OWNER'S MANUAL

C-DIT 400 SPREADERS

400 CLUTCH DRIVE

400 REMOTE

yelo™
MADE TO WORK

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PARTS & SUPPORT
For parts and service support, contact your authorised Yelo store or visit our website for store locations.
If you need further assistance, we are only a phone call or email away. Parts list included.

RGL.

SAFETY PRECAUTIONS

C-DIT400 CLUTCH DRIVE SPREADER

AN IMPORTANT MESSAGE FOR OWNERS & OPERATORS OF RGL ATTACHMENTS/ACCESSORIES

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 ATV will alter the stability or handling characteristics of that vehicle or ATV.
Spreaders 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 spreaders and other equipment. As manufacturers of spreaders 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 spreaders 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 application 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 SPREADERS OR OTHER EQUIPMENT COMPLETELY AND OR THE ATTACHMENT OF ADDITIONAL EQUIPMENT TO THE ATV MAY EXCEED THE ATV'S MAXIMUM LOAD CAPACITY AND IT IS NOT RECOMMENDED TO EXCEED MANUFACTURERS GUIDELINES
- CARGO SHOULD BE PROPERLY DISTRIBUTED AND SECURELY ATTACHED.
- REDUCE SPEED WHEN CARRYING CARGO 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 OWNER'S VEHICLE MANUAL FOR CARRYING CARGO OR PULLING A TRAILER.
- PROPER MAINTENANCE IN LINE WITH MANUFACTURER'S RECOMMENDED MAINTENANCE PROCEDURES IS ESSENTIAL.
- BEFORE APPLYING CHEMICALS, READ THE LABEL OF THE CHEMICAL MANUFACTURER OR SUPPLIER FOR PERSONAL PROTECTIVE EQUIPMENT AND OPERATE AS RECOMMENDED.
- THE SAFETY OF ALL CHEMICALS USED IN AGRICULTURE IS UNDER THE JURISDICTION OF A GOVERNMENT AGENCY, IE N.Z. MINISTRY FOR THE ENVIRONMENT; USA ENVIRONMENTAL PROTECTION AGENCY. FURTHER LOCAL GOVERNMENT OR STATE LAWS MAY APPLY.

SAFETY PRECAUTIONS

Before attempting to install or operate the equipment, read and understand the manual thoroughly. Failure to comply with this instruction constitutes improper use and will invalidate the warranty.

Throughout this manual there are highlighted text boxes containing warnings, cautions and notes.
Warnings are mandatory instructions to prevent serious injury or permanent damage.
Cautions are advisory instructions to ensure reliable operation of the equipment.
Notes are for convenient operation.

- Do not overload your spreader. The maximum permissible payload is 320 Kg.
- Never use dirty product or product with stones or lumps.
- Ensure that your towing vehicle is adequate for the task. The maximum tare weight is 450 Kg.
- If using the spreader over hilly terrain the payload should be reduced to ensure that the spreader stability is not compromised.
- Never allow anyone to ride on the spreader.
- Keep the spreader in good condition. Cleanliness and maintenance are essential for safe and trouble free operation.
- Never leave product in the hopper or store the spreader without cleaning it.
- After use always clean and service clutch mechanism

YELO C-DIT400 CLUTCH DRIVE

OWNER'S MANUAL

(Pt.No.2400-5610)

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INTRODUCTION

Congratulations. You have just purchased an advanced spreader from RGL. RGL is committed to providing you, the farmer, with quality applicating systems.

