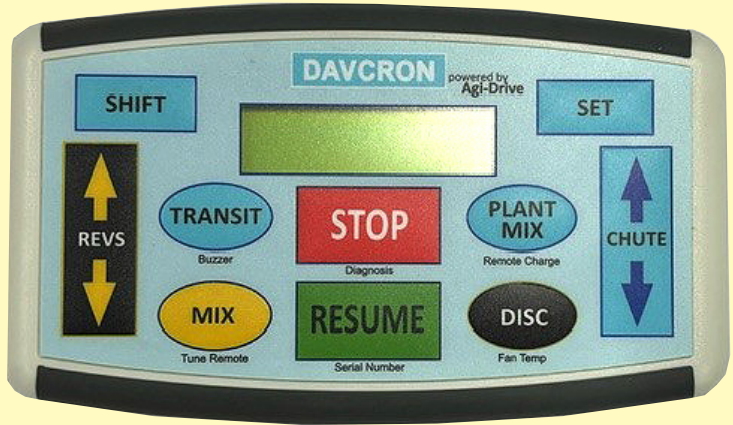


DAVCRON ENGINEERING



**THE DAVCRON AGITATOR MUST BE OPERATED BY
TRAINED AND AUTHORISED PERSONNEL ONLY**

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DAVCRON

ENGINEERING

Davcron Electronic

Mixer Controls Operations Manual

powered by Agi-Drive

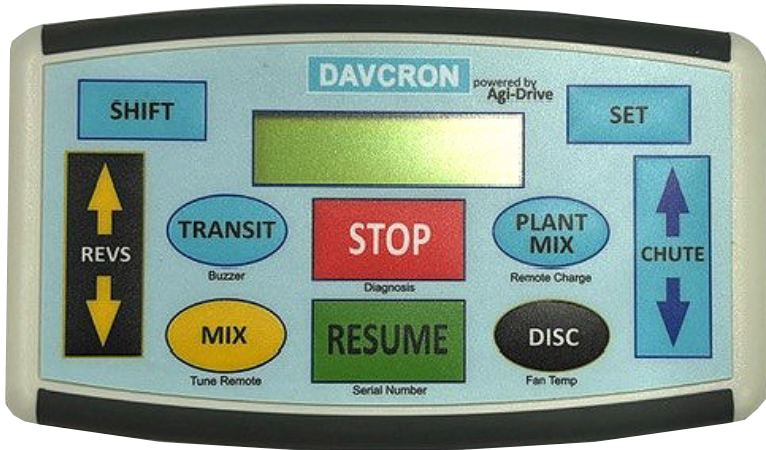
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Customer Support Agi-Drive
T: 0407 747 485

AGI-DRIVE Overview

1.1 HMI Control Unit

The HMI Control unit, located in the cabin of the truck is hard wired for controlling everything to do with the mixer from inside the cabin. It also provides information to the driver e.g. emergency stop activated.



1.2 12-Button Remote

The 12-Button Remote is used to control the mixer from anywhere in or around the agitator.

It accommodates auxiliary inputs to operate the work light (turn on/off), sound the truck horn, or rev the truck up and down from the palm of your hand.



1.3 Remote Charging Cradle

The remote charging cradle is purely to charge the remote battery when the remote is inserted into the cradle.

The HMI will sound if you start to drive away with the remote out of the cradle alerting the driver that he has not put the remote in the cradle to be charged on the way to the worksite.



1.4 Emergency Stop/Chute Switch

The Emergency Stop/Chute Switch is positioned at the rear of the truck and serves as an EMERGENCY mechanism or an alternative for raising or lowering the chute without the need for the remote control.



Operating the Agi-Drive from the HMI

No.1 - **Pressing or Holding the MIX button** will spin the barrel in the mix direction or will slow down the barrel if it is in discharge until it then transitions to the mix direction.

No.2 - **Pressing or holding the DISC button** will spin the barrel in the discharge direction or slow the barrel down until it transitions to the discharge direction.

