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6 3.0

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8.1 CAN COMMUNICAT

1.1 BaMic config .a ion

1 8 -Inch colo. o ch Mc.een

2 Se. o con .ol boa.d

3 I/O boa.d

4 Po e. M ppl (24V DC po e. M ppl).

1.2 InMalla ion of he M Mem

1 Wi.ing ope.a ionMm M be ca..ied o b a p.ofeMMonal elec .ician.

2 Confi.m ha he po e. iMdiMconnec ed befo.e o can begin o.k.

3 Mo n ed on a me al, M ch aMflame .e a.dan Mand a a f.om comb MibleM

4 M M be Med ih Mafe g.o nding.

5 E e.nal po e. M ppl an e cep ion occ .M, he con .ol M Mem fail .eMma occ ., in o.de. o make he hole M Mem o.k, pleaMe be M .e o Me he e e.nal Mafe ci.c i of he con .ol M Mem.

6 Befo.e inMalling, i.ing, ope.a ion, main enance, m M be familia. i h he con en M of hiMman al Me m M alMo be familia. i h he .ele an machine., elec .onicMkno ledge and all he .ele an Mafe p.eca ionM

7 InMall he con .olle. bo , Mho Id ha e good en ila ion, oil-p.oof, d M-p.oof condi ionM If he elec .onic con .ol bo iMcloMed he con .olle. empe.a .e iM oo high, affec ing i Mno.mal o.k, be fi ed i h e .ac o. fan, elec .ic bo a he app.op.ia e empe.a .eM o 50belo , do no Me in de and f.o en placeM

8 Con.olle. Mho Id a oid con ac i h acceMMo.ieM, .anMfo.me.Mand o he. comm nica ion fea .eM, a oid nneceMMa. M .ge diM .banceM

No e: he dange. ca Med b he imp.ope. handling, incl ding pe.Monal inj . o. acciden .

4



2



2-1

Man al□ □

1 "Ke: o.igin.e. n and a o mo emen M p.eMMng hiMb on ill Ma. he app.op.ia e ac ion.

" "Ke : a o Ma M p.eMM hiMke , o ill be a gh he laM Mep of he p.og.am a o MopM in Mop mode, hiMke o clea. he ala.m diMpla ha haMbeen .eMbl ed.

2 " "Ke : in Mop mode, p.eMM hiMke , hen p.eMM he Ma. ke , Ma. ed .e .ning a he o.igin.

"Ke: p.eMM hiMke o" I/O ReMe he "check in he in e.face I/O O p poin M a.e.eMe.

3 " "Ke: hiMke iM Med o adj M he Mpeed of man al and a o global.

**1 5** : The co..eMponding f nc ion on he diMpla panel.

+, -, +, -, +, -, +, -: In man al Ma M p.eMM he co..eMponding a iM mo eM

Man al Ma eM hen p.eciMe poMi ioning, o can Me he p.eciMe mo emen of he knob a iM The Ma Mba., o can Melec hich a iMfo. adj Mmen.

X1: A g.id a iM0.01mm O. o .o a e 0.01 Deg.eeM

X5: One-a iM .anMa ion 0.05mm O. o .o a e 0.05 Deg.eeM

X10: One-a iM .anMa ion 0.1mm O. o .o a e 0.1 Deg.eeM

P.eMM he eme.genc Mop b on in an eme.genc , ill c off all a eMenabling all IO Main aining he c ..en Ma M M Mem ale. : eme.genc Mop.

Knob Mc.e o , p.eMM he "Mop" b on, he ala.m can be elimina ed.

6

"P nch o.igin": dead Mignal Ma MdiMpla on he p nch.

"Safe g.a ing": dead Mgnal Ma MiMdiMpla ed nde. he p nch.

"Allo pnch": pnch allo M he Ma e o diMpla he o p of he M Mem.

"P nch Mop": he .obo in p nch Mho M he Ma Mof he Mafe a.ea.



X (FB) a iM manip la o., he back a iM Y (UD) a iM .iMe of he machine, d.op a iM S (SW) a iM manip la o. a.m a iM R (HV) a iM manip la o. The f.on end The calib.a ion a iM T (AD) a iM flip a iMof he .obo a.m.

Manip Ia o. i h man al, a o Mop, h.ee. nning MallMf.om he lef Melec ion M i ch fo. man al Ma eM in hiMMa e, he manip Ia o. can be man al ope.a ed. S a MMelec ion M i ch o he middle poM ion o Mop Ma e manip Ia o. in he Ma e Mop all mo emen M machine can be ca..ied o onl o.igin.e .n ope.a ion. Selec M i ch o he .igh poM ion and p.eMM he "Ma. " b on, he .obo in o a o ope.a ion.

Fo. machine o co..ecl a o af e. each ime o .n on he po e., o m M.e e. o he ac ion a he ceMMa ion of he Ma e of o.igin. O.igin .e .n o ac ion ill d.i e he .obo .e e. ed o he o.iginal poM ion each a iM ac m and clampM.e .n o he off poM ion.

Back p.oceMMeM in he Mop Mae, p.eMM he "o.igin" ke once S Mem pop p a dialog bo, he.e a.e o op ionMin he dialog bo, chooMe acco.ding o he ac al M a ion ( ①lef -handed: check hiMa he .obo lef he o.igin.② Righ hand: he poin on he .igh of he .obo hen o check hiM③ If he manip la o. iM hich one o check he o.igin line) check iMcomple ed p.eMM he "Ma. " b on, he .obo a eMb Sh n Me ence and .e .ning o he o.igin poM ion When all Me. o a eMand .e .ning o he o.iginal poM ion, .obo icon a he o.igin in he ppe. lef co.ne. of he Mc.een ill .n g.een.

When o.igin .e .n Me. manip la o. can be man al, a o ope.a ion and pa.ame e. Me ing, in caMe of eme.genc o can p.eMM he Mop b on o Mop he o.igin .e .n o. p.eMM he eme.genc Mop b on.

8

AMFig .e 2-3 Sho M, he Mop can be Me fo. p.og.am managemen f nc ionMand ope.a ionM

Selec M i ch o he man al poMion, .obo en e.ed man al. Man al pageMa.e aM follo M

MainFrame					
15:41 016/10/31 OP Origin		Connect	Mold: test		5 🖌 Advance Admin
Binary		-	X Axis		
actionl	action3	action4	Get Safe Pos 553.0	mm	
action5	action6	Action5	Put Safe Pos 552.0	mm	
			S Axis		
Action6			Get Safe Pos 300.0	Deg	
		showMore	Put Safe Pos 900.0	Deg	
Product	0	P.Clear			
lobal Speed . X. Spee	<u>مناريم</u>	I.Speed	» . Speed	" K. Speed )	1. Speed *********
B): 0.00mm	Y (UD) :	0.00mm S (ST	): 0.00deg R(R	V): 0.00deg	T (AD): 0.00deg
			Loop Time	0.00 s Finish	ed Products O
Program	I/O Mor	nitor	Record	Settings	Return

P.eMM he co..eMponding ke MX+,X-,Y+,Y-,S+,S-,R+,R-,T+,T- Co..eMponding ac ionMof he a iM a iM ill immedia el Mho in he follo ing fig .e.

Main	Frame							
15:41	Origin	Connect N	lol d	tart	ſ	V X5	å dwan.	a Admin
2016/0	oon (⊖)P 0a MMM							
1								
				<b>1</b>				

In he man alon he ppe. lef co.ne. of he page, pne ma ic M i cheMand o le poin Mof he ac ion ill appea., click on he co..eMponding al e, bl e can o p . AMMho n in he follo ing fig .e:

📃 MainFrai	me													
15:42 2016/10/31	Origin P Origin			Connect	Mold:		test				<b>x</b> 5	~	Advanc	e Admin
Binary					-	X Aris =		<b>7</b> 8 - 1	V					-
	action3	action4		Get Safe I	os 5	53.0		mm						actio:
TT.	action6	Action5	3	Put Safe I	<sup>2</sup> 05 5	52.0		mm						actio:
				-S Axis										Actio
				Get Safe I	<sup>2</sup> 05 3	800. 0		Deg						
		showMo	re	Put Safe I	<sup>2</sup> 05 9	100. 0		Deg						
			_	<u> </u>										
	0 F	P.Clear											F	roduct
X.Speed	0 X	Y. Speed	) 0	S. Spe	2ed	0 <b>%</b>	R. Spee	ad 0	%	T. Sp	eed	0%	G	lobal Speed
. 00mm	T (VD):	0.00mm	S (ST)	- 0	.18	a Juan	Ð:	2.6		Ltip:		0. 00 d	- <b>X (P</b>	B):
					Loop	Time	0.)	🧤 Ti	ni sh	ed Produ	icts	0		
gram	1/0	Monitor		Reco	rd		Set	ttings			Re	turn		Pr

Click [mo.e ac ion] can be opened o cloMe mo.e al eM o. o p poin M, aM Mho n belo

action1	action3	action4	action5	action6	Action5
Action6	action5				

No e: in f nc ion, mechanical, M. c .e, mechanical hand, M i ch, check he "Ma. p.eMMng"

op ion and manip la o. in he Mafe .ange o click "allo Mamping" b on p.eMM ill be .eall Mamping (o p Mamping Mgnal).

T .n he Melec o. M i ch o a oma ion loca ion manip la o. in o N andb mode a oma icall, p.eMM he Ma. ke again manip la o. in o a o ope.a ion, A o . nning can moni o. da a of he manip la o.. A o . n page iMdiMpla ed aMMho n belo .

	Ma	inFrame								<u> </u>
201	15:4 .6/1	43 0/31 OP Origin	n	Connect	Mold:	test		<b>√</b> X5	Advance	Admin
		CheckRun	Unch	eckRun	allowGet	allowSet		ngle Cycle	Punch Pau	Ise
Γ		Туре	X(FB)	Y(UD)	S(SW)	R(HV)	T(AD)	Delay	Speed	
3		Take Wait	0.00	0.00	0.00	0.00	0.00	0.0s	100%	
	2	Take Up	0.00	0.00	0.00	0.00	0.00	0.0s	100%	
	3	Take	0.00	0.00	0.00	0.00	0.00	0.0s	100%	
	4	Take U	0.00	0.00	0.00	0.00	0.00	0.0s	100%	
	5	Take Finish	0.00	0.00	0.00	0.00	0.00	0.0s	100%	
	6	Put Wait	0.00	0.00	0.00	0.00	0.00	0.0s	100%	
	7	Put Up	0.00	0.00	0.00	0.00	0.00	0.0s	100%	
	8	Put	0.00	0.00	0.00	0.00	0.00	0.0s	100%	
	9	Put Up	0.00	0.00	0.00	0.00	0.00	0.0s	100%	•
	Glo	Petrating and	XSpeed	X T. Speed		3. Speed	T. Sp	ieed "U%	T. Speed	, x
-	x a	'B): 0.C	)0mm <b>T (V</b> )	0): 0.00mm	S (S¥) :	0.00deg	B (HV) :	0.00deg	T (AD) :	0.00deg
-	C					Loop Time	0.0	0 s Finishe	d Products	0
	Program I/O Monitor					Record	Set	Settings Return		

he manip la o. c cleMeach ime.

In a o ope.a ion can be Melec ed clicking on "global MpeedM, " X Speed"," Y Speed"," S Speed"," R Speed "," T Speed " b on, hen chooMe m I ipleMof he Mpeed of (X1 X5 X10) P.eMMadd and M b .ac Mpeed ke o adj M he Mpeed. AMMho n in he follo ing fig .e:

	MainFrame								_ 🗆 🗵
1	5:44	Origin		Connect Mo	a.a.	test	<b>_</b>	x5	
							X1		
		n 16	ncka Mun	allowGet	al	lowSet	Single Cy	Punch	Pause
	Туре	X(FB)	Y(UD)	s(sw	) R(HV	) T(AD	) Delay	/ Speed	
1	Take Wa	it 0.00	0.00	0 <u>//</u>	0.00	0.00	0.0s	100%	
	Take Up	0.00	0.00	0.00	0.00	0.00	0.0s	100%	
	Take	0.00	0.00	0.00	0.00	0.00	0.0s	100%	
	Take Up	0.00	0.00	0.00	0.00	0.00	0.0s	100%	
	Take Finish	0.00	0.00	0.80	0,00		0.0s	100%	
	Put Wait	0.008		0.00	0.00			100%***	
P	ut Up							100%	
	Put							100%	
P	ut Up	1	24					*	
	00								



M Mem doe Mno de ec a Mignal.

In an online Ma e, if one machine failM, needM o Mop Maniegp.eMM he "Mop" ke ala.m elimina ion. Call back o a o Ma M, p.eMM he Ma. ke o con in e a o ope.a ion.

Ala.m hen he machine Ma e iMloM. Need o fo.ce he .obo o ac ion, if he p.od c haMbeen p nch comple ed, e .ac iMpoin Mallo ed, machine ill be fo.ced o pick p, o do no need a .obo ic a.m o allo Mgnal on.

If manip la o. on he p.od c, o can click allo Mo.age, machine ill be fo.ced o p and nde. do no need a .obo o enable Mgnal.

Single-loop Ma., he .obo . nMa loop o Mop.

The a oma ic ope.a ion of Mingle caMe, p.eMM he [] b on o M Mpend be manip<sup>m</sup> 1a o. (bl e) manip la o. ill immedia el M Mpend and pop-pala.m, M bh a Mmechanical haah,d, con in e o. n and hen click [pa Me] b on manip la o. (hi e) and hen p.eMM he [Ma.] ke manip la o. cientantal etem o. n.

The online calle if one .obo manip la o. p.elMI[pa Ne] b on

14

p.eMM he he hand con .olle. on he [Ma.] ke manip la o. con in eM o.n.

In he Mop Ma e, click on he "p.og.am" mode name o en e. he model n mbe. of he back page, cop he page o c.ea e ne p.og.amM p.og.am, load p.oced .eM and dele e he p.og.am.

