

## Overview

To replace MR-J2 Drive and restore absolute home position on a Matrix Control. Please make sure not to move the troubled axis no matter what position it is in, if it is moved the absolute position repair function will not work and the absolute position repair will have to be done with a longer procedure.

## Tools Needed

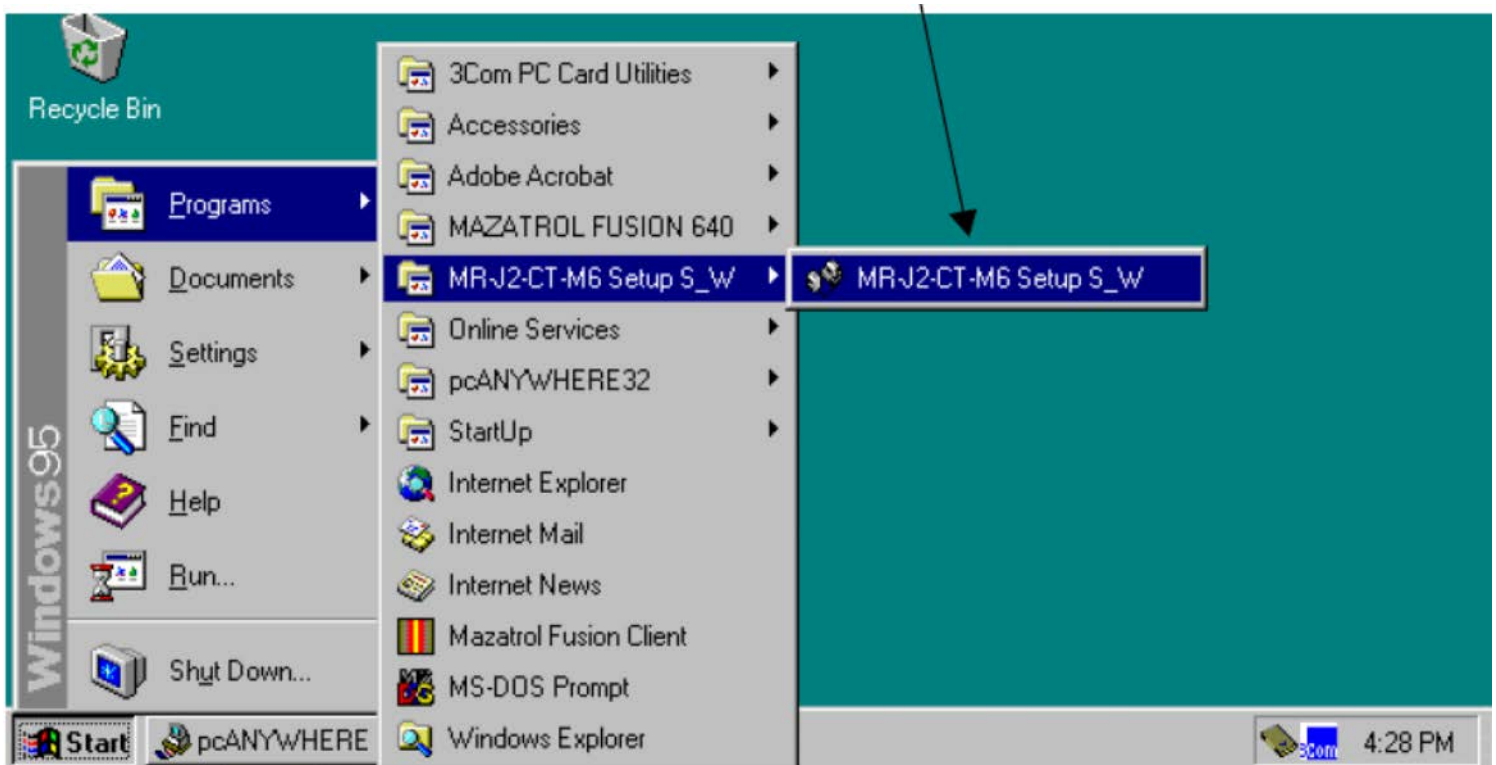
- MR-J2 software which should already be loaded on hard drive.