No.3 - **Pressing the STOP button** will immediately stop all functions and allow you to use any other function immediately after pressing stop.

No.4 - **Pressing the RESUME button** will resume the mixer to the function that was being operated and at the same speed prior to pressing the stop button for ease of operation when stopping and starting the barrel.

No.5 - **Pressing or Holding the Revs up or Down Arrows** will increase and decrease the RPM of the truck from Idle to a Set RPM which can be changed by a qualified Agi-Drive technician.

No.6 - **Pressing or holding the CHUTE Up or Down Arrows** will raise or lower the rear concrete chute at the rear of the truck.

No.7 - **Pressing the Transit button** will mix the barrel slowly to agitating the concrete on the way to the worksite. Also, pressing the Transit button after loading the truck while still in Plant Mix mode will bring both the RPM and barrel speed down slowly ready to drive to the worksite.

No.8 - **Pressing the Plant Mix button** will slowly increase both the RPM of the truck and the barrel in the mix direction to the maximum preset values for when the truck is being loaded under the plant.

No.9 - **Holding the SHIFT button** will allow you to access the functions that are written underneath the buttons. **To tune in a NEW remote**, hold the shift button and then press the mix button then let them go to start the tuning process.

No.10 - **The SET button** is for technicians to establish parameters within the Agi-Drive which will be done at installation and does not affect day-to-day operations.



Operating the Agi-Drive with the 12-Button Remote

No.1 **Pressing the LIGHT button** will toggle the work light at the back of the truck on/off.

No.2 **Pressing or holding the HORN button** will activate the truck's horn for the duration that the button is being pressed.

No.3 **Pressing or Holding the Revs Up button** will increase the RPM of the truck from idle to a set RPM which can be changed by a qualified Agi-Drive technician.

No.4 **Pressing or Holding the Revs Down button** will decrease the RPM of the truck from Full RPM to idle.

No.5 **Pressing or Holding the MIX button** will spin the barrel in the mixing direction or will gradually slow down the barrel until it then transitions to the discharge direction.

No.6 **Pressing or holding the DISC button** will spin the barrel in the discharge direction or gradually slow the barrel down until it transitions to the mixing direction.

No.7 **Pressing the RESUME button** will restore the mixer to the previously operated function and maintain the same speed as before the stop button was pressed. This ensures smooth operation when halting and restarting the barrel.

No.8 **Pressing the STOP button** will immediately halt all ongoing functions and allow you to use any other function momentarily after pressing stop.

No.9 **Pressing the Transit button** will mix the barrel slowly for agitating the concrete on the way to the worksite. Also pressing transit while in PLANTMIX mode will automatically bring down the RPM and barrel speed and remain in transit.

No.10 **Pressing the Plant Mix button** automatically increases both the RPM of the truck and the barrel in the Mix direction to the maximum preset values for when the truck is being loaded under the plant.

No.11 **Pressing or holding the CHUTE Up button** will raise the concrete chute at the rear of the truck.

No.12 **Pressing or holding the CHUTE Down button** will lower the concrete chute at the rear of the truck.

No.13 **The LED** at the top of the remote should illuminate when any of the 12 buttons are pressed and will flash if the battery is low in the remote. When it is placed in the charging cradle it will illuminate solid to indicate charging.



Operating the Charging Cradle

The charging cradle is designed to charge the remote battery when the remote is positioned in the cradle. To ensure proper functionality the battery utilised must be a 9V rechargeable battery. During the charging process, the LED on the remote will remain solidly illuminated.

When the remote is not in the cradle and the vehicle is being operated, the HMI's buzzer will sound, serving as an alert to the driver that the remote might have been left on site. To temporarily deactivate the buzzer, users can utilise the SHIFT functions on the HMI, but this feature will only remain disabled until the ignition is cycled.

This option is primarily used when the charging cradle is malfunctioning and the user wishes to prevent the buzzer from sounding, or when the remote is being operated inside the cabin while the vehicle is in motion.



