

QCXD 无线电动拧紧系统安装使用操作

Sunny Sun, 2021





电动拧紧系统供电基本要求

- Ingersoll Rand 电动拧紧系统含控制器、QE/QM系列工具、电缆及相关控制附件,用于工业装配相关的扭矩、角度或屈服控制等。
- 供电要求:
 - 两相交流电源
 V~
 Hz
 A

 230
 50
 6
- 接地:确保电源可靠接地,控制器外壳可靠接地

Voltage	Power Outlet
230VAC, +/- 10%	powered through a 12A, NEMA 6-20R outlet.

QCXD/M 控制器安装尺寸要求

A = 190 mm (7.5 in) B = 463 mm (18 in) - 500 mm (19.7 in) C = 10 mm (0.4 in) D = 140 mm (5.5 in) E = 20 mm (0.8 in) F = 230 mm (9.0 in)	控制器安装,需要考虑和周辺的间距,便于控制器的安装和通风散热。 安装基座应稳定可靠,避免震动、摇晃。 如果安装基座有震动情况,应在控制器固定地脚和安装 基座间增加缓震橡胶垫。
D = 140 mm (5.5 in) E = 20 mm (0.8 in) F = 230 mm (9.0 in)	如果安装基座有震动情况,应在控制器固定地脚和安装 基座间增加缓震橡胶垫。



QCXD/M 安装螺丝孔规格

- 控制器安装支架的固定,使 用控制器附件内的平头十字 螺丝。
- 螺丝孔间距参考图示
- 安装基座有震动的情况,需
 要增加缓冲橡胶垫,减少震
 动对控制器的影响



电源线和天线安装要求



- 电源线宜单独布线,与信号、控制等弱电线路分开,避免干扰。
- 电源线要绑扎固定在支架上,避免震动等造成接口接触不良
- 注意线路走向, 避免靠近通道, 减少人员、物体移动挂到电缆
- 电源线和电源连接宜用接线端子,尽量不用插头,以免接触不良或松 脱

控制器布线要求

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- 电源线和工具线单独布线,与信号、控制等弱电线路分开,避免干扰。
- I/O端子等引出线用屏蔽线的屏蔽接 地,防止与旁边220V供电干扰
- 电源线和信号、控制线需要分别绑 扎固定在支架上,避免震动等造成 接口接触不良
- 强电、弱电线路分别走线,不能绑 在一起
- 注意工具和控制器的连接线走向, 避免靠近通道,减少人员、物体移 动挂到电缆
- I/O接线宜用冷压端子
- 电源线和电源连接宜用接线端子,
 尽量不用插头,以免接触不良或松脱



注意事项

- 电动拧紧系统(含QCXD控制器、QX系列工具及相关控制附件)只能安装在室内
- 周围环境清洁干燥、无严重粉尘、无腐蚀性气体、易燃液体等
- 控制器及工具环境通风透气
- 电源及控制器必须确保可靠接地
- 控制器安装基板无震动、摇晃
- 控制器上不得放置其他物品
- 环境温度0~50°C、湿度20/90%非冷凝

开机





使用浏览器访问QCXD 控制器

电脑IP设置修改为和控制器同一网段, 在浏览器输入控制器的IP地址

10.192.112.198/#/login

	Ingersoll Rand.		
Lusername			
Password		¢b	
Language	English	~	
Login	Service Login	Cancel	

* CTRL + F5 刷新、清理缓存 arp -d 192.168.X.X删除指定的 IP 地址项

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登录:使用默认用户名和密码

用户名:admin 密码:sollinger (IR) Ingersoll Rand Username admin Password Ø English Language Login Service Login Cancel



	🔔 🧠 🌵	Ingersoll Rand.	2
Á 🧠 🤹	Job : test-angle		Welcome Admin
Job : Test torque 2Nm			
Cycle Results Too	ol #		
	Cycle Results	Tool # SP18M04072	2
		OI Batch 1 / 3	x 32000 ↑ 3
192.168.5.5			RD-OP EOR NSN-EOR FIELDBUS PFCS
	Angle(°)	angle 72	
1.5 (III) 1	721	792 1 720 @ 648 ↓	
0.5	Torque(Nm)		
	0.06	1.00 1 0 J	
	(10,52,5,145)		