## Instructions

### I. Perform back up of Parameters from old drive

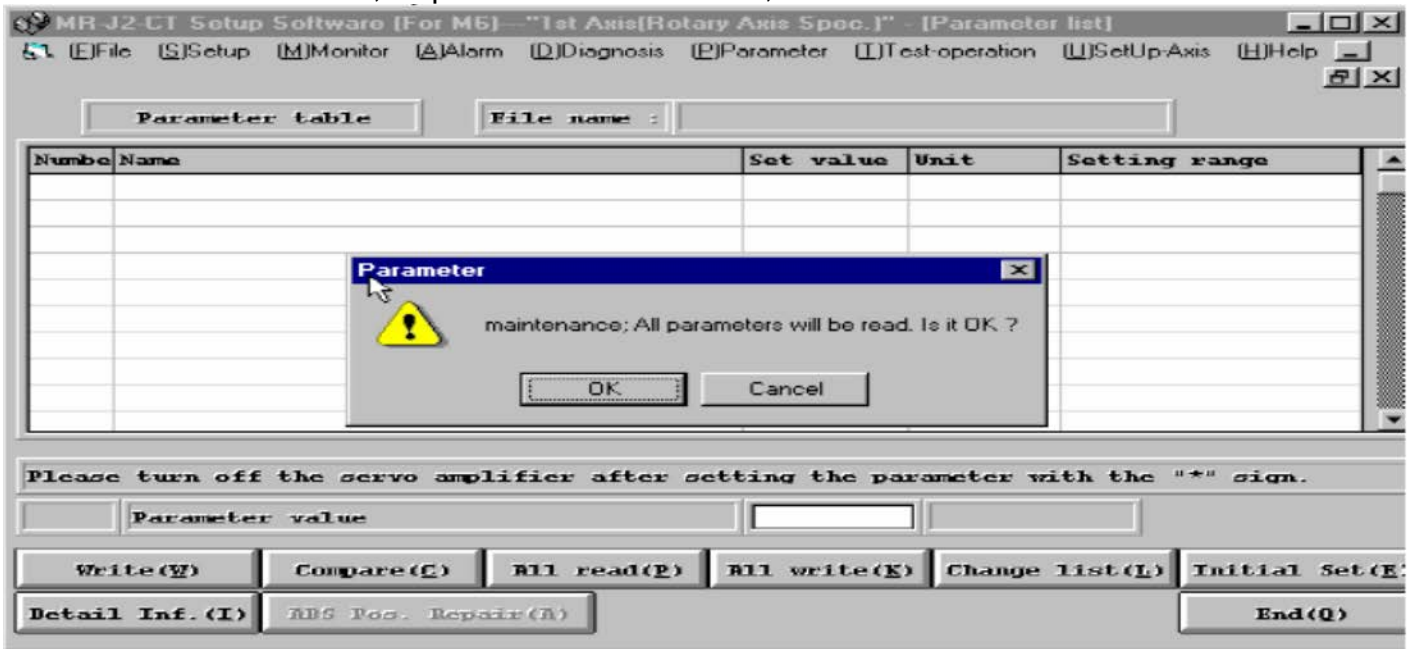
#### A. Open MR-J2 software

1. Click on Windows Start button located in lower left hand corner of screen.
2. Click on Programs
3. Click on MR-J2-CT M6 setup S\_W



- B. Click on Setup Axis in menu bar
- C. Click on axis select
- D. Click on the axis that needs the drive changed
- E. Click on parameter on menu bar
- F. Click on all read