Emergency Stop Button and Chute Switch

The Emergency Stop button, situated at the rear of the truck, when pressed, will immediately cease all ongoing operations, and trigger a message on the HMI display indicating the activation of the Emergency Stop.

Each time the Agi-Drive is powered on, a counter will indicate the number of times it has been powered on without using the Emergency Stop button. To ensure it operates effectively during emergencies, the emergency stop button **should be checked daily** as part of the pre-start routine.

The Chute Switch, situated on the emergency stop enclosure, is a hardwired switch independent from the remote control. It is used to raise or lower the concrete chute at the back of the truck in the direction in which it is held.



Additional HMI Functions

When the SHIFT button on the HMI is held down, it causes the functions of all the other buttons to change to what is underneath each button.

The functions are as follows:

SHIFT + MIX = Tune Remote

SHIFT + DISC = Fan Temp (if option is installed) which shows oil temp, oil pressure, fan current and water transfer per litre,

SHIFT + STOP = Diagnostics screen

SHIFT + RESUME = Serial number of the Agi-drive

SHIFT + TRANSIT = turns remote out of cradle buzzer off, which will reset to default once ignition has been cycled off then on.

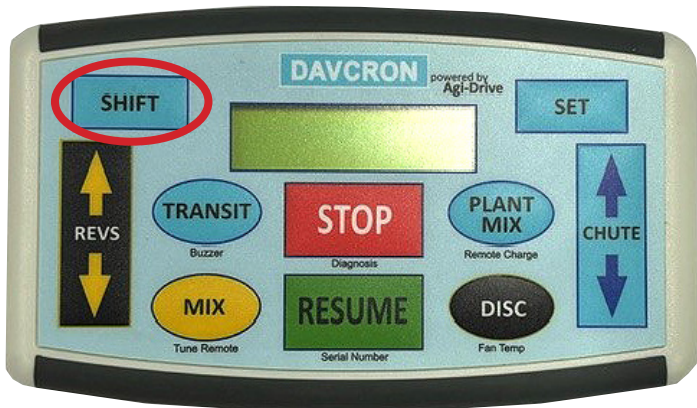
SHIFT + PLANT MIX = the level of charge in the remote

SHIFT + REVS up arrow = Calibrate scales (if option is fitted)

SHIFT + REVS down arrow = Display scales values if calibrated

SHIFT + CHUTE up arrow = Toggle work light on/off

SHIFT + CHUTE DOWN = Stuck button history



Setting Up Menus

Holding down the set button for twenty (20) seconds provides access to the menus for configuring parameters within the Agi-Drive (recommended for Agi-Drive technicians only).

To navigate each menu, refer to the provided illustration on page 12 to determine which buttons correspond to each direction.

Pressing Mix will bring you to menu 16 and allow you to reset default settings in case any parameters are incorrectly configured, and you need to restore them to factory settings.

Once changes are made in all menus, pressing the set button will exit the menus and save all values into memory. The following is a list of the available menus from left to right.

1. RPM Lower Limit
2. RPM Upper Limit
3. Hydraulic Lower Limit
4. Hydraulic Upper Limit
5. TFB (Transit Feed Back) Lower Limit
6. TFB (Transit Feed Back) upper Limit
7. RPM Ramp Time
8. Hydraulic Ramp Time
9. RPM Increment
10. Hydraulic Increment
11. Auto Transit
12. TFB (Transit Feed Back)
13. Wash Time Mix
14. Wash Time Discharge
15. Wash Time 0
16. Factory Reset – Hold Resume for 5 seconds to reset to factory settings.

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Tuning in a New 12 Button Remote

To sync a new 12-Button Remote, begin by powering on the Agi-Drive and waiting for the countdown.

