A056-07- Center Console Interface
- VEC06A038-01 Valid Cab Interface Module (CIM)
- VEC02A021-02, VEC02A021-04 Passenger Touchscreen

NOTE Harnesses supplied by vehicle manufacturers may have different wire colors and labels than shown in the drawings.

Manuals and software downloads are available here:

https://support.validmfg.com/infotainment-entegra/

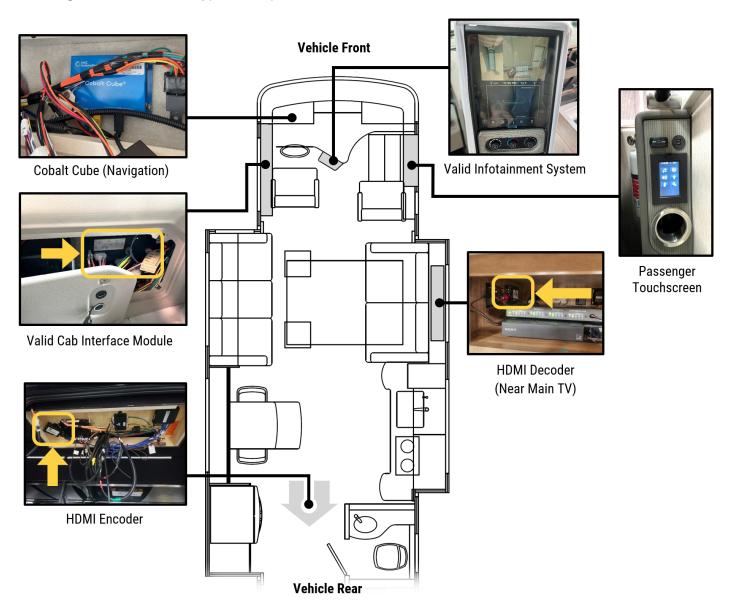
Or scan / click on this QR code:



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Component Locations 3

The image below illustrates typical component locations within the coach.



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Troubleshooting 4

The Troubleshooting section lists symptoms and possible solutions for the different components of the Valid Infotainment System.

4.1 Symptoms

Symptom	Refer To
With the ignition turned on, there is nothing displayed on the Valid Infotainment System, or it is blinking.	"Center Console Interface (CCI) Troubleshooting" on the next page.
Selected audio source is not playing.	"Bluetooth Troubleshooting" on page 15.
Cannot pair device.	"Bluetooth Troubleshooting" on page 15.
One of the following items is not working: • Lighting • Step / step cover controls • Shade or screen controls • Pedal adjustment • Steering wheel adjustment • Toll window • Mirror adjustment	"Valid Cab Interface Module (CIM) Troubleshooting" on page 11.
There is nothing displayed on the passenger touchscreen.	"Passenger Touchscreen Troubleshooting" on page 16.
The Sygic navigation system is not working.	"Navigation Module Troubleshooting" on page 12.
Manual Level mode not working.	The Level Zero Set calibration procedure may not have been performed. This procedure must be done on the Valid Instrument Cluster.
Cameras do not display properly, or at all	"Camera Display Troubleshooting (Anthem / Cornerstone)" on page 17. "Camera Display Troubleshooting (Aspire / Ramco Camera)" on page 19.
Red alert triangle displayed at top left of screen.	Fuse fault detection - refer to "Fuse Detection (Model Year 2025+)" on page 20.

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4.2 Center Console Interface (CCI) Troubleshooting

Symptom	Action
There is nothing displayed on the CCI screen, or it is blinking	 Check the CCI power status on J8. Disconnect J8 on the CIM to reset the power to the CCI. If this does not resolve the issue, the CCI unit may need to be replaced.
None of the CCI buttons respond	 Reset the CCI. If a Reset does not fix the issue, check the CAN connections from the CCI to the CIM (J10). Check the main CAN tap on the vehicle. There could be a faulty message from the IP to the HDMI decoder. Disconnect the network cable from the decoder to test. If normal operation resumes, replace the decoder.
Temperature display "bounces" between two numbers on the CCI screen.	The Valid Instrument Cluster must be updated.
Time display"bounces" between two numbers on the CCI screen.	Firefly must be updated. The Vegatouch control system update should be at version 1.5.9 or newer.
CCI crashes when accessing the Bluetooth contact list.	CCI software update is required.

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4.3 Valid Cab Interface Module (CIM) Troubleshooting

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Symptom	Action
Step / step cover controls do not work with the ignition off.	If the step cover does not move out with ignition off, check the connection and voltage at J4 on the CIM.
Step / step cover or mirror controls do not work with the ignition on.	Check fuse on the Spartan PDC board.
Problems with adjustments for pedals or steering wheel.	Check whether park brake is released. Check the connection and voltage at J5 on the CIM.
Shade or screen controls don't work as expected.	Check the connection and voltage at J1 for front shades, and J2 for side shades on the CIM.
Normal operation: night shades go up with ignition on, and day shades work with ignition on or off.	
Toll window operation error.	Check the connection and voltage at J12 on the CIM.
Problems with mirror adjustment.	If mirrors work with the ignition off but not with the ignition on, check fuse F11 in the battery compartment.
Driver mirror adjustment.	Check the connection and voltage at J6 on the CIM.
Passenger mirror adjustment	Check the connection and voltage at J7 on the CIM.
One of the following doesn't work:	If overcurrent is detected, the affected motor output is locked off for that direction of movement.
Step cover Tally disclared	Remove the lock by doing one of the following:
Toll windowTilt	1. Attempt to run the affected motor in the opposite
• Tele	direction. If there is no overcurrent, the lock will be
Pedals	cleared. However, if there is still overcurrent, the lock will be flagged for that opposite direction.
. caais	Disconnect both power connectors J18 and J20 for 15 seconds and then plug them both back in again.
No CIM functions work.	Check the CAN connection s at J10 on the CIM and the CAN connection to the CCI.

See also:

"Valid Cab Interface Module" on page 44

"VNC Cobalt Cube" on page 57

4.4 Navigation Module Troubleshooting

Symptom	Action
Sygic navigation system does not start.	Double-tap the Sygic icon to launch the app.
	Check connections to Navigation module: Power, Ethernet, GPS
GPS doesn't display within 30 seconds to 1 minute.	GPS is most likely on Dynamic IP and must be changed to Static IP.
	In the Cobalt cube Ethernet settings menu, ensure the following items are set:
	 IP address: 192.168.125.37
	 Netmask: 255.255.255.0
	• Gateway: 192.168.124.100
Sygic Navigation displays message: "Something went wrong - restart application"	Connect coach to the internet and check map menu. Map update may be required.
	Poor GPS signal - app may not be able to find current location.
	Check GPS cable connection on the Cobalt Cube.
No audio prompt for turn information, or only	Cobalt Cube must be paired to Bluetooth.
when audio source is set to Bluetooth	Update the CCI software to the latest version. Refer to "Software Updates" on page 27.
Sygic update fails to install.	The previous Sygic software version must be uninstalled before the update can be completed.
Maps not downloading	The Spruce router must be connected to the internet.

4.5 HDMI Encoder Troubleshooting

Symptom	Action
The camera stream is not displayed on the Center Console Interface (CCI)	This indicates that there is no communication between the HDMI encode and the Center Console Interface (CCI).
	A 10 / 100Mb Ethernet connection (NOT CAN-bus J1939 or RV-C) is required between the HDMI encoder and the Ethernet switch.
	Restart the CCI by selecting Settings > Reset .
	Check the IP address of the CCI on the Settings > System Information page. It should show 192.168.124.34.
	Check the Ethernet connections at the Ethernet switch and the HDMI encoder.
	 Are the Ethernet cable(s) damaged?
	 Are the RJ45 connectors properly seated?
	 Do the other devices on the Ethernet network operate normally?
	 Is the Ethernet address of the HDMI encoder set to its normal standard of 192.168.124.36? A laptop / PC is required to test this.
	Check the HDMI power connection from the Valid Cab Interface Module. Refer to "Valid Cab Interface Module Rear Connections" on page 44.
	 Are the HDMI encoder lights on? This indicates that there is power to the unit.
	 Is the connector securely fastened?
	Is there 12VDC at the connector?
	Check the camera configuration in the Advanced menu to confirm that the correct camera is selected for the coach,
Instead of the camera feed, NO SIGNAL is displayed	This indicates that there is no communication between the HDMI encode and the camera control module.
	 Check the HDMI connections at the HDMI encoder and the camera control module. If there is an HDMI splitter between the encoder and the module, check connections there as well.
	Check the camera control module power source.

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4.6 HDMI Decoder Troubleshooting

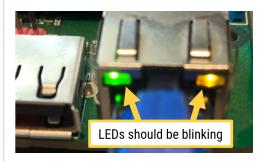
Symptom

Action

Navigation and / or camera display is not shown on the overhead monitor.

Check if the device has power and Ethernet connectivity:

- Is the Ethernet cable connected?
- Are the green and yellow LEDs next to the Ethernet port on and blinking?



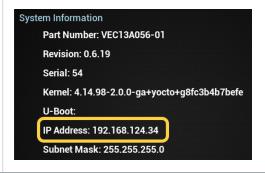
On the **Settings** > **Settings** > **System Information** > **Network Devices** screen, check that the device is shown in the list:

Example: VEC06A031-xx

If the device is not present in the list, there may be an Ethernet connection issue to the HDMI decoder, or the CCI.

The device firmware can be updated if necessary using the **Update** button.

The IP address of the CCI can be checked on the **Settings > System Information** screen:



Symptom	Action
	The HDMI connection from the HDMI decoder to the HDMI monitor can be checked as follows:
	1. Set the HDMI monitor to the HDMI input from the HDMI decoder.
	2. Disconnect the Ethernet cable from the HDMI decoder.
	The overhead monitor should show the IP address of the HDMI encoder, and show that Ethernet is disconnected:
	SN:100 IP:192.168.124.35/24 Rev:4 Ethernet Disconnected Temp:51.1C
	3. Re-connect the HDMI cable.
	The HDMI display should show that Ethernet is connected with an IP address of 0.0.0.0, and then will show the IP address of the device:
	SN:100 IP:0.0.0.0/0 Rev:4 Ethernet Connected Temp:53.1C
	SN:100 IP:192.168.124.35/24 Rev:4 Ethernet Connected Temp:53.1C
	Ensure that the IP addresses of the CCI and HDMI decoder are both on the same subnet, eg: 192.168.124.XX.
	If they are not, there may be an issue with the firmware installed on the HDMI decoder, and it may not be the correct part number for the vehicle.
	The camera or navigation feed should be visible on the overhead monitor when Nav or Cameras is selected on the Settings screen.
	If the camera or navigation feed is still not displayed on the HDMI monitor, disconnect and reconnect the HDMI decoder power.
	NOTE If the power is cycled to the HDMI decoder, the operator must re-select either Nav or Cameras on the CCI settings screen.

4.7 Bluetooth Troubleshooting

NOTE The Valid Infotainment System for Entegra Coach uses Bluetooth 5.

Symptom	Action
Bluetooth pairing - auto reconnect to last known device does not function.	Manually pair device. CCI update required.

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Symptom	Action
Bluetooth connection drops or call does not complete.	Disconnect and reconnect.
Bluetooth does not connect.	Check whether the Edimax Bluetooth dongle is seated in the rear of the CCI. Replace dongle if required.
Bluetooth audio feedback on phone side of connection during phone call.	Hang up and call again.

4.8 Passenger Touchscreen Troubleshooting

Symptom	Action
Climate controls not	If the ignition is off, turn it on.
functioning properly	If ignition is on, there may be a faulty RV-C connection, or the climate control system is not powered on.
Passenger-side ambient temperature does not match that on the center console display.	Software update required (minimum v0.5.2).
Blank display	Check the rear connector - is it securely seated?
	Check the connection at the RV-C CAN hub located in the first or second basement compartment on the passenger side of the coach. Refer to the image below.
	Check fuse F11 in the battery compartment - if it is not seated properly, ignition power to the system is interrupted.
Blank display with blinking LED	The touchscreen is stuck in 'Bootloader' mode. Go to Settings > Settings > System Information > Network Devices , and press Scan . The touchscreen should display a "Bootloader Mode" message. Press Update Device . If the software does not load, the touchscreen must be replaced.

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4.9 Camera Display Troubleshooting (Anthem / Cornerstone)

The items below pertain to the Delta Mobile camera system in the Anthem and Cornerstone coach models.

Symptom	Action
Cameras do not display on the CCI but display on the Valid Instrument Cluster	There is no communication between the HDMI encoder and the Center Console Interface (CCI).
	Ensure camera configuration is on "Delta Mobile."
	Reset the Valid Infotainment System. If cameras restore, the CCI software is old and must be updated.
	Check to see if navigation is displayed. If there is neither navigation nor cameras, the problem is the Cat6 Ethernet connection from the CCI to the CIM (Cab Interface Module). If navigation works, the CAT6 connection is good.
	Check the Ethernet connection between the CCI and the CIM. The network port on the CIM should blink yellow or green if the connection is good. If the LED is not illuminated or is red, the cable or connection is faulty.

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Symptom Action		
Cameras do not display on CCI or the Valid Instrument Cluster (blank screen)	There is no communication between the HDMI encoder and the CCI or Valid Instrument Cluster.	
	Ensure the HDMI encoder has power. If there is no power, check the connection to the CIM at J19 pin 3.	
	Reset the HDMI encoder by pushing a paper clip or small round object in the RESET hole of the encoder. This resets the encoder to the Valid default configuration.	
	Check the HDMI cable.	
	Check the Ethernet connection between the encoder and CIM. The network port on the CIM should blink yellow or green if the connection is good. If the LED is not illuminated or is red, the cable or connection is faulty.	
	If these steps have been followed with no results, disconnect the power to the CIM at J18 & J20. Wait 5 minutes and re-connect. This action reboots the CIM controller.	
Cameras display "No signal" on the CCI and the Valid Instrument Cluster.	There is no communication between the HDMI encoder and the Camera controller	
	Check power to the camera module. If there is no power, check these fuses:	
	• Fuse F4 "CAMERA / BLINDSPOT IGN 7.5A" on the Spartan PDC board	
	 Fuse 9 "CAMERA SYSTEM" on the fuse panel in the fender compartment 	
	Reset the camera module power by pulling the F9 fuse.	
	Replace the HDMI cable.	
	If resetting both the camera module and Valid Infotainment System does not fix the issue:	
	Verify operation of the HDMI encoder by removing the HDMI cable from the camera controller and plugging it into a laptop. If the laptop is displayed on the CCI and Valid Instrument Cluster, the camera controller is faulty.	

See also:

"Camera Display" on page 51

4.10 Camera Display Troubleshooting (Aspire / Ramco Camera)

The items below pertain to the Ramco camera system in the Aspire coach model.

Symptom	Action
Cameras do not display on the CCI but display on the Valid Instrument Cluster	Ensure camera configuration is set to "Zone Defense: Ramco 360." Refer to "Camera Display" on page 51.
	Reset the CCI. If cameras restore, the CCI software is likely old and should be updated.
	Check to see if navigation is displayed. If neither navigation nor cameras are displayed, the problem is the Cat6 Ethernet connection from the CCI to the CIM (cab interface module). If navigation works, the CAT6 connection is good.
	Check the Ethernet connection from the CCI to the CIM. The network port on the CIM should blink yellow or green if the connection is good. If the LED is not illuminated or is red, the cable or connection is faulty.
Cameras do not display on CCI or the Valid Instrument Cluster (blank screen)	 Check power to the camera module. If there is no power, check these fuses: Fuse F4 "CAMERA / BLINDSPOT IGN 7.5A" on the Spartan PDC board Fuse 9 "CAMERA SYSTEM" on the fuse panel in the fender compartment
	Check the Ethernet connection from the camera controller to the CIM. The network port on the CIM should blink yellow or green if the connection is good. If the led is not illuminated or is red the cable or connection is faulty.
	If the above items are good:
	Reset the camera module by pulling the F9 fuse. If the cameras do not display, the camera controller is faulty.

