

Operation Instructions

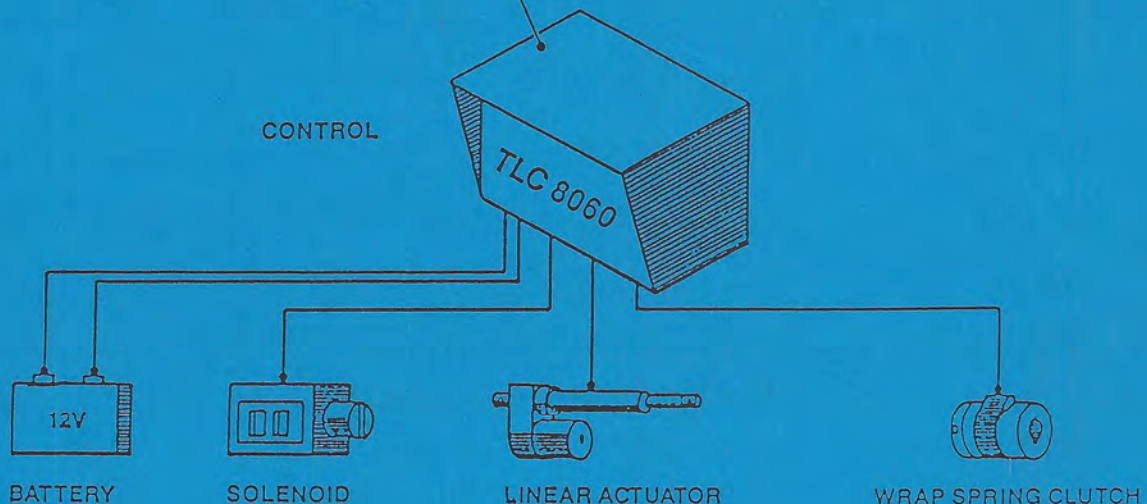
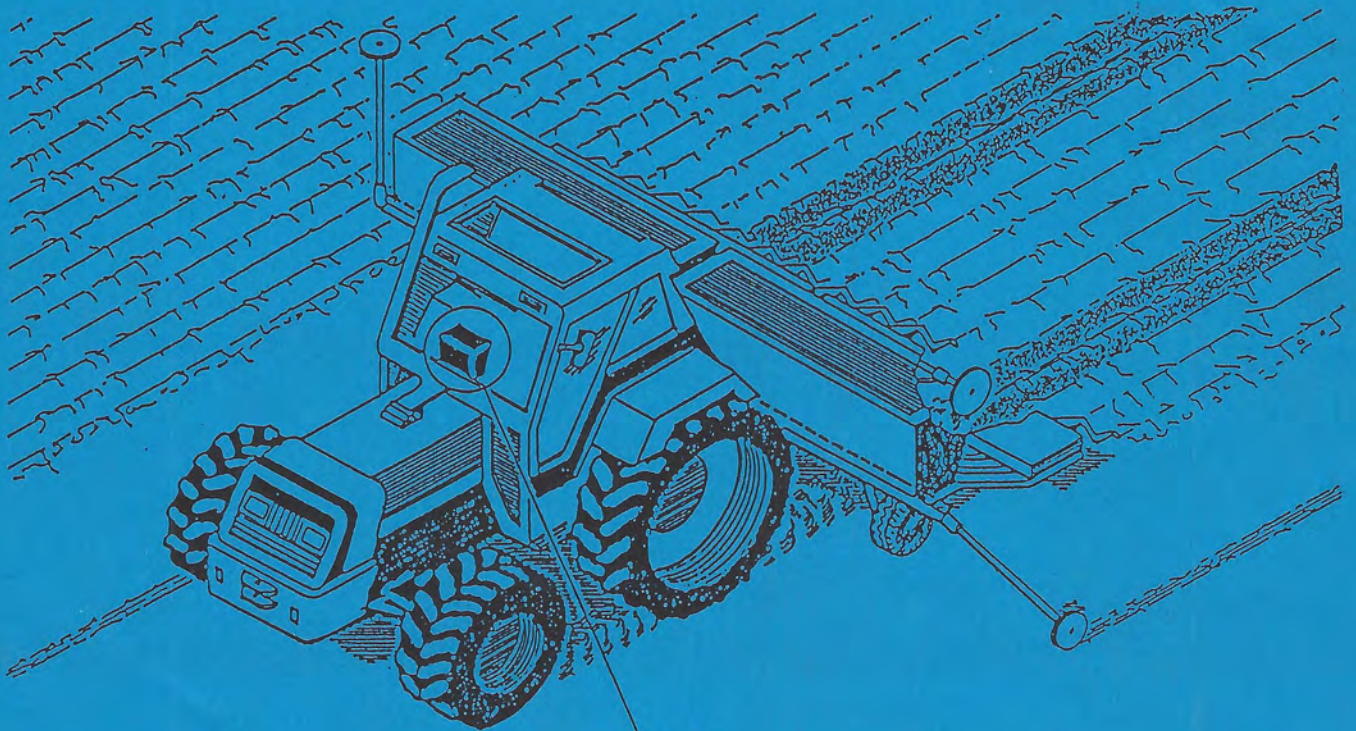
for