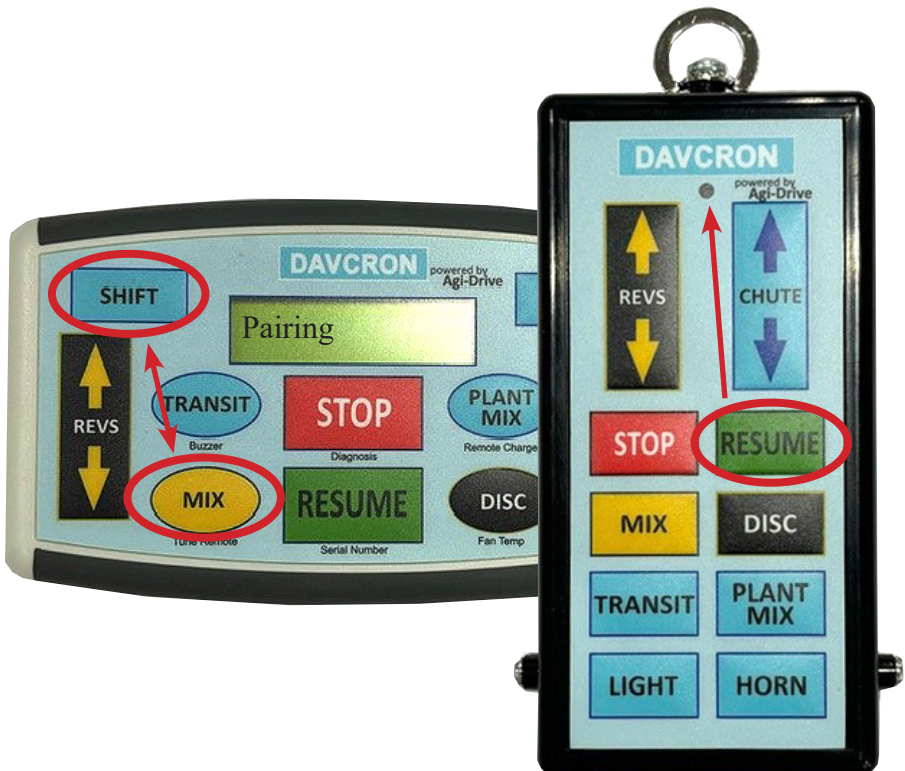
After the countdown ends, **press and hold the shift key**, followed **by the mix button**, then release.

Once "Pairing" is displayed on the screen, **hold down the resume button** on the remote you wish to sync with the Agi-Drive. If pairing is successful, "Pairing Ok" will be shown on the display.