See also:

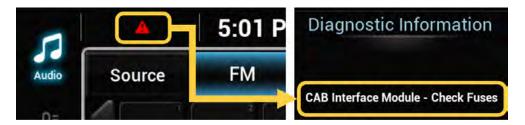
"Camera Display" on page 51

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4.11 Fuse Detection (Model Year 2025+)

A red alert symbol at the top left of the screen indicates that a blown fuse may be present in the Cab Interface Module (CIM).

If the symbol is pressed, a diagnostic information pop-up window is displayed.



The Check Fuse alert is triggered in the conditions described in the table below.

NOTE For information on the rear inputs of the cab interface module, refer to "Valid Cab Interface Module Rear Connection Details" on page 45.

Affected Input	Alert Occurs When	
J18 Pos1 - Motor chassis power J18 Pos3 - Chassis power	Ignition is offHouse power is onOne or both of these inputs are disconnected	
J5 Pos14 - Ext 12VDC for Tilt / Tele / Pedals	External 12VDC power is removed	
J20 Pos1 - Motor house power J20 Pos2 - House power	Ignition is on for longer than 60 secondsOne of these inputs is disconnected	
	NOTE If both inputs are disconnected, the alert is not triggered.	

When the ignition is off, the CCI is powered by house power. After the ignition is turned on, the system waits 60 seconds before switching the CCI to chassis power. This delay prevents electrical interference during engine cold-cranking, which could otherwise disrupt the HDMI encoder, causing it to lose its configuration and revert to factory default settings.

The table below describes the various combinations of ignition and house power and the relationship to the Check Fuse alert.

lgnition	House Power	CCI Power Supplied By	Loss / restoration of 12VDC results in Check Fuse Alert (*ON-delay / **OFF-delay)
Off	Off	CCI off	n/a

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Ignition	House Power	CCI Power Supplied By	Loss / restoration of 12VDC results in Check Fuse Alert (*ON-delay / **OFF-delay)
Off	On	House power	Chassis power (2 sec / 5 sec) Motor chassis power (2 sec / 5 sec) Motor house power (30 sec / 5 sec)
On	On	House power, then chassis power 60 seconds after ignition is turned on.	House power (2 sec / 5 sec) Motor chassis power (30 sec / 5 sec) Motor house power (2 sec / 5 sec)
On	Off	No power unti ignition is turned on. Check Fuse alert is triggered.	

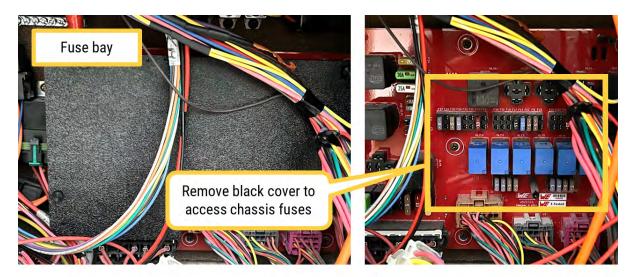
^{*}ON-delay: The delay between the occurrence of the condition and the resulting Check Fuse alert.

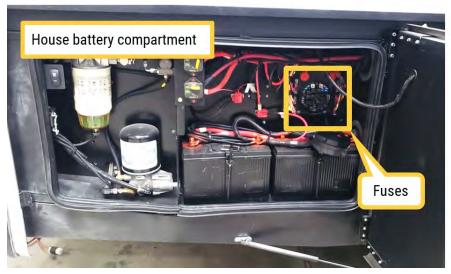
4.11.1 Fuse Locations

Fuses can be found in the following locations:

- Fuse box located in the exterior fuse bay on the driver side of the coach
- House battery compartment

^{**}OFF-delay: The delay between the cessation of the condition and the Check Fuse alert turning off.





Diagnostic Procedures 5

5.1 Network Testing Overview

The Valid Infotainment System has two wired network connections:

- RV-C
- Ethernet

The RV-C controller area network (CAN) is used for 'House Management', such as climate and slideout control. The passenger touchscreen also communicates with the Valid Infotainment System via RV-C.

The 10/100Mb Ethernet is used to receive data from the Xite Navigation system (via the HDMI encoder) for the map display on the Valid Infotainment System screen.

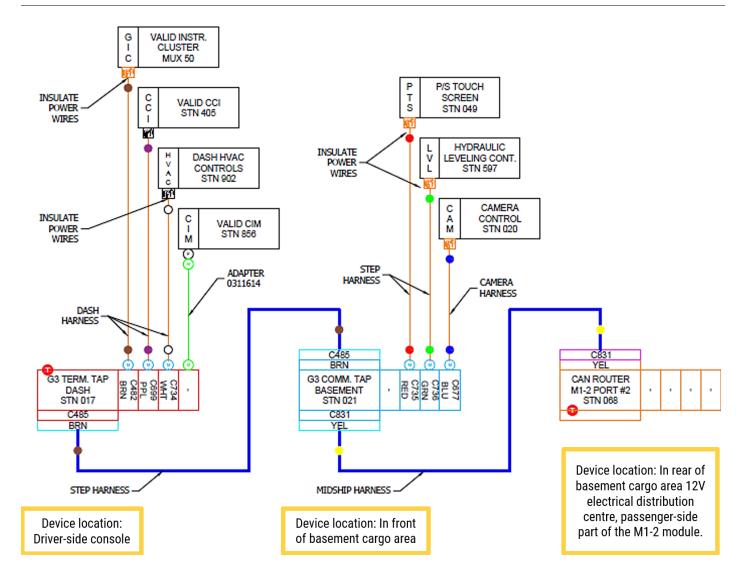
5.2 Electrical Testing Guidelines

When performing electrical testing on the Valid Infotainment System, please adhere to the following guidelines:

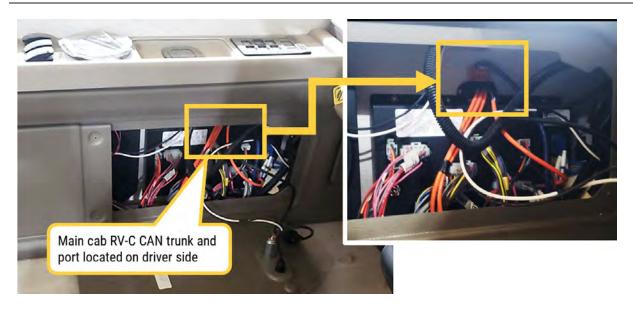
- When testing for resistance or continuity, the system must be turned off, ignition turned off, and fuses for the Valid Infotainment System removed. Disconnect the battery when testing the J1939 CAN-bus resistance.
- When testing for voltage or outputs, ensure that the ignition is on, and the fuses are in place.
- When testing continuity to ground ensure there is good contact with ground a proper bare metal spot on the chassis otherwise false readings may result.
- To test for blown fuses, first remove the fuse from the vehicle. Set the meter to the continuity setting, or the ohms (omega Ω symbol) setting, and place one meter lead on each side of the fuse. If the meter shows an open circuit, the fuse is bad and must be replaced.

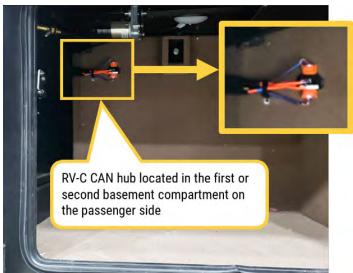
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5.3 RV-C CAN Network



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5.4 Controller Area Network (CAN) DC Voltage Testing

Before working on or under the vehicle, refer to "Safety" on page 6.

- Test with the ignition turned on.
- · Set the multi-meter to DC Volts.
- On the harness connector(s):
 - Confirm there is 12V DC between the +12V and DC Common contacts. A fully charged battery is around 12.7V DC.
 - Test the voltage between the J1939/RV-C Low and DC COMMON wire. The voltage should be between 2.0VDC and 2.6VDC.

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 Test the voltage between the J1939/RV-C High and DC COMMON wire. The voltage should be between 2.0VDC and 2.6VDC.

5.5 Controller Area Network (CAN) Resistance Testing

Before working on or under the vehicle, refer to "Safety" on page 6.

Both the RV-C and J1939 wiring harnesses consists of a main trunk with two 120-Ohm terminating resistors, one at each end (electronically in parallel). Typically the J1939 harness is shielded, so it uses a 3-contact terminator, while the RV-C is unshielded, so it uses a 2-contact terminator. Nodes tee off for each device connection.

- Disconnect the vehicle chassis battery.
- · Set multi-meter to Ohms.
- Remove the J1939 or RV-C connector from either the back of the Valid Infotainment System or some other access point.
- Visually inspect all contacts to ensure none of them are pushed back.
- Measure the resistance between the following contacts:

Description	Normal Measurement	Bad Measurement
J1939 Low to J1939 High	60 Ohms	120 Ohms or high resistance
RV-C Low to RV-C High	Both terminators correctly connected in parallel	One or both terminators not connected, or break in harness
	Harness intact	
J1939 Low to Common		
RV-C Low to Common		
J1939 Low to POWER	High resistance	Low resistance or short circuit
RV-C Low to POWER		Wire insulation compromised
J1939 High to Common		'
RV-C High to Common		
J1939 High to POWER		
RV-C High to Common		

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Software Updates 6

The following procedure describes how to update software in the Valid Infotainment System.

The Valid Infotainment System contains multiple components that must be updated when new software is available. Each component is updated individually, and most of these updates can be done from the Center Console Interface (CCI) Settings screen.

Updates can be downloaded from the Valid support web page and copied onto a USB flash drive. The flash drive can then be plugged into the driver's side interior door panel for loading onto the Valid Infotainment System.

NOTE The HDMI Encoder is not updated via the CCI Settings screen. Instead, it must be updated over Ethernet with a web browser. Refer to "HDMI Encoder" on page 30.

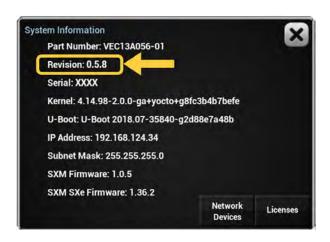
Determine the software version currently installed in the Valid Infotainment System.

- 1. On the Valid Infotainment System interface, press the **Settings** menu icon on the bottom right.
- 2. On the **Settings** screen, press the **Settings** icon.
- 3. Press System Information.
- 4. Verify that the **Revision** (second line down) is **older** than the current version available for your coach.

NOTE Latest versions may be found in the software downloads section of the Entegra infotainment support page

here: https://support.validmfg.com/infotainment-

entegra/



6.1 Valid Infotainment System Software Update

The files listed below are required to update the Valid Infotainment System:

- · update-complete.bgra
- · validmfg.autoupdate
- VEC13A056-01-v0.3.12.swu (version may be different than shown)

These files may be obtained on a preloaded USB flash drive, or downloaded as a zip file from the Valid support website. Scan or click on the QR code pictured here to go to the support site, or follow this link:

https://support.validmfg.com/infotainment-entegra/

Current software updates are available on support website, as well as the most recent update instructions.



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NOTE Refer to "Software Download Links" on page 62 for a list of all available software update links.

6.1.1 Update the CCI

- 1. Download the required update file.
- 2. Copy the file onto a USB flash drive.

NOTE It is recommended to use a USB flash drive with a flashing LED, as this indicates whether the software is uploading to the Valid Infotainment System.

3. Plug the USB flash drive into the driver's side USB port.

If the LED in the USB drive does not flash, the update will not take longer than 5 minutes. If it has been longer than 5 minutes, either the USB port is bad or the correct files are not available on the flash drive.



When the update has finished, the screen displays a prompt to remove the USB flash drive.



4. Remove the USB drive. The screen will reboot on its own and return to normal operation.

NOTE If the screen does not reset, ensure that house power and ignition are both turned off. Turn on the house power. The screen should turn on.

6.1.2 Update Network Devices

If the Valid Infotainment System has been updated to the latest version, system components can be automatically updated from the center console display.

- 1. Navigate to **Settings > Settings > System Information**.
- 2. Select Network Devices.
- 3. Select **Update** for any devices that have an Update button.





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HDMI Encoder 7

The HDMI encoder converts the signal from the cameras installed on the coach to an Ethernet stream so the camera feeds can be displayed on the Valid Infotainment System.

The HDMI encoder can be tested by connecting it to a PC and using either a web browser or the VLC Media Player (available for free online) to check communication.

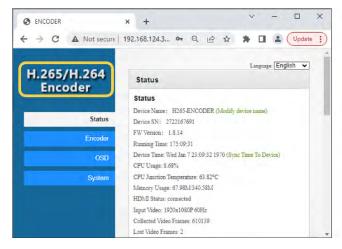
7.1 HDMI Encoder Connections

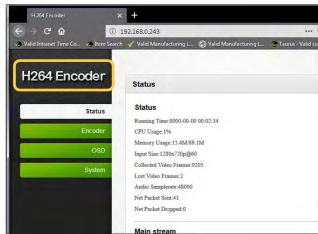


7.2 Check Communication with a Web Browser

- 1. Connect a PC to the HDMI encoder via Ethernet.
- 2. Set the computer's IP address to the same subnet (eg 192.168.124.199).
- 3. Open a web browser and go to 192.168.124.36.
- 4. Log in using the following credentials:
 - Login: admin
 - password: admin or 6477

One of two possible HDMI encoder status screens should be displayed, depending on the encoder software version. Both are shown below.





If the status screen is displayed, the connection was successful and the HDMI encoder is working correctly.

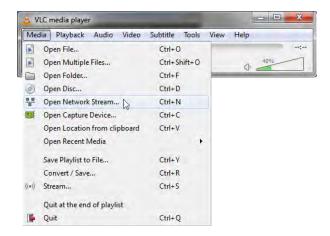
7.3 Check Communication with VLC Media Player

VLC Media Player is a free and open-source cross-platform multimedia player. It can be downloaded from the VideoLAN website: https://www.videolan.org/vlc/index.html.

- 1. Install the VLC Media Player if necessary.
- 2. Open the VLC Media Player.



3. Go to the Media menu > Open Network Stream (Ctrl-N).



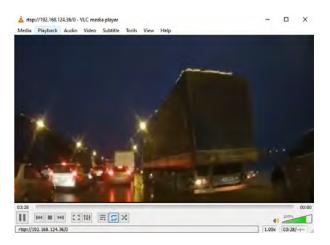
4. Type in: rtsp://192.168.124.36/0 and select **Play**.

One of two things will be displayed:

a. Black screen with the words "No Signal": This indicates that there is no communication between the HDMI encoder and the camera system.

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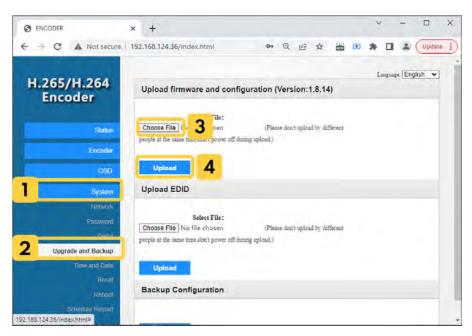
b. If a camera feed is shown, the HDMI encoder is working correctly.