REFLEX - JUKO 30s/40s DRILLS

Fitted with

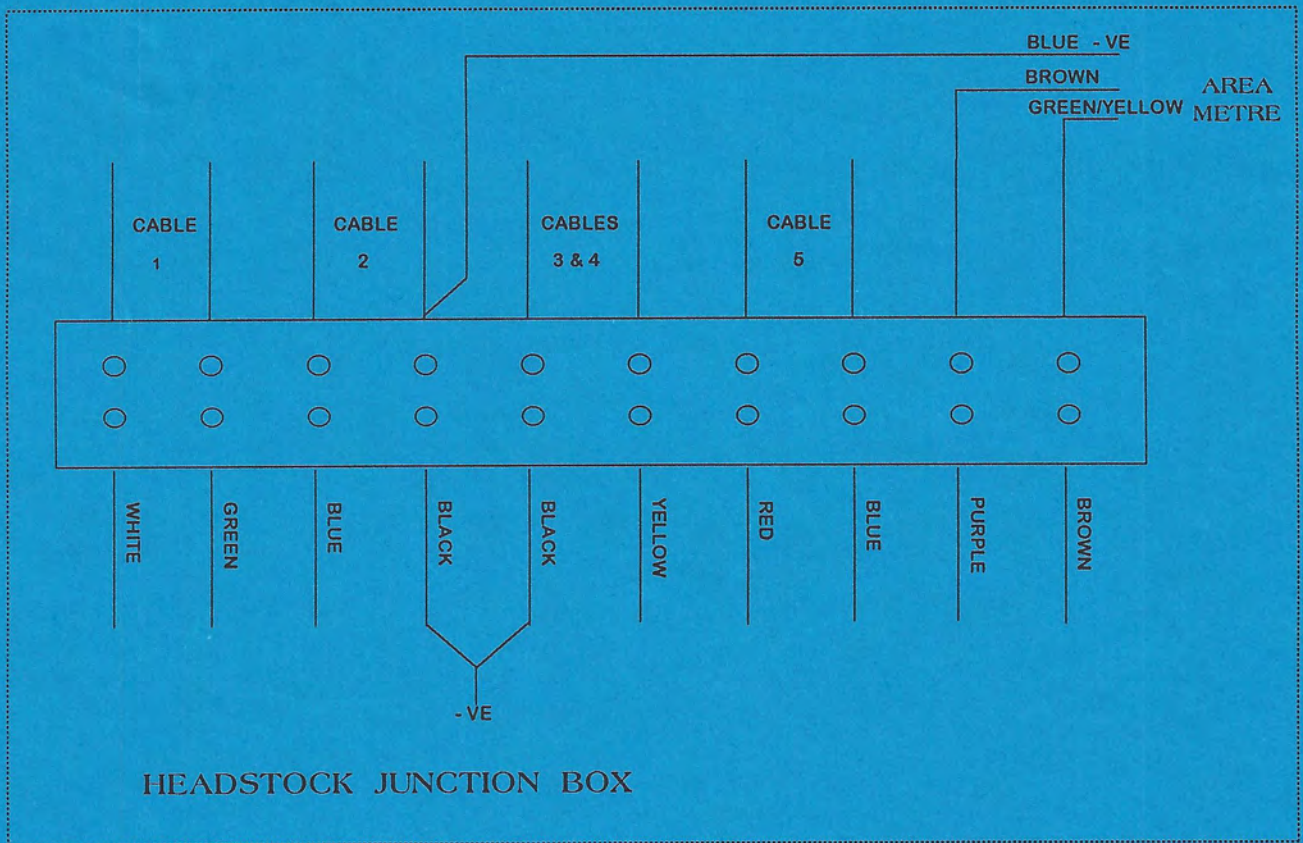
REFLEX

Electrical Controls



REFLEX TRAMLINING CONTROL

- CABLE 1 - BOUT MARKERS
- CABLE 2 - SENSOR (COUNT)
- CABLE 3 - TRAMLINE CLUTCH
- CABLE 4 - TRAMLINE CLUTCH
- CABLE 5 - PRE-EMERGENCE



NOTE:

To change pre-emergence and bout marker sequence, reverse cable connections

TRAMLINE CONTROL TLC 8060

- 1 Can be used with any type of tractor.
- 2 Operates from 12 Volt D.C. negative earth.
- 3 Pre-selection of 2 to 8 for tramlining frequency.
- 4 Digital display indicated positions and tramlining.
- 5 Controls the electromechanical devices that: -
 - a. Open and close the seed drills.
 - b. Operate the tramline markers.
 - c. Operate the lateral markers (bout markers).
- 6 External inputs permit automatic control.
- 7 Manual operation and / or override control.
- 8 Traverse number is held in memory with power removed.

SPECIAL NOTES ON USE

1. NOTE THE COUNT MICROSWITCH MUST CLOSE FOR AT LEAST **2 SECONDS** BEFORE THE CONTROL WILL REGISTER THE SWITCH CLOSURE.