G. It will ask maintenance; all parameters will be read, is this ok. Click on ok



H. Click on File on menu bar

I. Click on save

J. Name the file and click save or ok.

K. Close MR-J2 software

L. Power off the control

M. Power off the breaker

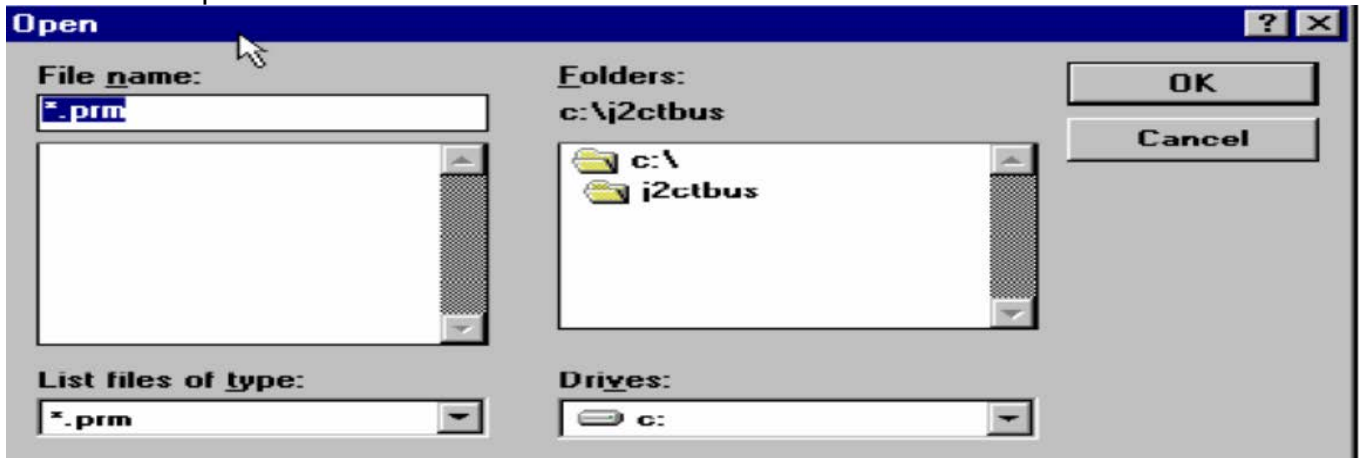
N. Change the drive. (Make sure to put all connections back on new drive and set rotary switch.  
May also need to transfer battery to new drive.)

