Updating Wireless Settings for a Controller in Production

** Applies to controllers running 100.x.x.x or greater firmware

Step 1) Wireless Energy Scan

After logging in to the controller, navigate to the Diagnostics->Energy Scan screen:

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$\leftarrow \rightarrow$	C A Not secure 10.0.0.	121/home					아 순 ☆ 😩 :
	Home	7 24 NM Pistol		-		ж	8 🕒 🖸 🔕
	Job						
	Pset	Next: A360					
	Wireless Tools	A360					1 /1
A	Accessories		Step#1	X Angle(*)	★ 396	Torque(Nm)	★ 4 00
\sim	Result	× . /			@ 360		1 100
	Settings	• •		- 360	4 324	0.02	4.0
	Tool General Setting				<u> </u>		± •
\mathbf{O}	Logs	Torque vs Time	<u> </u>				•
	Diagnostics	Energy Scan					
?	System Maintenance	Wireless Diagnostics					
	User Management	Tool Diagnostics					
	About	Disk Usage					
		Tool Faults Description					
		Discovery					
		0.2					
		0					
		0 10 0 0 121	0 176 168 5 6	192 168 5 100	PE-OP		

Select scan duration of 0.9984

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← →	C A Not secure 10.0	0.0.121/energyScan			07	6 1	1 a i
	Home					_	
	Job		Wireless Energy Scan				
G	Pset		Channel Traffic		Select scan duration (Sec	.) 🔻	0
	Wireless Tools				0.50688		
0	Accessories				0.9984		
\sim	Result						
Ð	Settings						
	Tool General Setting						
\mathbf{O}	Logs						
	Diagnostics						
?	System Maintenance						
	User Management						
	About						
			Archived Data		Select Timestamp		
	INSIGHTqcx			22 INGERSOLL RAND / All Blohts Reserved			

The energy scan disables communications with the tool for the duration of the scan. It is not recommended to perform the energy scan while production is running. Press the Yes button to initiate the scan.

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$\leftarrow \ \rightarrow$	C A Not secure 10.0	.0.121/energyScan		0	₩ 🖻	\$ F	8 E
							П
0			() Warning				
W			All Communication With the tool will be Suspended				
0			while energy scan is in progress				
\sim			Yes				
•							
2							
				Select Timestamp			
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After the scan completes, a table will show with the energy levels observed on all channels. Channel 25 is used for pairing and cannot be selected. Usually channels 15 and 20 are the quietest. On the screenshot below, these channels are high as there are controllers and tools using these channels nearby. Channel 17 will be chosen for this example.



Step 2) Tool Backup



Navigate to the System Maintenance -> Backup screen

Expand on Tool Backup. A list of tools currently paired with the controller will be shown. A separate backup must be performed for each tool. Check the box(es) next to each tool and press the Create Backup button in the Tool Backup pane.



Ø INSI	GHTqcx ×	+			~ - Ø ×
$\leftarrow \rightarrow$	C A Not secure 10.0.0.	121/backupRestore			년 ☆ 🏝 :
				Tool backup is in progress	
			Controller Backup		Create Backup
	Wireless Tools		Tool Backup	🗘 24 NM Pistol bak	0
8			Тоограскир	•	
•	Settings		24 NM Pistol		
	Loge				
	Diagnostics				
	System Maintenance				
	User Management				

Press the Close button.

INSI	GHTqcx × +				~ - o ×
$\leftarrow \ \rightarrow$	C A Not secure 10.0.0.1	21/backupRestore			🖻 🖈 😩 :
			Backup	Tool backup completed	
$\mathbf{\Omega}$			Controller Backup	1005	Create Backup
			Teel Deelaur	24 NM Ristol bak	
0			тоог васкир		
\sim	Result			Close	Create Backup
Ð	Settings		🗸 🛛 24 NM Pistol		
	Tool General Setting				
\mathbf{O}					
	Diagnostics				
?	System Maintenance	>			
	Oser Management				
_					
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Step 3) Change Wireless Settings

Navigate to the Wireless Tools screen and expand the Radio Settings.



Change the RF Channel to the desired channel. In this case it will be 17. Change the Power Level to 4 for maximum power/distance. Press the arrow next to the Radio Settings heading. A popup will appear warning that the tools will be unpaired. Press the Yes button to unpair the tool(s).

Ø INS	IGHTqcx × +					× -	o ×
$\leftarrow \rightarrow$	C A Not secure 10.0.0.12	1/pairing				le \$	2 🛎 🗉
			(←) Radio Settings				
\mathbf{G}				(I) Warning	00		
			RF Channel	Change in Radio Settings results in Un-	4		
8				pairing of all Paired Tool. Do you want to continue?			
				Yes No)		
•	Settings •						
	Tool General Setting						
	Diagnostics						
2	System Maintenance						
	User Management						

Step 4) Pair the Tool(s)

Click on the Pair button and put the tool(s) in pairing mode.