DESCRIPTION

The Yelo **C-DIT400 Clutch Drive** is a ground-driven spreader designed for application of pelleted fertilisers. It can also be used for application of other products such as grass seed and magnesium oxide. The uniquely designed 400-litre translucent non-corrosive polyethylene hopper is specially profiled for good product flow and ease of filling. The convenient canvas cover is easy to remove, install and store if not required. A high-quality stainless steel agitator and shutter ensures even flow of product to the spinner. A unique spinner design ensures wide, even spread of products over 180 degrees (Urea). The heavy-duty galvanised frame is fitted with knobbly turf tyres as standard equipment. The drive train uses high quality steel and a double sealed self-aligning bearing and heavy-duty gearbox for maximum durability. While seated, the operator has access to the control handle. This handle allows disengagement and engagement of the clutch and setting of product feed rate all in one motion. Also standard are swivel tow-hitch and a fully shrouded polyethylene front deflector to further protect the operator from product being thrown off the spinner.

The **CDIT400Remote** features an in-cab controller which maintains the determined application rate.

Specifications

(Specifications subject to change without notice)

Dry Weight	120 Kg
Dimensions	W1810mm, H1250mm, L1850mm
Capacity	400 litre (320Kg Urea)
Drive	Ground driven (single wheel)
Wheels	18x950x8 knobbly turf tyres
Tyre pressure	15PSI (100Kpa)
Clutch	Lever operated mechanical clutch
Control	Adjustable stainless steel slide with index handle (electronic controller on remote model)
Agitator	Mechanical arm, stainless steel
Spinner	Galvanised steel with three-position adjustable vanes
Hopper	Non-corrosive polyethylene, ergonomically designed for ease of filling and inspection
Hopper cover	Canvas cover
Frame	Galvanised steel
Gearbox	Heavy duty with double sealed bearings
Gearbox oil	400ml SAE30
Axle Bearings	Sealed ball races
Clutch bearing	Self-lubricating Vesconite bearing
Axle grease	General Purpose
Application Rate	125Kg per hectare @ 10 kph (nominal, Urea)
Spread width	15M (nominal, Urea @ 15 Kph)
Towing speed	15 Kph (Maximum recommended)

Order Information

	NZ , AUST & UK
Yelo CDIT400 Clutch Drive	P/N 3016
Yelo CDIT400 Remote	P/N 3004

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 RGL directly. The retailer is responsible for liaising with RGL in respect of your claim.

Warranty

1.3 RGL 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 subject to the terms set out below.

1.4 RGL 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 RGL are excluded to the extent permitted by law.

1.6 Notwithstanding anything else in this manual, RGL'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 RGL'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 RGL 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 RGL (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 RGL;

(d) for loss or damage caused by any factors beyond RGL'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 RGL 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 RGL) 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.

OPERATION

The product to be spread is placed in the hopper. When the spreader is towed forward, the right hand wheel drives through the lever operated mechanical clutch and gearbox to turn the spinner in a clockwise direction. When the control handle is in the disengage position (fully back) the clutch is disengaged and the shutter is closed. Pulling the handle forward (towards the operator) engages the clutch and rotates the shutter located at the bottom of the hopper to an open position. The size of the opening is set by a shutter stop lever, which locates into one of nine pre-set positions.

The Remote model features an electronic controller

An extension of the spinner boss is connected to a stainless steel agitator arm inside the bottom of the hopper. The agitator ensures that product flows continuously out of the hopper to the spinning disk.

A delivery chute on the bottom of the hopper ensures that product is delivered to the correct spot of the disk so that the deflectors distribute the product over a wide angle behind and to each side of the spreader.

The clutch system can be engaged or disengaged at up to 5KPH while the spreader is in motion.

The cover can be fitted to prevent rain and debris from entering the hopper.

WARNING
To prevent premature failure or damage to the CDIT400 clutch system, do not engage or disengage the clutch at speeds in excess of 5 KPH.

CALIBRATION

1. Ensure the control handle is fully back (clutch disengaged, shutter closed).

2. To calibrate your spreader, place a measured amount of product (10 Kg) in the hopper.

1. Set the Shutter Stop Lever to the position (1-9) indicated in the Calibration Guides below. Hole position 9 (shutter fully open) is denoted by two holes vertically one above the other.