主菜单 Menu

Home	
Job 🔶	Tool # SP18E21042 Angle(°)
Pset	400
Result 🔷 🗸	∘к 180
Settings 🛛 🗸 🗸	
Tool Settings 🛛 🗸 🗸	(f) 10.192.112.198
Logs 🛛 🗸 🤝	
Diagnostics 🛛 🗸 🗸	
System Maintenance 🛛 🚽	
User Management	
About	
	80 100 120 140 160

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Job Setup

- JOB设置只针对已经匹配 本台控制器的工具才有效
- Pset,只针对没有配对本 台QCXD的其他工具才可 以,在工具键盘上选择的 是对应的Pset

= 🔔 🔞 🜵	
Home	
Job	
Job List	
Global Settings	
Pset	
Result	-
Settings	-
Tool Settings	-
Logs	-
Diagnostics	-
System Maintenance	-
User Management	

Ingersoll Rand

😔 Job	List		⊕ Q
ID	Name	Interlocks	Action
2	180	None (y ŵ
1		None (I

Global Settings

≡ () ()		Ingersoll Rand.	
Home		← Global Settings	
Job		Job Selection	Internal-Controller 🗸
Job List		Boot Job	
Global Settings			
Pset			
Result	-		
Settings	-		
Tool Settings	-		
Logs	-		
Diagnostics	-		
System Maintenance	-		

Global Settings - Job Selection

← Global Settings				Ð
Job Selection	Internal-Controller			-
Boot Job	Internal-Controller	内部控	空制器	
	Internal-Display	工具。	显示屏	
	External - MES	外部	∕ IES	
	External - BCODE / VIN	外部黨	条码/VIN码	
	External - Discrete	外部相	莫拟	
	External - Discrete - Field	l Bus	外部模拟总线	
	External - Binary		外部二进制	
	External - Binary - Field B	Bus	外部二进制-总线	

Pset setup

			Ingersoll Rand.				
Home	📀 ด Wirele	ess Tool 🔻)			e	0
Lab.	ID	Pset				Action	
	2	180		G	Ì	۱.	
Pset	1	720		C	Ì	أ	
Result 🗸 🗸							
Settings 🛛 🗸 🗸							
Tool Settings 🛛 🗸 🗸							
Logs 🗸 🔫							
Diagnostics 🛛 🗸 🗸							
System Maintenance 🛛 🗸 🗸							
User Management							
About							

Cycle Result

		Ingersoll Rand.						
Home								
Job 🚽	ımber	Tool Serial No	Lifetime Cycle No	Tool Cycle No	Cycle Pass/Fail	Torque Result	Angle Res	
· · · · ·		SP18E21042	351	210	×	×	 Image: A second s	
Pset		SP18E21042	350	209		 ✓ 	×	
	-	SP18E21042	349	208	×	×	 Image: A second s	
Result 🔺		SP18E21042	348	207	 ✓ 	 ✓ 	 Image: A second s	
		SP18E21042	347	206		×		
Cycle Results		SP18E21042	346	205	 ✓ 	 ✓ 	 Image: A second s	
Job Results		SP18E21042	345	204	×	×	 Image: A second s	
	-	SP18E21042	344	203	 ✓ 	 ✓ 	 Image: A second s	
Settings 🛛 🗸 🗸		SP18E21042	343	202	×	×	 Image: A second s	
		SP18E21042	342	201	×	×	 Image: A second s	
Tool Settings 🛛 🗸 🗸		SP18E21042	341	200	×	×	 Image: A second s	
1		SP18E21042	340	199	×	 ✓ 	 Image: A second s	
Logs		SP18E21042	339	198		×		
Diagnostics —		SP18E21042	338	197		 ✓ 		
Diagnoodius		SP18E21042	337	196	×	×	×	
194 107 <u>SP18E21</u>)42	3371	96 🗸	_	2	2 180		
1 - 100 of 208 items						<	1 2 3 >	

