



Remote Spreader Control Operation Manual

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This section contains:

- **Introduction**
- **Important Safety Warning**
- **Important Safety Information**
- **Table of Contents**
- **Warranty**
- **Disclaimer. Limit of Liability**
- **Unpacking your Remote Control**

DANGER!



**ACTUATOR WILL AUTOMATICALLY RETRACT ON CONSOLE STARTUP
NEVER PUT HANDS/FINGERS NEAR MOVING PARTS OF UNIT**

Introduction

Congratulations on your purchase of a **C-Dax Remote spreader control unit**.

We are confident that your control unit will perform for many years as long as sensible equipment maintenance/operational practices are followed. We have endeavoured to make the unit as robust and functional as possible, but please remember that like any piece of precision electronic equipment, its performance parameters need to be respected.

We thank you for making this investment and assure you of our attention at all times.

IMPORTANT SAFETY WARNING

The C-Dax Remote Control is designed to be used with the C-Dax CDIT spreaders, either towed behind an agricultural vehicle or mounted to a three point linkage.

Operators should note that like any piece of trailed or mounted agricultural equipment, **THE SPREADER WILL AFFECT THE STABILITY AND HANDLING CHARACTERISTICS OF THE TOWING VEHICLE. FAILURE TO TAKE ACCOUNT OF THIS AND EXERCISE CAUTION WHEN OPERATING THE DEVICE MAY RESULT IN INJURY, OR IN EXTREME CIRCUMSTANCES, DEATH TO THE OPERATOR OR BYSTANDERS. OPERATORS ARE REMINDED THAT GROUND CONDITIONS COULD BE SLIPPERY AND THAT UNDULATIONS IN TERRAIN MAY BE CONCEALED BY GRASS OR OTHER VEGETATION.**

OPERATORS ARE FURTHER REMINDED NEVER TO EXCEED THE MANUFACTURERS RECOMMENDED LOADING LIMITS FOR THE TOWING VEHICLE. C-Dax accepts no liability whatsoever for damage or injuries sustained while using the remote controller.

IMPORTANT SAFETY INFORMATION

Be warned of the dangers of loading your ATV or other vehicle in excess of its carrying capacity. It is important to understand that any loads or attachments whether fastened to, or placed on a vehicle or an ATV, will alter the stability or handling characteristics of that vehicle or ATV. Spray tanks or other equipment must be filled only to a level where the gross weight is within the load limit of the ATV or other vehicle.

Safety is a primary concern in the design, manufacture, sale, and use of spray tanks and other equipment. As manufacturers of spray tanks and other equipment we want to confirm to you, our customers, our concern for safety. We take this opportunity to remind you about the simple, basic and common sense rules of safety when using spray tanks and other equipment. Failure to follow these rules can result in severe injury or death to operators and bystanders.

It is essential that everyone involved in the assembly, operation, transport, maintenance and storage of this equipment be aware, concerned, prudent and properly trained in safety.

This also applies to equipment that is loaned or rented to someone who has not read the owner's manual and is not familiar with the operation of the equipment.

- **NEVER EXCEED THE LOAD LIMIT CAPACITY OF THE ATV OR OTHER VEHICLE.**
- **ALL ATV AND TRAILED EQUIPMENT TYRES SHOULD BE INFLATED TO MANUFACTURERS RECOMMENDED OPERATING PRESSURES.**
- **PLEASE NOTE THAT FILLING THE SPRAY TANK OR OTHER EQUIPMENT COMPLETELY AND OR THE ATTACHMENT OF ADDITIONAL EQUIPMENT TO THE ATV MAY EXCEED THE ATV'S MAXIMUM LOAD/S CAPACITY AND IT IS NOT RECOMMENDED TO EXCEED MANUFACTURERS GUIDELINES**
- **LOAD/S SHOULD BE PROPERLY DISTRIBUTED AND SECURELY ATTACHED.**
- **REDUCE SPEED WHEN CARRYING LOAD/S OR PULLING A TRAILER OR TRAILED APPLICATION EQUIPMENT AND ALLOW GREATER DISTANCE FOR BRAKING.**
- **NEVER ALLOW ANYONE TO RIDE ON YOUR SPRAYER OR OTHER EQUIPMENT.**
- **ALWAYS FOLLOW THE INSTRUCTIONS IN THE VEHICLE OWNERS MANUAL FOR CARRYING LOADS OR PULLING A TRAILER.**
- **PROPER MAINTENANCE IN LINE WITH THE MANUFACTURER'S RECOMMENDED MAINTENANCE PROCEDURES IS ESSENTIAL.**
- **BEFORE APPLYING CHEMICALS, READ THE LABEL OF THE CHEMICAL MANUFACTURER OR SUPPLIER FOR THEIR PERSONAL PROTECTIVE EQUIPMENT INSTRUCTIONS AND OPERATE AS RECOMMENDED.**
- **THE SAFETY OF ALL CHEMICALS USED IN AGRICULTURE IS UNDER THE JURISDICTION OF A GOVERNMENT AGENCY, EG. N.Z. MINISTRY FOR THE ENVIRONMENT; USA ENVIRONMENTAL PROTECTION AGENCY ETC. FURTHER LOCAL GOVERNMENT OR STATE LAWS MAY APPLY.**