2. Tow the spreader at the desired speed and pull the control handle forward to engage the clutch and open the shutter.

3. When the product has been exhausted, measure the distance covered and band width in metres. It is recommended that this be done over an area where the product can be seen on the ground so that the spread width can be measured.

4. Check the application rate using the following formula:

$$\textbf{Rate (Kg/ha)} = \frac{\textbf{product applied (Kg) x 10,000}}{\textbf{distance travelled (metres) x spread width (metres).}}$$

5. Adjust either the Shutter Stop Lever or the speed of travel until the desired application rate is achieved.

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.

Calibration Guides

Urea or DAP Application Rate (Kg/ha), 15m Nominal Spread

Average Speed(kph)	Application Rate(Kg/ha for given Lever Position)						
	3	4	5	6	7	8	9
10	41	56	78	102	119	122	125
11	37	51	71	93	108	111	113
12	34	47	65	85	99	102	104
13	31	43	60	79	92	94	96
14	29	40	55	73	85	87	89
15	27	38	52	68	79	82	83
16	26	35	49	64	75	77	78
17	24	33	46	60	70	72	73
18	23	31	43	57	66	68	69
19	21	30	41	54	63	64	66
20	20	28	39	51	60	61	62

Magnesium Oxide
Magnesium Oxide powder is applied at a rate determined by the number of cows to be treated. When spreading this product, calculate the weight of powder to be applied and apply this amount using shutter setting 4 or 5. Because this product may set hard if left exposed to air, it must not be stored in the machine even for a short time. Load the spreader only with the amount required to be spread and clean **all** traces of product from the machine after use.

OPERATING THE SPREADER

When the spreader has been correctly calibrated, the hopper may be filled to the required level and spreading commenced.

To reduce agitator damage to product and to ensure that product is not forced past the agitator shaft when towing the spreader to the area to be treated, the drive to the gearbox should be disconnected by ensuring the control lever is in the disengage position (fully back).

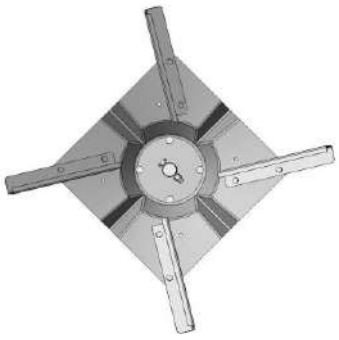
WARNING
To prevent damage to the spreader do not tow the spreader at speeds in excess of 15 Kph.
To prevent damage to the mechanical clutch do not engage or disengage the clutch on the CDIT400 at speeds in excess of 5 KPH.

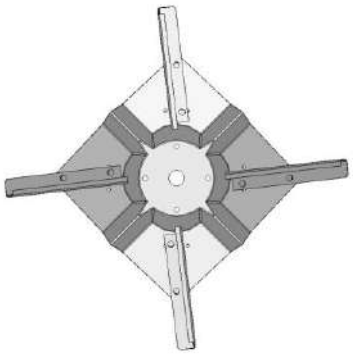
CAUTION
The double roll pins present in the clutch assembly are designed to shear if subject to excessive use (preventing greater damage to the rest of the unit). If you find these pins are continually breaking, engage the clutch at a slower speed.

To prevent inadvertent operation of the shutter while the spreader is in transit it is recommended that the Shutter Stop Lever be moved to Position 0 to lock the shutter closed.

To prevent the shutter from vibrating closed when the spreader is operated over rough ground, the Control Lever friction may be increased by tightening the adjustment nut at the bottom of the Handle.

Adjusting the Spread Pattern
The spreader has been set up for spreading pelletised fertiliser. When spreading lighter products or products with a high powder content it may be necessary to adjust the deflectors on the spinner to centralise the spread pattern. To shift the pattern to the left (facing forward) the inside end of the vanes should be moved anti-clockwise. To shift the pattern to the right (facing forward) the inside end of the vanes should be adjusted clockwise. These positions are highlighted in the following diagram.