Job Result

							Ingersoll Rand.			
Home										
Jo	b		•							
Pset				ycle Number					Date	
Re	eult				2		180		29/11/2019 03:	
	Jour				2		180		29/11/2019 03:	
	Cycle Results		2			180		29/11/2019 01:		
	Job Results			2			180		29/11/2019 01xport to CSV C	
Se	Settings 🛛 🗸 🗸			2		180		28/11/2019 09:ss failure mode		
_			2		180			28/11/2019 09:		
То	ol Setti	ings	-	2		180			28/11/2019 09:	
Lo	gs		-		2		180		28/11/2019 09:	
_			·		2		180		28/11/2019 09:	
Dia	Diagnostics 🗸 🗸 🗸		5	2		180		28/11/2019 09:		
8			111	2		180		28/11/2019 09:51:20 AM	0	
8			110	2		180		28/11/2019 09:51:18 AM	0	
8			109	2		180		28/11/2019 09:51:16 AM	0	
8			108	2		180		28/11/2019 09:36:46 AM	0	



Setting 设置菜单



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Settings	
Date & Time	
System Initialization	
Ethernet Settings	
EOR Data Out	
BCODE / VIN	
PF-OP	
FRD-OP	
PFCS	
NSN-EOR	
Digital IO	
Tool Settings	_

System Initialization 系统参数设置

Sys	tem Initialization		Ð
	Plant Name	Plant name	
	Assembly Line	AssemblyName	
	Station Name	StationName	
	Application Name	Job	
	Language	English	
	Rows per Page	100	
	Detect Controller	Factory R	eset

Ethernet Setting 以太网端口设置

Ethernet Settings	
Port 1 Settings	
Link Status	
Speed	
Network Type	Static
IP Address	192.168.5.5
Subnet Mask	255.255.255.0
Gateway	192.168.5.1
Primary DNS	
Secondary DNS	
Port 2 Settings	
Link Status	
Speed	100 Mbps
Network Type	DHCP

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EOR Data Out 拧紧数据输出设置

ΕO	R Data Out			B
	Enable			
	Enable Logs		•	
	Select Source	ENET-EOR	•	
	Port #	1069		
	Controller ID	1	EOR Parameters	
	Delimiter	Comma (,)	Select All Reset Default EOR	
	End Of Record	Null	Power head Cycle Number Spindle Number Dest Number	
	EOR Parameter Selection		 Pate Number Date Time Cycle Result Peak Torque Torque Result Torque Units Peak Angle Angle Result 	
22	Power Tools Technical Training All rights reserved @ China Service Team		Apply Cancel	

Barcode Scanner Setting

		B Ingersoll Rand.	
Date & Time	BCODE / VIN		
System Initialization	Enable BCODE / VIN		
Ethernet Settings	Manual BCODE	/ VIN Entry	
EOR Data Out	Queue BCODE /	VIN	
BCODE / VIN	Warning		
PF-OP	Warning		
FRD-OP	By Enabling changed.	Tool Enable on Power-up following setting	gs will be
PFCS	Boot JoPersist	ob is disabled by default. I IO state on Disconnect is disabled by def	ault.
NSN-EOR	Would you li	ke to continue?	
Digital IO		Yes No	
Fieldbus	M	Controller Name	INSIGHTacx
	A	Port Number	4545
		Retry Interval (sec)	5
23 Power Tools Technical Training All rights reserved @ China Service Team		Number of Retries	3

Open Protocol 开放协议相关设置

PFOP	
Enable Protocol	
Enable Logs	
PF-OP Version Information	10.9
Cell ID	0
Channel ID	0
Controller Name	InsightQX
Port Number	4545
Retry Interval (sec)	5
Number of Retries	3

Open Protocol 开放协议 福特专用版本

FRD-OP	
Enable Protocol	
Enable Logs	
FRD-OP Version Information	4.66
Cell ID	0
Channel ID	0
Controller Name	InsightQX
Port Number	4545
Retry Interval (sec)	5
Number of Retries	3