MainFr 🕂	100		
			~
	1 <b>B</b> E		

Fo. diffe.en p.oceMMeM model n mbe. o need of nc ion fo. Mo.age and loading.



c.ea e a ne Mencil ha iMMo.ed p.oced .eM

click he moldM o ha e Mo.ed p.oced .eM(Melec ed ba. .nMbl e), and hen click on he "load" b on, o can load he Melec ed mold p.og.amMa o . n hen o . n he p.og.am.

click he moldM o ha e Mo.ed p.oced .eM(need o check befo.e, die, m l iple choice), and hen click he "dele e" b on o .emo e mold p.og.am, c ..en l loaded Mencil p.oceMMma no be dele ed.

Padejc / hiMfea .e M ppo. MU Pan mode, he back p and .eMo.e. InMe. diMk, click on he ppe. .igh "USB e po. " Melec Mo.age mode (mode, e -check, a m liple-Melec ion), p.eMM he "e po. ", hen check he die, e po. o diMk; click on "USB impo.n/ieldn e.face , Mo.ed in diMk mode, moce Ma e Melec b on M o Mpin man al, hen click on he "p.og.am" b on o en e. he p.og.am g idance page, a MMho n belo .

	MainFrame							
1! 2016	5:46 5/10/31 Origi	n .gin	Conn	ect Mold:	test		✓ X5	Advance Admin
	Туре	X(FB)	Y(UD)	S(SW)	R(HV)	T(AD)	Delay	Speed 🔳
1	Take Wait	0.00	0.00	0.00	0.25%	HACHA		
				.*****				
			and the second se	2				

In he edi men "inMe." and "dele e", "edi ", "Me. o on ", " Man al 1"," Injec "," Macked "," eM ", he" Ma e "op ion.

In he ne mode, he defa I 10 A iMpoin. ThiM10 -Mep p.og.am canno be dele ed. Click a Mep p.og.am, hiMp.og.am ill become bl e. B on o. mo e he hand heel a iM o he deM.ed poM ion, click on he "injec ", each a iMiMloca ed in he c ...en loca ion o he c ...en Mep of he p.og.am.

Click on "Edi" an a iM o poin hiMMep p.og.am again, o can Me he ke boa.d o en e. he c ...en a iMpoMi ion. Fig .e 4-3 Mho M

M	ainFrame								>
15 2016/	10/31 Origin	in	Conn	ect Mold:	test	]	<b>√</b> X5	• A	dvance Admin
	Туре	X(FB)	Y(UD)	Keyboard					-
1	Take Wait	0.00 -	0.00						
2	Take Up	0.00	0.00						
3	Take	0.00	0.00	7	8	9	+	-	
4	Take Up	0.00	0.00	4		6	BS		í 🗌
5	Take Finish	0.00	0.00						
6	Put Wait	0.00	0.00	1	2	3	Cane	el	
7	Put Up	0.00	0.00	CE	0		ок		
8	Put	0.00	0.00						
9	Put Up	0.00	0.00		14-16 15-16	0.00	0.0s	100%	
Pu	t Finish	0.00	0.00	0.00	0.00	0.00	0.0s	100%	
nser	Delete	Edit	Servo O:	n Manuali	l Injec	st Sta	cked Tes	t	Save
( <b>B</b> ):	0.00mm	Y (UD) :	0.00mm	S (ST) :	0.00deg	R (KV) :	0.00deg T(	AD):	0.00deg
					Loop Time	0.00	) s Finished	Products	0
	Trogram	I/(	) Monitor	Rec	ord	See	1,12 1,12 1,12 1,12 1,12 1,12 1,12 1,12	Return	

Click on he "Me. o-on" in o a "Me. o off", he M Mem ill be in addi ion o Y A iMof he mo o. co ld be .ned off. D.ag eaching can d.ag a iM Af e. d.agging o he deM.ed loca ion, click on he "injec", c ..en poM ion of each a iMin o he c ..en p.oced .e. Click on an Mep ac ion MepM click on " eM" each a iM o mo e he c ..en loca ion. ReleaMe he " eM", he a iMMopped. P.eMM" eM", he a iMmo eM o he loca ion of hiM ac ion Mep, Mop. Click on a loca ion o make i bl e, and hen click [inMe.] ill pop p dialog bo , he co..eMponding ac ion ick, and hen click OK, o can inMe. hiMMep in he laM Mep.



1,1,iM he o p of he ac ion of he al e dela a.e p.edela , ha iM he dela ime o go, he o p al e o p , and hen he ne ac ion.

he ai ing dela ime limi. Wai fo. he aMM mp ion of X41 p.og.am, 10S. p.og.am dela in he. n- p o hiMMep, if he.e iMa X41 Mgnal, he p.og.am o. n. If he.e iMno X41 Mgnal, he p.og.am in hiMMep, if 10S Mill no Mgnal, he M Mem ala.m.

he p.og.am e ec ion o ai fo. he Mignal hiMMep o. befo.e, he Mignal o be b.oken.

20

he p.og.am e ec eM o ai fo. he Mignal hiMMep o he Mignal.

aM he a iMof he poin of ac ion, he p.og.am ill pe.fo.m hiM .anM ion poin poM ion.

In Me. he Mandb Mec.i poin of acion, e e. alk a oma icall hen he fi.M mode ill go o Mandb Mafe, he Mecond began o no longe. go he poin

InMe. he "p nch" con .ol o allo he p nch o p.eMM2.

A a poin in o he "join M.aigh line" Maid ha f.om he poin of he la M poin o go o hi M poin i M o mo e he a i Ma he Mame ime o Mop mo ing a he Mame ime.

A a poin in o he Mpace M.aigh line .ep.eMen Ma poin o hiMpoin iMa M.aigh line.

ho.i on al poMion one edi o "Mack loca ion \*" Se Y DiMance Mpacing Se Y A iMof he Macked la e.M Se M he Mack Me Single "Sa e" b on o Ma e i. Click [f nc ion] - [hand con .ol] can en e., he page iMdi ided in o "M Mem Me ingM, ".igh Mmanagemen ", "Menio. adminiM.a o. op ionM, "back p / .eMo.e" fo . ca ego.ieM



On hand con .ol page click on he M Mem Me ingM o en e. he M Mem Me ingMpage:

: Ke one M i ch opening and cloMng.

: ChooMe ei he. ChineMe o. EngliMh.

: The M Mem diMpla M he da e and ime, Melec da e and ime, p.eMMAdd, M b .ac ke o change.

: Se he backg.o nd ligh ing of he Mandb ime.

: Adj M he b.igh neMMof he diMpla .

: DiMpla M he man al con .ol M Mem and he e. Mon n mbe. of

he hoM.

Click he pe.milMion managemen b on o en e. he .igh Mmanagemen page:

MainFra 📶					 
	N <u>89000888</u>	 1111111	*	 80 <b>0</b>	
					~

Pe.miMMonM di ided in o adminiM.a o.Mand Menio. adminiM.a o.M, adminiM.a o.Mcan change he baMc pa.ame e.M, b he .igh o change he mechanical pa.ame e.M, he Menio. adminiM.a o. can change an of he pa.ame e.M

Click he ad anced adminiM.a o. Op ionMb on o en e. he Menio. adminiM.a o. op ionMpage:

MainFrame				
15:53 2016/10/31 Origin P Origin	Connect	Mold: test		5 Advance Admin
System Settings   Level	Management Admin Settin	sgs BackUp/Restor		
Verify				
Extent Function	Use			
MachineCode:	Generate			
RegisterCada		Pagistar PastTin	· No Timit	
hegistercode.		Kegister	e. No Limit	
Verify				
I (FB): 0.00mm	Y (UD): 0.00mm	S (ST): 0.00deg	R (HV): 0.00deg	T (AD): 0.00deg
		Loop Time	0.00 s Fini	shed Products O
System	Axis	Servo	Update	. A. 2800 - 22

Ad anced adminiM.a o. op ionMcan open Mpecial f nc ionM En e. a paMM o.d in he inp bo , click e.if . Yo can chooMe o Me he app.op.ia e f nc ion RegiM.a ion f nc ion:

The .egiM.a ion f nc ion MeM he me hod p.oced .e iMaMfollo M 1, click he "gene.a e machine code" b on o gene.a e he machine code.

MainFr	·					
						m
	2 <mark>1      </mark> 2000 8=8=8=8.008=	1 				
	» »	0				
	***					
			nieren in de la company La company	nellwis Mus III	<b></b> (اجازیکی (۱۱) اردیکس	0"118 8555")12 
8** 3*******		HII X	82	• *		



2 Machine code iMp.o ided o he man fac .e. o gene.a e he .egiM.a ion code.

3 En e. he .egiM.a ion code o he man fac .e. o en e. he edi bo , click on he .egiM.a ion can be comple ed aMMho n belo

MainFrame					
17:10 2016/04/26 Origin Sto	97 Single	Mold:	test	<b>▼</b> X5	Advance Admin
System Settings   Level Ma	anagement Admi <mark>n, s</mark>				
	5.000 C	1921		910	= R
<u>114</u> 15 - 21−-   57				0.00 s	0
	Axis		Servo	Update	Return



Click he [back p / .eMo.e] b on o en e. he back p / .eMo.e page:

Of .efe.M o he a iMpa.ame e. Me ingM incl ding he la.geM mo e, he MmalleM mobile, ma e.ial Mec .i , diMcha.ge poin M diMance pe. .e ol ion. pa.ame e. "M. c " a iMin he defini ionM mechanical hand Me Me ingM config .a ion Me ingM he o.igin I/O Fo.ce inp , I/O Fo.ce o p Me ingM he " ime" Me ingM aM ell aM"Me. o" Me Min. f II back pMback p mechanical pa.ame e.M he pa.ame e.M and o p

he da a and model pa.ame e.M

Me o defa I fac o. pa.ame e. and hen click "Me

fac o. config .a ion".

Me al eM

Se ingMpage click he "mechanical" b on o en e. he pa.ame e.Mof he machine page. The follo ing fig .e:



Me ing he ma im m Me. oa iMmo eM

Me he minim m mo emen of each Me. o a iM (Can be Me

onegaie aleM)

X When a iMa he o.igin, R A iMci.cle S A iMdiManceMbe een he Cen e..

Me and feeding Mandb poin Me al oo. be e. han feeding Mandb poin McIoMe. o a poMi ion of feeding, b o m M enM.e ha he a.m aMfeeding p nch hen he Mec.i iMMafe.

Me p and diMcha.ge he Mandb o. Mandb poin cloMe. o a poMi ion of feeding, b o m M enM.e ha he a.m aMdiMcha.ging Mec.i -poin p.eMM Mec.i.

/ Me he Me. o a iMmo o.M. nning diMance pe. .o nd. Click on he mo o. iM .ning, meaM .e he co..eMponding a iM he ac al . nning diMance, he diMance ha he mo o. .o a eMa ci.cle of diMance . nning.

- he mo o. iM .ning he eM, eMing and feedback Mho 10000, indica eM M cceMM

+ .e e.Me mo o. eMing, eMMMho 10000, feedback diMpla M55536, indica eM M cceMM

32

MainFran	ie							
15:56	Origin		Coppect Mold	· •	3 6	× 35. ×	Advance Admin	2015/3
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	111		JII					

: Specific me hodMa.e aMfollo M

The fi.M machine: Melec ed online aM o . fi.M .obo manip la o. hiMmachine pe iM Me o "fi.M oppo. ni ".

online if i iMa .obo in he middle of hiM pe of mechanical manip la o. Melec ed aM"in e.media e".

online iM he IaM machine hiMmachine mobile eapon peM pleaMe Melec "end machine.

Online caMeM, ID Val e can be Me o 1 16 In ege., be een, and no i h an of he online manip Ia o. ID Repea ed.

Online caMeM ID Val e can be Me o 1 16 In ege., be een, and no i h an of he online manip Ia o. ID Repea ed.

Online caMeM, ID Val e can be Me o 1 16 In ege., be een, and no i h an of he online manip Ia o. ID Repea ed.

P IMe pe: p nch allo Mdela "ime p nch" af e. c ing off, and ai fo. he p nch a all.

Con in o M p nch allo Mfi.M eM af e. p nching do n he dead and ai ing o p nch he o.igin, he imeo pe.iod o ai "ime p nch" Me he leng h of ime n il af e. p nching he o.iginal c ing p nch allo M

Gea. pe: p nch ill allo dead in he ind c ion o he p nch hen c ing p nch allo M if " ime p nch" feel o p nch af e. bo om dead poin , hen p nch and c ing allo M ala.m

Manip la o. op ionM

In e.media e and end manip la o.MMelec ing of he machine Me ingM CAN ID Robo manip la o. op ionM1 Manip la o. 16 Co..eMponding o he n mbe. one b one, Mb he online caMe, ID A fe .obo needM he choiceMa.e fe .

Fi.M machine manip la o. op ionMMe ingM himMelf ID Manip la o. and co..eMponding in e.media e and ail machine ID The .obo , click bl e.

Fo. e ample: 5 Online Mpecific Me ingMa.e aMfollo M

Head machine

Туре —	-		Select		5	
Can Type	Head	~	Punch-1	Punch-2	Punch-3	Punch-4
Punch Type	Pulse	<b>~</b>	Punch-5	Punch-6	Punch-7	Punch-8
Pre Mach ID	0					
Mach ID			Punch-9	Punch-10	Punch-11	Punch-12
Next Mach ID	3. lit		Punch-13	Punch-14	Punch-15	Punch-16
## Middle machine 3



# Middle machine 5



## Middle machine 7



#### Tail machine

Туре			Select			
Can Type	Tail	<b></b>	Punch-1	Punch-2	Punch-3	Punch-4
Punch Type	Pulse	<b></b>	Punch-5	Punch-6	Punch-7	Punch-8
Mach ID	0		Punch-9	Punch-10	Punch-11	Punch-12
Next Mach ID	0		Punch-13	Punch-14	Punch-15	Punch-16

Switch		
StartPuch Tack Over	Tack Stack safeInfo	
TTUP TUCK Dut O		. ove
	「 酸塩 目 () () () () () () () () () () () () ()	

1, Sa. p nch: If checked, a o and man alo p p nch, o he. iMe noo p p nch.