2. NOTE THE CONTROL TAKES 10 SECONDS TO STORE THE COUNT NUMBER IN ITS PERMANENT MEMORY. THEREFORE AFTER INCREMENTING THE COUNT, WAIT 10 SECONDS BEFORE SWITCHING OFF THE CONTROL.

INPUT CABLE TO BE CONNECTED DIRECT TO BATTERY OR STARTER-MOTOR. IF **EXTENDED** MINIMUM OF 6mm THICKNESS CABLE TO BE USED.

1. USE 12V BATTERY

Partly discharged batteries may cause incorrect operation, the current rise at the end of actuator stroke may not be sufficient to exceed the present current limit which stops the actuator.

2. USE SPECIFIED FUSE

The specified fuse will protect the control, battery and wiring.

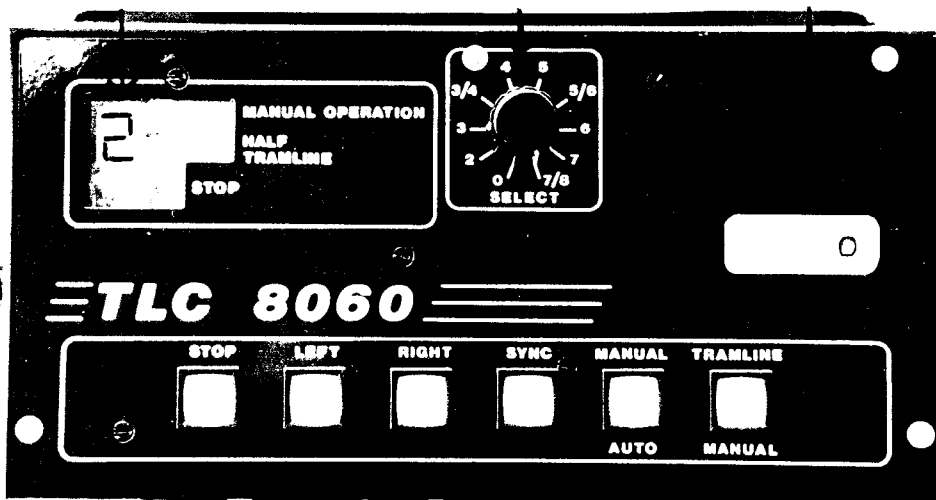
FUSE 25A 30mm * 6mm

OPERATION

DISPLAY

COUNT
SWITCH

AREA METRE
HECTARES



12 VOLT
INPUT

FUSES

ON/OFF
SWITCH

SEED DRILL
CONNECTION

DISPLAY CONTENTS

Digital Counter	1 to 7	(Flashes when tramlining)
Top Red LED	Manual Operation	(Lit when manual selected)
Centre Red LED	Half tramlining	(Lit when half tramlining)
Bottom Red LED	STOP	(Lit when STOP button pressed)
Red Arrows		(Indicates left or right bout marker position)

