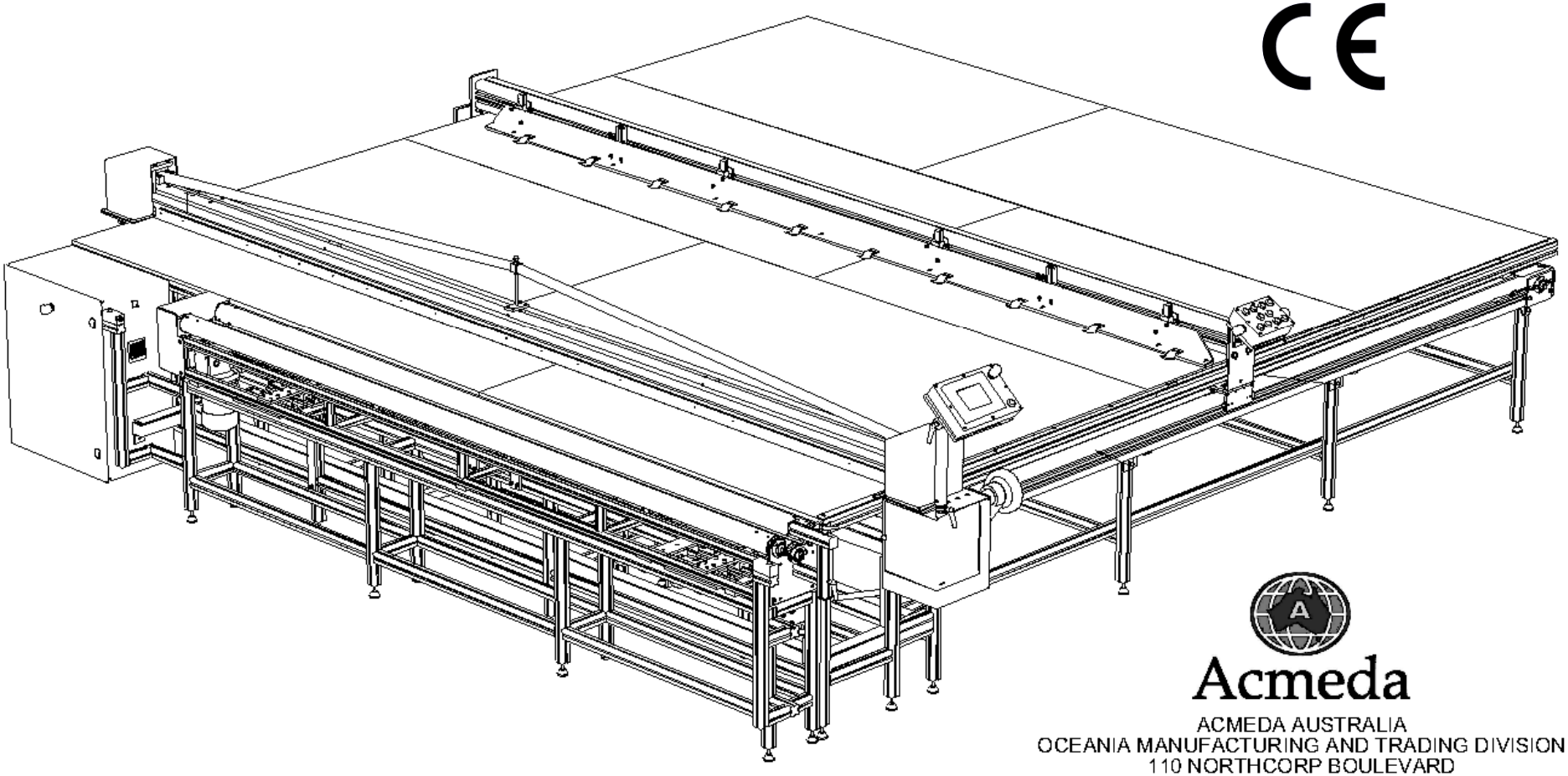
OPERATION MANUAL

4200 SERIES CUTTING TABLE

SIDE MOUNTING TYPE
AUTO BACKSTOP RANGE
ROLLERS WITH EDGE CONTROL

CE



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EC MACHINERY DIRECTIVE 98/37/EC
ASSESSMENT OF CONFORMITY

Report No.	:	090410
Machine	:	Acmeda 4200 Series Cutting Table
Manufacturer	:	Acmeda Australia
Assessment Date	:	April 2009
Relevant Standards	:	Essential Health and Safety Requirements, EN 292-1, EN 292-2, EN 1050, EN60204, EN1088, EN418, EN954.1

Based on the inspection of the machines and evidence presented in the Technical Construction File, Plant Safety Solutions Pty Ltd (EC Conformity Assessment Body No. 929) certify that the machine identified above conforms with the requirements of the EC Machinery Directive 98/37/EC.

NATA Authorised signatory:

ROGER LIM, MIE Aust,CPEng, CPMSIA
Principal Consulting Engineer

NATA
WORLD RECOGNISED
ACCREDITATION

NATA Accredited (No. 14155)
Inspection Service
EC Designated Conformity Assessment Body (N0. 929)

This document is issued in accordance with NATA accreditation requirements.

Issued date: 10th April 2009

GAMON ENGINEERING CONSULTING SERVICES
ABN: 71 571394577

RISK ASSESSMENT FOR CUTTING TABLE (4200SERIES)

Synopsis:

ACMEDA Australia engaged the services of Gamon Engineering Consulting Services to conduct a risk assessment on their Standard 4200 Series Cutting Table (in 3.6M, 4.8M and 6.0M Lengths) and Side Mounting 4200 Series Cutting Table (in 3.6M, 4.8M, and 6.0M Lengths). A comprehensive assessment, which complies with Australian Standard AS4024-2006, is presented with all the potential hazards identified and given a risk score and ranking.

Below is a summary check-list for all the components which make up the cutting tables and a review of compliance with the relevant standard is presented. It was ascertained that the tables complied with all the safety requirements AS4024-2006, and thus their safety category is Class 4.

TABLE 1

Item No	Description	Code	Highest Risk Value	Risk Rank	Comments
1	Cutting Clamp Frame Assembly	TM10-9014-618420	12	Medium	Complies
2	Main Track Assembly	TM10-9014-578412	1	Low	Complies
3	Cutter Drag Chain	TM10-9014-594210	8	Low	Complies
4	1900mm Drag Chain	TM10-9014-591900	8	Low	Complies
5a	18mm WHMR 400x1800 1mm PVC Edge	TM93-4200-180418	1	Low	Complies
5b	18mm WHMR 400x2400 1mm PVC Edge	TM93-4200-180424	1	Low	Complies
5c	18mm WHMR 1200x1800 1mm PVC Edge	TM93-4200-181218	1	Low	Complies
5d	18mm WHMR 1200x2400 1mm PVC Edge	TM93-4200-181224	1	Low	Complies
6	Wiring Tube Assembly	TM10-9014-404053	1	Low	Complies
7	Duct Track Assembly	TM10-9014-080280	2	Low	Complies
8	Electrical Box Assembly	TM10-9014-347800	24	High	Complies
9	Pneumatics Box Assembly	TM10-9014-183030	4	Low	Complies
10	Chipboard Screw	TM92-CSCB-000040	NA	NA	Complies
11a	Standard Clamping/Channel Assembly	TM10-9014-277178	8	Low	Complies
11b	Side Mount Clamping/Channel Assembly	TM10-9014-277391	8	Low	Complies
12	Front Control Panel Setup	TM10-9014-080482	8	Low	Complies
13	Platform & Portal Axis Drive	TM10-9014-166228	8	Low	Complies
14a	Channel End Guard w/edge Control Ver.2	TM10-9014-272730	1	Low	Complies
14b	Channel End Guard Ver.2	TM10-9014-275280	1	Low	Complies
14c	Side Mount Channel End Guard w/edge	TM10-9014-275302	1	Low	Complies
14d	Side Mount Channel End Guard	TM10-9014-275303	1	Low	Complies
15	White Board 1198x1800	TM93-4200-181218	1	Low	Complies
16	White Board 1198x2400	TM93-4200-181224	1	Low	Complies
17	Basic Runner Platform	TM10-9014-100100	4	Low	Complies
18	RH Front Runner	TM10-9014-100101	4	Low	Complies
19	LH Front Runner	TM10-9014-100102	4	Low	Complies
20a	3.6M Runner Drag Chain Track	TM10-9014-103560	8	Low	Complies
20b	4.8M Runner Drag Chain Track	TM10-9014-104760	8	Low	Complies

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Item No	Description	Code	Highest Risk Value	Risk Rank	Comments
20c	6M Runner Drag Chain Track	TM10-9014-104780	8	Low	Complies
21	Back Limit Finger	TM10-9014-020037	1	Low	Complies
22	Front Limit Finger	TM10-9014-021037	1	Low	Complies
23	Whiteboard Bracket Assembly	TM10-9014-404040	1	Low	Complies
24a	3.6M Left Side Runner Assembly	TM10-9014-13055	4	Low	Complies
24b	3.6M Right Side Runner Assembly	TM10-9014-130356	4	Low	Complies
24c	4.8M Left Side Runner Assembly	TM10-9014-130480	4	Low	Complies
24d	4.8M Right Side Runner Assembly	TM10-9014-130481	4	Low	Complies
24e	6M Left Side Runner Assembly	TM10-9014-130501	4	Low	Complies
24f	6M Right Side Runner Assembly	TM10-9014-130502	4	Low	Complies
25	Complete Auto Backstop Assembly	TM10-9014-283423	1	Low	Complies
26a	Standard Cutting Clamp Final Assembly	TM10-4200-000010	1	Low	Complies
26b	Cutting Clamp Assembly w/edge Control	TM10-4200-000012	1	Low	Complies
26c	Side Mount Cutting Clamp Final Assembly	TM10-4200-SM0011	1	Low	Complies
26d	Side Mount Cutting Clamp Ver. 2	TM10-4200-SM0011	1	Low	Complies
26e	Side Mount Cutting Clamp w/edge Ver. 2	TM10-4200-SM0011	1	Low	Complies
27a	Squaring Edge Assembly – 1300mm	TM10-9014-032130	1	Low	Complies
27b	Squaring Edge Assembly – 1000mm	TM10-9014-032960	1	Low	Complies
27c	Squaring Edge Assembly – 900mm	TM10-9014-032900	1	Low	Complies
27d	Squaring Edge Assembly – 800mm	TM10-9014-032800	1	Low	Complies
27e	Squaring Edge Assembly – 400mm	TM10-9014-032400	1	Low	Complies
27f	Squaring Edge Ass.– 400mm – Side Mount	TM10-9014-032401	1	Low	Complies
28	Front Runner End Cap	TM10-9014-356512	1	Low	Complies
29	Runner Drive System	TM10-9014-253821	1	Low	Complies
30	Crush Cutting Unit	TM10-CBDW420000	8	Low	Complies
31	Ultrasonic Cutting Unit	TM10-9014-130195	8	Low	Complies
32	1500 Watt Dukane Ultrasonic System	TM10-3150-PL2000	8	Low	Complies
33	Probe Mount Transducer	TM94-4200DPC201	8	Low	Complies
34	CPM 10V Sitting Face Horn	TM94-4200-DPC204	1	Low	Complies
35a	Right Sensor Assembly-Auto Rollers	TM10-9014-635110	1	Low	Complies
35b	Left Sensor Assembly-Auto Rollers	TM010-9014-635275	1	Low	Complies
36a	3.2M Material Free Spinning Rollers	TM10FRSR0-420320	8	Low	Complies
36b	3.2M Material Motorized Rollers	TM10-MR01	8	Low	Complies
36c	3.2M Motorized Rollers Edge Control	TM10-MRE0-420320	8	Low	Complies
37	Material End Stop	TM10-9014-160236	1	Low	Complies
38	Rollers Edge Handwheel	TM93-9054-000198	8	Low	Complies
39	Backstop Control Panel	TM10-9014-283423	1	Low	Complies
40	Power Distribution & Supply Circuit	EPM-H505 DX	16	Medium	Complies
41	Safety Relay Control Circuit	RT9 (1)	16	Medium	Complies

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Item No	Description	Code	Highest Risk Value	Risk Rank	Comments
42	Safety Relay Expansion Circuit	E1T	16	Medium	Complies
43	PLC Control Circuit	EPL-10200 PLC1	16	Medium	Complies
44	Ultrasonic Knife Control	TM94-4200DPC201	16	Medium	Complies
45	Ultrasonic Knife Control	40355103 DPCIIPlus	16	Medium	Complies
46	Back Stop Drive Power Circuit	EVS 9322-EP D1	16	Medium	Complies
47	Cutter Drive Circuit	E82EV551_2C D2	16	Medium	Complies
48	Cutter Drive Safety Relay	RT9 (2)	16	Medium	Complies
49	Unwinder Drive Power Circuit	E82EV371_2C D3	16	Medium	Complies

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CUTTING TABLE SAFETY PRECAUTIONS-CUSTOMER RESPONSIBILITIES

No mechanical or electrical work on the Cutting Table should be undertaken except by qualified technicians.

By necessity the cutting table uses significant pressures during moving and clamping operations and should be used carefully.

CUSTOMERS RESPONSIBILITY:

It is the responsibility of the owner to ensure that the Cutting Table is used only within its specifications and for its intended applications.

It is the responsibility of the owner to ensure that all operators have been thoroughly trained in the safe operation of the Cutting Table and its components.

OPERATORS RESPONSIBILITY:

It is the responsibility of the operator to ensure that the materials to be cut are within the abilities of the cutting blades and speeds being used.

It is the responsibility of the operator to ensure that nothing is ever placed on the table that may become lodged under the backstop or clamp bars and that the work area is always kept clean.

CUTTING TABLE SET UP REQUIREMENTS:

Electrical cord for Cutting Table should be fixed permanently and secured out of the way of the operator's feet and any moving parts. It should not be just lying on the ground.

Electrical Box key should be stored away from machine with management or technical staff.

Acmeda accepts no responsibility for property damage or personal injury if the safety precautions and procedures outlined in this operation manual are not followed.

Technical Information - 4200 Series Cutting Table

Power requirements:	240V - 50 Hz / 16 Amp circuit breaker (motor start type)
Air pressure requirements:	15cfm compressor (minimum) with recommended FAD (Free air delivery) of 11 or greater. With in-line air dryer (air pressure must not drop below 0.5Mpa)
Air pressure settings:	Main pressure (Regulator): 700 kpa Clamp pressure: 650 kpa Back Stop pressure: 600 kpa
Safety Category:	Class 4
Australian Standard:	AS4024-2006
Safety Features:	Emergency Stops in 5 places All external wiring and switches are 24V (low voltage)
Area required:	Width: 4.8 metres (machine) + 1.0 metre either side for operating Length: Table length + 1.0 metre either end for operating

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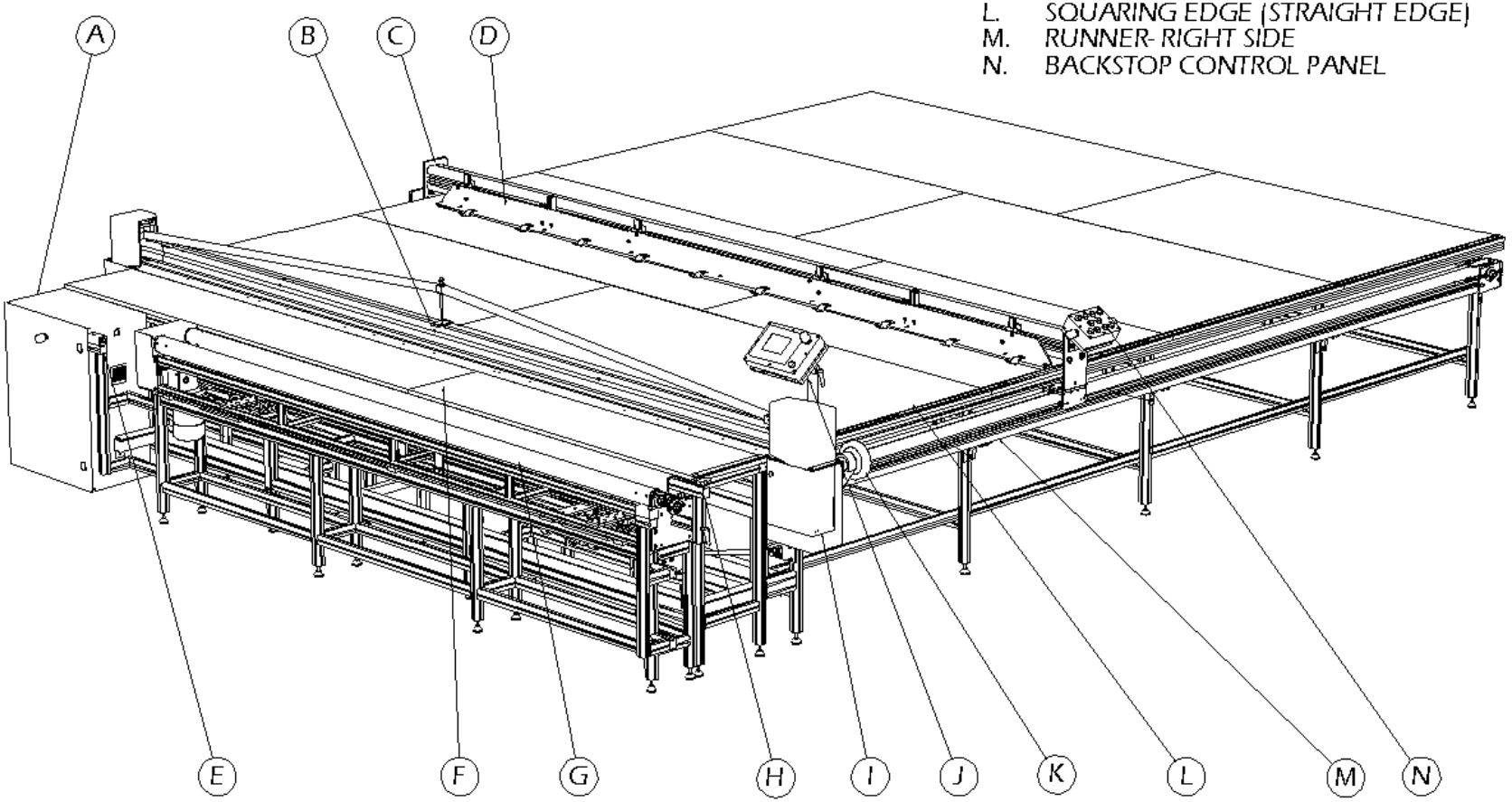
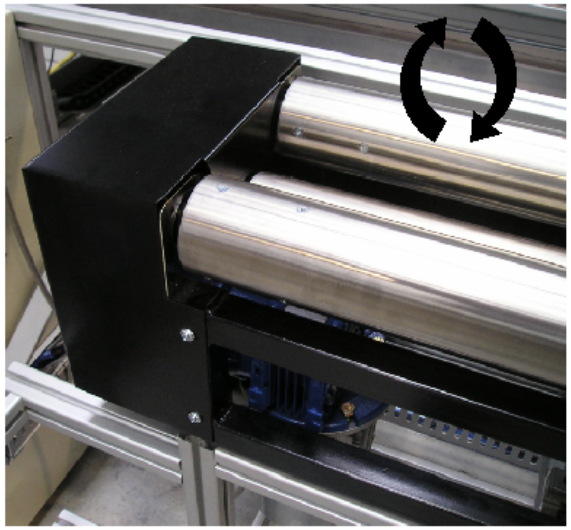
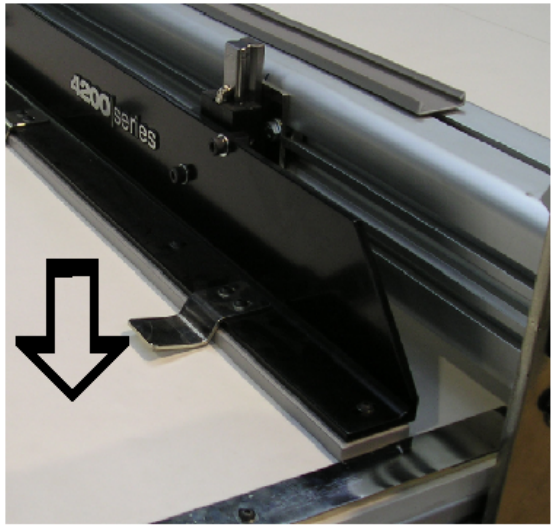
MAIN COMPONENTS:

A. MAIN ELECTRICAL BOX
B. CLAMP BARS
C. BACK STOP
D. SQUARING EDGE CLAMP
E. ROLLERS SAFETY SENSOR
F. FRONT TABLE EXTENSION- 400MM
G. 3.2 METRE MATERIAL ROLLERS
H. MATERIAL END STOP
I. END GUARD (ACCESS TO CUTTER)
J. MAIN CONTROL PANEL
K. ROLLERS EDGE CONTROL HANDWHEEL
L. SQUARING EDGE (STRAIGHT EDGE)
M. RUNNER- RIGHT SIDE
N. BACKSTOP CONTROL PANEL



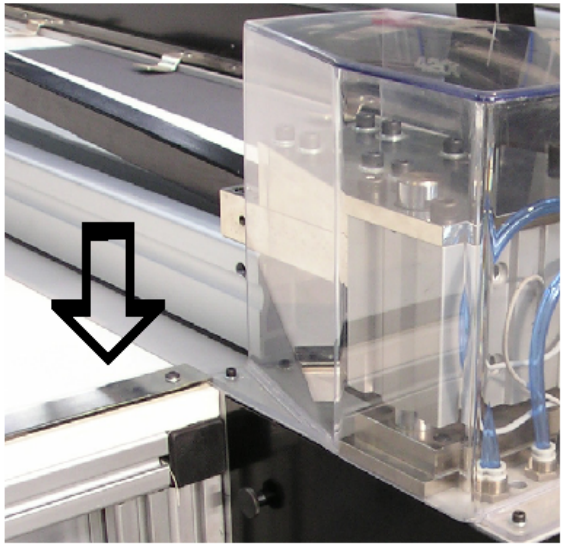


MATERIAL ROLLERS

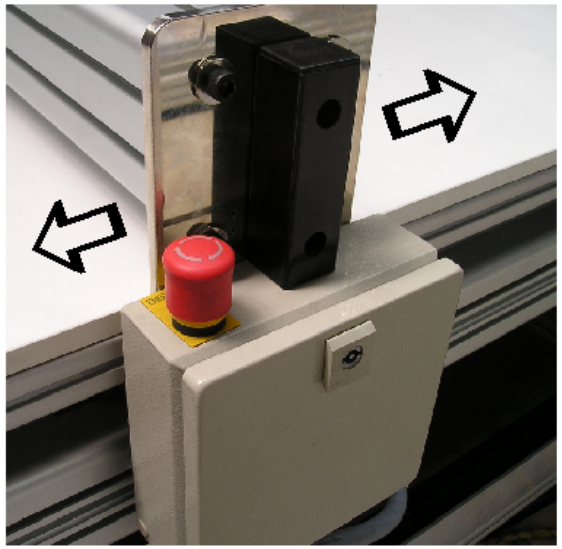


SQUARING EDGE CLAMP

CLAMP BAR



RUNNER FOR BACKSTOP



HEALTH AND SAFETY TIPS

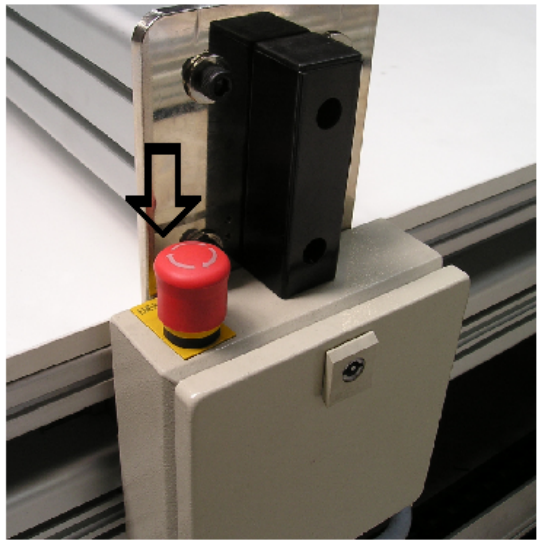
It is very important that the cutting table be operated in accordance with the instructions and safety procedures outlined in this manual.

Acmeda has designed the Cutting Table with the objective of minimizing the possibility of personal injury or property damage from the proper operation of the machine. However, the nature of the table operations make it impossible to fully protect from some exposed hazards and it is the responsibilty of the owner and machine operator to observe all needed precautions in the use of the machine. This is especially true if 2 or more people are using the machine.

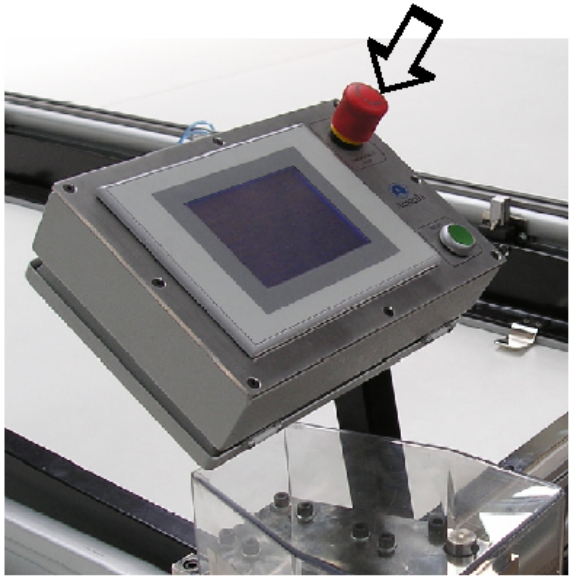
The Cutting Table requires significant forces for effective operation. Some very obvious areas needs to be approached carefully as follows:

Material Rollers- *These are equiped with a front safety sensor, but are neccesarily run by a powerful motor so care is required.*
Squaring Edge Clamp- *Be careful to avoid ever putting your fingers under this or finger injury may result.*
Clamp Bar- *Exercise extreme caution with the Clamp Bar as it is operated by 2 very powerful pnuematic cylinders and is capable of seriously injuring hands.*
Runner for Backstop- *Be careful to avoid standing in the path of the backstop as it moves.*

Acmeda accepts no responsibilty for personal injury or property damage due to the failure to follow all operation and safety instructions.

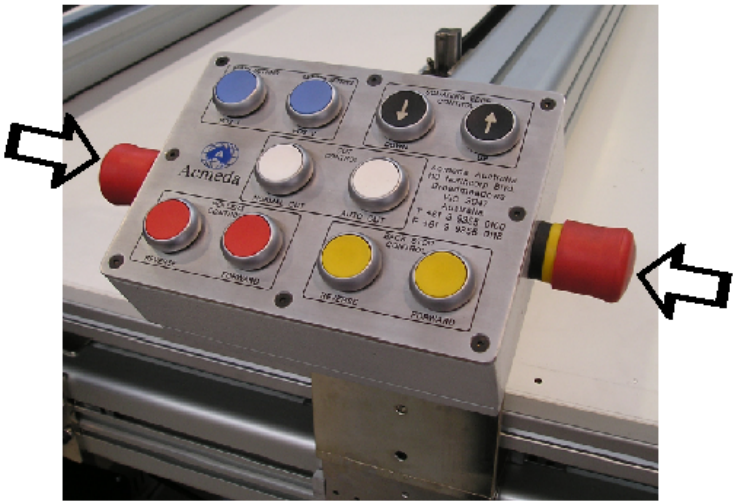


LEFT SIDE RUNNER WIRING BOX



MAIN CONTROL PANEL

BACKSTOP CONTROL PANEL



MAIN ELECTRICAL BOX

EMERGENCY STOP (ES) BUTTONS

The Cutting Table is provided with Emergency Stop buttons in several places around the table that the operator is likely to be working. Please carefully note where each one is located to avoid confusion if it becomes neccesary to use them.