- CN1A
- CN1B
- CN2
- Motor Cables
- Power Cables
- Rotary Switch

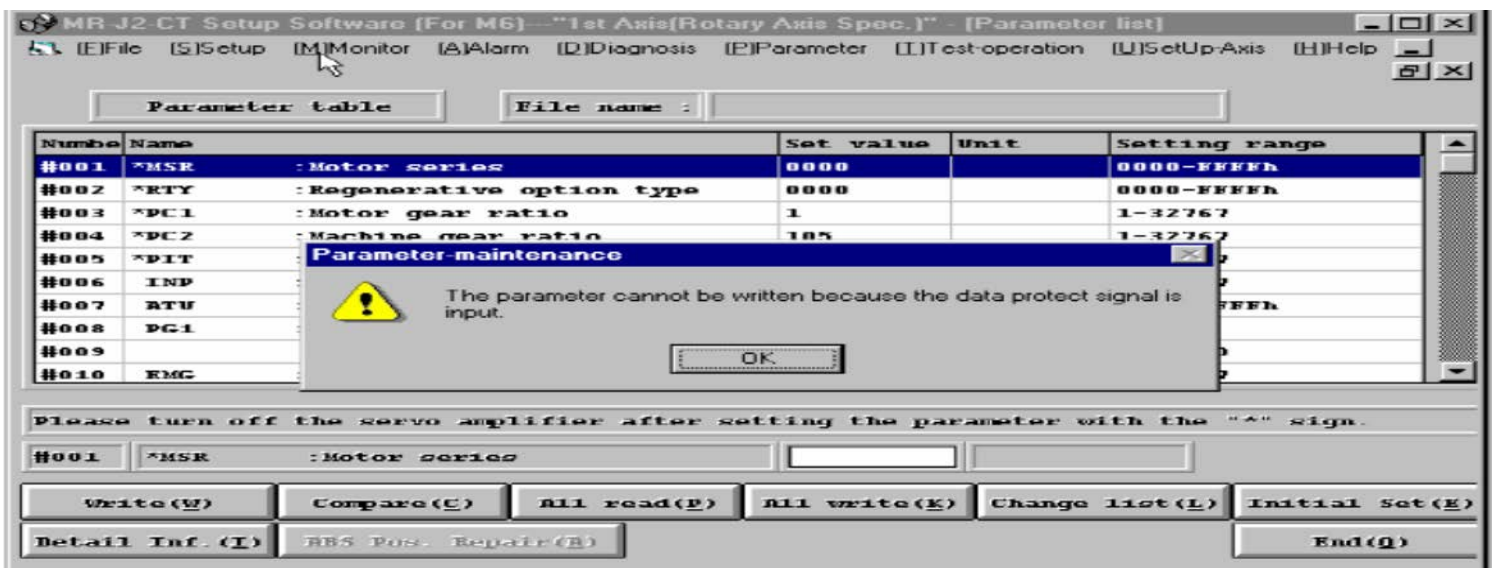


## II. Restore Parameters to New Drive

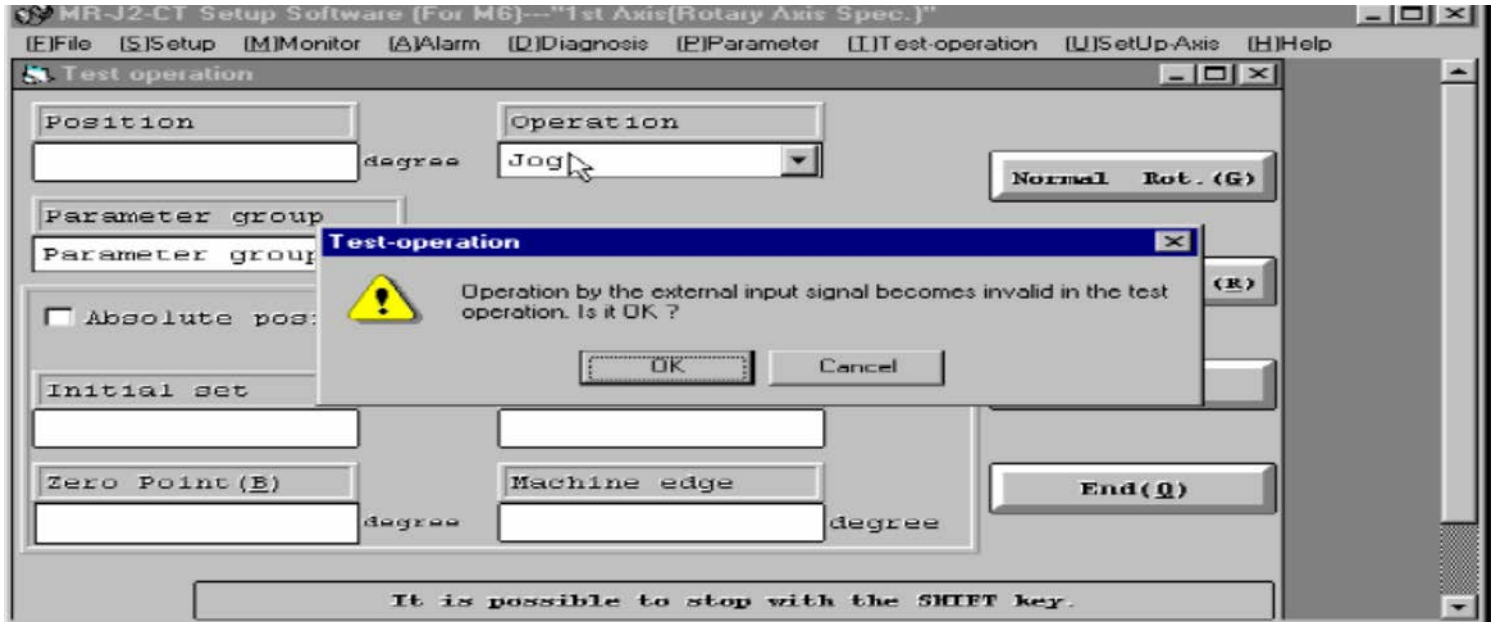
- A. Power on the breaker
- B. Power on the control
- C. Open MR-J2 software
  1. Click on start button located in lower left hand corner of screen
  2. Click on Programs
  3. Click on MR-J2-CT M6 setup S\_W
- D. Click on Setup Axis on menu bar
- E. Click on axis select
- F. Click on axis that drive was changed in
- G. Click on Parameter on menu bar
- H. Click on All Read
- I. It will ask maintenance; all parameters will be read, is this ok. Click on ok
- J. Click on File on menu bar
- K. Click on Open