FUNCTIONS

STOP	Red LED lit, freezes all operations until depressed again and red LED extinguished.
LEFT	Operates bout marker (Manual operation).
RIGHT	Operates bout marker (Manual operation).
SYNC	Changes Red left/right arrows independently to bout markers.
MANUAL/AUTO	Manual Operation red LED lit. Automatic Operation red LED extinguished.
TRAMLINE MANUAL	Operates 'Count'. Red arrow changes but NOT bout marker.

MANUAL CONTROL

1. Switch on power via ON/OFF switch. Manual Operation red LED lit. (If NOT LIT, press auto/manual button until lit.)
2. Set required Count via the selector switch
3. The Count is incremented by depressing the manual button
4. When the Count is equal to the selected number, the tramline clutches and Pre-emergence markers mechanism is activated.
5. The next manual press resets the Count to 1.
6. The lateral bout marker can be changed to left or right by use of the left or right buttons.
NOTE: Red indicator arrows change with COUNT only, NOT when left or right buttons pressed.
7. The STOP button, will stop all inputs and all functions. The stop LED will be ON and the display will be OFF.

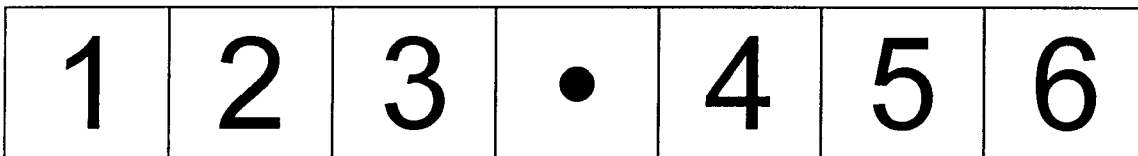
AUTOMATIC CONTROL

1. Set the digital counter to 1 by use of the manual control (or alternatively the desired Count required).
2. Set the selector to the required number of traverses.
3. Push the auto/manual button until the manual LED is extinguished.
4. The unit then displays the traverse number, incrementing automatically when the count microswitch closes for more than 1.2 seconds.
5. After each Count the lateral bout marker actuator is energised, and the position of the markers reversed.
6. This procedure (from 4) is repeated until the traverse Count is equal to the pre-selected number, when the unit does several operations:-
 - a) The lateral marker is again reversed.
 - b) The tramline clutch is energised, and the Pre-emergence marker is placed into the ground.
 - c) The display flashes, indicating tramlining is in progress.
7. The next count input reverses all the actions described in 6 and resets the counter to 1.
NOTE: If a half tramline mode is being used then the input will count the next number and the tramlining continues until the next input, which resets to 1.
8. Note the stop button will STOP all functions when depressed, and lights the stop LED.

NOTE:

1. Automatic operation is 'tripped' via head-stock switch and top link when drill raised. If drill is used as 'combination' this switch 'may require repositioning'.
2. When half tramlining only one tramline clutch is used. This is positioned at half tractor wheel track measured from side of drill (not centre) tramline clutch is then energised twice. Only positions 3/4, 5/6 and 7/8 can be used for this function.