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Warranty

1 **WARRANTY AND LIABILITY**

Use of the equipment

- 1.1 You must satisfy yourself as to the suitability of the equipment for your intended use(s) of the equipment.

Your relationship with the retailer

- 1.2 Where you consider you have a warranty claim (or any other claim) in relation to the equipment, you must contact the retailer who sold you the equipment, not C-Dax directly. The retailer is responsible for liaising with C-Dax in respect of your claim.

Warranty

- 1.3 C-Dax warrants to the original purchaser that the equipment is sold free from defects in materials and workmanship for a period of 12 months from date of first retail sale (6 months from date of first retail sale if the equipment is sold in the U.K.) subject to the terms set out below.
- 1.4 C-Dax will at its option repair or replace the defective equipment (or part of the equipment) or notify the retailer of the equipment to refund the purchase price for such defective equipment to you in the event of a breach of this warranty, subject to the terms set out below.

Liability

- 1.5 Except for the warranty set out in clause 1.2 above, all warranties and representations (including those expressed or implied by law) in respect of the equipment or advice relating to the equipment provided to you by C-Dax are excluded to the extent permitted by law.
- 1.6 Notwithstanding anything else in this manual, C-Dax's maximum liability to you (in the event that such liability exists) in respect of any breach of warranty, any matter set out in this manual, or for defective equipment or advice relating to the equipment provided is limited at C-Dax's option to:
- (a) repairing or replacing the equipment (or part of the equipment); or
 - (b) notifying the retailer of the equipment to refund the price for the equipment paid by you.
- 1.7 Notwithstanding anything else in this manual, in no event will C-Dax be liable, whether in contract, tort (including negligence) or otherwise:
- (a) where you have altered or modified the equipment, misused or misapplied the equipment, or the equipment has been subjected to any unusual, excessive or non-recommended use, service or handling (including as set out in this manual);

- (b) where the equipment is not transported, stored, handled or used in accordance with any directions given by C-Dax (or the retailer) to you (including as set out in this manual);
 - (c) where the equipment:
 - (i) has been subject to neglect, accident or hireage, or the damage arises from fair wear and tear, battery damage or chemical attack;
 - (ii) has been built to a customer's specifications; or
 - (iii) has been dismantled, repaired or serviced other than by an authorised service agent of C-Dax;
 - (d) for loss or damage caused by any factors beyond C-Dax's control; or
 - (e) for any loss of profit or revenue, or for any special, indirect, incidental or consequential damage, loss or injury of any kind suffered by you.
- 1.8 Where C-Dax elects to repair or replace the equipment it will use reasonable endeavours to do so as soon as practicable but will not be liable for any delay in doing so.
- 1.9 You agree that the transactions entered into between you and the retailer (and C-Dax) are for the purposes of trade and that, having regard to all relevant circumstances of the transactions, it is fair and reasonable that the provisions of the Consumer Guarantees Act 1993 (NZ) do not apply to those transactions to the fullest extent permitted by law.

Unpacking Your Console

When unpacked, you should have the following components:



Controller



Power Cable



Data Cable



Battery Connecting Cable



Operation & Assembly Manual

Should any of the above items be missing or damaged, please contact our Customer Service Department for replacement.