If it becomes neccesary to use an ES button simply press firmly down on it. This action will abort all active operations and cut the air supply to the clamping mechanisms.

After pressing the ES button the Cutting Table will need to be reset as follows to restore it to normal operations:

1. *Twist the Emergency Stop button (the one that was activated to begin with) until it pops back into the raised position.*

2. *If the cutter is not in the Home Position (this will show up at the bottom of the touch screen as "CH") do the following:*

- *On the main menu press "Cut Roll Control".*
- *Press "Cutter Rev" to bring the cutter back to Home Position.*

3. *On the main Control Panel press the green Reset button. This should activate the air supply and bring the Clamp Bars and Squaring Edge into the up position.*

4. *Now the Backstop will need to be homed again by pressing the "BackStpHome" in the main "Menu" or the "BackStpIndex" menu. Wait for the homing to complete and the Cutting Table will be ready to use again.*

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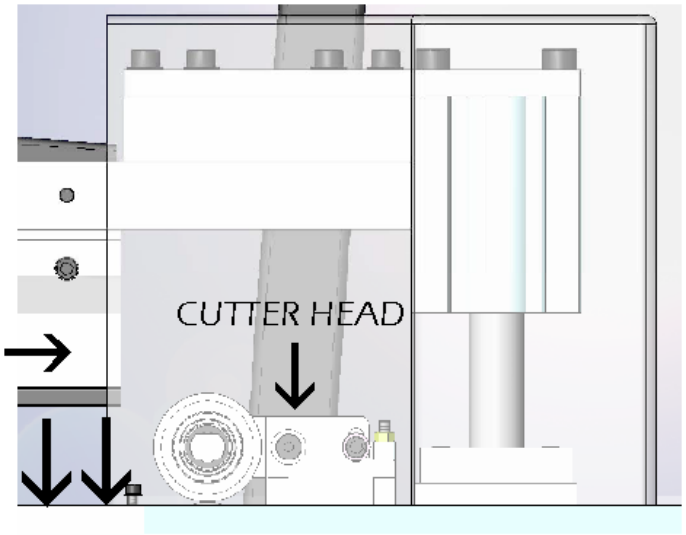
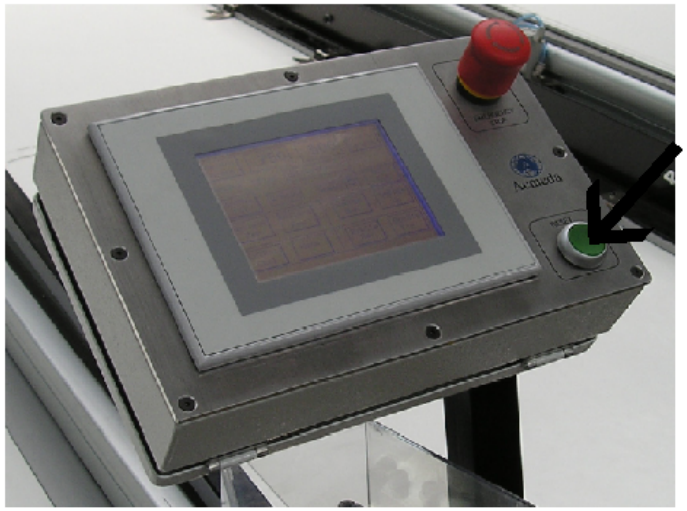


Figure 1
Please note that this figure shows Standard Clamping but the **home position** for Side Clamping is the same as shown.

HOME POSITION
In the home position the Cutter Head will be fully clear of the Clamp Bars as shown Figure 1.

CAUTION

⚠ *Always make sure the cutter head is in the home position before resetting the machine and always avoid moving the cutter by hand.*



RESET BUTTON

IMPORTANT PRECAUTIONS

Carefully read through the following precautions before operating the Cutting Table.

Emergency Stop and Reset Special Precaution
To avoid any possibility of machine damage during Emergency Stop procedures pay special attention to the Cutting Head position.

You must ensure that the Cutting Head is clear of the Clamp Bars and in the home position before resetting the machine. The Cutting Machine will automatically lower the clamp bars and home the cutting head when you press Reset.

It is therefore extremely important that you never move the Cutter Head by hand out of the home position before you push "Reset" or the Clamp Bars may come down onto the Cutter Head and very likely cause damage to the cutter head and clamp bars.

Points to Remember

- *Never manually (by hand) move the cutter head out of the home position.*
- *Always make sure the cutter head is in the home position before taking any action on the machine, and especially when using the "Reset" function.*
- *If the Cutter Head is not in the home position and the machine needs to be Reset then very carefully bring it back by hand into home position.*

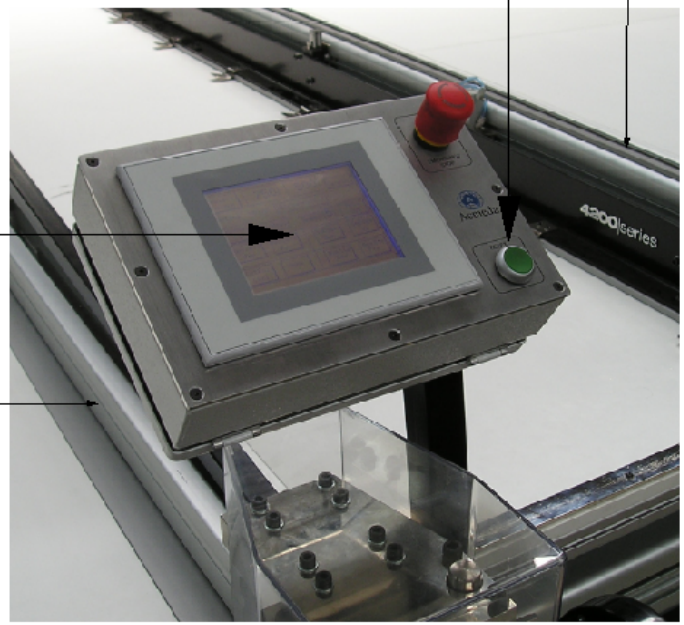
MAIN POWER ON/OFF

RESET BUTTON

B

TOUCH SCREEN

A



GETTING STARTED

To begin operation of the 4200 Series Cutting Table there are a few simple operations that need to be completed.

1. The main power switch is located on the left side of the main electrical box, as shown. Turn this on to begin Setup. It will take a several seconds for the internal computer to ready itself for operation.

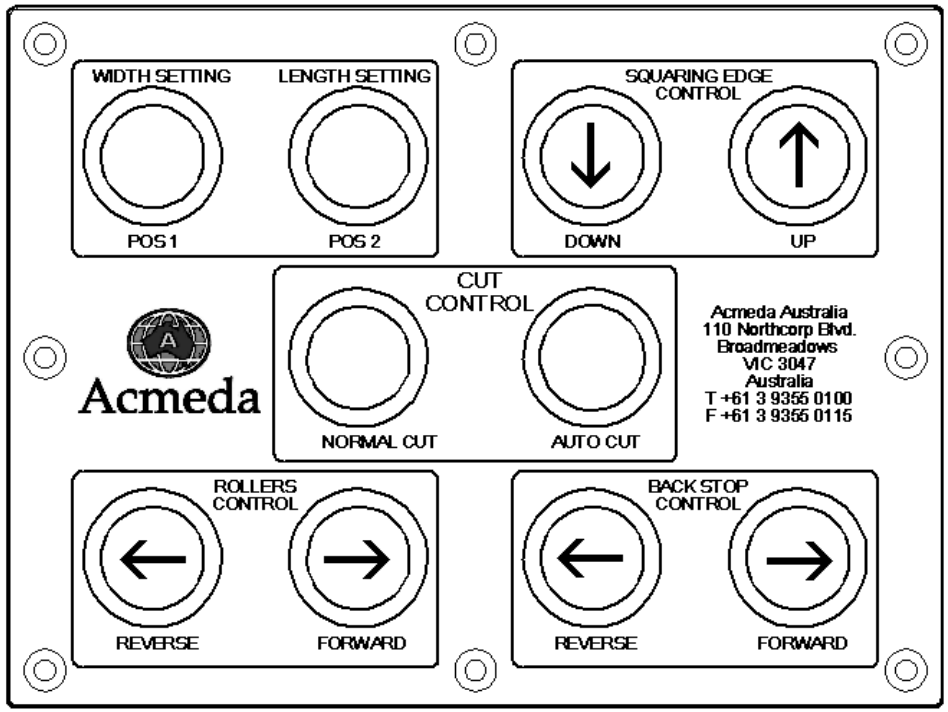
2. After the Main Menu appears on the touch screen the Cutting Table needs to be Reset. To do so press the green "Reset" button on the lower right side of the Control Panel (as shown). Now the Clamp Bars (A) and the Backstop (B) should be engaged and in the up position.

IMPORTANT NOTE

It is very important that the backstop now be homed. Failing to home the backstop may result in the backstop hitting the bearing end plates and adversely effect cut accuracy. All Cutting Table programming and accuracy is dependent on the Backstop Homing.

3. To home the Backstop press the "Back Stop Home" button on the touch screen. The Backstop should now slowly move to the homing position.

4. After the Backstop has come to a halt the machine will now be ready for regular operation.



BACK STOP CONTROL PANEL FUNCTIONS

The table is equiped with a Control Panel on the Back Stop to allow for easier and more effecient operation. The Control Panel is equiped with all of the main functions that are required to operate the cutting table, but does not allow for any setup functions.

Width Setting- *Prompts the Back Stop to move to the programmed material width.*

Length Setting- *Prompts the Back Stop to move to the programmed material length.*

Squaring Edge Up- *Square edge up.*

Squaring Edge Down- *Square edge down.*

Normal Cut- *Activates a standard cut stroke.*

Auto Cut- *Activates a standard cut stroke and activates the rollers to retract the material after the cut. Auto Cut should only be used when cutting off the first length of the material roll.*

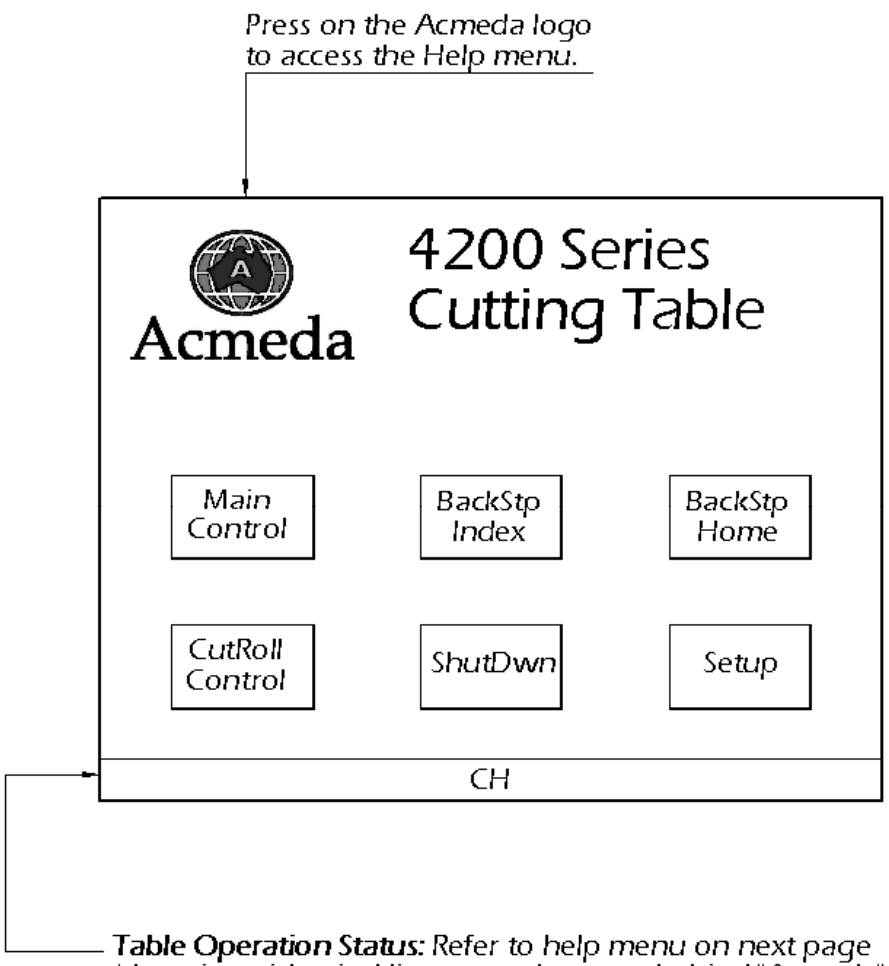
Rollers Reverse- *Rollers reverse prompt.*

Rollers Forward- *Rollers forward prompt.*

Back Stop Reverse- *Back Stop reverse*

Back Stop Forward- *Back Stop forward*

The use of these functions will become more clear after you have read through this manual completely.



MAIN MENU

The main menu is the interface from which all of the basic functionality of the Cutting Table is accessed.

Main Control
This menu controls most of the basic functionality of the cutting table.

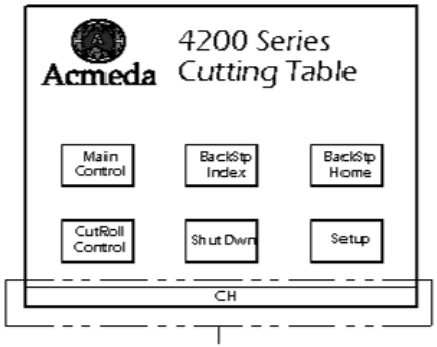
Backstop Index
This menu allows the user to control the indexing functionality of the backstop.

Backstop Home
This key automatically homes the backstop. It is very important to always home the backstop before operating the Table if the table has been turned off.

Cut Roll Control
The menu controls the manual functions of the clamping and the cutting operations.

Shut Down
This key is used to shut down the Cutting Table as required.

Setup
Controls the settings of the Cutting Table (most of these are factory settings and should not be changed without advice).



HELP INDEX FOR CUTTING TABLE STATUS

Em – Emergency Active

C ! – Cutter Not Ready

CM – Cutter Moving

CH – Cutter Not Home

R ! – Rollers Not Ready

RM – Rollers Moving

B ! – Backstop Not Ready

BM – Backstop Moving

BR – Backstop Not Referenced

C1M – Clamp Moving

SM – Square Edge Moving

HELP INDEX MENU

Em
The emergency button needs to be reset.

C !
The cutter is not in position for proper operation.

CM
The cutter is currently moving.

CH
The cutter is not in home position.

R !
The rollers safety sensor has been activated.

RM
The rollers are currently moving.

B !
The Backstop is not ready for use. The squaring edge may be down.

BM
The backstop is currently moving.

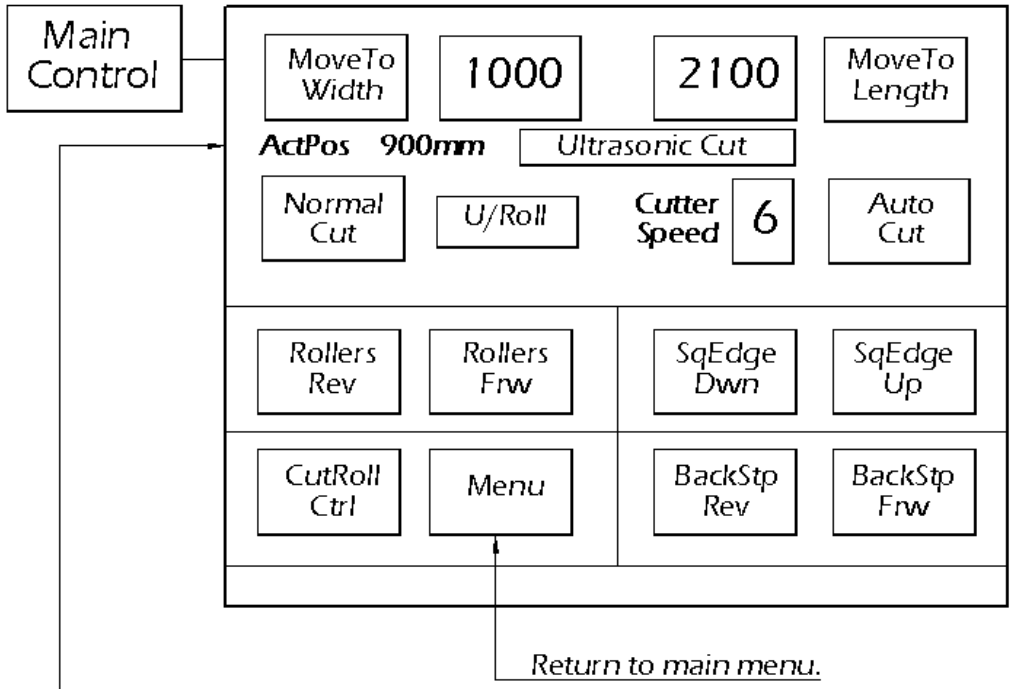
BR
The back stop needs to be homed.

C1M
The clamp is currently moving.

SM
The squaring edge is moving.

OVERVIEW OF FUNCTION

The Main Control menu is the most versatile menu for the general operation of the Cutting Table. From this menu the operator can control all of the manual functions while also being able to program in length and width cuts as required. It also allows for using the Auto Cut command and selection of a programmed cutting speed.



MAIN CONTROL MENU

This screen controls all of the basic operations of the cutting table.

MoveToWidth- *Prompts the Back Stop to move to the programmed material width.*

MoveToLength- *Prompts the Back Stop to move to the programmed material length.*

ActPos- *Displays the actual position of the Back Stop.*

Normal Cut- *Activates a standard cut stroke.*

U/Roll- *Controls the rollers to spin under or over-hand.*

Cutter Speed- *Select from pre-programmed cutting speeds.*

Auto Cut- *Activates a standard cut stroke and activates the rollers to retract the material after the cut. Auto Cut should only be used when cutting off the first length of the material roll.*

Rollers Rev- *Rollers reverse prompt.*

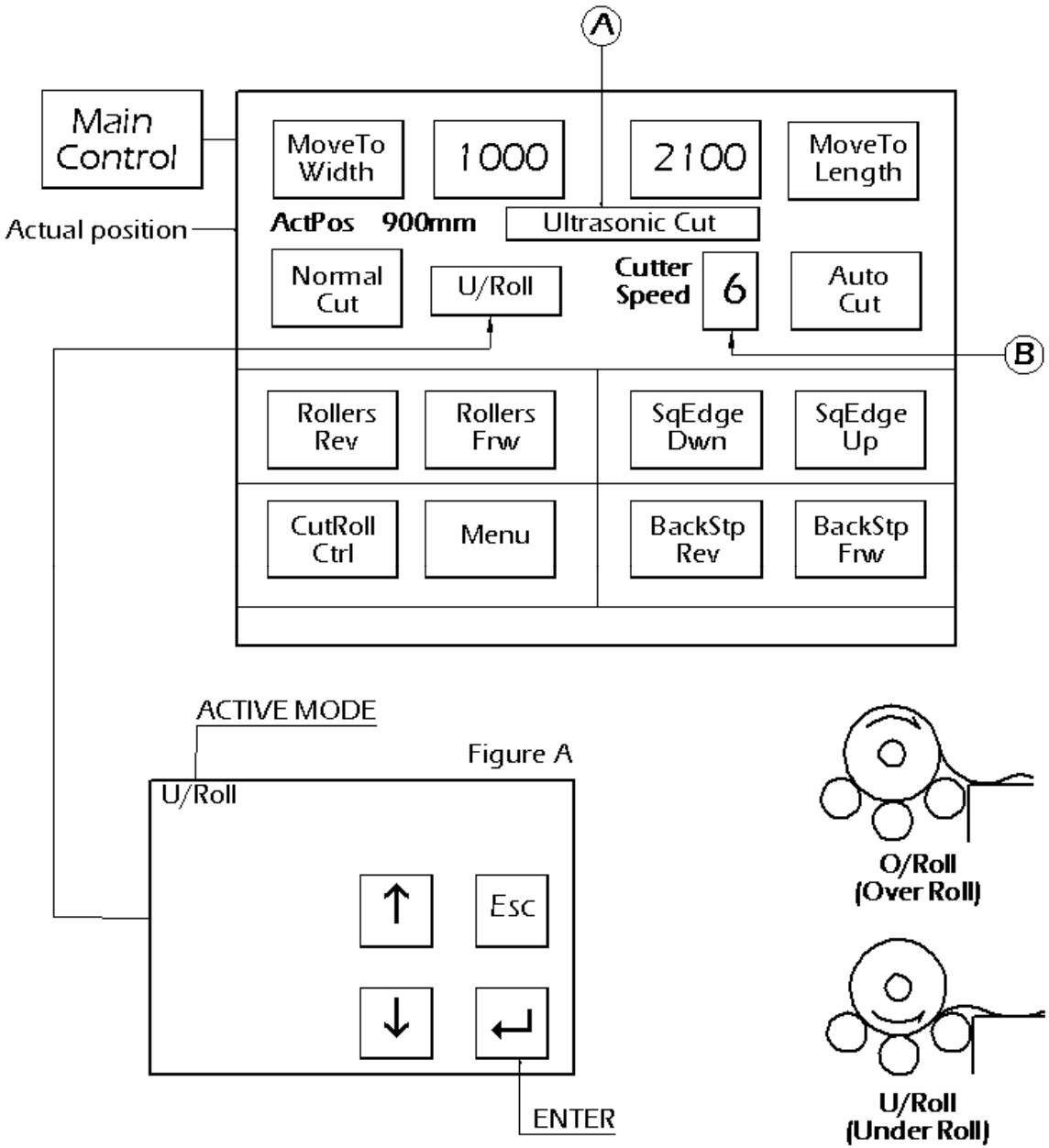
Rollers Frw- *Rollers forward prompt.*

SqEdgeDwn- *Square edge down.*

SqEdgeUp- *Square edge up.*

BackStpRev- *Back Stop reverse*

BackStpFrw- *Back Stop forward*



USING THE MAIN CONTROL MENU

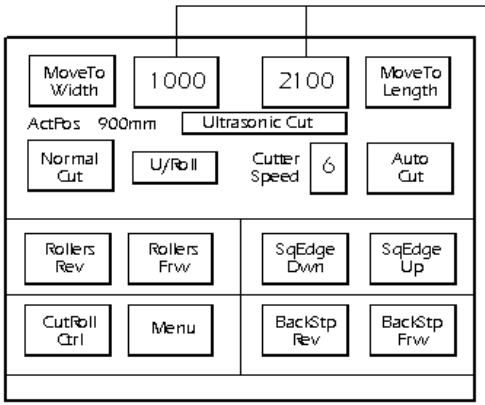
First be sure that the machine is set up for the kind of cutting required, either crush cutting or ultrasonic cutting (A). Please see page... for instructions for changing the cutting mode.

Cutter Speed- To choose from one of the programmed cutting speeds press the number block beside "Cutter Speed" (B). Choose the most suitable cutting speed for the material that you intend to cut. These cutter speeds can be changed anytime to suit individual needs and can be accessed through the "Setup" menu.

Rollers Direction- If your machine is equiped with automated material rollers you may want check the roller direction and change the direction based on how the material is placed on the rollers. You can choose between *over-roll* and *under-roll* depending on whether the material is loaded with the free end coming off the top or bottom of the roll (as shown at left).

Follow these steps to change the roll direction:

1. Press the "U/Roll,O/Roll" key to bring up the selection menu (Figure A).
2. Press the left arrow keys to change between over-roll and under-roll modes. The active mode appears in the upper left hand corner of the touch screen.
3. Press the "Enter" key to activate the new roller mode and it should now appear in the box in the "Main Control" screen.



IMPORTANT NOTE

If you set the back stop distance outside of the inner and outer limits of the table the table functions will freeze and the table will need to be Reset and the Back Stop Homed again.

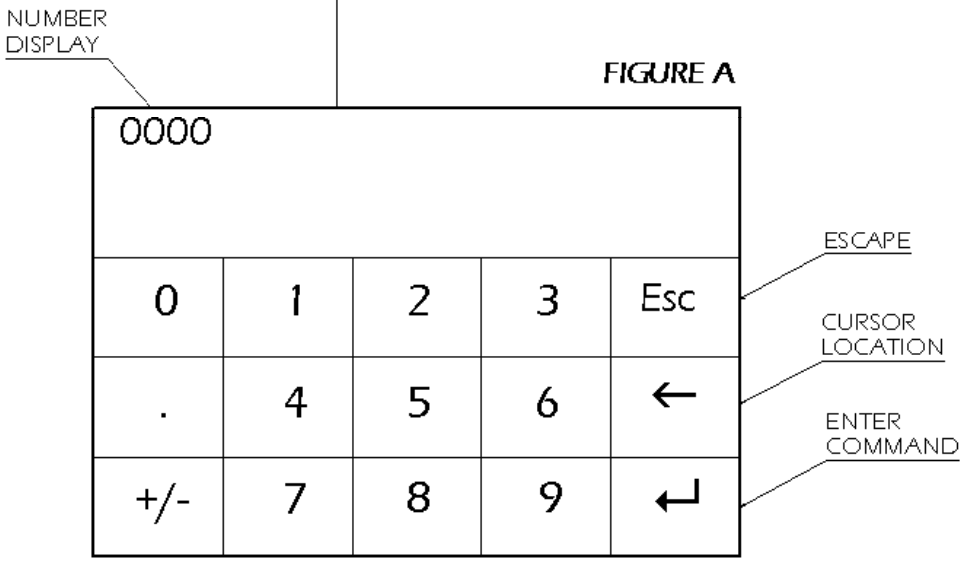


FIGURE A

USING THE MAIN CONTROL MENU

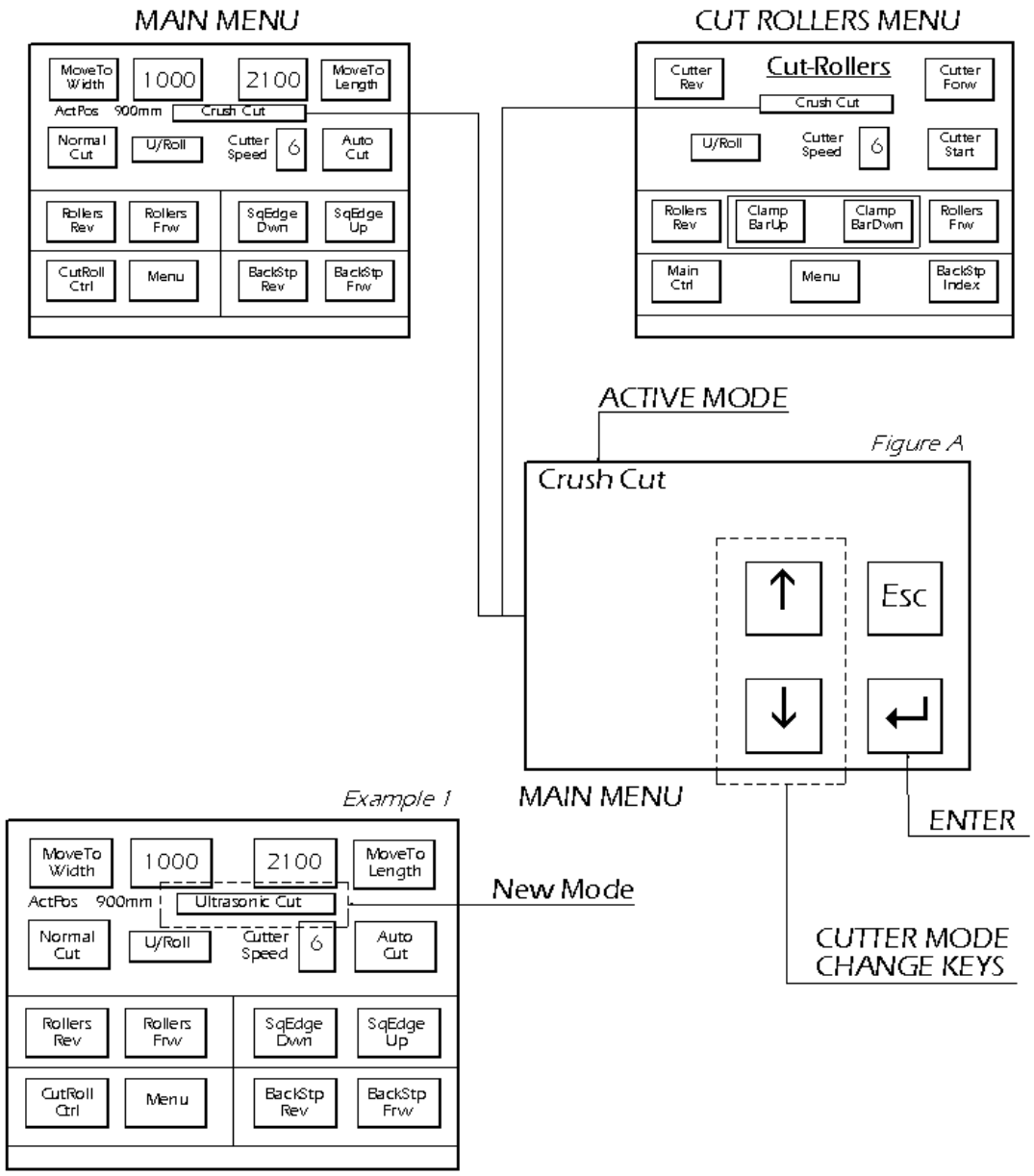
The Back Stop location can be accurately programmed to the desired distance for material length and width cuts. The distance settings will be the final cut size of the material. To change the settings do the following.