Tool Settings QX工具的相关设置

Result	
Settings 🛛 🕁	
Tool Setup	-
Wireless Setup	-
	Tool Factory Reset

Tool General Setup

USB Tool		
Tool Setup		-
Location ID	6	
Buffer Size(bytes)	1200	
Sleep Timeout(sec)	60	
Headlight Timeout(sec)	5	
Pset Selection Mode	Internal	
Invert Tool Led Output		
Simplified Tool Display		
Enable Buffering		
Enable Headlight		
Keypad Lockout		
Enable ETS		
Interlock Active		
Enable Smart Socket		
Password		-
New password		ø
Confirm Password		ø
Wireless Setup		-
Enable Wireless		
PAN ID	100	
RF Channel	15	
Power Level		-

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Wireless Setup: 此处不能设置工具无线通讯参数



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Wireless Diagnostics 无线信道的信号诊断

Wire	eless Diagnostics	
Cha	annel : 16	
	TX Packets	4597
	TX ACK Packets	4600
	Failed TX Packets(%)	-0.07%
	RX Packets	4604
	RX ACK Packets	4594
	Failed RX Packets(%)	0.22%
	Dropped RX Packets	0

Tool <u>Diagnostics: Tool test 工具的诊断测试</u>



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Tool Status 工具的状态数据

Status Tor Test Tool Test Direction Status Direction Status Trigger Status Direction Status Current Phase U Offset 2040 Torque Signal 0 Offset 2064 Motor Temperature (° C) 26.166061 Battery Vottage(votts) 35.689541 Sthurt Calibration 2.100212 STOP Tool Calibration Tool Calibration Col Calibration Col Calibration Col Calibration Tool Calibration Col Col Status			USB Tool 🔻		
Tool Test Tool Status Direction Status © Trigger Status ● Headlight Status ● Current Phase U Offset 2040 Torque Signal 0 Offset 2064 Motor Temperature (° C) 26.166061 Battery Vottage(votts) 35.689541 Shunt Calibration 2.100212 Keyboard Status Tool Calibration Col Calibration	USB T	ool in diagnostic mode			
Tool Status Trigger Status Headlight Status Direction Status Trigger Status Headlight Status Current Phase U Offset 2037 Current Phase W Offset 2040 Torque Signal 0 Offset 2064 Motor Temperature (* C) 26.166061 Battery Voltage(volts) 35.689541 Shunt Calibration 2.100212 STOP Tor Ocalibration Tool Calibration Tor Ocalibration Tool Calibration Tor Ocalibration	1	Tool Test			•
Direction Status Trigger Status Headlight Status Current Phase U Offset 2037 Current Phase W Offset 2040 Torque Signal 0 Offset 2064 Motor Temperature (° C) 26.166061 Battery Voltage(volts) 35.689541 Shunt Calibration 2.100212 StOP Torlo Calibration Torlo Calibration Tool Calibration	۱	ool Status			•
Current Phase U Offset 2037 Current Phase W Offset 2040 Torque Signal 0 Offset 2064 Motor Temperature (* C) 26.166061 Battery Voltage(volts) 35.689541 Shunt Calibration 2.100212 STOP Keyboard Status Tool Calibration Tool Calibration Tool Usage		Direction Status C	Trigger Status 🌰	Headlight Status 🔵	
Current Phase W Offset2040Torque Signal 0 Offset2064Motor Temperature (° C)26.166061Battery Voltage(volts)35.689541Shunt Calibration2.100212STOPSTOPKeyboard StatusTool CalibrationTool CalibrationTool CalibrationTool Usage		Current Phase U Offset		2037	
Torque Signal 0 Offset 2064 Motor Temperature (° C) 26.166061 Battery Voltage(volts) 35.689541 Shunt Calibration 2.100212 STOP Voltage Keyboard Status Image: Compare the second sec		Current Phase W Offset		2040	
Motor Temperature (° C) 26.166061 Battery Voltage(volts) 35.689541 Shunt Calibration 2.100212 STOP Voltage Keyboard Status Image: Colored Status Tool Calibration Image: Colored Status Tool Usage Image: Colored Status		Torque Signal 0 Offset		2064	
Battery Voltage(volts) 35.689541 Shunt Calibration 2.100212 STOP Keyboard Status Tool Calibration Tool Usage		Motor Temperature (° C)		26.166061	
Shunt Calibration 2.10212 STOP Image: Comparison of the status Keyboard Status Image: Comparison of the status Tool Calibration Image: Comparison of the status Tool Usage Image: Comparison of the status		Battery Voltage(volts)		35.689541	
STOP Keyboard Status Tool Calibration Tool Usage		Shunt Calibration		2.100212	
Keyboard Status Tool Calibration Tool Usage Ition Ition		STOP			
Tool Calibration Tool Usage	ŀ	Ceyboard Status			•
Tool Usage	1	ool Calibration			•
	1	īool Usage			•

