Product Support Bulletin

Power Generation

Service

Issue Date: July 23, 2010

Global Lit Num: CPGF - S -   00000082 - 0

Revision: 0

Title: ModLon2 Position Status Registers for Automatic Transfer Switches Incorrect

Model(s)   OTPC, BTPC, OHPC, CHPC

Background/Description:

It has been recognized that certain registers in the ModLon2 do not accurately reflect the position of transfer switches. These data points always show the switch position to be in neutral, irrespective of their actual position.

The data points affected are:

Data Point	Template#	Registers
NFPA110	Template 1	41016 41116 41216 41316 41416
State	Template 1	41011 41111 41211 41311 41411
NFPA110	Template 2 or 3	40016 40116 40216 40316 40416 40516 40616 40716 40816 40916
State	Template 2 or 3	40011 40111 40211 40311 40411 40511 40611 40711 40811 40911

Template 1:

TABLE 10. MODLON REGISTER MAPPING INFORMATION – FT-10 NETWORK (TEMPLATE 1) AUTOMATIC TRANSFER SWITCH CONTROL COMMUNICATIONS MODULE (CCM-T) (SHEET 1 OF 2)

Structure	Data Point	ModBus Registers					Scaling		
		NCM[0]	NCM[1]	NCM[2]	NCM[3]	NCM[4]	Multiplier	Offset	Units
nvoATSStatus	Name [0,1]	41001	41101	41201	41301	41401			
	Name [2,3]	41002	41102	41202	41302	41402			
	Name [4,5]	41003	41103	41203	41303	41403			
	Name [6,7]	41004	41104	41204	41304	41404			
	Name [8,9]	41005	41105	41205	41305	41405			
	Name [10,11]	41006	41106	41206	41306	41406			
	Name [12,13]	41007	41107	41207	41307	41407			
	Name [14,15]	41008	41108	41208	41308	41408			
	Device Type	41009	41109	41209	41309	41409			
	Mode[1]	41010	41110	41210	41310	41410			
	State[2]	41011	41111	41211	41311	41411			
	Fault Code	41012	41112	41212	41312	41412			
	Fault Type[3]	41013	41113	41213	41313	41413			
	Percent Amps	41014	41114	41214	41314	41414			
	Total kW	41015	41115	41215	41315	41415			
	NFPA 110[4]	41016	41116	41216	41316	41416			
	Extended[5]	41017	41117	41217	41317	41417			

These Registers do not respond to a change in position on the transfer switch

Templates 3 & 4:

TABLE 16. MODLON REGISTER MAPPING INFORMATION – FT-10 NETWORK (TEMPLATES 3 AND 4) AUTOMATIC TRANSFER SWITCH CONTROL COMMUNICATIONS MODULE (CCM-T) (SHEET 1 OF 2)

Data Point	ModBus Registers										Scaling		
	NCM[0]	NCM[1]	NCM[2]	NCM[3]	NCM[4]	NCM[5]	NCM[6]	NCM[7]	NCM[8]	NCM[9]	Multiplier	Offset	Units
Name [0,1]	40001	40101	40201	40301	40401	40501	40601	40701	40801	40901			
Name [2,3]	40002	40102	40202	40302	40402	40502	40602	40702	40802	40902			
Name [4,5]	40003	40103	40203	40303	40403	40503	40603	40703	40803	40903			
Name [6,7]	40004	40104	40204	40304	40404	40504	40604	40704	40804	40904			
Name [8,9]	40005	40105	40205	40305	40405	40505	40605	40705	40805	40905			
Name [10,11]	40006	40106	40206	40306	40406	40506	40606	40706	40806	40906			
Name [12,13]	40007	40107	40207	40307	40407	40507	40607	40707	40807	40907			
Name [14,15]	40008	40108	40208	40308	40408	40508	40608	40708	40808	40908			
Device Type	40009	40109	40209	40309	40409	40509	40609	40709	40809	40909			
Mode[1]	40010	40110	40210	40310	40410	40510	40610	40710	40810	40910			
State[2]	40011	40111	40211	40311	40411	40511	40611	40711	40811	40911			
Fault Code	40012	40112	40212	40312	40412	40512	40612	40712	40812	40912			
Fault Type[3]	40013	40113	40213	40313	40413	40513	40613	40713	40813	40913			
Percent Amps	40014	40114	40214	40314	40414	40514	40614	40714	40814	40914			
Total kW	40015	40115	40215	40315	40415	40515	40615	40715	40815	40915			
NFPA 110[4]	40016	40116	40216	40316	40416	40516	40616	40716	40816	40916			
Extended[5]	40017	40117	40217	40317	40417	40517	40617	40717	40817	40917			

These Registers do not respond to a change in position on the transfer switch

Corrective Actions:

Use the corresponding Extended NFPA 110 Registers to monitor the position of the ATS. See below for the addresses of the Extended NFPA 110 Registers, along with the corresponding status bits (bits 2 & 3 for both templates).