2, T. . n: eM machine check pilo, dead cen e. on he manip la o. doeMno de ec he p nch paMM

3, Flee: hen he manip la o. iMfeeding o. diMcha.ge, iMno i hin he Mec .i one, de ec Mb.oken p nch he o.igin, X A iMand S A iMa op Mpeed back o Mand-b Mec .i .

4 Do n mode: online, hen he fi.M manip la o. con .ol o p nch, chooMe c ing pa e.n.

5 O.iginal Mgnal: hen he .obo back o he o.igin, S A iMand R A iMm M poin o he o.igin, o. he police.

6 Safe Info: check he Mec .i p.omp, hen pla a o on he hoM, hoM and Mafe ipMf.om oppo. ni ieM

7 Tack o e.: af e. check 4 A iMmanip la o.Min he feeding poin ai ing fo. he p.e io M5 A iM.obo Mgnal (onl 5 A iM4 Flip combina ion, j M check hiM). 8 P o e.: af e. checking 5 A iM.obo ill ai behind a .obo a he diMcha.ge poin Mignal manip la o. no p nch Mignal o p (onl 5 A iM4 Flip combina ion, j M check hiM).

10, Tack S ack: ill be checked befo.e machine. o ake in ma e.ial MackM

11, P Mack: checked manip la o. af e. n inding Mack iMa he diMcha.ge poin.

O.igin o.de.: he Mmalle. he al e, he highe. he p.io.i back o he o.igin.

1	x	4	R	~
2	Y	• 5	T	~
3	s	~		

Man al o.igin: in hiMin e.face can be man all ca..ied o o he o.igin.

Ope.a ion p.oceMM in he Mop mode, click once [] b on and hen click Ma. poin co..eMponding o he "a iM b on, hich Mo I began o find he o.igin of he Mhaf, Mhaf a iM o find he o.igin, he co..eMponding b on ill .n g.een ha he Mhaf haMbeen done o find he o.igin of he ac ion.

Start	Set Origined
X	R
Y	Г
5	]

Se ing me hod: 1, he "o.igin biaM" in he offMe poM ion of all he a iMiMMe o 0, aM Mho n

belo :

Origin Offset	0.00	0.00	0.00	0.00	0.00 mm
	2				

Re .n o he o.igin of he ac ion, acco.ding o [] o.igin ke Mp.eMM[Ma.] he o.igin of .e .n.

O.igin.e .n af e. Me ing he o.igin offMe poMiion, o.igin offMe poMiion al eMMe in o o a M

①P.eMM he eme.genc Mop b on o p.eMM he Me. o enable, and hen man all d.ag he a iM o he o.igin poin of he biaMpoin (he biaMpoin m M be in he nega i e di.ec ion of he o.igin, can ie he hand con .ol belo he coo.dina eMof he diMpla poM ion).

②( .n h.ee knob o he man al Ma e, p.eMM he ac ion ke o. Me he fine adj Mmen knob o Mo I mo e he a iM o he poin of o.igin (he biaMpoin m M be in he nega i e di.ec ion of he o.igin, can Mee he poM ion of he coo.dina e diMpla belo he hand con .olle.).

P he offMe al e (poMlie) o he o.igin biaMedibo, and hen Mich o he page can be Ma ed o Ma e he Me ingM

No e: 1, e e. ime o modif he biaMpoin f.om he abo e 1 MepMm M Ma. f.om Mc.a ch (fi.M Me he o.igin offMe iMMe o 0 and hen changed o o he. al eMo he. iMe i ill ca Me. n a oma icall hen he poMiion de ia ion)

S nch.oni a ion o he o.igin: all he a iMa he Mame ime o he o.igin. (b defa | 1%)

O.igin Mpeed: all a eM o he o.igin of he Mpeed, he defa I .a e of 1% of he ma im m 5% if he choice of M nch.oni a ion o he o.igin of he Ma. ing Mpeed m M be Mo, Mo aM no o hi he machine.

39



*I* : he hook on behalf of he o p al e need o de ec, in he p.oceMMof a oma ic ope.a ion if he al e haMbeen checked in he Me ing ime, he o p Mignal iM no de ec ed in he ac al inp , he M Mem ill ala.m.

MainFrame			-	~		
16:01 2016/10/31 OP Origin	in	Connect	ld:te	st	✓ X5	Advance Admin
X Axis	Y Axis	S Axis R	Axis T	<u>) (</u>		
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					08aa <b>00000</b>	
ä.ä.m		uw		U.S.		
	<b>8</b> 00	1192	201		88	

/ : he.eMe in he field of I/O in he Maep.eMM[.e .n] Mop ke Melecie one click ReMe.

MainFrame				
16:02 2016/10/31 OP Origin	Connect	Mold: test	× x5 ×	Advance Admin
X Axis Y Ax	is S Axis	R Axis T Axis	Struct Time	
Arm Define   Other Defi	ne   Origin   I/O Checke	i I/O Reset   Enforce In	nput   Enforce Output	
¥10	¥20	¥30	Y40	[]
¥11	¥21	<b>Y</b> 31	¥41	
¥12	У22	¥32	142	
¥13	У23	УЗЗ	¥43	
¥14	¥24	Y34	¥44	
¥15	¥25	¥35	¥45	
Y16	¥26	¥36	¥46	
Y17	¥27	137	Y47	Save
X (FB): 0.00mm	<b>Y (VD)</b> . O. OOmm	S (SV) : 0.00deg	R (HV): 0.00deg T (AD):	0.00deg
	*	Loop Time	0.00 s Finished Product	s O
System	Axis	Servo	Vpdate	Return

MainFrame				
16:02 2016/10/31 Origin P Origin	Connect Mold:	test	✓ X5	Advance Admin
X Axis Y Axis		2007		Ì
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e Antonio Antonio				
¥(00))				
300	<u>**</u> =			

# No eM

- (1) X45 : P nch o.igin, 1 Top dead cen e. Mignal.
- (2) X46 : P nch do n dead , p nch 1 Bo om dead poin Mignal.
- (3) X43 : P nch o.igin2 , P nch 2 Top dead cen e. Mgnal.
- (4) X44 : P nch do n dead 2, P nch 2 Bo om dead poin Mignal.



#### No eM

(1) RY3A-RY3B: Allo p nch, n inding af e. he comple ion of he M Mem defa I allo Mp nching Mignal iMo p, he o p iMallo ed af e. p nch he .ela M ckMand Mh M

(2) RY2A-RY2B : Allo Mp nch 2, Selec he c ing mode, af e. o inMe. a p nch ac ion o implemen p nch beha io. allo M he p nch of he .ela M ckMand Mh M

(3) RY1A-RY1B: P nch Mafe, a manip la o. a manip la o. o ago af e. allo ing p nch Mignal M, he Mignal Mand allo Ma.obo befo.e p nch Me.ieM

(3) Y10: a ilia. p nch, in Mingle Ma MY10 and RY3 hile M i ching

(4) Y11: p nch Mec .i , po e. on he Y11 o p . When he a o, p nch allo ed ON

44

befo.e Y11 .n-off in p.eMMallo ed OFF af e. Y11 ill con in e o p can con .ol p nch hen p nching h.o gh he connec ion, inc.eaMing p.eMMMec .i . While he man al, p.eMM allo p nching b onMY11 a.e .ned off, b doeMno o p RY3 Mgnal. If he p nch p nch, ind c ion needM o p nch he o.igin, hand Mamped on he p nch b on iMp.eMMed, p nch co ld p nch, if o p.eMM he o.igin o diMconnec, hen immedia el connec Y11 Mgnal banning p nch p.eMM

(5) Al e.na e p nch,Y27 paMand RY3 line b.eaking.

MainFrame								
16:03 2016/10/31	Origin P Origin	Connec	et Mold:	test		~	x5 🗸	Advance Admin
X Axis	Y Axis	S Axis	R Axis	T Axis	Str	uct	Time	
Single Clip	5.0		s					
Punch Time	0.5		s					
Min Punch	0.0		s					
Max Punch	0.0		s					
Feed Pulse	0.5		۶					
<b>I (FB)</b> (	0.00mm T (VD)	): <b>0.00</b> mm	S (S¥) :	0.00deg	R (HV) :	0.00deg	T (AD) :	0.00deg
				Loop Time	0.1	00 s Fin	ished Product	s 0
Sys	tem	Axis		Serv <sub>2</sub>	Update		Return	

Click on he " ime" b on o en e. he ime page.

: pne maic al ein he Mpecified ime iMno de eced in he inp Mignal ill

ala.m.

he ime of he o p of he Mamping Mignal.

he comple ion of a p.eMMng need fo. he Mho. eM ime, he M Mem Ma. M o p.eMM ime, if he p nch back o he e.e ime iMMho. e. han he ime, he deciMon fo. he Mamping ime iM oo Mho. .

No e: he o.igin of he p nch iMMho. e. han he Mho. eM p.eMMng ime.

a Mamping need long ime o comple e he M Mem, Ma. ime. ime Mamping, if mo.e han hiM ime p.eMMhaMh' .e .ned o he op dead cen e., i iMj dged aM Mamping imeo

on-line ope.a ion, af e. he fi.M .eclaime. iMcomple ed, o p feeding allo ed (Y12) ime p IMe Mgnal.

MainFrame - IX Origin 16:03 Mold: 2016/10/31 Origin Connect test X5 Advance Admin 11 . 10 . Ref. U 10.00 Tolerance mm % X Acceleration and Deceleration 0.29 X Max Speed 100 % Y Acceleration and Deceleration 0.29 Y Max Speed 200 8 S Acceleration and Deceleration 0.29 S Max Speed 100 % R Acceleration and Deceleration 0.29 R Max Speed 100 % T Acceleration - 5 T

Click [Me. o] o en e. he Me. o .ela ed Me ingMpage, aMMho n belo :

he diffe.ence be een he .anMmiMMon p IMe and feedback p IMe, he ni iMmm. (mo.e han he diffe.ence, he.e ill be "feedback p IMe de ia ion oo la.ge" ala.m) Me Me. o mo o. pl Mdecele.a ion ime.

The fi.M mode Mpeed: Me he Mpeed of he fi.M mode of ope.a ion of all a eM

Me he ma im m ope.a ing Mpeed of he Me. o mo o...

Ve.Mon pg.ade me hod : PI g in U DiMk And in a fe MecondM, click on he "Mcan fo. pda eM Melec he e.Mon o an o pg.ade and hen poin "S a. pda e".

S a. page and Mandb pda ed :

1, In he U DiMk di.ec o. ne Cop boo imageM o he file of he page needM o be done.

S a. p page imageMneed ide \* High: 800\*600 Uni : pi elM

S andb page need ide \* High: 800\*400 Uni : pi elM

Pic .e fo.ma : Png Fo.ma .

2, On pl g U Hand on he con .olle.;

3, Click he pda e pic .e, pop-p pic .eM pda e bo .

4, Click he Mcan pic .e;

5, Pic .e, Melec Mandb, click he Melec ed aM he Mandb page ill pop p "Me M cceMMf II, .eboo o ake effec ", Melec he Ma. page o Mee mo.e pic .eM, click on he choMen aM he Ma. page, a pop- p "Me M cceMMf II, .eboo o ake effec ", and hen i and .eMa. he M Mem.

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MainFr 16:06 2016/10/3	ame Origin P Origin	1	Connect Mold:	test		🖌 🗶 🖌 Advance Admin
N	ame		Create	a Time		Update Logo Scan Panel
						Scan Host Update
						Update Super Password
x (FB):		X (00): 0.	OOmm Si(ST):	0.00deg Loop Time	0.00 s	deg 7(AD): 0.00deg Finished Products 0
	System	Axis		Servo	Vpdate	Return

Click on he bo om of he Mc.een " I/O Moni o. "b on o en e. he I/O Signal moni o. page. I/O Ma MaMMho n belo :

MainFr 👬										
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			88.	**** <b></b>						1) 

6-1

ThiMpage p.o ideMM. eillance.obo Mgnal inp and o p . Fo. no p nching .obo, he I/O nameM a., M ppo. ing a Mpecific Me of he M Mem I/O name oolMfo. Me. con enience.

Click on he Mc.een belo he ".eco.d" b on o en e. he ala.m log. The follo ing fig .e:

	MainFran	ne		_						
20	16:07 16/10/31	Origin		Connect	Mold:	test		✓ X5	✓ Adv	ance Admin
-		or origin								
	A No	Narm umber		Alarn Infomat	n tion		C	Alarm DateTime	Alar Modify	m Time
	1 500	Lo	ost contact with M	Ctrl!			2016-02	2-29 14:54	no-solve	
		aan	ก และสมอนสะบนไ	່ມແຕມເສມີ			80068115	1799H111000	และสมัด	
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Ĩ	11W	001100001					8			
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			m	1008008					8	

Con .ol M Mem can .eco.d he moM .ecen 500 Ala.m, makeMi eaMe. o find .obo hiMo. info.ma ion.

Click on he Mc.een belo he "modif" b on o en e. he ala.m log. The follo ing fig .e:

10/31	P Origin	Connect Mold:	test	X5 V Advance Admi
Ĵ	DateTime	Property	OldValue	NewValue
	16-10-31 15:59:04	kCS_STRUCT_Config_CanId	7	9
	16-10-31 15:58:59	kCS_STRUCT_Config_Can	Middle	Tail
	16-10-31 20 20 20 20	*kCS_STRUCT_Config_Can	Tail	Middle
4	16-10-31 15:58:45	kcs.sternt.com		
				-
		H1 🚺 👷 2000		
				• 8

Con .ol M Mem can .eco.d he moM .ecen 500 Modif .eco.dM .eco.d he c Mome. o modif he pa.ame e.Mof he page and log in. EaM o .o bleMhoo fail .eMd e o pa.ame e. modifica ion.