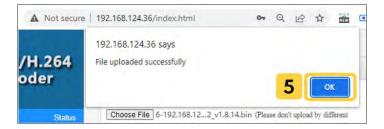
7.4 HDMI Encoder Update - H.265 / H.264

Follow these instructions to update the HDMI encoder, version H.265 / H.264:

- 1. On the main menu, go to **System > Upgrade and Backup**.
- 2. Select Choose File.
- 3. Select the .bin file, such as 6-192.168.124.36_30FPS_app_ex72_v1.8.14.bin.
- 4. Select **Upload**.



5. A message will be shown that the upload was successful. Select **OK**.

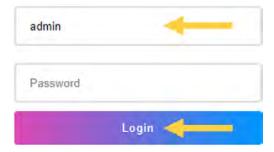


6. Reboot the device by selecting **Reboot > OK**.



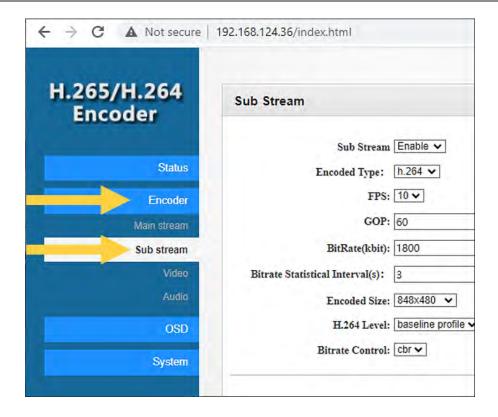
7.5 Set the Output Frame Rate to 30FPS

- 1. Connect to the same Ethernet network as the HDMI Encoder is connected to.
- 2. Open the webpage http://192.168.124.36/
- 3. Login with admin / admin.



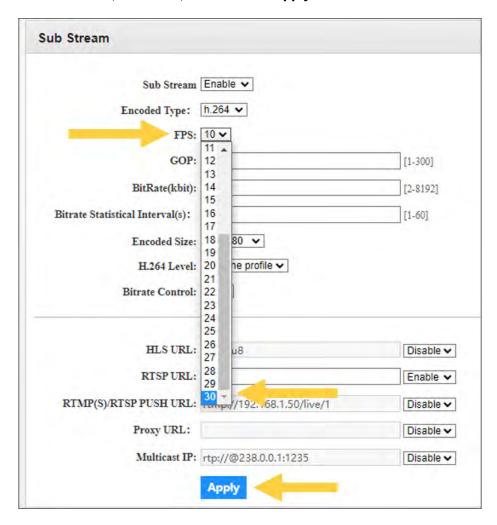
4. From the menu on the left, select the Encoder – Sub stream.

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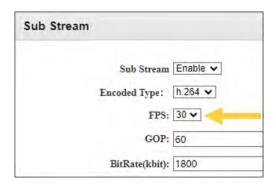


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5. In the FPS box, select **30**, then click on **Apply**.

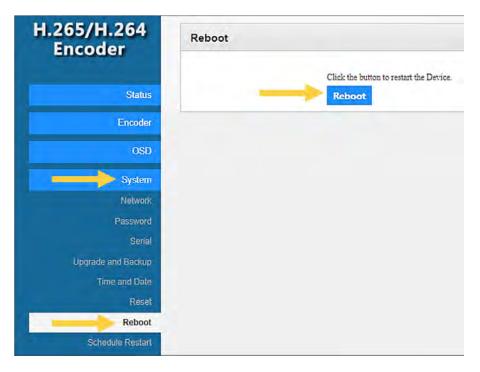


The FPS field should now show 30.



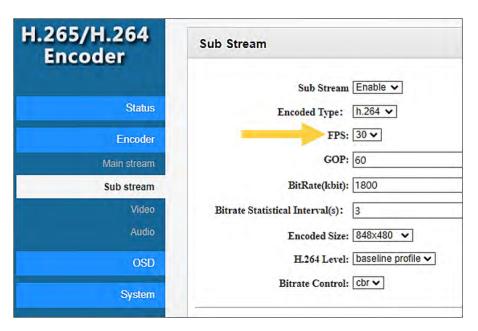
5. Select **System > Reboot**, and then click on **Reboot** to restart the device.

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6. After around 20 seconds, refresh the webpage. When the login page is shown, log back in and select **Encoder > Substream**.

The FPS should show 30.



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7.6 HDMI Encoder Update - H.264

Follow these instructions to update the HDMI encoder, version H.264:

- 1. Access the HDMI encoder Ethernet connection.
- 2. Connect a laptop computer Ethernet connection to the HDMI encoder Ethernet connection using an Ethernet patch cable.

NOTE The Ethernet cable connecting the encoder to the Valid Cab Interface Module must be removed temporarily.

The computer must be on the same subnet as the HDMI encoder.

3. Open a web browser and enter this URL in the address field:

192.168.124.36.

4. Log in with these credentials:

Login: admin

password: admin

5. Navigate to **System > Upgrade > Browse**.



6. Browse to the **up.bin** file required to upgrade the software.

NOTE up.bin is located in the software folder in VSSU (ex. C:\Program Files (x86)\Valid\ValidSystemSetupUtility\software).

- 6. With the up.bin file highlighted, select **Upload**. The upload will take a few seconds.
- 7. When complete, it will show a dialog saying "Update succeeded, reboot system!" Select **OK**.
- 8. Upload **box_persistent.ini** using the same upload method.
- 9. Select the Reset link on the left.
- 10. Confirm by selecting the **Reset** button. This will load the defaults within the persistent in file.

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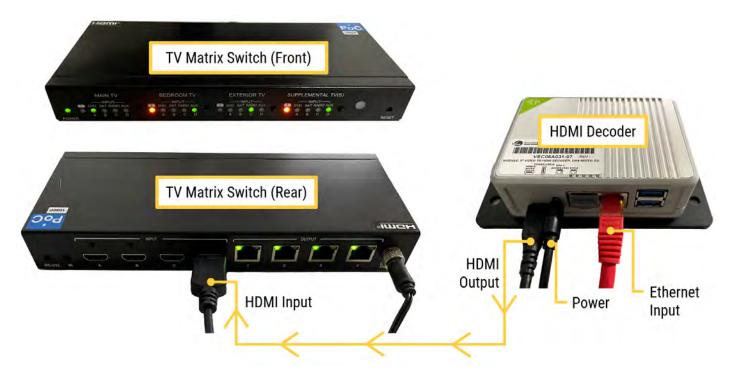
11. A dialog will indicate that the settings were successful. Select the **Reboot** link on the left to reboot the device. The device will re-boot and will have the IP address of 192.168.124.36.

After about 20 seconds, the device should be accessible at the address 192.168.124.36 in the web browser.

HDMI Decoder 8

The HDMI decoder receives the navigation stream from the VNC Cobalt Cube and converts it to HDMI format to send to the TV matrix switch, allowing the content to be displayed on the cabin monitors.

The Cobalt Cube and the HDMI Decoder have IP connections to the CIM (cab interface module) network switch. The HDMI output cable runs to the HDMI input connection of the TV matrix switch.

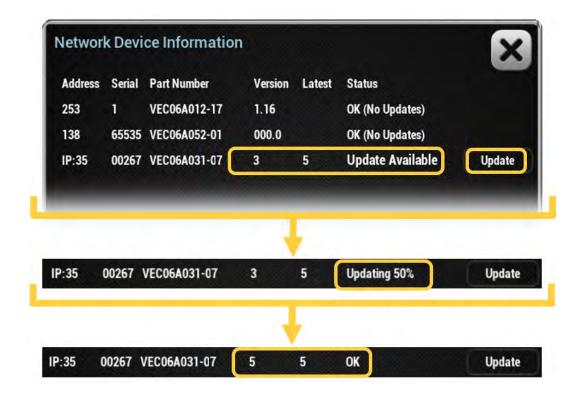


8.1 HDMI Decoder Update

The HDMI decoder appears on the network device list and is updated in the same way as other devices.

- Go to Settings > System Information > Network Devices.
 If the current version (Version) is older than the most current update available (Latest), the Status will read "Update Available."
- 2. Press the **Update** button to update the HDMI decoder firmware to the latest available version.
- 3. When the update process is finished, the number in the Version column should match the number in the Latest column, and the status will read "OK."

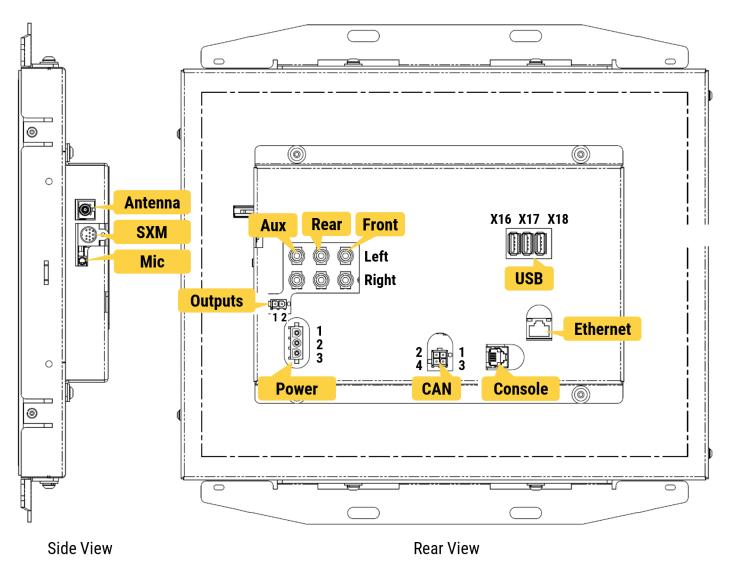
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Center Console Interface (CCI) 9

9.1 Center Console Interface (CCI) Rear Connections

The connections of the Center Console Interface (CCI) are shown below.



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9.2 Center Console Interface (CCI) Rear Connection Details

9.2.1 Power

Mate: TE connectivity 770018-1, tin-plated socket terminals

Position	Name	Function	Note
1	VBAT	Chassis Battery Positive	Fuse at 10A
2	IGN	Ignition (Screen On Sig)	Active High
3	GND	Chassis Battery Negative	-

9.2.2 CAN-1 (RV-C)

Mate: TE connectivity 172167-1, gold-plated socket terminals

Position	Name	Function	Note	
1	CAN1 L	RV-C Low	250k	
2	CAN1 H	RV-C High	-	
3	CAN1 SHLD	CAN Bus Shield	-	
4	-	-	-	

9.2.3 Outputs

Mate: TE connectivity 172165-1, gold-plated socket terminals

Position	Name	Function	Note
1	ANTPWR	Antenna Power	Vbat+
2	AUDIOEN	Audio Amp Enable	Vbat+

9.2.4 Audio In

Mate: RCA plug

Position	Name	Function	Note
1	AUX IN LEFT	-	-
2	AUX IN RIGHT	-	-

9.2.5 Audio Out (Pre-Amp)

Mate: RCA plug

Position	Name	Function	Note
1	FRONT LEFT	-	-

Position	Name	Function	Note
2	FRONT RIGHT	-	-
3	REAR LEFT	-	-
4	REAR RIGHT	-	-

9.2.6 AM / FM Antenna

Mate: SMA antenna connector, female

Position	Name	Function	Note
1	ANT	-	-

9.2.7 USB

For X16 & X18, only 1 audio storage device can be plugged in at a time.

Position	Function	Note
X16	Audio Storage Device / Charger	1A Max
X17	Bluetooth Adapter	1A Max
X18	Audio Storage Device / Charger	1A Max

9.2.8 Mic In

Mate: 3.5mm plug, 3-conductor, 4 contacts

Position	Name	Function	Note
1	MIC IN	-	-

9.2.9 SiriusXM Sat Radio

Mate: SXV-300 compatible

Position	Name	Function	Note
1	SXM	-	-

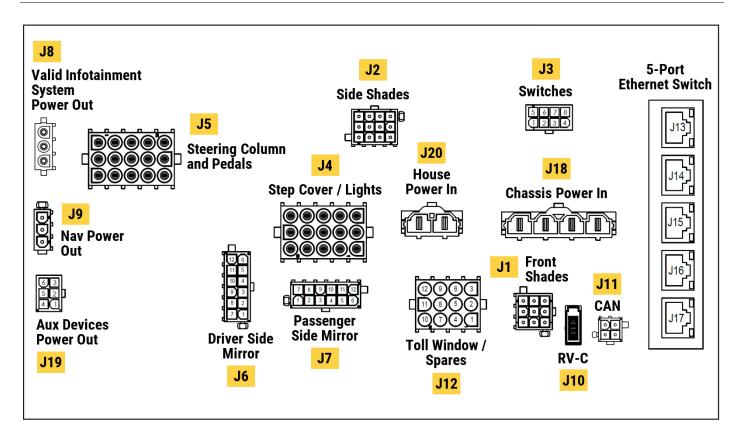
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Valid Cab Interface Module 10

The Valid Cab Interface Module provides a communication link between the Valid Infotainment System and numerous functions:

- Exterior lighting
- · Interior lighting
- · Dome lights and switch
- Shade and step switches
- · Shades and screens
- Driver and passenger front toll, door, window (in some models)
- · Step slide cover
- · Pedal adjustments
- Steering column tilt / telescope
- Navigation system power
- HDMI encoder power

10.1 Valid Cab Interface Module Rear Connections



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10.2 Valid Cab Interface Module Rear Connection Details

10.2.1 J1 - Front Shades (9-POS Mini-UMNL)

Board Connector: TE Connectivity 1-770182-1, Gold Plated Pin Terminals

Mating Connector: TE Connectivity 172169-1, Gold Plated Socket Terminals

Position	Name	Function	Note
1	SHDDRVRET	Shade Driver Motor Retract	-
2	SHDDRVEXT	Shade Driver Motor Extend	_
3	SHDPASRET	Shade Pass. Motor Retract	-
1	SHDPASEXT	Shade Pass. Motor Extend	-
5	-	Step Cover Extend	-
	SCRPASRET	Screen Pass. Motor Retract	-
	SCRDRVEXT	Screen Pass. Motor Extend	-
3	SCRDRVRET	Screen Driver Motor Retract	-
	SCRPASEXT	Screen Driver Motor Extend	-

10.2.2 J2 - Side Shades (12-POS Mini-UMNL)

Board Connector: TE Connectivity 1-770186-1, Gold Plated Pin Terminals

Mating Connector: TE Connectivity 172170-1, Gold Plated Socket Terminals

Position	Name	Function	Note
1	SHDDOREXT	Shade Door Motor Extend	-
2	SHDWINRET	Shade Window Motor Retract	-
3	SCRTOLEXT	Screen Toll Motor Extend	-
4	SCRDOREXT	Screen Door Motor Extend	-
5	SHDDORRET	Shade Door Motor Retract	-
6	SHDWINEXT	Shade Window Motor Extend	-
7	SCRTOLRET	Screen Toll Motor Retract	-
8	SCRDORRET	Screen Door Motor Retract	-
9	SHDTOLEXT	Shade Toll Motor Extend	-
10	SHDTOLRET	Shade Toll Motor Retract	-
11	SCRWINRET	Screen Window Motor Retract	-
12	SCRWINEXT	Screen Window Motor Extend	-