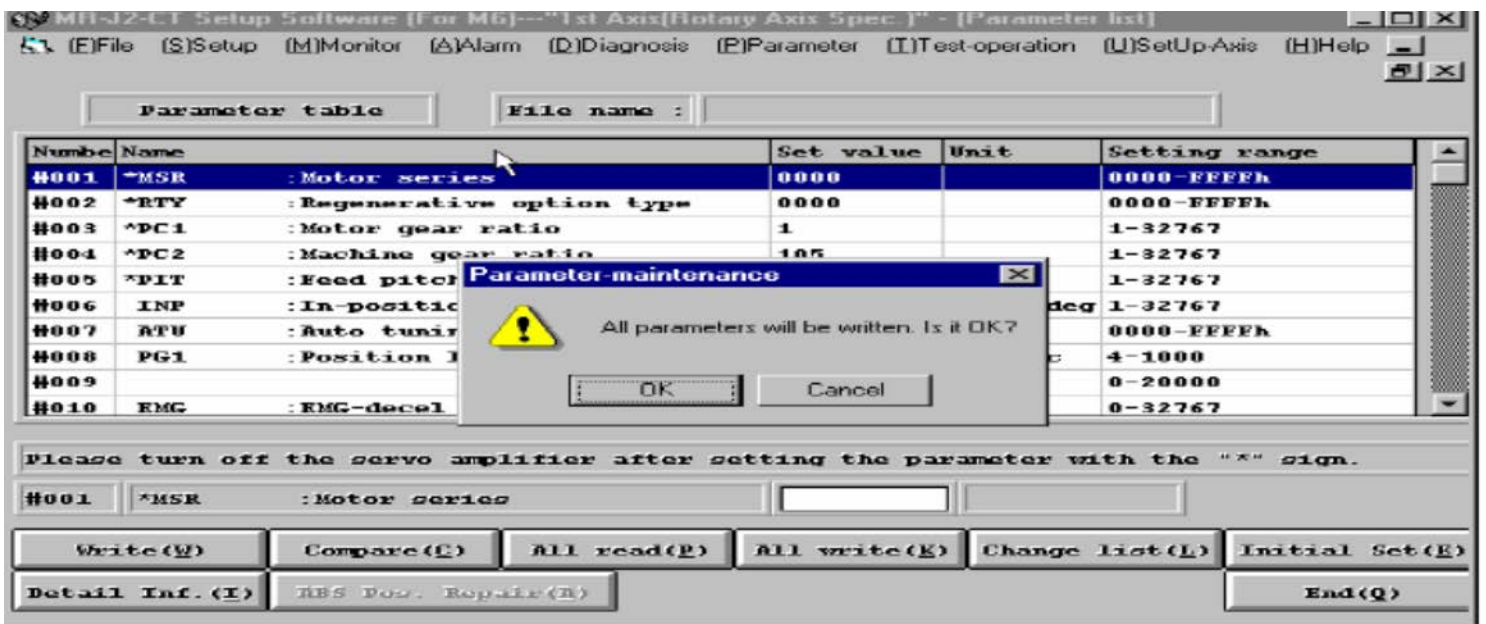
- L. Highlight the file you saved earlier and click ok
- M. Click on all write
- N. If you receive the error message below that the data protect signal is on do step O. Otherwise go to Step P.




- O. Click on Test Operation  
 1. You will receive this message



2. Click on OK. (Do not close out test operation box. Leave it open.)  
 3. Click on Parameter on menu bar  
 4. Click on All Write  
 P. It will say all parameters will be written is this ok. Click OK



Q. You will get a writing completed message. Click OK



Parameter table

Number	Name	Set value	Unit	Setting range
#001	*MSR : Motor series	0000		0000-FFFFh
#002	*RTY : Regenerative option type	0000		0000-FFFFh
#003	*PC1 : Motor gear ratio	1		1-32767
#004	*PC2 : Machine gear			1-32767
#005	*PIT : Feed pitch		deg	1-32767
#006	INP : In-position d		1/1000deg	1-32767
#007	RTU : Auto tuning			0000-FFFFh
#008	PG1 : Position loop		rad/sec	4-1000
#009				0-20000
#010	EMG : EMG-decel time constant	1000	msec	0-32767

Please turn off the servo amplifier after setting the parameter with the "\*" sign.