# 6.3

Ala.m Con .ol no	Ala.m con en M	The ca Me of he ale.	Sol ionM
30			X Combina ion
			of mo ion Mde b
	When a iMiMMill	When a iMiM	Mide, o. he main
	. nning	Mill . nning	p.og.am and
			Mb.o ine o.n
			he a iM
31			Y Combina ion
			of mo ion <b>M</b> de b
	When gene.a ing he	When gene.a ing	Mide, o. he main
	ac ion a iM. nning	he ac ion a iM. nning	p.og.am and a
			p.og.am ha . nM
			he a iM
32			S Combina ion
			of mo ion <b>M</b> de b
	When gene.a ing he	When gene.a ing	Mide, o. he main
	ac ion Ma iM. nning	he ac ion Ma iM. nning	p.og.am and
			Mb.o ine o.nM
			-a iM

33	Gene.a e mo eM. a iM. nning	Gene.a e mo eM. a iM. nning	R Combina ion of mo ion Mide b Mide, o. he main p.og.am and a p.og.am ha . nM he . a iM
34			T Combina ion
			of mo ion Mide b
	When gene.a ing he	When gene.a ing	Mide, o. he main
	acion - a iM nning	heacion - a iM nning	p og am and
			Mbo ine o n
			he a iM
0.5			
35			A Combina ion
			of motion Mide b
	When gene.a ing he	When gene.a ing	Mide, o. he main
	ac ion a iM. nning	he ac ion a iM. nning	p.og.am and
			Mb.o ine o.n
			heaiM
36			B Combina ion
			of mo ion Mide b
	When gene.a ing he	When gene.a ing	Mide, o. he main
	ac ion b a iM. nning	he ac ion b a iM. nning	p.og.am and a
			p.og.am ha . nM
			hebaiM

37			C Combina ion
			of mo ion <b>M</b> de b
	When gene.a ing he	When gene.a ing	Mide, o. he main
	ac ion c a iM. nning	he ac ion c a iM. nning	p.og.am and
			Mb.o ine o.n
			he c -a iM
38			3D Ac ion
			combo Mide b Mide,
	Gene.a e ac ion 3D	Gene.a e ac ion	o. he main
	lineM. nning	3D lineM. nning	p.og.am and
			Mb.o ine o.n
			3D ac ion
40	X A iMmo ion oo fold	X A iMmo ion oo	P.og.am
		faM	in e.nal eo.
41	V A iMmo ion oo foM	YA iMmo ion oo	P.og.am
		faM	in e.nal eo.
42	S A iMmo ion oo foM	SA iMmo ion oo	P.og.am
		faM	in e.nal eo.
43		RA iMmo ion oo	P.og.am
	R A IIVIMO ION OO TAIVI	faM	in e.nal eo.
44	TA iN/ma ion on fall	TA iMmo ion oo	P.og.am
		faM	in e.nal eo.
45	A A iNdrea ion on fall	A A iMmo ion oo	P.og.am
		faM	in e.nal eo.
46		B A iMmo ion oo	P.og.am
	B A IIVIMO ION OO TAIVI	faM	in e.nal eo.
47		C A iMmo ion oo	P.og.am
	C A iMmo ion oo faM	faM	in e.nal eo.

50	XAiMiMnoMe.oaiM	XAiMiMnoMe.o aiM	Tagh he aiM, aiMiMno he Me.o,Melec he aiMMe.oaiM
51	YAiMiMnoMe.oaiM	YAiMiMnoMe.o aiM	TeacheMhe aiM,he aiMiMno heMe.o,Meleche aiMMe.oaiM
52	SAiMiMnoMe.oaiM	SAiMiMnoMe.o aiM	Teach M mo ion,M-a iMiMno he Me. o, Melec M a iMMe. o a iM
53	RAiMiMnoMe.oaiM	RAiMiMnoMe.o aiM	Teacha iM moemen,a iMiM noheMe.o,Melec hea iMMe.o a iM
54	TA iMiMno Me.oa iM	TA iMiMno Me. o a iM	TeacheM - a iMmo eM he - a iMiMno he Me. o, Melec - a iM Me. o a iM
55	AAiMiMnoMe.oaiM	AA iMiMno Me. o a iM	Teach mo ion, a iMiMno he Me. o, Melec a iMMe. o a iM

56			TeacheMb
			-a iMmo emen h
	BAiMiMno Me oaiM	BA iMiMno Me. o	-a iMiMno he
		a iM	Me o Melec h - a iM
57			
		CA iMiMno Me. o	-a IMmo emen ,c
	CA iMiMno Me. oa iM	a iM	a iMiMno he
			Me. o, Melec c-a iM
			Me.oaiM
60			Checking
	X A iMCAN b M	X A iMCAN b M	a iMCAN b M
	imeo	imeo	connec ionMa.e
			coec
61			Check he
	YA iMCAN b M	YA iMCAN b M	a iMCAN b M
	imeo	imeo	connec ionMa.e
			coec
62			Check Ma iM
	SA iMCAN b M	SA iMCAN b M	CAN b M
	imeo	imeo	connec ionMa.e
			coec
63			
			Check he.
	RAIMCAN bM	RA iMCAN b M	a imcan b M
	imeo	imeo	connec ionMa.e
			coec

64			Check he -
	TA iMCAN b M	TA iMCAN b M	a iMCAN b M
	imeo	imeo	connec ionMa.e
			coec
65			Check a iM
	A A iMCAN b M	A A iMCAN b M	CAN b M
	imeo	imeo	connec ionMa.e
			coec
66			Check he b
	BA iMCAN b M	BA iMCAN b M	-a iMCAN b M
	imeo	imeo	connec ionMa.e
			coec
67			Check he c
	CA iMCAN b M	CA iMCAN b M	a iMCAN b M
	imeo	imeo	connec ionMa.e
			coec
70	Gene.a e ac ion GX	Gene.a e ac ion	Teach again
	doeMno ma ch	GX doeMno ma ch	a iMmo emen
71	Gene.a e ac ion GY	Gene.a e ac ion	Re- each
	did no ma ch	GY did no ma ch	a iMmo emen
72	Gene.a e ac ion GZ	Gene.a e ac ion	Re- each M
	doeMno ma ch	GZ doeMno ma ch	mo ion
73	Gene.a e ac ion GR	Gene.a e ac ion	Re- each .
	doeMno ma ch	GR doeMno ma ch	mo ion
74	Gene.a e ac ion GT	Gene.a e ac ion	Re eacheM -
	doeMno ma ch	GT doeMno ma ch	mo ion
75	While GA doeMno	While GA doeM	Re- each
	ma ch	no ma ch	mo ion

76	Gene.a e ac ion GB	Gene.a e ac ion	Teach again
	do no ma ch	GB do no ma ch	ba iM
77	When GC doeMno ma ch	When GC doeM no ma ch	Teach again c -a iMmo emen
100	X Big de ia ion fo. a ial-feedback	X Big de ia ion fo. a ial-feedback	Checking a iMMe. o .e e.Me coec I , ole.ance pa.ame e.MMe coec I , a iM pa.ame e. Me ingM a.e coec
101	Y Big de ia ion fo. a ial-feedback	Y Big de ia ion fo. a ial-feedback	Checking a iMMe. o .e e.Me coec I , ole.ance pa.ame e.MMe coec I , a iM pa.ame e. Me ingM a.e coec
102	S Big de ia ion fo. a ial-feedback	S Big de ia ion fo. a ial-feedback	Check he M -a iMMe. o .e e.Me coec I , ole.ance pa.ame e.MMe coec I , a iM pa.ame e. Me ingM a.e coec

103	R Big de ia ion fo. a ial-feedback	R Big de ia ion fo. a ial-feedback	Check he. -a iMMe. o .e e.Me coecl, ole.ance pa.ame e.MMe coecl, a iM pa.ame e. Me ingM a.e coec
104	T Big de ia ion fo. a ial-feedback	T Big de ia ion fo. a ial-feedback	Check he -a iMMe. o .e e.Me coec I , ole.ance pa.ame e.MMe coec I , a iM pa.ame e. Me ingM a.e coec
105	A Big de ia ion fo. a ial-feedback	A Big de ia ion fo. a ial-feedback	Check Me. o .e e.Me coec I , ole.ance pa.ame e.MMe coec I , a iM pa.ame e. Me ingM a.e coec
106	B Big de ia ion fo. a ial-feedback	B Big de ia ion fo. a ial-feedback	Check he b -a iMMe. o .e e.Me coec I , ole.ance pa.ame e.MMe coec I , a iM pa.ame e. Me ingM a.e coec

Γ	1	1	<b>1</b>
107	C Big de ia ion fo. a ial-feedback	C Big de ia ion fo. a ial-feedback	Check he c -a iMMe. o .e e.Me coec I , ole.ance pa.ame e.MMe coec I , a iM pa.ame e. Me ingM a.e coec
110	XAiMMe.oala.m	XAiMMe.oala.m	XA iMMe.o ala.m, check he Me.od.ie
111	YAiMMe.oala.m	YAiMMe.oala.m	YA iMMe. o ala.m, check he Me. od.ie
112	SAiMMe.oala.m	SAiMMe.oala.m	SA iMMe. o ala.m, check he Me. od.ie
113	RAiMMe.oala.m	RAiMMe.oala.m	RAiMMe.o ala.m,checkhe Me.od.ie
114	TA iMMe. oala.m	TA iMMe. oala.m	TA iMMe. o ala.m, check he Me. od.ie
115	AA iMMe. oala.m	AA iMMe. oala.m	AA iMMe. o ala.m, check he Me. od.ie

116			BAiMMe.o
	BAiMMe.oala.m	BAiMMe.oala.m	ala.m, check he
			Me.od.ie
117			CA iMMe. o
	CA iMMe. oala.m	CAiMMe.oala.m	ala.m, check he
			Me.od.ie
130		X Limi M i ch a iM	XAiMfo.a.d
	X A IIVITO. a.d IIMI	mo ion in he p.oceMMof	limi inp o. o limi
	ala.m	being	poin iMflaMhing
131		YLimi MichaiM	YA iMfo. a.d
	Y A IIVITO. a.d IIMI	mo ion in he p.oceMMof	limi inp o. o limi
	ala.m	being	poin iMflaMhing
132		S Limi M i ch a iM	SA iMfo. a.d
	SA IMITO. a.d IIMI	mo ion in he p.oceMMof	limi inp o. o limi
	ala.m	being	poin iMflaMhing
133		R Limi M i ch a iM	RAiMfo.a.d
		mo ion in he p.oceMMof	limi inp o. o limi
	ala.m	being	poin iMflaMhing
134		TLimi MichaiM	TA iMfo. a.d
		mo ion in he p.oceMMof	limi inp o. o limi
	ala.m	being	poin iMflaMhing
135	A A iMfo o d limi	A Limi M i ch a iM	AA iMfo. a.d
		mo ion in he p.oceMMof	limi inp o. o limi
	ດເຕ.111	being	poin iMflaMhing
136	D A iMfo o d limi	B Limi M i ch a iM	BA iMfo. a.d
		mo ion in he p.oceMMof	limi inp o. o limi
	aia.111	being	poin iMflaMhing

137	C A iMfo a d limi	CLimi MichaiM	CAiMfo.a.d
		mo ion in he p.oceMMof	limi inp o. o limi
		being	poin iMflaMhing
140			XA iMMa.
	XA iM.e e.Melimi	X Limi M i ch a iM	poin limi inp o.
	ala.m	mo ion in he p.oceMMof	Ma. limi haM
			flaMhing
141			YA iMMa.
	YA iM.e e.Melimi	YLimi MichaiM	poin limi inp o.
	ala.m	mo ion in he p.oceMMof	Ma. limi haM
			flaMhing
142			SA iMMa.
	SA iM.e e.Melimi	S Limi M i ch a iM	poin limi inp o.
	ala.m	mo ion in he p.oceMMof	Ma. limi haM
			flaMhing
143			RA iMMa.
	RAiM.ee.Melimi	RLimi MichaiM	poin limi inp o.
	ala.m	mo ion in he p.oceMMof	Ma. limi haM
			flaMhing
144			TA iMMa.
	TA iM.e e.Melimi	T Limi M i ch a iM	poin limi inp o.
	ala.m	mo ion in he p.oceMMof	Ma. limi haM
			flaMhing
145			AA iMMa.
	AA iM.e e.Melimi	A Limi M i ch a iM	poin limi inp o.
	ala.m	mo ion in he p.oceMMof	Ma. limi haM
			flaMhing

<b>Γ</b>			
146			BA iMMa.
	BAiM.ee.Melimi	B Limi M i ch a iM	poin limi inp o.
	ala.m	mo ion in he p.oceMMof	Ma. limi haM
			flaMhing
147			CA iMMa.
	CAiM.ee.Melimi	C Limi M i ch a iM	poin limi inp o.
	ala.m	mo ion in he p.oceMMof	Ma. limi haM
			flaMhing
150		X A iMope.a ion	Se he
	x a iiviiivi oo ia.ge	e ceedM he ma im m	coec poMion
151		YA iMope.a ion	Se he igh
	Y a IIVIIIVI oo la.ge	e ceedM he ma im m	a iMpoMion
152			Se he
	S a iMiM oo la.ge	SA iMope.a ion	coec Ma iM
		e ceedM he ma im m	poM ion
153			Se he
	R a iMiM oo la.ge	R A IMope.a ion	coec . a iM
		e ceedM he ma im m	poM ion
154		<b>TA 34</b>	Se he
	T a iMiM oo la.ge	I A IMope.a ion	coec -aiM
		e ceedivi ne ma im m	poM ion
155	0 - 'NA'NA	AA iMope.a ion	Se he
	A a IMIM oo la.ge	e ceedM he ma im m	coec poM ion
156		BA iMope.a ion	Se he
	B a IIVIIIVI OO Ia.ge	e ceedM he ma im m	coec ba iM
157			Se he
	C a iMiM oo la.ge		coec c-a iM
			po <b>M</b> ion