Shift to the left setup (hole 5/5)


Default setup (hole 4/5)


Shift to the right setup (hole 1/5)

WARNING
To prevent damage to the spinner and shrouds, do not operate the spreader unless the screws are tight.

Fitting the Cover
To fit the rain cover to the hopper, stretch the cover over the hopper, first locating the rear of the cover. Pull the cover forward until it wraps over front edge of the hopper.

MAINTENANCE

The following maintenance actions are mandatory for reliable use of the spreader.

Before Use
Check the tyre pressures and charge with air as required. The correct pressure is 15PSI (100Kpa).

Disengage the clutch by ensuring the control lever is fully back then turn the spinner by hand to ensure that it is free to turn without interference.

Check the hopper to ensure that no debris is inside.

If the spreader has not been used for some time, grease the wheel bearing located in the pillow block mount near the drive wheel.

Check the gearbox for leaks. If leaks are detected it will be necessary to drain and replenish the gearbox with 400ml of SAE 30 oil.

CAUTION
To replenish the gearbox, the spreader may be inverted to place the filler plug uppermost. However, in doing so extreme care must be taken to prevent damage to the spinner and deflectors.

After Each Use or Daily When In Use
Remove all traces of product from the spreader by brushing or washing. Pay particular attention to areas where product has accumulated and built up. Remove by scraping if necessary taking care not to damage the surface finish of the spreader or its components.

If washing, do not direct high-pressure water onto the gearbox, axle or wheel bearing seals.

After washing, apply grease to the grease nipple on the wheel bearing and apply water displacing fluid such as WD 40 or LPS3 to all metal parts.

Check for damaged or worn components and replace as required.

NOTE
To ensure trouble free operation of the mechanical clutch, pay particular attention to cleaning and removal of any product build-up on the unit.

HINTS

The clutch mechanism in the axle assembly utilises a steel shaft and with self-lubricating plastic bushes on the moving part of the clutch. This arrangement does not require greasing and doing so may attract unwanted particulate into the mechanism.

