

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

Red	cycle Bin	Image: Score PC Card Utilities Image: Accessories		
	Programs	Adobe Acrobat Image: MAZATROL FUSION 640		
	Documents	🔚 MR-J2-CT-M6 Setup S_W 🔸	NR-J2-CT-M6 Setup S_W	
	Settings	Online Services		
ம	🔬 <u>F</u> ind 🔹	🔚 StartUp 🕨 🕨		
NS()	A Help	Internet Explorer		
þ	2000 <u>B</u> un	Internet News		
Vir	Shut Down	Mazatrol Fusion Client MS-DOS Prompt		
	Start 🔊 pcANYWHERE	🔍 Windows Explorer		🎭 300m 4:28 PM

- 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

1. [E]File [S]Setup [Millionitor (A)Alar	m (D)Diagnosis	ary Axis Spec.)" (E)Parameter (II)T	[Paramo est-operation	terlist] n <u>(∐</u>)SetUp-Axis	Line EX
Parameter	table	File name :				
Numbe Name			Set value	Unit	Setting r	ange 🔄
	Parameter			×		
	13				-	
	<u></u>	maintenance; All pa	rameters will be read	d. le it OK ?		
		[ОК]	Cancel			
Please turn off f	he servo amp	lifier after a	setting the pa	wameter	with the "*	" sign.
Parameter	value					
Write(W)	Compare (<u>C</u>)	R11 read(<u>P</u>)	All write(K) Change	e list(<u>L</u>) I	nitial Set(<u>E</u>
					the second se	

- 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



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Series: CNC Model: M700, M600 Replacing MRJ2 Drive in a Matrix and Fusion Control

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

Open		? ×
File <u>n</u> ame:	Eolders: c:\j2ctbus	OK Cancel
List files of type:	Dri <u>v</u> es:	
*.prm 💌	⊖ c:	-

- 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.

59 M.B 53 (E)Fi	J2 CT Setu ile <u>(S</u>)Setup	p Software (For M6)—"1st Axis(Rotar M.Monitor (A)Alarm (D)Diagnosis (P)	y Axis Spec.)" Parameter [[]]T	- [Paramete est-operation	ar liet] [U]SetUp-A	xis (H)Hel	= 미 >
	Paramet	er table File name :					티 ×
Numbe	Name		Set value	Unit	Setting	range	
#001	*MSR	:Motor series	0000		0000-FFF	(Fh.	
#00Z	*RTY	:Regenerative option type	0000		0000-FFF	Fh	
#003	*PC1	:Motor gear ratio	1		1-32767		
#004	*PC 2	Machine gear ratio	105		1-32767		
#005	*PIT	Parameter-maintenance			× .		
#006	INP				2		
#007	ATU	input	ritten because the	ata protect	signal is	Fh	
#008	PG1						
#009		[IK I		þ		
#010	EMG				2		-
P10as #001	a turn of	f the servo amplifier after se :Motor series	tting the pa	rameter w	with the "	*" sign	
Wher:	ite(<u>W</u>)	Compare(C) R11 read(P)	All write(K	Change	11st (L)	Initial	Set (E)
Detai	1 Inf. (1)	RBS Pos. Repair(<u>B</u>)			[End	(<u>a</u>)

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O. Click on Test Operation1. You will receive this message

MR-J2-CT Setup Soft	ware (For M	16}''1st Ажі	s(Rotary Axis	Spec.]"			X
(E)File (S)Setup (M)Monit	or (A)Alarm	(D)Diagnosis	(P)Parameter	[]]Test-operation	(U)SetUp-Axis	(H)Help	
🌉 Test operation						×	-
Position	1	Operatio	n				
	degree	loa	•	No	rmal Rot.(-	
Farameter group	-					_	
Parameter group	est-operati	on			×		
Absolute pos:		eration by the eration. Is it OK	external input sig	anal becomes invalio	d in the test		
Initial set	1		1				
Zero Point (<u>B</u>)	1	Machine	edge		End(<u>0</u>)		
	degree			degree		_	
ji.	_						
	Tt is	possible ta	a ston with	the SHIFT ke	r		
	and all	· · · · · · · · · · · · · · · · · · ·					<u> </u>