1. *Press on the number for width (the box beside the "Move To Width" key) and a new screen keypad will appear (as shown).*
2. *Type in the width distance required for the material. You can see this distance in the top left corner of the screen. Press Enter to accept. This width should now appear in the box in the Main Control menu.*
3. *To program in the material length press the number box beside "Move To Length" key and follow the same steps as used for the width.*
4. *The "Move To Width" and "Move To Length" keys can now be used as needed.*

Making a Cut- *To make a cut from this Menu you can use the "Normal Cut" or "Auto Cut" key. When the end of the material is detected by the sensor the cutter will return to the home position. If you need to abort the cut befor it is finished you simply press the "Normal Cut" key again for the cycle to stop and the cutter to return to the home positon.*

NOTE:

Before cutting the material using these settings make sure you have squared up 2 perpendicular sides of the material.



CHANGING CUTTING MODES

FROM CRUSH-CUTTING TO ULTRASONIC CUTTING MODES OR VISE-VERSA

Before using the Cutting Table you will need to make sure the cutting mode is set to the kind of cutting you will be doing.

As shown at left, the mode setting can be changed as follows.

1. *Press on the cut mode box (with "Crush Cut" or "Ultrasonic Cut" in window) and a selection screen will come up as in Figure A.*

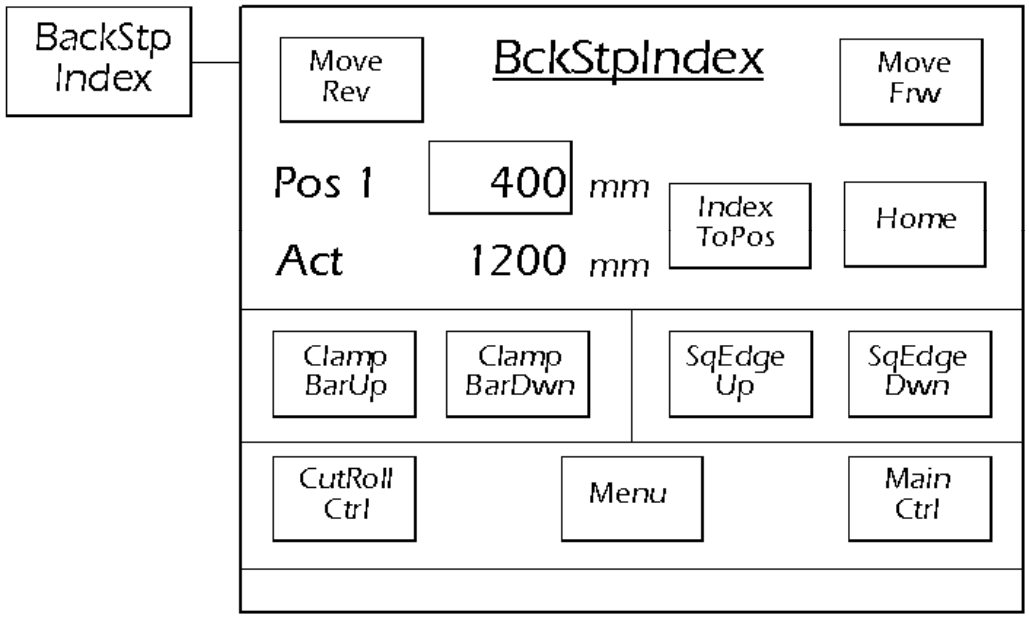
2. *By pressing the arrow keys on the left side you can switch between Crush Cut and Ultrasonic Cut. The active mode will be shown in the upper left corner of the touch screen.*

3. *When the active mode reads as the mode that you require press the Enter key.*

4. *In the Cut-Rollers or Main Control menu the cut mode box should now show the changed cut mode (as in Example 1).*

OVERVIEW OF FUNCTION

The Backstop Indexing function allows the operator to program in particular required distances for the backstop and to simply press a button to activate each increment. The Indexing function is an incremental setting and may be activated from any position. For example, if you have a large section of material that needs to be divided into 400mm lengths you can simply square the large section up then use the Backstop Indexing function to progressively cut the material into 400mm strips, indexing the backstop after each cut.



BACKSTOP INDEX CONTROL MENU

This screen controls all of the backstop indexing operations of the cutting table.

Move Rev- *Manually move the Backstop in reverse.*

Move Frw- *Manually move the backstop forward.*

Pos1- *Press on number box beside "Pos 1" to bring up keypad to program index distance.*

Act- *Displays the actual position of the Backstop.*

Index To Pos- *Press to begin one indexing cycle. Each time this button is pressed it will execute one indexing cycle.*

Home- *Press if for any reason the Backstop needs to be homed again.*

Clamp Bar Up- *To raise clamp bar .*

Clamp Bar Dwn- *To lower clamp bar.*

SqEdge Up- *Manually raise the Squaring Edge.*

SqEdge Dwn- *Manually lower the Squaring Edge.*

CutRoll Ctrl- *Cut Roll Control Menu.*

Menu- *Press to bring up the Main Menu.*

Main Ctrl- *To Main Control menu.*

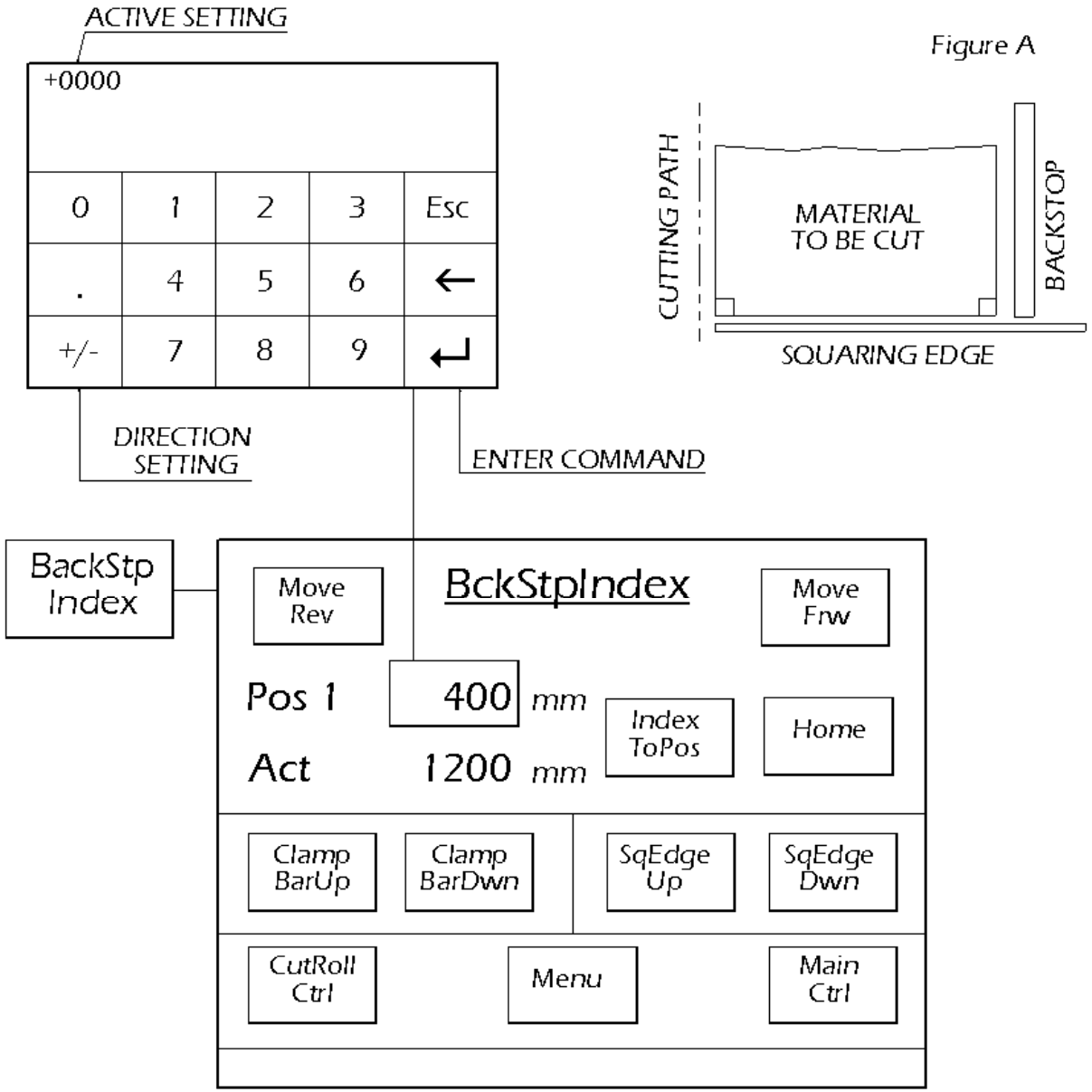


Figure A

USING THE BACKSTOP INDEX CONTROL MENU

It is important that you square up at least 3 sides of the material before you begin using the Back-stop indexing feature (see Figure A).

1. *To program the desired Indexing distance press the number box beside "Pos 1" to bring up the keypad menu.*

2. *Key in the Idexing distance including either a positive (+) or Negative (-) prefix in order to indicate which direction you need the backstop to travel. You will see the active setting in the upper left corner of the touch screen.*

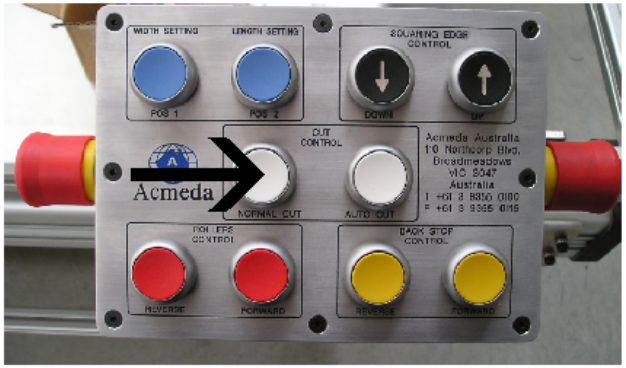
   (+) - to travel from front to back
   (-) - to travel from back to front

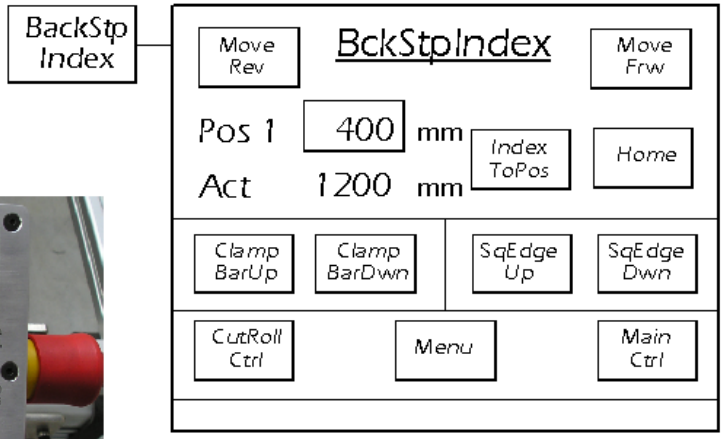
3. *Press the Enter key to accept number and the new setting will appear in the number box beside "Pos 1".*

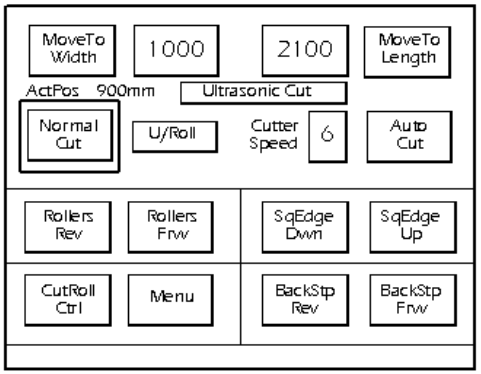
IMPORTANT NOTE

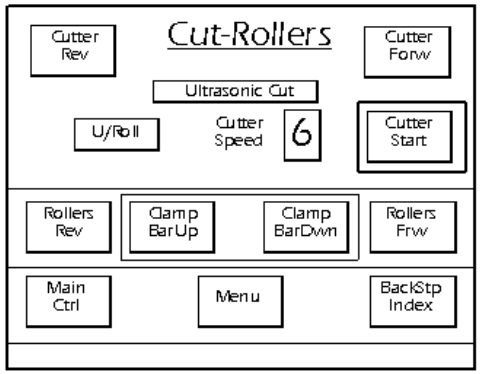
⚠ If you index the backstop outside of the inner and outer limits of the table the functions will freeze and the table will need to be Reset and the Back-stop Homed again.

Continued on next page.









USING THE BACKSTOP INDEX CONTROL MENU

Continued from previous page.

The Back Stop Index menu does not have a key to control the cutting action so one of the following 3 options can be used.

To enable the cutting action from the touch screen you may do one of the following:

- *Bring up the "Main Control" menu and use the "Normal Cut" key to operate the cutter.*

  or

- *Bring up the "Cut Roll Control" menu and use the "Cutter Start" key to operate the cutter.*

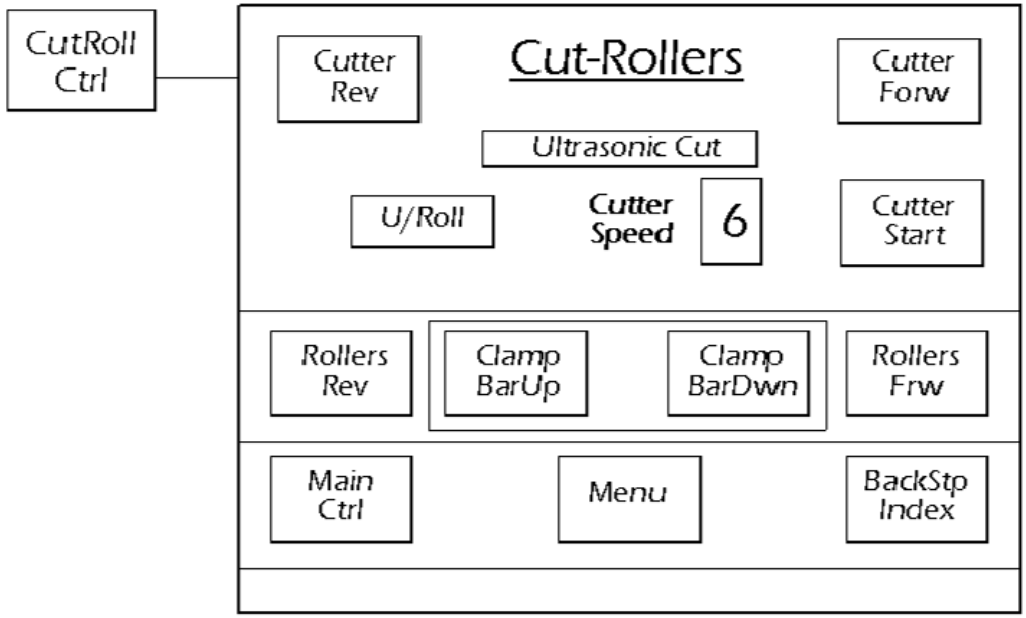
As an alternative you can activate the cutting action by using the "Normal Cut" button on the Back Stop control panel.

When you are ready to begin the Indexing operations simply press "Index To Pos". Every time you press the "Index To Pos" key the Back Stop will travel the programmed distance.

You can still utilize all of the regular commands to square up the material before and during the use of the Indexing functions.

OVERVIEW OF FUNCTION

This is the manual mode for the cutters and is the only menu that allows for the manual forward and reverse of the cutter blade. This is a useful option when setting up the cutter speeds or testing new materials as well as taking the first trim cut off of a roll of material.



CUT-ROLLERS CONTROL MENU

This screen controls all of the cutting operations of the cutting table.

Cutter Rev- *Manually controls the movement of the cutter in reverse.*

Cutter Forw- *Manually controls the movement of the cutter forward.*

U/Roll- *Controls the rollers to spin under or overhand.*

Cutter Speed- *Select from pre-programmed cutting speeds.*

Cutter Start- *Press to begin an automatic full length cut. Can also be pressed during a cut cycle to abort the cycle.*

Rollers Rev- *Rollers reverse prompt.*

Rollers Frw- *Rollers forward prompt.*

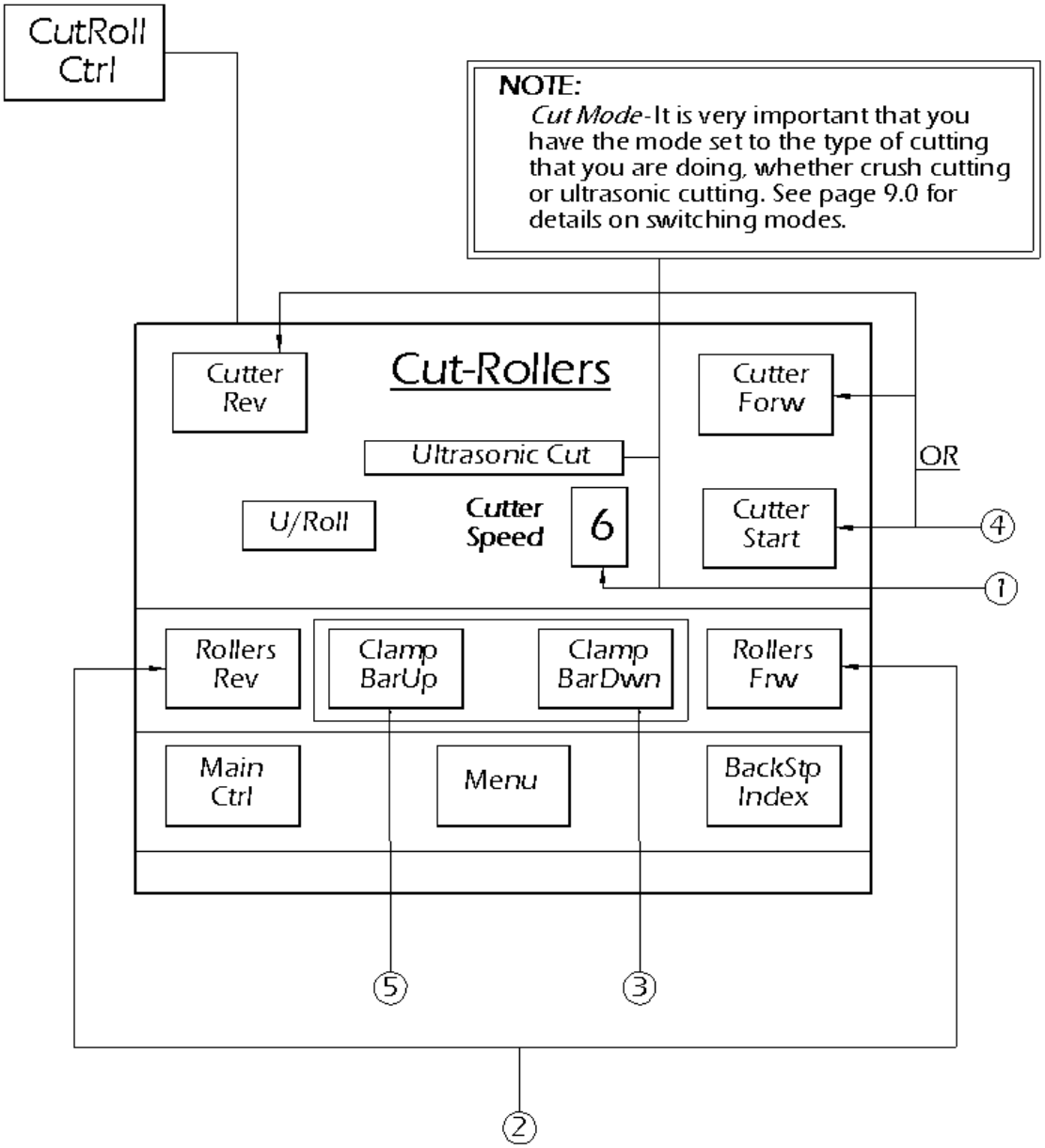
Clamp Bar Up- *To raise clamp bar .*

Clamp Bar Dwn- *To lower clamp bar.*

Main Ctrl- *To Main Control menu.*

Menu- *Press to bring up the Main Menu.*

BackStp Index- *Backstop Index Menu.*



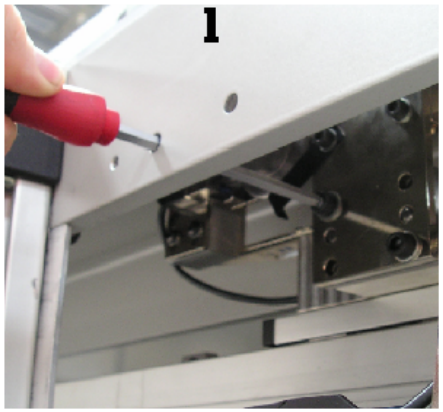
USING THE CUT-ROLLERS CONTROL MENU

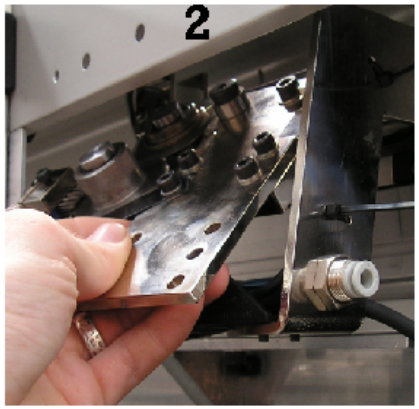
It is important to remember that the cutter will not operate unless the clamp bars are down (in clamping mode) and that they will not raise back up unless the cutter is back in the home position.

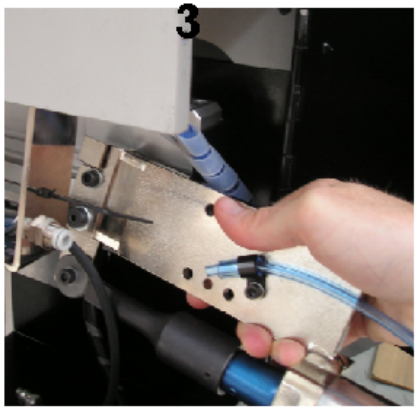
The basic process is as follows:

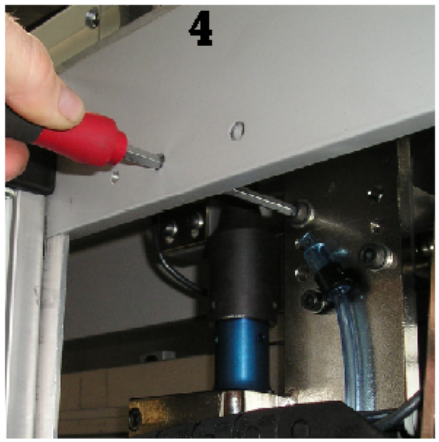
1. *Make sure the Cut Mode and the Cutter Speed are set to the desired settings.*
2. *Arrange the material to be cut, using the Roller Controls as neccessary.*
3. *When you are ready to cut push the "Clamp Bar Down" key to clamp the material.*
4. *Now you can either use the manual keys to move the cutter forward and then backward at the end of the cut or you can use the "Cutter Start" key to activate a complete auto cut cycle.*
5. *When the cutter is back in the home position press the "Clamp Bar Up" key to unclamp the material.*

To use the Back Stop functions you will need to go to the "Main Control" menu or "Back Stop Index" menu accessible from the bottom of this touch screen.



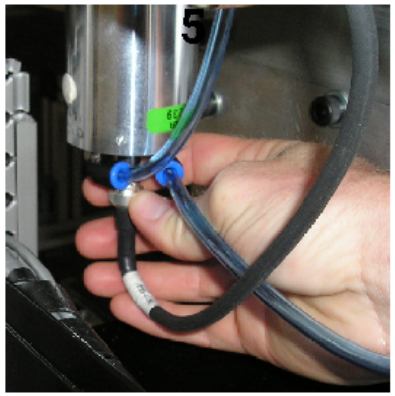


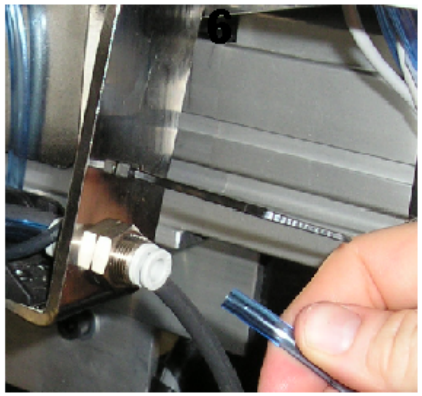


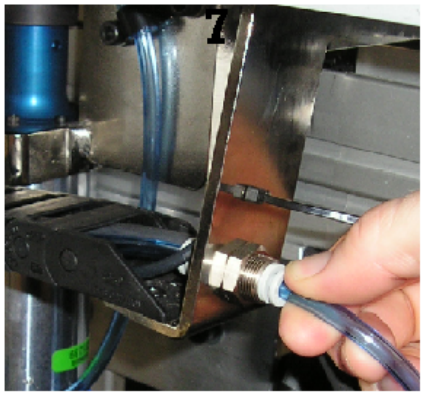


CAUTION

As a precaution it is best to press the Emergency Stop button when changing over to avoid injuries and damage that may result from inadvertantly activating the Table functions, especially the cutter movement.