KeyBoard Status 工具键盘状态诊断



Calibration Data 工具的校准数据

		USB Tool 🔻			
Calibration Data					
	TR		Reset		
	Factory Value		104.267876		
	Current Value		104.267876		
	New Value				
	ASC		Reset		
	Factory Value		0.618		
	Current Value		0.618		
	New Value				
ľ	Gearbox Loss (%)	0	.00		8
Cali	bration Result	Current TR :104.267876			^
	Calibration Settings		Auto		Manual
	Cycle #	From	Tool	Measured Rea	ding
				Reject Reading	Start
	Resultant TR Value				≥ ≅

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Tool Usage 工具的使用次数

USB T	iool 🕶
Tool Test	▼ .
Tool Status	
Keyboard Status	-
Tool Calibration	▼
Tool Usage	
Pulse Count	191
Lifetime cycle count	77
	Refresh

Logs 控制器日志

	_	Welcome		
Result 🔷 🔻	уg			
Settings 🗕			<u>*</u>	Download <i>C</i>
	ķ	User Name	Description	Field
Tool Settings 🛛 🗸 🤝	53 AM	Admin	User Logged in	
Logs	37 AM	Admin	User Logged in	
	35 AM	Admin	Application version	Firmware L
Audit Log	33 AM	Admin	Application version	Firmware Up
Event Log				Please do not ı the
System Logs	31 AM	Admin	User Logged in	

Audit Log 控制器的关键操作日志

Home Logs Audit Log

🛓 Download 🛛 😷

Date Time	User Name	Description	Field Modified	New Value	Old Value
16/12/2019 10:33 AM	Admin	Job created	Job Name	Test torque 2Nm	
16/12/2019 10:33 AM	Admin	Pset created	Pset Name	Test torque 2Nm	
16/12/2019 10:26 AM	Admin	User Logged in			
16/12/2019 7:50 AM	Admin	Job created	Job Name	Test Angle 360	
16/12/2019 7:40 AM	Admin	Pset created	Pset Name	Test 360 degree	
16/12/2019 6:58 AM	Admin	Tool Pair Settings	Power Level	4	2
16/12/2019 6:58 AM	Admin	Tool Pair Settings	RF Channel	16	14
16/12/2019 6:44 AM	Admin	Reset default accounts password	Password	***	******
16/12/2019 6:42 AM	Admin	User Logged in			
16/12/2019 6:33 AM	Admin	Factory Reset Initiated	Factory Reset	Pass	

1 - 10 of 10 items

< 1 >
Event Log 控制器的事件记录

Home	Event Logs		
			Download
	Date and Time	Event Code	Description
	16/12/2019 10:33:54 AM	503	Job Created Successfully
	16/12/2019 10:33:18 AM	502	Pset Created Successfully
	16/12/2019 08:52:09 AM	526	Session Timeout
	16/12/2019 07:50:36 AM	503	Job Created Successfully
	16/12/2019 07:40:12 AM	502	Pset Created Successfully
	16/12/2019 06:58:58 AM	302	Tool Connected
	16/12/2019 06:58:50 AM	300	Pairing initiated
	16/12/2019 06:58:50 AM	507	Controller Radio Setting Change Successfully
	16/12/2019 06:57:41 AM	311	USB Tool connected
	16/12/2019 06:57:31 AM	312	USB Tool Disconnected

1 - 16 of 16 items

System Logs 系统相关日志

Home System Logs	
Communication Logs	
Communication Logs	Download
Service Logs	
Service Logs	Download
Debug Log	<u>+</u>