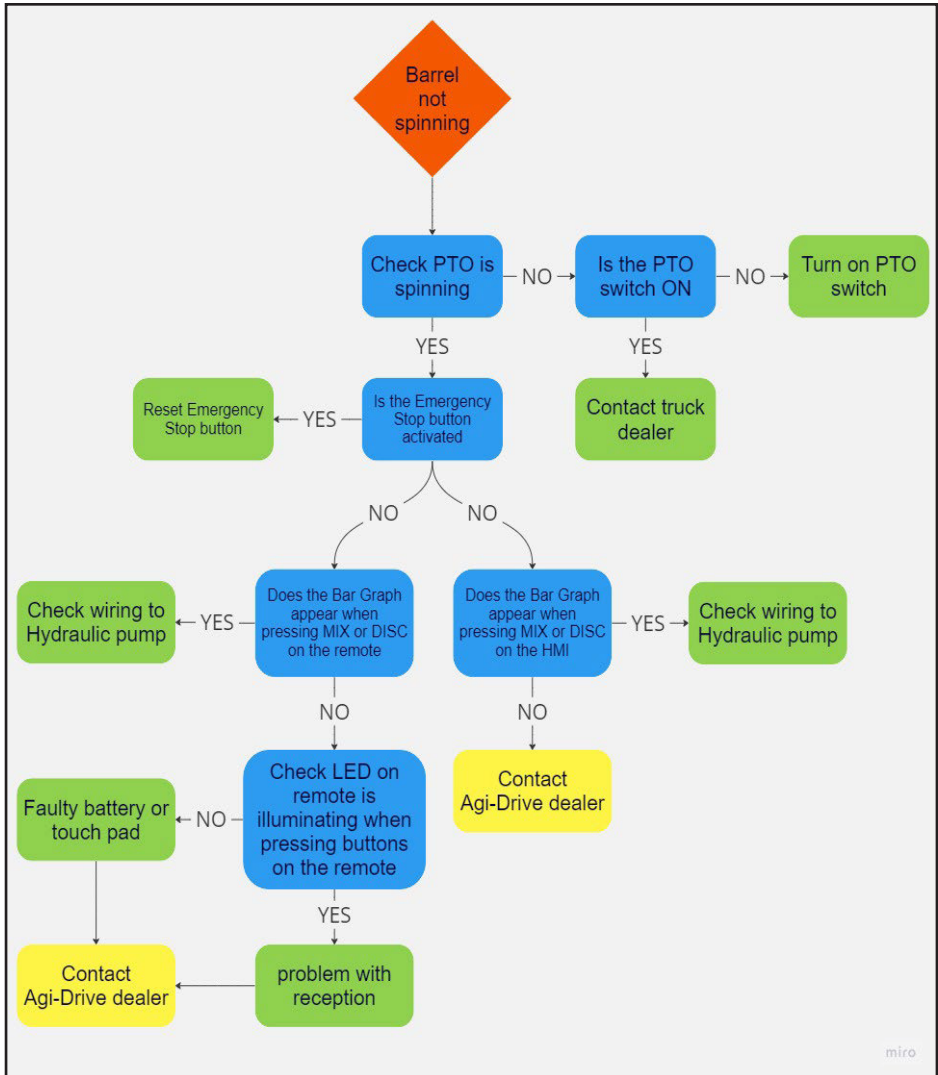
Holding the resume button on the remote will result in a solid green light, followed by a brief red flash for half a second and back to green.

This indicates that the remote is in tuning mode. The remote switches frequencies during the tuning process to prevent other remotes from being accidentally synced with the Agi-Drive when multiple trucks are present in the yard simultaneously.

NOTE: The Agi-Drive can only be paired with one remote at a time.