		1	
160	X a iMiM oo Mmall	X A iMope.a ion iM leMM han he minim m	Se he
161	Y a iMiM oo Mmall	Y A iMope.a ion iM leMM han he minim m	Se he.igh a iMpoMion
162	S a iMiM oo Mmall	SA iMope.a ion iM leMM han he minim m	Se he coec Ma iM poMion
163	R a iMiM oo Mmall	R A iMope.a ion iM leMM han he minim m	Se he coec .a iM poMion
164	Ta iMiM oo Mmall	T A iMope.a ion iM leMM han he minim m	Se he coec - a iM poMion
165	A a iMiM oo Mmall	A A iMope.a ion iM leMM han he minim m	Se he coec poMion
166	B a iMiM oo Mmall	B A iMope.a ion iM leMM han he minim m	Se he coec baiM
167	C a iMiM oo Mmall	C A iMope.a ion e ceedM he ma im m	Se he coec c-a iM poMion
170	X a iM. nning oo la.ge	X A iMpoMion e ceedMhema im m al e	Se he coec poMion
171	Y a iM. nning oo la.ge	Y A iMpoMion e ceedMhema im m al e	Se he.igh a iMpoMion

172		SA iMpoM ion	Se he
	S a iM. nning oo la.ge	e ceedM he ma im m	coec Ma iM
		al e	po <b>M</b> ion
173		R A iMpoMion	Se he
	R a IM. nning oo	e ceedM he ma im m	coec . a iM
	la.ge	al e	po <b>M</b> ion
174		TA iMpoMion	Se he
	T a iM. nning oo la.ge	e ceedM he ma im m	coec -a iM
		al e	po <b>M</b> ion
175		AA iMpoM ion	Que ha
	A a iM. nning oo la.ge	e ceedM he ma im m	Se ne
		al e	coec pownion
176		BA iMpoM ion	Qa ha
	B a iM. nning oo la.ge	e ceedM he ma im m	
		al e	coec da IVI
177		CA iMpoM ion	Se he
		e ceedM he ma im m	coec c-a iM
	la.ye	al e	po <b>M</b> ion
180	X a iM. n ime iM oo	X a iMpoMion iM	Se he
	Mmall	leMM han he minim m	coec poMion
181	YaiM.nimeiMoo	Y a iMpoMi ion iM	Se he igh
	Mmall	leMM han he minim m	a iMpoMion
182			Se he
		Ja IIVIpulvi IUTI IIVI	coec Ma iM
			poM ion
183			Se he
			coec . a iM
		ienwinan neminim m	po <b>M</b> ion

184			Se he
	Ta iM. n ime iM oo	T a MpoM ion M	coec -aiM
	Mmall	Ieiminan ne minim m	po <b>M</b> ion
185	A a iM. n ime iM oo	A a iMpoM ion iM	Se he
	Mmall	leMM han he minim m	coec poM ion
186	BaiM.n imeiMoo	B a iMpoM ion iM	Se he
	Mmall	leMM han he minim m	coec baiM
187	CaiM nimeiMoo	C a iMpoMion iM	Se he
	Mmall		coec c-a iM
			po <b>M</b> ion
200	XA le memo fa l	X A le memo.	Sa e he
		fa I	a iMpa.ame e.
201	V A le memo fa l	V A le memo fa l	ReMaehe
			a iMpa.ame e.
202	SA le memo fa l	SA le memo.	Sa e Ma iM
		fa I	pa.ame e.
203	RA le memo fa l	RA le memo.	Sa e he.
		fa I	a iMpa.ame e.
204	TA le memo fa l	TA le memo fa l	Sa e he -
			a iMpa.ame e.
205	A A le memo fa l	ΔΔ le memo fa l	ReMaehe
			a iMpa.ame e.
206	BAlememo fal	BA le memo.	Sa e heb
		fa I	-a iMpa.ame e.M
207	CA le memo fa l	CA le memo.	Sa e he c
		fa I	a iMpa.ame e.
208	M c memo e o	M. c memo.	Sa e he
		eo.	M. c pa.ame e.M

210		Uppe. and lo e.	ChooMe
		comp eeco.dMof he	man al o. hoM o
		a iMpa.ame e. iM	Ma e again he
		inconMMen	a iMpa.ame e.
211			
211		Uppe. and lo e.	Choo <del>b/</del> e
211	Y A iMM o	Uppe. and lo e. comp eeco.dMof he	Chooteve man bloeMa e
211	YA iMM. c	Uppe. and lo e. comp eeco.dMof he a iMpa.ame e. iM	Choobke man bloeMa e hehoM anoùiM
211	YAiMM.c	Uppe. and lo e. comp eeco.dMof he a iMpa.ame e. iM inconMMen	Choo&He man baloeMa e hehoM aoûziM pa.amee.

X2, 1

217		Uppe. and lo e.	ChooMe
	CA iMM. c	comp eeco.dMof c	man aloeMa e
		-a iMM. c pa.ame e. iM	he hoM c a iM
		inconMMen	pa.ame e.
218	Compa iNha of	Uppe. and lo e.	ChooMe
	M. c .al pa.ame e.M	comp eeco.dMdo no	man aloeMa e
		ma ch he pa.ame e.M	he hoM pa.ame e.M
220		PC .eco.ding he	Sa o bo
	XA iMpa.ame e. pa.i	a iMpa.ame e. pa.i	a iMna ame e
		and eo.	

YA iMpahame e. pahe

227		Comp eeco.dM	
	C A iMpa ama a na i	ofc-a iMM. c	Sa e he c
	CA impalattie el pali	pa.ame e. pa.i and	a iMpa.ame e.
		eo.	
228		The M. c	
	M. c pa.ame e.	pa.ame e.Mof hoM	Sa e he
	pa.i	comp eeco.dMcheck	M. c pa.ame e.M
		M m eo.M	
303	S Mem pa.ame e.M	Main p.og.am eacheMa check M m eo.	ReMaehe eachp.og.am
304	Eme.genc Mop inp	Eme.genc Mop b on iMp.eMMed o. he eme.genc Mop inp iM no Mho. ed	S op pla o. Mop inp MMho. ed
305	The main loop eo.	The main loop eo.	S Mem in e.nal eo.
308	Tole.ance iM oo la.ge	Tole.ance Me al e e ceedM he Mpecified .ange	The ole.ance pa.ame e. do n
309	F nc ion mod le	Mod le	Ne
	pa.ame e. eo.	pa.ame e.Mco p	modeling
310	Mac.o iS b iM oo	Mac.o iS b iM oo	Sa e he
	la.ge	la.ge	p.og.am
311	Mac o is h neMing	Mac.o iS b	Sa e he
		neMing	p.og.am
313			Remo e
	S acked o ellapping	5 аск о риса еМ	d plica e Mack

314	Se ence eo.	Se ence eo.	Sa e he	
315	S Mem pa.ame e.M	S Mem pa.ame e. pa.i and eo.	Sa e he M Mem pa.ame e.M	
316	Se ence eo.	Se ence eo.	Sa e he p.og.am	
318	Sepa.a e di.ec i eM and liMM	Sepa.a e di.ec i eMand liMM	Sa e he p.og.am	
320	Called ieg Ia. SEQ	Main p.og.am o. .eMe. ed canno be emp	InMe. he main p.og.am o. he Me aMide p.og.am p.og.amming Ma emen M	
321	Called a check digi eo. occed	Called a check digi eo. occed	ReMaehe eachp.og.am	
322	Call appea.ed GM calib.a ion fa I	Call appea.ed GM calib.a ion fa I	ReMaehe eachp.og.am	
326	Mo ion o .epea	Mo ion o .epea	Teaching p.og.amM. nning a he Mame a iM mo emen	
327	Ac ion Repea	Ac ion Repea	Teaching p.og.amMa.e . nning i h a non-a ial mo emen	
333	Machine .e-elec ion	Machine .e-elec ion	TipM	
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334	A.m .e-elec ion	A.m .e-elec ion	TipM	
335	S Mem pa.ame e.M	S Mem pa.ame e.M	P.og.am eacheMcheck M m eo.M	
343	Machine ID change	Machine ID change	TipM	
344	Online Mchema change	Online Mchema change	TipM	
500	HoM connec ion	Comm nica ion i h he hoM in e p M	Check looMe lineMof comm nica ion i h he hoM	
501	I/O T.affic e cep ionM	I/O boa.d comm_nica ionM	Check IO Boa.d comm nica ion line	
502	Se o p	P.od c ion haM o	Tip do n	
505	P.og.am Mnch.oni a ion eo.M	P.og.am Mnch.oni a ion eo.M	G idance pe doeMno ma ch he check M m	
508	Manip la o. pa Me .epea	M liple manip la o.p.eMM pa Me	M I iple machineM o nM Mpend	
509	Comm nica ion Me ence eo.	Comm nica ion Me ence eo.	P.oced .eM fo. in e.nal con .ol	

510		Comm nica ion		Comm nica ion	P.oced .eM
	Me	ence eo.	Me	ence eo.	fo. in e.nal con .ol
511		Comm nica ion		Comm nica ion	P.oced .eM
	Me	ence eo.	Me	ence eo.	fo. in e.nal con .ol
512		Comm nica ion		Comm nica ion	P.oced .eM
	Me	ence eo.	Me	ence eo.	fo. in e.nal con .ol
600					Checking
					aiMMe.o.ee.Me
		X A iM o find he o.igin		XA iM Mignal	coecl, n mbe. of
	fail		fail	.e	p IMeMpe.
					.e ol ion a.e
					coec
601					Checking
					aiMMe.o.ee.Me
		YA iM o find he o.igin		YA iM Mignal	coecl, n mbe. of
	fail		fail	.e	p IMeMpe.
					.e ol ion a.e
					coec
602					Check he M
					-a iMMe. o.e e.Me
		SA iM o find he o.igin		SAiM Mignal	coecl, n mbe. of
	fail		fail	.e	p IMeMpe.
					.e ol ion a.e
					coec

603			Check he.
			-a iMMe. o.e e.Me
	RA iM o find he o.igin	RAiM Mignal	coecl, n mbe. of
	fail	fail .e	p IMeMpe.
			.e ol ion a.e
			coec
604			Check he
			-aiMMe.o.ee.Me
	TA iM o find he o.igin	TA iM Mignal	coecl, n mbe. of
	fail	fail .e	p IMeMpe.
			.e ol ion a.e
			coec
800		4.000	E amina ion
	imeo	comm nica ion imeo	1 machine CAN
			comm nica ion line
801		2.041	Check 2-
		2 CAN	CAN
	Imeo	comm nica ion imeo	comm nica ion line
802	2 CAN communication	2 CAN	Check 3-
	3 CAN comm nica ion	3 CAN	CAN
	Ineo		comm nica ion line
803	4 CAN comm nica ion	4 CAN	Check 4 CAN
	imeo	comm nica ion imeo	comm nica ion line
804	5 CAN comm nica ion	5 CAN	Check 5 CAN
	imeo	comm nica ion imeo	comm nica ion line
805	C CAN communication	C CAN	Check 6-
		o UAN	CAN
	IIIeo		comm nica ion line

7 CAN communication	7 CAN	Check 7-
imeo		CAN
inco		comm nica ion line
	0.04N	Check 8-
	8 CAN	CAN
Imeo	comm nica ion imeo	comm nica ion line
		Check 9-
9 CAN comm nica ion	9 CAN	CAN
imeo	comm nica ion imeo	comm nica ion line
(0.01)	(0.011)	Checked 10,
10 CAN	10 CAN	CAN
comm nica ion imeo	comm nica ion imeo	comm nica ion line
		Check 11
imeo	11 CAN	CAN
	comm nica ion imeo	comm nica ion line
40.000	10.000	InMpec ion
12 CAN	12 CAN	12 , CAN
comm nica ion imeo	comm nica ion imeo	comm nica ion line
	(0.01)	Check 13
13 CAN	13 CAN	machineM CAN
comm nica ion imeo	comm nica ion imeo	comm nica ion line
14 CAN	14 CAN	Check 14
comm nica ion imeo	comm nica ion imeo	CAN
		comm nica ion line
(5.0.1)		Check 15
15 CAN	15 CAN	machine CAN
comm nica ion imeo	comm nica ion imeo	comm nica ion line
	7 CAN comm nica ion imeo 8 CAN comm nica ion imeo 9 CAN comm nica ion imeo 10 CAN comm nica ion imeo 11 CAN comm nica ion imeo 12 CAN comm nica ion imeo 13 CAN comm nica ion imeo	7 CAN comm nica ion imeo7 CAN comm nica ion imeo8 CAN comm nica ion imeo8 CAN comm nica ion imeo9 CAN comm nica ion imeo9 CAN comm nica ion imeo10 CAN comm nica ion imeo9 CAN comm nica ion imeo10 CAN comm nica ion imeo10 CAN comm nica ion imeo11 CAN comm nica ion imeo11 CAN comm nica ion imeo12 CAN comm nica ion imeo11 CAN comm nica ion imeo13 CAN comm nica ion imeo13 CAN comm nica ion imeo14 CAN comm nica ion imeo14 CAN comm nica ion imeo15 CAN comm nica ion imeo15 CAN comm nica ion imeo