CHANGING THE CUTTER HEADS

Do not operate Ultrasonic Cutter until all instructions have been followed completely (next 3 pages) !

To change from Crush Cutting to Ultrasonic cutting use the provided Alan key. As a safety precaution it is best to press the Emergency Stop button when changing over.

The Ultrasonic Unit is a precisely calibrated and expensive instrument so extreme care must be taken to avoid bumping and dropping it.

1. Loosen and remove the screws from the Crush Cutter as shown.

2. Ease Cutting Head off of the locating dowels and store in safe location.

3. Carefully ease the Ultrasonic Cutter into place and onto the dowels.

4. Screw the bolts and washers back into place and tighten firmly.

5. Now attach the main power cable for the ultrasonics to the bottom, as shown. The fitting is bayonet style and once engaged requires only about 1/2 turn to fully lock.

6-7 The loose air hose from the ultasonics now needs to be firmly pushed into the air fitting at the back of the electrical drag chain bracket. It should push in at least 10mm.

NOTE:

To release the air hose push down on the ring lip around the edge of the fitting and the hose can be pulled back out. Pushing on the ring may also assist in putting the hose in.

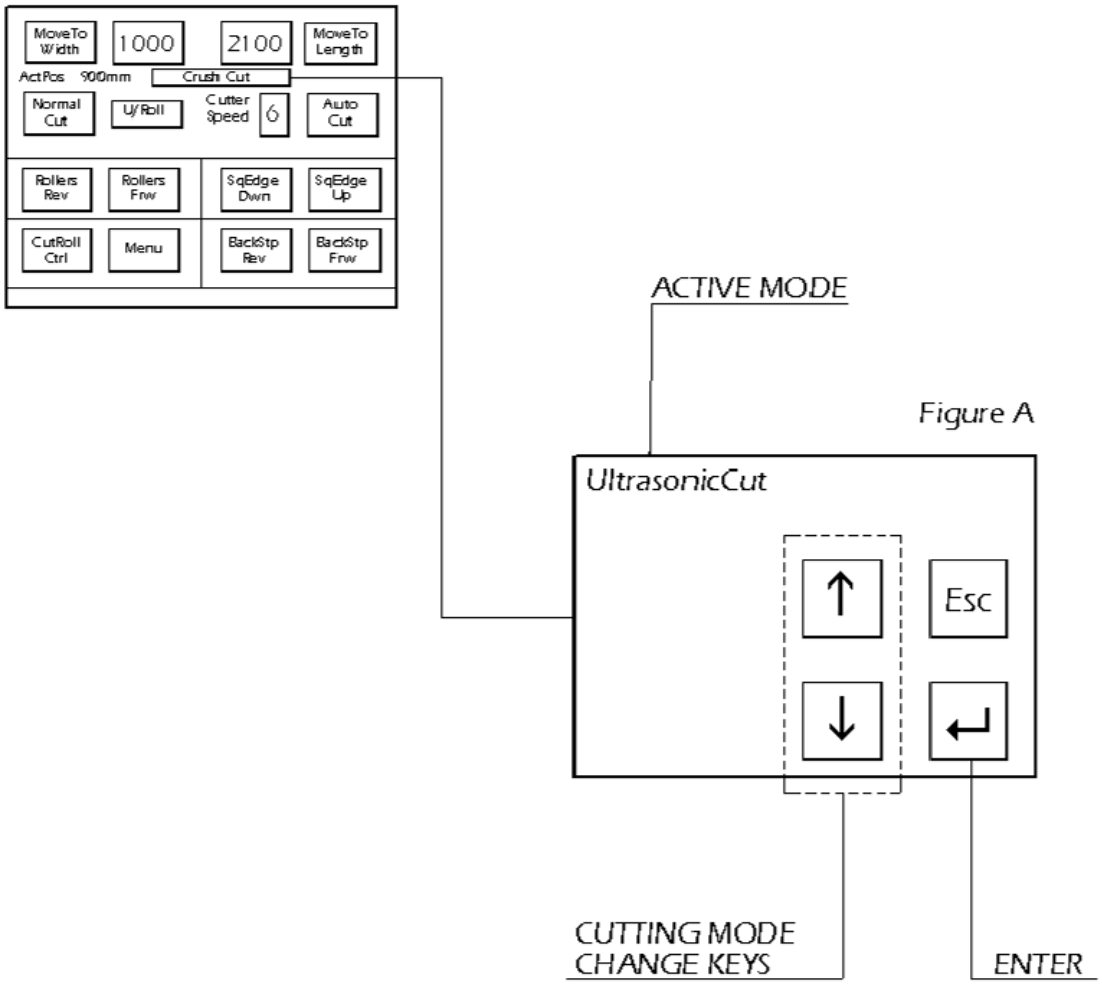


Figure A

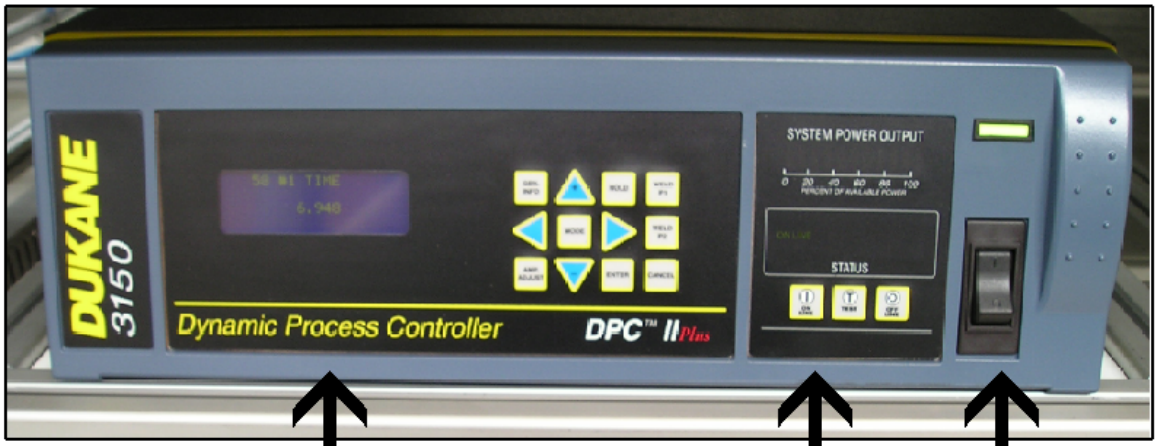
CHANGING FROM CRUSH-CUTTING TO ULTRASONIC CUTTING MODES

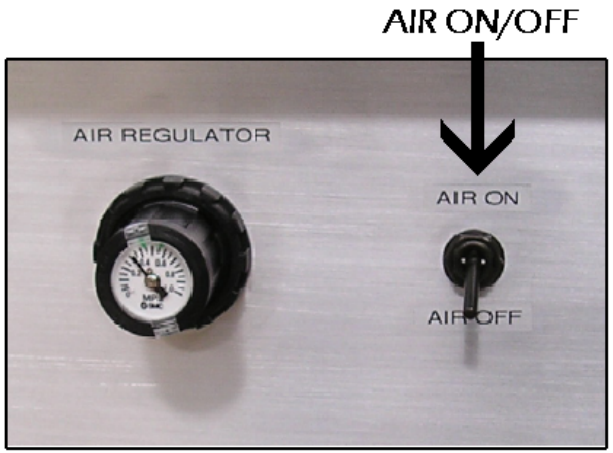
Before using the ultrasonic cutter the Cutting Mode must be changed.

As shown at left, the mode setting will need to be changed to "Ultrasonic Cut" as follows.

1. *Press on the box with "Crush Cut" and a selection screen will come up as in Figure A.*
2. *By pressing the arrow keys on the left side you can switch between Crush Cut and Ultrasonic Cut. The active mode will be shown in the upper left corner of the touch screen.*
3. *When the active mode reads "Ultrasonic Cut" press the Enter key.*
4. *In the Main Control menu the Box should now read "Ultrasonic Cut".*

Continued on next page.





CAUTION

⚠ *It is extremely important that the air is turned on during the operation of the ultrasonic cutter (during the cut stroke while the unit is vibrating). Failing to do so could result in overheating & damage to the ultrasonic unit.*

ULTRASONICS POWER AND AIR SUPPLY

It is extremely important that the air is turned on during the operation of the ultrasonic cutter or damage to the unit may result. It is only during the Cutter stroke that the damaging vibrations are activated, but the air should be left on any time the Contoller power is on to avoid inadvertent damage

Make sure you are familiar with the Dukane User's Manual (provided with the unit) that is dedicated solely to the ultrasonic unit.

The power and air supply will now need to be switched on as follows:

1. Switch the main power switch to the Dukane Controller to "On" (A).

It will take a few minutes for the inboard computer to prepare for operation. After it has stopped the Controller should read "On-line" in the Status screen and "TIME" in the Main Display screen. If it does not please refer to the Dukane DPC User's Manual for further instructions.

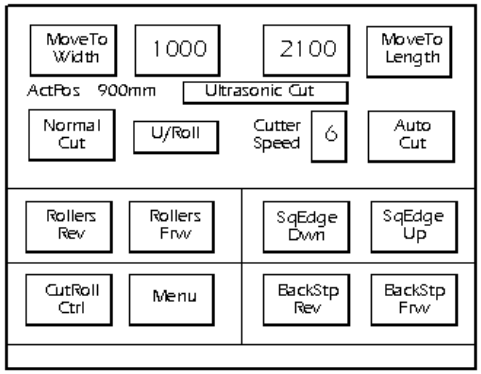
2. Now switch on the air control and check the air pressure. The air pressure should stay at 3 Bar (0.3 mpa).

NOTE:

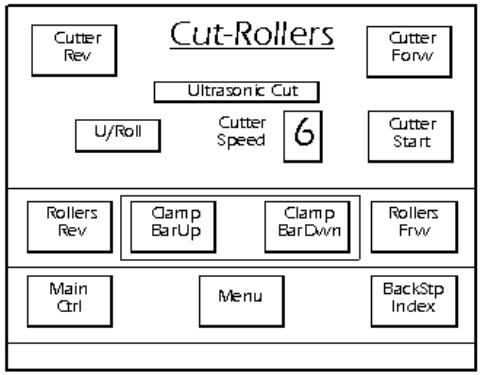
You will be able to hear air flowing from the horn cooling hose. This is normal.

Continued on the next page.

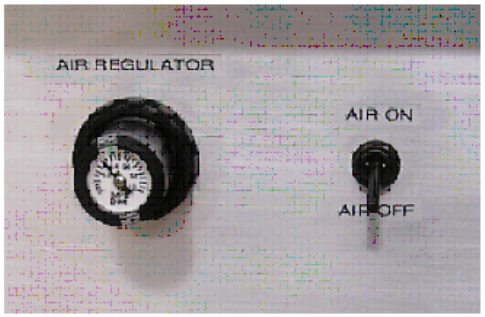
MAIN CONTROL MENU



CUT ROLLERS MENU



AIR SUPPLY



ULTRASONIC OPERATION

Operating the Ultrasonic Cutter is essentially the same as operating for Crush Cutting.

1. *First make sure that the air is turned on and that the power to the Ultrasonic unit is switched on.*

Please note that the ultrasonic vibration will not begin until the cutter motion is activated.

2. *For detailed instructions on using the "Main Control Menu" please refer to Section 8 of this manual.*

3. *For detailed instructions on using the "Cut Rollers Menu" please refer to section 11 of this manual.*

ULTRASONIC SHUTDOWN

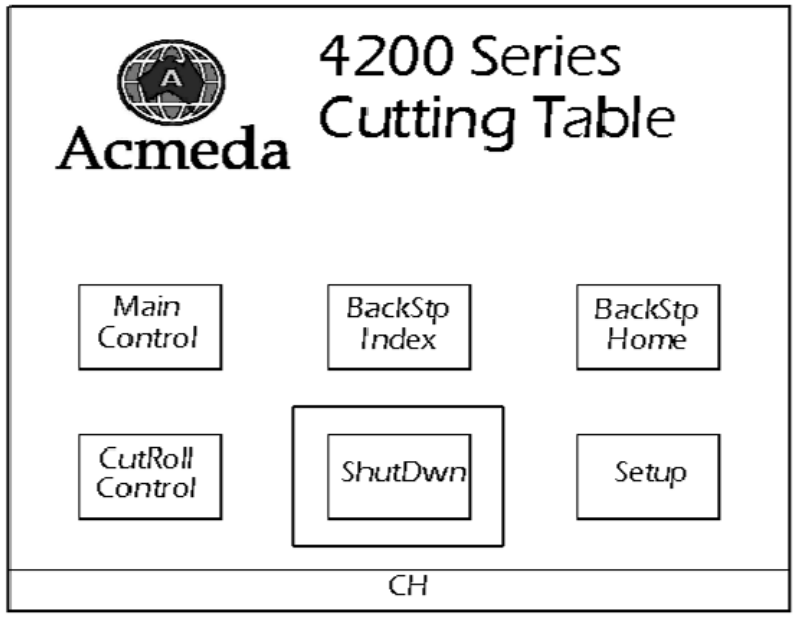
When you have finished using the Ultrasonic Cutter follow these simple steps:

1. *Turn off the Ultrasonic air supply and the power on the Ultrasonic Controller.*

2. *Remove the Ultrasonic Cutting Head from the table inversely to the order as described in section 12.0.*

3. *If you now want to begin Crush Cutting you will need to change the Cutting Mode back to Crush Cutting as described in Section 9.0 or Section 12.1.*

4. *Follow the next Section 13.0 for machine Shut Down procedures.*



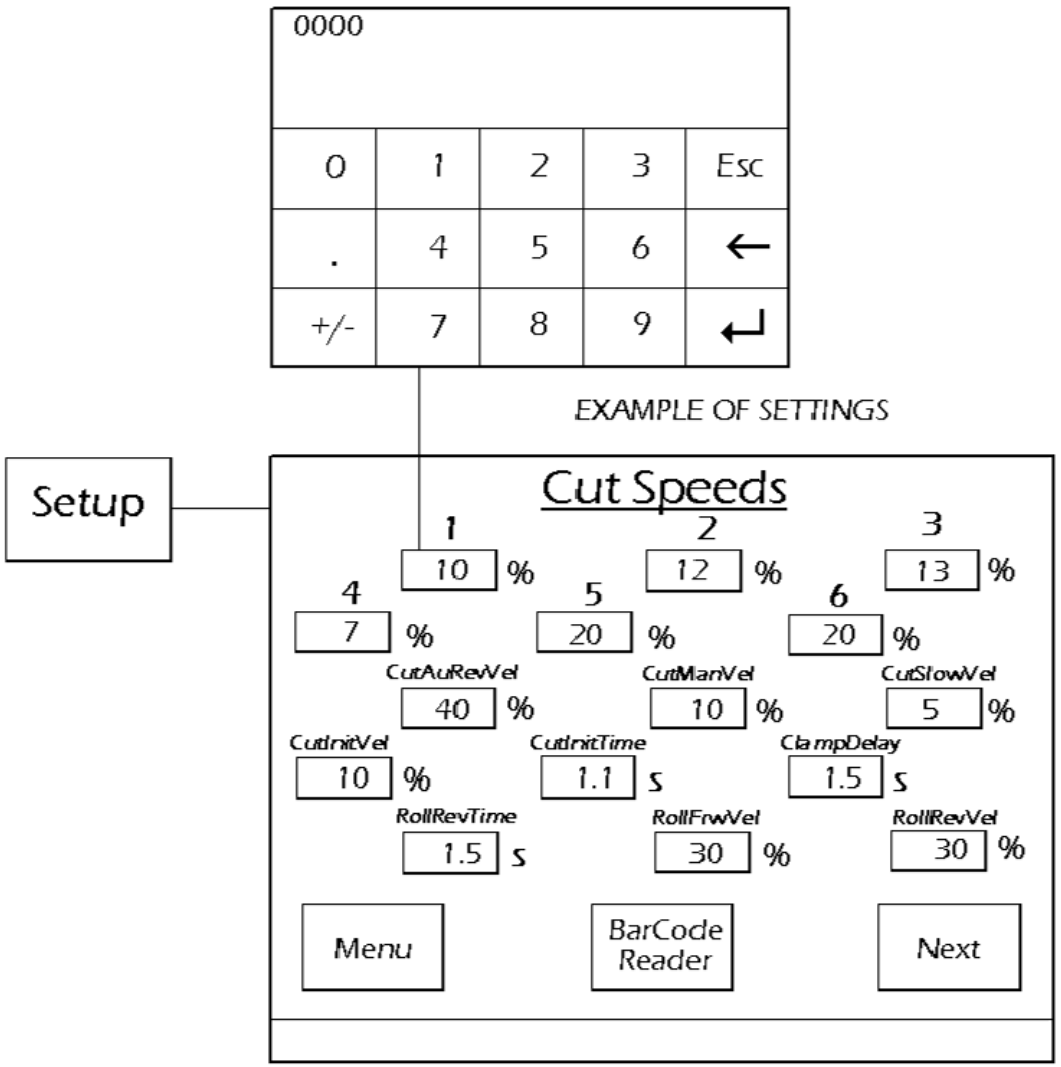
SHUT DOWN OPERATION

1. *First make sure the area is clear of all materials and other objects, especially anything that may be under the clamping systems.*

2. *In the touch screen Main Menu press the "Shut Down" key. It will take a few minutes for the machine to ready itself for shut-down.*

3. *When the touch screen prompts you to turn the power off you need to switch it off at the main electrical box switch.*

If you will be leaving the table unused for longer periods of time you may want to disconnect the air pressure supply to the table.



CUT SPEED SETTINGS

This menu allows for the operator to program custom speed settings to suit different kinds of materials. It also controls some of the other table settings.

The first 6 boxes allow you to set 6 different speed programs. The setting refers to the percentage of the total speed of the drive system. Generally you will want to keep the percentage below.....

CutAuRevVel- *Cut Auto Reverse Velocity*

CutManVel- *Cut Manual Velocity*

CutSlowVel- *Cut Slowing Velocity*

CutInitVel- *Cut Initial Velocity*

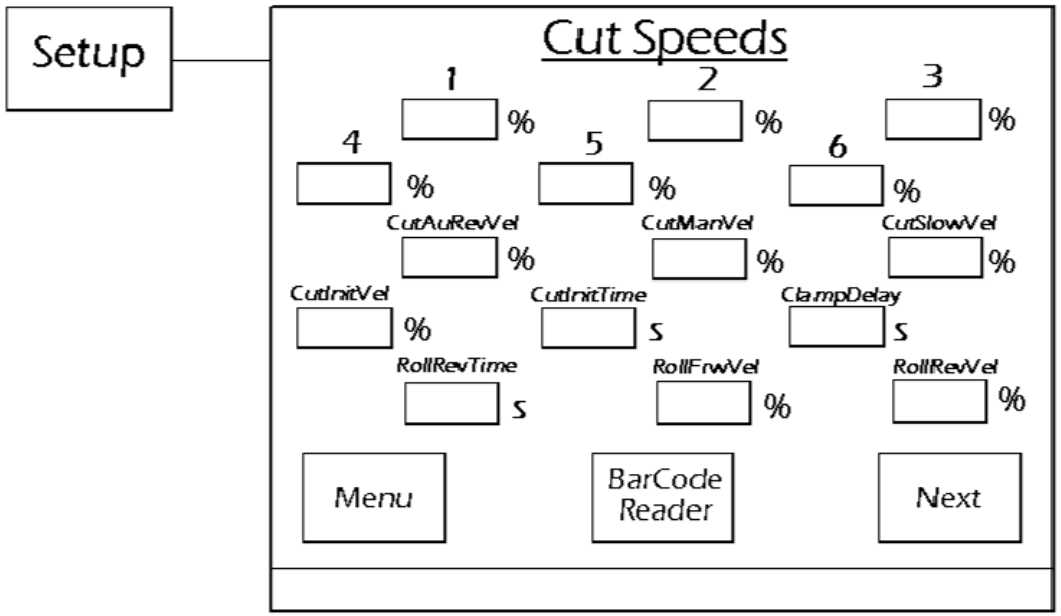
CutInitTime- *Cut Initial Time*

ClampDelay- *Clamp Delay*

RollRevTime- *Roll Reverse Time*

RollFrwVel- *Roll Forward Velocity*

RollRevVel- *Roll Reverse Velocity*



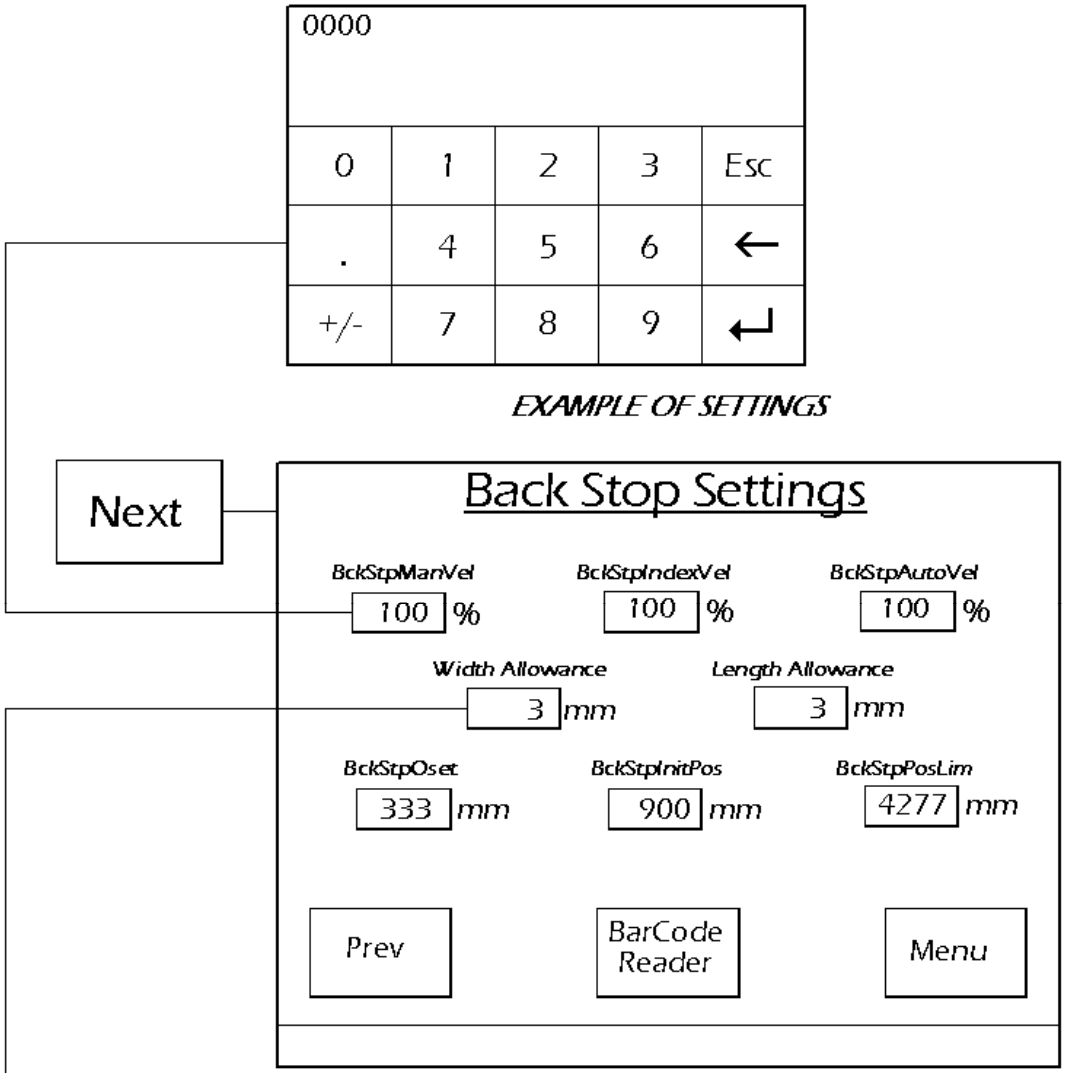
CUT SPEEDS CUSTOMER SETTINGS

Use this page to record the settings specific to each customer. This should be recorded during the machine setup.

Cut Speed Settings

1: _____%
2: _____%
3: _____%
4: _____%
5: _____%
6: _____%

CutAuRevVel: _____%
Cut ManVel: _____%
CutSlowVel: _____%
CutInitVel: _____%
CutInitTime: _____s
ClampDelay: _____s
RollRevTime: _____s
RollFrwVel: _____ %
RollRev Vel: _____%



NOTE ON ALLOWANCE OPTIONS:
THE WIDTH & LENGTH ALLOWANCE OPTIONS MAKES IT EASY TO AUTOMATICALLY ADD FOR EXTRA MATERIAL TO BE LEFT ON OR TAKEN OFF WITH EACH CUT. FOR EXAMPLE, IF YOU NEED 3 MM OF EXTRA MATERIAL TO BE LEFT ON A LENGTH CUT SIMPLY PROGRAM 3 MM IN THIS MENU UNDER "LENGTH ALLOWANCE". NOW YOU CAN STILL PROGRAM THE CUT (IN THE MAIN CONTROL MENU) TO BE THE NOMINAL SIZE (FOR EXAMPLE 2000MM), BUT THE MACHINE WILL ADD THE 3MM EXTRA AND THE ACTUAL CUT WILL BE 2003MM.

BACK STOP SETTINGS MENU

This menu controls all of the speed and limit position settings for the Back Stop. During the installation of the machine these settings will be properly calibrated and should never need to be changed for normal operations.