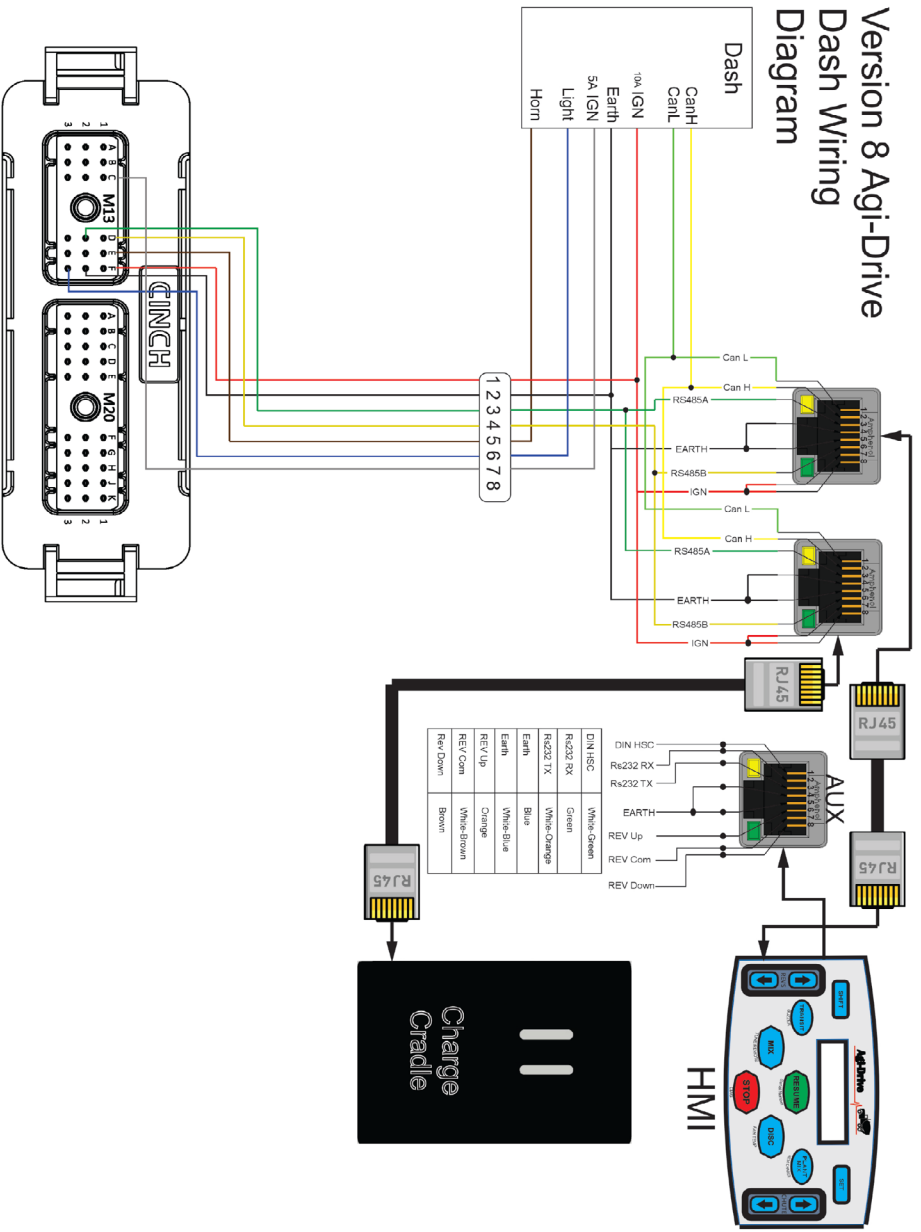
Trouble Shooting Flow Chart

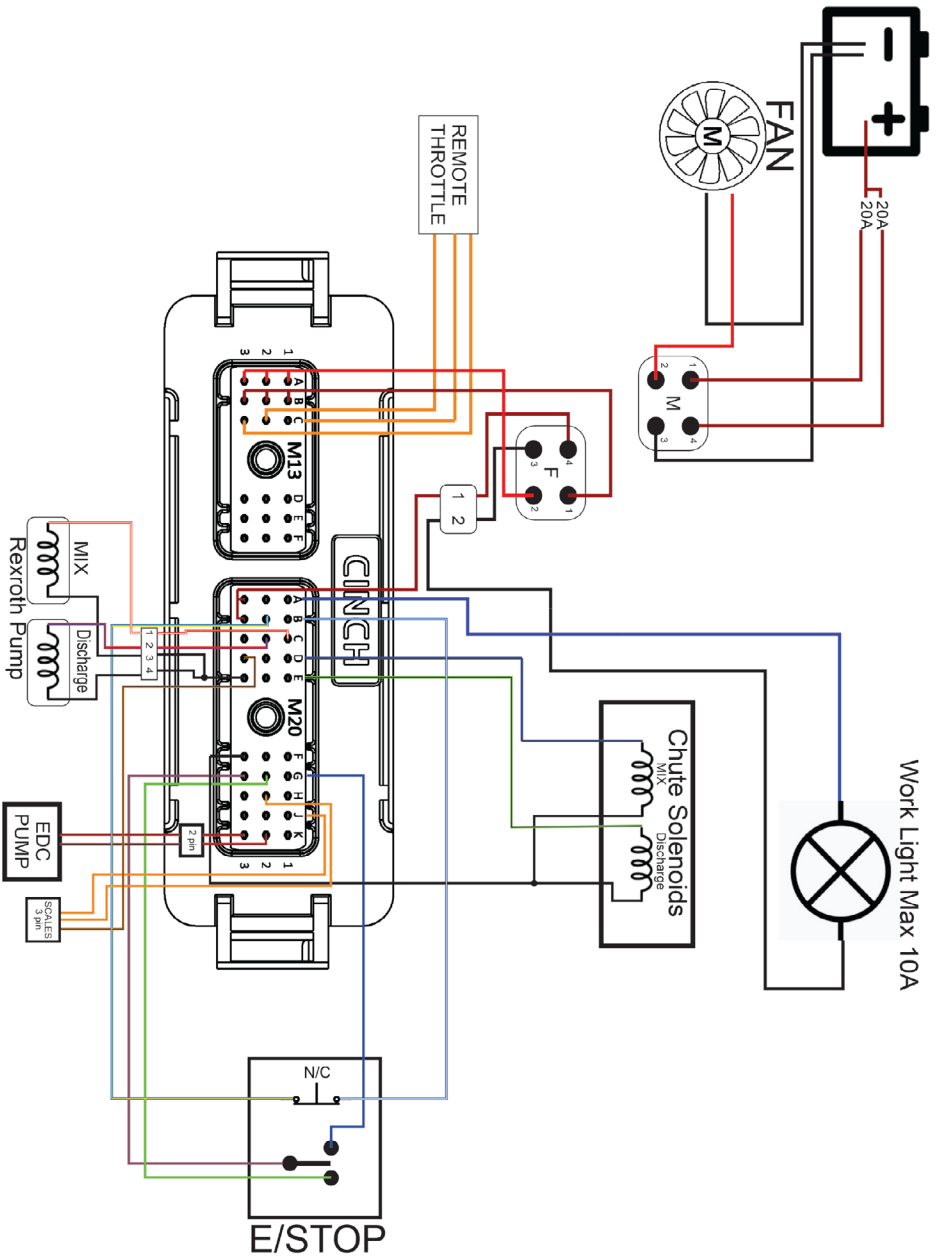


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Version 8 Agi-Drive Dash Wiring Diagram





Agi-Drive Specifications

	Input	Output	Ratings
HMI	12-24V DC	12-24V DC	
Distribution module	12-24V DC	12-24 volts DC	High pressure IP69K
Charging Cradle	12-24V DC	9V DC	

30 PIN

1A. Light Out	2A. Light Out	3A. 20A light supply
1B. E/stop supply	2B. E/stop return	3B. 20A light supply
1C. PWM1 MIX	2C. pwm2 Discharge	3C. IGN out hydraulic pressure
1D. Chute up out	2D. IGN out oil temp	3D. IGN output scales
1E. Chute down out	2E. Barrel spare	3E. GND return Rexroth
1F. Bio 0	2F. Bio 1 High speed counter	3F. GND spare
1G. Chute down Switch IN	2G. Chute up Switch IN	3G. GND common for chute switch
1H. AI0 Oil temp	2H. AI2 Scales	3H. GND water meter
1J. AI3 Scales	2J. 12V out	3J. +12V output water meter
1K. AI1 Oil pressure	2K. EDC 1	3K. EDC 2

18 PIN

1A. FAN OUT	2A. FAN OUT	3A. FAN OUT
1B. 30A FAN SUPPLY	2B. 30A FAN SUPPLY	3B. 30A FAN SUPPLY
1C. ECM SUPPLY	2C. ECM Signal	3C. ECM 0V
1D. RS485B (yellow/red)	2D. RS485A (green/red)	3D. HMI Spare (White)
1E. HORN out	2E. CAN HIGH (Yellow)	3E. CAN Low (green)
1F. IGNITION	2F. GND	3F. Light Out (Blue)

+12V and IGN outputs are to be used for the sensors as required by the respective sensor specifications.

Customer Support Agi-Drive

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Warranty Information

1. Introduction

Thank you for choosing Agi-Drive! We provide you with a product of the highest quality and performance. To demonstrate our commitment to your satisfaction, we are pleased to offer this warranty to protect your investment. This warranty information outlines the terms and conditions that govern the coverage for Agi-Drive. Please take a moment to read through this section carefully, as it details the rights and responsibilities associated with your purchase. If you have any questions about the warranty or need assistance, our dedicated customer support team is here to help. Contact details can be found at the end of the manual.

