Technical Service Bulletin 020710

IOX/DCX Thermistor Modification

This service bulletin provides historical information on an important retrofit for the IOX and non-Millennium DCX provided by Comark Communications in 1999.

At that time, it was discovered that it was possible to damage the step-start resistors in the IOX-DCX transmitter by repeatedly applying high voltage to the transmitter without allowing the step-start resistors to cool. In very extreme cases, it was even possible to cause the step-start resistors to catch fire. To eliminate this risk, Comark developed a retrofit kit that provided a thermal sensor in close proximity to the resistors and wired in series with the “cabinet interlock” protection loop. This modification kit was mailed out to all existing IOX-DCX customers in 1999 and incorporated as standard equipment on all newly produced transmitters after that date.

This bulletin provides a copy of the original blueprint with instructions for this modification. All IOX and non-Millennium DCX transmitters should be checked for the presence of this modification.

At Comark, we are constantly striving to improve the satisfaction of both our new and existing customers. Please do not hesitate to contact Comark Customer Service with any questions you may have concerning the contents of this service bulletin.

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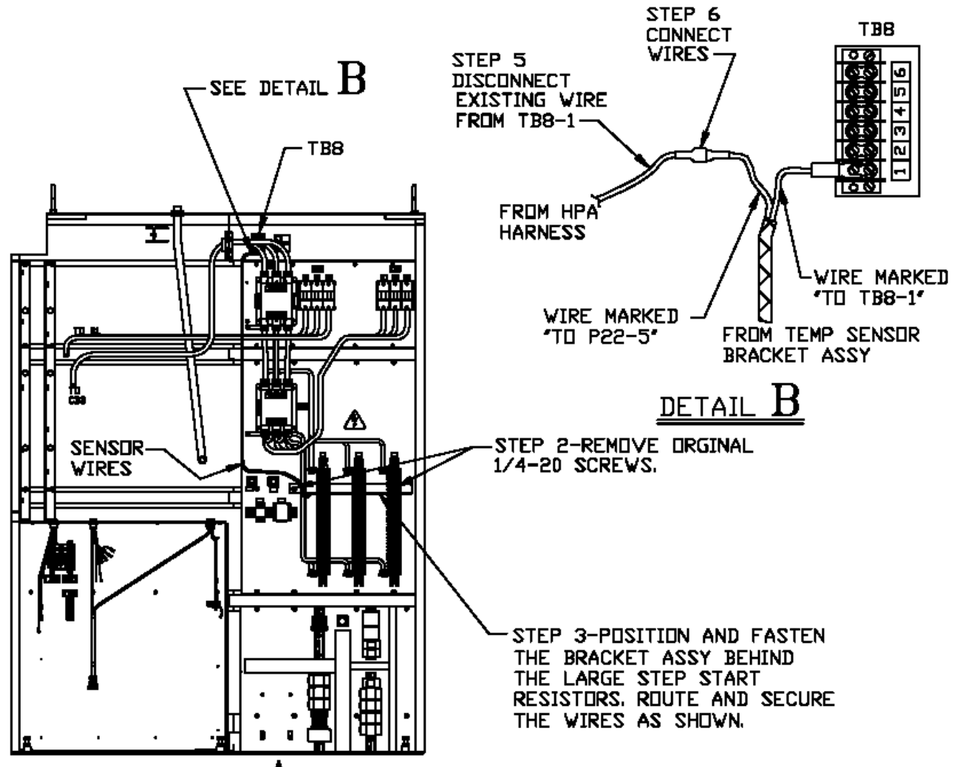
INSTALLATION INSTRUCTIONS FOR RESISTOR TEMPERATURE SENSING UPGRADE

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	ENGINEERING RELEASE	11/23/99	SK