BckStpManVel- Back Stop Manual Velocity

BckStpIndexVel- Back Stop Index Velocity

BckStpAutoVel- Back Stop Auto Velocity

Width Allowance- The +/- allowance automatically added to width cuts. *PLEASE SEE NOTE AT BOTTOM LEFT.*

Length Allowance- The +/- allowance automatically added to length cuts. *PLEASE SEE NOTE AT BOTTOM LEFT.*

BckStpOset- Back Stop Offset

BckStpInitPos- Back Stop Initial Position

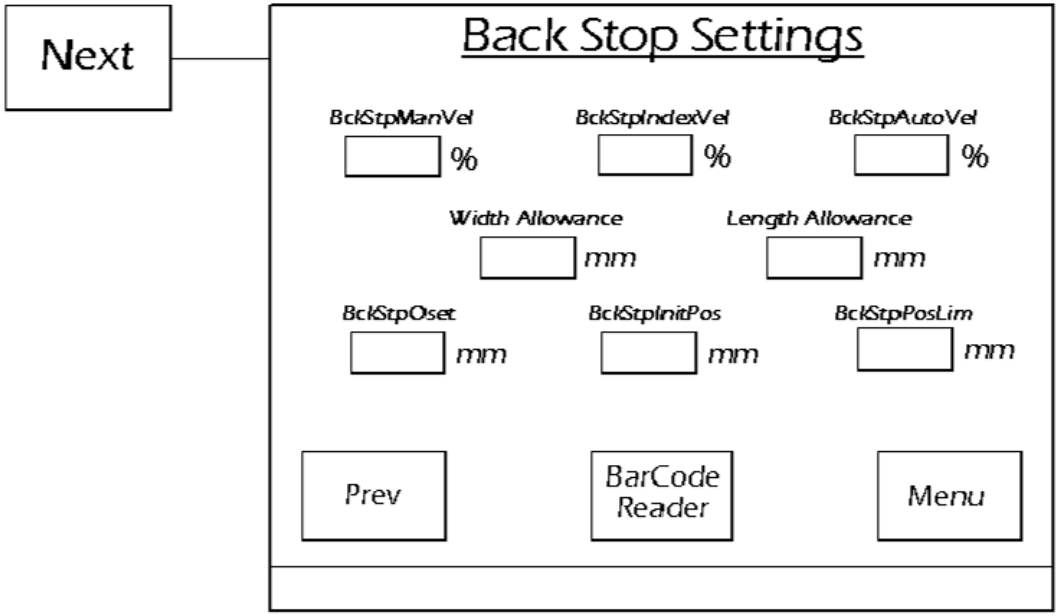
BckStpPosLim- Back Stop Position Limit

Prev- Go back to previous menu

Bar Code Reader- Access to the Bar Code menu, if applicable.

Menu- Go back to the Main Menu.

BckStpManVel: _____%
BckStpIndexVel:_____%
BckStpAutoVel: _____%
WidthAllowance:_____%
LengthAllowance:_____%
BckStpOset: _____%
BckStpInitPos: _____%
BckStpPosLim: _____%



BACK STOP CUSTOMER SETTINGS

Use this page to record the settings specific to each customer. This should be recorded during the machine setup.

BckStpManVel- Back Stop Manual Velocity

BckStpIndexVel- Back Stop Index Velocity

BckStpAutoVel- Back Stop Auto Velocity

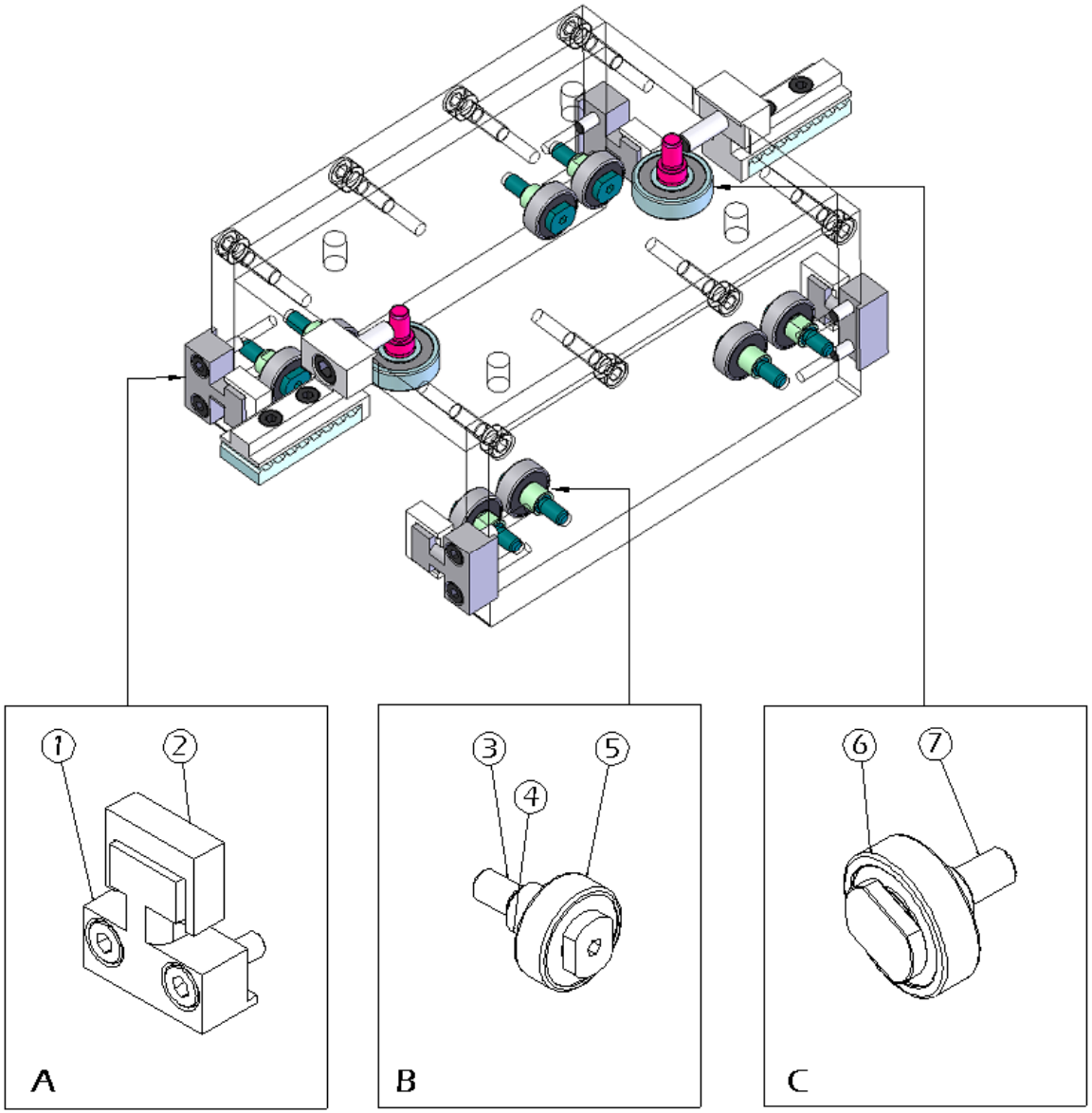
Width Allowance- The +/- allowance automatically added to width cuts.

Length Allowance- The +/- allowance automatically added to length cuts.

BckStpOset- Back Stop Offset

BckStpInitPos- Back Stop Initial Position

BckStpPosLim- Back Stop Position Limit



REPLACEMENT COMPONENTS

Runner Carrier Bracket Components

A. TM10-9014-011025
Felt Channel Cleaner Assembly

1. TM91-9011-025025
Felt Cleaner Bracket for Channel

2. TM93-9006-015019
Felt Block-Grade "A" Eng. Felt

B. TM10-8015-002606
606 Bearing Assembly

3. TM92-0001-105365
M5 X 6 X 12 Shoulder Bolt

4. TM91-8000-000001
Shoulder Spacer

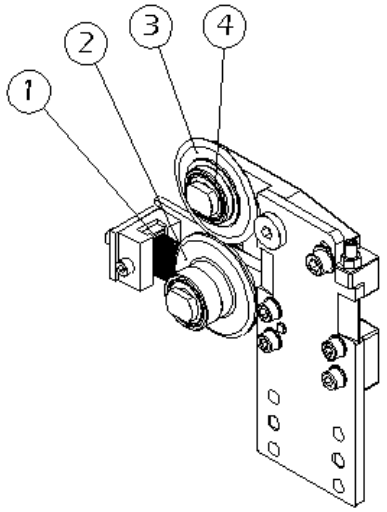
5. TM93-0001-000606
606 Bearing

C. TM10-8015-002609
609 Bearing Assembly

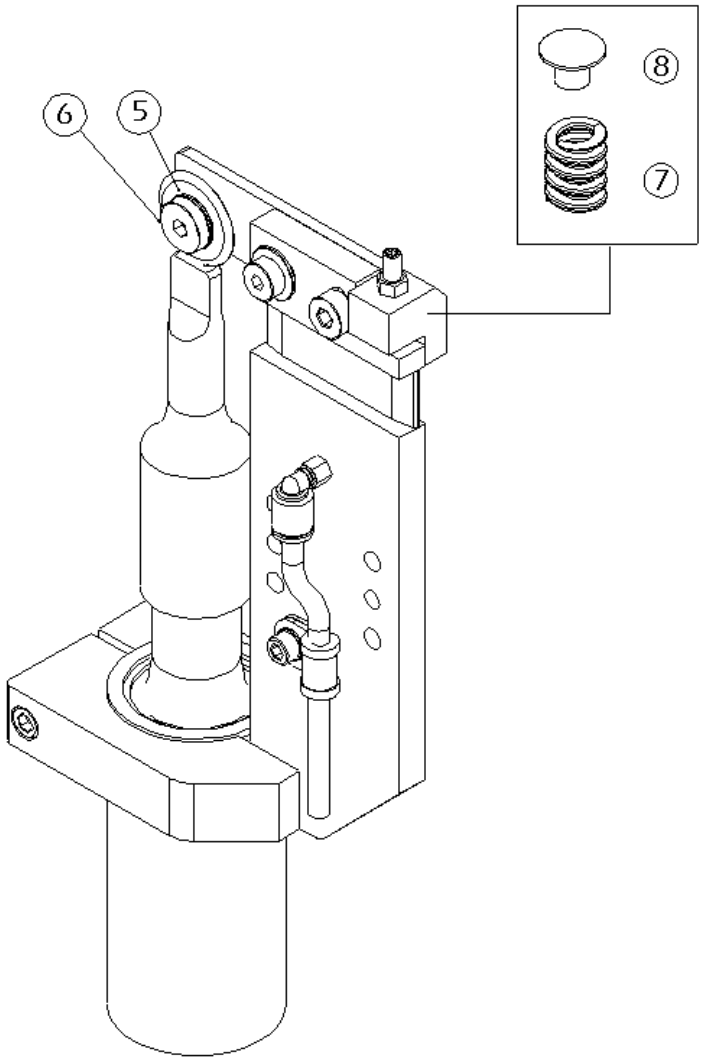
6. TM93-0002-000609
609 Bearing

7. TM91-8000-006090
Bearing Shaft for 609 Bearing

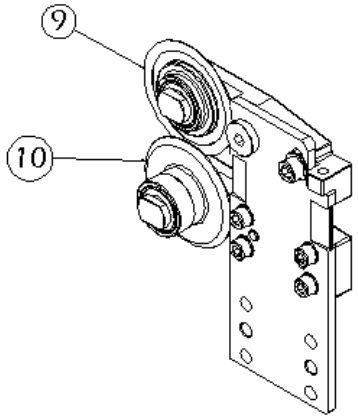
A. CRUSH CUTTING UNIT



B. ULTRASONIC CUTTING UNIT



C. KNIFE CUTTING UNIT



REPLACEMENT COMPONENTS

Cutting Unit Components

A. TM10-CBDW-420000
Crush Cutting Head w/ Cutting Blade and Drive Wheel

1. TM93-9011-012020
Stainless Steel Brush Cut to 20mm

2. TM91-9009-022038
Crush Cutter Anvil

3. TM91-9009-022037
Cutting Blade 50mm Dia.

4. TM93-B000-006900
6900 Bearing

B. TM10-9014-130195
Complete Dukane Ultrasonic Bracket Assembly
(Without the Dukane Ultrasonic Unit)

5. TM91-9003-000030
30mm Disk-Dukane U/S Bracket

6. TM91-9010-016018
Pivot Shaft

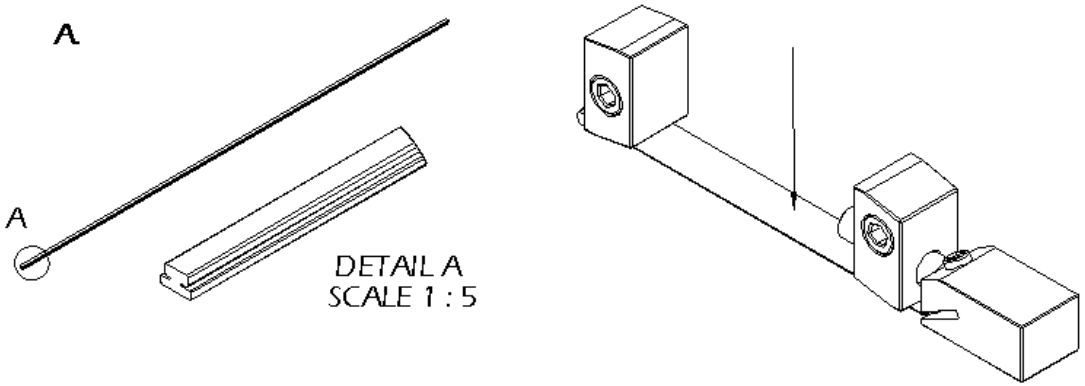
7. TM93-1217-DRM308
3/16 X 1" Spring- Blue DRM0308

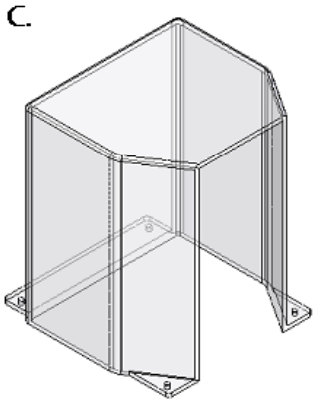
8. TM91-9009-000005
Spring Bung- Dukane Bracket

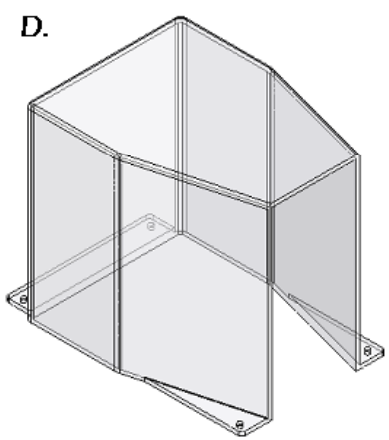
C. TM10-KNAB-420000
Knife Cutting Head w/ Cutting Blade and Knife Anvil

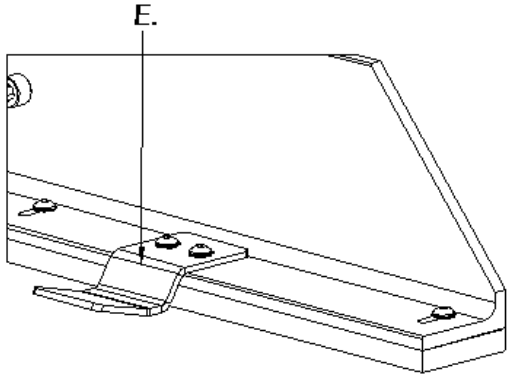
9. TM91-KN00-420000
Knife Blade

10. TM91-KN01-420000
Knife Anvil









REPLACEMENT COMPONENTS

Various Other Components

A. TM10-RUB0-450000
Replacement Rubber for Clamp Bars
This part runs in the bottom of the Clamp Bars.

B. TM93-9009-008002
6M Channel Strap- Stainless Steel

TM93-9009-008001
4.8M Channel Strap- Stainless Steel

TM93-9009-008000
3.6M Channel Strap- Stainless Steel

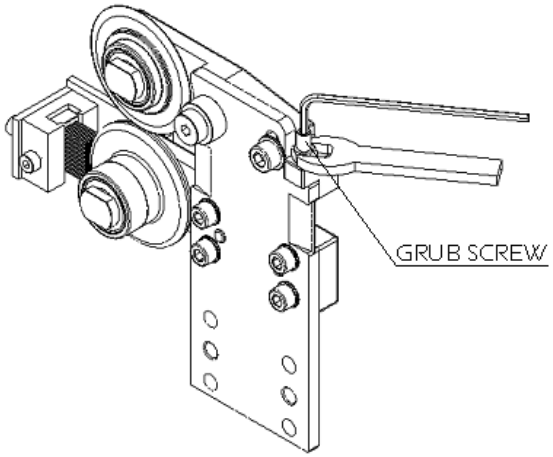
This part is in the Runner extrusion in four places. This display assembly is greatly reduced in size to the actual part.

C. TM94-9186-252198
LH Polycarbonate Cylinder Guard

D. TM94-9186-252281
RH Polycarbonate Cylinder Guard

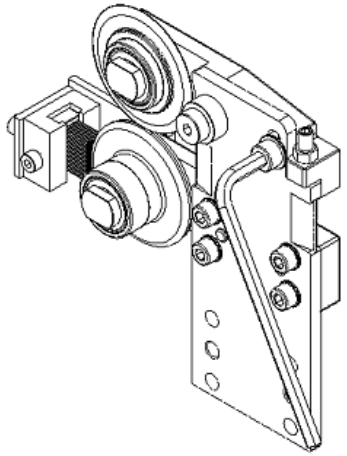
E. TM91-9003-017093
Material Guide Finger

REMOVING THE CRUSH CUTTER BLADE



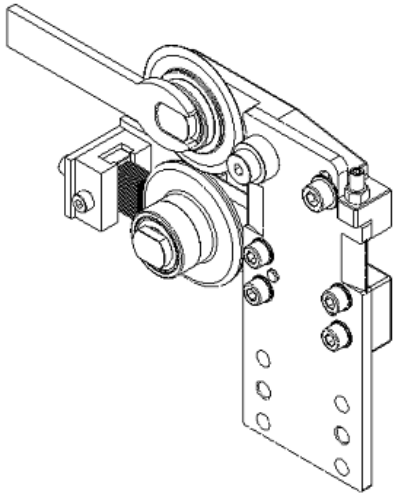
1

FIRST LOOSEN NUT OFF GRUB SCREW USING 8MM OPEN END SPANNER. THEN LOOSEN OFF THE TOP GRUB SCREW (ONLY SLIGHTLY) USING A 2.5MM HEX KEY.



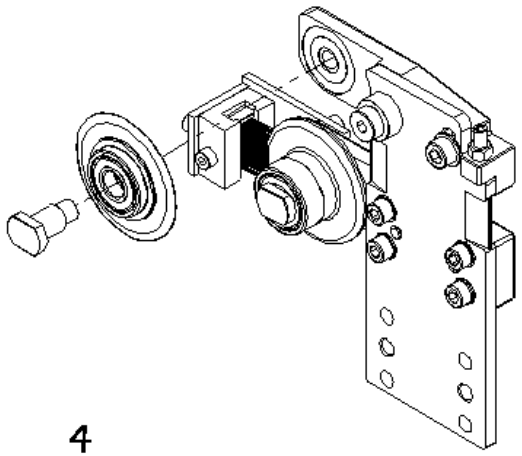
2

LOOSEN OFF THE BACK CAP SCREW ENOUGH TO ALLOW MOVEMENT OF THE CUTTER BLADE MOUNTING ARM USING A 5MM HEX KEY. BACK THE CUTTER BLADE OFF THE BOTTOM ANVIL AND RETIGHTEN SCREW (THIS IS NEEDED FOR THE NEXT STEP).



3

AFTER THE CUTTING BLADE IS RETIGHTENED AWAY FROM THE BOTTOM ANVIL LOOSEN OFF THE CUTTER BLADE SHAFT WITH A 13MM OPEN END SPANNER.



4

COMPLETELY REMOVE SHAFT AND CUTTING BLADE/BEARING ASSEMBLY. LEAVE THE BACK CAP SCREW TIGHTENED AWAY FROM THE BOTTOM ANVIL.

REPLACING CRUSH CUTTER COMPONENTS

If the quality of the cut from the Crush Cutter begins to decline it may be time to replace the Cutting Blade.

Signs that the Cutting Blade needs replacing:

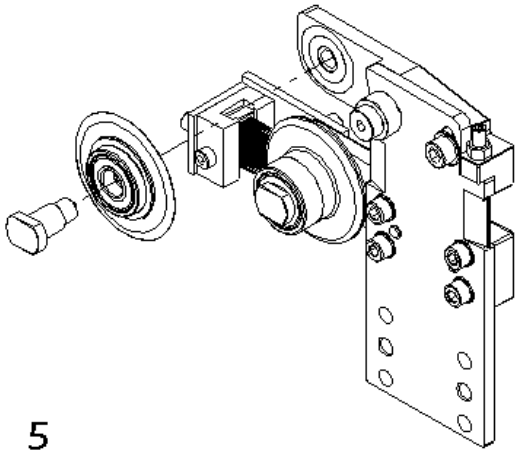
- *The material is not sealing properly at the edges (thread ends are visible).*
- *The Cutter is not cutting completely through the material. Please note that if this is happening it could be possible that distance between the Blade and Anvil is not set properly.*

To change the cutting blade you will need to remove the Cutting Blade/Bearing assembly from the Shaft Carefully follow the steps as shown at the left to remove the Assembly.

Be sure to handle the parts carefully. If the unit or any parts are dropped they may break or deform which is likely to affect the accuracy of the final cut. The Cutting Blade itself can be resharpened so do not discard dull Blades.

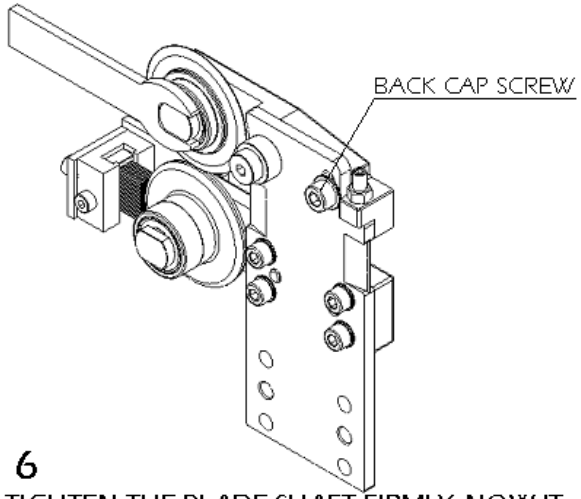
Continued on the next page.

REPLACING THE CRUSH CUTTER BLADE



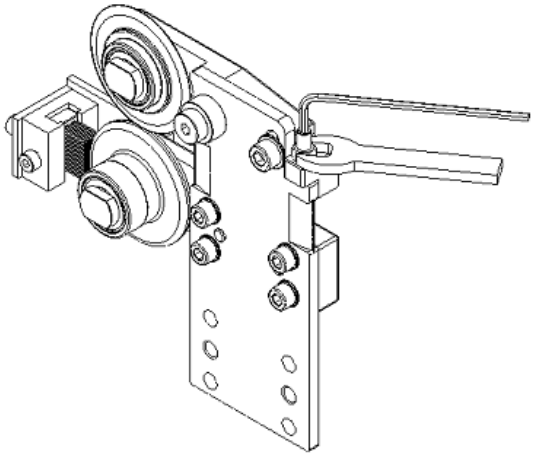
5

PUT THE NEW CUTTING BLADE ASSEMBLY ONTO THE TOP BLADE MOUNTING ARM PAYING SPECIAL ATTENTION TO THE ORIENTATION OF THE CUTTING BLADE AS DETAILED IN FIGURE1..



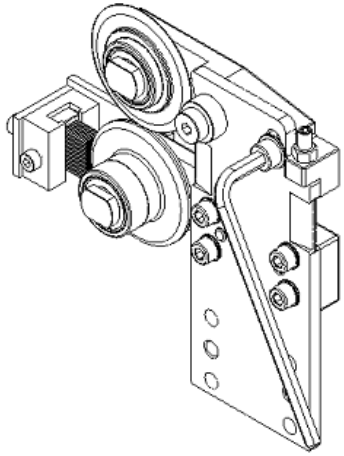
6

TIGHTEN THE BLADE SHAFT FIRMLY. NOW IT IS IMPORTANT TO LOOSEN THE BACK CAP SCREW SO YOU CAN COMPLETE THE NEXT STEP.



7

ADJUST THE DEPTH OF THE TOP GRUB SCREW FOR CONTACT BETWEEN CUTTING BLADE AND THE ANVIL. TURN THE BOTTOM ANVIL BY HAND AND WHEN BOTH THE ANVIL AND THE BLADE ROLL TOGETHER SMOOTHLY WITHOUT GAPS THE DISTANCE IS SET RIGHT. NOW RETIGHTEN THE GRUB SCREW NUT WITH 8MM SPANNER.



8

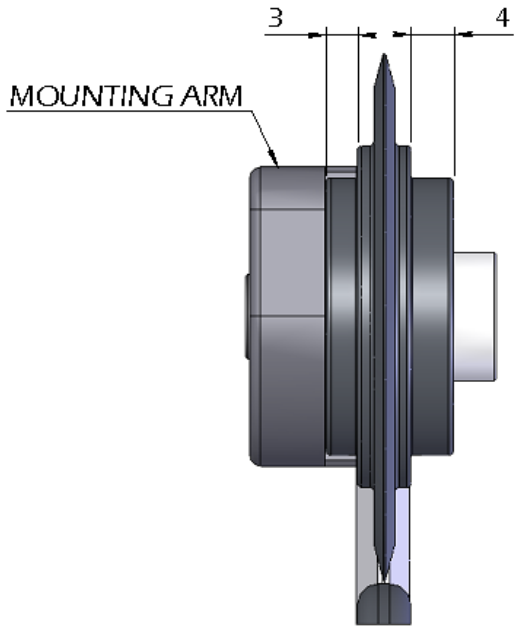
FIX THE CUTTING BLADE INTO POSITION USING THE BACK CAP SCREW AND A 5MM HEX KEY. IT IS NOW SET FOR USE.

REPLACING CRUSH CUTTER COMPONENTS (continued from previous page)

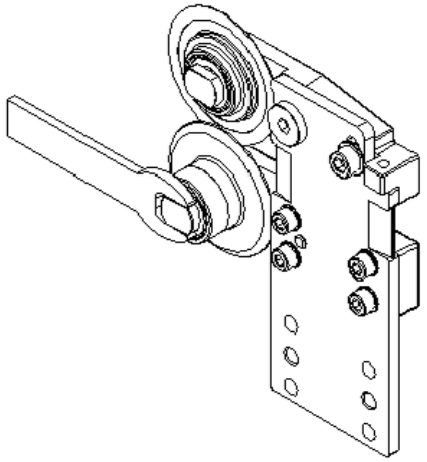
When replacing the Cutter Blade make sure to load it into the Cutter Head in the right way.

The Cutting Blade is not symmetrical (as shown below) and care must be taken to ensure that the shorter side (3mm) is facing the Mounting Arm. The wider side (4mm) should be facing outward or away from the Mounting Arm.

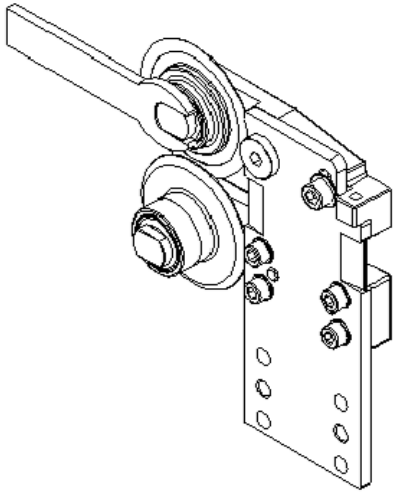
FIGURE 1



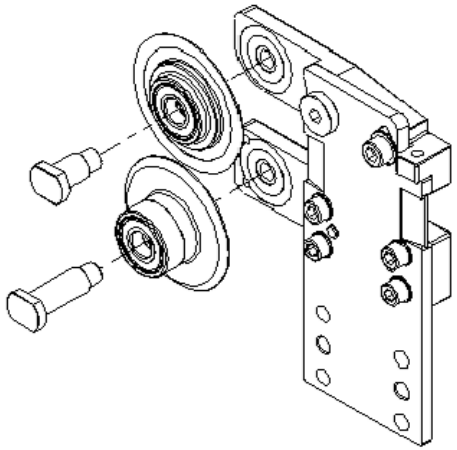
REMOVING THE KNIFE CUTTER COMPONENTS



1 FIRST LOOSEN OFF THE BOTTOM ANVIL SHAFT WITH A 13MM OPEN END SPANNER.



2 LIKEWISE, LOOSEN OFF THE TOP KNIFE BLADE SHAFT WITH THE SAME SPANNER.



3 COMPLETELY REMOVE SHAFT AND KNIFE BLADE/ANVIL.

REPLACING KNIFE CUTTER COMPONENTS

If the quality of the cut from the Knife Cutter begins to decline it may be time to replace the Cutting Knives.