Customer Services
C-DAX Limited
145 Harts Road
Palmerston North
New Zealand
Freephone: 0800 230 230
E-Mail: sales@c-dax.co.nz

This section contains:

- **Remote Control mounting**
- **Assembly & Setup – Remote Control**

The Remote Control

This is normally mounted in a convenient position on the front carrier of the ATV/RTV or in the cab of a tractor. It is connected by cable to the vehicles 12v battery and also by a data cable to the spreader. Care should be taken when mounting the controller to ensure the greatest protection from the ingress of water.



Important:

If the unit is connected to a trailed spreader do not operate the controller while stationary as there is a risk that the two sides of the clutch mechanism will clash instead of engaging

NOTE: Controllers are factory programmed to the spreader type with which they were sold. If the controller is used with another type of spreader the rates will not match those in the table.

Assembly & Setup – Remote Control

Step One

- Locate a convenient flat surface of sufficient size to fit the controller to.
- Separate the “loop” Velcro from the back of the controller and push the adhesive Velcro firmly against surface.

Step Two

- Carefully route the power and data cable from the controller to the back of the ATV/RTV/Tractor.
- Take care to avoid “pinch points” and hot surfaces such as the exhaust system.

Step Three

- Connect the 4 pin female power cable to underside of controller.
- Connect other end of power cable to battery connector cable and run power cable to ATV battery housing.
- Connect the 7 pin male end of the 4m data cable to underside of indicator controller.
- Removal of the controller is the reverse process.

Note:

While every effort has been made to protect the controller from the ingress of water, users are advised to remove the controller from the ATV/RTV before washing down the vehicle. No hard water should be directed near the controller at any time.

Important:

- **Make sure you attach the end of the cable to the rear carrier so that it is on the opposite side of the ATV from the exhaust pipe.**
- **The controller consumes a small amount of power when not in use. It is therefore recommended that the power cable be disconnected when not spreading.**
- **Never replace the fuse in the controller power cable with a larger value than the one supplied **(5Amp)****

Note:

The battery connector cable is supplied for connection to batteries that do not already have a C-Dax battery connector cable fitted. If already fitted, connect the blue / white power cable directly to it.

The path to run the cables to the battery and rear carrier is up to the installer but should be chosen to protect the cables and so as not to obstruct the operator.

The rear end of the black cable should be attached so that just the plug and 50mm of cable hang down for attachment to the trailed implement cable. Coil excess cable under seat or tie under rear carrier out of the way.

SPREAD

This section contains:

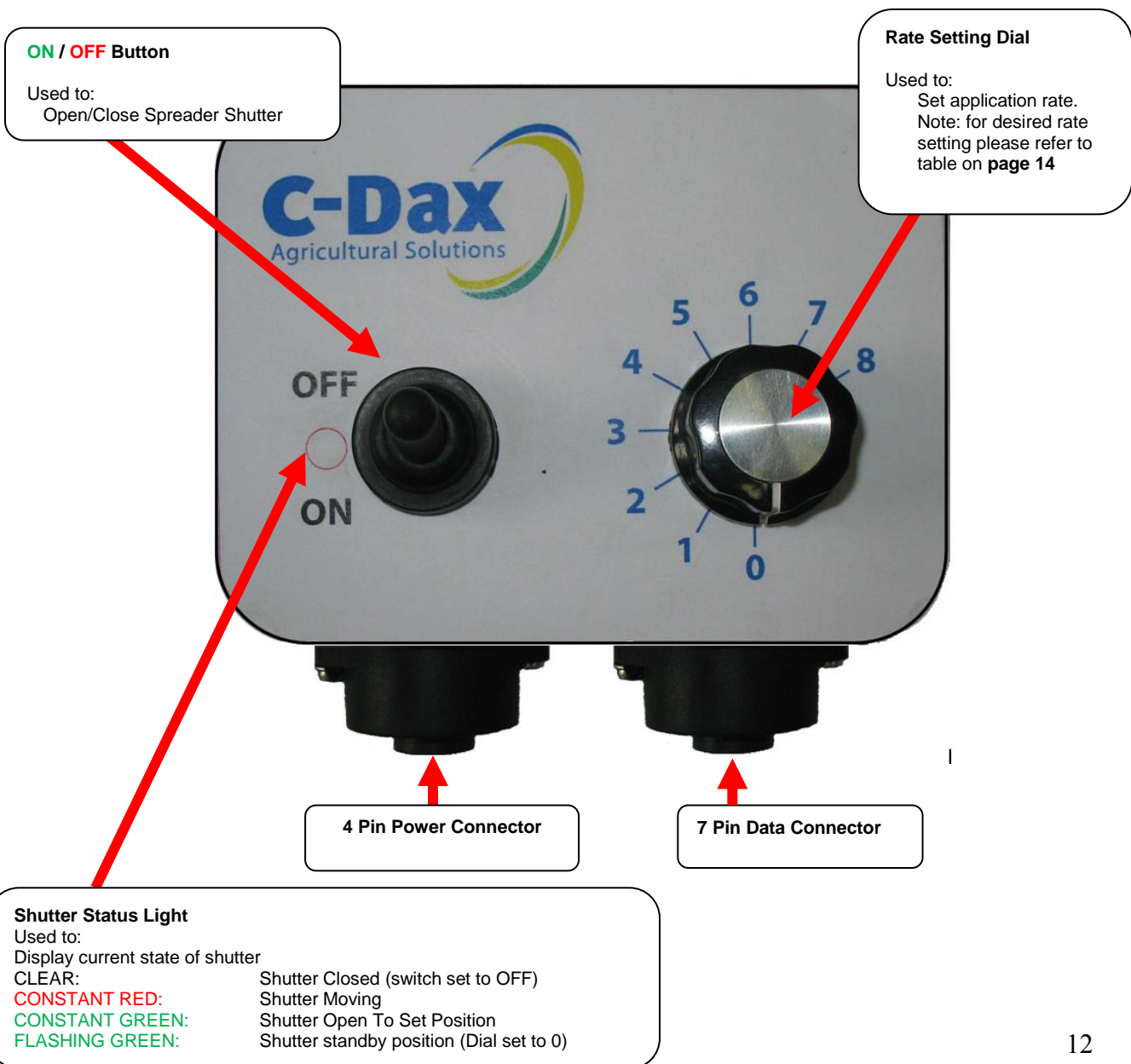
- **Understanding the controller**
- **How the spreading process works**
- **Application Rate Tables**



Understanding the remote control

In preparation for use of your CDIT400, CDIT650 or CDIT1300 Remote Control Spreader you need to ensure that you have attended to the following:

- Made the initial hardware setups for the spreader
- Made the initial controller setup (mount controller, route cables etc.)
- Referred to the application rate table to select the desired settings for your controller / spreader combination



How the spreading process works

The steps below outline the overall process for spreading operations.

Plug in
console



Pick desired
rate



Set desired
rate



Begin
Spreading



Stop
Spreading



Unplug
console

Refer to the application rate tables on **pages 14-17** of this manual.

Turn the rotary dial to the setting from the application rate lookup table.

Toggle the ON/OFF switch to the ON position to open the shutter. Drive around paddock at the recommended bout width and spread product.

Toggle the ON/OFF switch to the OFF position to close the shutter.

Unplug the controller if spreading activities are finished.

Spreader Application Rates

NOTE

Because of variations in product characteristics, speedometer calibration and driving speed, the **information in the calibration guide should be regarded as a starting point only**. It is recommended that the spreader be calibrated before use.

Application rates are chosen by using the tables on the next three pages of this manual. The diagram below explains the process of selecting an application rate.

1. Select the correct table for the spreader which you are using
2. Select the material which you are spreading
3. Use the matrix to find the desired application rate
4. Drive the speed and bout width given in the table

NOTE: Always drive to the conditions. Never exceed speeds which are safe for the conditions/equipment with which you are operating

In the below example we have chosen the spreader we are using (CDIT400), the material we are spreading (UREA) and the target application rate of 50Kg/Ha.

To achieve this application rate we would now use setting 4 on the controller and drive 15m bout widths at a speed of 10km/h.