	Ingersoll Rand.	
Settings 🗸	Backup	▲
Tool Settings 🛛 🖵	Settings	
Low	BCODE / VIN	
Logs	PFCS Settings	
Diagnostics 🗸	EOR Data Out	
System Maintenance	PFOP Settings	
Paakun 8 Pastoro	FRD-OP Settings	
	Tool and Global Settings	
Firmware Update	Digital IO Settings	
Update License	NSN-EOR	
	Jobs and Psets	
	Results and Logs	-
	Create Backup	
	Restore	-

系统软件升级



授权文件更新



Create User 创建新用户

Home User List						
					Create Us	er Controller Settings
User Name	Alias Name	First Name	Last Name	Role	Timeout	Action
admin	Admin	Admin	Admin	admin	30	I

Create New User 创建新用户的内容

÷	Create User		B
	First Name		
	Last Name		
	User Name		
	Alias Name		
	Password	Ø	
	Confirm Password	Ø	
	User Role	Administrator	
	Session Timeout	Administrator	
		Operator Supervisor	
		Viewer	

控制器信息及匹配工具的软件版本

		<u>(</u>	P		
Home About					
Controller Information					
Model		QCXD11-FM			
Serial Number		K19E00127			
Controller Radio MAC Address		00.00.00.05.31.55.0	C7·D	96	
Controller Version Information				Teel Version Information	
Controller version information				Tool version information	
	0.0.14			Teel Display Mansier	400.0.0.7
Application version	0.0.14			Tool Display Version	100.0.0.7
Database Version	0.0.4			Tool MCE Version	2.4.0.14
OS Version	0.0.1			Tool Radio Version	0.0.103.37
Radio Version	03 37				

License Information

控制器硬盘编号及授权等级

License Information			
This product is licensed to			
SATA ID	182848400060		
License type	Advanced		
Creation Date	10/24/2019		
Remaining hours to expire	No expiry		
Features Enabled			
• About			
 Logs - Audit Log 			
 System Maintenance - Backup and Restor 	re		
Settings - BCODE / VIN			
Digital IO			

无线信道信号诊断

Pset			Wirele	ess Energy Sca	in	Leeding								
Result	-		Chani	nel Traffic		Loading								
Settings	_ 1						I	Please W	/ait •					
		T ₂₀ 66! ○	0.8				Wire	eless Ener	gy Scan i	n Progres	s			
Tool Settings	-		ม 0.0 มี มี											
Logs	-	in locate	AC 0.4											
Diagnostics		i (5 0.2											
Energy Scan				11	12	13	14		16	17 Ch	18 annol Nun	19 abor	20	21
Wireless Diagnostics										GI				
System Diagnostics														
Digital IO Diagnostics														
Fieldhus Disgnostics														

无线信道信号诊断



无线信道信号诊断: 扫描时间的选择



信道信号扫描结果







- 只针对已经匹 配本台控制器 的工具
- 诊断显示选定 信道的收发信 号记录

	Ingersoll Rand.	Welcome Admin
Tool Settings 🛛 🗸 🗸		
	Wireless Diagnostics	
Logs 🛛 🗸 🗸	Channel : 14	
	TX Packets	7521
Diagnostics 🔶	TX ACK Packets	0
Energy Scan	Failed TX Packets(%)	100.00%
Wireless Diagnostics	RX Packets	0
	RX ACK Packets	0
System Diagnostics	Failed RX Packets(%)	NaN%
Digital IO Diagnostics	Dropped RX Packets	0
Fieldbus Diagnostics		

无线工具匹配:软件版本核验



匹配软件版本

Tool Update

 如果待匹配的工 具软件版本很低
 , 需要用ICS先 升级到较高版本
 Display 3.x.x
 以上

Tool Version								
#	Current version	Recommended version						
Display	3.1.3.0	100.1.0.1						
MCE	1.1.4.1	2.4.0.20						
Radio	0.0.2.6							

Version mismatch found. Its recommended to update tool. Would you like to update?