[5]Extended	
Description	**Bit**
Source 1 Available	0 (MSB)
Source 2 Available	1
Source 1 Connected	2
Source 2 Connected	3
ATS Common Alarm	4
Not In Auto	5

TABLE 10. MODLON REGISTER MAPPING INFORMATION – FT-10 NETWORK (TEMPLATE 1) AUTOMATIC TRANSFER SWITCH CONTROL COMMUNICATIONS MODULE (CCM-T) (SHEET 1 OF 2)

Structure	Data Point	ModBus Registers					Scaling		
		NCM[0]	NCM[1]	NCM[2]	NCM[3]	NCM[4]	Multiplier	Offset	Units
nvoATSStatus	Name [0,1]	41001	41101	41201	41301	41401			
	Name [2,3]	41002	41102	41202	41302	41402			
	Name [4,5]	41003	41103	41203	41303	41403			
	Name [6,7]	41004	41104	41204	41304	41404			
	Name [8,9]	41005	41105	41205	41305	41405			
	Name [10,11]	41006	41106	41206	41306	41406			
	Name [12,13]	41007	41107	41207	41307	41407			
	Name [14,15]	41008	41108	41208	41308	41408			
	Device Type	41009	41109	41209	41309	41409			
	Mode[1]	41010	41110	41210	41310	41410			
	State[2]	41011	41111	41211	41311	41411			
	Fault Code	41012	41112	41212	41312	41412			
	Fault Type[3]	41013	41113	41213	41313	41413			
	Percent Amps	41014	41114	41214	41314	41414			
	Total kW	41015	41115	41215	41315	41415			
	NFPA 110[4]	41016	41116	41216	41316	41416			
	Extended[5]	41017	41117	41217	41317	41417			

Use the Extended Register (bits 2 & 3) to monitor transfer activity

TABLE 16. MODLON REGISTER MAPPING INFORMATION – FT-10 NETWORK (TEMPLATES 3 AND 4) AUTOMATIC TRANSFER SWITCH CONTROL COMMUNICATIONS MODULE (CCM-T) (SHEET 1 OF 2)

Data Point	ModBus Registers										Scaling		
	NCM[0]	NCM[1]	NCM[2]	NCM[3]	NCM[4]	NCM[5]	NCM[6]	NCM[7]	NCM[8]	NCM[9]	Multiplier	Offset	Units
Name [0,1]	40001	40101	40201	40301	40401	40501	40601	40701	40801	40901			
Name [2,3]	40002	40102	40202	40302	40402	40502	40602	40702	40802	40902			
Name [4,5]	40003	40103	40203	40303	40403	40503	40603	40703	40803	40903			
Name [6,7]	40004	40104	40204	40304	40404	40504	40604	40704	40804	40904			
Name [8,9]	40005	40105	40205	40305	40405	40505	40605	40705	40805	40905			
Name [10,11]	40006	40106	40206	40306	40406	40506	40606	40706	40806	40906			
Name [12,13]	40007	40107	40207	40307	40407	40507	40607	40707	40807	40907			
Name [14,15]	40008	40108	40208	40308	40408	40508	40608	40708	40808	40908			
Device Type	40009	40109	40209	40309	40409	40509	40609	40709	40809	40909			
Mode[1]	40010	40110	40210	40310	40410	40510	40610	40710	40810	40910			
State[2]	40011	40111	40211	40311	40411	40511	40611	40711	40811	40911			
Fault Code	40012	40112	40212	40312	40412	40512	40612	40712	40812	40912			
Fault Type[3]	40013	40113	40213	40313	40413	40513	40613	40713	40813	40913			
Percent Amps	40014	40114	40214	40314	40414	40514	40614	40714	40814	40914			
Total kW	40015	40115	40215	40315	40415	40515	40615	40715	40815	40915			
NFPA 110[4]	40016	40116	40216	40316	40416	40516	40616	40716	40816	40916			
Extended[5]	40017	40117	40217	40317	40417	40517	40617	40717	40817	40917			

Use the Extended Registers (bits 2 & 3) to monitor transfer activity

An ECR has been created to correct this issue. This Product Support Bulleting will be updated upon a new software release with the correction.

Contact:

Further questions or concerns regarding this notification or the information stated above, please contact in the following order:
1) Your local Service Manager
2) DFSE-Counterpart
3) The Cummins Distributor Technical Support line at 812-377-6517.