Signs that the Cutting Knives need replacing:

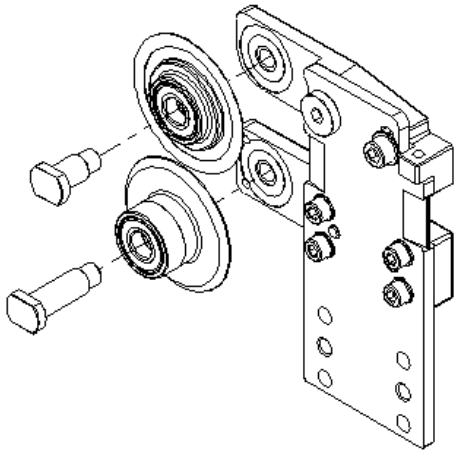
- *The material is not sealing properly at the edges (thread ends are visible).*
- *The Cutter is not cutting completely through the material. Please note that if this is happening it could be possible that tightness of the Blade and Anvil is not set properly.*

To replace either the top knife blade or the bottom knife anvil, you will need to remove the bottom knife anvil FIRST. Follow the steps as shown on the left to remove the assembly.

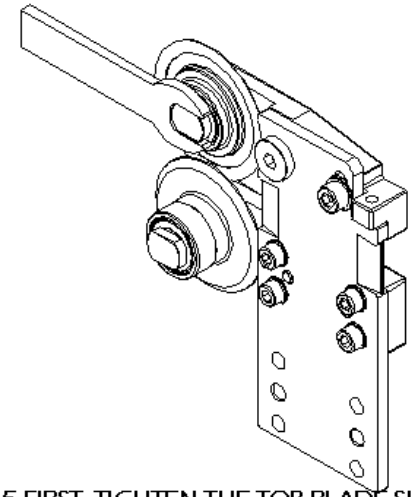
Be sure to handle the parts carefully. If the unit or any parts are dropped they may break or deform which is likely to affect the accuracy of the final cut. The Cutting Knives itself can be resharpened so do not discard dull Blades.

Continued on the next page.

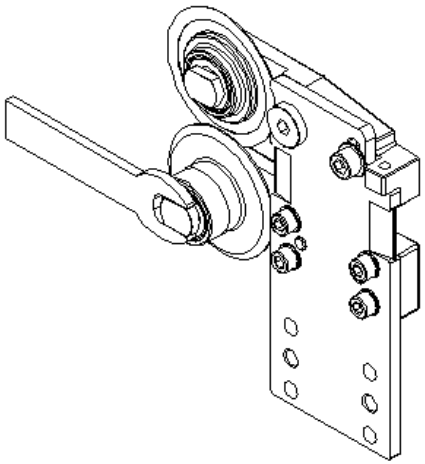
REPLACING THE KNIFE CUTTER COMPONENTS



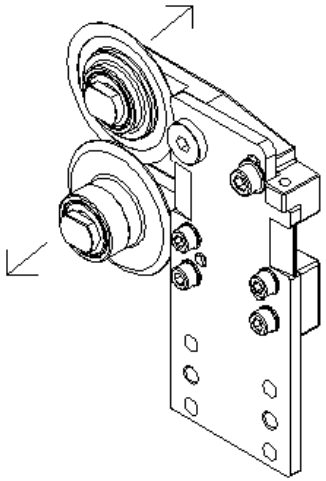
4 PUT THE NEW CUTTING KNIFE ASSEMBLY ONTO RESPECTIVE MOUNTING ARM PAYING SPECIAL ATTENTION TO THE ORIENTATION OF THE KNIVES AS DETAILED IN FIGURE 2.



5 FIRST, TIGHTEN THE TOP BLADE SHAFT FIRMLY.



6 THEN TIGHTEN THE BOTTOM ANVIL SHAFT FIRMLY.



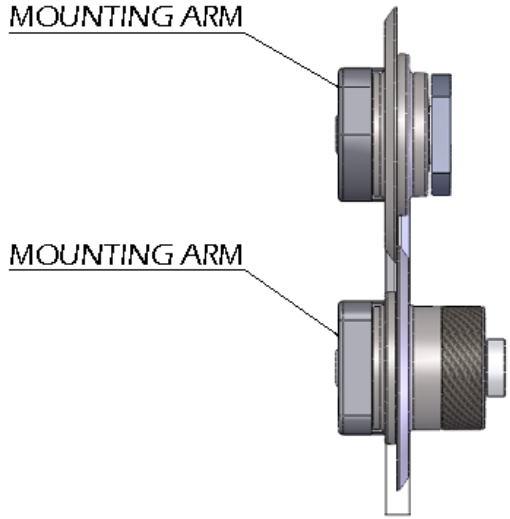
7 Check the tightness of the knives by pushing them gently opposite ways. Then rotate the bottom Anvil Knife to ensure the top Blade is following the rotation.

REPLACING KNIFE CUTTER COMPONENTS (continued from previous page)

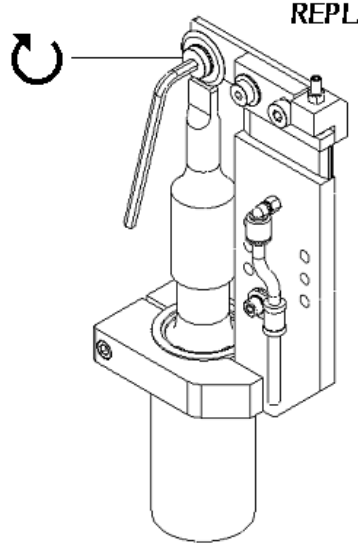
When replacing the Cutter Knives make sure to load it into the Cutter Head in the right way.

The tightness of the cutter setup is critical. It is important to maintain it at an optimum level to ensure best cutting effect. Contact manufacturer if further advice required.

FIGURE 2

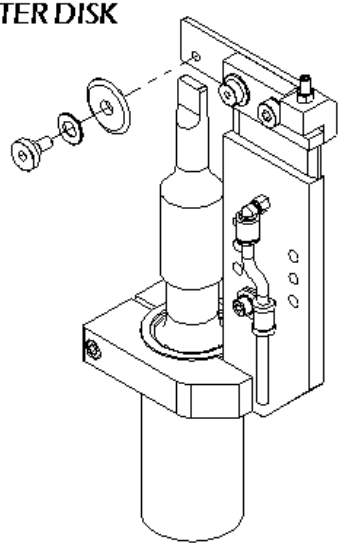


REPLACING / ROTATING THE CUTTER DISK



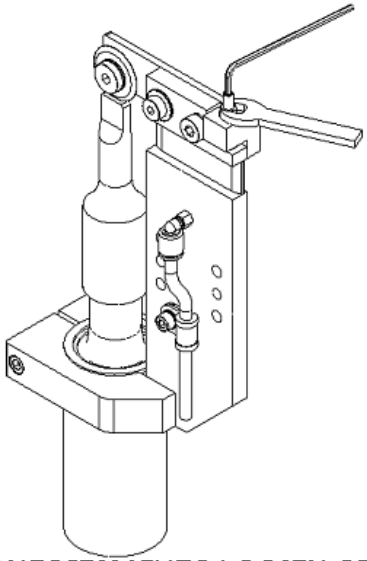
1

LOOSEN OFF THE CUTTER DISK (VERY SLIGHTLY) WITH A 5MM HEX KEY. IF THE DISK NEEDS TO BE ROTATED THEN ROTATE THE DISK BY HAND UNTIL THE WORN AREA IS OUT OF THE CUT PATH. NOW SKIP TO STEP 5 (NEXT PAGE).



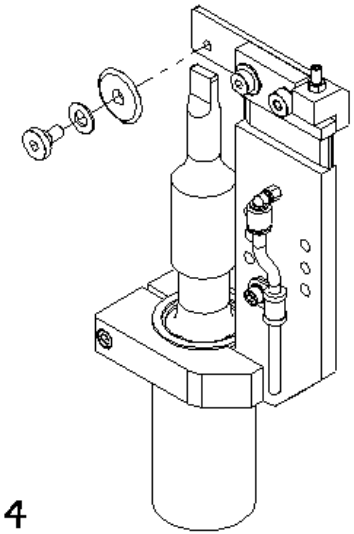
2

IF THE CUTTER DISK NEEDS TO BE REPLACED THEN COMPLETELY REMOVE THE CUTTER DISK, SCREW AND SPACERS.



3

IT MAY BE NECCESSARY TO LOOSEN OFF THE GRUB SCREW AND NUT SLIGHTLY FOR EASIER REPLACEMENT OF DISK (STEP 4).



4

REPLACE THE NEW CUTTER DISK AND THE MOUNTING COMPONENTS FROM THE PREVIOUS DISK EXACTLY AS BEFORE.

REPLACING ULTRASONIC COMPONENTS

If the quality of the cut from the Ultrasonic Cutter begins to decline it may be time to rotate the Cutting Disk or possibly replace the Disk.

The Cutting Disk does not rotate during operation, therefore it is possible to slightly rotate the disk and utilize the unused edges.

Signs that the Cutting Disk needs rotating or replacing:

- The material is not sealing properly at the edges (thread ends are visible).
- The Cutter is not cutting completely through the material. *Please note that if this is happening it could be possible that distance between the Cutter Disk and the Ultrasonic Horn is not set properly.*

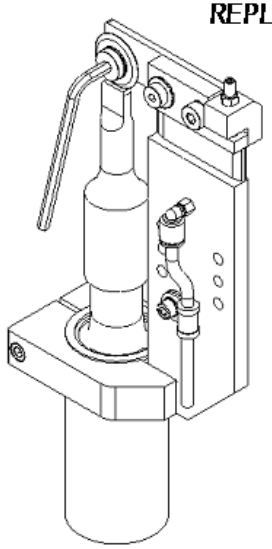
To rotate or change the Ultrasonic Cutter Disk carefully follow the steps as shown at the left.

Be sure to handle the parts carefully. If the unit or any parts are dropped they may break or deform which is likely to affect the accuracy of the final cut. The Cutting Disk itself can be resharpened so do not discard dull Blades.

The Ultrasonic unit itself is a sensitive and very expensive instrument so great care should be taken to avoid bumping it as this may break the internal ceramic components and otherwise adversely affect the custom fine tuning of the instrument.

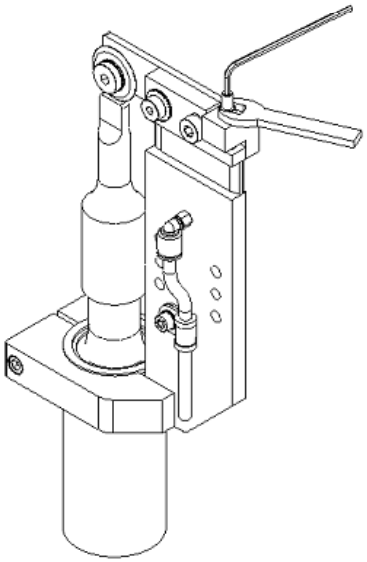
Continued on the next page.

REPLACING / ROTATING THE CUTTER DISK



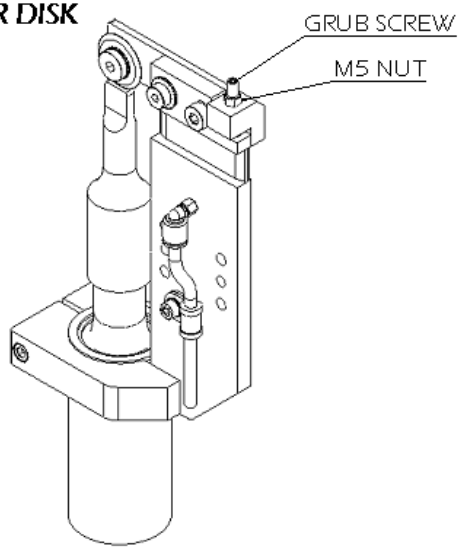
5

FIRMLY TIGHTEN THE DISK ONTO THE DISK ARM USING THE 5MM HEX KEY.



7

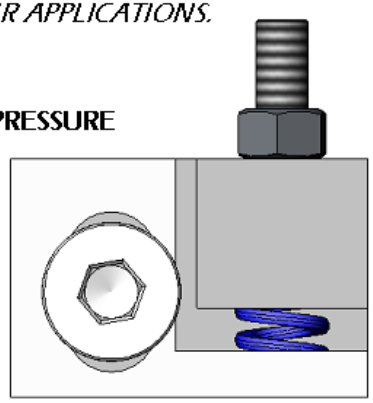
LOCK THE SPRING PRESSURE INTO POSITION BY HOLDING THE GRUB SCREW STATIONARY WHILE TIGHTENING THE M5 NUT DOWN ONTO THE DISK ARM. IT IS NOW SET FOR USE.



6

ADJUST THE DEPTH OF THE TOP GRUB SCREW BY HAND FOR CONTACT WITH SPRING. AS A RULE YOU ONLY NEED TO TIGHTEN THE SCREW JUST BEYOND CONTACT WITH THE SPRING (1/4 TURN). SEE BELOW FOR DETAILS. *PLEASE NOTE THAT DURING OPERATOR TRAINING WE WILL BE ABLE TO RECOMMEND APPROPRIATE SETTINGS FOR YOUR PARTICULAR APPLICATIONS.*

ADJUSTING THE PRESSURE



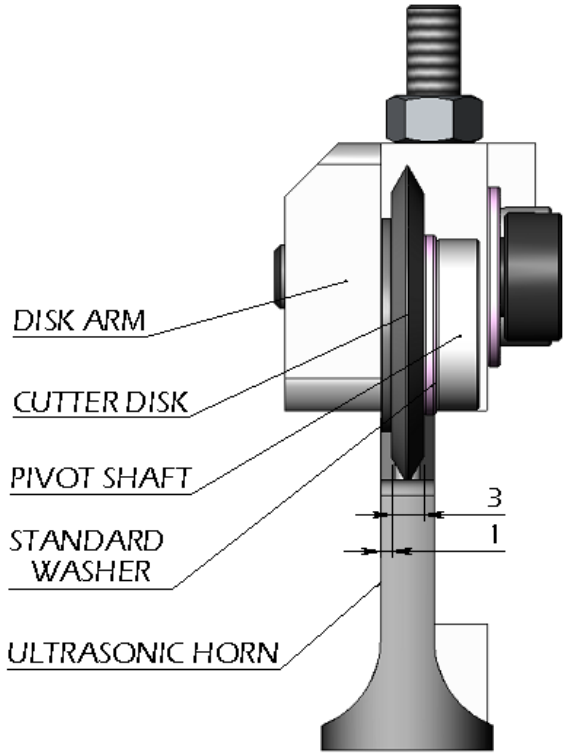
THE GRUB SCREW'S FUNCTION IS TO ALLOW THE PRESSURE OF THE SPRING TO BE ADJUSTED AS REQUIRED. AS YOU TIGHTEN THE GRUB SCREW THE SPRING IS COMPRESSED AND RESULTS IN MORE PRESSURE BETWEEN THE DISK AND THE ULTRASONIC HORN.

Acmeda

REPLACING ULTRASONIC COMPONENTS *(continued from previous page)*

Follow the instructions to the left for mounting a new Cutting Disk onto the Ultrasonic Unit.

During reassembly be sure to load the parts in the correct order with the large 1mm spacer between the Cutter Disk and the Disk Arm and the small washer under the Pivot Shaft head (as shown below).



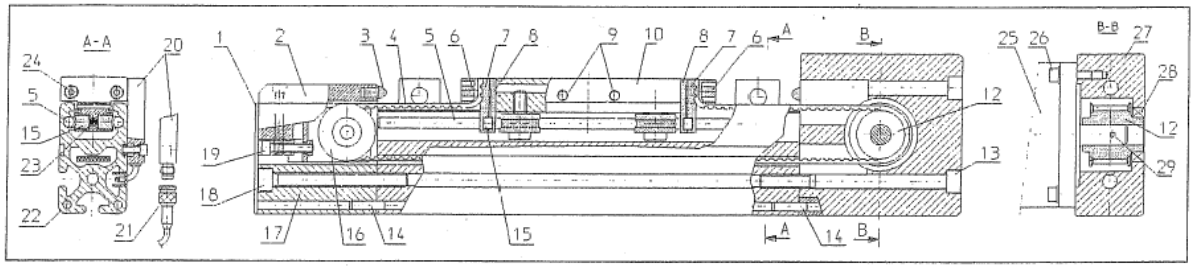
TROUBLESHOOTING GUIDE FOR 4200 SERIES CUTTING TABLE	
PROBLEM	**POSSIBLE SOLUTIONS**
Table functions not working	►Emergency Stop active. Twist and pull up ES button. ►Table has not been reset. Press the green Reset button. ►Circuit breaker in main Electrical Box may have been tripped. Check and reset if needed.
Clamp Bars will not clamp or unclamp	►Emergency Stop active. Twist and pull up ES button. ►The Cutting Unit is not in home position. Use the "Cutter Reverse" key to bring back to home position. ►The air supply is not turned on or is insufficient to operate cylinders. Check the air supply.
Back Stop will not move	►Emergency Stop active. Twist and pull up ES button. ►The squaring edge clamp is in clamping (down) position. Push the "Squaring Edge Up" key to bring up.
Material Rollers not moving (If appicable)	►Emergency Stop active. Twist and pull up ES button. ►The front rollers sensor is interupted (someone may be standing too close to the rollers). Make sure that the area is clear between the sensors.
Ultrasonic Unit problems	►Please refer to the Dukane Ultrasonics Manual No. 403-551-03 (Section 12, Page 123) for troubleshooting guide for ultrasonic unit. This would have been provided with the Dukane Unit.
Ultrasonic Cutter does not reach the end of the material to be cut	►The Material Sensor is not set in the right position. Loosed the Screw Knob and slide sensor back toward the Ultrasonic Unit until it stops and then retighten the Screw Knob.
Cutter does not stop at end of material	►The Material Sensor may be misalligned. Check that it is alligned in the groove and tightened securely. ►The material may be too light or transparent for the Sensor to detect.
Material cut quality is poor or material is not cutting through completely	►The distance set between the Cutting Blade and bottom Anvil is not close enough. Adjust and retighten. ►The Cutting Blade is becoming dull and needs to be replaced. See section 17 or 18.
Crush cutter not responding to cut commands	►The cutter may not be in the home position.Make sure that it is completely seated in the home position. ►The table may be in Ultrasonics mode. Make sure the mode is set to "Crush Cut" mode.

Wartungsanweisung
Maintenance Manual

BERGER LAHR

für BERGER LAHR Portalachsen
for BERGER LAHR Portal Axis

LM-P404RT100, LM-S404RT100, LM-H404R



Allgemein
Die Portalachse ist durch ihren konstruktiven Aufbau unempfindlich gegen das Eindringen von Schmutz und Fremdteilen. Die Führung ist innenliegend und wird vom Zahnriemen nach außen abgedeckt. Die verwendeten Antriebs- und Führungselemente sind wartungsarm.

Schmierung
Die innenliegenden Führungswellen (5) werden über ölgetränkte, angefederte Schmierfilze (15) gereinigt und geschmiert. Die Schmierintervalle sind abhängig von der Belastung, Geschwindigkeit, Zykluszeit, Umgebung etc. Bei normalen Betriebsbedingungen wird empfohlen, das Führungssystem nach einer effektiven Betriebszeit von ca. 1500 Std mit Schmieröl (z.B. Texaco Alcor DDZ46 oder Schmieröl nach DIN51524, Kennzeichen HVLP D) zu versorgen.
Die Schmierfilze (15) werden jeweils über zwei Schmierbohrungen Ø2mm in den Riemenklemmstücken (6) auf beiden Seiten am Laufwagen (10) nachgeölt. Hierzu eignet sich am besten ein Ölgeber mit Kanüle.

Zahnriemen
Grundsätzlich sind die eingesetzten Zahnriemen wartungsarm. Sollte dennoch ein Riemenwechsel notwendig werden, ist wie folgt vorzugehen:

1. Die Abdeckkappe (1) am Umlenkblock (17) mit einem Schraubenzieher abziehen. Sie ist nur gesteckt. Danach den Endanschlag (2) vom Endblock demontieren.
2. Zahnriemen (4) und Umlenkrolle (16) durch Schraube (19) entspannen.
3. Die Riemenklemmstücke (6) demontieren und den Zahnriemen (4) herausziehen.
4. Einen neuen Zahnriemen gleicher Zähnezahl einziehen und die Enden des Zahnriemens bündig mit der Laufwagenoberkante zwischen die Riemenklemmstücke (6,7) einlegen.
5. Den Zahnriemen mit den Riemenklemmstücken (6) festklemmen. Anziehdrehmoment 2 Nm.
6. Den Zahnriemen über die Schraube (19) spannen. Die Riemenspannung beträgt 0,1-0,15% der Riemenlänge. Markierung auf dem Riemen anbringen!
7. Den Endanschlag (2) mit dem Umlenkblock (17) fest verschrauben, damit die Halterung der Umlenkrolle auf ihrer Position eingeklemmt wird. Somit ist eine gleichbleibende Riemenspannung gewährleistet.
8. Abdeckkappe (1) am Umlenkblock (17) montieren.

Achtung: Nach dem Riemenwechsel müssen die anzufahrenden Positionen überprüft und ggf. korrigiert werden.

Bei stärkeren Laufgeräuschen des Zahnriemens kann dieser mit einem handelsüblichen PTFE-Gleitspray benetzt werden.

Service
Bei Ersatzteilbestellungen oder Serviceanfragen geben Sie bitte die Material- und die Auftragsnummer (siehe Typenschild) der Linearsachse mit an.

General
Due to the design of the portal axis, it is protected against dust and foreign particles. The guide system is internal. The utilised drive and guide elements have low maintenance requirements.

Lubrication
The internally mounted guide rods (5) are cleaned and lubricated by spring loaded felt wipers (15). The lubrication interval depends on the load, speed, cycle time an environment conditons. For normal ambient conditions we recommend to lubricate the felt wippers after 1500 hours net operation with spindle oil (e.g. Texaco Alcor DDZ46 or lubrication oil according to DIN51524 type HVLP D). The felt wipers are lubricated (15), through two holes (Ø2mm) located in the plastic covers (6) on both ends of the carriage (10). To do this, use an oil can with a hypodermic needle.

Belt Replacement
The timing belt requires basically low maintenance. Should, in spite of this, a belt change be necessary, the following procedure has to be performed:

1. Remove the plastic cover (1) from the endblock (17) with a screwdriver. It is only clipped in. After this remove the dead stop (2) from the endblock.
2. Slacken the timing belt (4) and belt tensioning pulley (16) by bolt (19).
3. Remove clamping collars (6) and remove the toothed belt (4).
4. Put in a new toothed belt with the same number of teeth and place the ends of the toothed belt flush to the top of the carriage between the clamping collars (6,7).
5. Clamp the toothed belt to the carriage with the clamping collars (6). Tightening torque 2Nm.
6. Tension the toothed belt by means of the bolt (19). The belt tension is 0,1-0,15% of the belt length. Mark the timing belt!
7. Screw the dead stop (2) and the endblock tight together, so that the tensioning pulley bracket will be clamped into position. Thus ensures a constant belt tension.
8. Replace the plastic cover (1) on to the endblock (17).

Note: Control and if necessary correct the positioning of the carriage.

If during operation, the belt is noisy, a standard PTFE spray can be used in order to reduce the noise.

Service
In case of spare part orders or service , please advise material and order number (located on axis name plate) of the axis or the axis system.