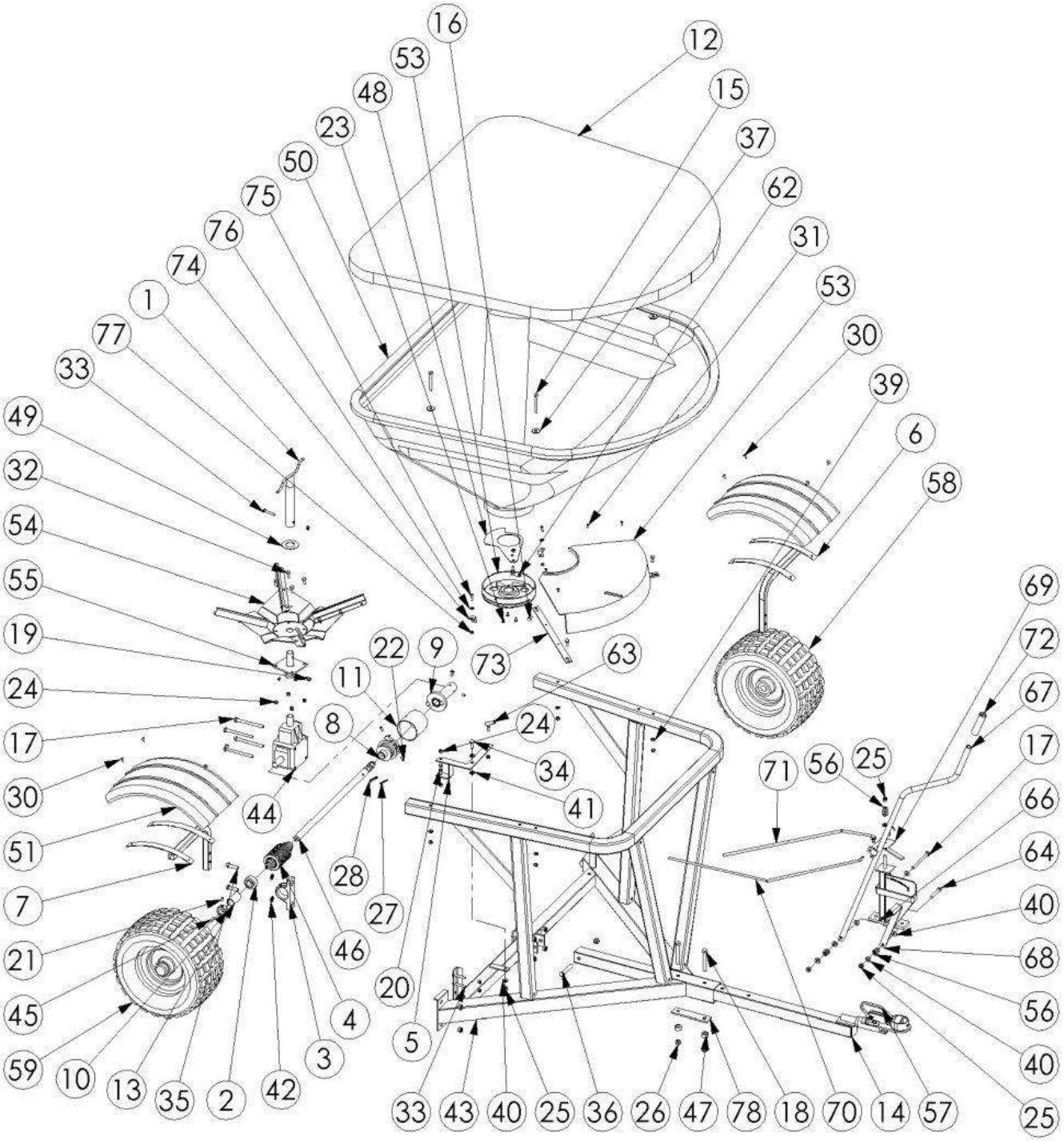
If the drive axle is removed from the axle housing for any reason care must be taken to ensure that both the axle scroll and bush are clean and free of debris before reassembly.

To remove the agitator from the hopper, remove the bolt, which attaches the agitator shaft to the spinner flange assembly then withdraw the agitator from inside the hopper.

When ordering replacement parts always quote the spreader Serial Number and the Part Number of the required part.

The mechanical clutch engage/disengage bolt, which operates the clutch head is intended as a replacement item. If excessive wear is noticed, remove the bolt and replace with part number #2890-0816.

PARTS DIAGRAM



Item 79: Transit-Plate is used to hold the lever in place during transit when the drawbar is not attached.