10.2.3 J3 - Switches (8-POS Mini-UMNL)

Board Connector: TE Connectivity 1-794073-1, Gold Plated Pin Terminals

Mating Connector: TE Connectivity 770579-1, Gold Plated Socket Terminals

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Position	Name	Function	Note
	WINSHD3DN	Window Shade 3 Down	Active Low
	WINSHD3UP	Window Shade 3 Up	Active Low
	WINSHD2UP	Window Shade 2 Up	Active Low
	WINSHD2DN	Window Shade 2 Down	Active Low
	STPCVREXT	Step Cover Extend	Active Low
	STPCVRRET	Step Cover Retract	Active Low
	WINSHD1UP	Window Shade 1 Up	Active Low
	WINSHD1DN	Window Shade 1 Down	Active Low

10.2.4 J4 - Step Cover / Lights (15-POS UMNL)

Board Connector: TE Connectivity 643429-1, Tin Plated Pin Terminals

Mating Connector: TE Connectivity 350736-1, Tin Plated Socket Terminals

Position	Name	Function	Note
1	ENTSW	Entry Switch	Active Low
2	DOMESW	Dome Light Switch	*changed - Active Low
3	PARKBRK	Park Brake Switch	Active High
4	HOUSESW	House Pwr Switch	Active High
5	BADGELGT	Badge Light	
6	ACC/IGN	Accessory / Ignition Switch	*changed - Active High
7	DOCKLGT	Dock Light	
8	GND	-	
9	STEPCOVEXT	Step Cover Motor Extend	
10	ACCENTLGT	Accent Light	
11	GND	-	
12	STEPCOVRET	Step Cover Motor Retract	
13	AMBLGT	Ambient Lights	
14	DOMELGT	Dome Lights	
15	SWLGT	Switch Lights	

10.2.5 J5 - Steering Column and Pedals (15-POS UMNL)

Board Connector: TE Connectivity 641975-1, Tin Plated Pin Terminals

Mating Connector: TE Connectivity 350736-1, Tin Plated Socket Terminals

Position	Name	Function	Note
1	TILTEXT	Tilt Motor Extend	Active Low
2	TILTRET	Tilt Motor Retract	*changed - Active Low

Position	Name	Function	Note
3	TELEEXT	Telescope Motor Extend	Active High
4	TELERET	Telescope Motor Retract	Active High
5	TILTPOS+	Tilt Position Pwr	
6	TILTPOSFB	Tilt Position Feedback	*changed - Active High
7	TILTPOS-	Tilt Position Gnd	
8	TELEPOS+	Telescope Position Pwr	
9	TELEPOSFB	Telescope Position FB	
10	TELEPOS-	Telescope Position Gnd	
11	PEDPOSFB	Pedal Position FB	
12	PEDALEXT	Pedal Motor Extend	
13	PEDALRET	Pedal Motor Retract	
14	SCPWR+	SC & Pedals Motor Power +	
15	SCPWR-	SC & Pedals Motor Power -	

10.2.6 J6 - Driver Mirror (12-POS Mini-UMNL)

Board Connector: TE Connectivity 1-794066-0, Tin Plated Pin Terminals

Mating Connector: TE Connectivity 770581-1, Tin Plated Socket Terminals

Position	Name	Function	Note
1	MIRDRVUDEXT	Driver Mirror U/D Motor Extend	
2	MIRDRVLRFB	Driver Mirror L/R Feedback	0-5V
3	MIRDRVUDFB	Driver Mirror U/D Feedback	0-5V
4	-	-	
5	MIRDRVPOS+	Driver Mirror Position Pwr	
ô	GND	Driver Mirror Heater Gnd	
•	MIRDRVUDRET	Driver Mirror U/D Motor Retract	
	MIRDRVLREXT	Driver Mirror L/R Motor Extend	
	MIRDRVLRRET	Driver Mirror L/R Motor Retract	
0	MIRDRVHTR	Driver Mirror Heater	
1	MIRDRVPOS-	Driver Mirror Position Gnd	
.2	-	-	

10.2.7 J7 - Passenger Mirror (12-POS Mini-UMNL)

Board Connector: TE Connectivity 1-794066-0, Tin Plated Pin Terminals

Mating Connector: TE Connectivity 770581-1, Tin Plated Socket Terminals

Position	Name	Function	Note
1	MIRPASUDEXT	Pass. Mirror U/D Motor Extend	

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Position	Name	Function	Note
2	MIRPASLRFB	Pass. Mirror L/R Feedback	0-5V
3	MIRPASUDFB	Pass. Mirror U/D Feedback	0-5V
4	-	-	
5	MIRPASPOS+	Pass. Mirror Position Pwr	
6	GND	Pass. Mirror Heater Gnd	
7	MIRPASUDRET	Pass. Mirror U/D Motor Retract	
8	MIRPASLREXT	Pass. Mirror L/R Motor Extend	
9	MIRPASLRRET	Pass. Mirror L/R Motor Retract	
10	MIRPASHTR	Pass. Mirror Heater	
11	MIRPASPOS-	Pass. Mirror Position Gnd	
12	-	-	

10.2.8 J8 - CCI Power Out (3-POS UMNL)

Board Connector: TE Connectivity 641966-1, Tin Plated Pin Terminals

Mating Connector: TE Connectivity 350766-1, Tin Plated Socket Terminals

Position	Name	Function	Note
1	CCIPWR	CCI Power	
2	CCIEN	CCI Enable	
3	CCIGND	CCI Gnd	

10.2.9 J9 - Nav Power Out (3-POS Mini-UMNL)

Board Connector: TE Connectivity 1-770170-1, Gold Plated Pin Terminals

Mating Connector: TE Connectivity 172166-1, Gold Plated Socket Terminals

Position	Name	Function	Note
1	NAVPWR	Navigation Box Power	
2	NAVEN	Navigation Box Enable	
3	NAVGND	Navigation Box Gnd	

10.2.10 J10 - RV-C (4-POS Mini-Clamp I, 372)

Board Connector: 3M 37204-62A3-004PL, Gold Plated Pin Terminals

Mating Connector IDC:

3M 37104-2124-000 FL 100, 20-22AWG Gold Pins

3M 37104-A165-00E MB, 20-24AWG Gold Pins

3M 37104-3101-000 FL100, 24-26AWG Gold Pins

Position	Name	Function	Note
1	-	No PCB Connection	
2	CAN1H	RV-C CAN High	
3	CAN1L	RV-C CAN Low	
4	-	No PCB Connection	

10.2.11 J11 - CAN (4-POS Mini-UMNL)

Board Connector: TE Connectivity 1-770174-1, Gold Plated Pin Terminals

Mating Connector: TE Connectivity 172167-1, Gold Plated Socket Terminals

Position	Name	Function	Note
1	CAN2H	Spare CANH	
2	CAN2L	Spare CANL	
3	CAN2SH	Spare CAN Shield	
4	-	No PCB Connection	

10.2.12 J12 - Toll Window / Spares (12-POS UMNL)

Board Connector: TE Connectivity 641973-1, Tin Plated Pin Terminals

Mating Connector: TE Connectivity 1-480708-0, Tin Plated Socket Terminals

Position	Name	Function	Note
1	TOLLUPSW	Toll Window Up Switch	Active Low
2	TOLLDNSW	Toll Window Down Switch	Active Low
3	SPAREIN1	Spare Input 1	
4	TOLLEXT	Toll Window Motor Extend	Opens Window
5	GND	-	
6	GND	-	
7	TOLLRET	Toll Window Motor Retract	Closes Window
8	GND	-	
9	GND	-	
10	SPAREOUT2	Spare Output 2	
11	SPAREOUT3	Spare Output 3	
12	SPAREOUT4	Spare Output 4	

10.2.13 J18 - Chassis Power In (4-POS Mini-Fit SR)

Board Connector: Molex 0428192214, Silver Plated Male Blade Terminals

Mating Connector: Molex 0428160212, Silver Plated Socket Terminals

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Position	Name	Function	Note
1	MOTCHSPWR	Motor Power From Chassis	15A
2	MOTGND	Motor Power Gnd	
3	CHSPWR	Chassis Power	15A
4	PWRGND	Power Gnd	Clean Ground

10.2.14 J19 - Aux Devices Power Out (6-POS Mini-UMNL)

Board Connector: TE Connectivity 1-770178-1, Gold Plated Pin Terminals

Mating Connector: TE Connectivity 172168-1, Gold Plated Socket Terminals

Position	Name	Function	Note
1	PASSTSPWR	Passenger T/S Power	
2	HDMIEGND	HDMI Encoder Gnd	
3	HDMIEPWR	HDMI Encoder Power	
4	PASSTSGND	Passenger T/S Gnd	
5	SPAREPWR		
6	SPAREGND		

10.2.15 J20 - House Power In (2-POS Mini-Fit SR)

Board Connector: Molex 0428192214, Silver Plated Male Blade Terminals

Mating Connector: Molex 0428160212, Silver Plated Socket Terminals

Position	Name	Function	Note
1	MOTHSEPWR	Motor Power From House	15A
2	HSEPWR	House Power	15A

Camera Display 11

Entegra uses 2 different camera control modules, Delta Mobile and Ramco 360.

Coach Model	Camera Control Module
Anthem	Delta Mobile
Cornerstone	Delta Mobile
Aspire	Ramco 360

To determine which camera module is installed, go to **Settings > Settings > Advanced**.

Enter the required passcode.

On the Advanced screen, in the Available Cameras section, there is a toggle selection to show which control module is installed.





Delta Mobile module installed

Ramco 360 module installed

11.1 Camera Operation



Delta Mobile Display

Ramco 360 Display

Touch the camera image to display the camera view buttons for several seconds.

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When a particular view button is selected, the following sequence of events takes place:

1. An X/Y coordinate is sent directly to the Delta Mobile or Ramco 360 Camera Control Module.

NOTE X/Y coordinates are sent over an Ethernet socket from the CCI to the Ramco 360 module, and over RV-C from the CCI to the Delta Mobile module.

- 2. The camera control module provides an updated HDMI video image to the HDMI Encoder module (VEC06A043-06).
- 3. The HDMI encoder streams the image on a specific IP address for display on the top half of the Valid Infotainment System.

11.2 Delta Mobile Diagnostic Menu

To get to the Delta Mobile Diagnostic Menu:

- 1. Touch the camera page to make camera options appear.
- 2. Select the menu tab (top left).
- 3. Tap the screen at the top right 10 times to get the passcode page to appear.
- 4. Enter the passcode "1045" and select **Enter** to go to the diagnostics menu.
- 5. Select **Diagnostics** to show more in-depth information about camera and radar system.









The Diagnostics view displays the system information and status.

- Green status = nothing is wrong
- Yellow status = that system has a problem

For example, in the screen on the left below, the radar system is yellow.

Press the Radar button at the top to display the radar overview. A loading circle like shown below indicates that the radar system is not powered on.





An example of camera and radar systems that are functioning correctly can be seen below. The radar system sensors are daisy-chained together in two groups (driver side and passenger side).

If the front radar sensor on either side is red, and the other two sensors on the same side are yellow, it means that the first sensor is faulty, and the other two may possibly be faulty.





To leave Diagnostic view:

- 1. Press **Back** to return to the Diagnostic menu.
- 2. Select Surround View.
- 3. Select **Accept**. The normal viewing mode is restored.







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11.3 Ramco 360 Camera Settings

Unlike the Delta Mobile camera system, the Ramco 360 camera system is **not** connected to the HDMI encoder. The Ramco camera control module has an Ethernet connection that provides the camera stream directly to the cab interface module (CIM) and out to the video monitors.

11.3.1 Calibrate Cameras

NOTE Calibration files are required from the manufacturer.

- 1. Load the correct files onto a USB flash drive, and then plug the USB into the camera box.
- 2. Point the remote control at the infrared receiver in the coach living room and press **ENTER**.

NOTE It can take awhile to receive remote inputs - please be patient.

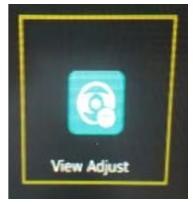
- 3. Enter "8" eight times. Go down to "OK" and press ENTER.
- 4. Press the Right arrow three times to select **AVM** and press **ENTER**.
- 5. Press the Right arrow two times to select **Calibration File** and press **ENTER**.
- 6. Press the Right arrow three times to select **Import file** and then press the Down arrow once to select the file on the USB flash drive.
- 7. Press **Shift** to select **Import** and press **ENTER**.
- 8. Select **Yes** and press **ENTER**.

The camera system will then reboot. Calibration is complete.

11.3.2 Reduce Fish-Eye View

1. Go to User Setup > View Adjust.

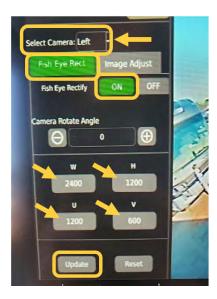




- 2. For the selected camera, choose Fish Eye Rectify.
- 3. Enter the following values:

- For W: 2400
- For H: 1200
- For U: 1200
- For V: 1600
- 4. Press Update.

IMPORTANT Ensure that Update is pressed before switching camera views or the changes will not be remembered.



Repeat this process for the remaining three cameras. After all of the settings have been changed, press **Escape** on the remote to leave the page.

Press **Yes** to ensure that changes are saved.

11.3.3 Change Coach Image

NOTE Coach image files are required from the manufacturer.

1. To change the coach image, the new image must be loaded onto an empty USB flash drive.

IMPORTANT If the flash drive contains other files, the image file may not be visible.

- 2. Plug the USB flash drive into the camera module.
- 3. Go to AVM > Vehicle Type > Vehicle Type List.

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4. Select the desired file and press **Save**.





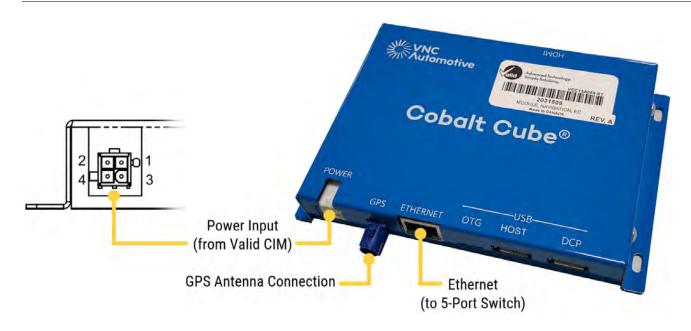


VNC Cobalt Cube 12

The VNC Cobalt Cube is used for the Sygic navigation application.

It receives power from the Valid Cab Interface Module.

12.1 VNC Cobalt Cube Connections



12.2 VNC Cobalt Cube Pin-out Details

Board Connector: TE Connectivity 1-770968-0, Tin Plated Pin Terminals

Mating Connector: TE Connectivity 172167-1, Tin Plated Socket Terminals

Position	Name	Function	Note
1	GND	Ground	-
2	-	-	-
3	B+12V	Main Power Input	9~16V
4	ACC	On / Off (H=On / L = Sleep)	9~16V

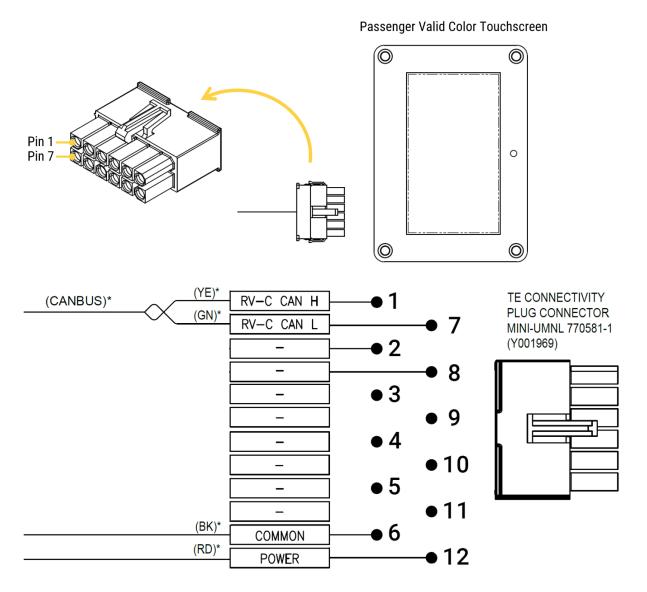
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Passenger Touchscreen 13

The Valid Color Touchscreen connects to the Valid Infotainment System via the RV-C network. The touchscreen gives the passenger easy access to most of the controls available on the Valid Infotainment System without having to reach across the cab interior.