If we want to spread at a higher speed (**and conditions allow it to be done safely**) we simply move to the next speed column in the table and select the closest application rate, in this case either 55Kg/Ha at 12km/h or 45Kg/Ha at 14Km/h on setting 5

CDIT400 MATERIAL APPLICATION RATE (Kg/Ha)												
	DAP			Urea			Super			Seed		
Speed	10km/h	12km/h	14km/h	10km/h	12km/h	14km/h	10km/h	12km/h	14km/h	10km/hr	12km/h	14km/h
Bout Width	15m			15m			12m			6m		
0	Closed											
1	8	7	6	5	4	3	7	6	5	N/A	N/A	N/A
2	25	20	15	20	17	15	30	25	23	15	13	11
3	45	35	30	35	30	25	55	50	40	35	25	20
4	55	50	45	50	40	35	80	70	60	50	40	35
5	80	70	60	65	55	45	110	90	75	65	55	50
6	100	85	70	80	65	55	135	110	95	85	70	60
7	120	100	85	90	75	65	160	130	115	100	85	75
8	145	120	105	115	95	80	195	165	140	130	105	90

CDIT400 MATERIAL APPLICATION RATE (Kg/Ha)

	DAP			Urea			Super			Seed		
<u>Speed</u>	10km/h	12km/h	14km/h	10km/h	12km/h	14km/h	10km/h	12km/h	14km/h	10km/hr	12km/h	14km/h
<u>Bout Width</u>	15m			15m			12m			6m		
0	Closed											
1	8	7	6	6	5	4	7	6	5	N/A	N/A	N/A
2	25	20	15	20	17	15	30	25	23	15	13	11
3	45	35	30	35	30	25	55	50	40	35	25	20
4	65	55	45	50	40	35	80	70	60	50	40	35
5	80	70	60	65	55	45	110	90	75	65	55	50
6	100	85	70	80	65	55	135	110	95	85	70	60
7	120	100	85	90	75	65	160	130	115	100	85	75
8	145	120	105	115	95	80	195	165	140	130	105	90

CDIT650 MATERIAL APPLICATION RATE (Kg/Ha)

	DAP			Urea			Super			Seed		
<u>Speed</u>	8km/h	10km/h	12km/h	8km/h	10km/h	12km/h	8km/h	10km/h	12km/h	8km/h	10km/h	12km/h
<u>Bout Width</u>	18m			18m			14m			6m		
0	Closed											
1	30	25	20	20	15	15	60	45	40	35	30	20
2	40	35	30	30	25	20	85	65	55	45	40	30
3	55	45	35	40	35	30	110	85	70	60	45	40
4	70	55	45	55	40	35	130	105	90	70	55	50
5	85	65	55	65	50	40	155	125	105	80	65	55
6	100	80	65	75	60	50	180	145	120	95	75	65
7	110	90	75	85	65	55	205	165	140	105	85	70
8	125	100	85	95	75	60	230	185	155	120	95	80

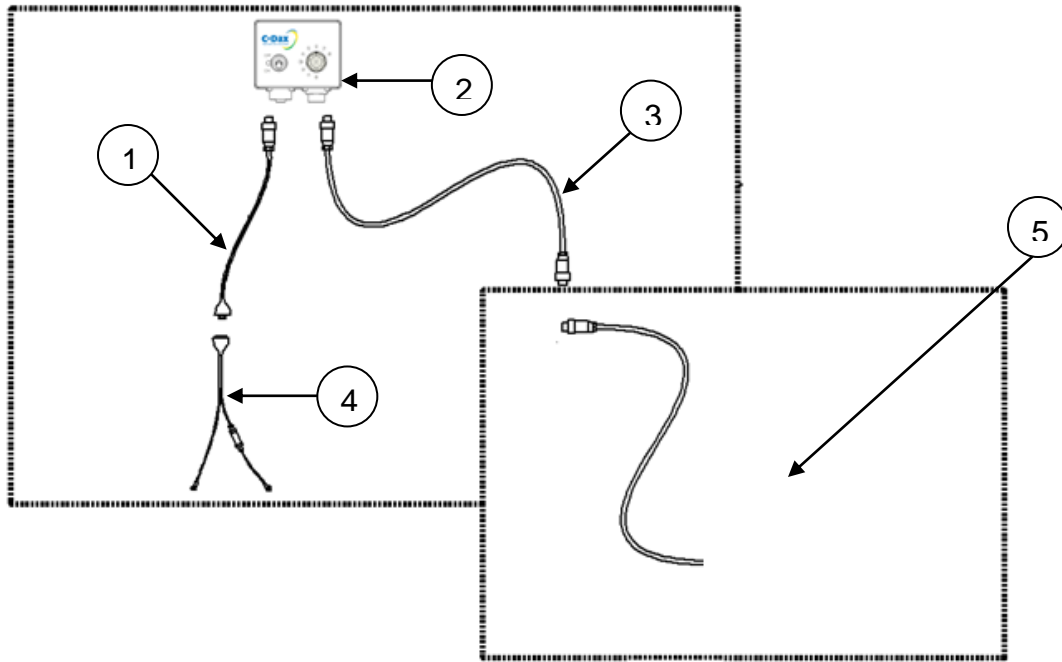
CDIT1300 MATERIAL APPLICATION RATE (Kg/Ha)