<b></b>			
815	16 CAN comm nica ion imeo	16 CAN comm nica ion imeo	Check 16 CAN comm nica ion line
817	The.e can be onl one fi.M machine	Tai an Solida.i Union machine CAN pe Melec m I iple machineM	Ge.idof eceMMofhefi.M
818	No machine	Tai an Solida.i Union machine CAN pe i ho fi.M Melec ing machine	ChooMe a machine o do he fi.M machine
820	Slae1iMnoao Mae,	HoMMin hea o Mae, heMae1iMno a o	Check o of 1 iMonline, he he. he.e iMala.m
821	Sla e 2 iMno a o Ma e,	HoMMin he a o Ma e, f.om machine 2 iM no a o	Check f.om machine 2 iMonline, he he. he.e iM ala.m
822	Slae3iMnoao Mae,	HoMMin hea o Mae, 3 iMnoa o	Check o 3 iMonline, he he. he.e iMala.m
823	Sla e 4 iMno a o Ma e,	HoMMin hea o Mae,4a.enoa o	Check o of 4 iMonline, he he. he.e iMala.m
824	Sla e 5 iMno a o Ma e,	HoMMin hea o Mae,5a.enoa o	Check o of 5 iMonline, he he. he.e iMala.m

825	Sla e 6 iMno a o Ma e, Sla e 7 iMno a o	HoMMin he a o Mae, 6 a.e no a o HoMMin he a o	Check f.om a 6 iMonline, he he. he.e iMala.m Check o of
	Ma e,	Male, 7 iMnolla o	7 iMonline, he he. he.e iMala.m
827	Slae8iMnoao Mae,	HoMMin hea o Mae,8iMnoa o	Check o of 8 iMonline, he he. he.e iMala.m
828	Slae9iMnoao Mae,	HoMMin hea o Mae,9a.enoa o	Check o of 9 iMonline, he he. he.e iMala.m
829	Sla e 10 iMno a o Ma e,	HoMMin hea o Mae, 10 iMno a o	Check o of 10 iMonline, he he. he.e iM ala.m
830	Sla e 12 iMno a o Ma e,	HoMMin hea o Mae, 11 a.e no a o	Check o 11 iMonline, he he. he.e iMala.m
831	Sla e 12 iMno a o Ma e,	HoMMin hea o Mae, 12 iMnoa o	Check o of 12 a.e online and he he. he.e iM ala.m
832	Sla e 13 iMno a o Ma e,	HoMMin he a o Ma e, f.om 13 iMno a o	Check o of 13 a.e online, he he. he.e iM ala.m

833			Check o of	
	Sla e 14 iMno a o	HoMMin he a o	14 iMonline,	
	Ma e,	Mae, 14 a.e no a o	he he. he.e iM	
			ala.m	
834		HoMMin be a o	Check o of	
	Sla e 15 iMno a o	Ma e f om machine 15	15 a.e online,	
	Ma e,		he he. he.e iM	
			ala.m	
835			Check o of	
	Sla e 16 iMno a o	HoMMin he a o	16 iMonline,	
	Ma e,	Mae, 16 a.e no a o	he he. he.e iM	
			ala.m	
900	1 ID conflic	Selec m I iple	Remo e	
		manip la o. 1 ID	d plica e 1 ID	
901	2 ID conflic	Selec m l iple	Remo e	
	2 ID conflic	manip la o. 2 ID	d plica e 2 ID	
902		Selec m l iple	Remo e	
		manip la o. 3 ID	d plica e 3 ID	
903		Selec m l iple	Remo e	
		manip la o. 4 ID	d plica e 4 , ID	
904		Selec m l iple	Remo e	
		manip la o. 5 ID	d plica e 5 , ID	
905		Selec m l iple	Remo e	
	6 ID conflic	manip la o. 6 , ID	d plica e 6 , ID	
906		Selec m l iple	Remo e	
	/ ID conflic	manip la o. 7 ID	d plica e 7 , ID	
907		Selec m l iple	Remo e	
	8 ID conflic	manip Ia o. 8 , ID	d plica e 8 , ID	

908		Selec m I iple	Remo e
		manip la o. 9 , ID	d plica e 9 , ID
909	10 ID conflic	Selec m I iple	Remo e
		manip la o. 10 ID	d plica e 10 ID
910	11 ID conflic	Selec m I iple	Remo e
		manip la o. 11 ID	d plica e 11 ID
911	12 ID conflic	Selec m l iple manip la o. 12 , ID	Remo e d plica e 12 , ID
912	13 ID conflic	Selec m l iple manip la o. 13 ID	Remo e d plica e 13 , ID
913	14 ID conflic	Selec m l iple manip la o. 14 ID	Remo e d plica e 14 ID
914	15 ID conflic	M I iple .obo choice 15 , ID	Remo e d plica e 15 ID
915	16 ID conflic	Selec m l iple manip la o. 16 ID	Remo e d plica e 16 , ID
1000	R nning p nch in poin 1 b.oken	R nning p nch in poin 1 b.oken	When he.e iM noopp.eMM alloM,pncho.igin diMconnec
1001	R nning p nch in poin 2 c	R nning p nch in poin 2 c	When he.e iM noopp.eMM alloM,pncho.igin diMconnec

1002			When he.e iM
	R nning p nch in	R nning p nch in	noopp.eMM
	poin 3 c	poin 3 c	allo Mpncho.igin
			diMconnec
1003			When he.e iM
	R nning p nch in	R nning p nch in	noopp.eMM
	poin 4 c	poin 4 c	allo Mpncho.igin
			diMconnec
1004			When he.e iM
	R nning p.eMM he	R nning p.eMM	noopp.eMM
	o.igin 5 b.oken	he o.igin 5 b.oken	allo Mpncho.igin
			diMconnec
1005			When he.e iM
	R nning p nch in	R nning p nch in	noopp.eMM
	poin 6 b.oken	poin 6 b.oken	allo Mpncho.igin
			diMconnec
1006			When he.e iM
	R nning p nch in	R nning p nch in	noopp.eMM
	o.igin 7 b.oken	o.igin 7 b.oken	allo Mpncho.igin
			diMconnec
1007			When he.e iM
	R nning p nch in	R nning p nch in	noopp.eMM
	o.igin 8 off	o.igin 8 off	allo Mpncho.igin
			diMconnec
1008			When he.e iM
	R nning p nch in	R nning p nch in	noopp.eMM
	poin 9 off	poin 9 off	allo Mpncho.igin
			diMconnec

1009			When he.e iM
	R nning p nch in	R nning p nch in	noopp.eMM
	poin 10 fa I	poin 10 fa I	allo Mpncho.igin
			diMconnec
1010			When he.e iM
	R nning p nch in	R nning p nch in	noopp.eMM
	poin 11 b.oken	poin 11 b.oken	allo Mpncho.igin
			diMconnec
1011			When he.e iM
	R nning p nch in	R nning p nch in	noopp.eMM
	o.igin 12 off	o.igin 12 off	allo Mpncho.igin
			diMconnec
1012			When he.e iM
	R nning p nch in	R nning p nch in	noopp.eMM
	poin 13 b.oken	poin 13 b.oken	allo Mpncho.igin
			diMconnec
1013			When he.e iM
	R nning p nch in	R nning p nch in	noopp.eMM
	poin 14 b.oken	poin 14 b.oken	allo Mpncho.igin
			diMconnec
1014			When he.e iM
	R nning p nch in	R nning p nch in	noopp.eMM
	poin 15 b.eak	poin 15 b.eak	allo Mpncho.igin
			diMconnec
1015			When he.e iM
	R nning p nch in	R nning p nch in	noopp.eMM
	poin 16 b.oken	poin 16 b.oken	allo Mpncho.igin
			diMconnec

1100	a oMignal, p.eMM1 iM		Check a o
	no a o	NO a O Migrialiwi	MgnalM
1101	a o Mignal, p.eMM2 iM		Check a o
	no a o	NO a O Migrialiwi	MgnalM
1102	a o Mignal, p.eMM3 iM		Check a o
	no a o	NO a O Migrialiwi	MgnalM
1103	a o Mignal, p.eMM4 iM		Check a o
	no a o	NO a O Migrialiwi	MgnalM
1104	a o Mignal, pnch 5		Check a o
	iMno a o	No a o Migrialivi	MgnalM
1105	a o Mignal, p.eMM6 iM		Check a o
	no a o	NO a O Migrialiwi	MgnalM
1106	a o Mignal, p.eMM7 iM		Check a o
	no a o	NO a O WIGHAIM	MgnalM
1107	a o Mignal, pnch 8		Check a o
	iMno a o	No a o MignalM	MgnalM
1109	a a Manal n a M(Q iM		Chook a la
1100		No a o MignalM	
1100			
1109	iMno a o	No a o MignalM	MonalM
1110	a o Manal n nch 11		
	iMno a o	No a o MignalM	ManalM
1111	a o Manal n nah 12		
	a unignal, prich 12 iMpo a o	No a o MignalM	
1110			
	a olwignai, p.eiwiri 3	No a o MignalM	
	livil U a U		

1113	а	o Mgnal, p.eMM14	No.a		Check a	0
	iMno a	0	nu a	Umgraim	MgnalM	
1114	а	o Mignal, p nch 15	No a		Check a	0
	iMno a	0	NU a	Unignalim	MgnalM	
1115	а	o Mgnal, p.eMM16	No a		Check a	0
	iMno a	0	nu a	Umgraim	MgnalM	
1152	p Mec.elo	nch hen no in a oca ion	pnch maniplao.l in a Mec.el	n allo M M hen no oca ion	P	

2001	Wai ing fo. he X11 open imeo	Wai ing fo. he X11 open imeo	Check he inp Mgnal i.ing iM incoec
2002	Wai ing fo. he X12 open imeo	Wai ing fo. he X12 open imeo	Check he inp Mgnal i.ing iM incoec
2003	Wai ing fo. he X13 open imeo	Wai ing fo. he X13 open imeo	Check he inp Mgnal i.ing iM incoec
2004	Wai ing fo. he X14 open imeo	Wai ing fo. he X14 open imeo	Check he inp Mgnal i.ing iM incoec
2005	Wai ing fo. he X15 open imeo	Wai ing fo. he X15 open imeo	Check he inp Mgnal i.ing iM incoec
2006	Wai ing fo. he X16 open imeo	Wai ing fo. he X16 open imeo	Check he inp Mgnal i.ing iM incoec
2007	Wai ing fo. he X17 open imeo	Wai ing fo. he X17 open imeo	Check he inp Mgnal i.ing iM incoec
2008	Wai ing fo. he X20 open imeo	Wai ing fo. he X20 open imeo	Check he inp Mgnal i.ing iM incoec
2009	Wai ing fo. he X21 open imeo	Wai ing fo. he X21 open imeo	Check he inp Mgnal i.ing iM incoec

2010	Wai ing fo. I open imeo	he X22	Wai ing fo. X22 open imeo	he	inp inco.	Check Mgnal .ec	he i.ing iM
2011	Wai ing fo. I open imeo	he X23	Wai ing fo. X23 open imeo	he	inp inco.	Check Mgnal .ec	he i.ing iM
2012	Wai ing fo. 1 open imeo	he X24	Wai ing fo. X24 open imeo	he	inp inco.	Check Mgnal .ec	he i.ing iM
2013	Wai ing fo. I open imeo	he X25	Wai ing fo. X25 open imeo	he	inp inco.	Check Mgnal .ec	he i.ing iM
2014	Wai ing fo. I open imeo	he X26	Wai ing fo. X26 open imeo	he	inp inco.	Check Mgnal .ec	he i.ing iM
2015	Wai ing fo. I open imeo	he X27	Wai ing fo. X27 open imeo	he	inp inco.	Check Mgnal .ec	he i.ing iM
2016	Wai ing fo. I open imeo	he X30	Wai ing fo. X30 open imeo	he	inp inco.	Check Mgnal .ec	he i.ing iM
2017	Wai ing fo. 1 open imeo	he X31	Wai ing fo. X31 open imeo	he	inp inco.	Check Mgnal .ec	he i.ing iM
2018	Wai ing fo. I open imeo	he X32	Wai ing fo. X32 open imeo	he	inp inco.	Check Mgnal .ec	he i.ing iM

2019	open	Wai ing fo. he X imeo	(33	Wai ing fo. X33 open imeo	he	inp inco.	Check Mgnal .ec	he i.ing iM
2020	open	Wai ing fo. he X imeo	(34	Wai ing fo. X34 open imeo	he	inp inco.	Check Mgnal .ec	he i.ing iM
2021	open	Wai ing fo. he X imeo	(35	Wai ing fo. X35 open imeo	he	inp inco.	Check Mgnal .ec	he i.ing iM
2022	open	Wai ing fo. he X imeo	(36	Wai ing fo. X36 open imeo	he	inp inco.	Check Mgnal .ec	he i.ing iM
2023	open	Wai ing fo. he X imeo	(37	Wai ing fo. X37 open imeo	he	inp inco.	Check Mgnal .ec	he i.ing iM
2024	open	Wai ing fo. he X imeo	<b>〈</b> 40	Wai ing fo. X40 open imeo	he	inp inco.	Check Mgnal .ec	he i.ing iM
2025	open	Wai ing fo. he X imeo	(41	Wai ing fo. X41 open imeo	he	inp inco.	Check Mgnal .ec	he i.ing iM
2026	open	Wai ing fo. he X imeo	(42	Wai ing fo. X42 open imeo	he	inp inco.	Check Mgnal .ec	he i.ing iM
2027	open	Wai ing fo. he X imeo	<b>〈</b> 43	Wai ing fo. X43 open imeo	he	inp inco.	Check Mgnal .ec	he i.ing iM