13.1 Passenger Touchscreen Connections

Touchscreen part number = VEC02A021-02, VEC02A021-04



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Advanced Settings 14

Navigate to **Settings** > **Settings** to access the Advanced setting options. These are available only when an access code is entered.

NOTE Contact your coach dealer or Valid Technical Support to obtain an access code.

The available configuration settings are listed below.

14.1 Settings List

The advanced settings are listed below.

Setting	Options			
Audio Configuration				
Microphone Volume	Relative volume: Low / medium / high			
Bass Boost	Off or on			
Bluetooth Auto Switch	Off or on			
Screens Configuration				
Screen Configuration	3 or 4 panel			
Driver Screen	Installed or not installed			
Driver Shade	Installed or not installed			
Passenger Screen	Installed or not installed			
Passenger Shade	Installed or not installed			
Coach Configuration				
Air Leveling System Control	Disabled, Enabled, or Auto-Detect			
CCI Nightly Reboot	Disabled or Enabled			
Cameras				
Delta Mobile	Installed or not installed			
Ramco 360	Installed or not installed			
GPS				
Phone selection	FCFS or multi-phone			

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Setting	Options
Landscape on Phone	Auto or lock
Encrypting Connection	Off or on
Connecting Bluetooth	Off or Auto
Nav Prompt Audio Switch	Off or on

Service 15

For information or service for the [[[Undefined variable General.ProductName]]], contact the vehicle manufacturer or Valid Manufacturing Ltd.

Valid Manufacturing Ltd.

5320 48 Ave. SE

Salmon Arm, BC

Canada V1E 1X2

Phone: 250-832-6477

After-hours emergency technical support: 250-804-1247

Fax: 250-832-7746

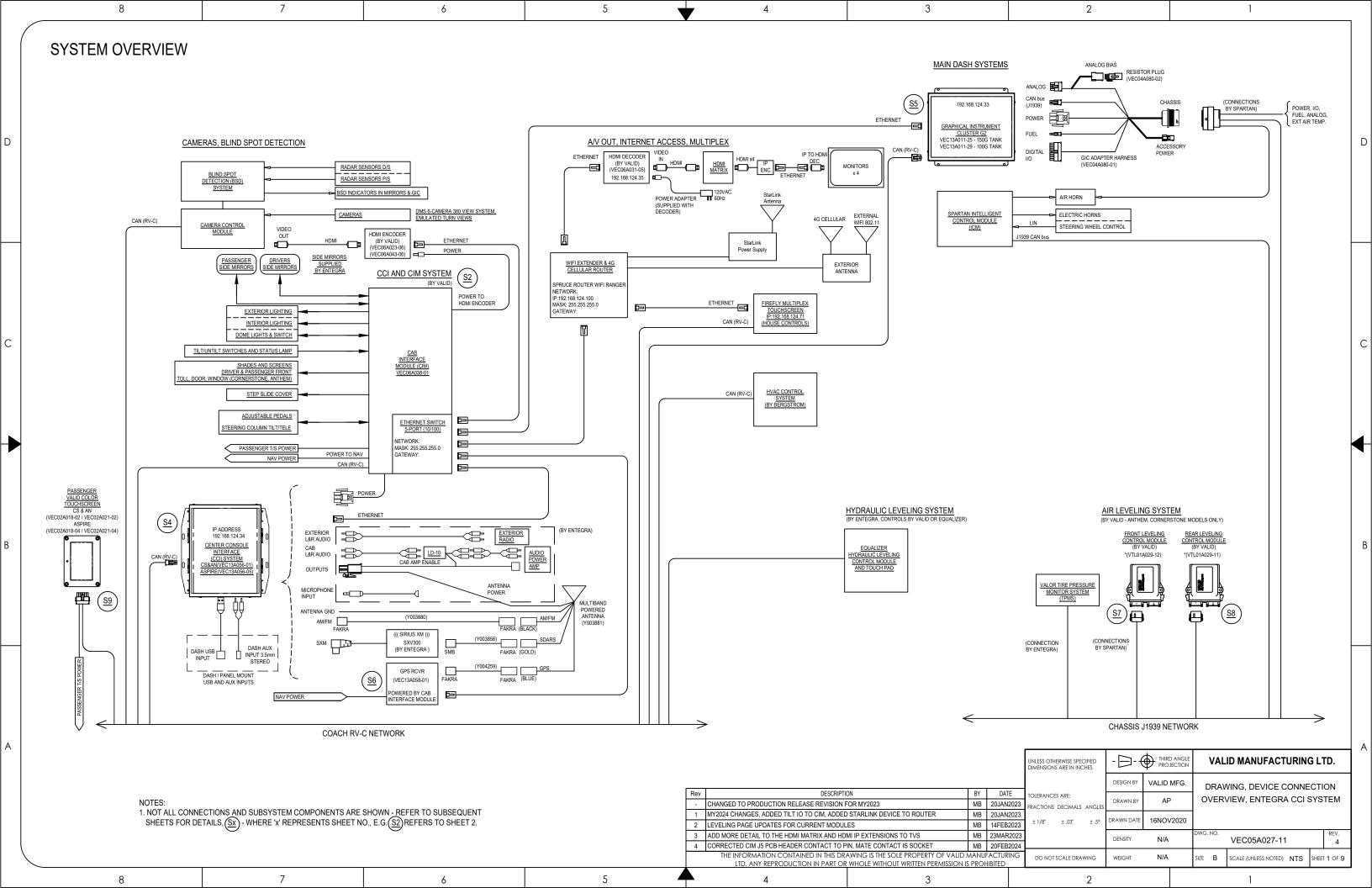
VDC01056 REV A SEP 2025 PAGE 61 OF 62

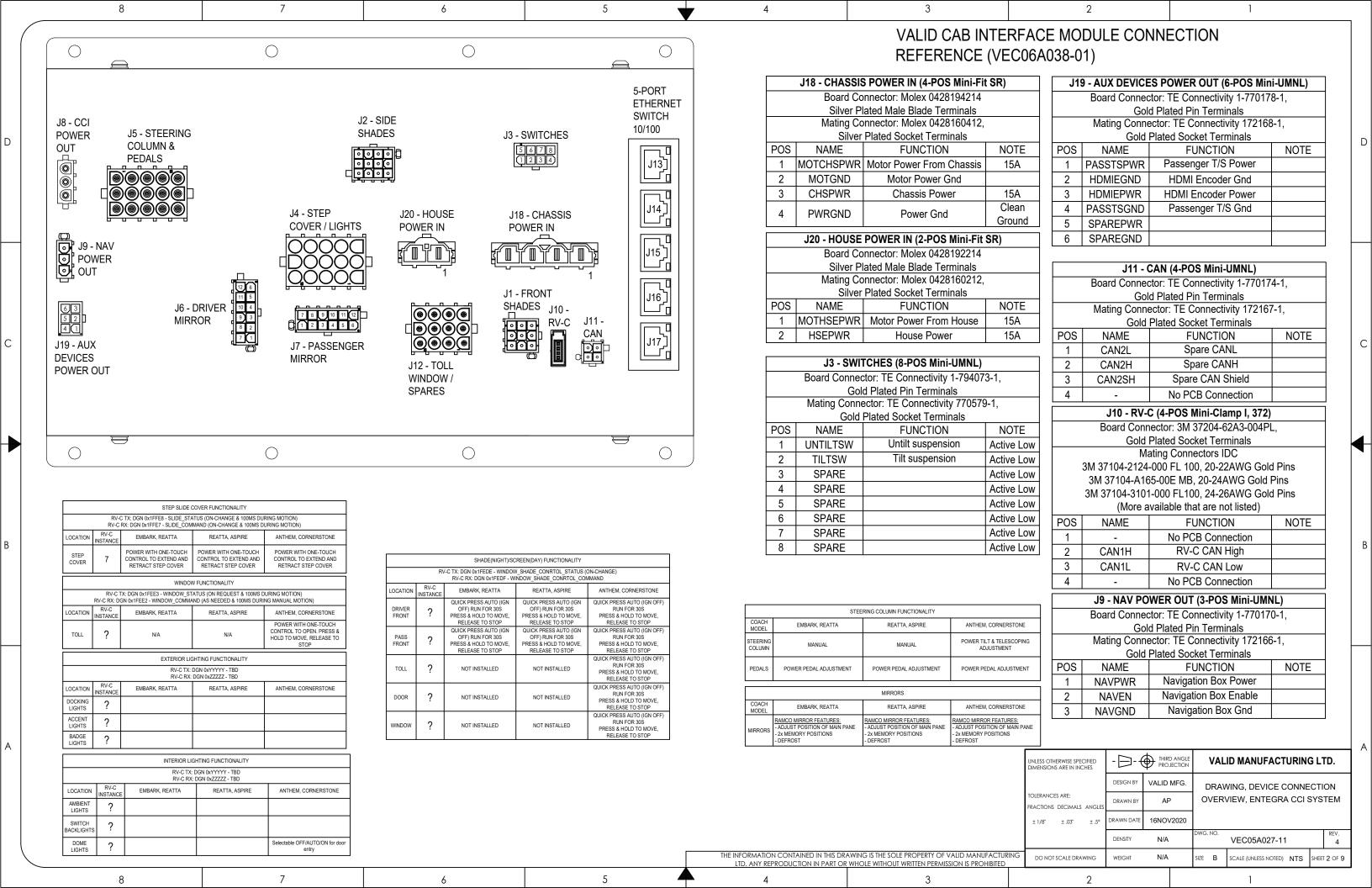
Appendix A - Software Download Links

Select the link to go to the software update page for your coach. When there, select **Download File** to download the zip file.

Coach Model	Part Number	Update Page
MY23-24 Aspire	VEC13A056-05	https://support.validmfg.com/docs/aspirevec13a056- 05/
MY23-24 Cornerstone / Anthem	VEC13A056-01	https://support.validmfg.com/docs/cornerstone_anthemvec13a056-01/
MY25 Cornerstone / Anthem	VEC13A056-08	https://support.validmfg.com/docs/cornerstone_anthemvec13a056-08/
MY25 Aspire	VEC13A056-10	https://support.validmfg.com/docs/aspirevec13a056- 10/
MY25 Cornerstone FCCC	VEC13A056-07	https://support.validmfg.com/docs/cornerstone_ fcccvec13a056-07/
MY25 Aspire Nex	VEC13A056-09	https://support.validmfg.com/docs/aspirevec13a056- 09/
MY25 Aspire FCCC	VEC13A056-12	https://support.validmfg.com/docs/aspire_ fcccvec13a056-12/

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8 7 6 5 4 3 2 1

VALID CAB INTERFACE MODULE CONNECTION REFERENCE

	J1 - FRONT SHADES (9-POS Mini-UMNL)				
	Board Connec	ctor: TE Connectivity 1-77018	2-1,		
	Gol	d Plated Pin Terminals			
	Mating Conne	ector: TE Connectivity 172169	9-1,		
	Gold	Plated Socket Terminals			
POS	NAME	FUNCTION	NOTE		
1	SHDDRVRET	Shade Driver Motor Retract			
2	SHDDRVEXT	Shade Driver Motor Extend			
3	SHDPASRET	Shade Pass. Motor Retract			
4	SHDPASEXT	Shade Pass. Motor Extend			
5	-	-			
6	SCRPASRET	Screen Pass. Motor Retract			
7	SCRDRVEXT	Screen Driver Motor Extend			
8	SCRDRVRET	Screen Driver Motor Retract			
9	SCRPASEXT	Screen Pass. Motor Extend			

	•					
	J2 - SIDE SHADES (12-POS Mini-UMNL)					
	Board Connector: TE Connectivity 1-770186-1,					
		d Plated Pin Terminals				
		ector: TE Connectivity 172170)-1,			
	Gold	Plated Socket Terminals				
POS	NAME	FUNCTION	NOTE			
1	SHDDOREXT	Shade Door Motor Extend				
2	SHDWINRET	Shade Window Motor Retract				
3	SCRTOLEXT	Screen Toll Motor Extend				
4	SCRDOREXT	Screen Door Motor Extend				
5	SHDDORRET	Shade Door Motor Retract				
6	SHDWINEXT	Shade Window Motor Extend				
7	SCRTOLRET	Screen Toll Motor Retract				
8	SCRDORRET	Screen Door Motor Retract				
9	SHDTOLEXT	Shade Toll Motor Extend				
10	SHDTOLRET	Shade Toll Motor Retract				
11	SCRWINRET	Screen Window Motor Retract				
12	SCRWINEXT	Screen Window Motor Extend				

	J7 - PASSENGER MIRROR (12-POS Mini-UMNL)				
		ctor: TE Connectivity 1-794066-0,			
		Plated Pin Terminals			
		ector: TE Connectivity 770581-1,			
D00		Plated Socket Terminals	NOTE		
POS	NAME	FUNCTION	NOTE		
1	MIRPASUDEXT	Pass. Mirror U/D Motor Extend			
2	MIRPASLRFB	Pass. Mirror L/R Feedback	0-5V		
3	MIRPASUDFB	Pass. Mirror U/D Feedback	0-5V		
4	-	-			
5	MIRPASPOS+	Pass. Mirror Position Pwr			
6	GND	Pass. Mirror Heater Gnd			
7	MIRPASUDRET	Pass. Mirror U/D Motor Retract			
8	MIRPASLREXT	Pass. Mirror L/R Motor Extend			
9	MIRPASLRRET	Pass. Mirror L/R Motor Retract			
10	MIRPASHTR	Pass. Mirror Heater			
11	MIRPASPOS-	Pass. Mirror Position Gnd			
12	-	-			
J6 - DRIVER MIRROR (12-POS Mini-UMNL)					
Board Connector: TE Connectivity 1-794066-0,					
Tin Plated Pin Terminals					
Mating Connector: TE Connectivity 770581-1,					
Tin Plated Socket Terminals					

	J6 - DRIVER WIRKOR (12-POS WIIII-UWNL)					
	Board Connector: TE Connectivity 1-794066-0,					
	Tin Plated Pin Terminals					
	Mating Conne	ector: TE Connectivity 770581-1,				
	Tin P	Plated Socket Terminals				
POS	NAME	FUNCTION	NOTE			
1	MIRDRVUDEXT	Driver Mirror U/D Motor Extend				
2	MIRDRVLRFB	Driver Mirror L/R Feedback	0-5V			
3	MIRDRVUDFB	Driver Mirror U/D Feedback	0-5V			
4	-	-				
5	MIRDRVPOS+	Driver Mirror Position Pwr				
6	GND	Driver Mirror Heater Gnd				
7	MIRDRVUDRET	Driver Mirror U/D Motor Retract				
8	MIRDRVLREXT	Driver Mirror L/R Motor Extend				
9	MIRDRVLRRET	Driver Mirror L/R Motor Retract				
10	MIRDRVHTR	Driver Mirror Heater				
11	MIRDRVPOS-	Driver Mirror Position Gnd				
12	-	-				