Yes

No

升级软件版本

— •		
	Undate	
1001	opualo	

Tool Version							
#	Current version	Recommended version					
Display	3.1.3.0	100.1.0.1					
MCE	1.1.4.1	2.4.0.20					
Radio 0.0.2.6							
MCE Firn	nware update in p	orogress. Please do not					

refresh or navigate page

19 %

升级MCE软件:关键步骤



MCE软件升级成功,提示升级Display

Tool Update				
Tool Version				
#	Current version Recommended version			
Display	3.1.3.0	100.1.0.1		
MCE	2.4.0.20	2.4.0.20		
Radio 0.0.2.6				
Version mismatch found. Its recommended to update tool. Would you like				

to update?

Yes

No

55

升级Display软件过程

	ndata
U	Duale
 _	

urrent version					
	Recommended version				
3.1.3.0	100.1.0.1				
2.4.0.20	2.4.0.20				
Radio 0.0.2.6					
Display Firmware update in progress. Please do					
	3.1.3.0 2.4.0.20 0.0.2.6 ware update i				

not refresh or navigate page

29 %

升级Display完成



Tool firmware updated successfully... Please reboot the tool after 60 seconds

升级完成,软件版本一致

• QX工具软件升级完 成之后,需要恢复 出厂设置

 主菜单-> Tool Settings-> Factory Reset

Tool Version					
#	Current version Recommended version				
Display	100.1.0.1	100.1.0.1			
MCE	2.4.0.20	2.4.0.20			
Radio	0.0.103.37				

USB Tool Info

 $\boldsymbol{\otimes}$

修改无线参数设置

- 此处只可以修改 和这台QCXD待 配对的工具的无 线信道和发射功 率设置
- PAN ID在此处不 能修改

	Ingersoll Rand.			
ne About	Wireless Tool F	Pairing	8	
ntroller Information	Controller Radio Setting	js	•	
lodel erial Number	RF Channel	51158 14 •		
ontroller Radio MAC Address	Power Level	1 🔻		
ATA ID	Tool Status :Unpaired			
ntroller Version Information		Tool Version Inform	mation	





正在匹配...



视频演示升级步骤



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视频演示升级步骤







Map the tool 匹配成功



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QCXD和新工具配对

- 如果这台QCXD和之前匹配的工具已解 配或没有配对过,
 无线连接符号是 灰色的
- 点
 出现工具配对的弹窗,可以点 下拉菜单,设置匹配使用的PAN ID, RF Channel 和 Power Level数据
- RF Channel 的选择可根据QCXD诊断 菜单下Wireless Energy Scan扫描的 结果,数据越大的信道,说明占用越严 重,推荐选择数据小的信道,当然11 ,12和25不推荐选择
- 点 Pair,然后在工具的键盘上,同时 按下向左方向键和回车键,直到工具状 态指示灯开始闪烁,这时屏幕会显示正 在匹配…。



之前和QCXD配对的工具信息



- 弹窗包含之前和这台QCXD配对的工具的版本信息、控制器无线设置
- 如果QCXD升级过软件,可能会有提示 原配对工具版本和目前QCXD标配的版 本不匹配
- 点 UnPair 将解配断开之前已配对的工具。

Wireless Tool Pairing					
Control	Controller Radio Settings				
Tool Statu	s :Paired				
Version mismatch found Tool Version					
#	Current version Recommended version				
Display	100.0.0.7	100.1.0.1			
MCE	2.4.0.14	2.4.0.20			
Radio	0.0.103.37	_			
Pair UnPair					
To know how to pair tool, click here					

查看已配对工具的版本信息

- 点 💽 查看和这台QCXD配对的工具信息
- 点 UnPair 已配对的工具将解配断开
- 也可以点下拉菜单,修改

	Ingersoli Rand.				
ob : Select Job			Wireless Tool I	Pairing 😣	
	T 1 // OD401 40040	Contro	ller Radio Setting	gs 🗸 🗸	
e Results	Iool # SP19L18040	Tool Status :Paired			
			Tool Version		
		#	Current version	Recommended version	
1	ок	Display	100.1.0.1	100.1.0.1	
		MCE	2.4.0.20	2.4.0.20	
192.168.5.5		Radio	0.0.103.37		
ace					
			Pair	UnPair	
		To know h	now to pair tool, c	lick here	