	DAP			Urea			Super			Seed		
<u>Speed</u>	8km/h	10km/h	12km/h	8km/h	10km/h	12km/h	8km/h	10km/h	12km/h	8km/h	10km/h	12km/h
<u>Bout Width</u>	24m			24m			22m			10m		
0	Closed											
1	60	45	40	40	35	25	90	70	60	45	35	30
2	80	65	55	60	50	40	120	95	80	65	50	45
3	100	80	70	80	65	55	150	120	100	85	65	55
4	125	100	80	100	80	65	180	145	120	105	85	70
5	145	115	95	115	95	80	215	170	140	125	100	80
6	165	135	110	135	110	90	245	195	165	145	115	95
7	190	150	125	155	125	105	275	220	185	165	130	110
8	220	175	145	185	145	125	325	260	215	195	155	130

This section contains:

- Exploded parts diagram
- Parts list

Exploded Parts Diagram



Item Number	Part Number	Description
1	1500-7150	Cable-Electrical-Loom-CDIT Remote Control to Battery Cable
2	2220-0400	C-DIT In-Cab Remote Control
3	1500-7200	Cable-Electrical-Data-Pasturemeter/Spreader Extension-7 Core-4M
4	1500-3700	Cable-Electrical-Loom-Battery Feed-2.2M
5	3004/3014/3017	Spreader (not shown) Connected to Remote Control

TROUBLESHOOTING

This section contains:

- Trouble Shooting Tips



Troubleshooting Tips

Symptom	Possible causes	Probable solution
Actuator Will Not Drive	Disconnected Data Cable	Check connections between controller and data cable and spreader and data cable.
	Damaged Data Cable	Inspect data cable and plugs for damage/corrosion. Contact C-Dax for replacement cables.
	Switchbox incorrectly connected	The remote control is designed to be connected directly to the linear actuator on the spreader. It should not be connected through another switchbox (grey box) on the spreader. Disconnect the extra grey box from the system and connect the output from the remote control directly to the black linear actuator cable.
	Damaged Actuator	Contact C-Dax.
Controller will not operate at all	Blown Fuse	Replace fuse with correct value (5A). If this is occurring regularly check that the power connections are properly insulated.
	Disconnected Power Cable	Check connections between controller, power cable and battery.
	Controller fault	Contact C-Dax.
Application rate is incorrect	Incorrect controller setting	Consult application table on page 14. Select the correct material and desired rate. Switch controller to the corresponding dial setting.
		If the desired material is not in the table, choose a material that is similar in particle size and density.
	Miss-matched controller	Controllers are factory programmed to the spreader type with which they were sold. If the controller is used with another type of spreader the rates will not match those in the table.
	Aperture blockage	After disengaging drive to the spinner and removing power to the controller check the spreader aperture for blockages. Check material being spread is granular and free flowing. Products such as lime are likely to cause bridging.
	Incorrect bout width	Make sure you drive at the correct bout width as in the application table on page 14.
	Incorrect speed	Make sure you drive at the correct speed as in the application table on page 14 NOTE: Never drive at speed in excess of what is safe for conditions.