PARTS LIST

Item No.	Qty.	Part no	Description
1	1	1036-8240	Agitator-Spreader-CDIT300/400-In-Ex300/400-SS
2	1	1140-1200	Bearing-Ball-Pillow Block-Drive Axle-Spreaders
3	1	1140-4000	Bearing-Housing-Pillow Block-Drive Axle-Spreaders
4	1	1280-1600	Boot-Clutch-Convoluted-CDIT300/400-Rubber
5	1	1300-3010	Bracket-Clutch Engager-CDIT300/400GT-ZP
6	1	1300-6800	Bracket-Mudguard-CDIT300/400/MM165-LH-GL
7	1	1300-6801	Bracket-Mudguard-CDIT300/400/MM165-RH-GL
8	1	2100-2300	Clutch-Engager-CDIT400-ZP
9	1	2100-6000	Clutch-Pin Engager-CDIT300/400-ZP
10	1	2150-0025	Collar-Shaft-ID25-ZP
11	1	2250-1600	Cover-Clutch-CDIT300/400-OD 90x90 Long-Grey-PVC
12	1	2250-4104	Cover-Hopper-Silver Fabric-Spreader 400/CDIT400
13	1	2250-7900	Cover-Shaft-Drive Axle-60mm Long-CDIT400GT-PVC
14	1	2550-1400	Drawbar-CDIT400GT-GL
15	4	2810-0880	Fastener-Bolt&Nut-Hex-304 Grade-M8x80-Stainless
16	2	2840-0816	Fastener-Bolt&Nut-Hex-8.8 Grade-M8x16-ZP
17	5	2840-1120	Fastener-Bolt&Nut-Hex-8.8 Grade-M10x120-ZP
18	2	2840-1290	Fastener-Bolt&Nut-Hex-8.8 Grade-M12x90-ZP
19	2	2890-0812	Fastener-Cap Head-Allen-Screw-12.9 Grade-M8x12-Black
20	2	2890-0816	Fastener-Cap Head-Allen-Screw-12.9 Grade-M8x16-Black
21	3	3010-0810	Fastener-Grub Screw-Socket Head-M8x10-Stainless
22	3	3100-0512	Fastener-Machine-Screw-Pan-M5x12-Phillips-ZP
23	3	3110-0512	Fastener-Machine-Screw-Pan-M5x12-Pozi-ZP
24	19	3170-0008	Fastener-Nut-Nyloc-M8-ZP
25	8	3170-0010	Fastener-Nut-Nyloc-M10-ZP
26	5	3170-0012	Fastener-Nut-Nyloc-M12-ZP
27	1	3210-0540	Fastener-Pin-Roll-M5x40-Black
28	1	3210-0840	Fastener-Pin-Roll-M8x40-BK
29	2	3220-0320	Fastener-Pin-Split-M3.2x20-ZP
30	8	3240-0015	Fastener-Rivet-Blind-Truss Head-3/16x15mm-Aluminium
31	4	3240-5100	Fastener-Rivet-Blind-Truss Head-5x5/8"-Stainless
32	6	3290-0820	Fastener-Set Screw-Hex-8.8 Grade-M8x20-ZP
33	5	3290-0850	Fastener-Set Screw-Hex-8.8 Grade-M8x50-ZP
34	1	3290-1025	Fastener-Set Screw-Hex-8.8 Grade-M10x25-ZP
35	2	3290-1240	Fastener-Set Screw-Hex-8.8 Grade-M12x40-ZP
36	1	3290-1275	Fastener-Set Screw-Hex-8.8 Grade-M12x75-ZP
37	4	3310-2810	Fastener-Washer-Flat-M10x32x2.5-Grade 316-Stainless
38	1	3310-5021	Fastener-Washer-Flat-M20x39x3-Axle-ZP
39	4	3310-6008	Fastener-Washer-Flat-M8-ZP
40	11	3310-6010	Fastener-Washer-Flat-M10-ZP
41	1	3310-6010	Fastener-Washer-Flat-M10-ZP
42	2	3310-6012	Fastener-Washer-Flat-M12-ZP
43	1	3500-5705	Frame-Spreader-CDIT400/Spreader 400-GL
44	1	3800-1000	Gearbox-Ferroni-RV10-Ratio 1 to 2.78