Ersatzteile / Spare Parts List

Pos.	Bezeichnung	Description	Liefermenge / Quantity	Best.Nr. / Material No.
20	Endschalter, Kabel 5m (Standard) Endschalter, Kabel 10m Endschalter, steckbar, 3-polig, M8x1	Limit switch, cable 5m (standard) Limit switch, cable 10m Limit switch, with connector, 3 poles, M8x1	1 Stck / pc.	00052060002 00052060004 00052060007
21	Kabeldose, 3 polig, M8x1, Kabel 5m (Standard) Kabeldose, 3 polig, M8x1, Kabel 10m,	connector, 3 poles, M8x1, cable 5m (standard) connector, 3 poles, M8x1, cable 10m	1 Stck / pc.	00052060005 00052060016
4	Zahnriemen b20 AT5, L = (2xHub) +650 (mm)	Toothed Belt b20 AT5, L = (2xStroke) +650 (mm)	Millilimeter / millimeter	00033550005
	Set Riemenhalter mit Öler LM- P/S 404RT100 komplett für ein Laufwagen mit:	Set of belt fastener with lubricator P/S 404RT100 complete for one carriage, incl.	1 Stck / pc.	74400163200
7	2 Stck Riemenklemmprofil R AT5	2 pc. belt clamping profil R AT5		
8	2 Stck Ölergehäuse R AT5	2 pc. lubricator housing R AT5		
6	2 Stck Riemenklemmstück	2 pc. belt clamping collar		
23	2 Stck Druckfeder D-029	2 pc. compression spring D-029		
15	4 Stck Schmierfilz	4 pc. felt wipers		
24	4 Stck Zylinderschraube M4x12mm	4 pc. cylindrical bolt M4x12mm		
	4 Stck Scheibe A4,2 DIN125-St	4 pc. Scheibe A4,2 DIN125-St		

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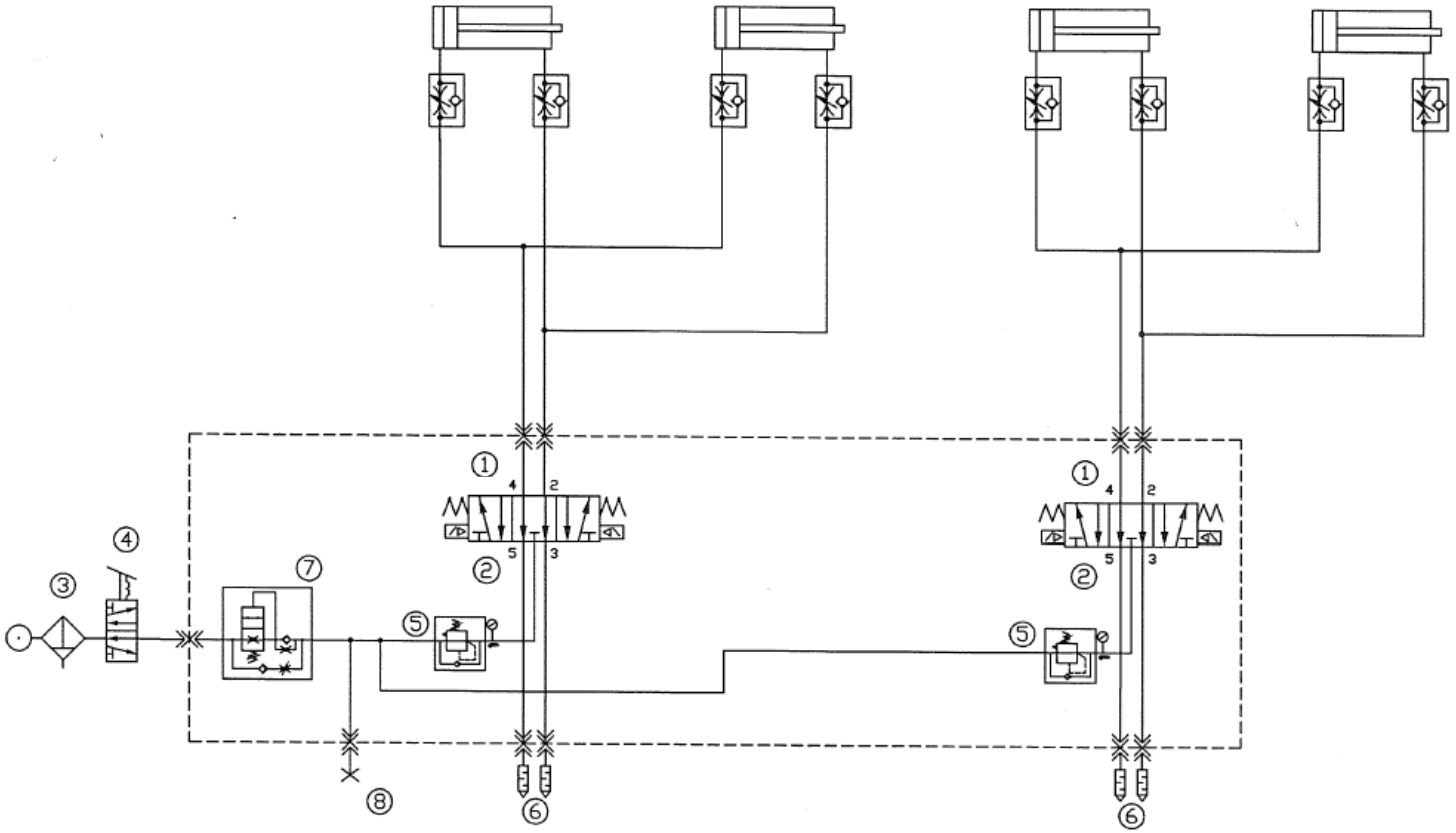
Tel: +49 (0)7821 946-606 | Fax: +49 (0)7821 946-202 | e-mail: info@berger-lahr.com

REV	ECN	AMENDMENTS	DATE	DRAWN	CHECKED	APPROVED
0		FIRST ISSUE	30/5/06	CDAN	NLOW	
1		ADD SOFT START VALVE	19/01/07	CDAN	NLOW	
2		EXTERNAL SUPPLY ADDED	05/03/07	CDAN		



ITEM	QTY.	PART NUMBER
26		
25		
24		
23		
22		
21		
20		
19		
18		
17		
16		
15		
14		
13		
12		
11		
10		
9		
8	1	KQ2P-06
7	1	AV3000-03-5DZ SOFT START
6	4	AN200-02 SILENCER
5	2	AR20-02H REGULATOR C/W G
4	1	VHS30-03 SHUT OFF
3	1	AF30-03D FILTER
2	2	SY7000-27-2 SUB BASE
1	2	SY7440-5DZ SOLENOID VALVE

SMC Pneumatics (Australia) Pty Ltd
Tel: (03) 9558 9980 Fax: (03) 9558 9566

Form QA101 Revision 0 30th June 2004

TITLE: 2 POSITION CABINET

CUSTOMER: ACMEDA PTY LTD

QUOTATION NO: B216300

DRAWN BY: CDAN

DATE: 30/5/06

DRAWING No. D-XCK7063A rev2

CAUTION
Unless certified, this document does not comply to any standard and/or safety catagory and is for information purposes only.
Refer: www.smcaus.com.au/certify.htm

CERTIFICATION NO.

Acmeda Australia Pty Ltd

-Cutting Table-

-Base Model + Motorised Backstop, Motorised Rollers and Material Sensor-

Notes:
Drawing file name, eg. 630032p28v1.dwg
630032 refers to the FCR job number.
p28 refers to the page number.
v1 refers to the version number.
.dwg refers to the file extention.

Drawing Structure

- Device/wire identification eg CB01 or 5002.
The first two letters of the label refers to the device type, eg CB equates to Circuit Breaker.
The first two numbers of the label (eg. 5002) refers to the drawing page the device/wire can be located, eg the first two numbers of 5002 refers to page 50 on the drawings. The page number is indicated in the drawing file name eg. the p50 in the file name 630032p50v1.dwg refers to page 50. The remaining numbers refers to the unique identification number of the device or wire on that page.
- When an asterix (*) appears next to a contact it means that it is positively guided.
- LHS and RHS are with respect to the flow of material

A3	REVISIONS			DRAWN: A.Fialka
	REV	DRAWN	DATE	SCALE: N.T.S
	1	MC	03/03/09	CHKD: Y.Galenson
	2			
	3			DATE: 03/03/09

FCR Motion Technology Pty. Ltd.
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Fax: +61 (0)3 9314 3744
e-mail: eng@fcrmotion.com

TITLE: Acmeda Australia Pty Ltd Cross Cut Table	DRAWING NAME	SHEET	OPTION
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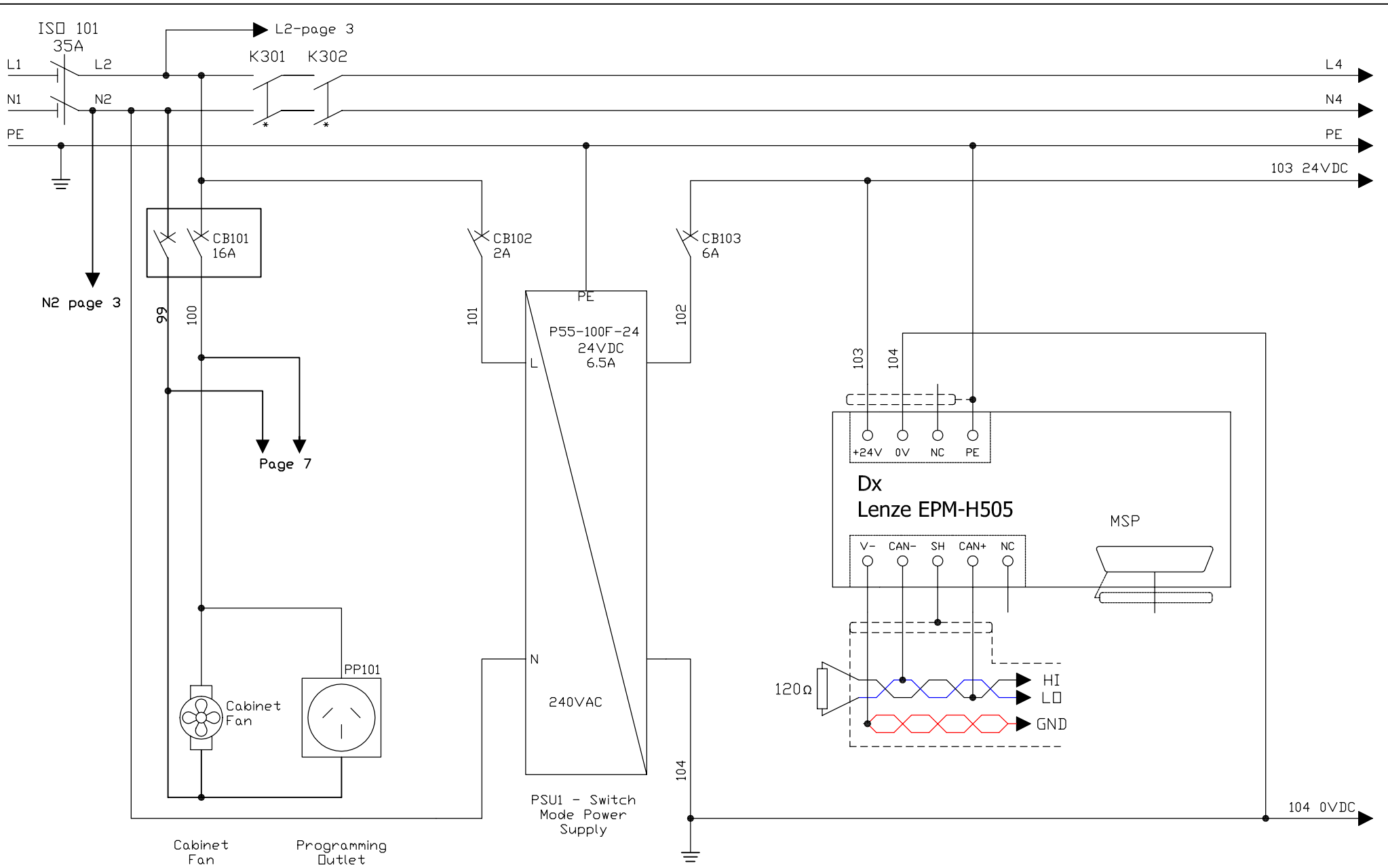

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	1	MC	03/02/09	CHKD: Y.Galenson
	2			
	3			DATE: 03/03/09

FCR Motion Technology Pty. Ltd.

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TITLE: Acmeda Australia Pty Ltd
Power Distribution & Supply Circuit

DRAWING NAME	SHEET	OPTION
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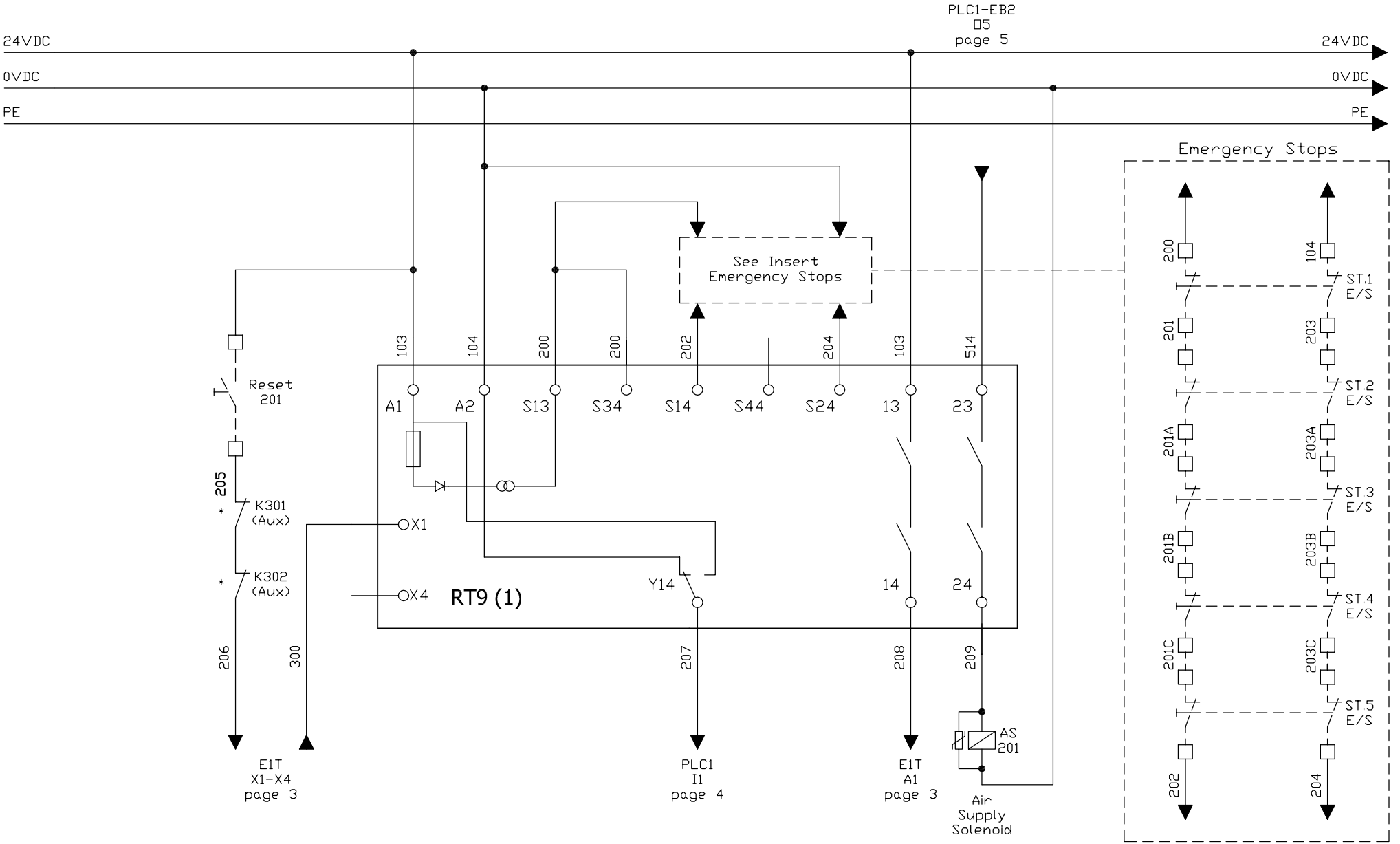

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	2			
	3			DATE: 03/03/09

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TITLE: Acmeda Australia Pty Ltd
Safety Relay Control Circuit

DRAWING NAME	SHEET	OPTION
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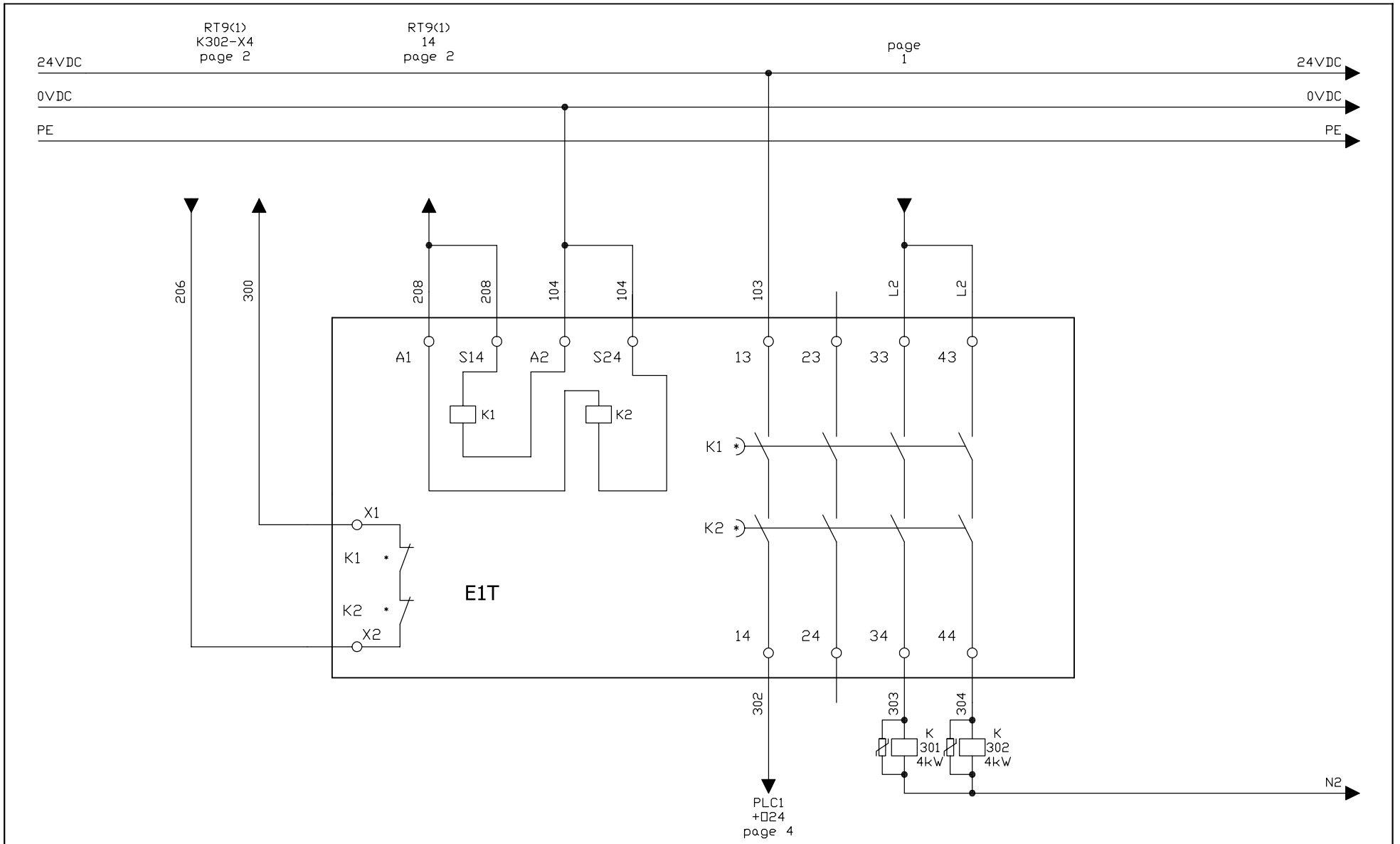

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	2			
	3			DATE: 03/03/09

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e-mail: eng@fcrmotion.com

TITLE: Acmeda Australia Pty Ltd
Safety Relay Expansion Circuit

DRAWING NAME	SHEET	OPTION
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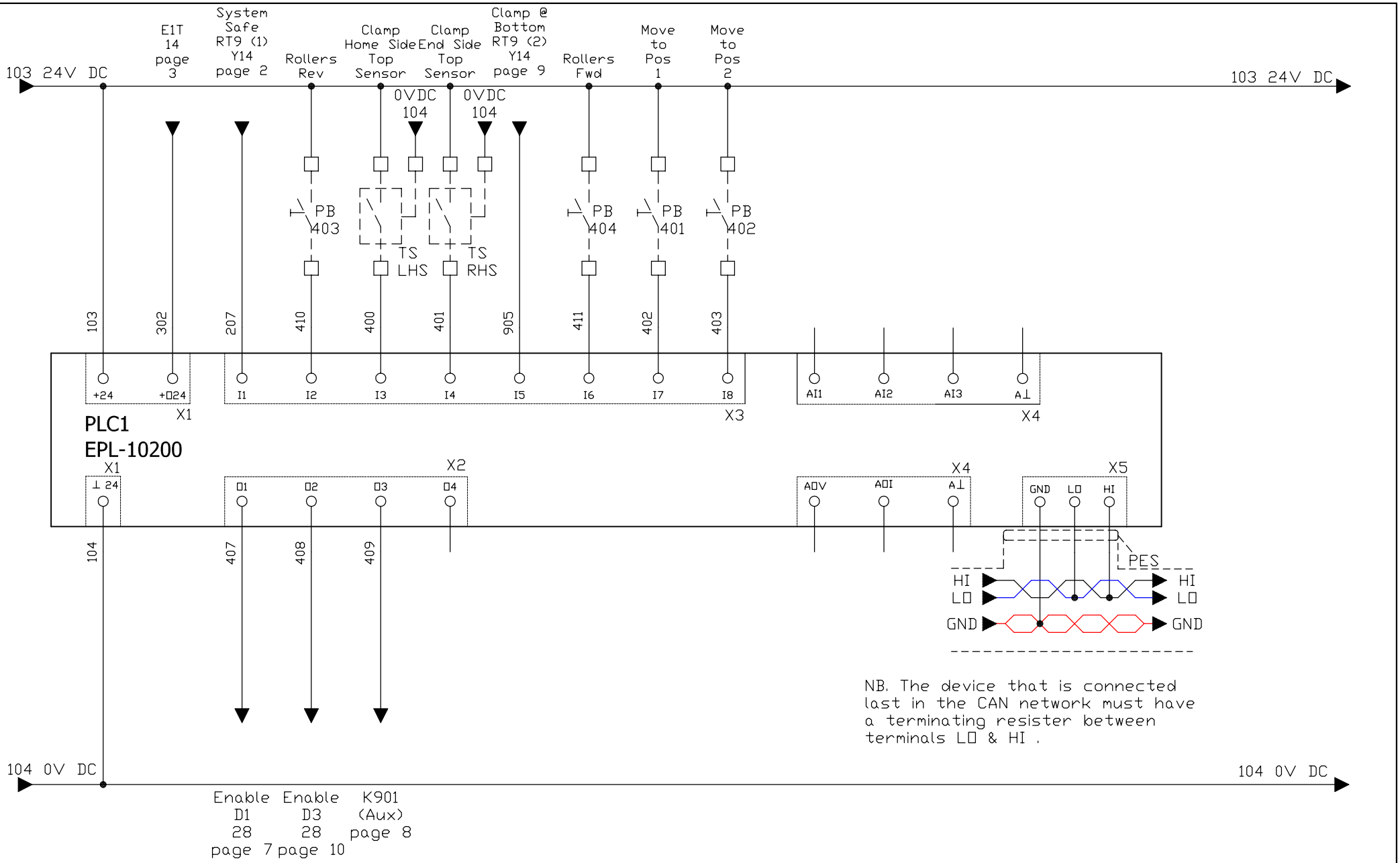

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	3			DATE: 03/03/09

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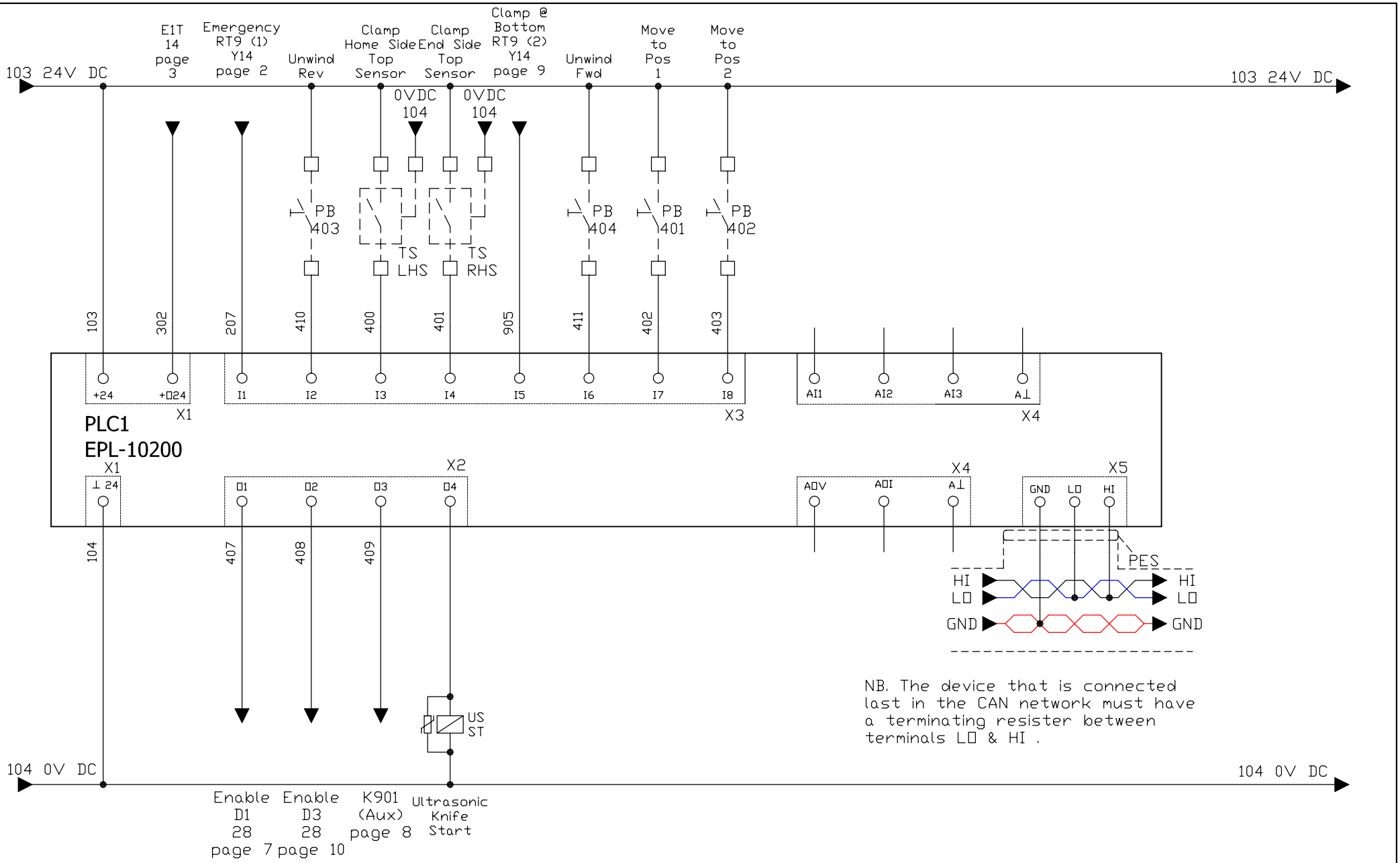
e-mail: eng@fcrmotion.com

TITLE: Acmeda Australia Pty Ltd
PLC Control Circuit

DRAWING NAME	SHEET	OPTION
150025p4v13.dwg	5 / 12	12



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	2			
	3			DATE: 03/03/09

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TITLE: Acmeda Australia Pty Ltd
PLC Control Circuit

DRAWING NAME	SHEET	OPTION
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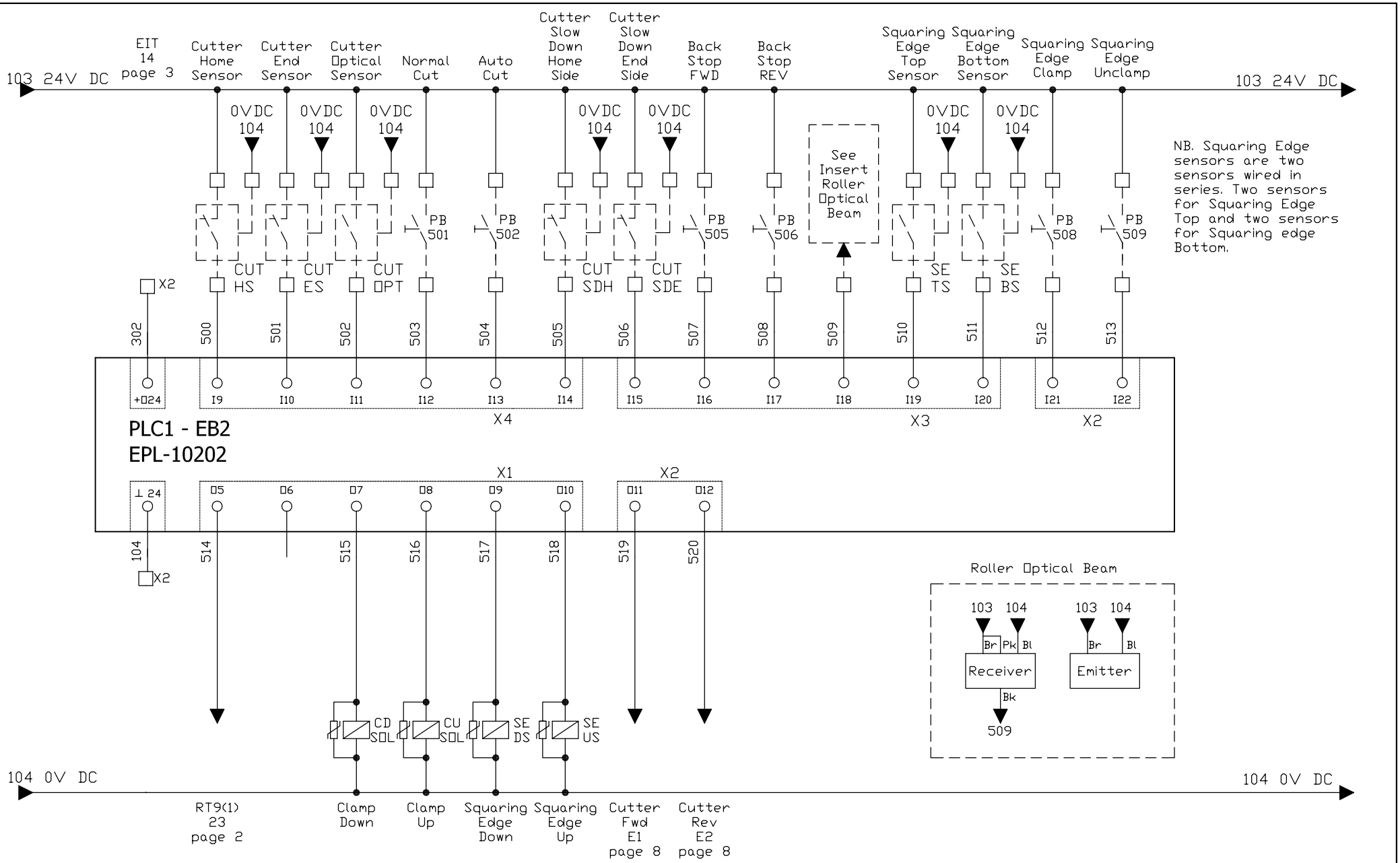