- 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

ſ	Paramet	ter table File name :			
Numbe	Name	N	Set value	Unit	Setting range
001	-MSR	:Motor series	0000		0000-FFFFh
4002	*RTY	Regenerative option type	0000		0000-FFFFh
4003	*PC1	:Motor gear ratio	1		1-32767
1004	*PC 2	:Machine gear ratio	105	1	1-32767
1005	*PIT	:Feed piter Parameter-maintenar	nce	×	1-32767
1006	INP	:In-positic		deg	1-32767
1007	ATU	:Auto tunir /! All paramete	rs will be written. I:	sitOK7	0000-FFFFh
1008	PG1	:Position]		E	4-1000
1009		I OK	Cancel		0-20000
1010	EMG	: EMG-decel			0-32767
1e320	e turn o	ff the servo amplifier after so :Motor series	atting the pa	rameter wi	th the "*" sign.
			811	la	



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

3. (E)F	ile (<u>S</u>)Setu	p (M)Monitor (A)Alarm (D)Diagnosis (E)Parameter (II)T	est-operation	(LI)SetUp-Axis (LI)Help
1	Paramet	ter table File name :		1	
Numbe	Name		Set value	Unit	Setting range
#001	*MSR	:Motor series	0000		0000-FFFFh
#002	*RTY	Regenerative option type	0000		0000-FFFFh
#003	*PC 1	:Motor gear ratio	1		1-32767
#004	*PC 2	:Machine gear Parameter maint	tenance 🔀		1-32767
#005	^PIT	:Feed pitch		deg	1-32767
#006	INP	:In-position d / Writing	was completed.	1/1000deg	1-32767
#007	ATU	:Auto tuning			0000-FFFFh
H008	PG1	: Position loop	. 1	rad/sec	4-1000
#009		0	K.		0-20000
4010	EMG	:EMG-decel time constant	1000	msec	0-32767
1##**	turn o	ff the servo amplifier after se :RMG-decel time constant	atting the pa	ranatar wi	th the "*" sign.
57a-	ite(W)	Compare(C) Bll read(P)	All write(K) Change	list(L) Initial S
etai	I Inf (T	All'S Hog Hematrica			End(()

- 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.)

MR-J2-CT Setup Software (For M6)"1st #	xis(Rotary Axis Spec.)"	- [Parameter	list] _ B	×
5, (E)File (S)Setup (M)Monitor (A)Alarm (D)Dia	gnosis (P)Parameter (I)T	est-operation	(U)SetUp-Axis (H)Help	×
Parameter table File na	me :			
Numbe Name	Set value	Unit	Setting range	1
Absolute position re	epair button.			
Please turn off the servo applifier a	after setting the pa	rameter wi	th the "*" sign.	
	[
Write(W) Compare(C) All re	ad(P) All write(k) Change 1	list(L) Initial Set(E	,
Detail Inf. (I) ABS Pos. Repair(A)			End(Q)	



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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.

MR-J2-CT	Setup Softw	are (For M	6)"1st Axi	s(Rotary Axis	Spec.)"			×
EFile SiSet	up [M]Monitor	r (A)Alarm	(D)Diagnosis	(E)Parameter	[1]Test-operation	(U)SetUp-Axis	(H)Help	
🚮 Test oper	ation						×	-
Position	1	degree	Operatio	n •				
Paramete	r group	st-operatio	- PD		NO		2	
Absolu	ate pos: (eration by the c pration. Is it OK	sxternal input sig	anal becomes invalid	d in the test	9	
Zero Poi	.nt (<u>B</u>)	degree	Machine	edge	degree	End(<u>0</u>)		
		It is p	possible to	stop witl	the SHIFT ke	x .		

- 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.

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