45	1	5200-6300	Machined-Key-8x8-Ground Drive Spreaders
46	1	5200-6600	Machined-Shaft-Axle-CDIT400GT-ZP
47	2	5200-9200	Machined-Bush-Round-25 ODx14 Longx12 ID-ZP
48	1	6500-7770	Profiled-Shutter-CDIT300/400
49	1	6500-9000	Profiled-Washer-Spinner Shaft-34.9x67x2mm-Stainless 304
50	1	7500-2161	Rota-Hopper-Spreader-CDIT400 SC -Yellow-MDPE
51	2	7500-2590	Rota-Mudguard-MDPE-1/4 Circle
53	1	7500-2690	Rota-Shroud-Spreader CDIT400GT-Yellow-MDPE-180 Degrees
53	1	7500-2830	Rota-Spout-Spreader-CDIT400GT-Yellow-MDPE
54	1	8200-1010	Spinner Assembly-Spreader-CDIT300/400-STAINLESS
55	1	8200-5200	Spinner-Mount-CDIT300/400/INEX300-ZP
56	3	8250-1800	Spring-Compression-Crinkle Plate-ZP
57	1	8800-3800	Tow-Coupling-Handle-Double Ended-1 7/8" x 50mm-ZP
58	1	9200-4500	Wheel-Knobbly-Bearing-18x950x8
59	1	9200-4600	Wheel-Knobbly-Keyed-18x950x8
60	1	3310-5012	Fastener-Washer-Flat-Heavy-M12x32x3-Galv
61	1	3290-1225	Fastener-Set Screw-Hex-8.8 Grade-M12x25-ZP
62	1	1110-2308	Ball-End-Internal Thread-M8-Zinc Plated
63	1	1110-2310	Ball-End-Internal Thread-M10-Zinc Plated
64	1	2840-1065	Fastener-Bolt-Hex-8.8 Grade-M10x65-ZP
65	1	3290-0616	Fastener-Set Screw-Hex-8.8 Grade-M6x16-ZP
66	1	5245-3900	Mount-Handle-CDIT300/400GT-ZP
67	1	4050-1500	Handle-CDIT300/400-ZP
68	1	4050-4250	Handle-Indicator-CDIT400GT-ZP
69	1	3990-3900	Guide-Handle-CDIT300/400GT-ZP
70	1	5050-7980	Linkage-Shutter-CDIT400GT-ZP
71	1	5050-1600	Linkage-Clutch-CDIT300/400GT-ZP
72	1	3865-3800	Grip-Handle-7/8"-PVC-Black-Plastic
73	2	5245-8015	Mount-Shroud-CDIT400/Spreader 400-ZP
74	2	1300-5200	Bracket-Lock-Hose Reel-ZP
75	2	3290-0620	Fastener-Set Screw-Hex-8.8 Grade-M6x20-ZP
76	2	3310-6006	Fastener-Washer-Flat-M6-ZP
77	2	3170-0006	Fastener-Nut-Nyloc-M6-ZP
78	1	1300-8550	Bracket-Transit Plate-CDIT400-ZP

REMOTE SPREADER CONTROL OPERATION MANUAL

Version: 2400-5580 – 3

INTRODUCTION

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 **Yelo 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 Yelo Remote Control is designed to be used with the Yelo 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 contoller.

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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 SPREADERS 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.**

TABLE OF CONTENTS

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 RGL directly. The retailer is responsible for liaising with RGL in respect of your claim.

Warranty

1.3 RGL 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 subject to the terms set out below.

1.4 RGL 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 RGL are excluded to the extent permitted by law.

1.6 Notwithstanding anything else in this manual, RGL'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 RGL'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 RGL 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 RGL (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 RGL;

(d) for loss or damage caused by any factors beyond RGL'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 RGL 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 RGL) 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

Operation & Assembly Manual

Battery Connecting Cable

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

RGL
105 Kaimanawa Street, Kelvin Grove,
Palmerston North 4414
Ph:06 2802468
E-Mail: info@redbackglobal.com.
www.redbackglobal.com

ASSEMBLY & SETUP

This section contains:

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

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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 Yelo 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