JUKO DIGITAL DISPLAY AREA METER



1, 2, and 3 = hectares

4, 5, and 6 = % of a hectare

Use the **LOCK** switch on the **LEFT** side to prevent accidental resetting of the display

Example 1

3 Metre Drill

15 Metre Sprayer

4 Metre Drill

12 and 20 Metre Sprayer

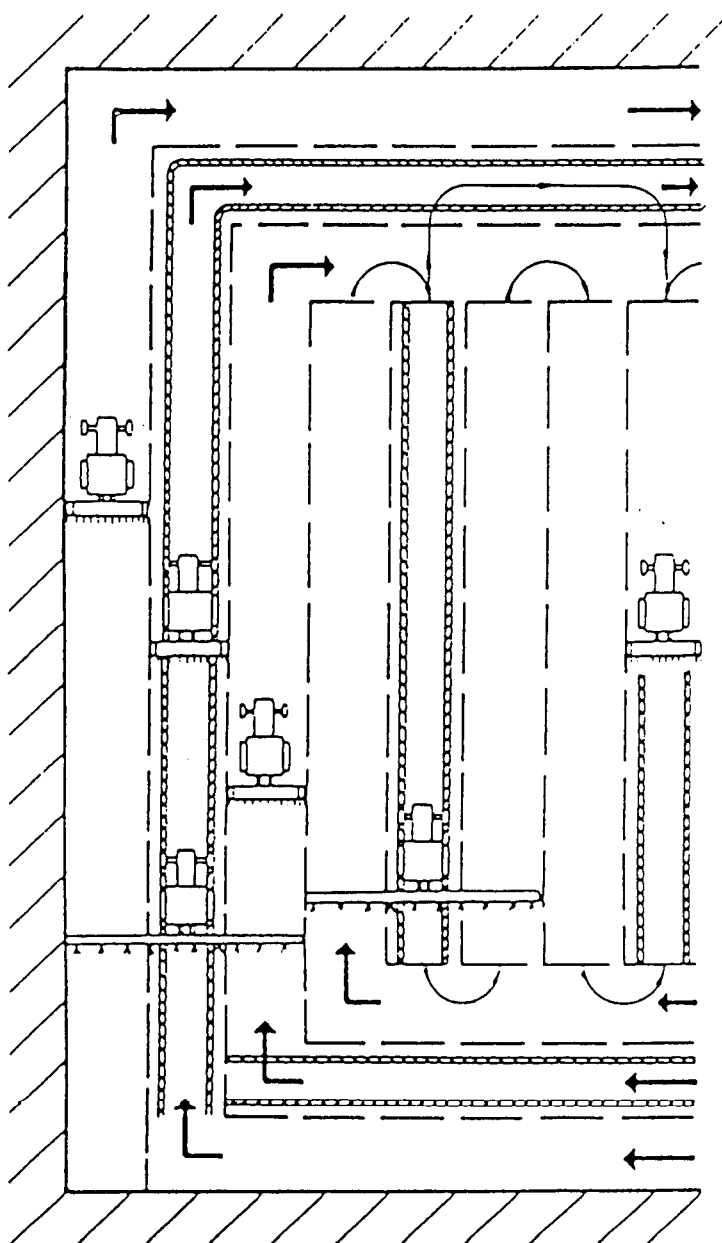
Two Clutches used

Manual Operation

Set Count switch to required Count. (Sprayer width divided by drill width.) Set Digital Display to 2. Drill one bout or once round the field. Press Tramline Manual button, digital display changes to 3 and red arrow changes. Press Right or Left button to change marker. Drive again. When Display counter number equals count switch number, Display counter will flash and tramlines will be made.

Auto Operations

As manual except when drilling headland use STOP between first and last corner.