			1
2028	Wai ing fo. he X44 open imeo	Wai ing fo. he X44 open imeo	Check he inp Mignal i.ing iM incoec
2029	Wai ing fo. he X45 open imeo	Wai ing fo. he X45 open imeo	Check he inp Mgnal i.ing iM incoec
2030	Wai ing fo. he X46 open imeo	Wai ing fo. he X46 open imeo	Check he inp Mgnal i.ing iM incoec
2031	Wai ing fo. he X47 open imeo	Wai ing fo. he X47 open imeo	Check he inp Mgnal i.ing iM incoec
2100	Wai ing fo. he X10 .n off he imeo	Wai ing fo. he X10 .n off he imeo	Check he inp Mgnal i.ing iM incoec
2101	Wai ing fo. he X11 .n off he imeo	Wai ing fo. he X11 .n off he imeo	Check he inp Mgnal i.ing iM incoec
2102	Wai ing fo. he X12 .n off he imeo	Wai ing fo. he X12 .n off he imeo	Check he inp Mgnal i.ing iM incoec
2103	Wai ing fo. he X13 .n off he imeo	Wai ing fo. he X13 .n off he imeo	Check he inp Mgnal i.ing iM incoec
2104	Wai ing fo. he X14 .n off he imeo	Wai ing fo. he X14 .n off he imeo	Check he inp Mgnal i.ing iM incoec



2114	Wai ing fo. he X26 .n off he imeo	X26	Wai ing fo. he .n off he imeo	inp inco.	Check Mgnal .ec	he i.ing iM
2115	Wai ing fo. he X27 .n off he imeo	X27	Wai ing fo. he .n off he imeo	inp inco.	Check Mgnal .ec	he i.ing iM
2116	Wai ing fo. he X30 .n off he imeo	X30	Wai ing fo. he .n off he imeo	inp inco.	Check Mgnal .ec	he i.ing iM
2117	Wai ing fo. he X31 .n off he imeo	X31	Wai ing fo. he .n off he imeo	inp inco.	Check Mgnal .ec	he i.ing iM
2118	Wai ing fo. he X32 .n off he imeo	X32	Wai ing fo. he .n off he imeo	inp inco.	Check Mgnal .ec	he i.ing iM
2119	Wai ing fo. he X33 .n off he imeo	X33	Wai ing fo. he .n off he imeo	inp inco.	Check Mgnal .ec	he i.ing iM
2120	Wai ing fo. he X34 .n off he imeo	X34	Wai ing fo. he .n off he imeo	inp inco.	Check Mgnal .ec	he i.ing iM
2121	Wai ing fo. he X35 .n off he imeo	X35	Wai ing fo. he .n off he imeo	inp inco.	Check Mgnal .ec	he i.ing iM
2122	Wai ing fo. he X36 .n off he imeo	X36	Wai ing fo. he .n off he imeo	inp inco.	Check Mgnal .ec	he i.ing iM

2123	•					Check	ho
2120	Wai ing fo.	he X37		Wai ing fo. he	inn	Manal	i ing iM
	.n off he imeo		X37	.n off he imeo	inco.	.ec	
2124	Wai ing fo	bo V10		Wai ing fa ha		Check	he
	vval ilig io.		V40	n off bo impo	inp	Mignal	i.ing iM
	.n on he imeo		740	.non ne imeo	inco.	.ec	
2125	Wai ing fa	ha V11		Wai ing fa ba		Check	he
	vval ing io.	ne X4 I	V44	valing lo. ne	inp	Mignal	i.ing iM
	.n on he imeo		741	.n on ne imeo	inco.	.ec	
2126	Wai ing fa	ha V40		Wai ing fa ba		Check	he
		ne X42	V40		inp	Mignal	i.ing iM
	.n on ne imeo		X4Z	.nom ne imeo	inco.	.ec	
2127	Mai in a fa	ha V40				Check	he
	vvaling to.	ne X43	V40	waiing to. ne	inp	Mignal	i.ing iM
	.n oli ne imeo		X43	.non ne imeo	inco.	.ec	
2128	Mai in a fa	h a V 4 4				Check	he
	wai ing to.	ne X44	V 4 4	waiing to. ne	inp	Mignal	i.ing iM
	.n on ne imeo		λ44	.non ne imeo	inco.	.ec	

2400	Single head al e	Single head al e	Check
	Y10 en e.ed X10 open	Y10 en e.ed X10 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2401	Single head al e	Single head al e	Check
	Y11 en e.ed X11 open	Y11 en e.ed X11 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2402	Single head al e	Single head al e	Check
	Y12 en e.ed X12 open	Y12 en e.ed X12 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2403	Single head al e	Single head al e	Check
	Y13 en e.ed X13 open	Y13 en e.ed X13 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2404	Single head al e	Single head al e	Check
	Y14 en e.ed X14 open	Y14 en e.ed X14 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2405	Single head al e	Single head al e	Check
	Y15 en e.ed X15 open	Y15 en e.ed X15 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2406	Single head al e	Single head al e	Check
	Y16 en e.ed X16 open	Y16 en e.ed X16 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2407	Single head al e	Single head al e	Check
	Y17 en e.ed X17 open	Y17 en e.ed X17 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2408	Single head al e	Single head al e	Check
	Y20 en e.ed X20 open	Y20 en e.ed X20 open	he he. he inp
	imeo	imeo	Mgnal Mgnal

2409	Single head al e	Single head al e	Check
	Y21 en e.ed X21 open	Y21 en e.ed X21 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2410	Single head al e	Single head al e	Check
	Y22 en e.ed X22 open	Y22 en e.ed X22 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2411	Single head al e	Single head al e	Check
	Y23 en e.ed X23 open	Y23 en e.ed X23 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2412	Single head al e	Single head al e	Check
	Y24 en e.ed X24 open	Y24 en e.ed X24 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2413	Single head al e	Single head al e	Check
	Y25 en e.ed X25 open	Y25 en e.ed X25 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2414	Single head al e	Single head al e	Check
	Y26 en e.ed X26 open	Y26 en e.ed X26 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2415	Single head al e	Single head al e	Check
	Y27 en e.ed X27 open	Y27 en e.ed X27 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2416	Single head al e	Single head al e	Check
	Y30 en e.ed X30 open	Y30 en e.ed X30 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2417	Single head al e	Single head al e	Check
	Y31 en e.ed X31 open	Y31 en e.ed X31 open	he he. he inp
	imeo	imeo	Mgnal Mgnal

2418	Single head al e	Single head al e	Check
	Y32 en e.ed X32 open	Y32 en e.ed X32 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2419	Single head al e	Single head al e	Check
	Y33 en e.ed X33 open	Y33 en e.ed X33 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2420	Single head al e	Single head al e	Check
	Y34 en e.ed X34 open	Y34 en e.ed X34 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2421	Single head al e	Single head al e	Check
	Y35 en e.ed X35 open	Y35 en e.ed X35 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2422	Single head al e	Single head al e	Check
	Y36 en e.ed X36 open	Y36 en e.ed X36 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2423	Single head al e	Single head al e	Check
	Y37 en e.ed X37 open	Y37 en e.ed X37 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2424	Single head al e	Single head al e	Check
	Y40 en e.ed X40 open	Y40 en e.ed X40 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2425	Single head al e	Single head al e	Check
	Y41 en e.ed X41 open	Y41 en e.ed X41 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2426	Single head al e	Single head al e	Check
	Y42 en e.ed X42 open	Y42 en e.ed X42 open	he he. he inp
	imeo	imeo	Mgnal Mgnal

2427	Single head al e	Single head al e	Check
	Y43 en e.ed X43 open	Y43 en e.ed X43 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2428	Single head al e	Single head al e	Check
	Y44 en e.ed X44 open	Y44 en e.ed X44 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2429	Single head al e	Single head al e	Check
	Y45 en e.ed X45 open	Y45 en e.ed X45 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2430	Single head al e	Single head al e	Check
	Y46 en e.ed X46 open	Y46 en e.ed X46 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2431	Single head al e	Single head al e	Check
	Y47 en e.ed X47 open	Y47 en e.ed X47 open	he he. he inp
	imeo	imeo	Mgnal Mgnal
2500	Single head al e	Single head al e	Check
	Y10 en e.ed X10 cloMe	Y10 en e.ed X10 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2501	Single head al e	Single head al e	Check
	Y11 en e.ed X11 cloMe	Y11 en e.ed X11 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2502	Single head al e	Single head al e	Check
	Y12 en e.ed X12 cloMe	Y12 en e.ed X12 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2503	Single head al e	Single head al e	Check
	Y13 en e.ed X13 cloMe	Y13 en e.ed X13 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal

2504	Single head al e	Single head al e	Check
	Y14 en e.ed X14 cloMe	Y14 en e.ed X14 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2505	Single head al e	Single head al e	Check
	Y15 en e.ed X15 cloMe	Y15 en e.ed X15 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2506	Single head al e	Single head al e	Check
	Y16 en e.ed X16 cloMe	Y16 en e.ed X16 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2507	Single head al e	Single head al e	Check
	Y17 en e.ed X17 cloMe	Y17 en e.ed X17 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2508	Single head al e	Single head al e	Check
	Y20 en e.ed X20 cloMe	Y20 en e.ed X20 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2509	Single head al e	Single head al e	Check
	Y21 en e.ed X21 cloMe	Y21 en e.ed X21 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2510	Single head al e	Single head al e	Check
	Y22 en e.ed X22 cloMe	Y22 en e.ed X22 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2511	Single head al e	Single head al e	Check
	Y23 en e.ed X23 cloMe	Y23 en e.ed X23 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2512	Single head al e	Single head al e	Check
	Y24 en e.ed X24 cloMe	Y24 en e.ed X24 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal

2513	Single head al e	Single head al e	Check
	Y25 en e.ed X25 cloMe	Y25 en e.ed X25 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2514	Single head al e	Single head al e	Check
	Y26 en e.ed X26 cloMe	Y26 en e.ed X26 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2515	Single head al e	Single head al e	Check
	Y27 en e.ed X27 cloMe	Y27 en e.ed X27 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2516	Single head al e	Single head al e	Check
	Y30 en e.ed X30 cloMe	Y30 en e.ed X30 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2517	Single head al e	Single head al e	Check
	Y31 en e.ed X31 cloMe	Y31 en e.ed X31 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2518	Single head al e	Single head al e	Check
	Y32 en e.ed X32 cloMe	Y32 en e.ed X32 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2519	Single head al e	Single head al e	Check
	Y33 en e.ed X33 cloMe	Y33 en e.ed X33 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2520	Single head al e	Single head al e	Check
	Y34 en e.ed X34 cloMe	Y34 en e.ed X34 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2521	Single head al e	Single head al e	Check
	Y35 en e.ed X35 cloMe	Y35 en e.ed X35 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal

2522	Single head al e	Single head al e	Check
	Y36 en e.ed X36 cloMe	Y36 en e.ed X36 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2523	Single head al e	Single head al e	Check
	Y37 en e.ed X37 cloMe	Y37 en e.ed X37 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2524	Single head al e	Single head al e	Check
	Y40 en e.ed X40 cloMe	Y40 en e.ed X40 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2525	Single head al e	Single head al e	Check
	Y41 en e.ed X41 cloMe	Y41 en e.ed X41 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2526	Single head al e	Single head al e	Check
	Y42 en e.ed X42 cloMe	Y42 en e.ed X42 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2527	Single head al e	Single head al e	Check
	Y43 en e.ed X43 cloMe	Y43 en e.ed X43 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2528	Single head al e	Single head al e	Check
	Y44 en e.ed X44 cloMe	Y44 en e.ed X44 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal
2529	Single head al e	Single head al e	Check
	Y45 en . poin X45 .n off	Y45 en . poin X45 .n	he he. he inp
	he imeo	off he imeo	Mgnal Mgnal
2530	Single head al e	Single head al e	Check
	Y46 en e.ed X46 cloMe	Y46 en e.ed X46 cloMe	he he. he inp
	imeo	imeo	Mgnal Mgnal

2531	Single head al e
	Y47 en e.ed X47 cloMe
	imeo

2600

De ec ion of do ble-head al e Y10 en e.ed X10 open imeo

2602

De ec ion of do ble-head al e Y12 en e.ed X12 open imeo

2604

De ec ion of do ble-head al e Y14 en e.ed X14 open imeo

2606

De ec ion of do ble-head al e Y16 en e.ed X16 open Single head al e Y47 en e.ed X47 cloMe imeo

De ec ion of do ble-head al e Y10 en e.ed X10 open imeo

De ec ion of do ble-head al e Y12 en e.ed X12 open imeo

De ec ion of do ble-head al e Y14 en e.ed X14 open imeo

Check he he. he inp Mgnal Mgnal

Check he he. he inp Mgnal Mgnal

Check he he. he inp Mgnal Mgnal

Check he he, he inp Mgnal Mgnal

2612	De ec ion of do ble-head al e Y24 en e.ed X24 open imeo	De ec ion of do ble-head al e Y24 en e.ed X24 open imeo	Check he he. he inp Mgnal Mgnal
2614	De ec ion of do ble-head al e Y26 en e.ed X26 open imeo	De ec ion of do ble-head al e Y26 en e.ed X26 open imeo	Check he he. he inp Mgnal Mgnal
2616	De ec ion of do ble-head al e Y30 en e.ed X30 open imeo	De ec ion of do ble-head al e Y30 en e.ed X30 open imeo	Check he he. he inp Mgnal Mgnal
2618	De ec ion of do ble-head al e Y32 en e.ed X32 open imeo	De ec ion of do ble-head al e Y32 en e.ed X32 open imeo	Check he he. he inp Mgnal Mgnal
2620	De ec ion of do ble-head al e Y34 en e.ed X34 open imeo	De ec ion of do ble-head al e Y34 en e.ed X34 open imeo	Check he he. he inp Mgnal Mgnal
2622	De ec ion of do ble-head al e Y36 en e.ed X36 open imeo	De ec ion of do ble-head al e Y36 en e.ed X36 open imeo	Check he he. he inp Mgnal Mgnal
2624	De ec ion of do ble-head al e Y40 en e.ed X40 open imeo	De ec ion of do ble-head al e Y40 en e.ed X40 open imeo	Check he he. he inp Mgnal Mgnal