	J12 - TOLL WINDOW / SPARES (12-POS UMNL)						
	Board Conne	ector: TE Connectivity 641973	3-1,				
		Plated Pin Terminals					
	Mating Connector: TE Connectivity 1-480708-0,						
	Tin F	Plated Socket Terminals					
POS	NAME	FUNCTION	NOTE				
1	TOLLUPSW	Toll Window Up Switch	Active Low				
2	TOLLDNSW	Toll Window Down Switch	Active Low				
3	SPAREIN1	Spare Input 1					
4	TOLLEXT	Toll Window Motor Extend	Opens Window				
5	GND	-					
6	GND	•					
7	TOLLRET	Toll Window Motor Retract	Closes Window				
8	GND	-					
9	GND	-					
10	SPAREOUT2	Spare Output 2					
11	SPAREOUT3	Spare Output 3					
12	TILTSTATUS	Tilt Status Output	Active High				
	•		•				

J5 - STEERING COLUMN & PEDALS (15-POS UMNL)					
Board Connector: TE Connectivity 641975-1,					
Tin Plated Pin Terminals					
	•	ector: TE Connectivity 350736	5-1,		
Tin Plated Socket Terminals					
POS	NAME	FUNCTION	NOTE		
1	TILTEXT	Tilt Motor Extend			
2	TILTRET	Tilt Motor Retract			
3	TELEEXT	Telescope Motor Extend			
4	TELERET	Telescope Motor Retract			
5	TILTPOS+	Tilt Position Pwr			
6	TILTPOSFB	Tilt Position Feedback			
7	TILTPOS-	Tilt Position Gnd			
8	TELEPOS+	Telescope Position Pwr			
9	TELEPOSFB	Telescope Position FB			
10	TELEPOS-	Telescope Position Gnd			
11	PEDPOSFB	Pedal Position FB			
12	PEDALEXT	Pedal Motor Extend			
13	PEDALRET	Pedal Motor Retract			
14	SCPWR+	SC & Pedals Motor Power +			
15	SCPWR-	SC & Pedals Motor Power -			

	J4 - STEP COVER / LIGHTS (15-POS UMNL)					
	Board Connector: TE Connectivity 643429-1,					
		lated Socket Terminals				
	Mating Connector: TE Connectivity 350736-1,					
		Plated Pin Terminals	1			
POS	NAME	FUNCTION	NOTE			
1	ENTSW	Entry Switch	Active Low			
2	DOMESW	Dome Light Switch	*changed			
	DOMESTA	Dome Light Owner	Active Low			
3	PARKBRK	Park Brake Switch	Active High			
4	HOUSESW	House Pwr Switch	Active High			
5	BADGELGT	Badge Light				
	400/1011	Accessory/Ignition Switch	*changed			
6	ACC/IGN		Active High			
7	DOCKLGT	Dock Light				
8	GND	-				
9	STEPCOVEXT	Step Cover Motor Extend				
10	ACCENTLGT	Accent Light				
11	GND	-				
12	STEPCOVRET	Step Cover Motor Retract				
13	AMBLGT	Ambient Lights				
14	DOMELGT	Dome Lights				
15	SWLGT	Switch Lights				

J8 - CCI POWER OUT (3-POS UMNL)					
Board Connector: TE Connectivity 641966-1,					
Tin	Plated Pin Terminals				
Mating Connec	ctor: TE Connectivity 350766-	·1,			
Tin Pl	ated Socket Terminals				
NAME	FUNCTION	NOTE			
1 CCIPWR CCI Power					
2 CCIEN CCI Enable					
CCIGND	CCI Gnd				
	Board Connec Tin Mating Connec Tin Pl NAME CCIPWR CCIEN	Board Connector: TE Connectivity 641966- Tin Plated Pin Terminals Mating Connector: TE Connectivity 350766- Tin Plated Socket Terminals NAME FUNCTION CCIPWR CCI Power CCIEN CCI Enable			

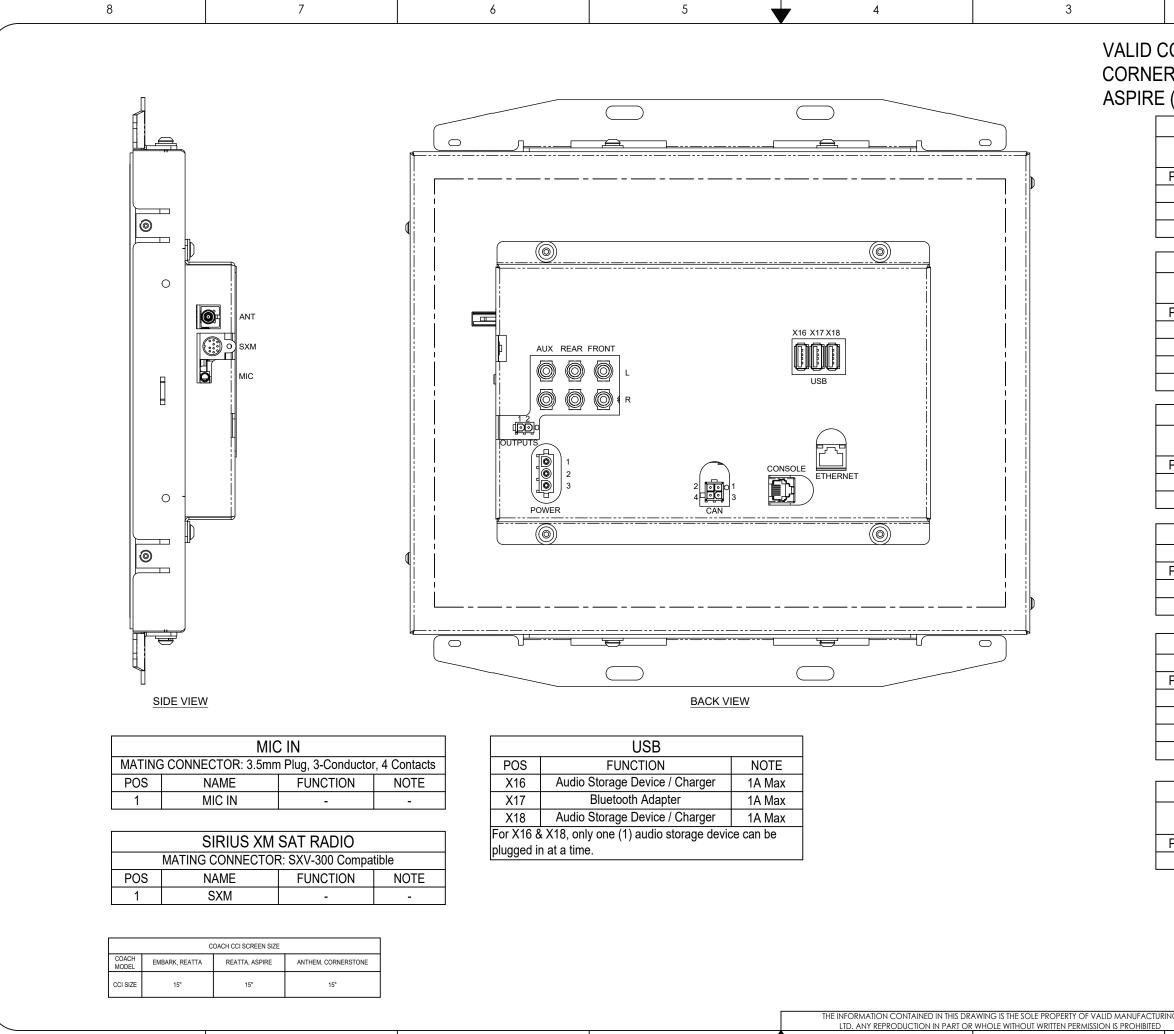
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	<u></u>	THIRD ANGLE PROJECTION	VALID MANUFACTURING LTD.			TD.	
		DESIGN BY	VALID MFG.	DI	RAV	VING, DEVICE CONNE	СТІ	ON
	TOLERANCES ARE: FRACTIONS DECIMALS ANGLES	DRAWN BY	AP	OVERVIEW, ENTEGRA CCI SYSTEM			TEM	
	± 1/8" ± .03" ± .5°	DRAWN DATE	16NOV2020					
		DENSITY	N/A	DWG. N	10.	VEC05A027-11		REV.
,	DO NOT SCALE DRAWING	WEIGHT	N/A	SIZE	В	SCALE (UNLESS NOTED) NTS	SHEE	T 3 OF 9

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VALID CCI SYSTEM CONNECTION REFERENCE CORNERSTONE/ANTHEM (VEC13A056-01) ASPIRE (VEC13A056-05)

POWER (3-POS)					
MAT	MATING CONNECTOR: TE CONNECTIVITY 770018-1,				
	TIN P	LATED SOCKET TERMINALS			
POS NAME FUNCTION NOTE					
1	1 VBAT Chassis Battery Positive F				
2 IGN Ignition (Screen On Sig) Active High					
3	GND	Chassis Battery Negatve	-		

CAN 1 - RV-C (4-POS)					
MAT	MATING CONNECTOR: TE CONNECTIVITY 172167-1,				
	GOLD PLATE	D SOCKET TERMINA	LS		
POS					
1	CAN1 L	RV-C Low	250k		
2	2 CAN1 H RV-C High				
3	CAN1 SHLD	CAN Bus Shield	-		
4	-	No PCB Connection	-		

OUTPUTS (2-POS)					
MAT	ING CONNEC	TOR: TE CONNECTIVITY 1	72165-1,		
	GOLD PLA	ATED SOCKET TERMINALS	3		
POS	POS NAME FUNCTION NOTE				
1	1 ANTPWR Antenna Power Vbat+				
2	AUDIOEN	Audio Amp Enable	Vbat+		

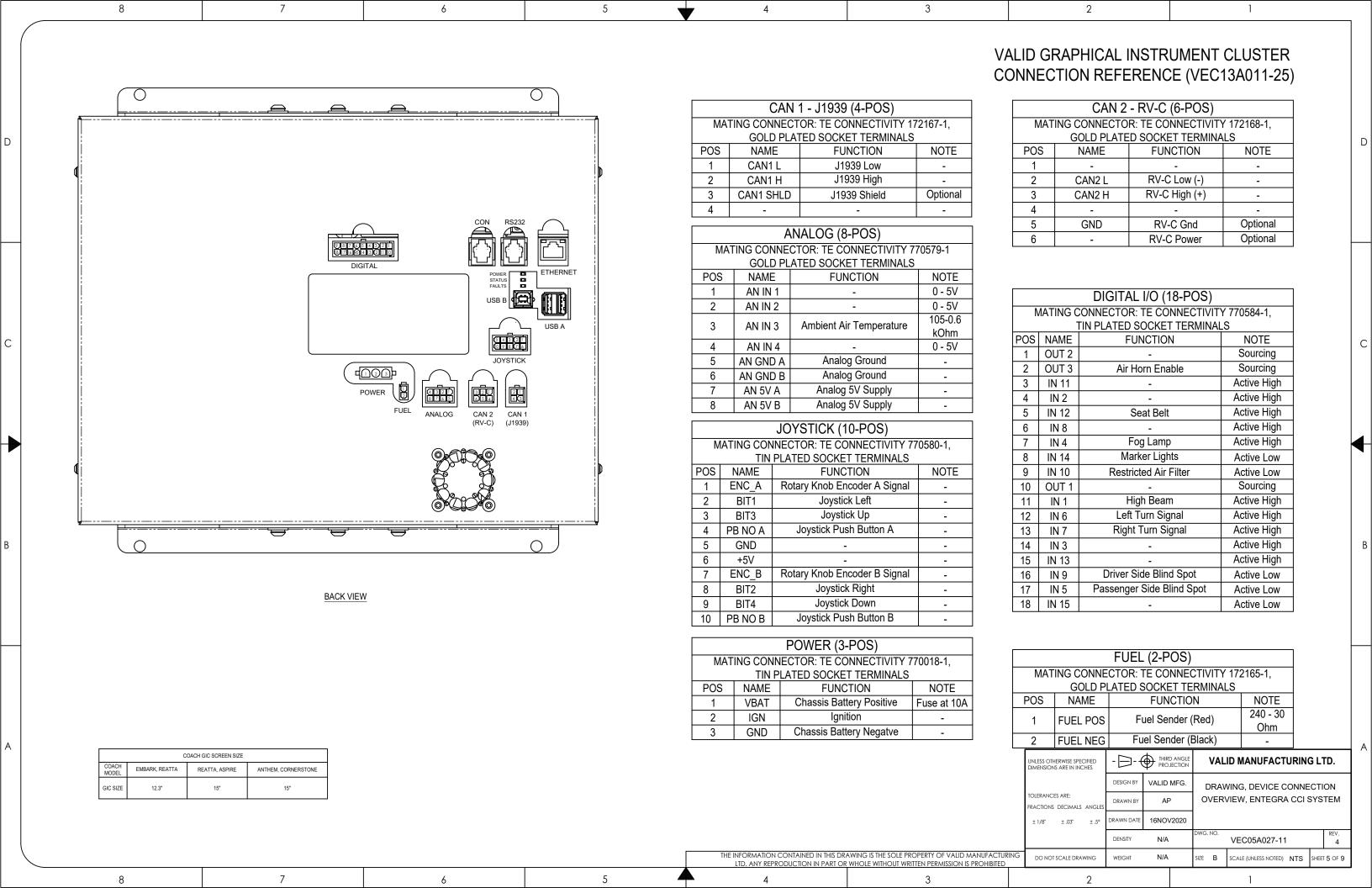
AUDIO IN (2-POS)						
	MATING CONNECTOR: RCA Plug					
POS	NOTE					
1	AUX IN LEFT	-	-			
2	2 AUX IN RIGHT					