Example 2

3 Metre Drill

12, 18 and 24 Metre Sprayer

4 Metre Drill

16 and 24 Metre Sprayer

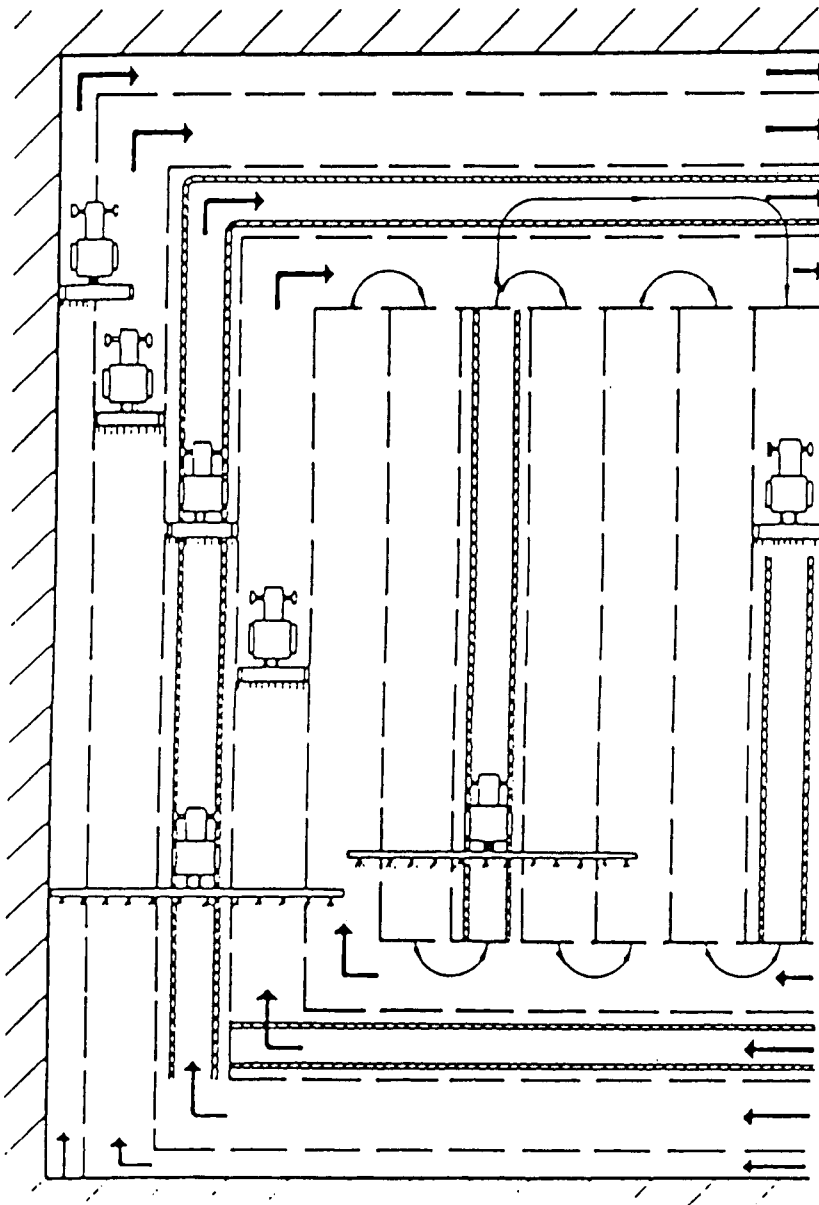
Two Clutches used

Manual Operation

Set Count switch to required Count. (Sprayer width divided by drill width.) Set Digital Display to 2. Close half the drill width and drill one bout or once round the field. Then OPEN the shutters again. Press Tramline Manual button, digital display changes to 3 and red arrow changes. Press Right or Left button to change marker. Drive again. When Display counter number equals count switch number, Display counter will flash and tramlines will be made.

Auto Operations

As manual except when drilling headland use STOP between first and last corner.



