



**1. INSTALLER CHECKLIST**

**INSTALLER NAME:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**ELECTRICIAN NAME:** \_\_\_\_\_

**SOFTWARE VERSION:** \_\_\_\_\_

**WIN OPERATING SYSTEM:** \_\_\_\_\_

		<b>COMPLETED</b>
<b>PHASE II – CONDUIT/WIRE INSTALLATION</b>		
<i>Hub</i>		
<b>1.</b>	DeviceNet multi-conductor cable <b>OR</b> RS-485 communication cable and 120VAC power cable is daisy chained between each hub and PC.	
<b>2.</b>	Seal all penetrations from the hub enclosure to the kiln, i.e. prevent steam entering enclosure.	
<b>3.</b>	Antenna array mounted inside kiln and pointed downwards.	
<b>4.</b>	Antenna ground plate 4.25” from centerline of antenna.	
<b>5.</b>	Antenna screwed into antenna array bulkhead fitting.	
<i>PC</i>		
<b>6.</b>	PC in a climate controlled environment (temp < 122 degrees F).	
<b>7.</b>	PC is connected to the control network.	
<b>8.</b>	Ethernet connection pulled for remote support.	
<b>PHASE III - TERMINATIONS</b>		
<i>Hub Enclosures</i>		
<b>9.</b>	RS-485 terminated.	
<b>10.</b>	Antenna cable terminated.	
<b>11.</b>	Power supply wires terminated (if DeviceNet cable pulled, terminate VDC otherwise 120VAC)	
<b>12.</b>	RS-485 jumper selected (pin 2 and 3)	
<b>13.</b>	Normal operation mode jumper selected (pin 1 and 2)	
<b>14.</b>	RS-485 termination resistor selected (pins 1 and 2) if hub is the last device on the network.	
<i>PC</i>		
<b>15.</b>	RS-485 converter terminated.	
<b>16.</b>	120ohm resistor installed between terminals A/B if the PC is the last device on the network.	
<i>Communication Cable</i>		



17.	Ethernet control network cable connected to the PC.	
<b>PHASE IV – NETWORKING</b>		
18.	Put computer on network and confirm it can access the control system.	
19.	Setup unattended remote access via TeamViewer.	
20.	Record TeamViewer ID/Password	
21.	Test remote access.	
<b>PHASE V – COMMISSIONING</b>		
22.	Verify hub power lights on.	
23.	Confirm Kepware license installed.	
24.	Setup Kepware tags.	
25.	Register hubs, clear flags, and set date/time.	
26.	Register devices, assign alias name and mark on device.	
27.	Link device(s) to Kepware tags.	
28.	Clear flags on each device	
29.	Verify device data using VLD inside the kiln(s). Calibrate if necessary.	
30.	Setup watchdog timer.	
31.	Confirm kiln drying cycle appears normal.	
32.	Note location of each device on a map.	

**2. ON-SITE TRAINING**

Name	Title / Role	Phone Number