#010 EMG : EMG-decel time constant [ ] msec

Write (W) Compare (C) All read (R) All write (K) Change list (L) Initial Set (I)

Detail Inf. (I) ABS Pos. Repair (R) End (Q)

R. Close MR-J2 software

S. Power off the control

T. Power off/on the breaker

U. Power on control. Should still have alarm Z70 or Z71 due to home position being lost.

### III. Restore ABS Position Through Repair Button

A. Open MR-J2 software

B. Click on Setup Axis on menu bar

C. Click on Axis Select

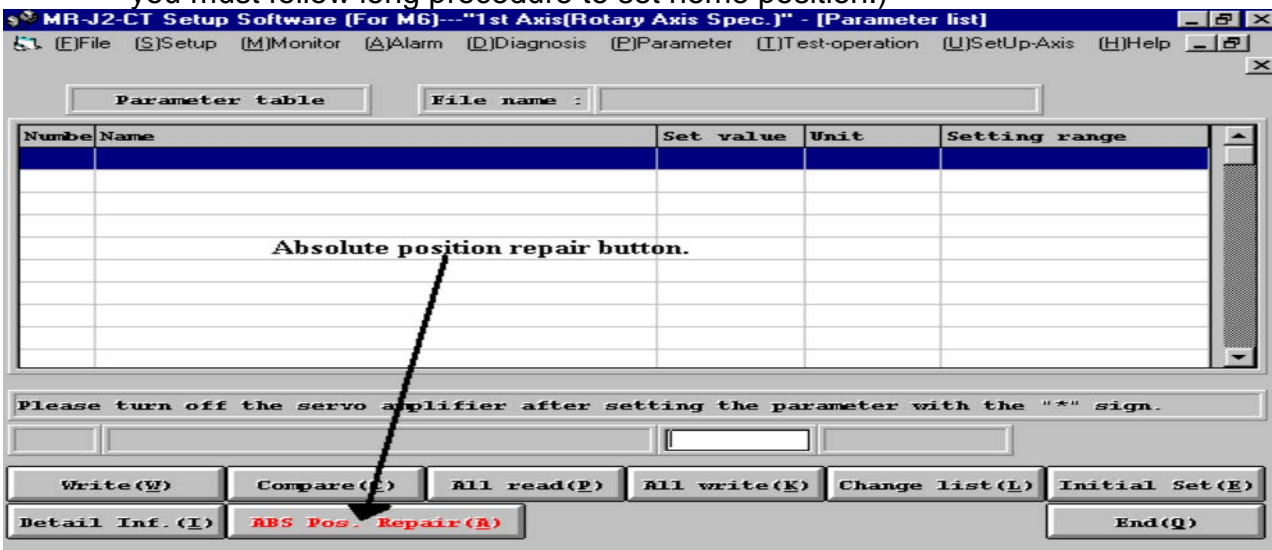
D. Click on axis that needs to have home position restored

E. Click on Parameter on menu bar

F. Click on All Read

G. It will ask maintenance; all parameters will be read, is this ok. Click OK

H. Click on ABS Position Repair button. (Button is normally red. If button is not highlighted then you must follow long procedure to set home position.)



Parameter table

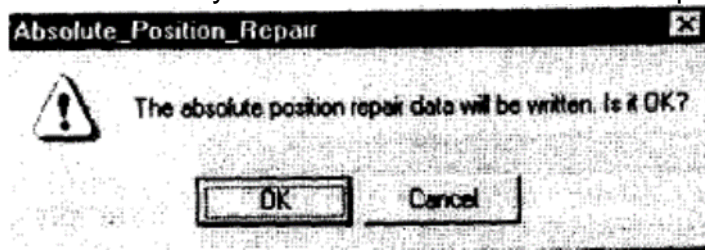
Number	Name	Set value	Unit	Setting range
Absolute position repair button.				