Example 3

3 Metre Drill

12, 18 and 24 Metre Sprayer

4 Metre Drill

16 and 24 Metre Sprayer

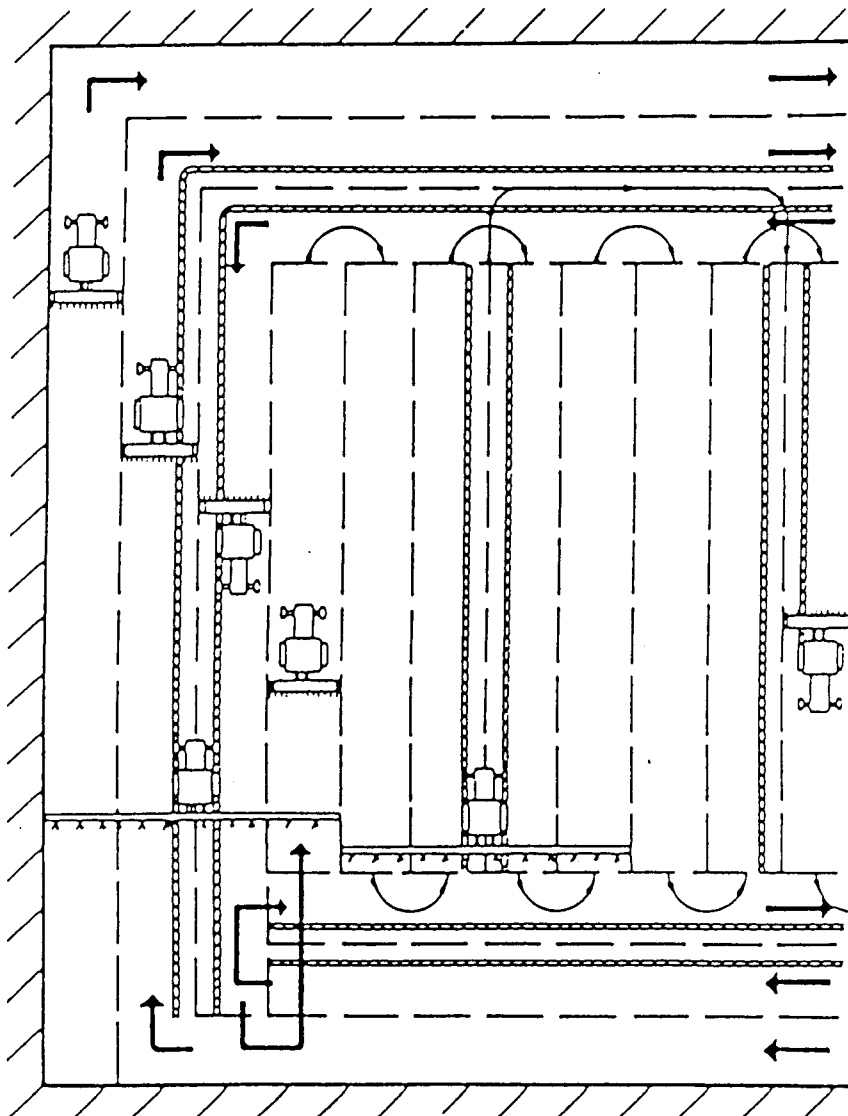
One Clutch used. Clutch is positioned at half tractor wheel track width in from the side of seed drill.

Manual Operation

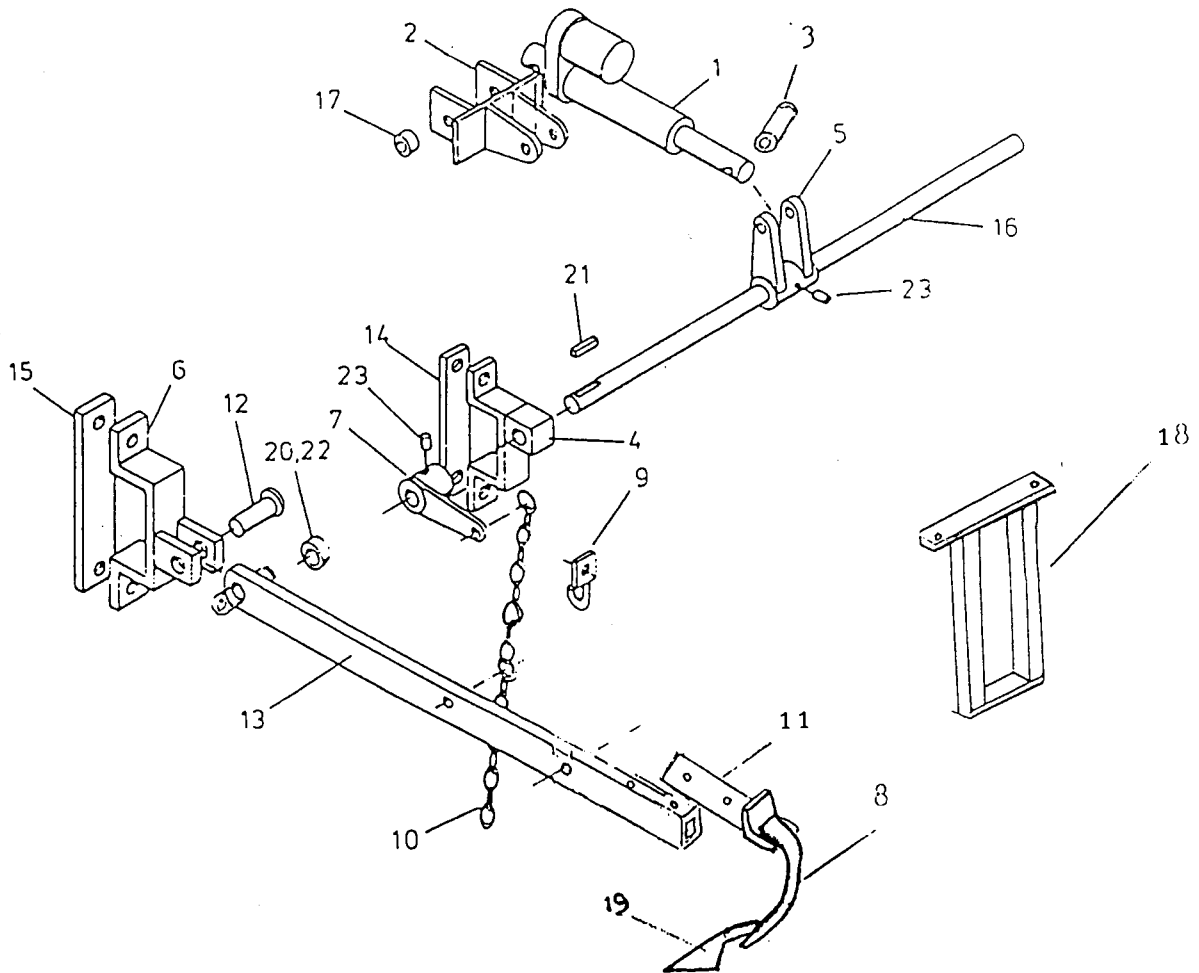
Set Count switch to required Count (3/4, 5/6 or 7/8.) Set Digital Display to 2. Drill one bout or once round the field. Press Tramline Manual button, digital display changes to 3 and red arrow changes. Press Right for Left button to change marker. Drive again. When Display counter number equals count switch number, Display counter will flash and tramlines will be made.