PURPOSE OF UPGRADE: INSTALLING THIS TEMPERATURE SENSOR BRACKET ASSEMBLY WILL PROVIDE AN EQUIPMENT PROTECTION INTERLOCK THAT WILL PREVENT THE DAMAGE OF CABINET COMPONENTS SHOULD THE RADIATED HEAT FROM THE 1000W STEP-START RESISTORS BECOME EXCESSIVE FOR ANY REASON. ONCE INSTALLED THIS PROTECTION INTERLOCK WILL BE IN THE SERIES LOOP THAT CONTAINS THE KEY SWITCH INTERLOCK OF THE GROUNDING SWITCH ASSEMBLY, THE HV COMPARTMENT DOOR SWITCH AND ANY EXTERNAL HVPS INTERLOCKS. ALL OF THESE PROTECTION INTERLOCKS TOGETHER FORM ONE LOOP CALLED THE "CABINET INTERLOCKS" AS SEEN ON THE FRONT PANEL OF THE HPA CONTROLLER IN THE "HPA START" SECTION OF STATUS LED'S. IF ANY ONE OF THESE SWITCH CONTACTS OPEN THE CABINET INTERLOCK WILL FAULT. THE HPA WILL THEN REVERT TO THE START MODE AND WILL WAIT FOR THE FAULT TO CLEAR.

1. TOTALLY POWER DOWN AND LOCKOUT THE AC POWER DISCONNECT TO THE HPA.
2. REMOVE THE 1/4-20 SCREWS AS INDICATED ON DRAWING. (SEE "STEP 2")
3. SLIDE THE BRACKET ASSEMBLY (452868-01) IN BEHIND RESISTORS R1, R2 AND R3 AND FASTEN IT TO THE CABINET WALL USING THE 1/4-20 X 3/4" HARDWARE (602899-01) PROVIDED IN THE KIT. (SEE "STEP 3")
4. ROUTE THE SENSOR WIRES AS INDICATED IN VIEW A
5. REMOVE THE WIRE FROM TB8-1 AND CUT THE SPADE TERMINAL OFF.
   (SEE THE LOCATION OF TB8 IN VIEW A)
   STRIP APPROXIMATELY 1/4" OF INSULATION FROM THE END OF THE WIRE.
6. CRIMP THE MALE PUSH-ON TERMINAL (605534-01) PROVIDED IN THE KIT ON TO THE WIRE REMOVED FROM TB8-1 IN STEP 5, AND CONNECT TO THE WIRE WITH THE FEMALE PUSH-ON TERMINAL FROM THE BRACKET ASSEMBLY MARKED "TO P22-5".
7. CONNECT THE WIRE FROM THE BRACKET ASSEMBLY MARKED "TO TB8-1", TO TB8-1.
8. USE THE TIE WRAPS (601268-01) PROVIDED IN THE KIT TO SECURE THE ROUTING OF THE WIRES.
9. ONCE THE INSTALLATION IS COMPLETED AND EVERYTHING IS SECURED, POWER CAN BE REAPPLIED TO THE HPA.
10. SCHEMATIC 451186 AND 451206 SHOULD BE REPLACED IN THE HPA MANUAL DOCUMENTATION. SEE SECTION 14 AND 9 RESPECTIVELY.



VIEW A

DETAIL B

ITEM NO.	PART NO.	DESCRIPTION
-01		
QTY/VERSION	PARTS LIST	

MATERIAL: SEE PARTS LIST A452869	DRWN JOHNSON	11/23/99	THOMCAST COMMUNICATIONS, Inc. — Comark Division, Southwick, Massachusetts	
FINISH: ~	CHKD MAGDYCZ	11/23/99	KIT, UPGRADE TEMP SENSOR BRACKET	
CAD FILE # 452869A1 HR DM	ENGR S KALIS	11/23/99		
MANUAL DWG # ~	ENGR			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ~ FRACTIONS 2 PLACE DECIMALS 3 PLACE DECIMALS ANGLES	APPD S WARNER	11/23/99	SIZE B / CODE IDENT / DRAWING NO. 452869 / REV. A	
REMOVE BURRS AND SHARP EDGES YES ☐ NO ☐	APPD D M TOUGAS	11/23/99	SCALE NONE / JOB No. / SHEET 1 OF 1	

-	CIDX/DCX HPA
NEXT ASS'Y.	USED ON
APPLICATION	