Please turn off the servo amplifier after setting the parameter with the "\*" sign.

Write (W) Compare (C) All read (R) All write (K) Change list (L) Initial Set (I)

Detail Inf. (I) **ABS Pos. Repair (R)** End (Q)

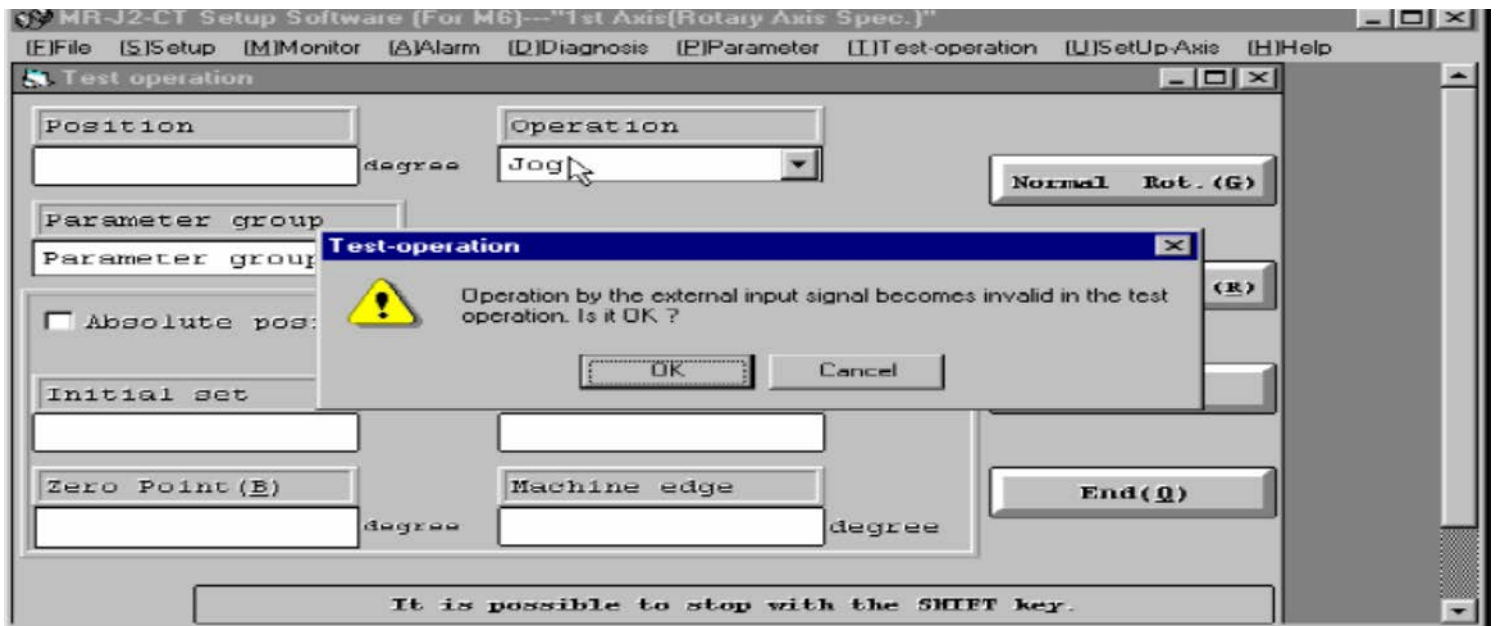
- I. It will ask if you want to restore the absolute position data. Click OK.



- J. If you receive an error that the data protect signal is on do step K. Otherwise go to step L

- K. Click on Test Operation

1. You will receive this message.



2. Click on OK. (Do not close out Test Operation window. Leave it open.)

3. Click on Parameter on menu bar.

4. Click on ABS Repair Button

5. It will ask if you want to restore the absolute position data. Click OK

- L. You will get the message the absolute data has been written successfully. Click OK

- M. Close MR-J2 software

- N. Power Off the control

- O. Power off/on the breaker

- P. Power on the control. Home position should be set and drive should have no Z70 or Z71 alarms.

## Appendix

If after you are done you are still getting alarm AL 01 n1 01 you do not need to worry. This alarm comes and goes when you command the axis in question to move.