Auto Operations

As manual except when drilling headland use STOP between first and last corner.



Pre Emergence Markers



<u>Item</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty</u>
1.	4A2286	Actuator	1
2.	D1016	Actuator Base Plate (40S)	1
3.	D1017	Actuator Spacer	1
4.	4A2292	Pivot Bracket Weld	5
5.	D1021	Actuator Yoke	1
6.	D1022	Front Pivot Bracket	2
7.	4A2294	Lever Weld	2
8.	40450	Tine	2
9.	4D4675	Hook	2
10.	4D0105-1	Chain	4
11.	D1026	Arm Extension	2
12.	ZM12X65	Bolt M12 x 65	2
13.	D1023	Arm	2
14.	4D4668	Clamp Plate	5
15.	D1024	Clamp Plate	2
16.	4D4670	Torsion Rod	1
17.	4D071-22	Collar	2
18.	D1025	Guide Plate	2
19.	4D4672	Spade	2
20.	4D4674	Set Collar	2
21.	4D034-12	Key 6 x 6 x 12	3
22.		Grub Screw M8	2
23.		Grub Screw M6	3

Peas/Beans

- (1) For higher rates than 219 lb/acre change the cassette gearbox to:

and re-calibrate using
A/B and 1-8 gear selection.

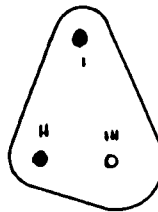


- (2) The bottom flap position may need to be at notch 5 or 6 to obtain a smooth operation of seed rollers

Linseed

Example for setting at 80 lb/acre

Shutters No. 3
Bottom Flaps No. 2
Cassette



Gear Selection B 7

Peas/Beans

- (1) For higher rates than 246 kg/ha change the cassette gearbox to:

and re-calibrate using
A/B and 1-8 gear selection.

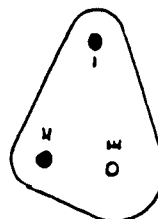


- (2) The bottom flap position may need to be at notch 5 or 6 to obtain a smooth operation of seed rollers

Linseed

Example for setting at 90 kg/ha

Shutters No. 3
Bottom Flaps No. 2
Cassette



Gear Selection B 7

Standen Reflex Ltd

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Pymoor

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