可修改PAN ID, RF Channel 和 Power Level, 重新配对





Wireless Tool Pairing				8
Control				
PAN ID			51158	
RF Channel			17 🔻	
Power Level			4 🔻	
Tool Status	s :Paired			
#		SIOTI-		version
#	Current version		ecommended	Version

设置Pset



最多支持32个 Pset

3	USB Tool 🔻	9	
ID	Pset	Action	<u>Q</u>
24	Pset_24	đ	Action
25	Pset_25	đ	_ ش
26	Pset_26	đ	e 1
27	Pset_27	đ	C 🖻
28	Pset_28	đ	a
29	Pset_29	đ	ſ î
30	Pset_30	đ	`ک_a
31	Pset_31	đ	C d
32	Pset_32	Ø 💼	

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USB模式下新建 Pset

- 选择USB设置工具的Pset, 只针对没有 配对本台QCXD的其他工具才可以
- 已经和这台QCXD配对的工具无法通过 USB设置Pset,只能通过Wireless 模 式
- 可以设置最多32个Pset,

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0	New Pset				
Pse	t ld				2
Uni	ts		Nm		
Сус	le Delay (Sec)				0
Tota	al Batch Count				0
Res	et Config ID		None		
Aut	o Increment		None		
ETS	Mode		Direct Drive		
Flag	js				•
Ste	p				
S	tep Number : 1				
	Step Туре		Torque		
	Target				0
	Advance Step Settings				•
		〕	ආ		
					•
	Reverse Settings				•
Tool	Max Torque · 40 NM			Tool Max S	Speed: 557
无线连接模式下新建 Pset

- 选择Wireless设置工具的Pset, 只针对 已经和这台QCXD配对的工具才可以
- 这台QCXD配对的工具通过Wireless 模式设置最多32个Pset,





新建 Pset

General Edit Pset			Ľ
Step Number : 1			
Step Туре		Angle	
Target		Torque Angle Prevailing Torque)
Torque High Limit			1
Advance Step Settings			•
	Ŵ		

新建Pset



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ETS 工具相关设置

ETS Mode	Direct Drive	~
Flags		
Audible Alert	Off	-
Batch Decrement	Off	
	For Failed Cycle	
Step	Batch Complete	
Cton Number 1		

ETS 的各种模式切换

ETS Mode	Direct Drive	-
Flags	Direct Drive Ergonomics Performance	
Audible Alert	Off	-
Batch Decrement		

Job Settings



新建 Job

🔶 New Job	
Job Name	Test Angle 360
ID	1
Interlocks	•
✓ Valid Job	
IIII BCODE / VIN	
Tool Enable	
* Smart Socket	
★ Reverse Disable	
Pset(s)	•
1 Test 360 degree	-

About 控制器相关信息

Model Serial Number Controller Radio MAC Address SATA ID		QCXD11-M K19L00120 00:12:4B:00:03:A1:52 51119071702500091	2:22 3	2	
Controller Version Information			٦	Tool Version Information	
Application Version Database Version OS Version Radio Version	1.0.3 0.0.4 0.0.1 02.06			Tool Display Version Tool MCE Version Tool Radio Version	0.0.0.0 0.0.0.0 0.0.0.0
License Information					
This product is licensed to					
License type Creation Date Remaining hours to expire	1 N	Advanced 11/29/2019 No expiry			

已启用的功能列表

Features Enabled

- About
- Logs Audit Log
- · System Maintenance Backup and Restore
- Settings BCODE / VIN
- Digital IO
- Discovery
- Settings EOR Dataout
- Settings NSN-EOR
- Logs Event Log
- · System Maintenance Factory Reset
- System Maintenance Firmware Update
- · Settings FRD-OP
- · Home screen
- Job
- License
- · Settings PFCS
- Settings PF-OP
- · Logs System Log
- Settings Date & time, System Initialization, Ethernet
- Tool Diagnostics
- · General settings
- User Management
- Wireless Diagnostics
- · Wireless Energy Scan