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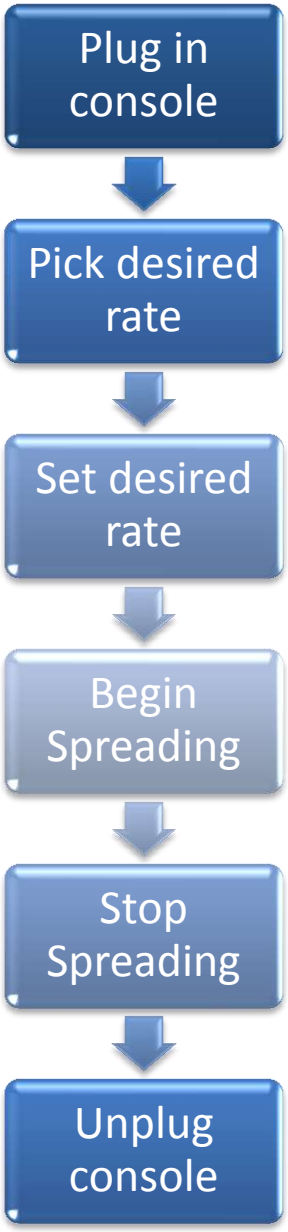
Understanding the remote control

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.



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	[illegible]	5	4	7	6	5	N/A	N/A	N/A
2	25	20	15	[illegible]	17	15	30	25	23	15	13	11
3	45	35	30	[illegible]	30	25	55	50	40	35	25	20
4	[illegible]	[illegible]	[illegible]	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		
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	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		
Speed	8km/h	10km/h	12km/h	8km/h	10km/h	12km/h	8km/h	10km/h	12km/h	8km/h	10km/h	12km/h
Bout Width	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		
Speed	8km/h	10km/h	12km/h	8km/h	10km/h	12km/h	8km/h	10km/h	12km/h	8km/h	10km/h	12km/h
Bout Width	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

PARTS

This section contains:

- **Exploded parts diagram**
- **Parts list**

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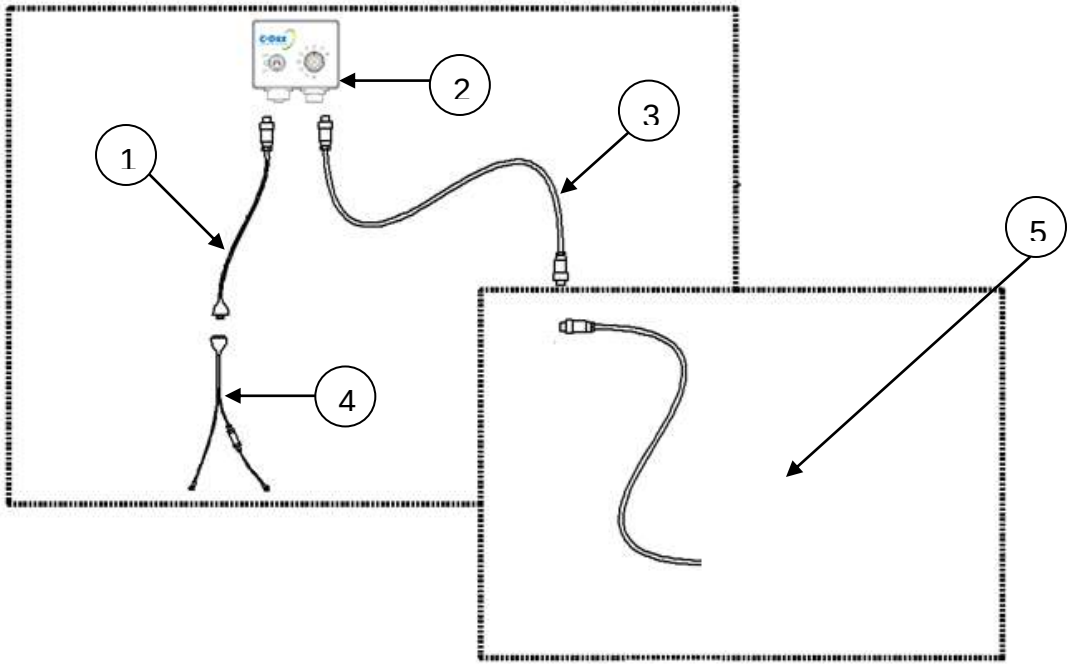
Exploded Parts Diagram



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

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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 RGL 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 RGL.
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 RGL.
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.**