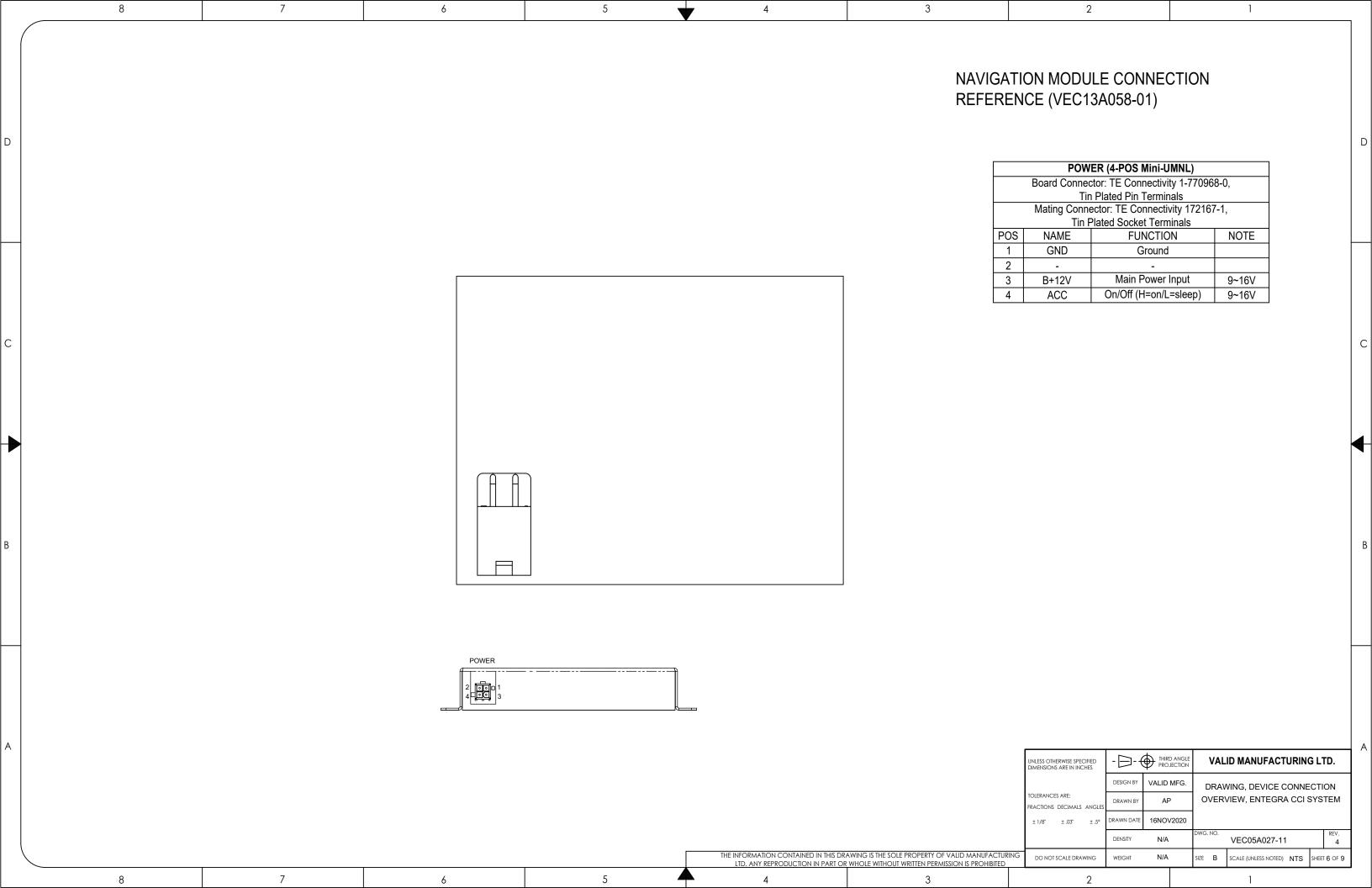
	AUDIO OUT (4-POS)					
	MATING CONNECTOR: RCA Plug					
POS NAME FUNCTION NOTE						
1	FRONT LEFT	-	-			
2	FRONT RIGHT	-	-			
3	REAR LEFT	-	-			
4	REAR RIGHT	-	-			

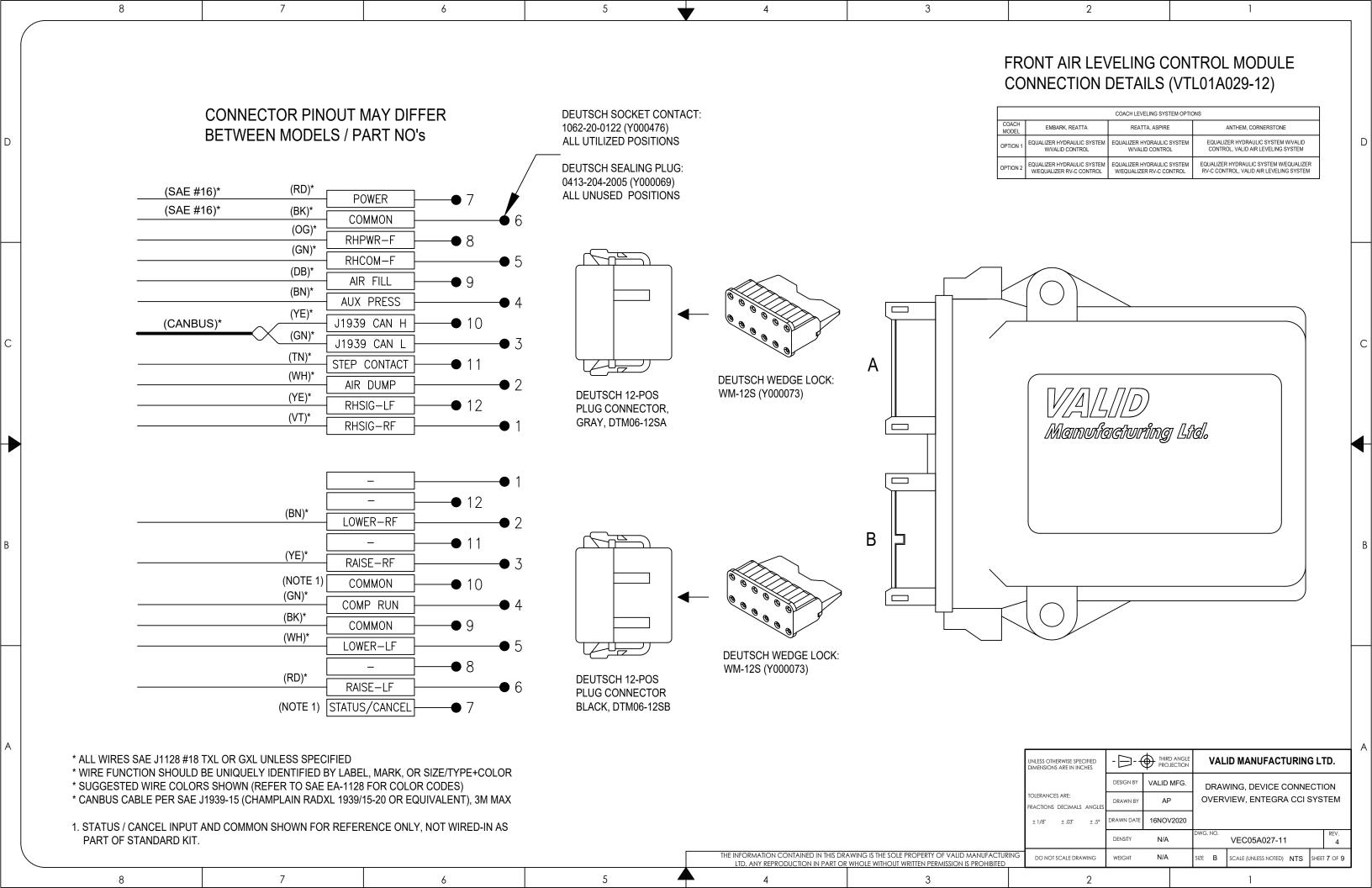
	AM / FM ANTENNA				
	MATING CO	ONNECTOR:			
FA	KRA 'A' JACK, BLACK,	, ANTENNA CONNE	ECTOR		
POS	NAME	FUNCTION	NOTE		
1	ANT				

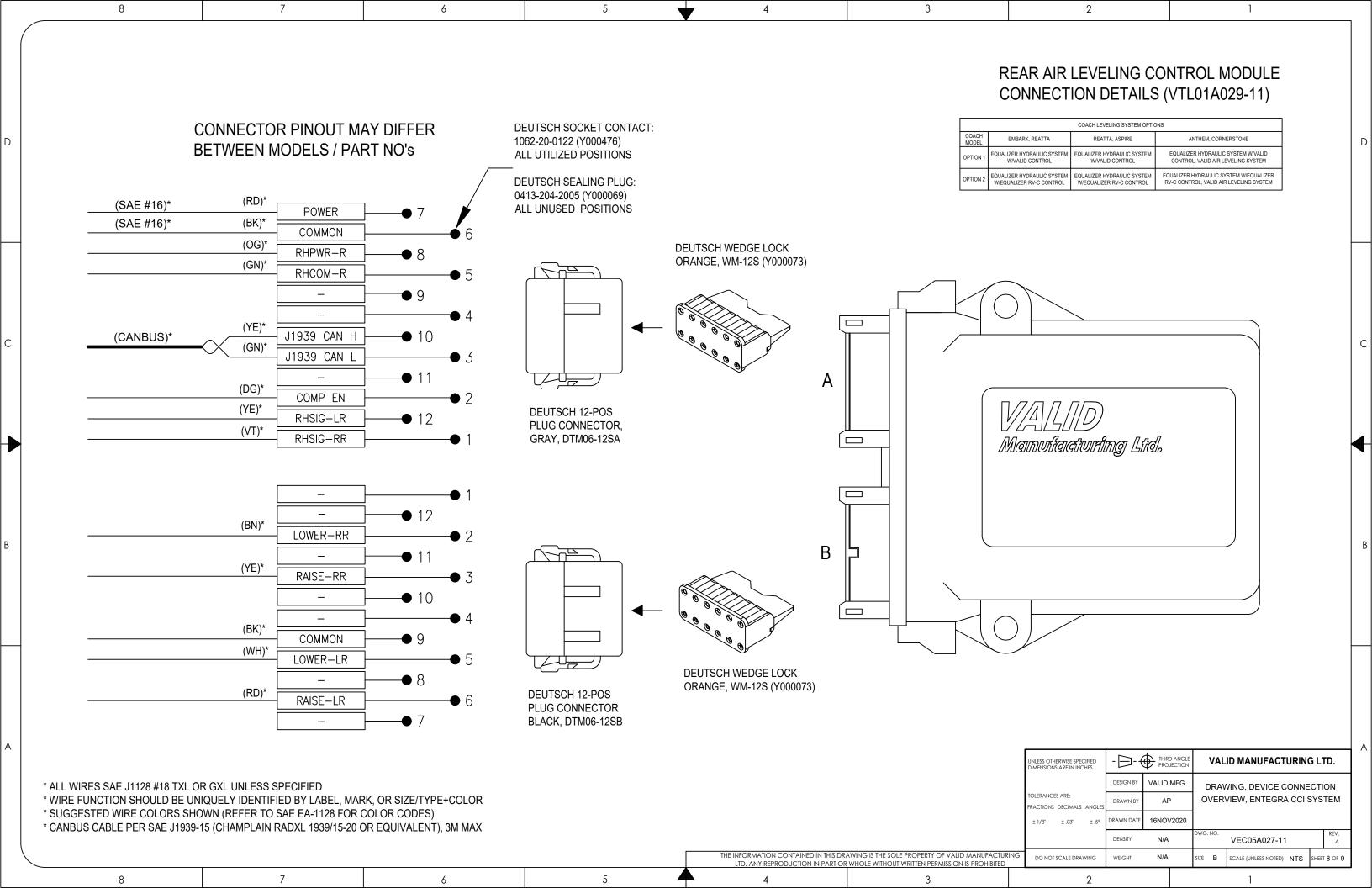
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	Ä	THIRD ANGLE PROJECTION	VAL	ID MANUFACTURING	ELTD.
		DESIGN BY	VALID MFG.	DRAV	VING, DEVICE CONNE	CTION
	TOLERANCES ARE: FRACTIONS DECIMALS ANGLES	DRAWN BY	AP	OVERVIEW, ENTEGRA CCI SYSTE		
	± 1/8" ± .03" ± .5°	DRAWN DATE	16NOV2020			
		DENSITY	N/A	DWG. NO.	VEC05A027-11	REV.
IG	DO NOT SCALE DRAWING	WEIGHT	N/A	SIZE B	SCALE (UNLESS NOTED) NTS	SHEET 4 OF 9