INSI	SHTqcx ×	+					~ -	o ×
$\leftarrow \rightarrow$	C A Not secure 10.0.0	0.121/pairing					i£ \$	a :
	Home							
				Pairing				
$\mathbf{\Omega}$				Pairing is in progres	s, please do not navigate	or refresh.		\ni
			Available Tools (1)					ESK.
0					y w	Ō 00:57		
	Result					Close		
Ð	Settings							
	Tool General Setting							
	Diagnostics							
?								
	About							

When the number of tools that you are pairing matches on the screen you can press the Close button. (For example, on a 4:1 controller and you are pairing 2 tool, as soon as the screen shows 2/4 you can

select the close button.) The tools will be displayed by tool serial number. They can be renamed as needed. The name is not currently saved as part of the backup.

Ø INSI	GHTqcx ×	+		\sim	-	o ×
$\leftarrow \ \rightarrow$	C A Not secure 10.0.0	121/pairing		ł	2 1	▲ :
	Home		Wireless Tools			
	Pset		Padio Sattinge			9
ω	Wireless Tools		Raulo Settilitys			\bigcirc
	Accessories		1. SP20M05009		0	0
9	Result		Available Toole (0)	Pai		
•	Settings					
	Tool General Setting					
0	Logs					
	Diagnostics					
2	System Maintenance					
	User Management					
	About					
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Step 5) Tool Restore

Navigate to the System Maintenance -> Restore screen.

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$\leftarrow \ \rightarrow$	C A Not secure 10.0.0	.121/pairing		ß	☆	a :
	Home					
	Job		Wireless Tools			
\bigcirc	Pset		Radio Settings			\ni
	Wireless Tools		1 0000405000			\bigcirc
0	Accessories		1. SP20M05009	W	-	•
\sim	Result		Available Tools (0)		DI	► (
Ð	Settings					
_	Tool General Setting					
\mathbf{O}	Logs	•				
	Diagnostics	•				
?	System Maintenance	Backup				
	User Management	Restore				
	About	Tool Copy				
		Firmware Update				
		Update License				
		Tool Calibration				
		Alarm				
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Expand the Tool Data Restore. A list of paired tools will be display. Check the box for the first tool to restore. A selection will appear with the saved tool backup files. Select the appropriate file and then press the Restore button in the Tool Data Restore pane.



The controller will reboot when the tool backup is complete. Repeat this process for all paired tools.

Step 6) Finalizing and Verifying

If not already done, navigate to the tool settings and rename the tool. Change the tool IP address to be outside the network if not using IP aliasing. (For example, 192.168.5.100/192.168.5.101, etc.) Press the save button.

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$\leftrightarrow \ \ominus \ G$	A Not secure 10.0.0.121/pairing		아 남 ☆ 😩	:
	← Tool Settings		•	
\odot	24 NM Pistol		\oslash	
	MAC Address	D0:DF:22:31:02:00:00		
0	IP Address	192.168.5.100		
4	Tool IP and Controller IP s	hould be in same subnet		
	Job Selection	External - MES		
	Boot Job			
?	Persist IO State on Disconnect			
	Model Number	QX	X2PT24ES6	
	Serial Number	Si	P20M05009	
	Display Version		200.1.1.8	
	MCE Version		.255.35 🕕	
	Radio Version		0.0.2.6	
		UnPair		
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There is a known bug in the Restore functionality that the PF-OP settings do not remember IP Aliasing being off and reverts to on. If it intended to be off, navigate to the PF-OP settings screen and disable for each tool. Remember to save the settings.

INSI	GHTqcx × +					~ - ø	×
$\leftarrow \ \rightarrow$	C A Not secure 10.0.0.121,	/pfopSettings				아 순 ☆ 😩	:
	Home		PF-OP		24 NM Pistol	 6	
$\mathbf{\hat{\omega}}$	Pset		Enable Protocol			_	
	Wireless Tools Accessories		Enable Logs			_	
0	Result ►		Enable IP Aliasing			_	
Ŷ	Settings Tool General Setting		Tool Enable on Power-up				
\mathbf{O}	Logs		Results in User torque unit			•	
2	System Maintenance		Use Job Id in EOR			•	
	User Management		PF-OP Version Information		1.6		
			Cell ID		0	~	
			Channel ID		0		
			Controller Name		INSIGHTqcx		
			Port Number		4545		
			Retry Interval (sec)		5		
			Number of Retries		3		
	INSIGHTqcx			2022 INGERSOLL RAND / All Rights Reserved			

S INSI	SHTqcx X	+			~ -	o ×
$\leftarrow \rightarrow$	C A Not secure 10.0.	.0.121/pfopSettings			07 ピ☆	(2)
	Job		PF-OP	24 NM Pistol	Ô	3
$\mathbf{\Omega}$	Pset		Enable Protocol			-
	Wireless Tools		Enable Logs			
Θ	Result		Enable IP Aliasing			
	Settings					
Y	Tool General Setting		Tool Enable on Power-up			
\mathbf{O}	Logs		Results in User torque unit			
9	System Maintenance	•	Use Job Id in EOR			
•	User Management					
	About		PF-OP version information	1.6		
			Cell ID	0		
			Channel ID	0		2
			Controller Name	INSIGHTqcx		
			Port Number	4545		
			Retry Interval (sec)	5		
			Number of Retries	3		
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At this point, all Jobs/Psets and settings should be restored and the tools able to communicate on the new channel and power level.