2. Duration of Warranty

2.1 Warranty period: The warranty period for your Agi-Drive extends for a period of 12 months from the date of purchase.

2.2 Commencement of warranty: The warranty period commences on the date of purchase as indicated on your proof of purchase.

2.3 Non-Transferable: This warranty is valid only for the original purchaser and is non-transferable.

3. Coverage

3.1 Components covered: The warranty covers defects in materials and workmanship for the following components.

a) HMI Display Unit; b) Distribution Module; c) Charging Cradle; d) 12 Button Remote; e) Wiring Harness

3.2 Performance coverage: Our warranty extends to cover issues related to the performance and functionality of the Agi-Drive under normal use.

3.3 Parts coverage: Only parts are covered under this warranty. Labour costs are not included.

3.4 Repairs and Replacement: In the event of a covered defect, Agi-Drive will, at its discretion, repair or replace the defective part.

3.5 Original and authorised components: The warranty is valid only if repairs or replacements are performed using original or authorised components by Agi-drive or approved technicians.

3.6 Repair Location: Repairs covered under this warranty are 'Back to Base' This means that, if required, the product must be returned to our designated repair location for service.

3.7 Call-out Fee: For warranty services that require a technician to come to your location, a call-out fee may be charged.

4. Exclusions

4.1 General Exclusion: The warranty does not cover damage resulting from:

a) Normal wear and tear; b) Accidents, misuse, or abuse; c) Unauthorised modifications or repairs; d) Exposure to environmental conditions outside the specified operating parameters; e) Removing Silicone sleeve on the 12 Button Remote; f) Dropping the remote; g) High pressure washing of the Distribution module or associated plugs.

4.2 External Accessories: Accessories, peripherals, or external components not originally supplied with your Agi-Drive are not covered under warranty.

4.3 Third-Party Products: Any issues arising from the use of third-party products in conjunction with Your Agi-Drive are not covered under this warranty.

5. Obtaining Warranty Service

5.1 Contacting customer support: Agi-Drive on 0408 611 447 or 0407 747 485

5.2 Initial Troubleshooting: Before seeking warranty service, we recommend checking the troubleshooting flow chart in this manual or visiting our website for any available solutions. www.Agi-Drive.com.au

5.3 Proof of Purchase: To obtain warranty service, you will be required to provide proof of purchase, indicating the date of purchase and the product serial number.

5.4 Return Authorisation: If return of the product is necessary, instructions will be issued to you by our support team.

5.5 Shipping Costs: If shipping is required for warranty service, the cost of shipping the product to Agi-Drive is the responsibility of the customer.

5.6 Instructions for Return: Detailed instructions for returning the product, if applicable, will be provided by our customer support team.

6. Requirements for Warranty Claims

6.1 Timely Notification: To initiate a warranty claim, notify Agi-Drive promptly upon discovering the defect or issue covered by the warranty.

6.2 Complete and Accurate Information: When filing a warranty claim, provide complete and accurate information about the issue, including a detailed description and any relevant information.

6.3 Cooperation with Technical Support: If requested by our technical support team, cooperate in troubleshooting efforts, and follow provided instructions to diagnose or resolve the issue.

6.4 Authorisation for Repairs: Obtain authorisation from Agi-Drive before seeking repairs or replacements covered by the warranty.

6.5 Returning Products: If required, follow the instructions provided by our customer support team for returning the product, ensuring that it is packaged securely.

6.6 Proof of Purchase: Include a copy of the original proof of purchase with the returned product to facilitate the warranty claim process.

7 Modifications to the Product

7.1 Authorised modifications: Any modifications or alterations to the Agi-Drive that are authorised by Agi-Drive are allowed without voiding warranty.

7.2 Unauthorised modifications: Unauthorised modifications or alterations to the product will void the warranty.

7.3 Impact on warranty: Agi-Drive reserves the right to determine the impact of any modification on the warranty coverage.

7.4 Third-Party Accessories: The use of third-party accessories or components not authorised by Agi-Drive may void warranty.

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