	T	1	r
2626	De ec ion of do ble-head al e Y42 en e.ed X42 open imeo	De ec ion of do ble-head al e Y42 en e.ed X42 open imeo	Check he he. he inp Mgnal Mgnal
2628	De ec ion of do ble-head al e Y44 en e.ed X44 open imeo	De ec ion of do ble-head al e Y44 en e.ed X44 open imeo	Check he he. he inp Mgnal Mgnal
2630	De ec ion of do ble-head al e Y46 en e.ed X46 open imeo	De ec ion of do ble-head al e Y46 en e.ed X46 open imeo	Check he he. he inp Mgnal Mgnal
2700	De ec ion of do ble-head al e Y10 en e.ed X10 cloMe imeo	De ec ion of do ble-head al e Y10 en e.ed X10 cloMe imeo	Check he he. he inp Mgnal Mgnal
2702	De ec ion of do ble-head al e Y12 en e.ed X12 cloMe imeo	De ec ion of do ble-head al e Y12 en e.ed X12 cloMe imeo	Check he he. he inp Mgnal Mgnal
2704	De ec ion of do ble-head al e Y14 en e.ed X14 cloMe imeo	De ec ion of do ble-head al e Y14 en e.ed X14 cloMe imeo	Check he he. he inp Mgnal Mgnal
2706	De ec ion of do ble-head al e Y16 en e.ed X16 cloMe imeo	De ec ion of do ble-head al e Y16 en e.ed X16 cloMe imeo	Check he he. he inp Mgnal Mgnal

2708	De ec ion of do ble-head al e Y20 en e.ed X20 cloMe imeo	De ec ion of do ble-head al e Y20 en e.ed X20 cloMe imeo	Check he he. he inp Mgnal Mgnal
2710	De ec ion of do ble-head al e Y22 en e.ed X22 cloMe imeo	De ec ion of do ble-head al e Y22 en e.ed X22 cloMe imeo	Check he he. he inp Mgnal Mgnal
2712	De ec ion of do ble-head al e Y24 en e.ed X24 cloMe imeo	De ec ion of do ble-head al e Y24 en e.ed X24 cloMe imeo	Check he he. he inp Mgnal Mgnal
2714	De ec ion of do ble-head al e Y26 en e.ed X26 cloMe imeo	De ec ion of do ble-head al e Y26 en e.ed X26 cloMe imeo	Check he he. he inp Mgnal Mgnal
2716	De ec ion of do ble-head al e Y30 en e.ed X30 cloMe imeo	De ec ion of do ble-head al e Y30 en e.ed X30 cloMe imeo	Check he he. he inp Mgnal Mgnal
2718	De ec ion of do ble-head al e Y32 en e.ed X32 cloMe imeo	De ec ion of do ble-head al e Y32 en e.ed X32 cloMe imeo	Check he he. he inp Mgnal Mgnal
2720	De ec ion of do ble-head al e Y34 en e.ed X34 cloMe imeo	De ec ion of do ble-head al e Y34 en e.ed X34 cloMe imeo	Check he he. he inp Mgnal Mgnal

2722	De ec ion of do ble-head al e Y36 en e.ed X36 cloMe imeo	De ec ion of do ble-head al e Y36 en e.ed X36 cloMe imeo	Check he he. he inp Mgnal Mgnal
2724	De ec ion of do ble-head al e Y40 en e.ed X40 cloMe imeo	De ec ion of do ble-head al e Y40 en e.ed X40 cloMe imeo	Check he he. he inp Mgnal Mgnal
2726	De ec ion of do ble-head al e Y42 en e.ed X42 cloMe imeo	De ec ion of do ble-head al e Y42 en e.ed X42 cloMe imeo	Check he he. he inp Mgnal Mgnal
2728	De ec ion of do ble-head al e Y44 en e.ed X44 cloMe imeo	De ec ion of do ble-head al e Y44 en e.ed X44 cloMe imeo	Check he he. he inp Mgnal Mgnal
2730	De ec ion of do ble-head al e Y46 en e.ed X46 cloMe imeo	De ec ion of do ble-head al e Y46 en e.ed X46 cloMe imeo	Check he he. he inp Mgnal Mgnal
2800	Timed o ai ing fo. p nch o.igin opened	Timed o ai ing fo. p nch o.igin opened	CheckM he he. he p.eMM p.oblem
2850	Timed o ai ing fo. p nch o.igin cloMed	Timed o ai ing fo. p nch o.igin cloWed	CheckM he he. he p.eMM p.oblem

3000	Wai ing fo. he M10 allo Mfe ch imeo	Wai ing fo. he M10 allo Mfe ch imeo	HoM iM Mopped, .eMa.
3002	Wai ing fo. M12	Wai ing fo. M12	HoM iM
	allo MReMe imeo	allo MReMe imeo	Mopped, .eMa.
4000	T.ial ime iM p,	T.ial ime iM p,	P.chaMe
	pleaMe .egiMe.	pleaMe .egiMe.	.egiM.a ion n mbe.

Failed o pick p he ala.m	The .eclaiming p.oceMM did no M ck ma e.ial To comple e he ala.m be een .eclaime. .eclaime. (ma e.ial .eleaMe)	Click o e .ac 1, he mechanical hand M i ch Mop Ma e, clea. ala.m, a oma ic .eco e. of Ma e 2, in f.on of a mechanical hand (no he a. ificial ma e.ial) o ake eme.genc Mop, ma e.ial .eleaMe, clea. ala.m, a oma ic .eco e., af e. ai ing fo. o .Melf befo.e a Mamping click allo e .ac, . n o diMcha.ge a Mandb poM ion click allo Mo.age 3, af e. he mechanical hand and ai ed in f.on of a Mamping finiMhed click allo e .ac, . n o he diMcha.ge Mandb poM ion allo Mplacing 4 click, he manip Ia o. behind a manip Ia o., af e. ai ing in f.on of a p nch, click allo .
O he. ala.m	To comple e he diMcha.ge poin be een he ma e.ial (ma e.ial .eleaMe ala.m)	1, he mechanical hand M i ch Mop Ma e ala.m off, he manip Ia o. mo e o a Mafe poM ion 2, a oma ic .eco e., af e. ai ing in f.on of a comple e Mamping ope.a ion o allo click e .ac, click poM ion feeding Mandb allo M placing 3, behind a mechanical hand, af e. ai ing in f.on of a p nch, click allo .

O he. ala.m	To comple e he ala.m be een .eclaime. Reclaime.	1, he mechanical hand M i ch Mop Ma e, clea. ala.m, a oma ic .eco e. of Ma e 2, in f.on of a mechanical hand (no he a. ificial ma e.ial) o ake eme.genc Mop, ma e.ial .eleaMe, clea. ala.m, a oma ic .eco e., af e. ai ing fo. o .Melf befo.e a Mamping click allo e .ac, . n o diMcha.ge a Mandb poM ion click allo Mo.age 3, af e. he mechanical hand and ai ed in f.on of a Mamping finiMhed click allo e .ac, . n o he diMcha.ge Mandb poM ion allo Mplacing 4 click, he manip Ia o. behind a manip Ia o., af e. ai ing in f.on of a p nch, click allo .
O he. ala.m	To comple e he diMcha.ge be een he .eclaime. poin ala.m	1, he mechanical hand M i ch Mop Ma e ala.m off, he manip la o. mo e o a Mafe poM ion 2, a oma ic .eco e., af e. ai ing in f.on of a comple e Mamping ope.a ion o allo click e .ac, click poM ion feeding Mandb allo M placing 3, behind a mechanical hand, af e. ai ing in f.on of a p nch, click allo .

O he. ala.m	DiMcha.ge poin o diMcha.ge ma.eial be een heala.m	1, he mechanical hand Mop, he manip lao. mo e o a Mafe poMion 2, man al Mamping, p nching ai fo. compleion of 3, he cen mechanical hand M i ch Mop Ma e, clea. ala.m, a oma ic .eco e. of Ma e 4, behind a manip lao. o comple e he ope.aion of .eclaime. loca ion click hen allo ed o e .ac 5, befo.e ai ing in f.on of a manip lao. p nch, click allo e .ac, . n o dilAcha.ge he Mandb poMion, click he allo .
O he. ala.m	DiMcha.ge o .eclaiming poin ala.m	1, he mechanical hand M i ch Mop Ma e, clea. ala.m, Mafe poM ion of manip la o. o a oma icall .eco e., Ma e 2, if he p nch, behind a mechanical hand in f.on of ai ing fo. he comple ion of Mamping click allo e .ac 3, if no comple e Mamping p nch, need o ake eme.genc Mop, man al Mamping, p nching iM comple ed, clea. ala.m a oma ic .eco e. , Ma e, behind a mechanical hand in f.on of ai ing fo. he comple ion of Mamping click allo e .ac 3, he manip la o. o comple e he poM ion allo M he hammeeclaime. e .ac , . n o diMcha.ge a Mandb poM ion click allo Mo.age

O he. ala.m		1, ake he mechanical hand Mop, man al p.eMM
		2, af e. he comple ion of Mamping, .emo e Mop
	P nch p.eMMno back o	ala.m, a oma ic .eco e. of Ma e 3, follo ing a
	he o.igin of he p nch	mechanical hand in f.on of ai ing fo. he
	p.eMM	comple ion of Mamping, click allo e .ac 4, hen
		.efe. o he abo e p.oceMMing ala.m p.oceMMing
		flo (hecen.obo poMion nce.ain)
Mafe ope.a ion		
	1, hen o click o allo	he objec o enM .e ha he p nch p.eMMfiniMh.
	2, click he allo Mo.age,	o enM .e ha he.e iMno p nch ma e.ial (ma o
	diMcha.ge).	
	3, hoM comp e. ala.m,	ala.m off, do no c o Mop, p.e en he en i.e
	p.od c ion line Mop.	








No e: he machine iM Med fo. CAN comm nica ion connec ion.

S ch aM h.ee mechanical hand online, he fi.M and he end of he 120 ill be connec ed o he EU, aMMho n abo e.

.2

Con .ol M Mem o p o poMion he Me. o mo o. con .ol, command p IMe pe iMfo. a.d p IMe .ain and .e e.Me p IMe, p IMe o p f.e enc 500KppM, PleaMe ...

|--|

Con .ol no	Pa.ame e. name	Se al e
P.0.01	Con .ol mode Me	0
P.0.07	Command p IMe inp mode Me ing	1
P.0.08	Moo.p IMeMpe.inM.cion	10000
P.0.11	Moo.plMeMpe.opnmbe.	2500

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Con .ol Panel e.minal block in e.face			PanaMonic (A5) Se. o d.i e in e.face			
PIN	Signal	Signal	PIN	Signal	Signal dollth in ionM	
n mbe.	defini ionM	deMc.ip ionM	n mbe.	defini ionM		
10	P+	Fo. a.d	3	PULS1	Command n Mh inn 1	
11	P-	implMeop	4	PULS2		
13	S+	Ree.MeplMe	5	SIGN1	Command n Mh inn (	
14	S-	ор	6	SIGN2	Command p live linp 2	
2	A+	A Feedback	21	OA+		
3	A-	plMeinp	22	OA-	AF IIWE OP	
4	B+	B Feedback	48	OB+	PDIMban	
5	B-	p lMeinp	49	OB-	ыс шиео р	
6	Z+	Z Feedback	23	OZ+	7 D Maan	
7	Z-	plMeinp	24	OZ-	ZPIWe0p	
1	+24V	+24V Po e.	7	COM+	E e.nal con .ol po e.	
		M ppl			M ppl +	
9	0V	24V Po e. o he	41	COM-	E e.nal con .ol po e.	
					M ppl -	
			36	ALM-	Se. e. ale. M	
			10	BRKOFF-	Mo o. b.ake-	
15	ALRM	Se. o-d.i e ala.m	37	ALM+	Se. e. ale. M+	
8	SON	Se. o	29	SRV-ON	Se. o	
Lead con .ol b.ake .ela coil (o p 0V)			11	BRKOFF+	Mo o. b.ake+	

Con .ol no	Pa.ame e. name	Se al e	
No.0	Con .ol mode	0	
No.1	Fea .e Melec ion 1 The b.ake Mgnal (CN1-12)	0012	
No.3	Elec .onic gea.	14	
No.4	Elec .onic gea.ing denomina o.	1	
No.21	Command p IMe op ion	0000	
No.27	Encode.opplMe.ae	14	
No.54	Fea .eMelecion9(op plMe.ae)	1***	

(ReMol ion of Me. o mo o. 131072 P IMe / T .n)

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Con .ol Panel e.minal block in e.face			Mi M biMhi MR-E Se. o d.i e in e.face			
PIN n mbe.	Signal defini ion M	Signal deMc.ip ionM	PIN n mbe.	Signal defini ionM	Signal deMc.ip ionM	
10	P+	Fo. a.d imp IMe	23	PP	Command n INh inn 1	
11	P-	ор	22	PG		
13	S+	Ree.MeplMe	25	NP	Command n Mh inn 2	
14	S-	ор	24	NG	Command p live inp 2	
2	A+	A Feedback p IMe	15	LA		
3	A-	inp	16	LAR	AP INEO P	
4	B+	B Feedback	17	LB		
5	B-	p IMe inp	18	LBR	ве пиеор	
6	Z+	Z Feedback p IMe	19	LZ		
7	Z-	inp	20	LZR	Z Pilveop	
1	+24V	+24V Po e. M ppl	1	VIN	E e.nal DC24V Po e. M ppl +	
9	0V	24V Po e. o he	13	SG	E e.nal DC24V Po e. M ppl -	
15	ALRM	Se. o-d.i e ala.m	9	ALM	Fa I	
8	SON	Se. o	4	SON	Se. o	
Lead con .ol b.ake .ela coil (o p 0V) 12 MBR Elec .omagne ic b.akeM					Elec .omagne ic b.akeM	
MiM biMhiMe. od.ieTe.minalCN1:6(LSP) 7(LSN) 8(EMG)And o an 13(SG)Sho.						

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	1-2	M3	4mm	6.5Kgf.cm(
	-	M3	4mm	ma)
	-	M3	4mm	6.5Kgf.cm(
	-	M3	4mm	ma)

n o.de. o enM .e