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	2			
	3			DATE: 03/03/09

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TITLE: Acmeda Australia Pty Ltd
PLC Control Circuit

DRAWING NAME	SHEET	OPTION
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2			
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DRAWN: A.Fialka
SCALE: N.T.S
CHKD: Y.Galenson
DATE: 03/03/09

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e-mail: eng@fcrmotion.com

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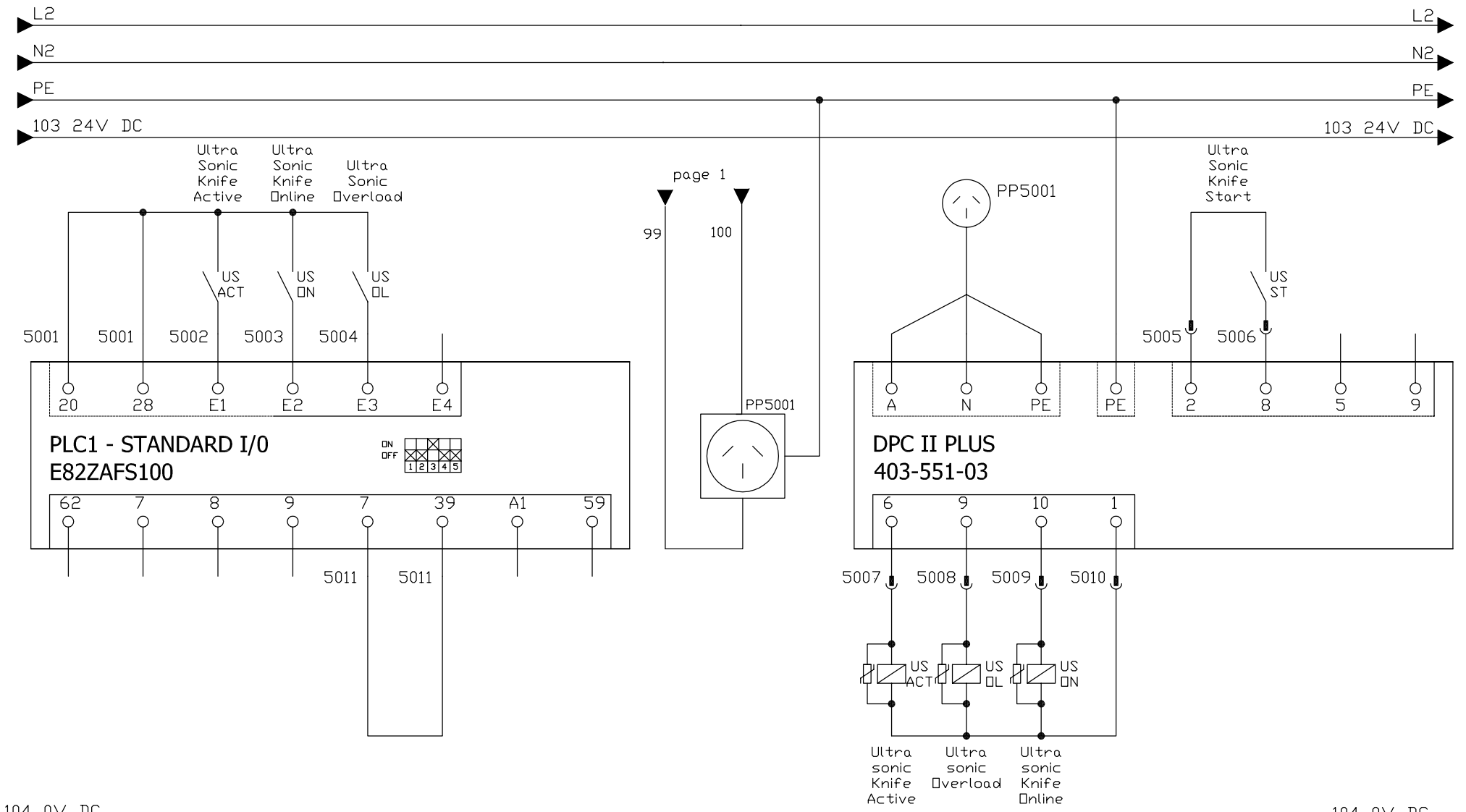

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	2			
	3			DATE: 03/03/09

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TITLE: Acmeda Australia Pty Ltd
Ultrasonic Knife Control Circuit

DRAWING NAME	SHEET	OPTION
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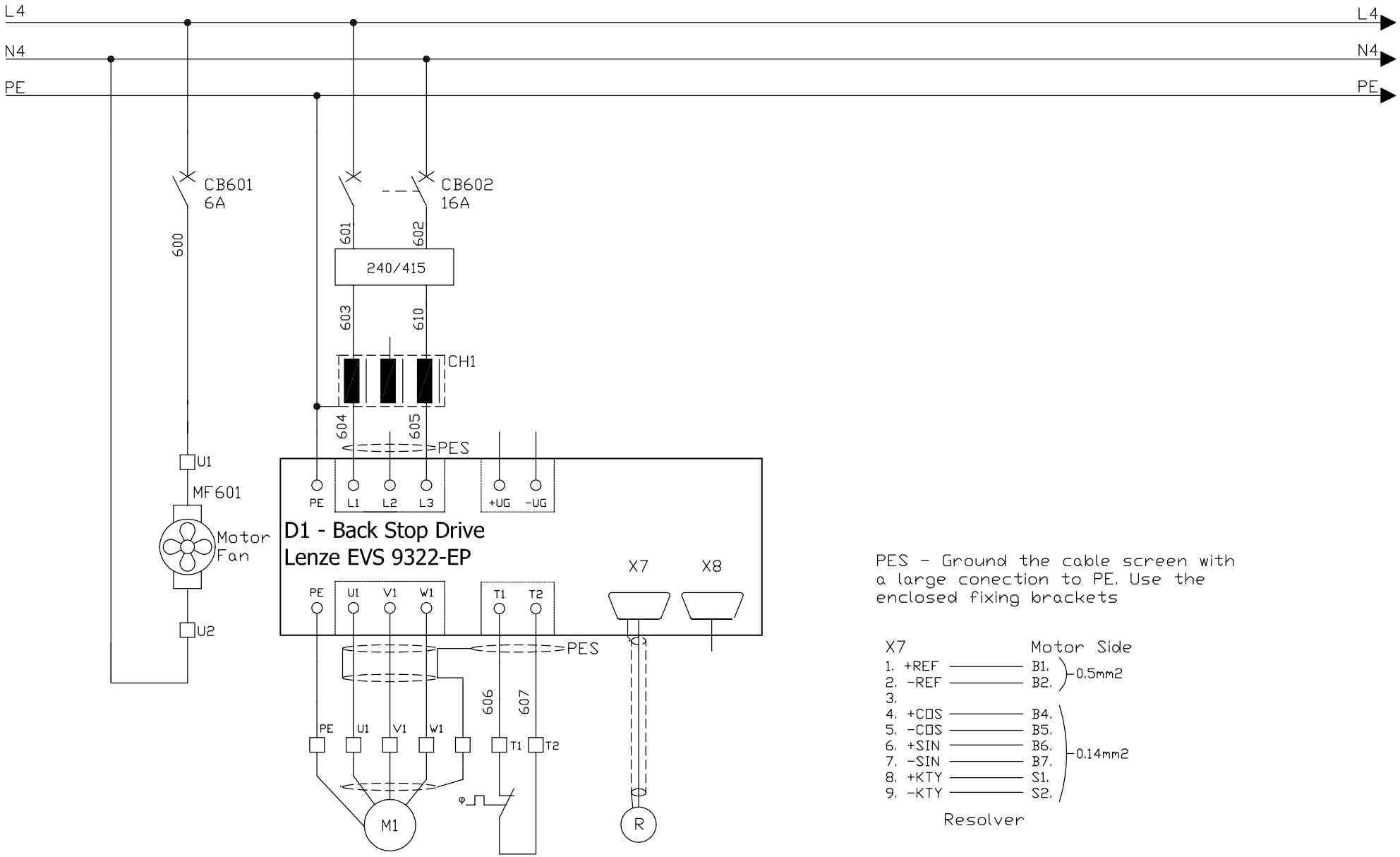

PES - Ground the cable screen with a large conection to PE. Use the enclosed fixing brackets

X7		Motor Side	
1. +REF	———	B1.	0.5mm2
2. -REF	———	B2.	
3.			
4. +COS	———	B4.	0.14mm2
5. -COS	———	B5.	
6. +SIN	———	B6.	
7. -SIN	———	B7.	
8. +KTY	———	S1.	
9. -KTY	———	S2.	

Resolver

REVISIONS				DRAWN: A.Fialka
REV		DRAWN	DATE	SCALE: N.T.S
1		MC	03/03/09	CHKD: Y.Galenson
2				
3				DATE: 03/03/09

A3

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TITLE: Acmeda Australia Pty Ltd
Back Stop Drive Power Circuit

DRAWING NAME	SHEET	OPTION
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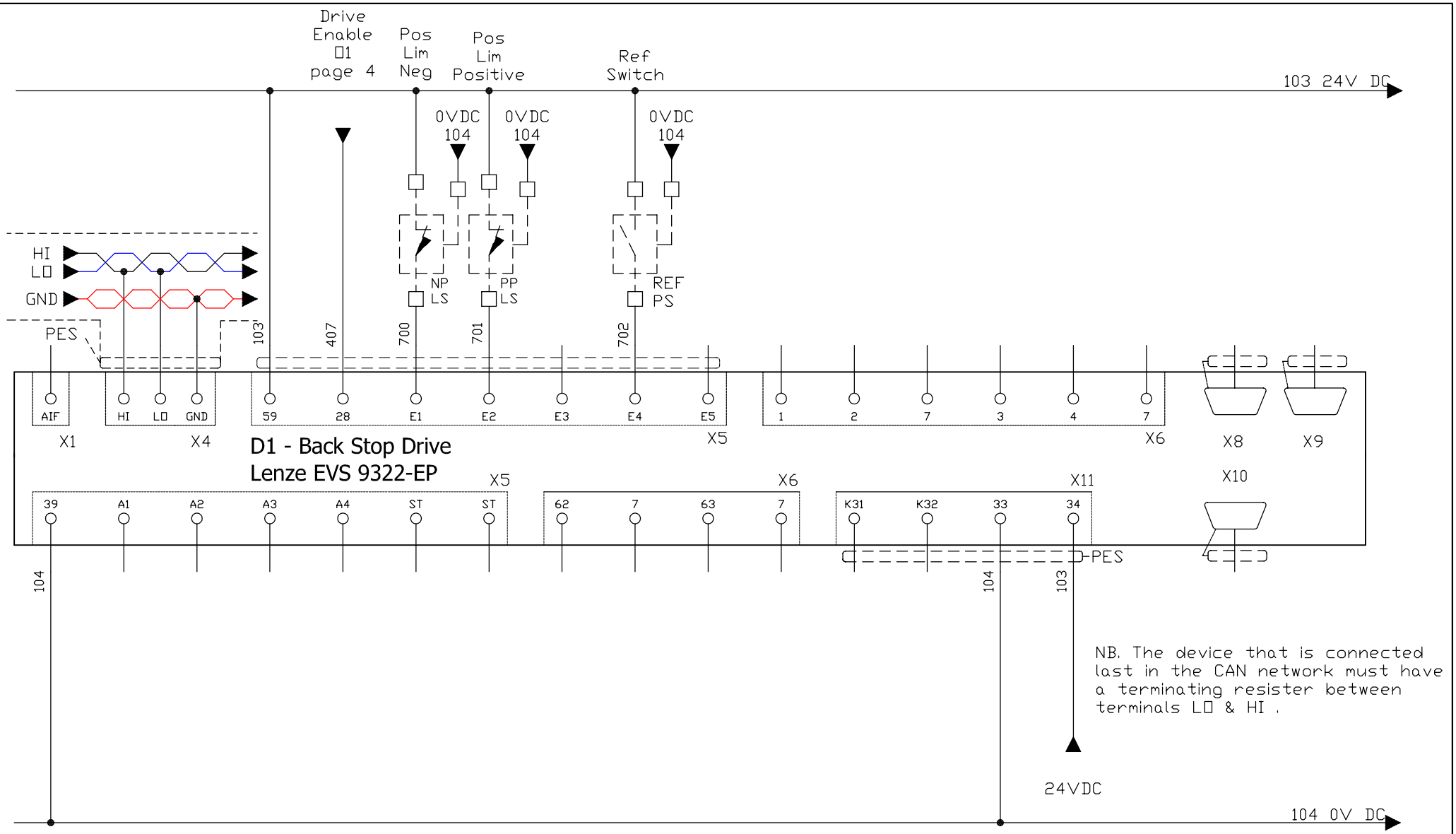

A3	REVISIONS			DRAWN: A.Fialka	FCR Motion Technology Pty. Ltd.	Phone: +61 (0)3 9362 6800 Fax: +61 (0)3 9314 3744 e-mail: eng@fcrmotion.com		
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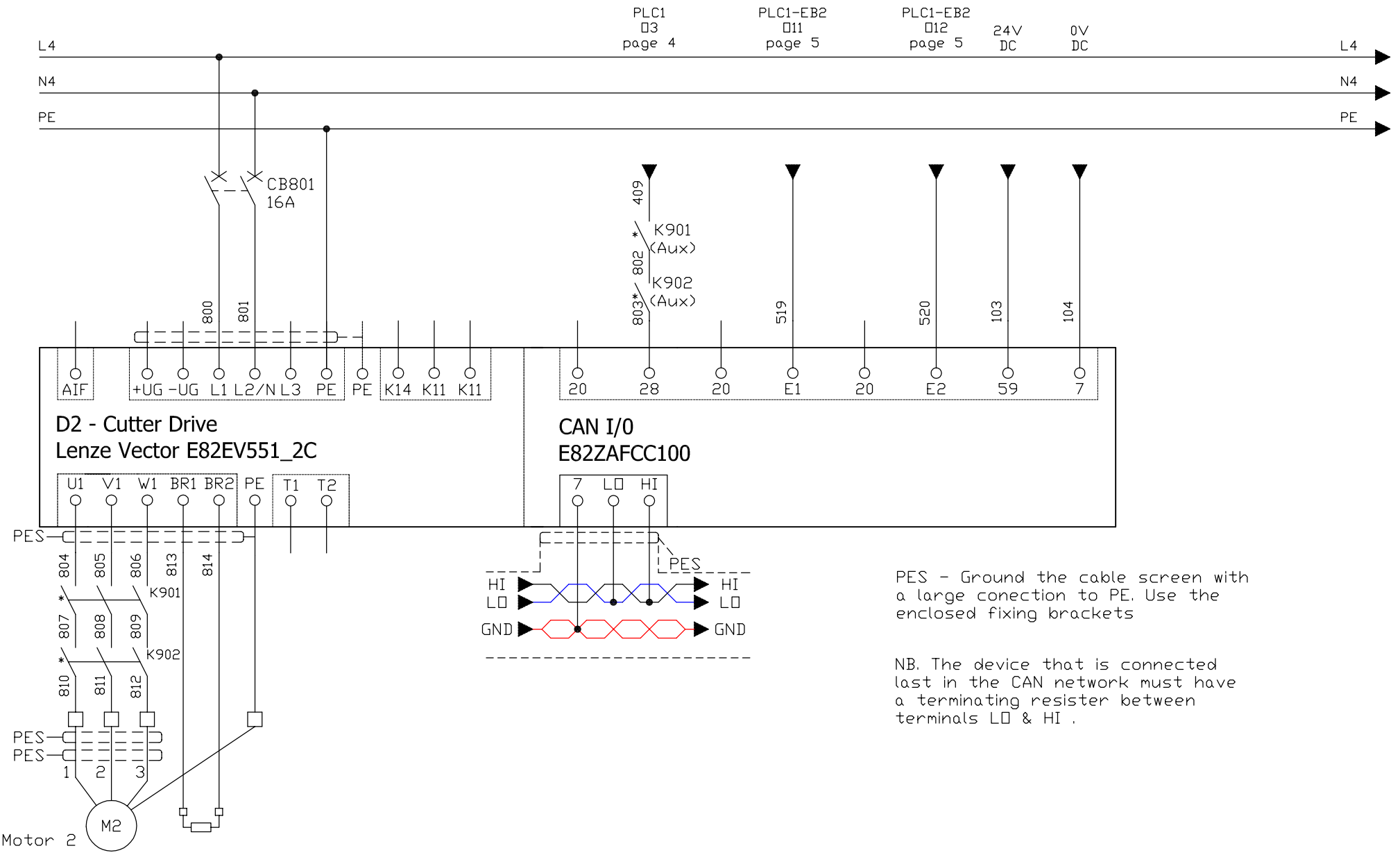

A3	REVISIONS			DRAWN: A.Fialka	FCR Motion Technology Pty. Ltd.	Phone: +61 (0)3 9362 6800 Fax: +61 (0)3 9314 3744 e-mail: eng@fcrmotion.com		
	REV	DRAWN	DATE	SCALE: N.T.S				
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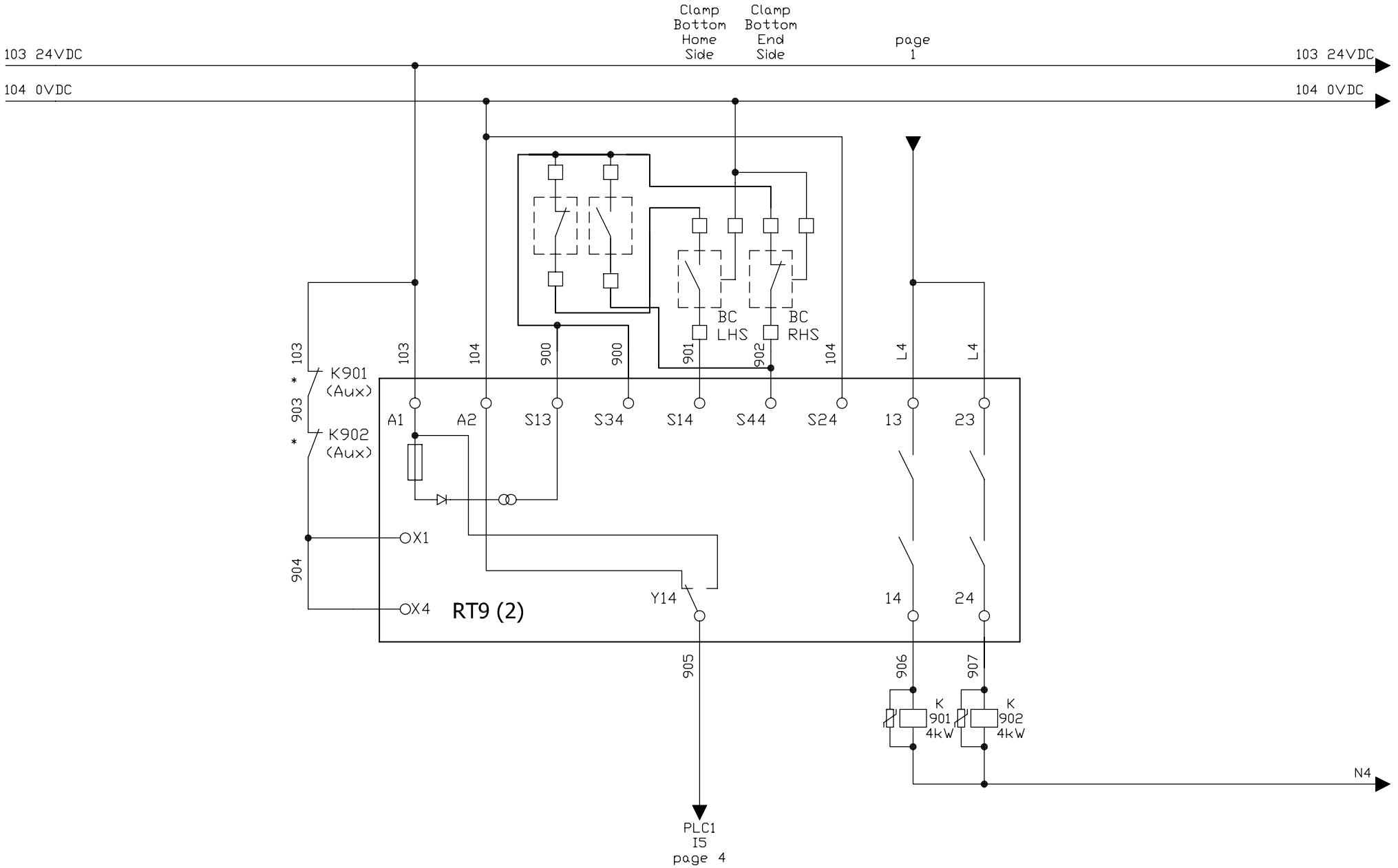

A3	REVISIONS			DRAWN: A.Fialka	FCR Motion Technology Pty. Ltd.	Phone: +61 (0)3 9362 6800 Fax: +61 (0)3 9314 3744 e-mail: eng@fcrmotion.com		
	REV	DRAWN	DATE	SCALE: N.T.S				
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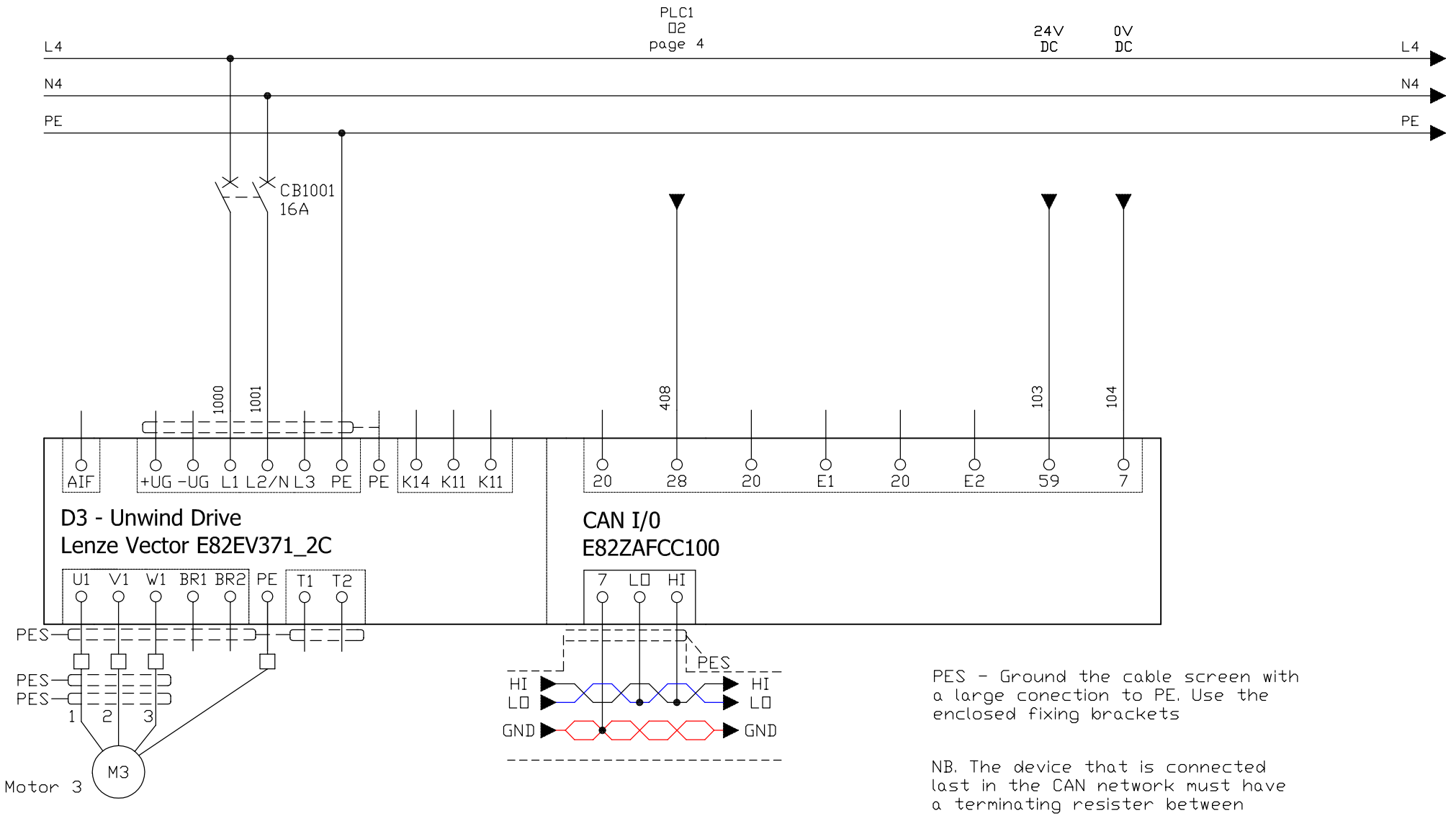

PES - Ground the cable screen with a large conection to PE. Use the enclosed fixing brackets

NB. The device that is connected last in the CAN network must have a terminating resister between terminals L□ & HI .

A3

REVISIONS			
REV	DRAWN	DATE	
1	MC	03/03/09	
2			
3			

DRAWN: A.Fialka
SCALE: N.T.S
CHKD: Y.Galenson
DATE: 03/03/09

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Fax: +61 (0)3 9314 3744
e-mail: eng@fcrmotion.com

TITLE: Acmeda Australia Pty Ltd
Unwinder Drive Power Circuit

DRAWING NAME	SHEET	OPTION
150025p10v13.dwg	12 / 12	12