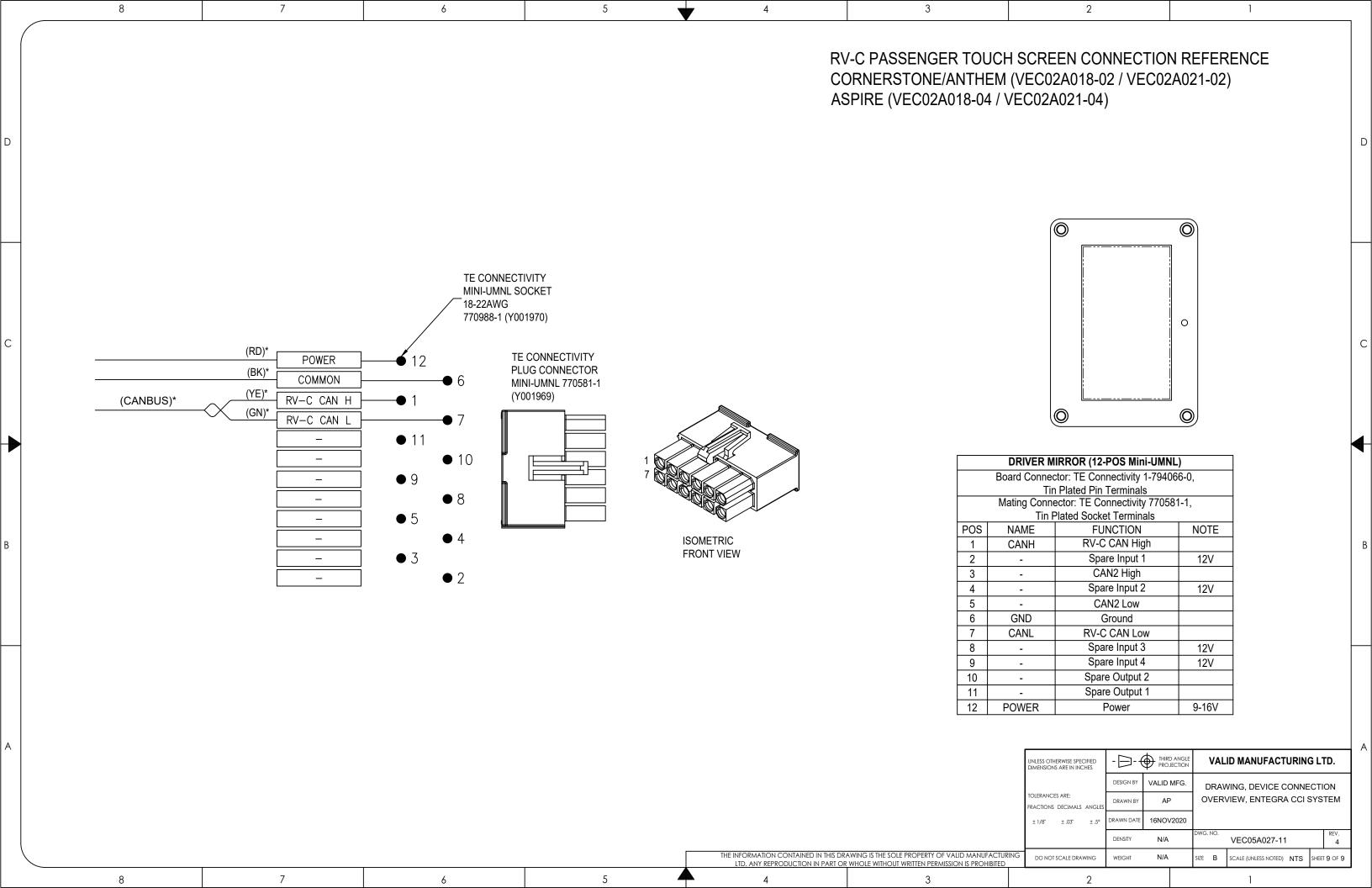
4 3

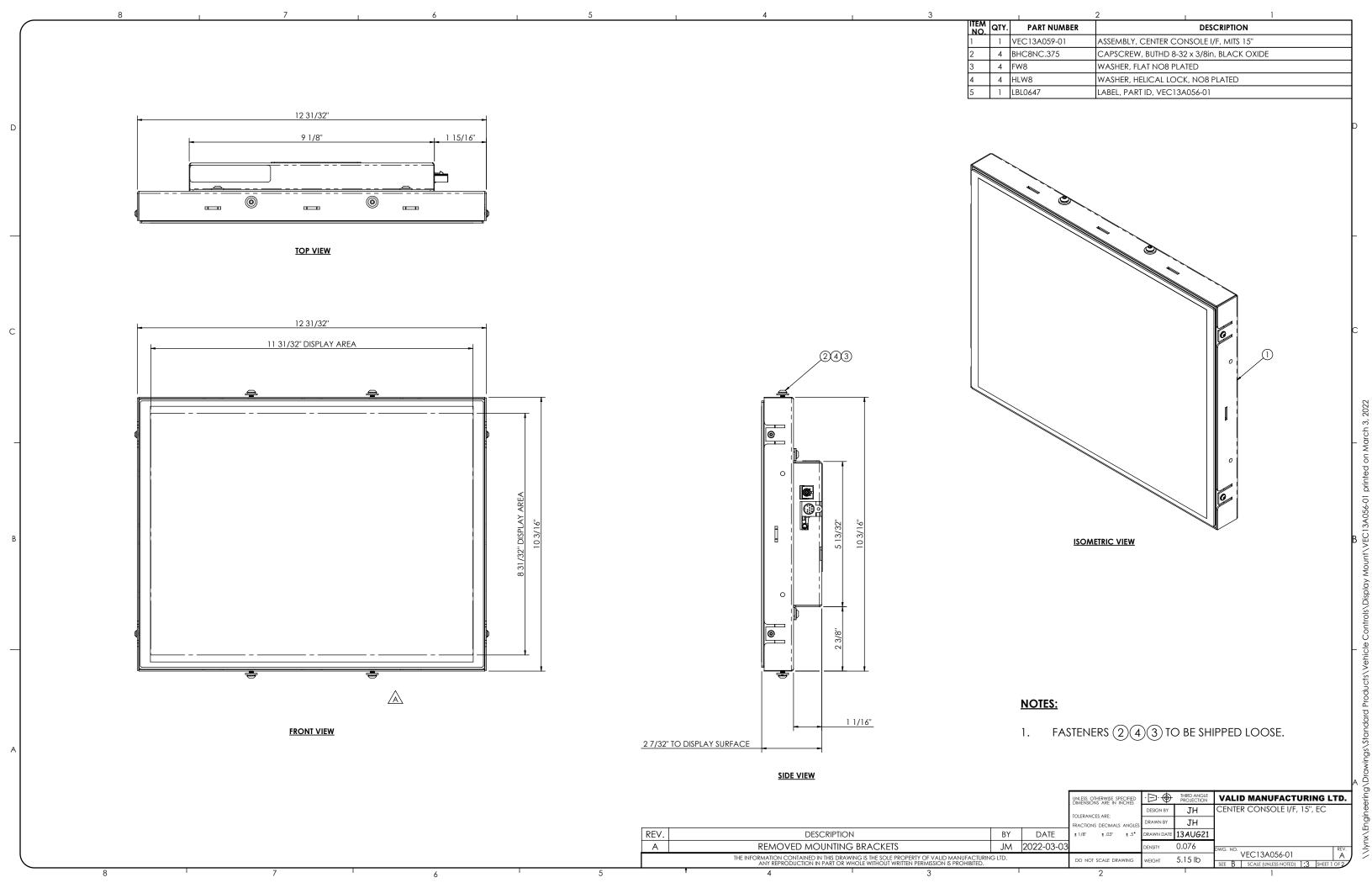


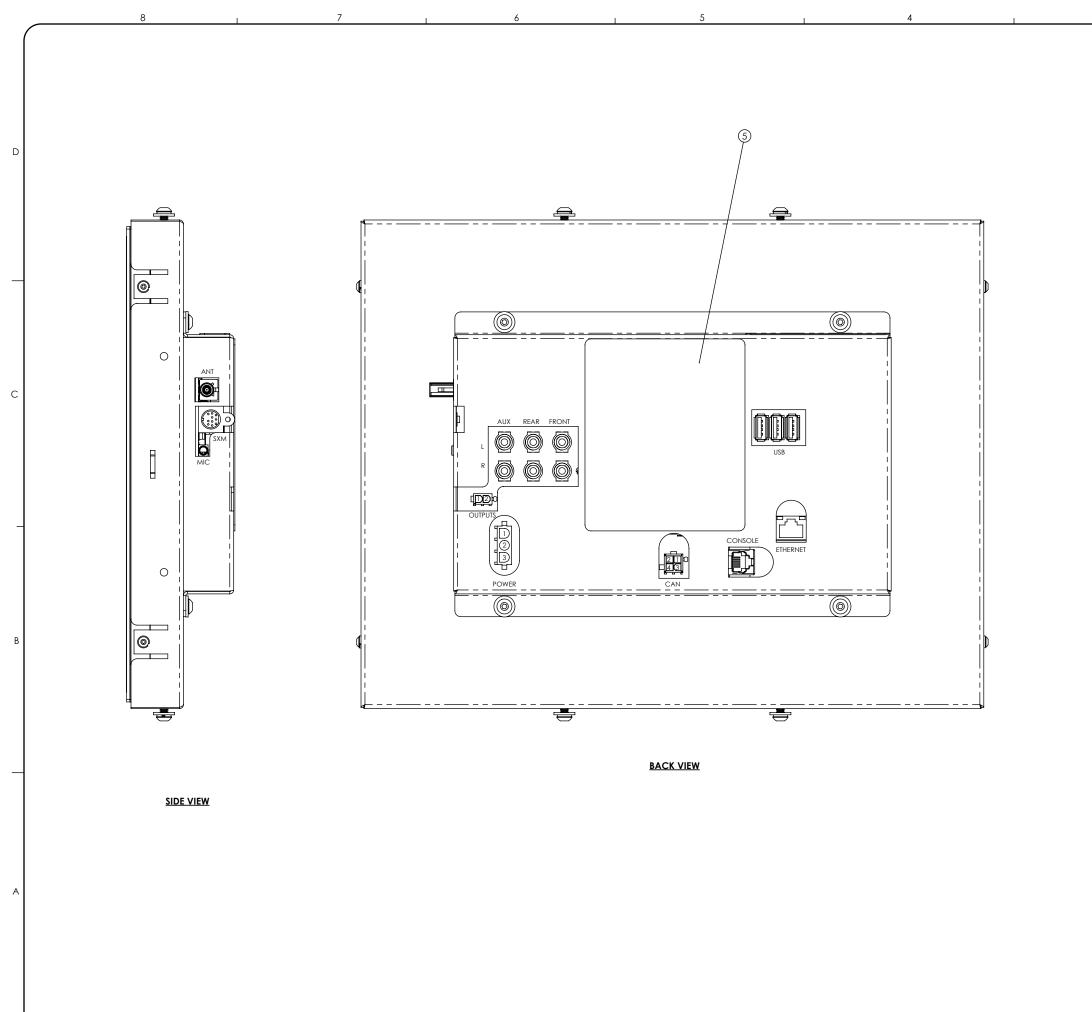












POWER				
	Mate: TE 770018-1, Tin Socket			
	Posn	Name	Function	Note
	1	VBAT	Chassis Battery Positive	Fuse at 10A
	2	IGN	Ignition (Screen On Sig)	Active High
	3	GND	Chassis Battery Negative	-

CAN1 (RV-C)			
	Mate: TE 172167-1, Gold Socket		
Posn	Name	Function	Note
1	CANL	RV-C Low	250k
2	CANH	RV-C High	-
3	CANSHLD	CANbus Shield	-
4	-	-	-

-					
	OUTPUTS				
	Mate: TE 172165-1, Gold Socket				
ſ	Posn Name		Function	Note	
	1	ANTPWR	Antenna PWR	Vbat+	
ſ	2	AUDIOEN	Audio Amp Enable	Vbat+	

	AM/FM ANTENNA			
Mate: SMA Antenna Connector Female				
Posn	Posn Name Function Note			
1	ANT	-	-	

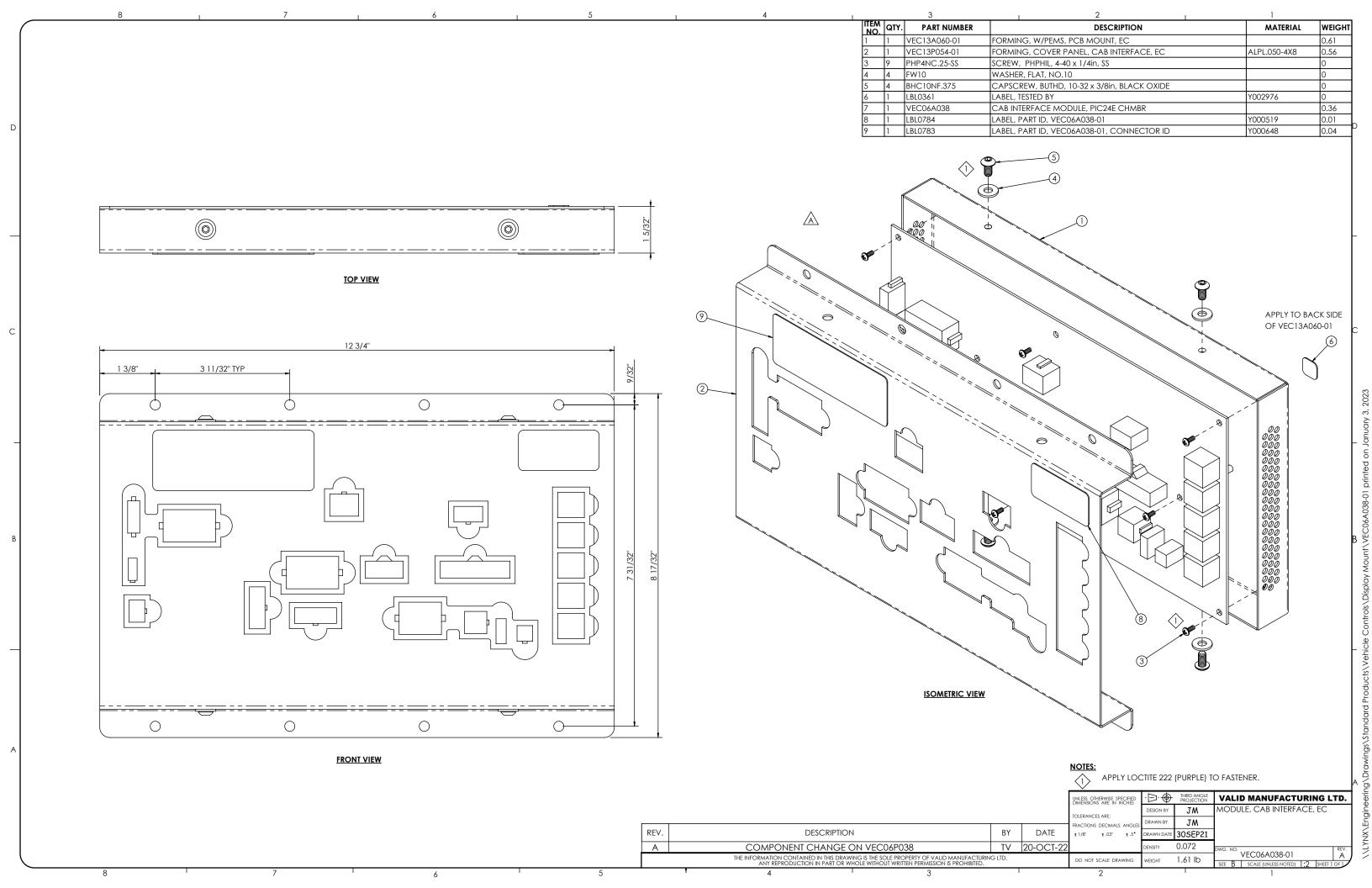
	AUDIO	OUT (PRE-AMP)		
	Mo	Mate: RCA Plug		
Posn	Name	Function	Note	
1	FRONT LEFT	ē	-	
2	FRONT RIGHT	-	-	
3	REAR LEFT	=	-	
4	REAR RIGHT	=	-	

AUDIO IN			
Mate: RCA Plug			
Posn	Name	Function	Note
1	AUX IN LEFT	=	-
2	AUX IN RIGHT	-	-

	SIRIUSXM SAT RADIO			
Ī	Mate: SXV-300 Compatible			
	Posn Name Function Note			
Γ	1	SXM	=	-

		MIC IN	
٨	Mate: 3.5mm Plug, 3 Conductor, 4 Contacts		
Posn Name Function Note			
1	MIC IN	_	_

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	÷ D	THIRD ANGLE PROJECTION	VALID MANUFACTURING LTD.
TOLERANCES ARE:	DESIGN BY	JH	CENTER CONSOLE I/F, 15", EC
FRACTIONS DECIMALS ANGLES	DRAWN BY	JH	
± 1/8" ± .03" ± .5*	DRAWN DATE	13 <i>A</i> U <i>G</i> 21	
	DENSITY	0.076	DWG. NO.
DO NOT SCALE DRAWING	WEIGHT	5.15 lb	VEC 13A056-01 A SIZE B SCALE (UNLESS NOTED) 1:2 SHEET 2 OF 2





VALID INFOTAINMENT SYSTEM MY2023-2024 VO.6.30 RELEASE NOTES

Introduction

This document provides information about the Valid Infotainment System revision history for model year, as well as outstanding identified issues with interim solutions.

Revision History

Revision	Issue Resolved / Feature Added
v0.6.30	 The memory management on the cab interface module has been improved to prevent system lockup.
	• The alignment of the level bubble on the leveling screen has been adjusted.
v0.6.28	 In full-screen camera view, Valid Infotainment display no longer freezes upon reactivation from sleep state.
	 Improved Ethernet network stability after a cold start.
	 Fuse detection has been added, with alerts displayed for blown fuses.
	 Sygic software has been updated to improve calculations for long-distance route planning.
	 Leveling messaging improved - status is now displayed properly when leveling process is complete.

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VALID INFOTAINMENT SYSTEM OPERATION MANUAL

Revision	Issue Resolved / Feature Added
v0.6.22	VNC and Sygic software has been updated:
	 GPS position loss has been corrected.
	 New navigation features have been added, including lane departure pop-up and improvements to preference list and route planning.
	 Audible navigation prompts have been improved.
	 Clean screen option has been moved to the top of the settings menu.
	 Issues with audio source selection on the passenger touchscreen have been fixed
	 Audio volume now returns to the previous level and source after a call is ended or declined.
	 VNC module firmware can now be updated from the infotainment screen.
	Stability issues that have been resolved:
	 Main and overhead displays now have enhanced stability.
	 Bluetooth® performance improved when source is unexpectedly disconnected.
	 The video decoder for the overhead display has been updated to v5:
	 Improves the network traffic.
	 Prevents a screen lockup should the decoder send a bad message.
	 Reduced audible speaker feedback during system reboot.
	 The network menu display of the Sygic software version has been corrected.
	 The SiriusXM® parental lock icon has been reduced in size.

VDC01087 REV F MAR 2025 PAGE 2 OF 3

OPERATION MANUAL

Known Issues

The table below lists conditions that may be encountered even after the Valid Infotainment System firmware is updated to v0.6.30, as well as possible solutions.

Issue	Interim Fix
Bluetooth® audio controls from phone for Valid Infotainment System audio do not function.	No interim fix available at this time.
No camera feed on either the Valid Instrument Cluster or the Valid Infotainment screen.	HDMI-to-IP Encoder must be reset.
GPS navigation does not start.	Double-tap the Sygic icon to launch the app.
Camera view does not change with signal light (Anthem / Cornerstone).	The Delta Mobile camera controller must be updated.

VDC01087 REV F MAR 2025 PAGE 3 OF 3